



Revised Environmental Impact Study (Phase 1 Lands) and Environmental Constraints Analysis for Black Bear Ridge Resort

City of Belleville

Black Bear Ridge GP Inc.

Prepared by:

SLR Consulting (Canada) Ltd.

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SLR Project No.: 244.024334.00000

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Revision Record

Revision	Date	Prepared By	Checked By	Authorized By
2	June 18, 2026	Karisa Tyler	Jesse Snider	Dirk Janas



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June 18, 2026

Alex Sharpe

Black Bear Ridge GP Inc.
501 Harmony Road, Corbyville, ON K0K 1V0

Dear Alex Sharpe:

Re: Revised Environmental Impact Statement (Phase 1 Lands) and Environmental
Constraints Analysis for Black Bear Ridge Resort.

SLR Project #: 244.024334.00000

SLR Consulting Canada Ltd. (SLR) is pleased to provide this Revised Environmental Impact Study (EIS) and Environmental Constraints Analysis for the current Black Bear Ridge Resort lands (501 Harmony Road) and two additional adjacent lots (0 Homan Road and 449 Harmony Road) located in the City of Belleville (the Subject Property). This EIS has been completed as part of a Draft Plan of Subdivision and consent application to be submitted for a portion of land designated as Phase 1 of development on the Subject Property. SLR prepared an Environmental Impact Study (EIS) and Environmental Constraints Analysis report dated August 14, 2024 on behalf of Black Bear Ridge GP Inc. Following the August 2024 submission, an iterative review process has been undertaken. This process has involved a series of communications between SLR, the City of Belleville's Peer Reviewer (Dillon Consulting Ltd.), and Quinte Conservation (QC). These communications are summarized as follows:

- September 17, 2024 – EIS comments, in the form of a comment response matrix, was provided by both Dillon Consulting Ltd. (Dillon) and QC;
- February 11, 2025 – Technical Memorandum submitted by SLR to both Dillon and QC to address EIS comments;
- March 17, 2025 – Virtual meeting held between SLR, Dillon, and the proponent;
- April 16, 2025 – A revised Technical Memorandum was submitted by SLR to Dillon and QC;
- August 8 & October 30, 2025 – Comments regarding the revised Technical Memorandum were provided by both Dillon and QC;
- November 6, 2025 – Virtual meeting held between SLR, Dillon, and the proponent;
- December 12, 2025 – An updated comment response matrix was provided by SLR to Dillon;
- January 7, 2026 – Dillon provided approval of updated comment response matrix;
- January 30, 2026 – SLR submitted a revised EIS to Dillon
- February 24, 2026 – SLR submitted a corresponding comment response matrix;
- March 19, 2026 – Dillon responded to SLR's comment response matrix;
- April 27, 2026 – SLR provided Dillon an updated comment response matrix;



- May 13, 2026 – Dillon provided an email response to the updated comment response matrix; and
- June 3, 2026 – SLR provided a response to Dillon’s email acknowledging outstanding EIS revisions.

This version of the EIS includes revisions to address the latest review comments provided by Dillon and QC, to focus on the Phase 1 Lands, and to address recent Species at Risk regulation updates.

The property occurs within the planning area of the QC and includes lands regulated by QC under Ontario Reg. 41/24. A policy conformity discussion has been provided, and this section must be read and considered in recognition of the existing Municipal Zoning Order which has permitted and zoned uses through much of the Subject Property.

SLR Consulting (Canada) Ltd.



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Executive Summary

SLR was retained by Black Bear Ridge GP Inc. to complete an Environmental Impact Study (EIS) as part of the Draft Plan of Subdivision and consent application submission for the proposed development at 501 Harmony Road and two additional adjacent lots (0 Homan Road and 449 Harmony Road) in the City of Belleville, Ontario (the "Subject Property"). An initial EIS was submitted to the City of Port Colborne and Quinte Conservation, dated August 14, 2024. This EIS reflects the extensive discussions had as part of the agency consultation process, which involved both the City of Belleville (and its Peer Reviewer, Dillon Consulting Ltd) and Quinte Conservation. The proposed development consists of multiple phases, with the primary focus of this EIS being on the southwest lands of the Subject Property, herein referred to as 'Phase 1 Lands'. The remaining lands, herein referred to as 'Area Outside of Phase 1 Lands', are generally discussed within this report. Phase-specific EIS' will be conducted on the remaining areas as development progresses.

This EIS includes a description and background review of the physical and ecological features on and adjacent to the Subject Property, as well as their functions, significance, and sensitivities. Various field surveys have been completed on the Subject Property and results have been reviewed to assess for the potential for Significant Wildlife Habitat (SWH) and Species at Risk (SAR) and their habitats. In addition to this, an assessment of potential impacts to and protection of natural heritage features (NHF) within and immediately adjacent to the Subject Property, and more specifically the Phase 1 Lands has been conducted. The policies and technical requirements of the City of Belleville Official Plan (OP), Quinte Conservation (QC), and federal and provincial legislation have been reviewed and incorporated into this report.

Ecological field surveys were conducted on the Subject Property over a total of 11 dates between 2022 and 2025. These surveys included in-field data collection for vegetation communities, flora, breeding birds, breeding amphibians, general wildlife, aquatic habitat and drainage features, SAR and SWH. A natural feature staking for wetlands and woodland was also conducted within the Phase 1 Lands. Following field investigations, the Subject Property was characterized as supporting mostly culturally influenced and/or fragmented vegetation communities, such as cultural meadows, hedgerows, treed plantations, constructed ponds, mowed lawn, and agricultural fields. Woodlands, wetlands, and watercourses are also present on the Subject Property. No provincially rare plants or wildlife have been observed within Phase 1 Lands by SLR. Three SAR bird species, recognized under both the Committee on the Status of Species at Risk in Ontario (COSSARO) and the federal *Species at Risk Act* (SARA), Bobolink (*Dolichonyx oryzivorus*), Eastern Meadowlark (*Sturnella magna*), and Eastern Wood-Pewee (*Contopus virens*) were identified on the Subject Property, specifically within the Phase 1 Lands. These species were previously listed and/or protected under the recently repealed *Endangered Species Act* and are no longer classified under the enacted *Species Conservation Act*. Eastern Wood-Pewee and another bird species, listed as Special Concern under COSSARO and Threatened under SARA, Wood Thrush (*Hylocichla mustelina*), and a SAR Butternut (*Juglans nigra*) sapling, were also identified on the Subject Property, within the Area Outside of Phase 1 Lands. Provincial SAR bat habitat is potentially present within the Phase 1 Lands. Further targeted surveys are recommended to ensure compliance with the SCA. SWH was confirmed to be present within the Subject Property, primarily within the Area Outside of Phase 1 Lands.



The proposed development within Phase 1 Lands will be primarily contained within cultural vegetation communities. Prescriptive buffers have been applied to relevant natural features within the Phase 1 Lands, including the existing Provincially Significant Wetland (the Corbyville Wetland Complex), Significant Woodlands (as determined through relevant field studies and this EIS), and a watercourse riparian corridor. Recommended mitigation measures for these natural heritage features include vegetation protection zones, erosion and sediment control, floral and faunal timing windows, wildlife fencing, and restoration works. Encroachment into two, small wetland inclusions in the Phase 1 Lands will be compensated for within other areas on the Subject Property. Compensation for habitat of Endangered and Threatened species will be determined in later design stages. Appropriate enhancement areas on the Subject Property will be determined in future design stages.

The proposed development of the Area Outside of Phase 1 Lands is largely conceptual at this time and will be refined in future development phases. Based on the findings of SLR's studies, it is our professional opinion that the proposed development within the Phase 1 Lands will result in no negative impacts to natural heritage features and functions, provided that all recommended mitigation measures are applied. Further studies will be required to address potential impacts of the proposed development on natural features present within the Area Outside of Phase 1 Lands.



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Acronyms and Abbreviations

AQR	aquatic resource area
CA	Conservation Authority
DBH	diameter-at-breast height
DFO	Fisheries and Oceans Canada
ECCC	Environment and Climate Change Canada
EIS	Environmental Impact Study
ELC	Ecological Land Classification
EP	Environmental Protection
ERO	Environmental Registry of Ontario
HADD	harmful alteration, disruption or destruction of fish habitat
HDF	Headwater Drainage Feature
LIO	Land Information Ontario
MBCA	<i>Migratory Birds Convention Act</i>
MBR	Migratory Birds regulations
MECP	Ministry of Environment, Conservation and Parks
MNAL	Michalski Nielsen Associates Limited
MNR	Ministry of Natural Resources
MZO	Municipal Zoning Order
NHF	Natural Heritage Feature
OWES	Ontario Wetland Evaluation System
PPS	Provincial Planning Statement
PSW	Provincially Significant Wetland
QC	Quinte Conservation
SARA	<i>Species at Risk Act</i>
SLR	SLR Consulting (Canada) Ltd.
SWH	Significant Wildlife Habitat



1.0 Introduction

SLR is pleased to submit an Environmental Impact Study for the Black Bear Ridge Resort (501 Harmony Road) in the City of Belleville. The following two adjacent properties were also included in the study: 0 Homan Road and 449 Harmony Road (herein referred to as “additional lands”). Collectively these lands comprise the study’s “Subject Property” and are shown on Figure 1. The focus of this Environmental Impact Study (EIS) is the southwestern portion of the Subject Property (herein referred to as “Phase 1 Lands”, Figure 2) in which development is currently proposed as part of a Draft Plan of Subdivision and consent application. The Phase 1 Lands include areas which are to be part of the Draft Plan of Subdivision, and other areas which are to be part of a consent application (severance) areas planned for resort use (Figure 2). The areas of the consent application which are planned for resort development are entirely within the Phase 1 Lands evaluated in this report. The proposed consent application will proceed immediately following approval of the Draft Plan of Subdivision. A thorough environmental constraints and opportunities analysis was conducted for lands that comprise the remainder of the Subject Property, herein referred to as “Area Outside Phase 1 Lands” (Figure 2). It is SLR’s understanding that the existing golf course lands outside of the Phase 1 Lands are also a part of the aforementioned consent application.

The overall Subject Property comprises an area of approximately 368 hectares (ha), or 909 acres, and currently supports a variety of natural features including wetlands (the Foxboro Swamp and Corbyville Provincially Significant Wetland Complexes), woodlands and open field meadows as well as anthropogenic uses such as a recreational golf course and commercial and residential buildings. The Subject Property is also bordered by Moira River to the north. Large portions of the Subject Property are regulated by Quinte Conservation (QC).

The intent of this EIS is to delineate, inventory and evaluate the sensitivity and significance of the existing natural heritage features and ecological functions associated with the Subject Property, and more specifically the Phase 1 Lands, and assess the impacts of the proposed development. For the natural heritage features requiring protection, avoidance and mitigation measures are recommended where appropriate, to address potential impacts resulting from the proposed development.

2.0 Environmental Policy

Relevant planning policies, legislation, and regulatory requirements pertinent to this assessment are summarized in the following sections. The general relevance of these policies to the Subject Property is also noted. More detailed analysis of policy implications is provided in subsequent sections of this report where relevant.

2.1 Provincial Planning Statement

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.
- 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 natural heritage features.

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

Each of these NHF is afforded varying levels of protection subject to guidelines, and in some cases, regulations. The Subject Property is located in Ecoregion 6E (Crins, Gray, Uhlig, & Wester, 2009). As depicted on the Ministry of Natural Resources (MNR) Natural Heritage Information Centre (NHIC) mapping (Ministry of Natural Resources, 2024), there are two Provincially Significant Wetland (PSW) units on the Subject Property consisting of the Foxboro PSW (within the north end of the property) and Corbyville PSW (within the south end of the property), various areas of contiguous and fragmented woodland, a watercourse associated with the Corbyville PSW to the south, the Moira River to the north, and areas of unevaluated wetlands (Map A). The Corbyville PSW, unevaluated wetlands, woodlands, and an unnamed watercourse are located within Phase 1 Lands.



Map A: MNR NHIC Biodiversity Mapping depicts the Subject Property (red outline) consisting of woodlands (green polygon), PSW (blue polygons with hatching), unevaluated wetland (blue outline with hatching). The Phase 1 Lands (pink outline) consist of the Corbyville PSW, unevaluated wetlands, woodlands, and an unnamed watercourse (blue line).



2.2 City of Belleville Official Plan and Zoning By-law 3014

The City of Belleville Official Plan was adopted by City Council on November 8, 2021 and was approved by the Ministry of Municipal Affairs and Housing on April 11, 2023 pursuant to Section 17(34) of the Planning Act, subject to modifications. The purpose of the City of Belleville Official Plan Draft (2021) is to provide orderly development of the City within the framework of the Vision Statement, which includes “*a balance of economic, social, cultural and natural environments for the development of a well-planned, financially sound community that values its natural and cultural heritage and offers opportunities for its residents to prosper*”.

As per the City OP’s Schedule A – Land Use Plan – Rural Area, the Subject Property currently comprises a variety of land use designations that include Recreation Commercial, Rural, Open Space (snowmobile trail), and Environmental Protection (EP) (Map B, (a)). The Phase 1 Lands do not consist of Environmental Protection areas. The City of Belleville’s Zoning Map largely corresponds to the OP Schedule A – Land Use Plan with a few exceptions (Map B, (b)).

The Phase 1 Lands do not consist of lands designated as Rural. For example, the floodplain of Moira River is identified as a *hazard zone*, with an adjacent *Environmentally Sensitive* area. As the intent of SLR’s study is to define an update to the EP system on the Subject Property, relevant guidelines related to this designation are expanded on below.



Although several non-environmental land use designations are currently identified on the Subject Property within the adopted OP and Zoning By-law (as listed above), it is SLR's understanding that the ultimate goal of the Municipal Zoning Order (MZO) application is to consolidate all individual zones (non-environmental) into a single, site-specific zone classification that would accommodate a variety of uses that are ultimately part of a future mixed use development plan.

2.2.1 Environmental Protection

As per Section 3.5 of the OP, the Environmental Protection (EP) designation "is intended to define those lands that require special care and regulation due to their inherent natural or physical characteristics". The EP designation may include such features as:

- natural hazards, being lands or areas that are potentially hazardous to human use or development; examples include floodplains, steep slopes, unstable slopes or soils and/or unstable bedrock, lands having organic soils, poor drainage or a high water table, hazardous forest types for wildland fire, karst topography; and
- natural heritage features, being lands that are important for their environmental and social values and which provide important ecological functions; examples include significant wetlands, significant coastal wetlands, other coastal wetlands, significant habitat of endangered and threatened species, significant woodlands and valley-lands, significant wildlife habitat, fish habitat, and significant areas of natural and scientific interest. The natural heritage features also include natural corridors which link natural features and areas and are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species and ecosystems

According to Section 3.5.3 of the OP, development can occur within adjacent lands (within 120 m) of PSW or in areas of endangered species habitat as long as it can be demonstrated through an EIS that there will be no harm to the system. Section 3.5.5 of the OP states that use of such areas or lands adjacent to these areas (within 50 metres for wildlife habitat, woodlands or valleylands and 30 metres for fish habitat) for other activities or land uses such as residential may be permitted provided that it can be demonstrated through an EIS carried out in accordance with Section 3.5.6 of this Plan that no negative impact on the natural City of Belleville Official Plan 23 features or ecological functions for which the specific area has been identified would occur.



Map B: (a) Belleville OP Schedule A: The Subject Property is designated as Recreation Commercial Land Use (pink), Environmental Protection (dark green), Open Space (thick green line), and Rural Land Use (beige). The Phase 1 Lands do not consist of Environmental Protection areas. (b) Belleville Zoning By-law 3014 Map: Subject Property is designated as Community Facility with Special Provisions (blue), Hazard Zone (dark green), Environmentally Sensitive (light green), Rural (light beige), Prime Agriculture (dark beige), and Estate Residential (yellow). The Phase 1 Lands do not consist of Rural lands.



2.3 The Conservation Authorities Act

The Ontario Provincial Legislature created the Conservation Authorities Act, 1990 to ensure the conservation, restoration and responsible management of water, land and natural habitat. The Act authorizes the formation of Conservation Authorities.

Although the Act has been amended many times since 1946, the following original key elements remain:

- A Conservation Authority (CA) must be a local initiative established at the request of a watershed's municipalities.
- Each CA operates independently in a co-operative, cost sharing partnership between member municipalities and the Province of Ontario.
- Each CA must have jurisdiction over one or more watersheds and the ability to enforce regulations in order to ensure a complete and rational approach to issues such as flood control and erosion.



Through the *Conservation Authorities Act*, CAs are able to regulate development and activities in or adjacent to river or stream valleys, Great Lakes and large inland lakes shorelines, watercourses, hazardous lands and wetlands. Conservation Authorities provide technical review as commenting agencies on development applications under the *Planning Act*.

The *Conservation Authorities Act* directs all Conservation Authorities to produce local regulations to streamline development approvals. It should be noted that the provincial Bill 23, *More Homes Built Faster Act* was passed on November 28, 2022 and subsequently, *Ontario Regulation 41/24* took effect on April 1, 2024 (Government of Ontario, 2024). On March 10, 2026, a decision was posted on the Environmental Registry of Ontario (ERO) for policy change relating to the “proposed boundaries for the regional consolidation of Ontario’s conservation authorities” (ERO#025-1257) (Environmental Registry of Ontario, 2026). If the proposed legislative amendments to the *Conservation Authorities Act* are passed, Ontario’s 36 CAs will be amalgamated to create nine regional CA bodies sometime in early 2027. It is recommended that the relevant CA (Quinte Conservation) be consulted regularly throughout the application process to ensure compliance.

2.3.1 Quinte Conservation Authority

Quinte Conservation (QC) regulations and policies include the following:

- *Ontario Regulation 41/24 – Prohibited Activities, Exemptions and Permits*. Through this regulation, the QC regulates activities in natural and hazardous areas (e.g., areas in and near rivers, streams, floodplains, wetlands, and slopes and shorelines) (Government of Ontario, 2024).
- *Watershed Regulation O.Reg. 41/24 Policy Manual* (Quinte Conservation, 2024). These documents present the QC’s planning and permit review practices and technical guidelines. Relevant policies will be discussed in applicable sections of this report.
- Note that with the newly passed provincial *O. Reg. 41/24*, conservation authorities no longer have the ability to comment on certain natural heritage features.

As depicted on Map C, QC Regulated Area occurs throughout much of the Subject Property. Under *Ontario Regulation 41/24*, a permit is required from the QC prior to development within their Regulated Areas. QC regulates watercourses and wetlands and generally requires that hazard lands be protected from adjacent development by a vegetative buffer. The *Watershed Regulation O.Reg. 41/24 Policy Manual* provides the following prescriptive buffers for natural hazards:

- a) *Where new development activity is proposed along other watercourses and waterbodies and the elevation of the 1:100 year flood plain is known, all development activity must be located a minimum of 15 metres beyond the extent of the 1: 100 year flood plain;*
- b) *Where the elevation of the 1:100 year flood plain is unknown, a minimum setback of 30 metres from the high water mark will be applied for new development activity. However, if a site assessment reveals that the extent of the flood plain can be established (e.g. high granite bank); a minimum 15 metre setback is applied from that point. In cases where there is a dispute over the extent of the flood plain it is the responsibility of the proponent to bring forward documentation such as an engineering analysis or professional survey of the flood plain in support of their position;*
- c) *For evaluated wetlands and wetlands greater than 2 hectares in size, a minimum 30 metre setback is applied from the wetland boundary;*



- d) For other wetlands and wetlands less than 2 hectares, a minimum 15 metre setback is applied from the wetland boundary.

Map C: Quinte Conservation Authority Regulation Map: Approximate Subject Property (outlined in red) and Phase 1 Lands (pink outline) have sections that are within Restricted Areas (yellow).



2.4 Species Conservation Act

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.

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 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.

2.5 Federal Species at Risk Act

The purpose of the *Species at Risk Act* (SARA, SC 2002, c 29) is to prevent species in Canada from disappearing, to provide for their recovery, and to manage species of special concern to prevent them from becoming endangered or threatened (Government of Canada, 2002). Fisheries and Oceans Canada (DFO) administers the SARA for aquatic SAR, while Environment and Climate Change Canada (ECCC) administers the SARA for all other federally listed SAR including SAR migratory birds. Except in the case of migratory birds and aquatic species, SARA applies to federal lands, and not to provincially or privately held property. SARA can apply to these other lands if provincial laws do not effectively protect species at risk or their residences through an Order in Council. Protections for aquatic and migratory birds apply to all lands (federal, provincial, Indigenous, and private) in Canada.

For species listed under Schedule 1 of SARA, listed as endangered, threatened, or extirpated, the Act prohibits:

- Killing, harming, or harassing an individual;
- Damaging or destroying a residence (e.g., nest or den); and
- Damaging or destroying designated Critical Habitat.



For aquatic SAR, review under the SARA is typically undertaken in conjunction with requirements under the *Fisheries Act*. A permit may be required for activities that may affect species listed on Schedule 1 and/or that have the potential to contravene the SARA's general or Critical Habitat prohibitions. Consultation with SARA to ensure ongoing project compliance is recommended.

2.6 Federal Fisheries Act

The *Fisheries Act*, as administered by the Department of Fisheries and Oceans (DFO), was updated on August 28, 2019. 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" (HADD) (subsection 35(1)) (Government of Canada, 1985).

Under subsection 2(1) of 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.

2.7 Migratory Birds Convention Act

The *Migratory Birds Convention Act, 1994* (MBCA) and Migratory Birds regulations, 2014 (MBR), together with the provincial *Fish and Wildlife Conservation Act* (Government of Ontario, 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 (Government of Canada, 1994).

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 (Government of Canada, 2018).

3.0 Study Approach

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). Current 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 Natural Heritage Information Centre (NHIC) Make-a-Map application being the main source of information and records from the Ministry itself (Ministry of Natural Resources, 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 included the collection and review of relevant mapping and reports, including regulations and policies, Official Plans, and zoning by-laws; and the NHIC Make-a-Map application for species occurrences and designated area mapping. In addition to these, 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, 2023).
- **Conservation Authorities:** the Quinte Conservation Authority (QC) collects and maintains natural heritage mapping and data, and publish reports, that all provide regional and often site-specific ecological context.
- **Fisheries and Oceans Canada (DFO):** The DFO maintains mapping of aquatic species at risk (SAR) habitats, including the critical habitat, occupied, and contributing habitat ranges of SAR and Special Concern species (Fisheries and Oceans Canada, 2024).
- **Michalski Nielsen Associates Limited (MNAL) Report (Black Bear Ridge Environmental Impact Study, January 2004):** Michalski Nielsen Associates Limited submitted an Environmental Impact Study report based on the current Subject Property in January of 2004 for a previous development application.
- **Site Investigation Services Limited Report (Summary of Hydrogeological Data Black Bear Ridge Residential and Recreational Development Lots 9, 10 & 11, Concessions 5 & 6 Township of Thurlow, November 1999):** Site Investigation Services Ltd submitted a Hydrogeological study report based on the current Subject Property in November of 1999 for a previous development application.
- **Hydrogeological Assessment Phase One Development (501 Harmony Road, Corbyville, Ontario):** SLR submitted a hydrogeological assessment for the Subject Property (Palmer, 2024).
- **Aerial Photography, including historical photos:** Available on-line mapping sources were reviewed to identify current potential habitat types, biogeography, and terrain (Google Earth Pro).

Following the *Information Request Guide*, MECP advice and direction should be solicited once potential Species at Risk (SAR) requirements associated with the *Endangered Species Act* are identified via field investigation and analysis.

3.2 Agency Consultation

Terms of Reference

A Terms of Reference was submitted to Quinte Conservation on June 22, 2022 and to the City of Belleville on June 27, 2022 (**Appendix A**). SLR received a response from the City of Belleville on July 6, 2022, a response from Quinte Conservation on April 27, 2023, and a response from the City's Peer Review Consultant (Dillon Consulting) in May 2024 with no comments (**Appendix A**).



Public Consultation Meetings

An initial Public Consultation meeting was held on April 11, 2023 for interested stakeholders. A second Public Consultation Meeting was held on the evening of May 28, 2024.

Natural Feature Staking

A wetland and woodland staking exercise was conducted on May 28, 2024 for Phase 1 Lands on the Subject Property. SLR ecologists and the peer reviewer on file (Dillon Consulting) that has been retained by the municipality, as well as Ontario Land Surveyors, were in attendance.

Municipal Peer Review Process

SLR prepared an Environmental Impact Study and Environmental Constraints Analysis report dated August 14, 2024 on behalf of Black Bear Ridge GP Inc. The 2024 report was reviewed and commented on by the City of Belleville's Peer Reviewer, Dillon Consulting Ltd, and Quinte Conservation (QC) dated September 17, 2024. To reduce the number of EIS iterations and review time required for Dillon Consulting Ltd, it was agreed that the submission and subsequent approval of a Technical Memorandum (with associated mapping) should occur prior to revising the EIS. SLR submitted a Technical Memorandum dated February 11, 2025. A virtual agency meeting between SLR, Dillon Consulting Ltd, and the proponent was held on March 17, 2025 to discuss SLR's Technical Memorandum. The Technical Memorandum was updated and resubmitted by SLR on April 16, 2025. Further commentary from participating agencies was received, dated August 8 and October 30, 2025. A second virtual meeting was held on November 6, 2025 to discuss unresolved comments, with SLR, Dillon Consulting Ltd, and the proponent in attendance. An updated comment response matrix was provided to the agencies dated December 12, 2025, with final approval from Dillon Consulting Ltd received on January 7, 2026. All of the updates through this iterative review process have been incorporated into the EIS.

3.3 Ecological Surveys

SLR ecologists conducted a total of 11 field investigations between 2022 and 2024. The surveys and the weather conditions of the site visits are included in Table 1.

Table 1: Field Investigations

Date	Investigations	Weather Conditions
February 10, 2022	Site Reconnaissance, Ecological Land Classification	2°C, cloudy, 18 km/h winds
June 3, 2022	Breeding Bird Survey	12-17°C, 90% cloud cover, light wind
June 8, 2022	Breeding Amphibian Survey, Flora Survey, Incidental Observations and Drainage Feature Mapping, Drainage Feature Assessment	16-26°C, mostly sunny, light breeze
June 23, 2022	Breeding Bird Survey	14°C, 5% cloud cover, light wind, low to moderate humidity
July 6, 2022	Breeding Bird Survey	18°C, 90% cloud cover, moderate winds
July 26, 2022	Ecological Land Classification, Flora Survey, Drainage Feature Assessment	20°C, 20% cloud cover, light to moderate winds



Date	Investigations	Weather Conditions
September 6, 2022	Ecological Land Classification, Flora Survey	15°C, 50% cloud cover, moderate to high winds
April 25, 2023	Breeding Amphibian Survey	6-7°C, 70% cloud cover, moderate winds (13 km/h)
May 18, 2023	Breeding Amphibian Survey	
May 21, 2024	Natural Feature pre-staking exercise, Ecological Land Classification, Flora Survey	30°C, 30% cloud cover, low winds
May 28, 2024	Natural feature staking exercise, Ecological Land Classification	19°C, partly cloudy, 19 km/h winds
January 7, 2025	Bat Habitat Assessment (Snag Survey)	-12 to -6°C, sunny, 24 km/h winds
All dates	Incidental Wildlife, Species at Risk Screening, Significant Wildlife Habitat Screening	-

The methodology associated with each of these surveys are summarized through subsections 3.3.1 to 3.3.8, as follows.

3.3.1 Vegetation and Flora

Vegetation communities were mapped and described following the Ecological Land Classification (ELC) System for Southern Ontario (Lee, et al., 1998). Vegetation community boundaries were delineated on field maps through the interpretation of recent aerial photographs and refined in the field. Information collected during ELC surveys includes dominant species cover, community structure, as well as level of disturbance, presence of indicator species, and other notable features.

Botanical surveys were completed by traversing the site and recording species observed in each vegetation community. Provincial plant status was based on the *Provincially Rare Flora of Ontario* (Oldham & Brinker, 2009) and the NHIC species lists (Ministry of Natural Resources and Forestry, 2023). Searches for Butternut (*Juglans cinerea*) and Black Ash (*Fraxinus nigra*), both *Endangered* trees, were completed during the ELC and botanical surveys.

The boundaries of existing wetland units adjacent to the proposed development of Phase 1 Lands were delineated in accordance with the Ontario Wetland Evaluation System (OWES) protocol (Government of Ontario, 2022) and confirmed with the peer review ecologist.

3.3.2 Surface Water Features

3.3.2.1 Aquatic Habitat

Prior to field investigations, aquatic habitats within and adjacent to the Subject Property were queried via the NHIC database as well as from the *Black Bear Ridge Environmental Impact Study* report (MNAL, 2004). During the field reconnaissance, habitat opportunities for aquatic species on and adjacent to the Subject Property were then assessed by comparing habitat preferences of species deemed to have potential to occur given the current site conditions and referencing the previous 2004 MNAL report.



Additional surveys of aquatic habitat outside of Phase 1 Lands may be required in future development phases in order to confirm the features and their function during the detailed design for these areas (i.e., appropriate mitigation and/or protection).

3.3.2.2 Drainage Features

Prior to field investigations, drainage features within the Subject Property were queried via aerial imagery as well as from the Black Bear Ridge Environmental Impact Study report (MNAL, 2004). An assessment of drainage features was carried out on June 8, 2022, by SLR staff to characterize their extent and function within the Subject Property. From SLR's review, these drainage features are identified as heavily altered and/or man-made and would not be regulated by Quinte Conservation (P. McCoy, Personal Communication, 2024). Therefore, Headwater Drainage Feature (HDF) assessment protocols were not applied to the features on the Subject Property. It is our understanding that the HDF assessment protocol is not a required methodology for the evaluation of these features within the QC jurisdiction.

Additional surveys of drainage features outside of Phase 1 Lands may be required in future development phases in order to review and confirm the features and functions to be considered during the detailed design for these areas (i.e., appropriate mitigation and/or protection).

3.3.3 Breeding Amphibian Surveys

Amphibian breeding surveys were completed in the Spring of 2022 and 2023, following the Environment Canada's *Marsh Monitoring Program* protocol for surveying amphibians (Bird Studies Canada, 2009). The goal of the survey(s) is to help inform overall wetland quality. The survey method provides an indication of amphibian abundance during the breeding season. Species were identified by call and by visual observation. An abundance code for each species heard calling were assessed by following the *Amphibian Road Call Counts Participants Manual* protocol (Gartshore, et al., 2004):

- Code 0: No calls heard.
- Code 1: Calls not overlapping or simultaneous, number of individual frogs can be counted.
- Code 2: Calls overlapping or simultaneous, number of individuals can still be distinguished, number of individual frogs cannot be counted, but a reliable estimate of numbers can be made based on location and call voices.
- Code 3: Full chorus calls simultaneous and overlapping, numbers of calling males cannot be reasonably counted or estimated.

3.3.4 Breeding Bird Surveys

Breeding bird surveys were conducted using a roving survey method over the majority of the Subject Property. Areas excluded from bird surveys were the majority of the Foxboro Swamp, the northern woodlands of the additional lands to the west (449 Harmony Road), and the area around the Migratory Bird Sanctuary (because it was known that these areas would be retained), and small parts of the golf course (because they were outside the Phase 1 area and were thought it unlikely to contain any species of interest). Thus, the site was walked such that the observer was within 50 m of all studied parts of the site.



SLR conducted two breeding bird surveys for most bird species in southern Ontario, at least one week apart within the peak breeding season. Surveys were conducted in the morning between 6 am and 11 am under suitable weather conditions (no to low wind, no precipitation, no extreme temperatures).

A third survey was completed in appropriate habitat as the Subject Property was identified to contain potential habitat for grassland federally listed SAR Birds, i.e. Eastern Meadowlark (*Sturnella magna*) and Bobolink (*Dolichonyx oryzivorus*). Survey protocols for these species require three surveys (Ontario Ministry of Natural Resources, 2013).

3.3.5 Bat Habitat Assessment

To assess potential bat habitat within the proposed development limit, the Ministry of Natural Resources and Forestry (MNRF) Protocol *Maternity Roost Surveys (Forests/Woodlands)* (MNRF, 2022) was used.

Following the principals of the MNRF protocol, the following survey methods were completed:

- Step 1: Identify Potential Maternity Roost Habitat; and
- Step 2: Snag Density Calculations

SLR ecologists undertook SAR bat surveys using the MNRF protocol (Table 1).

The methodology involved with SAR Bat surveys are described in further detail below.

3.3.5.1 Identify Potential Maternity Roost Habitat

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 25 cm diameter-at-breast height (DBH) and should be considered suitable maternity roost habitat (MNRF, 2022). Based on aerial imagery and ELC field investigations, forest communities and other treed areas were identified within and directly adjacent to the proposed development within Phase 1 Lands. Due to the lack of suitable habitat for Eastern Small-footed Bat (*Myotis leibii*) such as rock outcrops, bridges, caves or mines, this species is not expected to occur within the proposed development limit.

3.3.5.2 Snag Density Calculations

A search for potentially suitable maternity roosting trees targeting Little Brown Myotis and Northern Myotis was conducted during leaf-off period on January 7, 2025. Based on the size of the mixed forest (3.4 ha) within the Phase 1 Lands, a total of 10 survey plots (with 12.6 m radius) were randomly situated within the community. All other forest communities and treed areas within the Phase 1 Lands were surveyed using transects. All snags > 25 cm diameter at breast height (dbh) identified as potential roost trees were recorded. The tree species, dbh, snag attributes (i.e., cavities, peeling bark, cracks), snag location, height class, and decay class were recorded for each tree.

3.3.6 Incidental Wildlife

Incidental observations of wildlife were made during all SLR field investigations. Ecologists assessed the Subject Property and adjacent lands, noting any evidence of wildlife or sensitive habitat features (e.g., bat habitat, bird habitat, wildlife corridors) as well as gaining a general characterization of available habitat.



3.3.7 Species at Risk Habitat Assessment

Prior to field work, existing SAR records were queried with the NHIC database and other online resources. 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 other species known through professional experience to have potential to occur were considered in the assessment.

3.3.8 Significant Wildlife Habitat Assessment

The criteria for the identification of Significant Wildlife Habitat (SWH) features are provided in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (Ontario Ministry of Natural Resources and Forestry, 2015). These criteria were used to screen wildlife habitat within and adjacent to the Subject Property for potential SWH types. Along with field observations and geographical analysis, these criteria were used to provide an assessment and screening for wildlife habitat within the Subject Property.

4.0 Existing Environmental Conditions

4.1 Physiography

The Subject Property is located within the Lake Simcoe-Rideau Ecoregion 6E. This region extends from Lake Huron in the west to the Ottawa River in the east and includes most of the Lake Ontario shore and the Ontario portion of the St. Lawrence River Valley. The underlying bedrock in this Ecoregion is Paleozoic dolomite, shale, and limestone. The Subject Property bedrock is overlain with a discontinuous thin layer of drift, glaciolacustrine deposits (sand and gravel), as well as organic deposits (Michalski Nielsen Associates Limited, 2004).

The Subject Property is generally situated on a drumlin which occupies the southern portion of the site and thus, the Phase 1 Lands. Other landforms onsite include two positive landforms (knolls), one on the southwest corner and the other on northwest corner of the site, a wetland in the south part of the site, and ponds created as part of the golf course. The ground surface is undulating with elevations ranging from approximately 107 to 133 meters above sea level (masl), and in general sloping from northeast to southwest along the streamline direction of the drumlin.

Karstification refers to the process where carbonate or other soluble rocks outcrops at the ground surface or under a shallow depth of overburden cover and are exposed to leaching and dissolution by acidic or aggressive atmospheric water to produce a series of landform features, or karst, including sinkholes, caves, natural bridges, sinking streams, dry valleys, karren, stalactites, stalagmites, tufa etc. The site is located in Napanee and Kingston Plains Karst Region (OGS, 2008). Areas mapped by OGS as Known Karst and Potential Karst border the northwest edge of the site. Palmer's initial karst risk assessment indicated that no karst features are anticipated to exist within the Subject Property (Palmer, 2024).

4.2 Site Conditions

The Subject Property is located on the north side of Harmony Road and is primarily a mixed-use landscape surrounded by agricultural fields, residential properties, and recreational land-use. SLR's field investigations included documentation of vegetation communities, natural features, wildlife presence and habitat, and general site conditions.



The Subject Property is surrounded by the Moira River to the north, swamp associated with the Foxboro PSW to the northeast, recreational land-use (i.e., golf course) to the east, residential dwellings and Harmony Road to the south, and a snowmobile trail, agricultural fields, and forest-wetland complexes to the west. In the south-central portion of the Subject Property, anthropogenic areas (i.e., 27-hole golf course, laneways, recreational and commercial dwellings, man-made ponds, and treed hedgerows) dominate the landscape. Red cedar (*Juniperus virginiana*) regeneration, cultural woodlands, and plantations are abundant along the edges of the golf course. The northern limit of the Area Outside of Phase 1 Lands consists of both contiguous and fragmented tracts of forest, drainage features, as well as the Foxboro Swamp PSW and unevaluated wetlands.

An anthropogenic area, at the northwestern edge of the Subject Property, contains one abandoned dwelling, an existing access ramp to the Moira River, and sparse tree regeneration. The southeastern corner of the Subject Property has since been developed from the outset of this study and is not discussed further in this report

The Phase 1 Lands consist of relatively more disturbed, cultural communities than that of the Area Outside of Phase 1 Lands. However, some natural and hydrological features are present. Specifically, a (warm) watercourse flows southward from a managed wetland feature identified as a Migratory Bird Nesting Sanctuary, through a series of constructed ponds and wetlands (including the Corbyville PSW) and exits the Subject Property under Harmony Road. A maple deciduous swamp, associated with the Corbyville PSW complex, sits within the additional lands to the west (449 Harmony Road). Small tracts of treed areas, as well as unevaluated and Other Wetlands are also present. Vegetation Communities and Flora

4.2.1 Vegetation Communities

Vegetation communities were mapped and described in general accordance with the Ecological Land Classification (ELC) System for Southern Ontario (Lee, et al., 1998) on Figure 3. A total of fifteen ELC communities were identified within the Phase 1 Lands, which are described in detail through Sections 4.3.1.1 - 4.3.1.2, below. Further characterization of communities throughout the Area Outside of Phase 1 Lands is provided in Appendix B.

The Subject Property includes large areas of anthropogenically influenced communities. For example, an 18-hole golf course, hydro corridor, laneways, agricultural fields, old field meadows, hedgerows, constructed ponds, and tree plantations. Tracts of forest on the Subject Property, primarily in the northwest area, were fragmented by a previous owner as part of an earlier development plan. Provincially Significant Wetlands (Foxboro Swamp, Corbyville Wetland), unevaluated and Other Wetlands are also present. The location and distribution of wetlands as mapped by the MNRF was confirmed through field surveys and found to be less representative than the MNRF mapping. A large, constructed Migratory Bird Sanctuary sits in the southeast area of the Subject Property, partially within Phase 1 Lands.

4.2.1.1 Terrestrial Systems

Agricultural (AGR)

Agricultural fields were located at 449 Harmony Road and are fragmented by primarily deciduous hedgerows (HR) and an anthropogenically-influenced cultural woodland/thicket community. The western agricultural lands were noted as fallowed at the time of SLR's 2024 site visit (Photo 1). The northern most agricultural field within the western additional lands was noted as plowed more recently.



Hedgerow (HR)

Hedgerows are found throughout the Phase 1 Lands. The hedgerows primarily consisted of deciduous tree species such as maple (*Acer* sp.), dead/dying Red Ash (*Fraxinus pennsylvanica*), oak sp. (*Quercus* sp.), and White Elm (*Ulmus americana*). The understory was typically dominated by shrub species including European Buckthorn (*Rhamnus cathartica*), Tatarian Honeysuckle (*Lonicera tatarica*), Grey Dogwood (*Cornus racemosa*), and Common Prickly Ash (*Zanthoxylum americanum*).

Coniferous Plantation (CUP3)

Coniferous plantations are present within the Phase 1 Lands, typically surrounded by cultural lands, and consist of young White Spruce (*Picea glauca*), Red Cedar (*Juniperus virginiana*), and Scots Pine (*Pinus sylvestris*) (Photo 2). Understory and ground cover was minimal throughout all communities but European Buckthorn and Riverbank Grape (*Vitis riparia*) were noted in the understory.

Mineral Cultural Meadow (CUM1)

Three isolated meadow communities were identified within the Phase 1 Lands. A pocket in the southeast corner, adjacent to a cultural plantation, cattail shallow marsh, and mowed lawn, was dominated by Common Milkweed (*Asclepias syriaca*), sweet clover (*Melilotus* sp.) and Rough Fleabane (*Erigeron strigosus*). The occasional Hemp Dogbane (*Apocynum cannabinum*), Wild Carrot (*Daucus carota*), Garden Bird's-foot Trefoil (*Lotus corniculatus*), and Dudley's Rush (*Juncus dudleyi*) were recorded. A sparse understory of stunted Red Cedar, Scots Pine, and Eastern Cottonwood (*Populus deltoides*) were observed throughout the community (Photo 3).

The second meadow community in the Phase 1 Lands was surrounded by golf course lands, mowed lawn, and a mixed forest. The community primarily consisted of Smooth Brome (*Bromus inermis*), with frequent Wild Timothy (*Muhlenbergia racemosa*), Viper's Bugloss (*Echium vulgare*), Early Goldenrod (*Solidago juncea*), Wild Bergomot (*Monarda fistulosa*), Common Milkweed, and Tufted Vetch (*Vicia cracca*). The occasional Wild Carrot, Common St. John's Wort (*Hypericum perforatum*), and Red Clover (*Trifolium pratense*) were recorded. Sparse, sapling Juniper were also recorded throughout the community.

The third meadow community was located within the deciduous forest of the additional lands to the west (see FOD below). This community was a small, isolated pocket dominated by Kentucky Bluegrass (*Poa pratensis*) and Tufted Vetch.

Cultural Woodland / Thicket (CUW1/CUT1)

A young, moist cultural woodland/thicket community was found in the additional lands to the west. The community consisted of frequent dead Red Ash and Red Cedar in the canopy, and dense European Buckthorn, Common Prickly Ash, and Grey Dogwood in the understory. This community was mapped by the MNRF as an unevaluated wetland however, no definitive wetland characteristics (i.e., plants, saturated soils) were observed at the time of SLR's September 2022 and May 2024 visit. Evidence of historical disturbance (i.e. invasive species, clearing) to the community was also observed. A moist regenerating upland thicket best characterizes this community.



Dry - Fresh White Cedar Coniferous Forest (FOC2-2)

An upland Eastern White Cedar Forest community was observed adjacent to the PSW deciduous swamp within the additional lands (Photo 4). Ground cover within the community was minimal due to the dense canopy however, the occasional Virginia Creeper (*Parthenocissus quinquefolia*) was recorded.

Mixed Forest (Sugar Maple / Red Cedar) (FOM)

A mixed forest, dominated by Sugar Maple and Red Cedar in the canopy, was observed along the northwest boundary of the Phase 1 Lands (Photo 5). The occasional Trembling Aspen, Silver Maple (*Acer saccharinum*), White Oak, White Elm, and Ironwood (*Ostrya virginiana*) were also observed in the tree canopy. European Buckthorn, Common Prickly Ash, Blue Beech (*Carpinus caroliniana*), Ironwood, and Grey Dogwood were recorded within the relatively dense understory.

The community consisted of a moderately dense ground cover including European Buckthorn, Sugar Maple saplings, Zig Zag Goldenrod (*Solidago flex caulis*), Bitternut Hickory saplings (*Carya cordiformis*), Jack-in-the-pulpit (*Arisaema triphyllum*), Blue Phlox (*Phlox divaricata*), Licorice Bedstraw (*Galium circaeans*), Virginia Creeper, Enchanter's Nightshade (*Circaea* sp.), Bracken Fern (*Pteridium aquilinum*), Solomon's Seal (*Maianthemum* sp.), sedges (*Carex* sp.), and violets (*Viola* sp.).

Dry – Fresh Mixed Forest (FOM)

A mixed forest community, positioned along the drumlin slope, was dominated primarily by Sugar Maple with abundant Ironwood and the occasional White Pine (*Pinus strobus*) and Shagbark Hickory (*Carya ovata*) (Photo 6). A few Red Oak (*Quercus rubra*) individuals were also recorded within the canopy. European Buckthorn, with the occasional White Ash (*Fraxinus americana*), was present throughout the understory and ground cover. The ground cover within the community consisted of Eastern Star Sedge (*Carex radiata*), Red Baneberry (*Actaea rubra*), Arrow-leaved Aster (*Symphyotrichum urophyllum*), Plantain-leaved Sedge (*Carex plantaginea*), Blue-stemmed Goldenrod (*Solidago caesia*), and gooseberry (*Ribes* sp.).

Deciduous Forest (FOD)

A small deciduous forest was also observed along the Phase 1 Lands eastern boundary, surrounded by a constructed pond (Photo 7). The community consisted of maple sp. in the canopy, with a dense shrub understory including European Buckthorn, Grey Dogwood, Staghorn Sumac (*Rhus typhina*), and Tatarian Honeysuckle. Access constraints prevented further assessment of the community.

Mixed Forest (Red Cedar / Red Ash) (FOM)

A mixed forest stand is present on the Subject Property, along the southern boundary within the Phase 1 Lands (Photo 8). The mixed forest community was largely bordered by the Corbyville PSW to the north and non-participating residential properties to the south. The community was dominated by Red Cedar, with dead/dying Red Ash along the northern fringe. A dense shrub understory consisting of European Buckthorn, Common Prickly Ash, Grey Dogwood, Tatarian Honeysuckle, willow sp. (*Salix* sp.), and Red Osier Dogwood (*Cornus sericea*) was observed along the western and northern fringes of the community. Other mixed forest stands observed in SLR's field investigations comprised of Red Oak, Sugar Maple, Ironwood, Basswood (*Tilia americana*), and Paper Birch (*Betula papyrifera*).



4.2.1.2 Wetland Systems

Cattail Mineral Shallow Marsh (MAS2-1)

Cattail mineral shallow marshes were present within the southern and eastern reaches of the Phase 1 Lands (Photo 9). A large shallow marsh was identified as part of the Corbyville PSW complex near Harmony Road. The cattail-dominated (*Typha* sp.) community also consisted of Reed Canarygrass (*Phalaris arundinacea*) and Purple Loosestrife (*Lythrum salicaria*), specifically along its fringe and immediately north of Harmony Road. Red Cedar, Grey Dogwood, alder sp. (*Alnus* sp.), Bebb's Willow (*Salix bebbiana*), willow sp., Red Osier Dogwood, Nannyberry (*Viburnum lentago*), and Tatarian Honeysuckle were observed along the fringe of the community.

Reed Canarygrass Mineral Meadow Marsh (MAM2-2)

A small Reed Canarygrass dominated meadow marsh was observed within the additional lands to the west. Ponded water was observed along the fringe of the community at the time of SLR's May 2024 site visit. The community was surrounded by both deciduous and coniferous forest.

Two small Reed Canarygrass inclusions, north and west of the 2.5 ha coniferous plantation (CUP3) community of the Phase 1 Lands, were confirmed and staked by SLR staff on May 21 and May 28, 2024. The west inclusion was also staked alongside the peer reviewer on file. Both inclusions existed along the fringe of the constructed pond onsite. The west inclusion was dominated by Reed Canarygrass with frequent Meadowsweet (*Spirea alba*) and willow shrubs. The north inclusion was also dominated by Reed Canarygrass but with frequent cattail, primarily near the pond's edge.

Mineral Deciduous Swamp (SWD)

Two deciduous swamps were identified and delineated by SLR (partially using aerial imagery due to access constraints) within the Subject Property (Photo 10). The tree canopy of the unevaluated swamp along the Phase 1 Lands north boundary was dominated by dead/dying Red Ash, with occasional Silver Maple (*Acer saccharinum*), and willow. The community's understory consisted of Common Prickly Ash and European Buckthorn. Pockets of Reed Canarygrass, with frequent Water Hemlock (*Cicuta* sp.), and the occasional cattail, Devil's Beggarticks (*Bidens frondosa*), Stinging Nettle (*Urtica dioica*), and Sensitive Fern (*Onoclea sensibilis*) were recorded.

The SWD community at the northern boundary of the Phase 1 Lands, surrounded by golf course lands, primarily consisted of dead Red Ash, Silver Maple, and Balsam Poplar (*Populus balsamifera*). Clearing practices and indirect impacts associated with the adjacent golf course lands were evident at the time of SLR's 2022 visit.

Maple Deciduous Swamp (SWD3)

A Freeman's Maple (*Acer x freemanii*) and Silver Maple dominated swamp community was identified within the additional lands to the west (Photo 11). This swamp is classified as part of the Corbyville PSW complex and is largely not within the Subject Property boundaries. A farming right-of-way was noted to transect the community, running north-south. A small shallow aquatic and a Reed Canarygrass inclusion was recorded within the community, on the Subject Property but was not mapped due to relative size. A thin film of algae was noted as covering the surface of the shallow aquatic inclusion at the time of SLR's 2022 site visit. The Reed Canarygrass inclusion also consisted of Nodding Beggarticks (*Bidens cernua*), Spotted Jewelweed (*Impatiens capensis*), and scarce Burreed (*Sparganium* sp.). During SLR's May 2024 site visit, the entire community, including both inclusions, were flooded.



Mineral Thicket Swamp (SWT2)

A small Mineral Thicket Swamp was dominated by Red Osier Dogwood and Grey Dogwood and surrounded by Cattail Mineral Shallow Marsh (MAS2-1) associated with the Corbyville PSW complex.

Photo 1: Hayfield within the additional lands (May 21, 2024).



Photo 2: Coniferous Plantation (CUP3) in the Phase 1 Lands (February 10, 2022).



**Photo 3: Cultural meadow (CUM1-1) in the southeast of the Phase 1 Lands
(July 26, 2022).**



**Photo 4: White Cedar forest community (FOC2-2) within the additional lands
(September 6, 2022).**



Photo 5: A mixed forest community (FOM, Red Cedar / Sugar Maple) within the additional lands (May 21, 2024).



Photo 6: Mixed forest community along a drumlin slope within the Phase 1 Lands (July 26, 2022).



Photo 7: Deciduous Forest community (FOD) within Phase 1 Lands (May 21, 2024).



Photo 8: Mixed Forest community (FOM) along the southern boundary of the Phase 1 Lands (May 21, 2024).



Photo 9: Cattail shallow marsh community (MAS2-1) associated with the Corbyville PSW (May 21, 2024).



Photo 10: Deciduous swamp community (SWD) within the additional lands (May 21, 2024).



Photo 11: Flooded Maple deciduous swamp (SWD3) within the additional lands to the west (May 21, 2024).



4.2.2 Flora

From the spring and summer surveys, 172 species of vascular plants were recorded within the Subject Property, including 113 (66%) native species, 34 (20%) which are non-native to Ontario, and 25 species that were identified to the genus only due to the limited representation of key characteristics (Appendix C). The recorded presence of this percentage of non-native species is indicative of farming and past anthropogenic disturbance and is typical of developed areas in Southern Ontario (Morton & Venn, 1984). Similarly, Oldham et al. (1995) indicate that in southern Ontario plant communities, non-native flora presence averages between 20% and 30%. All native plants were identified as S4 or S5 ranking, indicating that they are common within Ontario (Ministry of Natural Resources and Forestry, 2021). One Butternut (*Juglans cinerea*) was observed within the deciduous forest community (FOD) adjacent to the Foxboro Swamp (Figure 3), outside the Phase 1 Lands. Thus, impacts and mitigations for the recorded Butternut will be discussed in future development phases.

Coefficients of Conservatism (scale of 1-10) values are used to indicate the ecological sensitivity of a species (10 being the most sensitive), including those that are least aggressive, least able to spread, and typically confined to certain natural habitats (Caitling, 2013). A total of ten plant species, identified on the Subject Property, were identified to have a Coefficient of Conservatism of 7 or 8 (Appendix C). Two species on this list had a Coefficient of Conservatism of 8, Butterfly Milkweed (*Asclepias tuberosa*) and Sharp-lobed Hepatica (*Hepatica acutiloba*). The former species was observed within the cultural meadow community (3.4 ha) along the eastern property boundary, adjacent to Trillium Woods Golf Course (outside of Phase 1 Lands). The latter species was recorded within the mixed forest community (9.9 ha) contiguous with the Foxboro Swamp, also outside of Phase 1 Lands.



4.3 Wildlife

4.3.1 Breeding Amphibian Surveys

The surveys conducted targeted 13 potentially suitable wetland areas and constructed ponds on the Subject Property for breeding amphibians (Figure 4). Six species of amphibians were recorded during the surveys including: Gray Treefrog (*Dryophytes versicolor*), Northern Spring Peeper (*Pseudacris crucifer*), Northern Leopard Frog (*Lithobates pipiens*), Green Frog (*Lithobates clamitans*), and American Bullfrog (*Lithobates catesbeianus*). A summary of the surveys is provided in Table 2. One Wood Frog (*Lithobates sylvaticus*) as well as Green Frogs and Northern Leopard Frogs were incidentally observed within the Foxboro Swamp, and adjacent forest, during daytime field surveys. Bullfrog and Northern Leopard Frog individuals and Green Frog (Code 2-2) calls were also incidentally recorded within the southern constructed ponds and Migratory Bird Sanctuary. In the case where an amphibian species was recorded during multiple surveys, at a singular station, the highest abundance code was mapped (Figure 4).

Table 2: Breeding Amphibians (2022 & 2023)

Breeding Amphibian Monitoring Station	April 2023	May 2023	June 2022
Weather Conditions:	6°C, Beaufort wind 1, 70% cloud cover, light precipitation	19°C, 10% cloud cover, light wind	20°C, 50% cloud cover, light wind
Station 1	Northern Spring Peeper: Code 1-6	No amphibian calls	Gray Treefrog: Code 3
Station 2	No amphibian calls	No amphibian calls	Gray Treefrog: Code 3
Station 3	No amphibian calls	No amphibian calls	No amphibian calls
Station 4	Northern Spring Peeper: Code 3	Northern Spring Peeper: Code 1-1	Gray Treefrog: Code 2-6
Station 5	Northern Spring Peeper: Code 2-18 Northern Leopard Frog: Code 1-4	No amphibian calls	Green Frog: Code 1-1
Station 6	Northern Spring Peeper: Code 1-5	No amphibian calls	No amphibian calls
Station 7	Northern Spring Peeper: Code 1-10 <i>Off Property (7b, Figure 4)</i> Northern Leopard Frog: Code 1-2	No amphibian calls	Gray Treefrog: Code 3



Breeding Amphibian Monitoring Station	April 2023	May 2023	June 2022
Station 8	Northern Spring Peeper: Code 1-4 Northern Leopard Frog: Code 1-4	No amphibian calls	Gray Treefrog: Code 3 American Bullfrog: Code 2-3
Station 9	No amphibian calls	No amphibian calls	Gray Treefrog: Code 3 American Bullfrog: Code 2-2
Station 10	Northern Spring Peeper: Code 3 Northern Leopard Frog: Code 1-1	No amphibian calls	Gray Treefrog: Code 3
Station 11	No amphibian calls	No amphibian calls	No amphibian calls
Station 12	Northern Spring Peeper: Code 2-15	No amphibian calls	Gray Treefrog: Code 3
Station 13	Northern Spring Peeper: Code 1-4 Northern Leopard Frog: Code 1-3	No amphibian calls	Gray Treefrog: Code 3
Station 14	Northern Spring Peeper: Code 3	No amphibian calls	Not surveyed.
*Note: The calling codes are designated according to the Marsh Monitoring Program Participant's Handbook for Surveying Amphibians (Bird Studies Canada, 2009). They are as follows: 1 – Individuals of one species can be counted, calls are not overlapping; second number denotes number of individuals. 2 – Calls of one species are overlapping; second number denotes estimated number of individuals. 3 – Full chorus of one species, calls continuous and overlapping, individuals not distinguishable.			

4.3.2 Breeding Bird Surveys

A total of 61 breeding season bird species were observed – five of these were considered to be foraging on site only or using the area post-breeding season (Appendix D). The birds observed were a diverse group as would be expected given the wide variety of habitats on the property (forests, grasslands, wetlands and a variety of edge habitats). Note that additional forest and wetland species would be expected to have been recorded if the whole of the large wetland in the northeast was surveyed, however this was not surveyed due to it being a protected area. Six Species at Risk under the federal *SARA*, and listed under *COSSARO*, were recorded; no provincially rare (i.e. S1 through S3 species) species were recorded; and based on our professional experience, no regionally rare species were recorded. The Species at Risk are discussed after the general discussion regarding birds.



4.3.2.1 Birds of the Phase 1 Lands

The 39 bird species observed in Phase 1 Lands were a mixture of disturbance-tolerant edge species that are common and widespread in southern Ontario as well as less common grassland and shrub species. The six most abundant species in order of abundance were: Song Sparrow (*Melospiza melodia*), American Robin (*Turdus americanus*), Red-winged Blackbird (*Agelaius phoeniceus*), American Goldfinch (*Carduelis tristis*), Common Yellowthroat (*Geothlypis trichas*) and Warbling Vireo (*Vireo gilvus*).

Other species present were three grassland area-sensitive species: Savannah Sparrow (*Passerculus sandwichensis*), Bobolink (*Dolichonyx oryzivorus*), and Eastern Meadowlark (*Sturnella magna*). Area-sensitive species are those which either require larger patches of habitat (whether grassland or forest) in which to breed or are more productive in larger patches of habitat. Note that while Savannah Sparrow is considered an area-sensitive open-land species, it is a very common species in southern Ontario in both row crop and abandoned agricultural fields. On the other hand, Bobolink and Eastern Meadowlark require grasslands, old field or pasture habitat. The latter two species are federally listed Species at Risk and are discussed in section 4.4.2.3.

Additionally, bird species within Phase 1 Lands included some normally associated with shrublands that were using the wide hedgerows and similar habitats (e.g. Brown Thrasher *Toxostoma rufum*, Field Sparrow *Spizella pusilla* and Cedar Waxwing *Bombycilla cedrorum*), as well some common wetland species (Mallard *Anas platyrhynchos* and Common Yellowthroat). A less frequently observed Eastern Bluebird (*Sialia sialis*) was observed using one of the nest boxes, as were four pairs of Tree Swallows (*Tachycineta bicolor*) which were nesting in nest boxes in the meadow area north of Corbyville Wetland.

4.3.2.2 Birds of the Area Outside Phase 1 Lands

Of the 50 species observed in the other areas the majority were forest species, with a large percentage of 'generalists' (i.e. those that are more tolerant of disturbance, which use edges, or are found in several habitat types) (Appendix D). The five most abundant species in order of abundance in this area were: Red-eyed Vireo (*Vireo olivaceus*), Eastern Wood-Pewee (*Contopus virens*), Yellow-bellied Sapsucker (*Sphyrapicus varius*), Black-capped Chickadee (*Poecile atricapillus*) and Song Sparrow. All but the last are forest species. Additionally, of the birds observed in this area, 12 were forest area-sensitive species; many of these were forest warbler species, but other area-sensitive species were raptors, woodpeckers, nuthatches and Scarlet Tanager (*Piranga olivacea*). Thus, much of this area is good quality forest bird habitat, although it appears to have been degraded due to the presence of numerous small roads leading to the presence of Song Sparrows, Indigo Buntings (*Passerina cyanea*), Chestnut-sided Warbler (*Setophaga pensylvanica*), Baltimore Oriole (*Setophaga pensylvanica*) and other species that are edge species or gap species.

4.3.2.3 Avian Species at Risk

It should be noted that as of March 30, 2026, the *ESA* was repealed and replaced with the *SCA*. Migratory birds that are classified as extirpated, endangered, threatened, or special concern on the List of Wildlife Species at Risk under the federal *SARA* are no longer classified or protected under the provincial *SCA*. Species that receive protection under the *SCA* are identified on the *Protected Species in Ontario List, O Reg 60/26*. Migratory bird species are currently still listed under *COSSARO*. It should be further noted, that migratory bird species including their nests and eggs also receive protection through the *MBCA*.



Thus, federally listed migratory SAR bird species and those classified as Special Concern under COSSARO are still discussed as part of this EIS.

Four breeding Species at Risk (SAR) birds were observed in the surveyed area, with an additional SAR observed foraging over the property, but thought not to be nesting. The nesting species were Eastern Wood-Pewee, Wood Thrush (*Hylocichla mustelina*), Bobolink and Eastern Meadowlark.

Fourteen territories of Eastern Wood-Pewee, listed as Special Concern under both COSSARO and SARA, were recorded in the woodland areas outside of Phase 1 Lands and three territories were recorded within the Phase 1 Lands (Figure 4). This songbird is still a common species found in deciduous and mixed woodlands of many types and sizes. Eastern Wood-Pewee is no longer listed under the SCA but will be discussed under Significant Wildlife Habitat as a Special Concern species.

Six territories of Wood Thrush, federally listed as Threatened under SARA and Special Concern under COSSARO, were recorded in the woodlands outside of Phase 1 Lands (Figure 4). This species is still relatively in common deciduous and mixed forest habitat and some consider it to be a forest area-sensitive species. Wood Thrush is no longer listed under the SCA. The species, including their nests and eggs, also receives protection through the *MBCA*.

An estimated three territories of the Threatened (SARA, COSSARO) Eastern Meadowlark were observed in two general locations: in the meadow north of Corbyville Wetland, and in the hayfields west of the recreational snowmobile trail dividing the two parts of Phase 1 Lands (Figure 5). This species has large territories that are found in hayfields, old fields and early successional lands. The species, including their nests and eggs, also receives protection through the *MBCA*.

One Threatened (SARA, COSSARO) Bobolink territory was observed on one of the hayfields west of the recreational snowmobile trail in the Phase 1 Lands (Figure 5). Bobolink is still moderately common across southern Ontario in large old fields and hayfields. The species, including their nests and eggs, also receives protection through the *MBCA*.

One Barn Swallow (*Hirundo rustica*), Threatened under SARA and Special Concern under COSSARO, was observed foraging over the surveyed area. No nests were found in buildings, although an extensive search was not completed. This species was downgraded from Threatened to Special Concern under the, now repealed, *ESA* and even more recently removed from the Protected Species in Ontario List (PSOL) under the newly enacted SCA. It is a species of rural landscapes that usually nests on buildings and forages over wetlands, meadows and fields.

Mitigation for nesting avian Species at Risk, if needed, is discussed under the Impacts and Mitigation section of this report.

4.3.3 Bat Habitat Assessment

4.3.3.1 Identify Potential Maternity Roost Habitat

A Bat Habitat Suitability Assessment was completed using aerial photography and ELC field investigation of the Phase 1 Lands. The ecological communities were assessed and mapped based on the *Ecological Land Classification for Southern Ontario: First Approximation and its Application* (Lee, et al., 1998). All forest and treed (e.g., hedgerows) communities and isolated trees were identified as potentially suitable roosting habitat.



4.3.3.2 Snag Density Calculations

A snag assessment was completed in association with the forest and treed communities, as well as isolated trees, within the proposed development limit of the Phase 1 Lands. At the time of the survey, January 7, 2025, all trees >25 cm DBH were surveyed for suitable maternity roost characteristics, resulting in 29 potentially suitable maternity roost trees.

The 29 potentially suitable Maternity Roost trees were observed within the treed areas with DBH ranging from 26 – 87 cm (Table 3, Figure 4). The snag attributes consist of cavities, knot holes, cracks, and peeling bark. Snags in healthy or early stage of decay (Decay Class 1 - 3) may be preferred by Little Brown Myotis and Northern Myotis (MNRF, 2017). All of the potential snag trees were observed in this decay class range.

Table 3: Potential SAR Bat Maternity Roost Trees

Tag	Scientific Name	Common Name	Forest Type and Plot No.	DBH (cm)	Decay Class 1-3?*	Height Class**	Snag Attributes	Proposed Outcome
1	<i>Picea glauca</i>	White Spruce	CUP3	40	Yes	2	Peeling bark along length of tree	Remove
2	<i>Picea glauca</i>	White Spruce	CUP3	38	Yes	3	Peeling bark from 5 to 12 m	Remove
3	<i>Carya cordiformis</i>	Bitternut Hickory	HR	26, 18	Yes	2	Cavity at 9 m	Remove
4	<i>Carya ovata</i>	Shagbark Hickory	HR	37	Yes	2	Cavity at 7 and 7.5 m	Remove
5	<i>Fraxinus americana</i>	White Ash	HR	30	Yes	3	Cavity at 8 m	Remove
6	<i>Tilia americana</i>	American Basswood	HR	50,42,42	Yes	1	Cavity at 7 m	Remove
7	<i>Fraxinus americana</i>	White Ash	FOM, Plot 1	62	Yes	1	Cavity at 4m, crack at 3 m	Remove
8	<i>Pinus strobus</i>	White Pine	FOM, Plot 3	54	Yes	1	Cavity at 16 m	Remove
9	<i>Carya cordiformis</i>	Bitternut Hickory	FOM, Plot 4	29	Yes	2	Knot hole at 8 m	Remove
10	<i>Fagus grandifolia</i>	American Beech	FOM, Plot 6	42	Yes	1	Knot holes at 5, 5.5, 7, 9, and 11 m	Remove
11	<i>Ostrya virginiana</i>	Ironwood	FOM, Plot 9	35	Yes	2	Knot hole at 3.5 m	Remove



Tag	Scientific Name	Common Name	Forest Type and Plot No.	DBH (cm)	Decay Class 1-3?*	Height Class**	Snag Attributes	Proposed Outcome
12	<i>Fraxinus americana</i>	White Ash	HR	32, 34, 38	Yes	2	Cavity at 4 and 8 m	Remove
13	<i>Fraxinus americana</i>	White Ash	HR	46	Yes	3	Cavity at 5 and 6 m	Remove
14	<i>Quercus alba</i>	White Oak	HR	35	Yes	3	Knot hole at 7 m	Remove
15	<i>Ostrya virginiana</i>	Ironwood	HR	34,35	Yes	2	Cavity at 6 m, knot hole at 5.5 m	Remove
16	<i>Ulmus americana</i>	White Elm	CUP3	34	Yes	3	Peeling bark	Remove
17	<i>Carya cordiformis</i>	Bitternut Hickory	HR	46	Yes	1	Cavity, crack	Remove
18	<i>Carya cordiformis</i>	Bitternut Hickory	HR	28	Yes	2	Knot holes above 5 m	Remove
19	<i>Fraxinus americana</i>	White Ash	HR	37	Yes	2	Peeling bark	Remove
20	<i>Quercus rubrum</i>	Red Oak	FOM, Plot 3	76	Yes	1	Cavity at 8 m	Remove
21	<i>Carya cordiformis</i>	Bitternut Hickory	FOM, Plot 4	39	Yes	2	Two knot holes	Remove
22	<i>Ulmus americana</i>	White Elm	FOM, Plot 6	62	Yes	2	Peeling bark	Remove
23	<i>Acer saccharum</i>	Sugar Maple	FOM, Plot 7	54	Yes	1	Knot hole	Remove
24	<i>Carya ovata</i>	Shagbark Hickory	FOM, Plot 8	48	Yes	2	Two knot holes	Remove
25	<i>Carya cordiformis</i>	Bitternut Hickory	FOM, Plot 9	44	Yes	1	Three knot holes	Remove
26	<i>Ostrya virginiana</i>	Ironwood	FOM, Plot 10	32	Yes	2	Crack at 2 m	Remove
27	<i>Fraxinus americana</i>	White Ash	HR	58	Yes	2	Cavities within branches and at trunk	Remove
28	<i>Acer saccharum</i>	Sugar Maple	HR	87	Yes	2	Cavity, crack	Remove



Tag	Scientific Name	Common Name	Forest Type and Plot No.	DBH (cm)	Decay Class 1-3?*	Height Class**	Snag Attributes	Proposed Outcome
29	<i>Acer saccharum</i>	Sugar Maple	HR	44	Yes	2	Cavity	Remove
*Decay Class: 1 – Healthy, live tree; 2 – Declining live tree, part of canopy lost; 3 – Very recently dead, no canopy, bark intact, branches intact; 4 – Recently dead, bark peeling, only large branches intact; 5 – older dead tree, 90% of bark lost, few branch stubs, broken top; 6 – very old dead tree, advanced decay, no branches, parts of stem have rotted away **Height Class: Dominant – above canopy; Co-dominant – canopy height; Intermediate – just below canopy; suppressed – well below canopy height								

There is no minimum threshold in terms of the number of snags/ha for an ELC ecosite to be considered suitable maternity roost habitat for SAR. However, if snag density is calculated to be >10 snags per hectare then an ecosite should be considered high quality. Of the of the forested ELC vegetation communities in the proposed development limit, no communities exceed ten snags per hectare (Table 4). Hedgerows have not been considered for this assessment.

Table 4: Snag Density for Ecosite Communities

ELC ecosite	Size (ha)	No. Snags	Minimum Snag density (snags/ha)
Coniferous Plantation (CUP3)	2.4	2	0.8
Coniferous Plantation (CUP3)	0.4	1	2.5
Cultural Woodland/Cultural Thicket (CUW1/CUT1)	1.1	2	1.8
Mixed Forest (FOM)	3.4	12	2.1

Acoustic surveys may be required prior to detailed design and activity commencement. All SAR bat related findings for the Phase 1 Lands will be documented in a technical memo and provided to the municipality. If SAR bat utilization of habitat is confirmed to be present, compliance with the legislation and regulation (i.e., SCA) in force at the time will be required. Under the SCA, registration of the proposed works as well as submission of a conservation plan is expected to be required. Impacts and mitigation measures are discussed in Section 8 and 9.

4.3.4 Incidental Wildlife

During SLR's 2022, 2023, 2024, and 2025 field surveys, incidental wildlife were recorded and are listed below:

- Green Frog (*Lithobates clamitans*)
- Northern Leopard Frog (*Lithobates pipiens*)
- American Bullfrog (*Lithobates catesbeianus*)



- Wood Frog (*Lithobates sylvaticus*) – heard calling in southern constructed pond during daytime surveys (May 2024)
- Virginia Rail (*Rallus limicola*) – heard calling within the southern MAS2-1 of the Corbyville PSW (May 2024)
- White-tailed Deer (*Odocoileus virginianus*) – individuals, tracks, scat throughout property
- Red-tailed Hawk (*Buteo jamaicensis*)
- American Robin (*Turdus migratorius*)
- Black-capped Chickadee (*Poecile atricapillus*)
- Common Garter Snake (*Thamnophis sirtalis*)
- Red-winged Blackbird (*gelaius phoeniceus*)
- Canada Goose (*Branta canadensis*)
- Pumpkinseed (*Lepomis gibbosus*) – observed within southern constructed ponds
- Monarch (*Danaus plexippus*) – observed within the southern cultural meadows
- Smallmouth Bass (*Micropterus dolomieu*) – observed within the constructed pond in Foxboro Swamp
- Northern Watersnake (*Nerodia sipedon sipedon*) – observed within the constructed pond in Foxboro Swamp
- North American Beaver (*Castor canadensis*) – observed within the southeast constructed pond
- Great Blue Heron (*Ardea herodias*) – observed flying overhead of southern constructed ponds (multiple occurrences) in 2024; individual observed hunting along the edge of a southern constructed pond (May 2024)
- Mallard (*Anas platyrhynchos*) – call heard within the MAM2-2 community in the additional lands to the west

4.4 Surface Water Features

4.4.1 Moira River

The Moira River, north of the Subject Property, and its associated watershed occupy an area of 2,735 square kilometres (MNAL, 2004). Moira River, a permanent watercourse, flows south and eventually drains into the Bay of Quinte in Belleville. Despite the generally steep gradient of the Moira River, a wide, low gradient channel is observed adjacent to the Subject Property. It appears to be approximately 100 to 250 m wide, more than 2 m deep, and eventually discharges to the Bay of Quinte to the south. Aquatic habitat, as recorded by MNAL (2004), adjacent to the Subject Property aligned well with wide, low gradient channels. The Moira River shoreline within the Subject Property consists of abundant aquatic vegetation and organic substrate, which in turn facilitates foraging and nursery habitat for warmwater species including northern pike and bass species (MNAL, 2004). The MNR lists 32 species for the river. The ecological conditions of the Moira River (e.g., mineral soil with organic substrate, slow flow), adjacent to the Subject Property, also facilitates suitable overwintering habitat for turtle species however, no direct evidence has been recorded to date.



4.4.2 Constructed Ponds

A number of constructed ponds were recorded on the Subject Property during SLR's background review and field investigations (Figure 4). One constructed pond was observed in the northwestern portion of the Subject Property, upstream of a drainage feature that terminated at Moira River to the north.

A large, constructed pond was observed north of the 19-hole golf course on the Subject Property, immediately south of the Foxboro Swamp and within a clearing established by the previous property owner. It is SLR's understanding that these ponds do not contribute directly (other than seasonal overtopping) to the overall drainage or overall hydrology of the site as they were initially constructed for recreational use only (i.e., swimming, fishing, skating). Two additional constructed ponds were observed in the interior of the 18-hole golf course and are also considered to be unrelated to the overall drainage or hydrology of the site.

Two constructed ponds observed along the western edge of the 18-hole golf course were determined to be the primary source of surface water to the adjacent Trillium Woods Golf Course via a dug, intermittent drainage channel running east-west. The dug channel was intended to provide the adjacent property with water in the spring and fall seasons, with little to no flow during the summer and winter seasons (MNAL, 2004). SLR's field investigations confirmed the easterly flow direction towards Trillium Woods Golf Course, as well as the aforementioned low-flow periods in the summer and winter.

Two additional ponds were observed southwest of the local topographic high (drumlin feature) situated in the central region of the property. Drainage into these two constructed ponds followed local topography. It is SLR's understanding that these constructed ponds act as an irrigation source for the 18-hole golf course on site.

A constructed Migratory Bird Nesting Sanctuary and various other online, constructed ponds were observed in the southern portion of the Subject Property. In 2000, the previous owner of Black Bear Ridge Resort, along with Ducks Unlimited and permission from QC (Permit 64/99, August 11, 2000 and Permit 101/2001, August 16, 2001), decided to develop migratory bird nesting areas rather than have conventional stormwater treatment ponds (MNAL, 2004). An intermittent, warmwater watercourse flows south from the Migratory Bird Nesting Sanctuary and is directed through a series of bird nesting ponds, as well as Other wetlands (MAS2-1) and a Provincially Significant Wetland (Corbyville PSW) (Figure 4). Drainage subsequently flows south under Harmony Road, into a series of wetland depressions and ultimately, Moira River (MNAL, 2004).

4.4.3 Watercourses and Drainage Features

Watercourse and drainage feature surveys were conducted on June 8, 2022 for the Subject Property. All drainage features identified on the Subject Property were noted as intermittent by SLR staff. There are two drainage features within the Phase 1 lands (Drainage Feature A and B), and two to the north within other phases (Drainage Feature C and D). Little to no flow was observed within the features during the summer and winter months. It is SLR's assumption that the flows peak in the spring season for all drainage features during the spring freshet. While spring surveys were not completed, all drainage features observed on the Subject Property are presumed to be man-made (based on site characterization and review of historic air photos) and/or previously altered by a previous owner for recreational purposes and/or future development. The development is believed to be designed to continue to maintain flow through the subject property and convey flows to the existing natural features.



4.4.3.1 Intermittent Tributary

An intermittent tributary of Moira River, in the southeastern portion of the Subject Property, originates in the Migratory Bird Sanctuary and flows south through Other Wetlands, online constructed ponds, and the Corbyville PSW prior to exiting under Harmony Road (Figure 4 & 5). A dam structure sits at the southern end of the Bird Sanctuary, acting as a fish barrier. No channelized flow was observed within the southerly reach of the watercourse (i.e., Corbyville PSW) in June 2022 and May 2024. Despite this, in the 2004 MNAL report, the watercourse was noted as a “fish-bearing water body”, with a number of cyprinid species recorded. In 2024, SLR recorded Great Blue Heron hunting within and adjacent to the online ponds further suggesting fish species are present. During SLR’s 2024 survey, overland flow was noted as entering and dispersing into the Corbyville PSW (MAS2-1) from a constructed pond to the north.

4.4.3.2 Drainage Feature A

Located in the southern part of the property in the Phase 1 lands, an intermittent drainage feature was observed originating from east of the Subject Property and includes altered and straightened portions of the channel as visible from the air photo on Figure 4 & 5. SLR did not observe any flow within the drainage feature in May of 2024. A defined channel with exposed substrate was not evident and there were areas where intermittent flow appeared to spread and be undefined. There was some ponding observed within the cultural meadow in the area of the eastern Subject Property boundary. The channel primarily consisted of dense, wet-meadow species within the property, with some areas of defined banks upstream and ill-defined, gradual banks east of the property, which in part appears to be a result of anthropogenic alteration. It is SLR’s understanding that this feature likely does not directly support fish habitat.

4.4.3.3 Drainage Feature B

A short, intermittent drainage feature found in the northwestern part of the Phase 1 lands follows local topography and presumably feeds two ponds on the western side of the golf course lands. The feature originates in the east from under the main Black Bear Ridge access road via a culvert (Figure 4 & 5). The drainage feature was noted as being constructed and consisted of rip-rap and meadow species throughout. No flow was observed during SLR’s June 2022 survey. This appears to be a man-made or altered feature as part of the golf course and irrigation ponds.

4.4.3.4 Drainage Feature C

An intermittent, drainage feature (originating from a constructed pond onsite; Figure 4 & 5) runs in an easterly direction, bisecting the Subject Property and ultimately draining onto the adjacent golf course lands (Trillium Woods Golf Course). SLR understands that this drainage feature was built under an agreement made between the previous landowner and the Trillium Woods landowner, to supply the adjacent owner during spring and fall freshet (Michalski Nielsen Associates Limited, 2004). The feature is characterized by its constructed banks (e.g., rip-rap) and is considered a replica of the “Swilken Birn” (MNAL, 2004). A series of water control structures and corrugated culverts are also present throughout the feature. Low to no flow was observed during the winter and summer months of 2022. Further surveys may be required to assess the feature’s functions in future development phases, particularly through the eastern portion that flows through the woodland where there is a more defined and naturalized channel.



4.4.3.5 Drainage Feature D

An intermittent, drainage feature exists in the northwest corner to direct water north toward Moira River from the unevaluated wetland along Homan Road (Figure 4 & 5). The drainage feature utilized a series of culverts and dug channels to direct flow under existing dirt laneways and through fragmented, treed areas. Banks of the feature, through the cultural communities, are relatively steep (0.5 m tall) and are largely vegetated with meadow species. Further surveys may be required to assess feature function in future development phases.

5.0 Significant Natural Heritage Features

Significant Natural Heritage Features on the Subject Property have largely been grouped into “Blocks” for the purposes of reference and discussion through the EIS (Figure 6). The use of “Block” mapping and descriptions is in our opinion useful for characterization of the different natural features within the property as the types of features and functions vary in relation to areas of protection, proposed development, and the different phases of the project. The extent of each Block was determined using several criteria including the degree of connection and type of natural heritage feature, historical disturbance, and the current development plan phasing for the Subject Property.

5.1 Species at Risk

The SCA provides protection for species listed as Endangered or Threatened in Ontario, including their habitat. Species of Special Concern and their habitats are no longer listed nor protected under the SCA. Additionally, migratory birds that are classified as extirpated, endangered, or threatened on the List of Wildlife Species at Risk under the federal SARA are no longer classified or protected under the provincial SCA (*though do receive protection under the MBCA*). However, federally listed Special Concern species, as well as those listed under COSSARO, have been included below as a conservative approach and for application within SLR’s Significant Wildlife Habitat assessment (section 5.2). A background review was completed for potential SAR habitat opportunities and was used as a foundation for SLR’s field investigations. The NHIC database and other relevant sources, including the MNAL (2004) report, were reviewed for SAR records.

The Subject Property was screened for potential SAR habitat opportunities by comparing habitat preferences of SAR species with records of local occurrences against current site conditions. This SAR habitat assessment can be found in Appendix E, providing a detailed description of each species’ habitat (including those deemed to not have potential habitat), as well as a discussion of habitat suitability within and surrounding the Subject Property, potential impacts, and mitigation, where applicable. Based on the rationale provided in Appendix E, habitat opportunities for the following 19 provincially or federally classified SAR were identified as potential, or confirmed, on the Subject Property:

Birds

- Barn Swallow (*Hirundo rustica*) – Special Concern (COSSARO), Threatened (SARA)
- Bobolink (*Dolichonyx oryzivorus*) – Threatened (COSSARO, SARA)
- Eastern Meadowlark (*Sturnella magna*) – Threatened (COSSARO, SARA)
- Eastern Wood Pewee (*Contopus virens*) – Special Concern (COSSARO, SARA)



- *Wood Thrush (Hylocichla mustelina)* - Special Concern (COSSARO), Threatened (SARA)

Herptiles

- Blanding's Turtle (*Emydoidea blandingii*) – Threatened (SCA, COSSARO, SARA)
- Eastern Musk Turtle (*Sternotherus odoratus*) – Special Concern (COSSARO, SARA)
- Northern Map Turtle (*Graptemys geographica*) – Special Concern (COSSARO, SARA)
- Snapping Turtle (*Chelydra serpentina*) – Special Concern (COSSARO, SARA)

Vascular Plants

- Black Ash (*Fraxinus nigra*) – Endangered (SCA, COSSARO)
- Butternut (*Juglans cinerea*) – Endangered (SCA, COSSARO, SARA)

Mammals

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

Other

- Monarch Butterfly (*Danaus plexippus*) – Special Concern (COSSARO, SARA)

Four SAR birds were confirmed to be breeding on the Subject Property (Bobolink, Eastern Meadowlark, Eastern Wood Pewee, and Wood Thrush) (Figure 4 & 5). Wood Thrush territories, however, were not present within the Phase 1 Lands. Barn Swallow were observed to be foraging on the Subject Property, but no nests were observed. Habitat associated with Bobolink and Eastern Meadowlark is currently proposed to be removed as part of the Phase 1 development. Critical habitat for Bobolink or Eastern Meadowlark does not appear to be present on the Subject Property however, consultation with SARA is recommended to ensure project compliance (Government of Canada, 2026). Impacts and mitigations for SAR birds recorded on the Subject Property are discussed in Sections 8 and 9.

There are large wetlands, constructed ponds, and the reach of Moira River within and adjacent to the Subject Property. Therefore, SAR herptiles, listed above, may be present in the local landscape in association with the Moira River and Foxboro PSW area. Species such as the Snapping Turtle, listed as Special Concern under both COSSARO and SARA, may find habitat opportunities associated with the wetlands along the Corbyville wetland and large bird sanctuary wetland. However, no direct or indirect (i.e., nesting, tracks) observations were made during SLR's field investigations. Suitable habitat is specifically present within the larger wetlands and constructed ponds of the Phase 1 Lands. Under the SCA, Special Concern species, including the Snapping Turtle, are no longer listed. Snapping Turtle is still recognized as Special Concern under COSSARO and SARA thus, is further discussed under Significant Wildlife Habitat.



Impacts and mitigations for potential SWH on the Subject Property are discussed in Sections 8 and 9.

Habitat for Black Ash and Butternut is present on the Subject Property. No direct observations of Black Ash have been recorded by SLR. Ideal habitat opportunities for this species would be associated with the Foxboro PSW, which is protected. One Butternut sapling was observed along the fringe of the Foxboro Swamp PSW along the northern edge of the Subject Property in 2022 (Figure 5). It is possible that more individuals exist within the Phase 1 Lands however, given the predominance of cultural communities throughout the Phase 1 Lands, it is less likely and none were observed during the many field surveys completed by SLR ecologists. No SAR trees or vascular plants have been identified within the Phase 1 Lands.

Suitable forest and treed habitat for SAR bats is present within the Subject Property including within the Phase 1 Lands (Figure 4). A snag tree survey was conducted for the Phase 1 treed areas on January 7, 2025 during leaf-off conditions. Several treed communities within the Subject Property were determined to be potential SAR bat habitat. Survey methods and findings of the snag tree survey can be found within Sections 3.3.5 and 4.3.3 of the EIS. Additional targeted surveys (e.g. acoustic monitoring) may be required within these communities to confirm SAR bat presence/absence. If required, the acoustic monitoring is proposed to be completed at a future date based on the timing of the approvals and advancement of site works. Registration and the development of a conservation plan may be required under the SCA if SAR bats are determined to be present. Furthermore, as the phases of development advance for Areas Outside Phase 1 Lands, further assessment of treed habitat for SAR bats will be required.

Currently, Monarch Butterfly is listed as a species of Special Concern under COSSARO and the federal SARA. The Monarch Butterfly is no longer listed under the SCA. Habitat for the Monarch butterfly is present throughout the Subject Property, specifically within meadow communities. A Monarch Butterfly was observed by SLR staff within the southern meadow communities of the Phase 1 Lands and is therefore discussed under Significant Wildlife Habitat.

Please note that the ESA was recently appealed and the new SCA is in force (Government of Ontario, 2025). Special Concern species and their habitat are not listed nor protected under the SCA however, are still listed under the provincial COSSARO and, where applicable, under SARA and will be discussed as Special Concern species under Section 5.2. In addition, all migratory birds (including those listed above) were removed from the SCA's PSOL and are instead subject to the federal SARA and the MBCA. It still remains the proponent's responsibility to ensure project compliance with any *Acts* in force at the time.

5.2 Significant Wildlife Habitat

Significant Wildlife Habitat (SWH) is considered a significant feature in Provincial, Regional, and Municipal (City of Belleville) policies. SWH types are defined by the MNR in the *Significant Wildlife Habitat Technical Guide* (Ontario Ministry of Natural Resources, 2000). The Natural Heritage Policies of the Provincial Policy Statement [Subsection 2.1.4 d)] identify five principal components of SWH as described in the *Technical Guide*. These are:

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



- Exceptions for Ecoregion 6E.

Criteria for the identification of these features are also provided in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (Ontario Ministry of Natural Resources and Forestry, 2015). These criteria were used to provide a screening for wildlife habitat within and immediately adjacent to the proposed development footprint, as detailed in Appendix F. SWH categories were classified as candidate or confirmed on the Subject Property. 'Candidate' meaning some/all criteria listed in the *Candidate* column of the Ecoregion 6E table were met; and 'Confirmed' meaning some/all criteria listed in the *Confirmed* column were met. The following SWH were identified as confirmed or candidate within the Subject Property:

Seasonal Concentration Areas of Animals

- Waterfowl Stopover and Staging Area (Aquatic): Confirmed
- Bat Maternity Colonies: Candidate
- Turtle Wintering Area: Candidate

Rare Vegetation Communities

- Old Growth Forest: Candidate

Specialized Habitat for Wildlife

- Woodland Raptor Nesting Habitat: Candidate
- Amphibian Breeding Habitat (Wetlands): Confirmed
- Woodland Area-Sensitive Bird Breeding Habitat: Confirmed

Habitat of Species of Conservation Concern

- Special Concern and Rare Wildlife Species: Confirmed

A Waterfowl Stopover and Staging Area (Aquatic) SWH (Figure 5) was originally identified through MNAL's *Environmental Impact Study* for the onsite Migratory Bird Sanctuary (Michalski Nielsen Associates Limited, 2004). As a conservative approach, it is assumed that this Sanctuary is still considered Confirmed SWH and is protected from the proposed development. Impacts and mitigation measures are discussed in Section 8 and 9.

Bat Maternity Colonies SWH may be present within the Subject Property, specifically within the existing large tracts of forest in the northern portion of the site. There are no forested ELC vegetation communities within the Phase 1 Lands that exceed the > 10 snags/ha Candidate SWH criteria. Thus, in accordance with the Ecoregion 6E guidelines, Bat Maternity Colonies SWH is not present within the proposed development limit of the Phase 1 Lands but may be present elsewhere on the Subject Property. Further surveys, as per applicable protocols of that time, in the northern development phases will be necessary as part of the future stages of the project.

Turtle Wintering Areas may be present within the Subject Property, specifically within the Moira River and the large, permanent wetlands (e.g., bird sanctuary wetland). The SWH criteria identifies that constructed ponds are not to be considered SWH. No direct or indirect observations have been made by SLR staff to date and thus, remains 'Candidate' for the Subject Property. Candidate SWH within Phase 1 Lands is only present within the bird sanctuary wetland.



Old Growth Forest SWH may be present within the Subject Property, specifically within the Foxboro Swamp PSW in the northeast and outside of the proposed development limits. In general, old growth forests are not common in Southern Ontario primarily due to extensive, historical logging and farming practices.

It is believed to be unlikely that this SWH is present on the Subject Property. Additionally, the Foxboro Swamp PSW is currently protected from the proposed development. The Foxboro Swamp community is considered 'Candidate' SWH. No old growth forests were observed within Phase 1 Lands or other forest communities in the other Phases of proposed development.

Woodland Raptor Nesting Habitat SWH is considered 'Candidate' due to potentially suitable habitat present within Foxboro Swamp, as well as single territories recorded for both Sharp-shinned Hawk and Broad-winged Hawk outside of Phase 1 Lands. At least one nest of the above species would be expected to be present on the Subject Property. SWH criteria was not met for Phase 1 Lands.

Breeding amphibian surveys, conducted by SLR staff in 2022 and 2023, indicated the presence of Amphibian Breeding Habitat (Wetlands) SWH within two of the constructed ponds on Phase 1 Lands, north and east of Corbyville PSW (one pond associated with Station 8 and one pond associated with Station 9, Figure 4 & 5). Low numbers of Northern Spring Peeper and Leopard Frog were recorded at Station 8. A chorus of Gray Treefrogs were recorded at both Station 8 and 9. The presence of Bullfrog at these locations meets the criteria for SWH. As per discussions with Dillon Consulting Ltd, Confirmed SWH within the constructed pond at Station 9 does not extend into the pond feature to the west due to i) lack of littoral vegetation and amphibian habitat availability and ii) no amphibian calls were recorded within the feature during SLR's 2022 and 2023 surveys. The remaining amphibian survey locations throughout the Subject Property did not meet the SWH criteria. Impacts and mitigations are discussed in Sections 8 and 9.

Woodland Area-Sensitive Bird Breeding Habitat SWH was confirmed on the Subject Property, in association with five woodland area-sensitive birds (based on Ecoregion 6E criteria) (Figure 4 & 5). Additional forest area-sensitive birds (OMNR, 2000) were observed by SLR. No habitat for this SWH category was observed within the Phase 1 Lands.

The following significant avian species were recorded within the Phase 1 Lands: Eastern Wood Pewee and Wood Thrush. These species previously were designated as Special Concern under the ESA, however since enactment of the new SCA they are no longer listed as provincially protected SAR. However, Eastern Wood Pewee and Wood Thrush are designated under the federal SARA as Special Concern and Threatened, respectively. These species are also both still classified as Special Concern by COSSARO. Being migratory species, they also receive federal protection under the MBCA. Given these current designations, and as SWH criteria has not been updated since the enactment of the SCA, these species have still been considered in the current SWH analysis. As such, Special Concern and Rare Wildlife Species SWH is considered present on the Subject Property; fourteen Eastern Wood-Pewee territories were recorded during SLR's breeding bird surveys, three of which are within Phase 1 Lands (Figure 4 & 5). However, it is SLR's opinion that none of the Eastern Wood-Pewee territories within Phase 1 Lands warrant SWH designation. This is due to the fact that two of the three occurrences of Eastern Wood-Pewee within Phase 1 Lands were within hedgerows (i.e., low quality relative to woodlands, which may be opportunistic use) and the third occurrence was observed within the protected Significant Woodland FOC2-2. Despite its Special Concern status, federally under SARA and designation by COSSARO, Eastern Wood-Pewee is considered relatively common throughout Southern Ontario.



Thus, SLR ecologists relied upon professional experience to determine SWH designation on the Subject Property, which considers habitat quality/type and numbers of breeding pairs. Six territories of Wood Thrush were recorded outside of the Phase 1 Lands. SWH designation for both Eastern Wood-Pewee and Wood Thrush species was confirmed in the Area Outside Phase 1 Lands. SWH for the Area Outside Phase 1 Lands will need to be reassessed as part of future development stages.

5.3 Significant Woodlands

The Subject Property supports several woodlands of varying sizes and community types. An assessment of significance for woodlands throughout the Subject Property has been completed. Woodlands in the Area Outside Phase 1 Lands will be subject to refinement in future development phases. The City of Belleville considers significant woodlands as part of their EP designation. Several larger woodland units (many are comprised of several individual ELC communities) have been grouped into 'Blocks' for this assessment (Figure 6) for the purposes of reference in this report. To assess whether these features may be considered significant, the policies outlined in the City's OP (3.4 and 3.5) and the *Natural Heritage Reference Manual* (Ontario Ministry of Natural Resources, 2010) have been reviewed. Note, several smaller woodland units and/or fragment woodlands also exist and will be discussed collectively below as *Other Woodlands* (Figure 6). Woodland fragments within the northwestern corner of the Subject Property (Block C) have been characterized and existing conditions reported but will not be assessed for significance as part of this EIS. These woodland fragments will be assessed for significance as part of a future design stage.

City of Belleville OP

As per the City's OP Section 3.5, significant woodlands are considered components of the EP designation. Lands that are included as part of the EP designation and which are mapped in the OP's Schedule A include "***significant woodlands that have a strong influence on the quality of the environment often providing significant wildlife habitat***". Though the City does not provide specific criteria for significant woodlands, it recognizes that the ecological functions, such as species composition and wildlife habitat, play an important role in designating a woodland as EP. In the absence of significant woodland-specific criteria provided by the City, guidelines within the *Natural Heritage Reference Manual* were used.

MNR's Natural Heritage Reference Manual

In the absence of specific woodland significance assessment criteria from the City's OP, the *Natural Heritage Reference Manual* (Ontario Ministry of Natural Resources, 2010) has been reviewed to provide further guidance in determining significant woodlands within the Subject Property. This document provides the Province's recommended technical criteria / approaches in protecting the natural heritage features in Ontario while being consistent with the PPS. These are provided for municipalities to use when they are developing municipally specific criteria for the identification of significant woodlands.

The recommended criteria / standards for the evaluation of significant woodlands are the following:

1. Woodland Size (based on the percent forest cover in the regional landscape or planning area, should account for landscape-level physiographic differences);
2. Ecological Functions (woodland interior, shape and proximity, linkages, water protection, woodland diversity);



3. Uncommon Characteristics (rare communities, unique species composition, quality, older woodlands); and
4. Economic and Social Values (high economic productivity and social value).

Based on the manual guidelines, woodlands that meet the standards for any one of the criteria listed above may be considered significant. For woodlands that do not meet the simple size criterion #1, other criteria (based on ecological functions and characteristics) can be considered.

For criteria #2-4, when the simple size criterion is not met, a range of size thresholds for significance is provided, where relevant. The following Table 5 provides the rationale in assessing the significance of each identified woodland feature within the Subject Property.



Table 5: Preliminary Significant Woodland Assessment Using Criteria Provided by the Natural Heritage Reference Manual (MNR, 2010)

Standards	Criteria Notes	Woodland Features that Meet Criteria & Rationale
1. Woodland Size Criteria		
Where woodlands cover: - Is less than 5% of the land cover, woodlands 2 ha in size or larger should be considered significant; - Is about 5-15% of the land cover, woodland 4 ha in size or larger should be considered significant; - Is about 15-30% of the land cover, woodlands 20 ha in size or larger should be considered significant; - Is about 30-60% of the land cover, woodlands 50 ha in size or larger should be considered significant; and - Occupies more than 60% of the land, a minimum size is not suggested, and other factors should be considered.	Woodland size is evaluated in the context of the percentage forest cover for the planning area (generally based on a municipal or watershed boundary). Through a general review within the City of Belleville boundaries, it was determined that the woodland cover is between 30-60%. A such, woodlands 50 ha or larger may be considered significant within the Subject Property.	Block A and Block B (Figure 6) are larger than 50 ha. Note, for the purpose of this significance assessment, the overall contiguity of the forest communities with adjacent treed swamp conditions should be considered. Woodlands outside of the Phase 1 Lands will be assessed further based on the assessment criteria at that time as development phases advance. Results will be provided as part of a separate EIS.
2. Ecological Functions Criteria		
a. Woodland Interior		
Woodlands should be considered significant if they have: Any interior habitat where woodlands cover less than 15% of the land cover. 2 ha or more of interior habitat where woodlands cover about 15-30% of the land cover 8 ha or more of interior habitat where woodlands cover about 30-60% of the land cover 20 ha or more of interior habitat where woodlands cover more than about 60% of the land cover	As woodland cover within the City was determined to be between 30-60%, woodlands with 8 ha or more of interior habitat would be considered significant within the Subject Property.	Similar to the size criterion above, the Block A, that is connected with the Foxboro PSW, and Block B have more than 8 ha of interior habitat (Figure 6). Woodlands outside of the Phase 1 Lands will be assessed further based on the assessment criteria at that time as development phases advance. Results will be provided as part of a separate EIS.
b. Proximity to other woodlands or other habitats		
Woodlands should be considered significant if: A portion of the woodland is located within a specified distance (e.g., 30 m) of a significant natural feature or fish habitat likely receiving ecological benefit from the woodland and the entire woodland meets the minimum area threshold (e.g., 0.5-20 ha, depending on circumstance)	The recommended woodland size range for this criterion is 0.5-20 ha. Given the City's woodland cover (30-60%), a higher threshold would be suitable for this planning area. As such, for determining the significance of woodlands for Criterion 2.b, an approximate 12-ha minimum area threshold has been applied within the Subject Property.	Block A is at least 12 ha and adjacent to fish habitat (Moirs River). Block B is at least 12 ha and is contiguous with two unevaluated wetlands (Figure 6). Woodlands outside of the Phase 1 Lands will be assessed further based on the assessment criteria at that time as development phases advance. Results will be provided as part of a separate EIS.
c. Linkages		
Woodlands should be considered significant if they: Are located within a defined natural heritage system or provide a connecting link between two other significant features, each of which is within a specific distance (e.g., 120 m) and meets minimum area thresholds (e.g., 1-20 ha, depending on circumstance)	The recommended woodland size range for this criterion is 1.0-20 ha. Given the City's woodland cover (30-60%), a higher threshold would be suitable for this planning area. As such, for determining the significance of woodlands for Criterion 2.c, a 12-ha minimum area threshold is applied within the Subject Property.	Block B is at least 12 ha in size and provides a link between two unevaluated wetlands. Woodlands outside of the Phase 1 Lands will be assessed further based on the assessment criteria at that time as development phases advance. Results will be provided as part of a separate EIS.
d. Water Protection		
Woodlands should be considered significant if they: Are located within a sensitive or threatened watershed or a specified distance (e.g., 50 m or top of valley bank if greater) of a sensitive groundwater discharge, sensitive recharge, sensitive headwater area, watercourse, or fish habitat and meet minimum area thresholds (e.g., 0.5-10 ha, depending on circumstance)	The recommended woodland size range for this criterion is 0.5-10 ha. Given the City's woodland cover (30-60%), a higher threshold would be suitable for this planning area. As such, for determining the significance of woodlands for Criterion 2.d, an 8-ha minimum area threshold is applied within the Subject Property.	Block A is at least 8 ha and is within 50 m of a watercourse and fish habitat (Figure 6). Woodlands outside of the Phase 1 Lands will be assessed further based on the assessment criteria at that time as development phases advance. Results will be provided as part of a separate EIS.



Standards	Criteria Notes	Woodland Features that Meet Criteria & Rationale
e. Woodland diversity		
Woodlands should be considered significant if they have: - A naturally occurring composition of native forest species that have declined significantly south and east of the Canadian Shield and meet minimum area thresholds (e.g., 1-20 ha, depending on circumstance) - A high native diversity through a combination of composition and terrain (e.g., a woodland extending from hilltop to valley bottom or to opposite slopes) and meet the minimum area thresholds (e.g., 2-20 ha, depending on circumstance)	The recommended woodland size range for this criterion is 1.0-20 ha. Given the City's woodland cover (30-60%), a higher threshold would be suitable for this planning area. As such, for determining the significance of woodlands for Criterion 2.e, a 12-ha minimum area threshold is applied within the Subject Property.	Block A and Block B are larger than 12 ha and have the potential to provide a high native diversity (Figure 6). These woodlands have a deciduous canopy cover composed of native species such as oak, ash, and maple. They were also noted to support an understory and groundcover, providing an opportunity for a diverse composition of shrubs and herbaceous species. However, Block B is noted to consist of dense pockets of Red and White Cedar with little to no diversity present (Figure 6). Further studies are needed in the future development phases (Area Outside Phase 1 Lands) in order to determine any potential high diversity within these communities. Results will be provided as part of a separate EIS.
3. Uncommon Characteristics Criteria		
Woodlands should be considered significant if they have: - A unique species composition or the site is represented by less than 5% overall in woodland area and meets minimum area thresholds (e.g., 0.5 ha, depending on circumstance) - A vegetation community with a provincial ranking of S1, S2, or S3 (as ranked by the NHIC and meet minimum area thresholds (e.g., 0.5 ha, depending on circumstance) - Habitat (e.g., with 10 individual stems or 100 m² of leaf coverage) of a rare, uncommon or restricted woodland plant species and meet minimum area thresholds (e.g., 0.5 ha, depending on circumstance): - Vascular plant species for which the NHIC's Southern Ontario Coefficient of Conservatism is 8,9, or 10. - Tree species of restricted distribution such as sassafras or rock elm - Species existing in only a limited number of sites within the planning area - Characteristics of older woodlands or woodlands with larger tree size structure in native species and meet minimum area thresholds (e.g., 1-10 ha, depending on circumstance): - Older woodlands could be defined as having 10 or more trees/ha greater than 100 years old - Larger tree size structure could be defined as 10 or more trees/ha at least 50 cm in diameter, or a basal area of 8 or more m²/ha in trees that are at least 40 cm in diameter.	The recommended woodland size range for this criterion is 0.5 ha (bullets 1-3) and 1.0-10 ha (bullet 4). Given the City's woodland cover (30-60%), a higher threshold would be suitable for this planning area. As such, for determining the significance of woodlands for Criterion 3, a 0.5 ha (bullets 1-3) and an 8-ha (bullet 4) minimum area threshold are applied within the Subject Property.	Bullets 1 and 2: There are no woodland features that have a unique species composition or have a ranking of S1-S3 within the Subject Property. Bullet 3: Potential All deciduous woodland features, in the Area Outside Phase 1 Lands, that are larger than 0.5 ha and have an understory may potentially support habitat of a rare, uncommon, or restricted woodland plants. Further studies in future development phases would be required to confirm this. No woodlands within the Phase 1 Lands meet this criterion. Bullet 4: Potential Future studies are required to determine older woodlands (larger than 8 ha) within the Area Outside Phase 1 Lands. No woodlands within the Phase 1 Lands meet this criterion. Results will be provided as part of a separate EIS.
4. Economic And Social Functional Values Criteria		
Woodlands should be considered significant if they have: - High productivity in terms of economically valuable products together with continuous native natural attributes and meet minimum area thresholds (e.g., 2-10 ha, depending on circumstance) - A high value in special services, such as air quality improvement or recreation at a sustainable level that compatible with long-term retention and meet minimum area thresholds (e.g., 0.2-10 ha, depending on circumstance) - Important identified appreciation, education, cultural, or historical value and meet minimum area thresholds (e.g., 0.2-10 ha, depending on circumstance)	The recommended woodland size range for this criterion is 2.0-10 ha. Given the City's woodland cover (30-60%), a higher threshold would be suitable for this planning area. As such, for determining the significance of woodlands for Criterion 4, an 8-ha minimum area threshold is applied within the Subject Property.	Block A and Block B are larger than 8 ha and they provide aesthetic value to the golf course resort; they currently do not provide a social functional value to a community. Woodlands outside of the Phase 1 Lands will be assessed based on the assessment criteria at that time as development phases advance. Results will be provided as part of a separate EIS.



A total of six Other Woodlands were identified on the Subject Property (within and adjacent to Block C, Block D and Block F), with three being within the Phase 1 Lands (Figure 6). These Other Woodlands did not meet the woodland size threshold indicated, despite some woodlands meeting other criteria (Table 5). For example, the *Other Woodland* in the northeastern corner of the Phase 1 Lands would meet the *Proximity to other woodlands or other habitats* criteria (i.e., 30 m from fish habitat) but does not meet the 12 ha size threshold.

In addition to the above, a previous application has been submitted for the Black Bear Ridge lands for a Zoning By-Law Amendment for various Residential Zones and Community Facility Zones, which included the woodlands in the northwest corner of the Subject Property (Block C) (Bousfield, 2003). The road network proposed in the northwest corner of the property within this application was started, resulting in the fragmentation of this tract of woodland. The initial construction of the road network included full tree removal, grubbing of stumps and in some areas the creation of a roadbed. The roadways have been maintained by mowing over the years and in most areas the road network functions as a distinct physical disconnection between the woodland blocks. These woodland edges largely consist of meadow and shrub species, some of which are non-native and/or invasive. These include European Buckthorn (*Rhamnus cathartica*), Multiflora Rose (*Rosa multiflora*), Tatarian Honeysuckle (*Lonicera tatarica*), Smooth Brome (*Bromus inermis*), Common St. John's-wort (*Hypericum perforatum*), Oxeye Daisy (*Leucanthemum vulgare*), Garden Bird's-foot trefoil (*Lotus corniculatus*), Yellow Sweet-clover (*Melilotus officinalis*), Wild Parsnip (*Pastinaca sativa*), and Tufted Vetch (*Vicia cracca*). Some areas are more represented by native species as well; however, there is no progression of woodland regeneration and the woodland edge areas continue to be characteristic of open meadow or thicket habitat. The woodland communities within Block C, *Woodlands to be Assessed at Future Design Stage* are expected to be assessed for significance as the phases of development in this area advances. Assessment of significance will be conducted subject to the evaluation criteria applicable at that time and outlined within a separate EIS.

5.4 Significant Wetlands

Several wetlands were identified and delineated by SLR staff within the Subject Property, including PSW complexes (Corbyville, Foxboro) and unevaluated wetlands. Within the Phase 1 Lands specifically, one PSW complex (Corbyville), one unevaluated wetland, and a Migratory Bird Sanctuary were identified. Wetlands associated with the Corbyville wetland adjacent to the Phase 1 lands were staked with the municipal's peer review ecologist.

5.4.1 Provincially Significant Wetlands

5.4.1.1 Foxboro Swamp PSW

The northeast deciduous swamp (SWD) is identified as part of the Foxboro Swamp PSW (Block A, Figure 6). The portion of this PSW within the Subject Property is approximately 63.4 ha in size and continues further east into adjacent lands along the southern edge of the Moira River. The vegetation community cover is comprised of mainly deciduous trees (maple sp.), with pockets of mixed and coniferous stands. The PSW area is topographically much lower than the adjacent upland forests to the south and lies within the floodplain of the Moira River. Initial hydrogeological studies conducted by SLR (2024) indicate that the hydroperiod of the Foxboro Swamp PSW is primarily controlled by surface runoff.

The boundaries of the Foxboro Swamp PSW will be further refined and described in future design stages where necessary based on proposed limits of development.



5.4.1.2 Corbyville PSW

The PSW in the southern portion of the Subject Property, adjacent to Harmony Road, is identified as part of the Corbyville PSW and separate from that of Foxboro Swamp (Block F, Figure 6). Drainage on the Subject Property roughly follows the topography of the landscape thus, elevational changes observed across site (i.e., drumlin features) allow for separate features in the north and south (Site Investigation Services Limited, 1999). This feature was identified as being a shrub swamp (SWT2) and cattail marsh (MAS2-1) during SLR's field investigations. A warm watercourse originates in the Migratory Bird Nesting Sanctuary on the Subject Property, flows in a southerly direction passing through a cattail marsh, the Corbyville PSW, and subsequently empties into a series of wetland depressions south of Harmony Road (MNAL, 2004; Site Investigation Services Limited, 1999). Additionally, a maple swamp community, a mapped component of the Corbyville PSW, encroaches within the additional lands of the Subject Property (449 Harmony Road). Initial hydrogeological studies conducted by SLR (2024) indicate that the hydroperiod of the Corbyville PSW is primarily controlled by surface runoff.

The Corbyville PSW meadow marsh (MAS2-1) feature was staked by SLR staff and the peer reviewer on May 28, 2024.

5.4.2 Unevaluated Wetlands

Wetlands in Ontario that have not been evaluated using the Ontario Wetland Evaluation System are classified as *unevaluated wetlands* (Figure 6). Several unevaluated wetlands were recorded within the Subject Property including areas of deciduous swamp (SWD), mixed swamp (SWM), and coniferous swamp (SWC), and shallow marsh (MAS2-1). Mapped unevaluated wetlands, such as the SWM and MAS2-1, were observed and refined in-field based on percent cover of wetland plants the OWES 50/50 rule.

In the Phase 1 Lands, unevaluated deciduous swamp (SWD), Reed Canarygrass meadow marsh (MAM2-2), and a Migratory Bird Sanctuary were observed. The unevaluated deciduous swamp adjacent to the proposed development, in the northwest portion of the Phase 1 lands, was staked by SLR staff and the peer reviewer on May 28, 2024 (Figure 6).

Other pockets of unevaluated wetland were identified on MNRF online mapping, however, from SLR's 2022, 2023, and 2024 surveys were confirmed to not be present (i.e., lack of wetland herbaceous and shrub cover).

All unevaluated wetlands within the Phase 1 Lands are protected from the proposed development.

5.4.3 Other Wetlands

A few *Other Wetlands*, within the Phase 1 Lands, were identified and delineated in the field by SLR staff (Block F, Figure 6). Other Wetlands included a Cattail mineral shallow marsh (MAS2-1) and Reed Canarygrass meadow marsh (MAM2-2) inclusions. The Cattail mineral shallow marsh and associated 30 m buffer are proposed to be protected from development. Both Reed Canarygrass inclusions are largely protected by the watercourse corridor 30 m buffer however, will likely require compensation measures and are further discussed in Section 9.



5.5 Surface Water Features

SLR's findings, as well as existing conditions from the 2003 summer and autumn field investigations (MNAL, 2003), are incorporated into this section.

All drainage features identified on the Subject Property were noted as intermittent by SLR staff. Little to no flow was observed within the features during the summer and winter months. All drainage features observed on the Subject Property are presumed to be man-made and/or previously altered by a previous owner for recreational purposes and/or future development (Figure 6). Quinte Conservation Authority confirmed with SLR staff that the drainage features on the Subject Property are not regulated (P. McCoy, Personal Communication, 2024). Each drainage feature has been assessed for Significance.

Intermittent Tributary

An intermittent tributary, in the southeastern portion of the Subject Property, originates in the Migratory Bird Sanctuary and flows south through Other Wetlands, online constructed ponds, and the Corbyville PSW prior to exiting under Harmony Road (Block F, Figure 6). Fish barriers (e.g., culverts, dam) are present within the watercourse and no flow was observed within the southerly reach of the watercourse (i.e., Corbyville PSW) in June 2022 and May 2024. Despite this, in the 2004 MNAL report, the watercourse was noted as a "fish-bearing water body"; it is SLR's opinion that this is still likely the case in its upper reaches, specifically for warmwater species. For these reasons, the intermittent tributary is considered Significant and will be retained and protected as part of the proposed development. A 30 m buffer has been applied to the watercourse riparian corridor and associated wetlands. Impacts and mitigations are discussed in Section 8 and 9.

Drainage Feature A

An intermittent drainage feature was observed originating from a constructed, online pond, transecting the southeastern cultural meadow and coniferous plantation communities of the Phase 1 Lands and exiting the Subject Property to the east (Figure 6). SLR did not observe any flow within the drainage feature in May of 2024. It is SLR's understanding that this feature does not directly support fish habitat. Thus, for these reasons the feature is not considered Significant. Impacts and mitigations are discussed in Section 8 and 9.

Drainage Feature B

A short, intermittent drainage feature follows local topography and is assumed to feed two ponds on the western side of the golf course lands, originating in the east under the main Black Bear Ridge access road via a culvert (Figure 6). No flow was observed during SLR's June 2022 survey. The intermittent and low flow nature of the feature indicates that fish habitat is unlikely to present however, may be present within the constructed pond downstream. Thus, for these reasons the feature is not considered Significant. Impacts and mitigations are discussed in Section 8 and 9.

Drainage Feature C

An intermittent, drainage feature (originating from a constructed pond onsite) runs in an easterly direction, bisecting the Subject Property and ultimately draining onto the adjacent golf course lands, Trillium Woods Golf Course (Figure 6). A series of water control structures and corrugated culverts, acting as potential fish barriers, are present throughout the channelized feature. Low to no flow was observed during the winter and summer months of 2022. Potential for indirect or direct fish habitat is present, as reported in MNAL (2004).



Further surveys will be required to assess feature function. Impacts and mitigations for this feature will be discussed in future development phases.

Drainage Feature D

An intermittent, drainage feature exists in the northwest corner to direct water north toward Moira River from the unevaluated wetland along Homan Road (Figure 6). The drainage feature utilized a series of culverts and dug channels to direct flow under existing dirt laneways and through fragmented, treed areas. Little to no flow was observed in June 2022. It is unlikely that this feature directly provides fish habitat however, the Moira River downstream is known fish habitat. The reach of drainage feature D immediately upstream of the Moira River will be protected through wetland setbacks. Further surveys may be required to assess feature function. Impacts and mitigations for this feature will be discussed in future development phases.

6.0 Constraints, Opportunities, and the Natural Heritage System

Table 6 outlines the proposed buffers for significant natural features found on the Subject Property, with a focus on the Phase 1 lands. Significant natural heritage features, and their associated buffers, for the Area Outside of Phase 1 Lands will require further assessment in future design stages.

Table 6: Required Buffers for Natural Heritage Features and Key Hydrological Features

Feature Type	City of Belleville OP	QC Policy Document	Buffers
<i>Wetland (Other, Unevaluated, Provincially Significant Wetland)</i>	30 m	For evaluated wetlands and wetlands greater than 2 hectares in size: 30 m Other wetlands and wetlands less than 2 hectares: 15 m	Proposed: 30 m Proposed: 15 m (eastern side of Corbyville PSW)
<i>Surface Water Features/Fish Habitat</i>	30 m from top of bank or seasonal high watermark (if floodplain mapping is unavailable)	If 1:100 yrs. floodplain is not known: 30 m (from high water mark)	Proposed: 30 m
<i>Floodplain</i>	NA	15 m	Proposed: 0 m <i>Development within a floodplain will require QC approval.</i>



Feature Type	City of Belleville OP	QC Policy Document	Buffers
<i>Significant Woodland</i>	The width of an ecologically appropriate buffer has been determined through this EIS based on the existing natural features and in accordance with Section 3.5.6 of the OP, and in accordance with Sections 4.1.5 and 4.1.8 of the PPS.	NA	Proposed: 10 m
<i>Significant Wildlife Habitat</i>	30 m from Habitat of Threatened or Endangered Species	NA	Proposed: varies depending on SWH.

Other Woodlands (Block D) and *Woodlands to be Assessed in Future Design Stages* (Block C), as discussed in Section 5.3 and identified on the Subject Property, will be required to undergo further assessment for significance and/or a no-negative impact test to inform future development phases. It is SLR's general opinion that the *Other Woodlands* may have the potential for low-density development, provided the proponent implements adequate compensation measures.

Significant Wildlife Habitat, associated with Habitat of Threatened and Endangered Species (Bobolink and Eastern Meadowlark), is currently proposed to be removed in Phase 1 Lands. Thus, no buffer is applied. Note that the *Species Conservation Act* is now in force. The timing of construction and related activities for the development will be subject to the legislation and regulations at the time. Changes include the removal of migratory SAR birds from the SCA, placing the required protections for these birds on the federal SARA and MBCA. The SARA protects the Critical Habitat areas for SAR species. At this time, Critical Habitat for Bobolink has not been identified in the project area (Government of Canada, 2026). Specific requirements under SARA will need to be confirmed and at a minimum, the proposed development activities must still conform to the "non-harassment" and "no disturbance of nesting sites" policies of the SARA. Therefore, at a minimum, the identified timing windows under the MBCA are to be respected.

The identification of natural heritage features, ecological linkages, and buffers facilitated the development of the Natural Heritage System (NHS) on the Subject Property (Figure 7). The NHS within the Phase 1 lands consists of:

- Significant Woodlands
- Significant Wetlands (PSW, unevaluated wetlands, Other Wetlands)
- Significant Wildlife Habitat
- Watercourses
- Fish habitat

The Natural Heritage System, within the Area Outside Phase 1 Lands, is subject to refinement through future development application phases.



7.0 Proposed Development

It is pertinent to note that the Subject Property previously underwent an extensive Draft Plan of Subdivision/Condominium and Zoning By-law Amendment submission process in 2003 for a proposed development on the Subject Property. Clearing activities to accommodate an extensive road network in the northwest corner of the Subject Property was completed in the early 2000s by the property's previous owner and has been maintained since (Figure 8).

The overall proposed development for the Subject Property including future Phases includes less than 2,000 dwelling units. The Municipal Zoning Order currently provides zoning approval for up to 3,049 dwelling units. It is anticipated that the proposed Structure Plan (see Appendix G) for the greater Subject Property will evolve as part of future development phases.

However, the proposed development for Phase 1 Lands is more defined and is discussed below in greater detail as part of the proposed Draft Plan of Subdivision and consent application (see Appendix G).

Within Phase 1 Lands, a wide range of housing types are proposed including low density residential (singles/semis), medium density residential (townhouses/clusters), and mixed nodes (towns/apartments/commercial) (Figure 8 and Appendix G). Multiple access points are proposed for the Phase 1 Lands via existing laneways (Golf Course entrance and Harmony Road). There is currently areas of parks & open space and two stormwater management ponds proposed throughout the Phase 1 Lands (Figure 8). A number of overland flow routes and culvert improvements are also proposed for the Phase 1 Lands.

The proposed Phase 1 development on the Subject Property primarily surrounds and is south of the existing golf course lands and constructed ponds and avoids natural heritage features and their buffers with some minor encroachments. It is noted that the proposed development of the Area Outside Phase 1 Lands is largely conceptual at this time and subject to refinement through future development phases. While subject to further assessment and refinement, encroachments into the NHS are proposed within the Area Outside of Phase 1 Lands, primarily associated with existing laneways and/or road development, including:

- Intersection of Homan Road and proposed roadway, along the northwestern edge of Block B;
- Immediately north and east of the golf course lands within Block A; and

These encroachments will require further assessment in future development stages, including a no-negative impact test and compensation measures for encroachment and/or removal if applicable. Potential enhancement areas within the Area Outside of Phase 1 Lands will be determined and discussed in future development phases. Portions of the floodplain (provided by QC) associated with Moira River are within areas proposed for development in future phases and will be subject to further review with QC.

In general, the proposed development within the Phase 1 Lands provides appropriate protection of the NHS and associated natural hazards (Figure 8). The Natural Heritage System abuts the westernmost development block to the north and south and is protected by appropriate buffers. The central development block adheres to the Corbyville PSW 30 m setback, as well as the Watercourse Riparian Area Corridor and Wetland 30 m setback (Figure 8). The southeast development block of the Phase 1 Lands will be accessed by Harmony Road and encroaches into two small wetland inclusions to the north, and slightly into the 30 m watercourse riparian corridor buffer (Intermittent Tributary).



Compensation measures for these wetland inclusions are detailed in Section 9. The southeast development block does not encroach into the Corbyville PSW (MAS2-1) feature. However, to meet the minimum required access roads to the proposed development (as per the City's traffic department), an emergency municipal right-of-way (ROW) is proposed along the existing gravel laneway east of the Corbyville PSW (Block F, Figure 8, Appendix H). The exact design details and the size and intent of the road would still need to be confirmed with the municipality. At this time, it is SLR's understanding that the municipal ROW will be gated to prevent public use and only accessed in case of emergencies, although this may change. Through the review process with Dillon Consulting Ltd, a 15 m setback from the PSW has been discussed, rather than 30 m, along the wetland feature's eastern edge. There are design and roadway functions and challenges to be further explored for determining the final design alternative. Considerations include use of the existing gravel laneway to reduce the overall disturbance to both the PSW and the constructed pond to the east.

The proposed emergency ROW would encroach into the 15 m PSW setback by a total of 1,165 m² (0.12 ha), with 420 m² (0.04 ha) being the existing gravel laneway. A total encroachment of 372 m² (0.37 ha) (of which, 114 m² is outside of the 15 m PSW setback) is proposed within the adjacent constructed pond to the east to allow for infilling (Appendix H). The Corbyville PSW will be retained and protected, and road upgrading will be directed into the existing constructed pond to the east. It should be noted that the constructed pond is presumed fish habitat and will largely be retained, but requirements under the *Fisheries Act* will need to be addressed. In-water works would also be expected for the Intermittent Tributary (hydrological connection) and associated pond. Exact ROW specifications and compensation requirements will be provided at detailed design and following the completion of future studies. Consultation with the DFO and the MNR will be required.

Natural heritage features within the Subject Property are largely protected from the proposed development. All Significant Woodland features have an applied buffer (10 m) and are protected from the proposed development in the Phase 1 Lands. Some vegetation and treed communities (e.g., hedgerows, woodland areas) are proposed for removal (Figure 8). This includes the removal of 16.3 ha of federally Endangered Bobolink and Eastern Meadowlark habitat, which will be subject to the SARA and MBCA, as applicable.

8.0 Impact Assessment

Based on this assessment, a management strategy has been developed that includes measures for the protection, mitigation, and enhancement of the environmental conditions of the Subject Property.

Due to the range of processes that influence site conditions, the following components were considered as part of the management strategy:

- SWM measures for the maintenance and protection of flow regime conditions, which include baseflow, and management of water quality quantity.
- The protection of terrestrial features with an approach that identifies opportunities for preservation, restoration, and enhancement of the existing environmental conditions.
- The preservation and enhancement of linkages to ensure that a sustainable natural heritage system is maintained.
- The protection of watercourse corridors for aquatic habitat, hydrologic processes, and water quality.



- The identification of rehabilitation opportunities to maintain and improve ecological conditions on the Subject Property.

Potential impacts of the proposed development on the Subject Property can be divided generally into two types: those primarily associated with the construction phase and those that are permanent. Many of these impacts can be mitigated – these details are discussed in the next section. Some mitigation measures may lead to overall enhancements.

Permanent potential or actual impacts include:

- Removal of natural vegetation and associated wildlife habitat;
- Removal or impacts to Species at Risk habitat;
- Removal or impacts to Significant Wildlife Habitat;
- Impacts to wetlands and existing watercourse through changes in water inputs;
- Impacts to water quality through for example soil erosion, removal of vegetation etc.; and,
- Reduction in wildlife connectivity.

Construction related impacts include:

- Potential for erosion and loss of soils; and
- Disturbance to wildlife (i.e., birds, bats, herptiles).

8.1 Area Outside Phase 1 Lands

A general impact assessment has been summarized for the Area Outside Phase 1 Lands, with a more detailed assessment for Phase 1 Lands provided in Section 8.2. Based on the general Structure Plan as provided in Appendix G for the overall proposed land use scenario, the ecological and associated hydrological conditions are to be maintained to the extent possible recognizing that within the current MZO there are existing and permitted uses. Consideration must be given to the terrestrial, wetland, and aquatic conditions (and associated management requirements) to manage for the preservation and enhancement of the key natural heritage features and functions.

Prescriptive buffers have been applied to the natural heritage and hydrologic features identified within the Subject Property, as outlined in Section 6 (Figure 8). Section 9 describes the mitigation and enhancement recommendations for these features.

A No-negative Impact Test will be performed for the *Other Woodlands* throughout the Area Outside Phase 1 Lands in future development phases to determine development potential. An assessment of significance for the *Woodlands to be Assessed in Future Design Stage* will also be completed as part of future development phases. A detailed impact assessment for the Area Outside Phase 1 Lands and determination of the final limits of development will be provided in future development phases once the development plans and designs are further detailed.



8.2 Phase 1 Lands

8.2.1 Natural Habitat and Vegetation Removal

While no identified significant natural feature areas will be removed within the Phase 1 Lands, through the proposed development, some vegetation and tree removal will occur (Figure 8). This will consist of the removal of agricultural lands, 'cultural' vegetation communities, and some *Other Woodlands*. Most of the proposed development will occur in pre-existing agricultural lands and 'anthropogenic' areas (i.e., mowed lawn). A total of 25.1 ha of vegetation (e.g., scattered trees, hedgerows, herbaceous plants) is expected to be removed within the Phase 1 Lands. The following cultural and treed community types will be removed:

- Mixed Forest
- Cultural Woodland/Cultural Thicket
- Cultural Meadow
- Coniferous Plantation
- Hedgerows (HR)

Restoration and enhancement opportunities are discussed in Section 9.1.3 and 9.3.

8.2.2 Species at Risk

As noted in Section 4.3, there were four breeding avian SAR (under COSSARO, SARA) observed on the Subject Property. One Barn Swallow was observed foraging on the Subject Property but was thought not to be breeding, as no nests were observed. Wood Thrush (four territories) was not recorded within Phase 1 Lands. Three Special Concern Eastern Wood-Pewee territories were recorded in the Phase 1 Lands. One territory, identified within the central hedgerow community, is proposed for removal (Figure 8). The two remaining territories will remain as part of the proposed development. Migratory birds that are classified as extirpated, endangered, threatened, or special concern on the List of Wildlife Species at Risk under the federal SARA are no longer classified or protected under the provincial SCA. Species that receive protection under the SCA are identified on the *Protected Species in Ontario List, O Reg 60/26*. Migratory SAR birds are still classified under the provincial COSSARO. It should be further noted that migratory bird species including their nests and eggs also receive protection through the MBCA. General mitigation measures for breeding bird habitat are provided in Section 9.

Most of the Bobolink (one territory) and Eastern Meadowlark (three territories) habitat present on the Subject Property will be affected by the proposed Phase 1 development plan. Currently, the removal of 16.3 ha of federally Endangered Bobolink and Eastern Meadowlark habitat is proposed. Critical habitat as mapped by federal sources is not within Phase 1 Lands for either species however, timing windows for vegetation removals will apply. Any potential requirements specifically under the SARA will need to be further determined prior to disturbance of their habitat. Consultation with SARA is recommended to ensure ongoing compliance.

No Species at Risk turtle species has been recorded within the Phase 1 Lands by SLR, however, potential habitat is present within the constructed ponds. The majority of the constructed ponds are currently proposed to be retained. Mitigation and enhancement measures are provided in Section 9.

No Species at Risk vascular plants or trees have been found within the Phase 1 Lands to date.



Potential SAR bat habitat occurs in the Phase 1 Lands in the form of hedgerows and woodlands as discussed above. However, it should be noted that habitat is generally limited within the Phase 1 Lands compared to that of nearby areas (e.g., Foxboro Swamp) consisting of large tracts of contiguous forest. Tree removal is proposed for the Phase 1 Lands; thus a snag survey was conducted on January 7, 2025 for trees within and adjacent to the development limit. Additional targeted surveys (e.g., acoustic monitoring) may be required to confirm SAR bat presence/absence.

Under the SCA, acoustic surveys may be required prior to detailed design and activity commencement. Registration and the development of a conservation plan, or alternatively the obtainment of a permit, under the SCA may be required if SAR bats are confirmed to be present. SLR's findings will be documented in a technical memo and provided to the municipality.

If the mitigation measures provided in Section 9 are implemented, negative impacts as a result of development are expected to be minimized.

8.2.3 Significant Wildlife Habitat

Table 7 lists candidate or confirmed SWH within the Phase 1 Lands and whether impacts and mitigation measures are required. Additional details on the location of each was given in Section 5.2. Impacts of SWH present in the Area Outside Phase 1 Lands will be discussed in future development phases.

Table 7: Impacts to Significant Wildlife Habitat (Phase 1 Lands)

SWH Category	Confirmed, Candidate	Impacts Anticipated
Waterfowl Stopover and Staging Area (Aquatic)	Confirmed	None, as the Migratory Bird Sanctuary and its associated buffer (30 m) will be retained.
Turtle Wintering Area	Candidate	Minimal impacts expected as the Migratory Bird Sanctuary and large MAS2-1 communities will be retained, and site conditions will continue to provide habitat opportunities within the local landscape.
Amphibian Breeding Habitat (Wetlands)	Confirmed	Limited alteration of habitat at Breeding Amphibian Station #8 is proposed to accommodate residential lots. Limited alteration of habitat at Station #9 may be required to accommodate the upgrade of an existing gravel driveway. Residential development typically impacts Bullfrog habitat through removal of deep water, shoreline vegetation, and the increase of contamination and human/pet predation (Ministry of Natural Resources and Forestry, 2014). If the mitigation measures discussed in Section 9.5 are implemented, it is SLR's opinion that negative impacts would be minimal and that habitat should persist in these ponds and adjacent ponds. Protection of the water quality will be necessary as part of the works within the edge of the pond. Some enhancement and restoration may be required



8.2.4 Surface Water Features

8.2.4.1 Intermittent Tributary

The intermittent tributary feature, riparian area, and associated wetlands will be retained and protected from the proposed development with a 30 m buffer (Figure 8). However, as mentioned in Section 7, in-water works may be required to accommodate the upgrade of an existing municipal right of way through the riparian corridor. It is SLR's understanding that this municipal right of way would be designated for emergency use only therefore limiting the known indirect impacts (e.g., contaminant runoff, noise, roadkill) of roadways.

The intermittent tributary and associated constructed ponds are presumed fish and known amphibian habitat. If the mitigation measures discussed in Section 9.2 are implemented, it is SLR's opinion that negative impacts to the intermittent tributary feature would be minimal and largely temporary due to construction works. Mitigation measures are discussed in Section 9.2. DFO and MNR consultation will be required as part of this process.

Drainage Feature A

Realignment and partial piping of Drainage Feature A is currently proposed as part of the development of Phase 1 Lands (Figure 8). However, the constructed pond upstream of the feature will be retained as part of the intermittent tributary's 30 m buffer (Section 8.2.4.1). Drainage Feature A is not considered fish habitat and has been heavily altered from past human disturbance (e.g., clearing, channelized). Riparian vegetation consists of common and/or non-native species. Minimal impacts are anticipated from the proposed alteration. Mitigation measures are discussed in Section 9.2.

8.2.4.2 Drainage Feature B

Removal of Drainage Feature B is currently proposed to support road works associated with the Phase 1 Lands (Figure 8). Given the limited extent and ecological function of the feature, and disturbed nature of adjacent lands, removal of the feature is not expected to result in substantial negative impacts, with the goal of maintaining hydrological contribution and water quality to down gradient features. Mitigation measures are discussed in Section 9.2.

9.0 Mitigation Measures

General mitigation measures for the Subject Property are provided in Section 9.1 below. A more detailed mitigation strategy for the Phase 1 Lands is provided in Section 9.2 through 9.6.

9.1 General Mitigation

9.1.1 Timing Windows

In order to avoid and mitigate impacts to breeding birds and ensure compliance with the MBCA, removal of vegetation should be completed outside of the breeding bird season (April 1 – August 31; note, the bat maternity roosting tree clearing window is more conservative). It is the proponent's responsibility to ensure that the works conform to the *Migratory Bird Convention Act*, *Species Conservation Act*, as well as the federal *Species at Risk Act* in that no migratory bird(s) or SAR species will be harassed, harmed, killed nor will nests or habitats be destroyed by the proposed work.



No avoidance window absolves the proponent or their contractors from contravening the MBCA, SCA, or SARA. Contravention can occur if vegetation removal and construction activities take place during sensitive timing periods for wildlife. 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 & ECCC (SAR)) consulted for advice. To avoid impacts to SAR birds, all tree removals should be completed outside the breeding bird and bat maternity roost seasons and high activity period as indicated below (Ministry of Natural Resources, 1984; Ministry of Environment, Conservation and Parks, personal communication, May 13, 2021).

An additional sensitive timing window, during which all tree removal should be avoided, is the maternity roosting and/or active period for SAR bats (March 15 to November 30). Acoustic surveys for the Phase 1 Lands will be conducted at detailed design, with the results provided as part of a technical memo. If SAR bats are confirmed to be present, registration and a conservation plan, or alternatively obtainment of a permit, may be required under the SCA. SAR bat assessments for woodlands outside of the Phase 1 Lands will be conducted as part of a separate EIS process.

9.1.2 Erosion and Sediment Control

The following erosion and sediment control recommendations are provided for incorporation into the final Erosion and Sediment Control Plan:

- To minimize the potential for erosion and off-site transport of sediment into surface drainage areas and the natural environment, the project will implement Best Practices related to ESC. ESC measures used by the contractor on all construction should meet guidelines as outlined in Erosion and Sediment Control Guideline for Urban Construction (2006) prepared by the Greater Golden Horseshoe Area Conservation Authorities (GGHACA), or equivalent standards.
- ESC measures should be installed prior to beginning work and maintained in working order throughout all stages of the proposed construction activities and remain in place until the buffer and enhancement plantings have been completed.
- All exposed and newly constructed surfaces should be stabilized using appropriate means in accordance with the characteristics of the exposed soils. These surfaces should be fully stabilized and re-vegetated as quickly as possible following the completion of the works, with native vegetation ground cover. Revegetation and sodding recommendations would include use of appropriate seed mixes.
- No sediment, sediment-laden water or deleterious substances are to be discharged into existing natural ponds, wetlands or watercourses at any time.
- All ESC measures will be inspected daily including after every rainfall, cleaned, maintained and/or adjusted accordingly to ensure sediment does not enter wetland/watercourse features at any time.
- No machinery or equipment will be maintained or refueled within 30 m of the wetlands/watercourse/pond features.



9.1.3 Vegetation Protection Zones and Tree Removals

As outlined in Section 6 above, prescriptive buffers have been applied to the natural heritage features and hydrologic features (i.e., significant woodlands, PSWs, unevaluated wetlands, other wetlands, watercourses) identified within the Subject Property (Figure 8). Restoration and enhancement of these applied buffers is discussed in Section 9.3.

Two small Reed Canarygrass inclusions, north and west of the 2.5 ha coniferous plantation (CUP3) community of the Phase 1 Lands (in the southeast area), do not have an applied buffer from the proposed development. The west inclusion sits within the watercourse 30 m buffer however, the north inclusion partially encroaches into the proposed development limit. It is SLR's opinion that the relative size and low floristic diversity of these communities make them ideal candidates for restoration and enhancement opportunities elsewhere on the Subject Property.

To meet the minimum required access roads to the proposed development (as per the City's traffic department), an emergency municipal ROW is proposed along the existing gravel laneway east of the Corbyville PSW (Block F, Figure 8). It is SLR's understanding that the municipal ROW will be gated to prevent public use and only accessed in case of emergencies. In consultation with Dillon Consulting Ltd, a 15 m setback from the PSW, rather than 30 m, is proposed along the feature's eastern edge. A 30 m setback will be otherwise maintained for the feature. Encroachment into the 15 m PSW setback is proposed to accommodate the municipal ROW and will be compensated for at a 1:1 ratio. Through further discussion with the municipality regarding road requirements and the detailed design process, the size and location of the footprint for the road will be determined, in consultation with the applicable agencies.

Where applicable, compensation for tree removal will be determined in consultation with the City of Belleville and its Tree Canopy and Natural Vegetation Policy (2019). The 2019 policy report mandates the protection and enhancement of canopy cover within the municipality, where applicable, with a 1:1 tree replacement ratio for tree removal on Municipal lands. However, the municipality has stated that this would also be applicable to development on private lands. A tree replacement ratio was not provided for the removal of trees on privately owned lands in the City's document. Section 3.1 of the City's Draft - Proposed Tree Cutting By-Law (2015) states the by-law does not apply to lands outside of the "urban serviced area" delineated on Schedule B of the City's Official Plan. A Landscape Plan for the development of Phase 1 Lands will be provided in future design stages. In general, restoration of vegetation protection zones for natural features should consist of hardy, native plantings. Additional recommendations are provided in Section 9.3.

9.1.4 Future Studies: Municipal Right-of-Way

A detailed impact assessment and mitigation strategy cannot be developed for the proposed emergency municipal ROW within Phase 1 Lands without the confirmation of a more specific design, at which time it is expected that the completion of additional studies specific to the roadway would be required. The scope of these studies will be conditions of draft plan and consent application approval and may include the following:

- A fish habitat assessment and fish community sampling within the online/constructed pond;
- A DFO Request for Review and subsequent consultation to attain necessary approvals;
- Wildlife salvage activities prior to the proposed construction;



- The development of an Erosion and Sediment Control Plan;
- The development of an Invasive Species Management Plan;
- Consideration for terrestrial and aquatic wildlife passage in the proposed culvert design (e.g., openness ratio), as well as for other opportunities to enhance/create wildlife habitat;
- The development of a Planting Plan for the chosen enhancement areas;
- Review of the detailed design to ensure that hydrological inputs between the pond and the wetland are being maintained and water quality is meeting applicable standards; and,
- Potential monitoring.

A number of mitigation strategies may be necessary to implement as part of the construction phase for the municipal ROW. These may include, but are not limited to, wildlife exclusion fencing, timing windows for vegetation removal and in-water works, ESC measures, and onsite supervision by a qualified person (e.g., ecologist).

Restoration or enhancement areas may be suitable along the Corbyville Wetland PSW (variable setback) and/or in and adjacent to existing wetland habitats on the Subject Property. These proposed enhancement areas would be subject to agency consultation.

9.2 Management of Surface Water Features

9.2.1 Intermittent Tributary

The watercourse identified within the Phase 1 Lands, and its associated 30 m buffer, is to be protected from the proposed development with the exception of potential road construction works along an existing municipal right of way. If road works are deemed necessary, consultation with DFO and MNRF would be required. It is expected that additional permitting, timing windows for in-water works, and erosion and sediment control and stormwater management measures will be required. Additional compensation and/or restoration measures may be requested. Mitigations for online constructed pond alteration associated with road works are discussed in Section 9.5. Enhancement of the watercourse buffer is recommended through the application of native seed mixes and tree plantings.

9.2.2 Drainage Feature A

Hydrological flow contributions from Drainage Feature A will be maintained as part of the proposed development via vegetated swales through proposed Open Space blocks and underground piping through residential lots. Water quality will also need to be maintained during and post-construction. See Section 9.3 for restoration and enhancement recommendations. Specifications will be provided at detailed design.

9.2.3 Drainage Feature B

Flow from Drainage Feature B is expected to be maintained as part of the proposed development. It is SLR's understanding this feature will be piped to accommodate the proposed roadway. Erosion and sediment control, as well as stormwater management, techniques will be employed to minimize impacts to, and maintain water quality and quantity of, the retained constructed ponds. Specifications will be provided at detailed design.



9.3 Restoration and Enhancement

The proposed mitigation plan also proposes to provide enhancement/re-vegetation of VPZ areas to augment the existing natural areas and ecological functions. Enhancement in the buffer areas will include varying densities of tree and shrub plantings along with restoration preparation and seeding with appropriate native species so that the area will support natural self-sustaining vegetation. Enhancing buffers (plantings) is an approach that provides for the early establishment of vegetation and habitat opportunities for many species. To support the enhancement of the buffers and achieve the intended ecological functions, the following approaches are proposed to be implemented as part of the development:

- Develop a setback planting plan and management/monitoring requirements in consultation with the relevant agencies.
- Where required, remove soil compaction and enrich soils with organics (e.g., compost/mulch).
- Implement a plan for the management of invasive species.
- Complete the vegetation planting as early as possible and establish a barrier and sediment/erosion control fencing between the development.
- Installation of fencing along buffers.
- Continued management and monitoring.

Woody species present in the region, and not highly disease susceptible, should be used for restoration purposes; some examples are:

- Eastern White Pine (*Pinus strobus*)
- Red or Silver Maple (*Acer rubrum* or *saccharinum*)
- Bitternut or Shagbark Hickory (*Carya cordiformis* or *ovata*)
- American Beech (*Fagus grandifolia*)
- Trembling Aspen (*Populus tremuloides*)
- White, Red or Swamp White, Bur or Pin Oaks (*Quercus alba*, *rubra*, *bicolor*, *macrocarpa* or *palustris*)
- American Basswood (*Tilia americana*)
- Grey or Red-osier Dogwood (*Cornus racemosa* or *sericea*)
- Blue-beech (*Carpinus caroliniana*)
- Chokecherry (*Prunus virginiana*)

The watercourse (and its 30 m setback) that flows through the Corbyville PSW and the Migratory Bird Sanctuary within the Phase 1 Lands is an ideal candidate for restoration measures. The establishment of supplemental native riparian plantings are recommended methods to enhance the ecological function of the feature.

A detailed restoration and enhancement plan is recommended to be developed in consultation with relevant agencies (i.e., QC, City of Belleville) as part of the site plan and permitting process.



9.3.1 Tree Replacement

The City's *Tree Canopy and Natural Vegetation Policy* (2019) is a guideline that is primarily applicable to Municipal-owned lands and areas identified with the City's OP. However, following comments received from the City and Dillon Consulting Ltd, the guideline can also be referenced for development on private property (City of Belleville, personal communication, November 6, 2025).

In general, the City expects that the relative tree canopy cover should be maintained and/or enhanced (City of Belleville, 2019). SLR is of the opinion that this will require further discussion to determine a feasible and reasonable approach. When required, tree pruning and maintenance should be performed following applicable standards. In general, tree removals should be avoided wherever possible. The City aims for one tree to be planted per one, new building lot or house built as a subdivision agreement. Compensation for tree removals will be required as part of the proposed development of Phase 1 Lands.

Consultation with the City of Belleville as well as reference to the City's *Tree Canopy and Natural Vegetation Policy* will help to inform tree compensation as a result of tree removals proposed within Phase 1 Lands. A detailed landscape/restoration plan, including tree replacement requirements, will be provided at detailed design.

9.4 Species at Risk

Bobolink and Eastern Meadowlark are both a Threatened grassland species, listed under both COSSARO and SARA. A Bobolink territory was observed in the hayfields west of the snowmobile trail and an estimated three Eastern Meadowlark territories in the meadow north of Corbyville PSW and in the lands west of the snowmobile trail, within the Phase 1 Lands (Figure 5). Section 9.1.1 provides guidance on the requirements for the project of SAR bird and bird habitat removal.

Additionally, there are opportunities to develop appropriate replacement bat habitat in restored natural feature buffers if SAR bats are determined to be present. Restoration planning details for the development of these habitats, if required, will be provided at detailed design. It may be helpful to re-survey the field a year prior to vegetation removal in order to i) determine if the species is still present (which may or may not affect vegetation removal timing windows) and ii) precisely determine the area of habitat to be removed.

Eastern Wood Pewee is not listed nor protected under the SCA however, is listed as Special Concern under both COSSARO and the SARA and is protected by the MBCA. Section 9.1.1 provides guidance regarding mitigative measures associated with migratory birds and removal of habitat.

Erosion and sediment control measures should be taken to ensure protection of potential SAR herptile habitat (section 9.1.2).

Potential SAR bat habitat may occur in the woodlands, and hedgerows within the Phase 1 Lands however, suitable habitat is considered minimal and of lesser quality relative to potential habitat in the Area Outside of Phase 1 Lands (e.g., Foxboro Swamp). In addition, higher quality potential bat habitat (e.g., maple swamp) present within the Phase 1 Lands will be retained as part of the proposed development.



9.5 Significant Wildlife Habitat

Table 7 in Section 8.2.3 outlines the anticipated impacts and mitigations for associated Significant Wildlife Habitat present, or potentially present, within the Phase 1 Lands.

For Waterfowl Stopover and Staging Area (Aquatic) Confirmed SWH on the Subject Property, a prescriptive buffer of 30 m, erosion and sediment control measures, and enhancement efforts are recommended to minimize negative impacts associated with the proposed development.

Turtle Wintering Area SWH is potentially present within Phase 1 Lands (and within the greater Subject Property); however, no evidence has been observed by SLR to date. Currently, Candidate Habitat for turtle wintering in Phase 1 Lands (i.e., Migratory Bird Sanctuary) is proposed to be retained. A prescriptive buffer of mostly 30 m has been applied to Significant Wetlands within Phase 1 Lands. Additionally, erosion and sediment control measures and riparian enhancement efforts are recommended to minimize negative impacts associated with the proposed development to SWH areas (i.e., at the north end of the southern residential development area).

Amphibian Breeding Habitat (Wetlands) SWH was confirmed within two constructed ponds (ponds below Station #8 and #9) of the Phase 1 Lands. The Bullfrog requires deep, permanent water with emerging plants to support spawning and hibernation (Ministry of Natural Resources and Forestry, 2014). Limited encroachment into Station #8 pond is proposed to accommodate residential lots; deep, permanent water is expected to be sustained within the Station #8 pond. Encroachment into the Station #9 pond may be required for upgrading works along an existing gravel laneway to the west. Similar to the Station #8 pond, deep, permanent water is expected to be sustained as part of the road works. The naturalized and complex state of the ponds (e.g., floating logs, boulders, abundant aquatic vegetation) are recommended to be maintained. It is recommended that erosion and sediment control and stormwater management measures, as well as timing windows for in-water works, be carefully implemented to maintain the quality of existing Bullfrog habitat. Riparian enhancement efforts are recommended to minimize negative impacts associated with the north side of the southern proposed development.

9.6 Water Servicing and Stormwater Management

As detailed within the *Functional Servicing Report* prepared by Jewell Engineering (2025), a detailed water servicing concept has been proposed that addresses both quantity and quality controls required to meet all design criteria. A general assessment was completed for the Area Outside Phase 1 Lands. It is anticipated that the recommended servicing and stormwater management plans are feasible, provided no major challenges arise in the detailed design stage.

The Subject Property will be municipally serviced via a 400 millimeter feeder watermain extended from existing infrastructure on River Road, approximately 3 km to the south of property limits. This feeder main will connect to an elevated water storage tank near the onsite, existing clubhouse. A booster station will also be required to provide adequate supply for the proposed development.

Sanitary servicing for the Subject Property will consist of both gravity sewers and lift stations. Four lift stations are proposed to discharge to a central lift station located near the current golf course entrance and Harmony Road. This central life station will subsequently contribute to a new central lift station proposed at the intersection of Cannifton Road and River Road.



Drainage boundaries have been established to estimate flows to the proposed drainage collection system for the site in order to develop a comprehensive drainage and stormwater management plan for the proposed development. The Subject Property has been divided into five stormwater management zones with varying controls in place. Quality treatment, in all zones, is provided prior to the discharging of stormwater into the natural environment. The overall quality target for the Subject Property is *Enhanced*.

Phase 1 Lands is made up of two zones, Zone 1 and Zone 2. Stormwater ponds (for a total of 2400 m²) are proposed in the former zone and culvert improvements within the latter. Culvert improvements of Zone 2 may result in a permanent 5 centimeter increase in the adjacent wetland water level however, a subdrain may help to offset this change. Provided that the permanent increase will not be significantly greater than 5 cm and there will be no impacts to water quality, it is anticipated that the functions of the wetland feature will be maintained. Overland flow routes have also been established for both zones of the Phase 1 Lands.

10.0 Policy Conformity – Phase 1 Lands

A policy conformity discussion has been provided and this section must be read and considered in recognition of the existing MZO which has permitted and zoned uses through much of the Subject Property. Table 8 below summaries applicable natural heritage policies and the manner in which the proposed development plan of the Phase 1 Lands meets their requirements and to the extent possible in the context of an existing MZO.

Table 8: Natural Heritage Policy Conformity – Phase 1 Lands

Policy Document	Policy Intent/Objective	Implications and Policy Conformity
Provincial Planning Statement	The Provincial Planning Statement (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). Section 4.1 of the PPS defines ten natural heritage features (NHF) and adjacent lands and provides planning policies for each.	Within the Phase 1 Lands, the following PPS natural heritage features have been identified: • Significant Woodlands • Confirmed Significant Wildlife Habitat • Significant Wetlands • Habitat of Threatened and Endangered Species • Fish Habitat Negligible impacts are anticipated to the functions of these features. Minor encroachments are proposed within fish habitat, Confirmed SWH (Amphibian Breeding), and within the buffer of a Significant Wetland to accommodate an emergency-only access road. Threatened and Endangered species are protected through the SCA and/or SARA.



Policy Document	Policy Intent/Objective	Implications and Policy Conformity
City of Belleville Official Plan	To ensure proper land-use planning and the protection of environmental and physical resources within the City.	Within Phase 1 Lands, and with the exception of two small wetland inclusions proposed for removal, the following City features are present and protected through proposed plan: • Natural Hazard Lands • Wetlands • Confirmed Significant Wildlife Habitat • Significant Woodlands • Streams and Fish Habitat. Minor encroachments are proposed within streams/fish habitat, Confirmed SWH (Amphibian Breeding), and within the buffer of a Significant Wetland to accommodate an emergency-only access road. Habitat of Endangered and Threatened Species is covered through the SCA and/or SARA.
<i>Conservation Authorities Act (CAA) and O. Reg. 41/24</i>	To prohibit or regulate development in regulated areas within its jurisdiction where the control of flooding, erosion, dynamic beaches, pollution, or the conservation of land could be impacted by development and in other areas where development could interfere in any way with watercourses or wetlands.	Wetlands and watercourses in the Phase 1 Lands are protected from the proposed development with prescriptive buffers (30 & 15 m). Minor encroachments are proposed within streams/fish habitat, Confirmed SWH (Amphibian Breeding), and within the 15 m buffer of a Significant Wetland to accommodate an emergency-only access road. Two, small wetland inclusions are not currently protected by buffers but will be compensated for. Several hazard lands within the Phase 1 Lands are regulated by QC, thus a permit under O. Reg. 41/24 is expected to be required.
<i>Species Conservation Act</i>	Species designated as Endangered or Threatened by the Committee on the Status of Species at Risk in Ontario (COSSARO) are listed under the Protected Species in Ontario List (PSOL). These species at risk (SAR) and their habitats (e.g., areas essential for breeding, rearing, feeding, hibernation and migration) are afforded legal protection under the SCA.	Protections relating to federally Threatened Bobolink and Eastern Meadowlark habitat is no longer discussed under the SCA. Protections to migratory avian species are still provided through both the SARA and MBCA thus, timing windows for vegetation removals apply. Endangered bat habitat may be present within the woodlands and hedgerows within Phase 1 Lands. Timing windows (March 15 – November 30), registration/permitting under the SCA, and habitat compensation may be required if deemed present through acoustic surveys. Surveys will be conducted at detailed design and discussed as part of a technical memo. Consultation with MECP may be required to ensure compliance with the SCA.



Policy Document	Policy Intent/Objective	Implications and Policy Conformity
<i>Federal Species at Risk Act</i>	The purpose of the Species at Risk Act (SARA, SC 2002, c 29) is to prevent species in Canada from disappearing, to provide for their recovery, and to manage species of special concern to prevent them from becoming endangered or threatened.	No Critical Habitat under SARA for Bobolink or Eastern Meadowlark is known on the Subject Property. Threatened Bobolink and Eastern Meadowlark habitat is proposed for removal; vegetation removal timing windows will be adhered to. Mitigation measures for Special Concern species, under SARA, are outlined. Consultation with SARA is recommended to ensure project compliance.
<i>Migratory Birds Convention Act</i>	The Migratory Birds Convention Act (MBCA), 1994 and Migratory Birds Regulations (MBR), 2014 protect most species of migratory birds and their nests and eggs anywhere they are found in Canada.	To ensure the protection of migratory birds, their eggs and their nests, vegetation removal will be completed outside of the breeding bird season (April 1 – August 31) or a site inspection for nesting bird activity should be completed immediately prior to vegetation removal to ensure no nesting (if nesting vegetation clearing is delayed).

11.0 Conclusion

The findings of the EIS are the result of a background review, detailed field investigations and an analysis of data using the current scientific understanding of the ecology of the area, as well as the current natural heritage policy requirements. Based on the work completed, we have identified the natural environmental sensitivities, constraints and development opportunities of the Subject Property. SLR has completed a comprehensive Environmental Impact Study that incorporates an assessment of potential impacts to the natural heritage features within the Subject Property, and specifically within the Phase 1 Lands, based on a proposed Draft Plan of Subdivision and consent application shown on Figure 8 and provided in Appendix G, with a review of environmental policies and evaluation of policy conformity for the overall proposed development. Policy conformity must be considered in the context of an existing MZO that has permitted uses and zoning.

Further development of the Subject Property, outside of the Phase 1 Lands, will be subject to a separate EIS. This includes an assessment for significance relating to the Woodlands to be Assessed at Future Design Stage within the northwestern portion of the Subject Property.

The EIS has been completed through an integrated approach and collaboration with the SLR Hydrogeology team and Jewell Engineering (Functional Servicing Report) to provide specific design and mitigation measures outlined in Section 9.0.

Based on the findings of this EIS it is our professional opinion that the proposed development for a Draft Plan of Subdivision and consent application on Phase 1 Lands is environmentally feasible, consistent with the applicable natural heritage policies, and provides consideration of the MZO. Furthermore, the proposed development would not result in negative impacts to the identified natural heritage features provided that the recommended mitigation and enhancement measures described in Section 9.0 of this report are implemented.



12.0 Closure

This report was prepared, reviewed and approved by the undersigned:

Regards,

SLR Consulting (Canada) Ltd.



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Figures

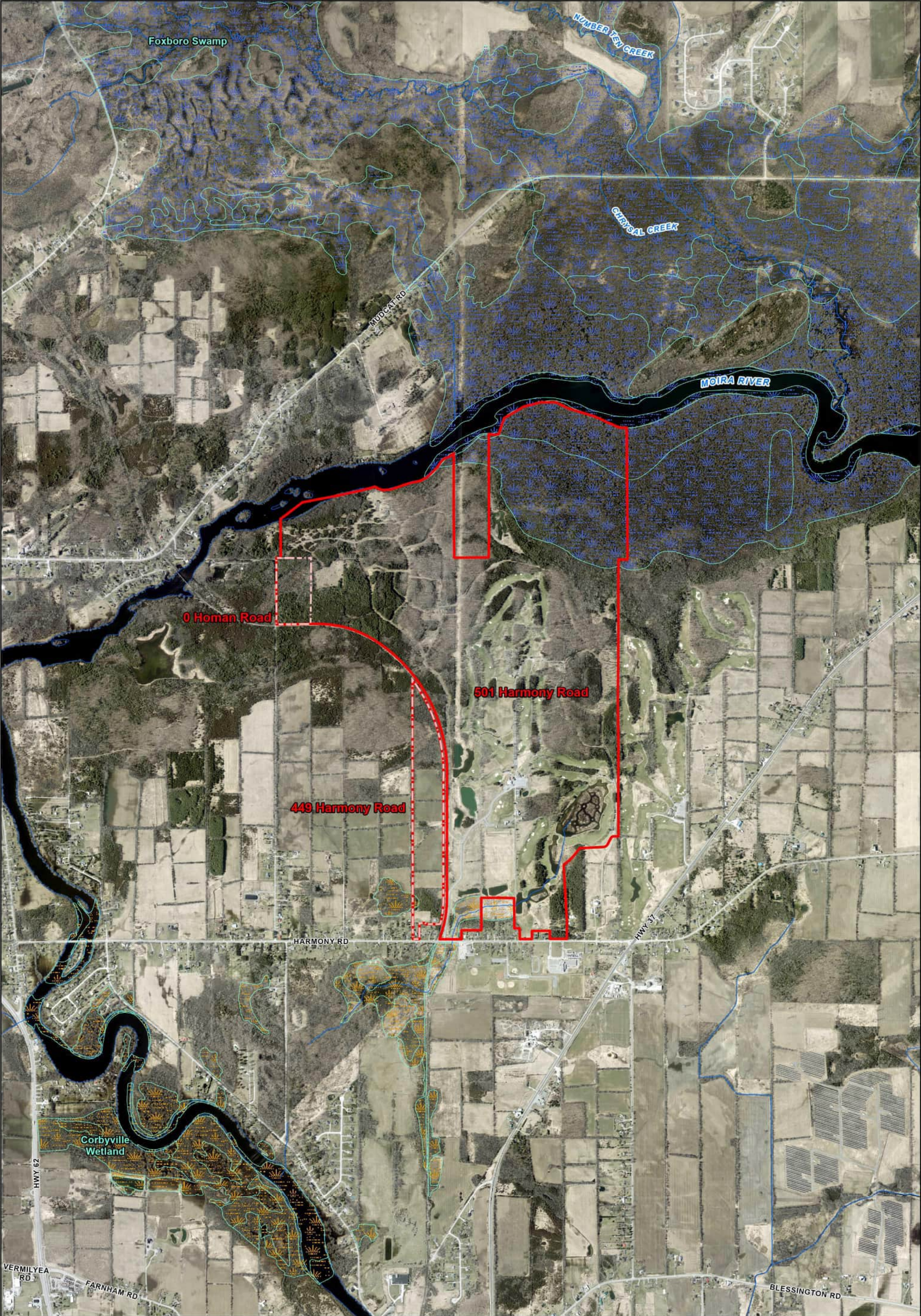
Revised Environmental Impact Study (Phase 1 Lands) and Environmental Constraints Analysis for Black Bear Ridge Resort

City of Belleville

Black Bear Ridge GP Inc.

SLR Project No.: 244.024334.00000

June 18, 2026



LEGEND

Watercourse ¹

Provincially Significant Wetland ¹

Foxboro Swamp

Corbyville Wetland

¹ - Land Information Ontario (LIO)

Additional Lands

Subject Property

Key Map

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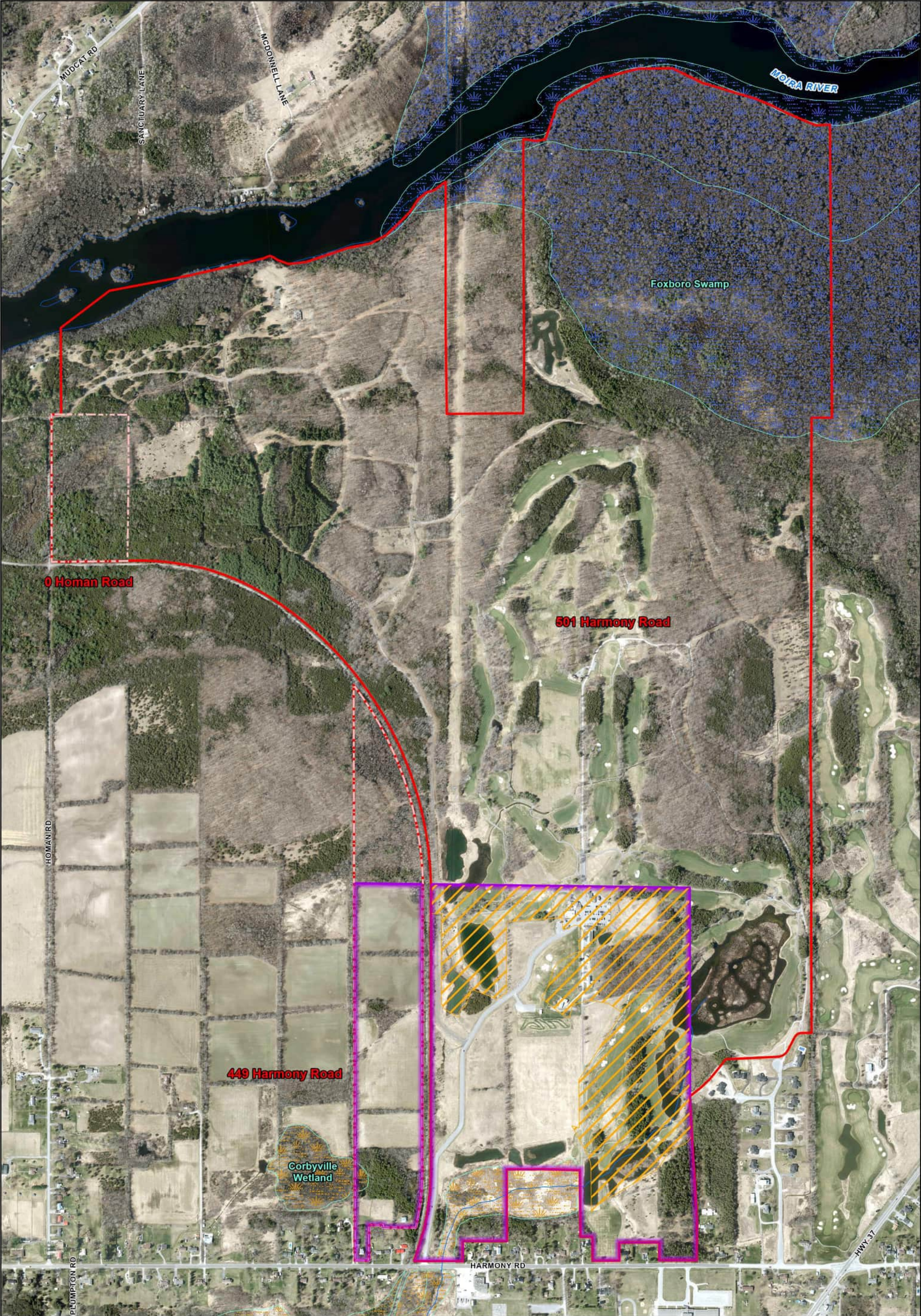
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Drawn: SM
Checked: KT
Date: Jun 12, 2026

Source Notes: Base imagery (2019) provided by City of Belleville GIS REST services.

CLIENT	Black Bear Ridge GP Inc
PROJECT	Black Bear Ridge Natural Heritage Review and Environmental Constraints Analysis
TITLE	Site Location
REF. NO.	2200901-MR1-2
Figure	



LEGEND

Watercourse ¹

Provincially Significant Wetland ¹

Foxboro Swamp

Corbyville Wetland

Phase 1 Lands

Proposed Phase 1 Lands Severance

Additional Lands

Subject Property

1 - Land Information Ontario (LIO)

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Metres

North American Datum 1983
Universal Transverse Mercator Projection Zone 18

Scale: 1:9,000
Page Size: Tabloid (11 x 17 inches)

Drawn: SM
Checked: KT
Date: Jun 12, 2026

Source Notes: Base imagery (2023) provided by Geospatial Ontario.

NORTH

CLIENT

Black Bear Ridge GP Inc

PROJECT

Black Bear Ridge Natural Heritage Review and Environmental Constraints Analysis

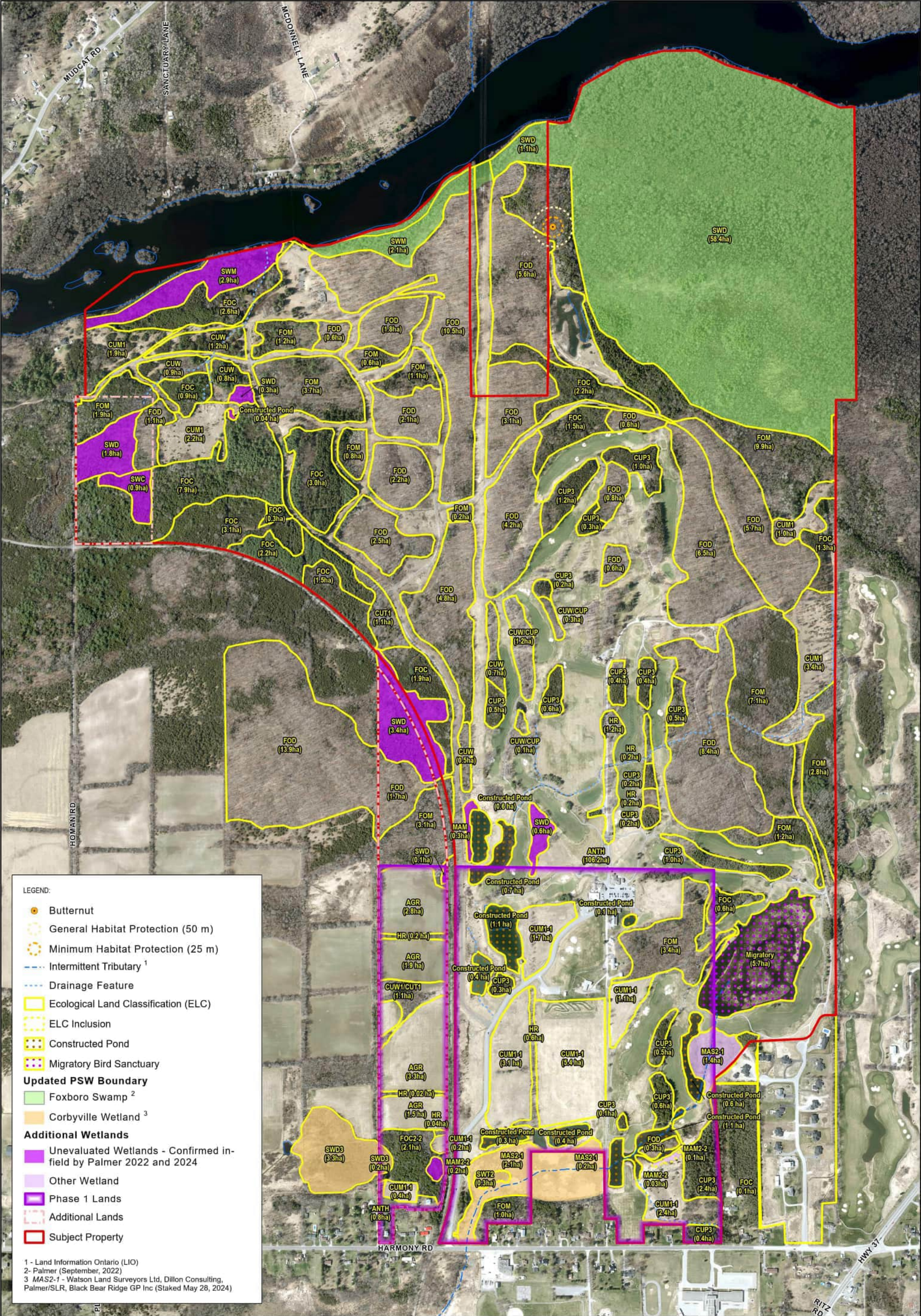
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Phasing Boundaries

REF. NO.

2200901-MR2-2

Figure 2

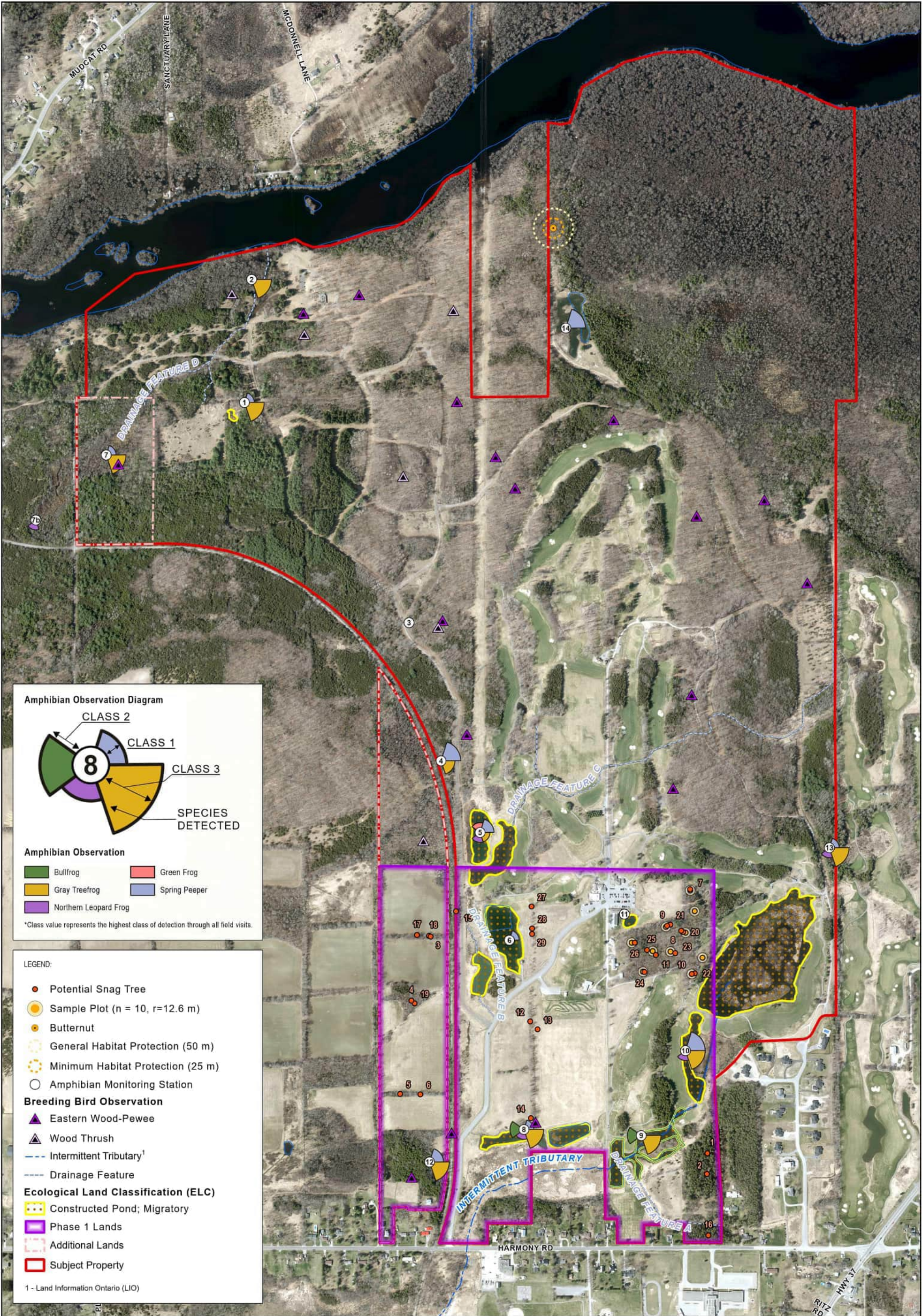


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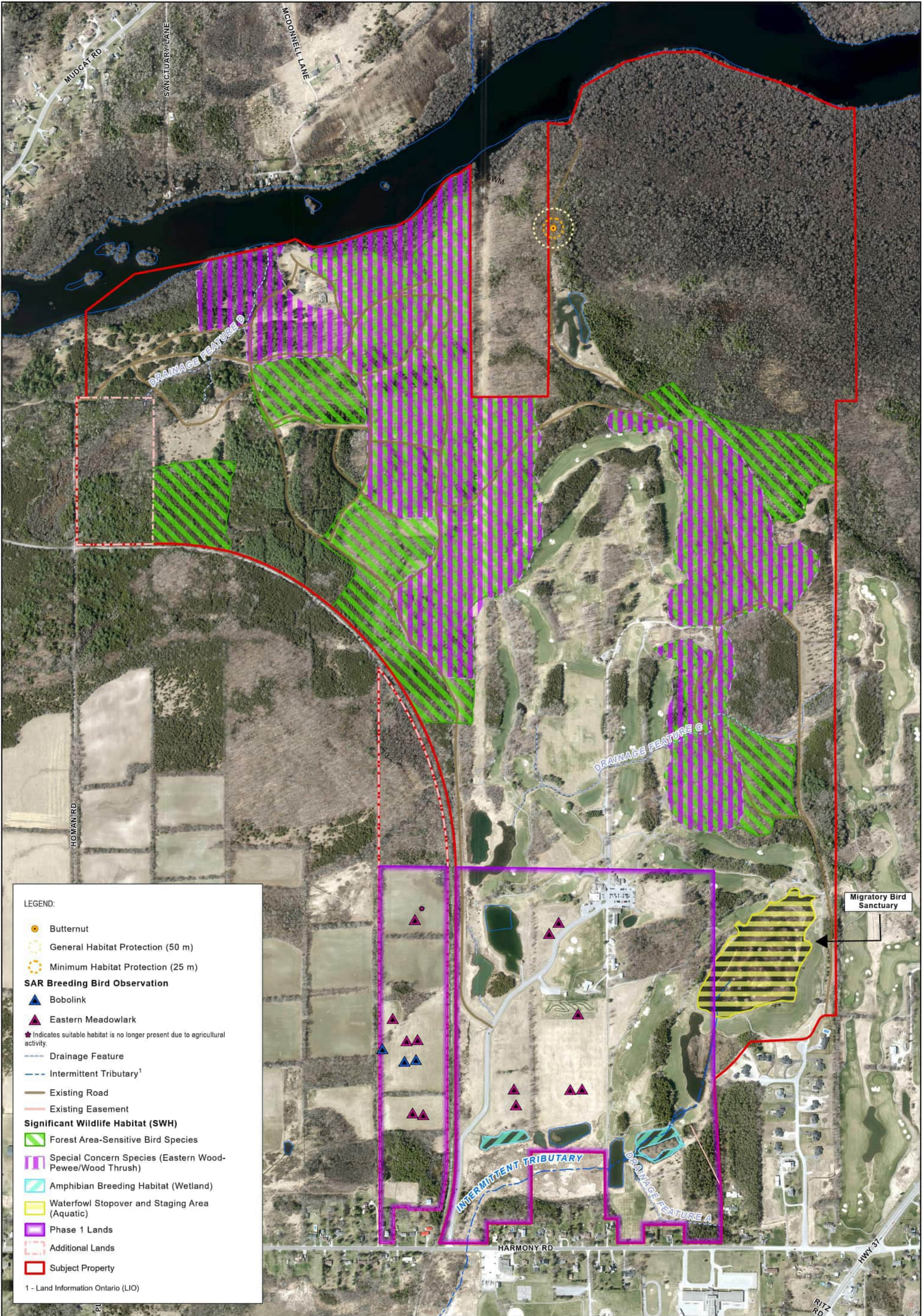
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- Minimum Habitat Protection (25 m)
- Intermittent Tributary ¹
- Drainage Feature
- Ecological Land Classification (ELC)
- ELC Inclusion
- Constructed Pond
- Migratory Bird Sanctuary
- Updated PSW Boundary**
- Foxboro Swamp ²
- Corbyville Wetland ³
- Additional Wetlands**
- Unevaluated Wetlands - Confirmed in-field by Palmer 2022 and 2024
- Other Wetland
- Phase 1 Lands
- Additional Lands
- Subject Property

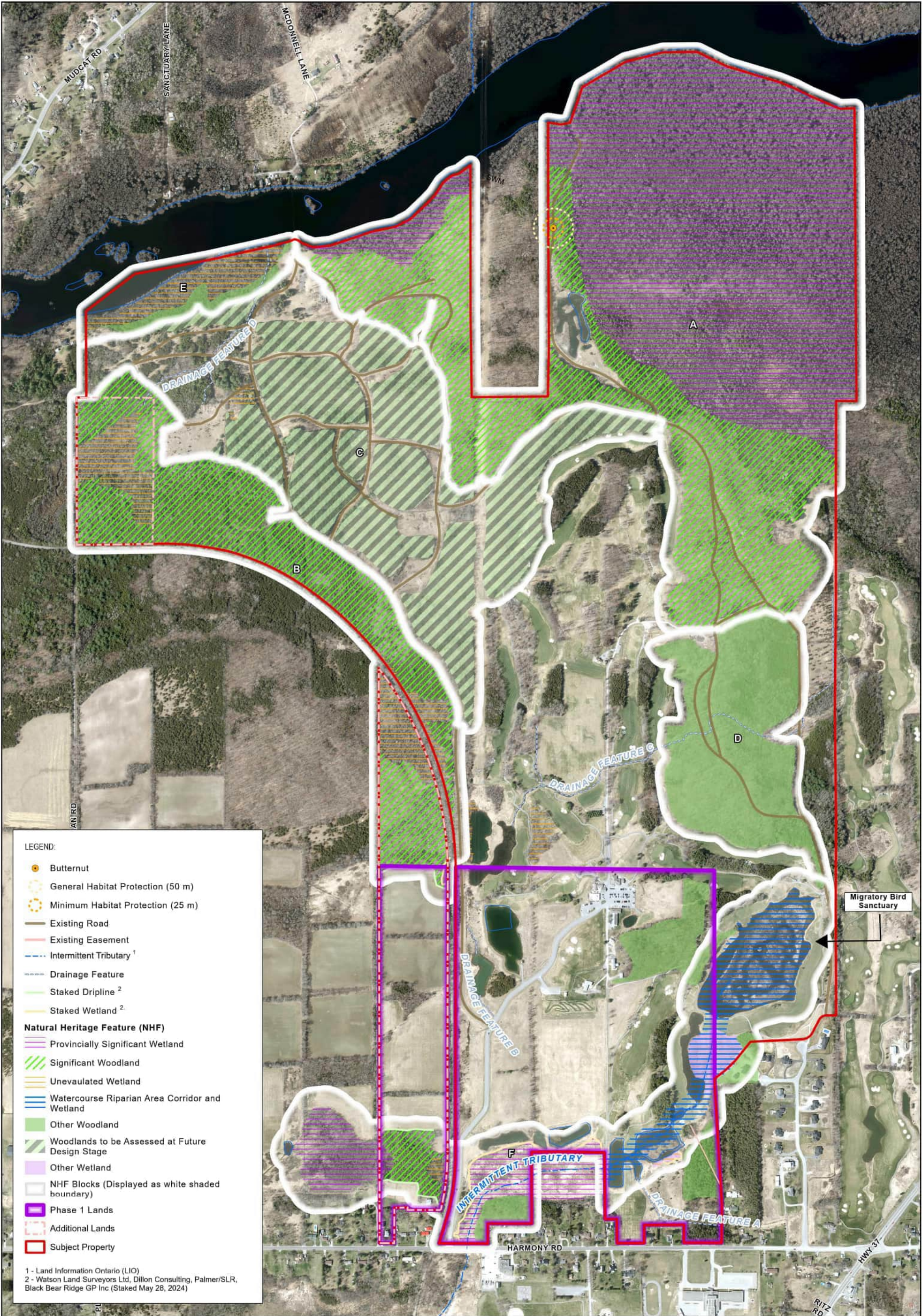
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3 MAS2-1 - Watson Land Surveyors Ltd, Dillon Consulting, Palmer/SLR, Black Bear Ridge GP Inc (Staked May 28, 2024)

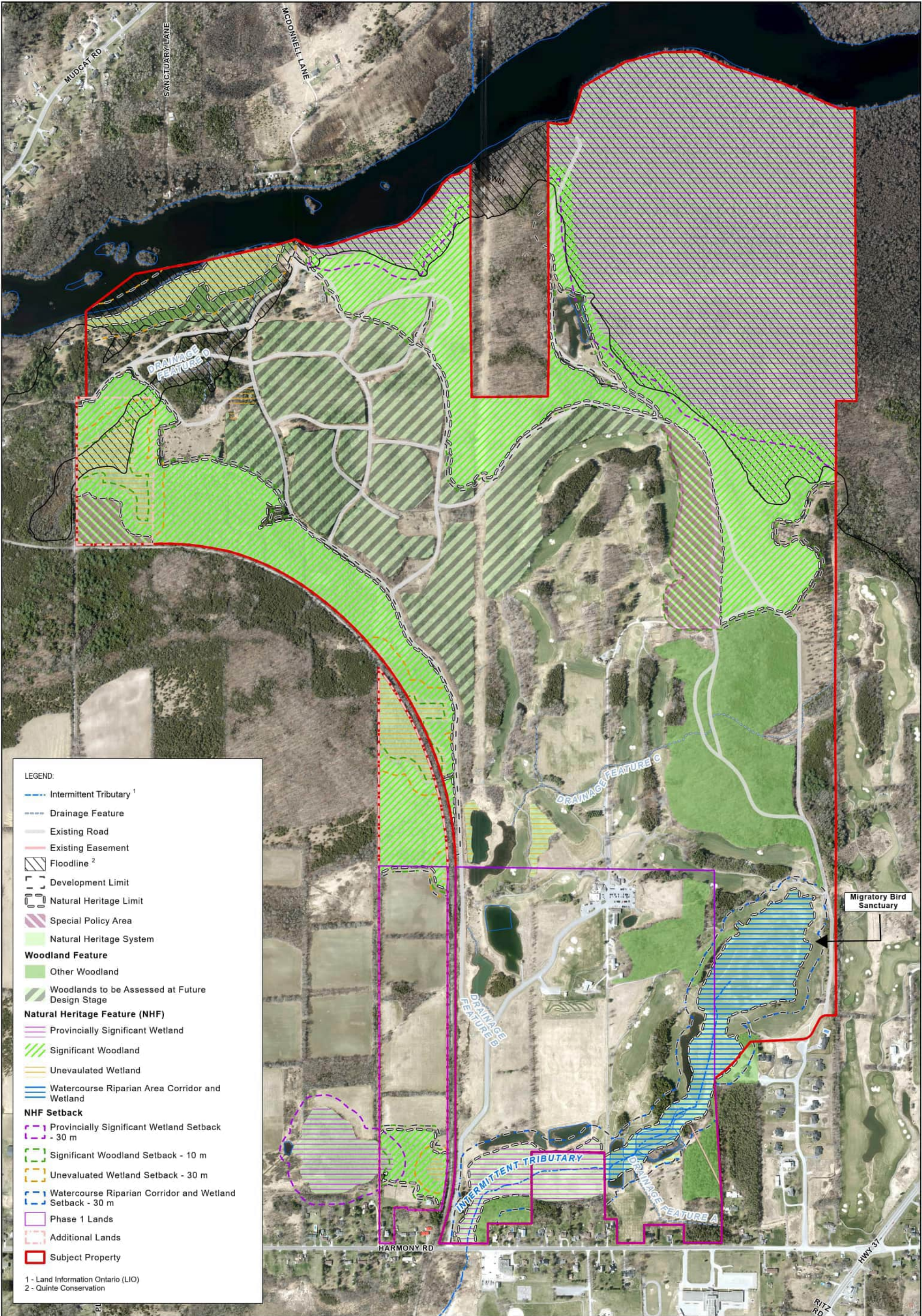
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Forest Community FOC: Coniferous Forest FOD: Deciduous Forest FOM: Mixed Forest		North American Datum 1983 Universal Transverse Mercator Projection Zone 18 Scale: 1:9,000 Page Size: Tabloid (11 x 17 inches) Drawn: SM Checked: ED Date: Jun 12, 2026 Source Notes: Base imagery (2023) provided by Geospatial Ontario.		TITLE Existing Environmental Conditions	
				REF. NO. 2200901-MR03-2	
				Figure 3	

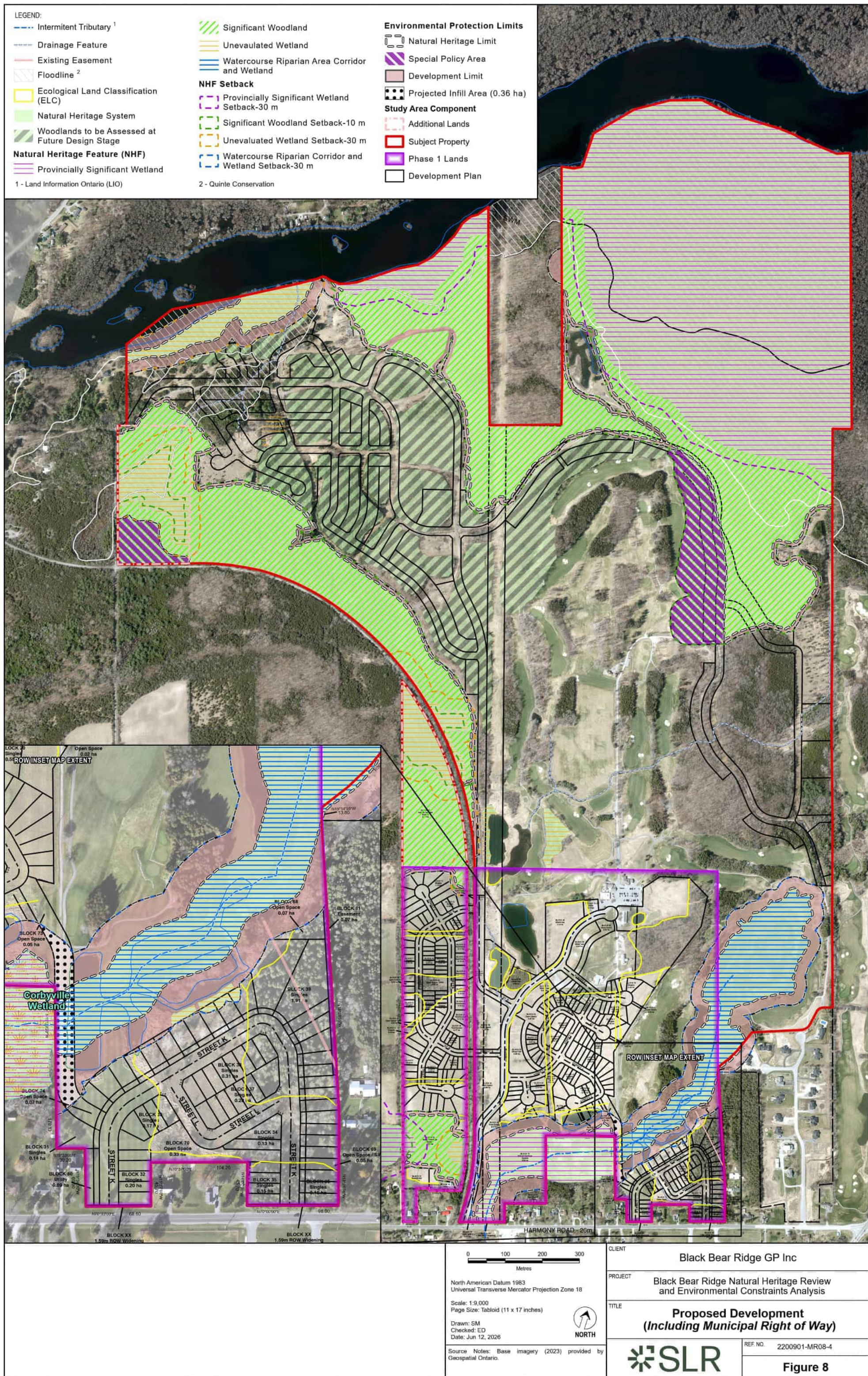


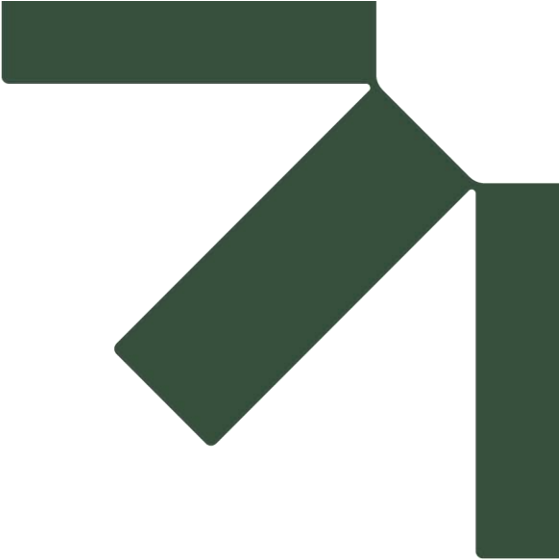
0 100 200 300 Metres North American Datum 1983 Universal Transverse Mercator Projection Zone 18 Scale: 1:9,000 Page Size: Tabloid (11 x 17 inches) Drawn: SM Checked: ED Date: Jun 12, 2026 Source Notes: Base imagery (2023) provided by Geospatial Ontario.	CLIENT Black Bear Ridge GP Inc	
	PROJECT Black Bear Ridge Natural Heritage Review and Environmental Constraints Analysis	
	TITLE Wildlife Habitat and Surface Water Features	
	SLR	REF. NO. 2200901-MR04-2
Figure 4		











Appendix A Terms of Reference & Agency Correspondence

Revised Environmental Impact Study (Phase 1 Lands) and Environmental Constraints Analysis for Black Bear Ridge Resort

City of Belleville

Black Bear Ridge GP Inc.

SLR Project No.: 244.024334.00000

June 18, 2026

June 22, 2022

Lindsay Nash
Quinte Conservation
RR#2, 2061 Old Hwy #2
Belleville, ON K8N 4Z2

via email: lnash@quinteconservation.ca

Dear Lindsay:

**Re: Terms of Reference for Detailed Natural Heritage Constraints and Opportunities
Assessment – Black Bear Ridge Resort, City of Belleville**

1. Introduction

Palmer is pleased to provide the following Terms of Reference for the completion of an updated Natural Heritage Constraints and Opportunities Assessment for the proposed Black Bear Ridge Resort at 501 Harmony Road in the City of Belleville (the Subject Property).

1.1 Ecology Background

Palmer is familiar with the Subject Property, having completed preliminary ecological work for it as part of a Minister's Zoning Order (MZO) application. The goal of the study was to conduct an initial delineation of existing environmental constraints on the property and identify remaining lands that may be suitable for rezoning to facilitate the future proposed mixed-use development.

This Terms of Reference is based on the results of Palmer's initial ecological investigations at the Subject Property. Following our preliminary assessments, including a site visit and preliminary review of regulatory agency mapping and background information, Palmer has preliminarily identified the following Key Natural Features:

- Provincially Significant Wetlands (PSWs) and unevaluated wetlands;
- Significant Woodlands and potential Significant Woodlands;
- Fish habitat (within Moira River and southern watercourse);
- Hazard Lands (associated with the Moira River floodplain);
- Potential Significant Wildlife Habitat (SWH); and
- Potential Species at Risk (SAR) habitat

This Terms of Reference aims to further characterize the on-site natural heritage system through detailed seasonally appropriate field investigations. This will also serve as an outline for the completion of a future EIS. The purpose of this stage of work will be to confirm and refine existing natural feature boundaries that have been documented previously in order to inform Block and Draft Plans.

2. Scope of work

The items listed below present the scope of work proposed to be completed:

Task 1 – Background Review, Terms of Reference (TOR) and First Nations Consultation

Documents will include background information relating to the Subject Property's biological and physical resources, including records for Species at Risk (SAR). Natural heritage mapping and associated environmental policies at the provincial, regional, and municipal levels will be identified.

In order to confirm that the Palmer work plan and study approach is acceptable to the relevant regulatory agencies (Quinte Conservation, City of Belleville), this TOR is being provided. Palmer will also conduct consultation with local First Nations groups to give the opportunity for them to review Palmer's TOR and provide comment.

Task 2 – Field Investigations

Detailed field investigations will be completed to evaluate existing natural features and their functions, as well as identify presence of wildlife and their use of natural areas. Due to the large size of the Subject Property, the scope of field surveys will aim to characterize those natural features within and immediately adjacent to the proposed development features. Palmer proposes the following surveys:

- *Ecological Communities Assessment*
 - The on-site ecological communities will be confirmed and refined in accordance with Ecological Land Classification of Southern Ontario (ELC) protocols. Vegetation surveys will be completed to classify and map existing vegetation communities and prepare a floral inventory, while concurrently evaluating ecological features and functions, as well as record incidental wildlife observations.
 - Due to the timing of project commencement, ELC conditions will be investigated during a summer 2022 field investigation. The general Ecological Conditions were characterized during a winter season site visit on February 10, 2022.
- *Breeding Bird Surveys*
 - Two standard breeding birds surveys have been completed, as per accepted Bird Studies Canada protocols. One visit was conducted on June 3 and a second is scheduled for June 23, 2022.
- *Amphibian Surveys*
 - Two amphibian breeding surveys will be completed following Marsh Monitoring Program protocols.
 - For efficiency purposes, due to the large size of the Subject Property, these surveys will be focussed on characterizing the presence of breeding amphibians within those wetland features identified as needing further study to confirm their associated constraints.
 - Due to the timing of project commencement, two surveys will be able to be conducted during the 2022 amphibian breeding window. The first Breeding Bird Survey was completed on June 8th, 2022.

- *Aquatic Habitat Assessment*
 - An aquatic habitat assessment will be completed for the two watercourse segments within the Subject Property to document general habitat characteristics including channel dimensions, riparian and in-stream habitat, and water quality and inputs. This can be conducted concurrently with the ELC task as described above.
- *Species at Risk (SAR) Habitat and Significant Wildlife Habitat (SWH) Screenings*
 - Species at Risk habitat and SWH screenings will be completed using the vegetation community data collected during field visits and by noting suitable habitat or indications of potential habitat opportunities recorded during the site visits.

Task 3 – Natural Heritage Feature Staking

To identify the limits of the natural feature areas (i.e., wetlands and woodlands) it is proposed that the feature limits (wetlands, Significant Woodlands) be delineated alongside Quinte Conservation (QC) and Prince Edward County (PEC) staff. Limits of natural features will be incorporated into the proposed development plan for the property and will inform necessary buffers and setback positioning from contiguous natural features.

Task 4 – Natural Heritage Review and Environmental Constraints Assessment Reporting

Palmer will compile a Natural Heritage Constraints and Opportunities Assessment report for the subject property. This report will incorporate the results of all field investigations and identify all existing natural heritage constraints and development opportunities. This report will be submitted to QCA and the County for review. This information will be used to inform future development plans and incorporated into a subsequent EIS.

3. Closing

We trust that the provided TOR is considered suitable. Please reach out to the undersigned for any questions or comments.

Yours truly,

Palmer™



Erin Donkers, B.Sc., PG[ER]
Senior Ecologist, Arborist



Erin Donkers <erin.donkers@pecg.ca>

Black Bear Ridge Resort, Belleville - TOR for Natural Heritage Review and Environmental Constraints Assessment

Ashton, Stephen <sashton@belleville.ca>

Wed, Jul 6, 2022 at 9:12 PM

To: "Deming, Thomas" <tdeming@belleville.ca>, Erin Donkers <erin.donkers@pecg.ca>

Cc: "McAdam, Desta" <dmcadam@belleville.ca>

When the paperwork is in place for this development we can review. We will have to discuss with the main consultant how this process will occur. The main consultant is Anthony Biglieri.

We will be utilizing a peer reviewer at that time.

Thanks.

Sent from my Bell Samsung device over Canada's largest network.

----- Original message -----

From: "Deming, Thomas" <tdeming@belleville.ca>

Date: 2022-06-27 11:01 a.m. (GMT-05:00)

To: Erin Donkers <erin.donkers@pecg.ca>, "Ashton, Stephen" <sashton@belleville.ca>

Cc: "McAdam, Desta" <dmcadam@belleville.ca>

Subject: RE: Black Bear Ridge Resort, Belleville - TOR for Natural Heritage Review and Environmental Constraints Assessment

Hi Erin,

Yes, I can confirm you will be dealing with the City of Belleville on this.

I have copied my director, Stephen Ashton as he has been directly involved in the MZO.

I do not believe they have finalized the requirements for this just yet but I will let him confirm and get back to you regarding this TOR for the Natural Heritage Review and Environmental Constraints Assessment.

Please note, Stephen is away until July 4th.

Thanks,

Thomas Deming, CPT

Principal Planner, Policy Planning

Engineering and Development Services

Corporation of the City of Belleville



City Hall, 169 Front Street
Belleville, ON K8N 2Y8
613-967-3234
tdeming@belleville.ca
belleville.ca

From: Erin Donkers [mailto:erin.donkers@pecg.ca]

Sent: Monday, 27 June 2022 10:30 AM

To: Deming, Thomas

Subject: Fwd: Black Bear Ridge Resort, Belleville - TOR for Natural Heritage Review and Environmental Constraints Assessment

CAUTION: This email is **NOT** from the city of Belleville. Do **NOT** click links or open attachments unless you recognize the sender and know the content is safe!

Hi Thomas,

I received your contact information from the County's Dale Egan. He informed me that the City of Belleville is a separate municipality apart from the County and suggested I reach out to you instead. If there is someone else at the City whom I should forward this to, please let me know.

I have attached a Terms of Reference (TOR) related to a natural heritage constraints review being conducted at the Black Bear Ridge Resort property located on Harmony Road in Belleville. As per the feed below, we have provided the TOR to Quinte Conservation Authority for their review and comment, and wanted to give Belleville the opportunity to provide comment as well.

Please let me know if you have any questions. I look forward to receiving the City's response.

Thank you,

Erin Donkers, B.Sc., PG[ER]
Ecologist, Arborist

(she/her)



| t (905) 870 7490 | e erin.donkers@pecg.ca

Learn More:

www.pecg.ca

----- Forwarded message -----

From: **Erin Donkers** <erin.donkers@pecg.ca>

Date: Wed, Jun 22, 2022 at 7:57 PM

Subject: Black Bear Ridge Resort, Belleville - TOR for Natural Heritage Review and Environmental Constraints Assessment

To: <lnash@quinteconservation.ca>

Cc: <degan@pecounty.on.ca>, Dirk Janas <dirk.janas@pecg.ca>, Mike Pettigrew <mpettigrew@thebiglierigroup.com>

Hi Lindsay,

Please find attached a Terms of Reference related to preparation of a Natural Heritage Review and Environmental Constraints Assessment study at the Black Bear Ridge Resort property in Belleville. The aim of this study is to characterize and delineate the existing natural heritage system on the property. This information will inform development plans for the property and be incorporated into a subsequent Environmental Impact Study.

I have Cc'd County planning as well to provide them with the opportunity to comment on the TOR as well.

Thank you!

Erin Donkers, B.Sc., PG[ER]

Ecologist, Arborist

(she/her)



| t (905) 870 7490 | e erin.donkers@pecg.ca

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City Hall is currently open to the public from 8:30 a.m. to 4:30 p.m., Monday through Friday. You are encouraged to call 613-968-6481 before visiting a City facility to confirm its hours of operation and whether an appointment is required.

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Erin Donkers <erin.donkers@pecg.ca>

Black Bear Ridge Resort, Belleville - TOR for Natural Heritage Review and Environmental Constraints Assessment

Erin Donkers <erin.donkers@pecg.ca>

Wed, Aug 3, 2022 at 12:21 PM

To: Paul McCoy <PMcCoy@quinteconservation.ca>

Cc: Jesse Snider <jesse.snider@pecg.ca>, Anthony Biglieri <abiglieri@thebiglierigroup.com>, Mike Pettigrew <mpettigrew@thebiglierigroup.com>, Dirk Janas <dirk.janas@pecg.ca>

Hi Paul,

Just following up on our TOR. Please let us know if you have any questions or concerns. Also, should Quinte Conservation require a feature staking then please provide some available dates.

Thanks!

Erin Donkers, B.Sc., PG[ER]

Ecologist, Arborist

(she/her)



| t (905) 870 7490 | e erin.donkers@pecg.ca

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www.pecg.ca

On Mon, Jul 25, 2022 at 3:44 PM Erin Donkers <erin.donkers@pecg.ca> wrote:

Hi Paul,

Thank you for your voicemail last week. My apologies for the delayed response, as I had been on holidays for a few days. As requested, I have attached the Terms of Reference related to the ecological studies being conducted at the Black Bear Ridge property in Belleville.

Please note, only 1 amphibian breeding survey has been conducted this year, due to the seasonal constraints associated with when we received the formal confirmation from our client to proceed with the project (we were only able to fit in a "late breeding" survey). We did manage to get all 3 breeding bird surveys in this year.

We will be headed out tomorrow to conduct our vegetation communities assessment.

Please don't hesitate to reach out if you have any questions as you review the TOR.

We look forward to your comments!

Erin Donkers, B.Sc., PG[ER]

Ecologist, Arborist

(she/her)



| t (905) 870 7490 | e erin.donkers@pecg.ca

Learn More:

www.pecg.ca

----- Forwarded message -----

From: **Lindsay Nash** <LNash@quinteconservation.ca>

Date: Mon, Jul 18, 2022 at 10:07 AM

Subject: RE: Black Bear Ridge Resort, Belleville - TOR for Natural Heritage Review and Environmental Constraints Assessment

To: Erin Donkers <erin.donkers@pecg.ca>

Cc: Dirk Janas <dirk.janas@pecg.ca>, Paul McCoy <PMcCoy@quinteconservation.ca>, Mary Gunning <MGunning@quinteconservation.ca>

Good morning,

I have Cc'd Paul McCoy and Mary Gunning in this email. They will likely be your main Quinte Conservation contacts for your proposed development.

Thanks,

Lindsay

Lindsay Nash (She/Her)

Regulations Officer

Quinte Conservation

RR#2, 2061 Old Hwy #2, Belleville, ON K8N 4Z2

Phone: (613) 968-3434 or (613) 354-3312

Working, living, and learning on the traditional territories of the Anishnabek, Huron-Wendat, and Haudenosaunee (Iroquois) peoples.



Quinte
CONSERVATION
• 75 Years of Conservation •
1947 - 2022

IMPORTANT COVID-19 NOTICE: In light of health concerns related to the Covid-19 virus, the QC office will be closed to the public until further notice. Events and meetings will be postponed until further notice. Residents can reach the office by calling 613-968-3434 or by emailing info@quinteconservation.ca. Documents can be dropped off via the mail slot at the main office or by mail at 2061 Old Hwy 2, Belleville ON, K8N 4Z2.

[Click here to sign up for one of Quinte Conservation's e-newsletters!](#)

www.QuinteConservation.ca

www.QuinteSourceWater.ca

Disclaimer: This is intended for the addressee indicated above. It may contain information that is privileged, confidential, or otherwise protected from disclosure under the Municipal Freedom of Information and Privacy Protection Act. If you have received this in error, please notify us immediately.

From: Erin Donkers <erin.donkers@pecg.ca>

Sent: July-18-22 10:01 AM

To: Lindsay Nash <LNash@quinteconservation.ca>

Cc: Dirk Janas <dirk.janas@pecg.ca>

Subject: Re: Black Bear Ridge Resort, Belleville - TOR for Natural Heritage Review and Environmental Constraints Assessment

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Lindsay,

I am just checking in on the status of this TOR that was provided last month for the Black Bear Ridge Resort property in Belleville.

We will be scheduling in our ELC work soon, and if it can be coordinated with Quinte Conservation's feature staking visit (if required this year) then that would be great.

Please let me know if you have any questions.

Thanks!

Erin Donkers, B.Sc., PG[ER]

Ecologist, Arborist

(she/her)

Palmer[™]

| t (905) 870 7490 | e erin.donkers@pecg.ca

Learn More:

www.pecg.ca

On Wed, Jun 22, 2022 at 7:57 PM Erin Donkers <erin.donkers@pecg.ca> wrote:

Hi Lindsay,

Please find attached a Terms of Reference related to preparation of a Natural Heritage Review and Environmental Constraints Assessment study at the Black Bear Ridge Resort property in Belleville. The aim of this study is to characterize and delineate the existing natural heritage system on the property. This information will inform development plans for the property and be incorporated into a subsequent Environmental Impact Study.

I have Cc'd County planning as well to provide them with the opportunity to comment on the TOR as well.

Thank you!

Erin Donkers, B.Sc., PG[ER]
Ecologist, Arborist

(she/her)

Palmer™

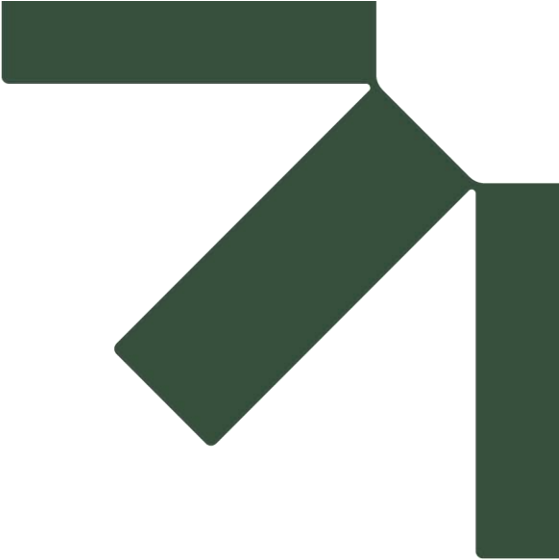
| t (905) 870 7490 | e erin.donkers@pecg.ca

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TOR_Black Bear Ridge_22June2022.pdf
182K



Appendix B Ecological Land Classification (Area Outside Phase 1 Lands)

Revised Environmental Impact Study (Phase 1 Lands) and Environmental Constraints Analysis for Black Bear Ridge Resort

City of Belleville

Black Bear Ridge GP Inc.

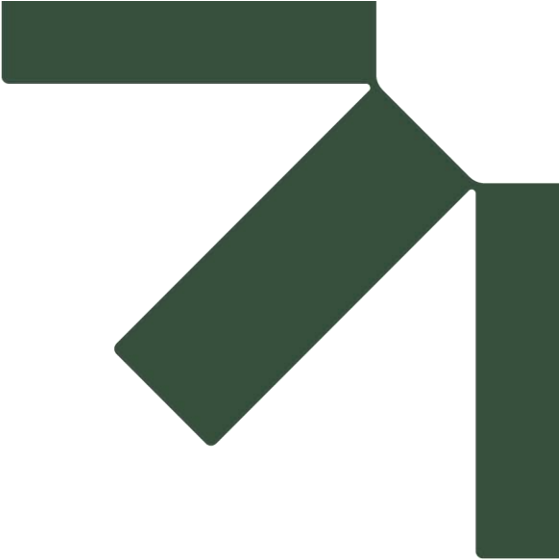
SLR Project No.: 244.024334.00000

June 18, 2026

Appendix B – Ecological Land Classification (Area Outside of Phase 1 Lands)

ELC Community	Description
Terrestrial Systems	
Mineral Cultural Meadow Ecosite (CUM1)	Several meadow communities were noted throughout the Subject Property and were dominated by Smooth Brome (<i>Bromus inermis</i>), with frequent Wild Timothy (<i>Muhlenbergia racemosa</i>), Viper’s Bugloss (<i>Echium vulgare</i>), Early Goldenrod (<i>Solidago juncea</i>), Wild Bergomot (<i>Monarda fistulosa</i>), Common Milkweed (<i>Asclepias syriaca</i>), and Tufted Vetch (<i>Vicia cracca</i>). The occasional Wild Carrot (<i>Daucus carota</i>), Common St. John’s Wort (<i>Hypericum perforatum</i>), and Red Clover (<i>Trifolium pratense</i>). The occasional Common Juniper (<i>Juniperus communis</i>) were also found scattered throughout these communities.
Cultural Woodland (CUW)	This community’s canopy was dominated by Eastern White Cedar (<i>Thuja occidentalis</i>). There was sparce White Elm (<i>Ulmus americana</i>) within the sub-canopy. Ground cover was made up of scarce European Buckthorn (<i>Rhamnus cathartica</i>), Thicket Creeper (<i>Parthenocissus vitacea</i>), and Rough Horsetail (<i>Equisetum hyemale</i>).
Coniferous Plantation (CUP3)	This community’s canopy was dominated by Red Cedar (<i>Juniperus virginiana</i>) and White Spruce (<i>Picea glauca</i>) with frequent Scots pine (<i>Pinus sylvestris</i>). The groundcover was dominated by European Buckthorn and Wild Grape (<i>Vitis sp.</i>).
Mineral Cultural Thicket Ecosite (CUT1)	This upland community consisted of abundant Trembling Aspen in the canopy but was largely dominated by dense European Buckthorn, Grey Dogwood (<i>Cornus racemosa</i>), and the occasional willow species (<i>Salix sp.</i>) in the understory.
Anthropogenic Land Use (ANTH)	This land use was characterized by a golf course, accessory paths, and buildings. The primary vegetation community was mowed grasses.
Hedgerow (HR)	Hedgerows were found throughout the southern portion of the Subject Property and primarily consisted of deciduous tree species such as maple (<i>Acer sp.</i>), dead/dying Red Ash (<i>Fraxinus pennsylvanica</i>), oak sp. (<i>Quercus sp.</i>), and White Elm. The understory was typically dominated by shrub species including European Buckthorn, Tatarian Honeysuckle (<i>Lonicera tatarica</i>), Grey Dogwood, and Common Prickly Ash (<i>Zanthoxylum americanum</i>).
Coniferous Forest (FOC)	This community consisted of Eastern White Cedar and sparce Black Cherry (<i>Prunus serotina</i>) in the canopy with 80% canopy cover. The subcanopy was Eastern White Cedar with 80% cover. Understory vegetation included frequent Sugar Maple (<i>Acer saccharum</i>) with occasional Black Locust (<i>Robinia pseudoacacia</i>). Groundcover was dominated by Bulbet Fern (<i>Cystopteris bulbifera</i>) with abundant Pennsylvania Sedge (<i>Carex pensylvanica</i>) and American Lopseed (<i>Phryma leptostachya</i>).
Deciduous Forest (FOD)	This community’s canopy was dominated by Sugar Maple with Ironwood (<i>Ostrya virginiana</i>) and Basswood (<i>Tilia americana</i>) with 80% canopy cover. The subcanopy was dominated by Sugar Maple with Ironwood, Bitternut Hickory (<i>Carya cordiformis</i>), and Red Ash. The understory comprised of Ironwood with Bitternut Hickory and European Buckthorn. Ground cover was primarily Virginia Creeper (<i>Parthenocissus quinquefolia</i>), Large-leaved Aster (<i>Eurybia macrophylla</i>), Sugar Maple, Herb-Robert (<i>Geranium robertianum</i>), and Poison Ivy (<i>Toxicodendron radicans</i>).
Mixed Forest (FOM)	This community’s canopy was composed of Trembling Aspen (<i>Populus tremuloides</i>) and White Pine (<i>Pinus strobus</i>) with 70% canopy cover. The subcanopy was made up of Bitternut Hickory, Ironwood, White Birch (<i>Betula papyrifera</i>), and Eastern White Cedar. The understory vegetation was European Buckthorn with Common Prickly Ash, Bitternut Hickory, and Red Ash. The ground cover was dominated by grasses (<i>Poa sp.</i>) with European Buckthorn, Virginia Creeper, and Bitternut hickory.
Wetland Systems	
Coniferous Swamp (SWC)	This community was dominated by Red Cedar with an understory of European Buckthorn.
Deciduous Swamp (SWD)	This community’s canopy was dominated by Freeman’s Maple (<i>Acer freemanii</i>) with White Elm and Silver Maple. The occasional Eastern White Cedar was also observed in the canopy. The groundcover was dominated by Canada Nettle (<i>Laportea canadensis</i>) with Woolgrass Bulrush (<i>Scirpus cyperinus</i>), Sensitive Fern (<i>Onoclea sensibilis</i>), and Spotted Joe-pye Weed (<i>Eutrochium maculatum</i>).
Mixed Swamp (SWM)	This community’s canopy was dominated by Eastern White Cedar and Silver Maple with willow, Sugar Maple, and Yellow Birch (<i>Betula alleghaniensis</i>). The subcanopy was dominated by Eastern White Cedar and Silver Maple with Sugar Maple, Red Ash, and Yellow Birch. The understory contained Common Prickly Ash. The groundcover was dominated by Bulbet Fern with Stinging Nettle (<i>Urtica dioica</i>), Lady fern (<i>Athyrium filix-femina</i>), Sensitive Fern, and sedges (<i>Carex sp.</i>).
Shallow Marsh (MAS)	This community was characterized by Willows, Tamarack (<i>Larix laricina</i>), Rough Horsetail, Pondweeds (<i>Epotomogeton sp.</i>), Soft-stem Bulrush (<i>Schoenoplectus tabernaemontani</i>), and Muskgrass (<i>Chara sp.</i>).
Cattail Mineral Shallow Marsh Ecosite (MAS2-1)	This community was dominated by Broad-leaved Cattail (<i>Typha latifolia</i>) and Phragmites (<i>Phragmites australis</i>) with Red Cedar and Grasses.
Meadow Marsh (MAM)	This community was characterized by Tufted Vetch, Common Milkweed, Reed Canary Grass (<i>Phalaris arundinacea</i>), and Smooth Brome.
Aquatic Systems	
Constructed Pond	These communities were largely open-water with frequent occurrences of Pondweeds along the water edge. The fringe of these communities were characterized by Broad-leaved Cattail, Phragmites, Reed Canary Grass, Staghorn Sumac (<i>Rhus typhina</i>), and Red-osier Dogwood (<i>Cornus sericea</i>).
Migratory Bird Sanctuary	This community was dominated by Broad-leaved Cattail with Reed Canary Grass, stunted Red Cedar, Sedges, and Pondweeds.





Appendix C Flora List

Revised Environmental Impact Study (Phase 1 Lands) and Environmental Constraints Analysis for Black Bear Ridge Resort

City of Belleville

Black Bear Ridge GP Inc.

SLR Project No.: 244.024334.00000

June 18, 2026

Scientific Name	Common Name	S Rank	COSEWIC Status	SAR Schedule 1 Status	SARO Status	Coefficient of Conservatism	Coefficient of Wetness
<i>Acer negundo</i>	Manitoba Maple	S5				0	0
<i>Acer saccharinum</i>	Silver Maple	S5				5	-3
<i>Acer saccharum</i>	Sugar Maple	S5				4	3
<i>Acer x freemanii</i>	Freeman's Maple - (<i>Acer rubrum</i> X <i>Acer saccharinum</i>)	SNA				6	-5
<i>Actaea rubra</i>	Red Baneberry	S5				6	3
<i>Alisma plantago-aquatica</i>	European Water-plantain					3	-5
<i>Alnus incana</i> ssp. <i>rugosa</i>	Speckled Alder	S5				6	-3
<i>Alnus</i> sp.	Alder Species						
<i>Alopecurus pratensis</i>	Meadow Foxtail	SNA					-3
<i>Ambrosia artemisiifolia</i>	Common Ragweed	S5				0	3
<i>Anemonastrum canadense</i>	Canada Anemone	S5				3	-3
<i>Apocynum androsaemifolium</i>	Spreading Dogbane	S5				3	5
<i>Apocynum cannabinum</i>	Hemp Dogbane	S5				3	0
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	S5				4	3
<i>Arctium</i> sp.	Burdock Species						
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit	S5				5	-3
<i>Asclepias syriaca</i>	Common Milkweed	S5				0	5
<i>Asclepias tuberosa</i>	Butterfly Milkweed	S4				8	5
<i>Athyrium filix-femina</i>	Common Lady Fern	S5				4	0
<i>Betula alleghaniensis</i>	Yellow Birch	S5				6	0
<i>Betula papyrifera</i>	Paper Birch	S5				2	3
<i>Bidens cernua</i>	Nodding Beggarticks	S5				2	-5
<i>Bidens frondosa</i>	Devil's Beggarticks	S5				3	-3
<i>Bidens</i> sp.	Beggar's Ticks Species						
<i>Botrypus virginianus</i>	Rattlesnake Fern	S5				5	3
<i>Bromus inermis</i>	Smooth Brome	SNA					5
<i>Bromus</i> sp.	Brome Species						
<i>Caltha palustris</i>	Yellow Marsh Marigold	S5				5	-5
<i>Carex intumescens</i>	Bladder Sedge	S5				6	-3
<i>Carex pensylvanica</i>	Pennsylvania Sedge	S5				5	5
<i>Carex plantaginea</i>	Plantain-leaved Sedge	S5				7	5
<i>Carex radiata</i>	Eastern Star Sedge	S5				4	0
<i>Carex</i> sp.	Sedge Species						
<i>Carex tuckermanii</i>	Tuckerman's Sedge	S5				7	-5
<i>Carpinus caroliniana</i>	Blue-beech	S5				6	0
<i>Carya cordiformis</i>	Bitternut Hickory	S5				6	0
<i>Carya ovata</i>	Shagbark Hickory	S5				6	3
<i>Chelone glabra</i>	White Turtlehead	S5				7	-5
<i>Cicuta maculata</i>	Spotted Water-hemlock	S5				6	-5
<i>Cicuta</i> sp.	Water-hemlock Species						
<i>Circaea</i> sp.	Nightshade Species						
<i>Cornus alternifolia</i>	Alternate-leaved Dogwood	S5				6	3
<i>Cornus obliqua</i>	Silky Dogwood	S5				2	-3
<i>Cornus racemosa</i>	Grey Dogwood	S5				2	0
<i>Cornus sericea</i>	Red-osier Dogwood	S5				2	-3
<i>Cystopteris bulbifera</i>	Bulblet Bladder Fern	S5				5	-3
<i>Cystopteris fragilis</i>	Fragile Fern	S4				7	3
<i>Daucus carota</i>	Wild Carrot	SNA					5
<i>Dryopteris marginalis</i>	Marginal Wood Fern	S5				5	3
<i>Echinocystis lobata</i>	Wild Cucumber	S5				3	-3
<i>Echium vulgare</i>	Common Viper's Bugloss	SNA					5
<i>Eleocharis</i> sp.	Spikerush Species						
<i>Equisetum arvense</i>	Field Horsetail	S5				0	0
<i>Equisetum hyemale</i> ssp. <i>affine</i>	Common Scouring-rush	S5				2	0
<i>Equisetum</i> sp.	Horsetail Species						
<i>Equisetum variegatum</i>	Variegated Scouring-rush	S5				5	-3
<i>Erigeron annuus</i>	Annual Fleabane	S5				0	3
<i>Erigeron philadelphicus</i>	Philadelphia Fleabane	S5				1	-3
<i>Erigeron strigosus</i>	Rough Fleabane	S5				4	3
<i>Eupatorium perfoliatum</i>	Common Boneset	S5				2	-3
<i>Eurybia macrophylla</i>	Large-leaved Aster	S5				5	5
<i>Fagus grandifolia</i>	American Beech	S4				6	3
<i>Fragaria virginiana</i>	Wild Strawberry	S5				2	3
<i>Fraxinus americana</i>	White Ash	S4				4	3
<i>Fraxinus pennsylvanica</i>	Red Ash	S4				3	-3
<i>Galium circaeans</i>	Licorice Bedstraw	S5				7	3



Scientific Name	Common Name	S Rank	COSEWIC Status	SAR Schedule 1 Status	SARO Status	Coefficient of Conservatism	Coefficient of Wetness
<i>Galium palustre</i>	Common Marsh Bedstraw	S5				5	-5
<i>Galium sp.</i>	Bedstraw Species						
<i>Geranium robertianum</i>	Herb-Robert	S5				2	3
<i>Hackelia virginiana</i>	Virginia Stickseed	S5				5	3
<i>Helianthus tuberosus</i>	Jerusalem Artichoke	SU				1	0
<i>Hepatica acutiloba</i>	Sharp-lobed Hepatica	S5				8	5
<i>Heracleum maximum</i>	American Cow Parsnip	S5				3	-3
<i>Hypericum perforatum</i>	Common St. John's-wort	SNA					5
<i>Impatiens capensis</i>	Spotted Jewelweed	S5				4	-3
<i>Iris versicolor</i>	Harlequin Blue Flag	S5				5	-5
<i>Juglans cinerea</i>	Butternut	S2?	END	END	END	6	3
<i>Juncus dudleyi</i>	Dudley's Rush	S5				1	-3
<i>Juniperus sp.</i>	Juniper Species						
<i>Juniperus virginiana</i>	Eastern Red Cedar	S5				4	3
<i>Laportea canadensis</i>	Canada Wood Nettle	S5				6	-3
<i>Larix laricina</i>	Tamarack	S5				7	-3
<i>Lemna sp.</i>	Duckweed Species						
<i>Leucanthemum vulgare</i>	Oxeye Daisy	SNA					5
<i>Lonicera tatarica</i>	Tatarian Honeysuckle	SNA					3
<i>Lotus corniculatus</i>	Garden Bird's-foot Trefoil	SNA					3
<i>Lysimachia borealis</i>	Northern Starflower	S5				6	0
<i>Lythrum salicaria</i>	Purple Loosestrife	SNA					-5
<i>Maianthemum canadense</i>	Wild Lily-of-the-valley	S5				5	3
<i>Maianthemum racemosum</i>	Large False Solomon's Seal	S5				4	3
<i>Maianthemum sp.</i>	Solomon's Seal Species						
<i>Matteuccia struthiopteris</i>	Ostrich Fern	S5				5	0
<i>Medicago lupulina</i>	Black Medick	SNA					3
<i>Melilotus officinalis</i>	Yellow Sweet-clover	SNA					3
<i>Melilotus sp.</i>	Sweet Clover Species						
<i>Mentha sp.</i>	Mint Species						
<i>Monarda fistulosa</i>	Wild Bergamot	S5				6	3
<i>Muhlenbergia racemosa</i>	Marsh Muhly	S4					3
<i>Myriophyllum spicatum</i>	Eurasian Water-milfoil	SNA					-5
<i>Nepeta cataria</i>	Catnip	SNA					3
<i>Onoclea sensibilis</i>	Sensitive Fern	S5				4	-3
<i>Ostrya virginiana</i>	Eastern Hop-hornbeam	S5				4	3
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	S4?				6	3
<i>Parthenocissus vitacea</i>	Thicket Creeper	S5				4	3
<i>Pastinaca sativa</i>	Wild Parsnip	SNA					5
<i>Penstemon hirsutus</i>	Hairy Beardtongue	S4				7	5
<i>Phalaris arundinacea</i>	Reed Canarygrass	S5				0	-3
<i>Phlox divaricata</i>	Wild Blue Phlox	S4				7	3
<i>Phragmites australis ssp. australis</i>	European Reed	SNA					-3
<i>Phryma leptostachya</i>	Lopseed	S4S5				6	3
<i>Picea glauca</i>	White Spruce	S5				6	3
<i>Pilosella caespitosa</i>	Meadow Hawkweed	SNA					5
<i>Pinus strobus</i>	Eastern White Pine	S5				4	3
<i>Pinus sylvestris</i>	Scots Pine	SNA					3
<i>Poa pratensis</i>	Kentucky Bluegrass	S5				0	3
<i>Poa sp.</i>	Bluegrass Species						
<i>Podophyllum peltatum</i>	May-apple	S5				5	3
<i>Populus balsamifera</i>	Balsam Poplar	S5				4	-3
<i>Populus deltoides</i>	Eastern Cottonwood	S5				4	0
<i>Populus grandidentata</i>	Large-toothed Aspen	S5				5	5
<i>Populus tremuloides</i>	Trembling Aspen	S5				2	0
<i>Potamogeton sp.</i>	Pondweed Species						
<i>Potentilla recta</i>	Sulphur Cinquefoil	SNA					5
<i>Prunus serotina</i>	Black Cherry	S5				3	3
<i>Pteridium aquilinum</i>	Bracken Fern	S5				2	3
<i>Quercus alba</i>	White Oak	S5				6	3
<i>Quercus macrocarpa</i>	Bur Oak	S5				5	3
<i>Quercus rubra</i>	Northern Red Oak	S5				6	3
<i>Ranunculus acris</i>	Common Buttercup	SNA					0
<i>Rhamnus cathartica</i>	European Buckthorn	SNA					0
<i>Rhus typhina</i>	Staghorn Sumac	S5				1	3
<i>Ribes glandulosum</i>	Skunk Currant	S5				6	-3
<i>Ribes sp.</i>	Currant Species						
<i>Robinia pseudoacacia</i>	Black Locust	SNA					3



Scientific Name	Common Name	S Rank	COSEWIC Status	SAR Schedule 1 Status	SARO Status	Coefficient of Conservatism	Coefficient of Wetness
<i>Rosa multiflora</i>	Multiflora Rose	SNA					3
<i>Rubus pubescens</i>	Dwarf Raspberry	S5				4	-3
<i>Salix alba</i>	White Willow	SNA					-3
<i>Salix bebbiana</i>	Bebb's Willow	S5				4	-3
<i>Salix</i> sp.	Willow Species						
<i>Sanguinaria canadensis</i>	Bloodroot	S5				5	3
<i>Sanicula marilandica</i>	Maryland Sanicle	S5				5	3
<i>Schoenoplectus tabernaemontani</i>	Soft-stemmed Bulrush	S5				5	-5
<i>Scirpus cyperinus</i>	Common Woolly Bulrush	S5				4	-5
<i>Silene vulgaris</i>	Bladder Champion	SNA					5
<i>Sisyrinchium angustifolium</i>	Narrow-leaved Blue-eyed-grass	S4				6	0
<i>Solanum dulcamara</i>	Bittersweet Nightshade	SNA					0
<i>Solidago caesia</i>	Blue-stemmed Goldenrod	S5				5	3
<i>Solidago flexicaulis</i>	Zigzag Goldenrod	S5				6	3
<i>Solidago juncea</i>	Early Goldenrod	S5				3	5
<i>Solidago</i> sp.	Goldenrod Species						
<i>Sonchus arvensis</i>	Field Sow-thistle	SNA					3
<i>Sparganium</i> sp.	Bur-reed Species						
<i>Spiraea alba</i>	White Meadowsweet	S5				3	-3
<i>Spiraea</i> sp.	Meadow-sweet Species						
<i>Symphotrichum lateriflorum</i>	Calico Aster	S5				3	0
<i>Symphotrichum urophyllum</i>	Arrow-leaved Aster	S4				6	5
<i>Taraxacum officinale</i>	Common Dandelion	SNA					3
<i>Thalictrum dioicum</i>	Early Meadow-rue	S5				6	3
<i>Thelypteris palustris</i>	Marsh Fern	S5				5	-3
<i>Thuja occidentalis</i>	Eastern White Cedar	S5				4	-3
<i>Tilia americana</i>	Basswood	S5				4	3
<i>Toxicodendron radicans</i>	Poison Ivy	S5				2	0
<i>Trifolium hybridum</i>	Alsike Clover	SNA					3
<i>Trifolium pratense</i>	Red Clover	SNA					3
<i>Trifolium repens</i>	White Clover	SNA					3
<i>Trillium grandiflorum</i>	White Trillium	S5				5	3
<i>Typha latifolia</i>	Broad-leaved Cattail	S5				1	-5
<i>Ulmus americana</i>	White Elm	S5				3	-3
<i>Urtica dioica</i>	Stinging Nettle	S5				2	0
<i>Uvularia grandiflora</i>	Large-flowered Bellwort	S5				6	5
<i>Verbascum thapsus</i>	Common Mullein	SNA					5
<i>Veronica officinalis</i>	Common Speedwell	SNA					5
<i>Viburnum lentago</i>	Nannyberry	S5				4	0
<i>Vicia cracca</i>	Tufted Vetch	SNA					5
<i>Viola</i> sp.	Violet Species						
<i>Vitis riparia</i>	Riverbank Grape	S5				0	0
<i>Zanthoxylum americanum</i>	Common Prickly-ash	S5				3	3



LEGEND	
SRANK	Provincial Status: Provincial ranks are used by the NHIC to set protection priorities for rare species and natural communities. These ranks are not legal generally uncommon to common in the province. Species ranked S1-S3 are considered to be rare in Ontario. designations. S4 and S5 species are generally uncommon to common in the province. Species ranked S1-S3 are considered to be rare in Ontario.
S1 Critically Imperiled	Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.
S2 Imperiled	Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
S3 Vulnerable	Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4 Apparently Secure	Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5 Secure	Common, widespread, and abundant in the nation or state/province.
SU Unrankable	Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
SNA Unranked	A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
SX Presumed Extirpated	Species or community is believed to be extirpated from the nation or state/province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
SH Possibly Extirpated (Historical)	Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered.
SE# Exotic Status	
S#? Rank Uncertain	

Ontario Ministry of Natural Resources (OMNR). 2018. Natural Heritage Information Centre Species Lists. Last updated January 30, 2018. <https://www.ontario.ca/page/get-natural-heritage-information>

COSSARO	
END Endangered	A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's ESA.
THR Threatened	A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
SC Special Concern	A species with characteristics that make it sensitive to human activities or natural events.
DD Data Deficient	
EXP Extirpated	A species that no longer exists in the wild in Ontario but still occurs elsewhere.

Ontario Ministry of Natural Resources and Forestry (2018). Species Risk in Ontario. Last updated UNE 28, 2018. <https://www.ontario.ca/environment-and-energy/species-risk-type>

COSEWIC	
END Endangered	A wildlife species facing imminent extirpation or extinction.
THR Threatened	A wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
SC Special Concern	A wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats.
VUL Vulnerable	
NAR Not at Risk	A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.
DD Data Deficient	A category that applies when the available information is insufficient (a) to resolve a wildlife species' eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction.
NA Non-active	
XT Extirpated	A wildlife species that no longer exists in the wild in Canada, but exists elsewhere.

Committee for the Status on Endangered Wildlife in Canada (COSEWIC). 2018. Canadian Wildlife Species at Risk. Last updated February 22, 2018. http://www.sararegistry.gc.ca/sar/index/default_e.cfm

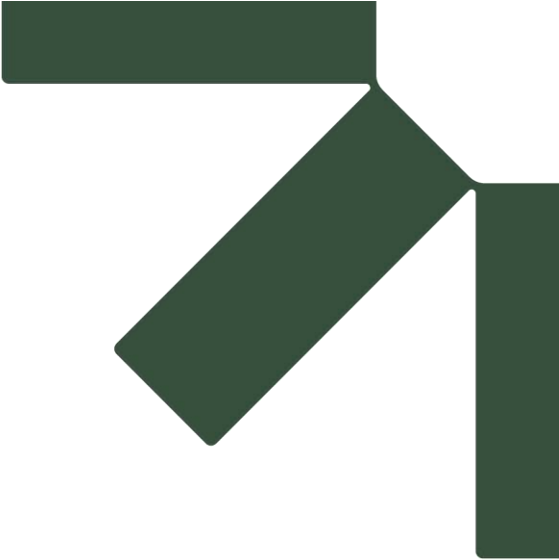
Coefficient of Conservation

'Higher values of the coefficients of conservatism, on the scale of 1–10, indicate species that are more "conservative" (or ecologically sensitive), including those least associated with anthropogenic disturbance, least aggressive, least able to spread, and most confined to particular natural habitat' (Catling Catling, Paul M. 2013. Using Coefficients of Conservatism and the Floristic Quality Index to assess the potential for serious and irreversible damage to plant communities. Canadian Field-Naturalist 127(3): 285–288.

Coefficient of Wetness

5 - Almost always occur on upland; 3 - Usually occur on uplands; 0 - Found on uplands and in wetlands; -3 Usually occur in wetlands; -5 Almost always occur in wetlands

Floristic Assessment System for Southern Ontario (Oldham et al, 1995).



Appendix D Breeding Bird Survey List

Revised Environmental Impact Study (Phase 1 Lands) and Environmental Constraints Analysis for Black Bear Ridge Resort

City of Belleville

Black Bear Ridge GP Inc.

SLR Project No.: 244.024334.00000

June 18, 2026

Breeding Birds of Black Bear Ridge

Common Name	Scientific Name	Status				Number of Pairs/Territories		
		National Species at Risk COSEWIC ^a	Species at Risk in Ontario Listing ^a	Provincial breeding season SRANK ^b	Area-sensitive (OMNR) ^c	Phase 1 Area	Remainder of Surveyed Area	Total
Great Blue Heron	<i>Ardea herodias</i>			S4		1 F	1 F	2 F
Green Heron	<i>Butorides virescens</i>			S4		1 PB		1 PB
Mallard	<i>Anas platyrhynchos</i>			S5		1		1
Turkey Vulture	<i>Cathartes aura</i>			S5			3 F	3 F
Sharp-shinned Hawk	<i>Accipiter striatus</i>			S5	A		1	1
Broad-winged Hawk	<i>Buteo platypterus</i>			S5	A		1	1
Red-tailed Hawk	<i>Buteo jamaicensis</i>			S5		1	1	2
Wild Turkey	<i>Meleagris gallopavo</i>			S5			1	1
Killdeer	<i>Charadrius vociferus</i>			S5		2		2
Mourning Dove	<i>Zenaida macroura</i>			S5		4	7	11
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>			S5	A		11	11
Downy Woodpecker	<i>Dryobates pubescens</i>			S5		1	2	3
Hairy Woodpecker	<i>Dryobates villosus</i>			S5	A		1	1
Northern Flicker	<i>Colaptes auratus</i>			S4		1	1	2
Eastern Wood-Pewee	<i>Contopus virens</i>	SC	SC	S4		3	14	17
Eastern Phoebe	<i>Sayornis phoebe</i>			S5			2	2
Great Crested Flycatcher	<i>Myiarchus crinitus</i>			S4			5	5
Eastern Kingbird	<i>Tyrannus tyrannus</i>			S4		3	2	5
Tree Swallow	<i>Tachycineta bicolor</i>			S4		4		4
Barn Swallow	<i>Hirundo rustica</i>	SC	SC	S4		1 F		1 F
Blue Jay	<i>Cyanocitta cristata</i>			S5		2	8	10
American Crow	<i>Corvus brachyrhynchos</i>			S5			1	1
Common Raven	<i>Corvus corax</i>			S5			1	1
Black-capped Chickadee	<i>Poecile atricapillus</i>			S5		1	10	11
Red-breasted Nuthatch	<i>Sitta canadensis</i>			S5	A		2	2
White-breasted Nuthatch	<i>Sitta carolinensis</i>			S5	A	1 PB	3	3, 1 PB
House Wren	<i>Troglodytes aedon</i>			S5		3	1	4
Eastern Bluebird	<i>Sialia sialis</i>			S5		1		1
Wood Thrush	<i>Hylocichla mustelina</i>	THR	SC	S4			6	6
American Robin	<i>Turdus migratorius</i>			S5		10	9	19
Gray Catbird	<i>Dumetella carolinensis</i>			S4		2	1	3
Brown Thrasher	<i>Toxostoma rufum</i>			S4		1		1
Cedar Waxwing	<i>Bombycilla cedrorum</i>			S5		5	3	8
European Starling	<i>Sturnus vulgaris</i>			SE		3		3
Warbling Vireo	<i>Vireo gilvus</i>			S5		6	1	7
Red-eyed Vireo	<i>Vireo olivaceus</i>			S5		2	28	30
Yellow Warbler	<i>Setophaga petechia</i>			S5		2	1	3
Chestnut-sided Warbler	<i>Setophaga pensylvanica</i>			S5		1	5	6
Black-throated Green Warbler	<i>Setophaga virens</i>			S5	A		1	1
Pine Warbler	<i>Setophaga pinus</i>			S5	A		2	2
Black-and-white Warbler	<i>Mniotilta varia</i>			S5	A		3	3
American Redstart	<i>Setophaga ruticilla</i>			S5	A		2	2
Ovenbird	<i>Seiurus aurocapilla</i>			S4	A		6	6
Northern Waterthrush	<i>Parkesia noveboracensis</i>			S5			1	1
Common Yellowthroat	<i>Geothlypis trichas</i>			S5		6	3	9
Scarlet Tanager	<i>Piranga olivacea</i>			S4	A		4	4
Northern Cardinal	<i>Cardinalis cardinalis</i>			S5		2	6	8
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>			S4			6	6
Indigo Bunting	<i>Passerina cyanea</i>			S4		1	6	7
Eastern Towhee	<i>Pipilio erythrophthalmus</i>			S4			2	2
Chipping Sparrow	<i>Spizella passerina</i>			S5		2	4	6
Field Sparrow	<i>Spizella pusilla</i>			S4		1	1	2
Savannah Sparrow	<i>Passerculus sandwichensis</i>			S4	A	5		5
Song Sparrow	<i>Melospiza melodia</i>			S5		10	10	20
Swamp Sparrow	<i>Melospiza georgiana</i>			S5			1	1
Bobolink	<i>Dolichonyx oryzivorus</i>	THR	THR	S4	A	1		1
Red-winged Blackbird	<i>Agelaius phoeniceus</i>			S4		9	3	12
Eastern Meadowlark	<i>Sturnella magna</i>	THR	THR	S4	A	3		3
Common Grackle	<i>Quiscalus quiscula</i>			S5		1	2	3
Baltimore Oriole	<i>Icterus galbula</i>			S4		5	6	11
American Goldfinch	<i>Spinus tristis</i>			S5		6	5	11

F = Foraging only; PB = Post-breeding (see report)



Common Name	Scientific Name	Status				Number of Pairs/Territories		
		National Species at Risk COSEWIC ^a	Species at Risk in Ontario Listing ^a	Provincial breeding season SRANK ^b	Area-sensitive (OMNR) ^c	Phase 1 Area	Remainder of Surveyed Area	Total
Field Work Conducted On:	Date	Temp (°C)	Wind Speed (Beaufort)	Cloud Cover (%)				
Site visit 1	June 3, 2022	12	0-1	90				
Site visit 2	June 23, 2022	14	0-1	5				
Site visit 3	July 6, 2022	14	0-1	30				

Total Area Surveyed (not all of property)
Total Number of Species: 61
Number of (provincial and national) Species at Risk: 4 nesting; 2 foraging
Number of S1 to S3 (provincially rare) Species: 0
Number of Forest Area-sensitive Species: 12
Number of Grassland Area-sensitive Species: 3

Phase 1 Area
Number of Species: 39
Number of (provincial and national) Species at Risk: 3 nesting; plus 1 foraging only
Number of S1 to S3 (provincially rare) Species: 0
Number of Forest Area-sensitive Species: 0
Number of Grassland Area-sensitive Species: 3

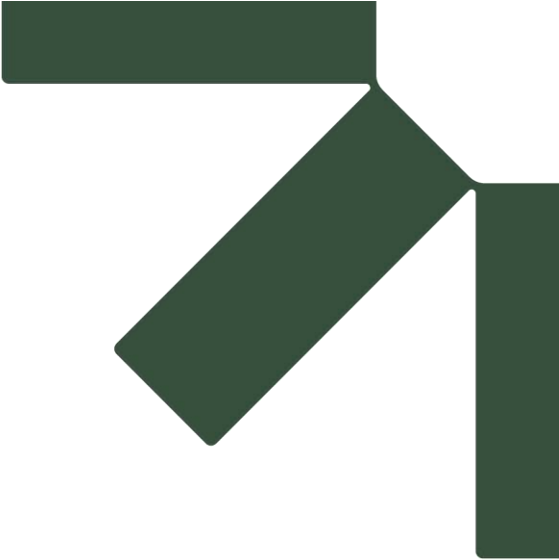
All other Areas Surveyed (mainly forested)
Number of Species: 50
Number of (provincial and national) Species at Risk: 2 nesting
Number of S1 to S3 (provincially rare) Species: 0
Number of Forest Area-sensitive Species: 12
Number of Grassland Area-sensitive Species: 0

KEY
a COSEWIC = Committee on the Status of Endangered Wildlife in Canada
a Species at Risk in Ontario List (as applies to ESA) as designated by COSSARO (Committee on the Status of Species at Risk in Ontario)
END = Endangered, THR = Threatened, SC = Special Concern

^b SRANK (from Natural Heritage Information Centre) for breeding status if:
S1 (Critically Imperiled), S2 (Imperiled),S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure)
SZB (breeding migrants or vagrants) and SR (reported as breeding, but no persuasive documentation) .
SE (exotic, i.e. non-native)

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





Appendix E Specifies at Risk Assessment

Revised Environmental Impact Study (Phase 1 Lands) and Environmental Constraints Analysis for Black Bear Ridge Resort

City of Belleville

Black Bear Ridge GP Inc.

SLR Project No.: 244.024334.00000

June 18, 2026

NAME	SARA STATUS	COSSARO	PSOL	COSEWIC	SCHEDULE	S-RANK	HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
AVIFAUNA											
Bank Swallow (<i>Riparia riparia</i>)	THR	THR	-	THR	1	S4B	The Bank Swallow is threatened by loss of breeding and foraging habitat, destruction of nesting habitat and widespread pesticide use. Bank swallows are small songbirds with brown upperparts, white underparts and a distinctive dark breast band. It averages 12 cm long and weighs between 10 and 18 grams. The swallow can be distinguished in flight from other swallows by its quick, erratic wing beats and its almost constant buzzy, chattering vocalizations. They nest in burrows in natural and human-made settings where there are vertical faces in silt and sand deposit, including banks of rivers and lakes, 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 (Ministry of Natural Resources and Forestry, 2014).	OBBA	N	There are no exposed banks or cliffs within the Subject Property.	None.
Barn Swallow (<i>Hirundo rustica</i>)	THR	SC	-	SC	1	S4B	The Barn Swallow is a threatened species, is found throughout southern Ontario, and can range into the north as long as suitable nesting locations can be found. These birds prefer to nest within human made structures such as barns, bridges, and culverts. Barn Swallow nests are cup-shaped and made of mud; they are typically attached to horizontal beams or vertical walls underneath an overhang. A significant decline in populations of this species has been documented since the mid-1980s, which is thought to be related to a decline in prey. Since the Barn Swallow is an aerial insectivore, this species relies on the presence of flying insects at specific times during the year. Changes in building practices and materials may also be having an impact on this species (Ministry of Natural Resources and Forestry, 2015).	MNAL 2004, OBBA	N	Structures are present on the Subject Property. One foraging individual was observed during Palmer's breeding bird surveys in 2022. No breeding evidence was recorded.	None anticipated.
Black Tern (<i>Chlidonias niger</i>)	No Status	END	END	Not at Risk	No Schedule	S3B	The Black Tern is a small shorebird that builds floating nests in loose colonies in shallow marshes, with a preference for cattails. The Black Tern is a species of special concern in Ontario due to population decline that is thought to be directly related to the loss of wetland habitat and anthropogenic influences in near shore areas of wetlands and shallow water bodies (i.e. fluctuations in water level, boat traffic, and wakes) (Ministry of Natural Resources and Forestry, 2015).	MNAL 2004	N	None recorded during Palmer's 2022 breeding bird surveys.	None anticipated.
Bobolink (<i>Dolichonyx oryzivorus</i>)	THR	THR	-	THR	1	S4B	The Bobolink is found in grasslands and hayfields, and feeds and nests on the ground. This species is widely distributed across most of Ontario; however, are designated at risk because of rapid population decline over the last 50 years (Ministry of Natural Resources and Forestry, 2014). The historical habitat of the bobolink was tallgrass prairie and other natural open meadow communities; however, as a result of the clearing of native prairies and the post-colonial increase in agriculture, bobolinks are now widely found in hayfields. Due to their reproductive cycle, nesting habits, and use of agricultural areas, bobolink nests and young are particularly vulnerable to loss as a result of common agricultural practices (i.e. first cut hay).	NHIC, OBBA	Y	One territory was recorded within Phase 1 Lands during Palmer's 2022 breeding bird surveys.	Migratory birds are no longer listed or protected under the newly enacted SCA. Adherence to proper timing windows in accordance with the MBCAare required.
Eastern Meadowlark (<i>Sturnella magna</i>)	THR	THR	-	THR	1	S4B	The Eastern Meadowlark is a bird that prefers pastures and hayfields, but is also found to breed in orchards, shrubby fields and human use areas such as airports and roadsides. Eastern meadowlarks can nest from early May to mid-August, in nests that are built on the ground and well-camouflaged with a roof woven from grasses. The decline in population of these species is thought to be at least partially related to habitat destruction and agricultural practices (Ministry of Natural Resources and Forestry, 2014).	NHIC, OBBA	Y	Three territories were recorded within Phase 1 Lands during Palmer's 2022 breeding bird surveys.	Migratory birds are no longer listed or protected under the newly enacted SCA. Adherence to proper timing windows in accordance with the MBCA and SARA are required.
Eastern Wood-Pewee (<i>Contopus virens</i>)	SC	SC	-	SC	1	S4B	The Eastern Wood-pewee is classified as a species of special concern by COSSARO. Their population has been gradually declining since the mid-1960's (The Cornell Lab of Ornithology, 2015). The Eastern Wood-pewee is a "flycatcher", a bird that eats flying insects, that lives in the mid-canopy layer of forest clearings and edges of deciduous and mixed forests. It prefers intermediate-age forest stands with little understory vegetation. Threats to the population are largely unknown; however, causes may include loss of habitat due to urban development and decreases in the availability of flying insect prey (Ministry of Natural Resources and Forestry, 2014).	MNAL 2004, OBBA	Y	17 territories were recorded throughout the Subject Property; three territories were recorded within Phase 1 Lands.	Migratory birds are no longer listed or protected under the newly enacted SCA. Adherence to proper timing windows in accordance with the MBCA are required.



NAME	SARA STATUS	COSSARO	PSOL	COSEWIC	SCHEDULE	S-RANK	HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Grasshopper Sparrow (<i>Ammodramus savannarum</i>)	No Status	SC	-	SC	X	S4B	Grasshopper Sparrow are specialized to open relatively short grassland habitat, preferably grasslands with relatively sparse cover such as those in areas of poor soils, including alvars, moraines, and sand plains and generally does not favour tall grass moist meadows. It will also breed in manmade hayfields and occasionally in cereals such as Rye (<i>Secale cereale</i>).	OBBA	N	No individuals were recorded during Palmer's 2022 breeding bird surveys.	None.
Least Bittern (<i>Ixobrychus exilis</i>)	THR	SC	-	THR	1	S4B	The Least Bittern prefers marshes and swamps dominated by emergent vegetation, preferably cattails, interspersed with patches of woody vegetation and open water. The smallest member of the heron family, least bitterns nest in marshes south of the Precambrian Shield in Ontario. Due to the location of the nests close to the water surface, least bittern nests are susceptible to damage as a result of wakes cast by recreational boats (Government of Canada, 2015).	OBBA	N	No individuals were recorded during Palmer's 2022 breeding bird surveys.	None.
Wood Thrush (<i>Hylocichla mustelina</i>)	THR	SC	-	THR	1	S4B	The Wood Thrush is a species of Special Concern because of habitat degradation or destruction by anthropogenic development. The Wood Thrush is a medium-sized songbird, generally rusty-brown on the upper parts with white under parts and large blackish spots on the breast and sides, and about 20 cm long. The Wood Thrush forages for food in leaf litter or on semi-bare ground, including larval and adult insects as well as plant material. They seek moist stands of trees with well-developed undergrowth in large mature deciduous and mixed (conifer-deciduous) forests. The Wood Thrush flies south to Mexico and Central America for the winter (Ministry of Natural Resources and Forestry, 2014).	OBBA	Y	Six territories were recorded on the Subject Property, outside Phase 1 Lands.	Not found in Phase 1 Lands. Impacts and mitigations will be discussed in future development phases.
HERPTILES											
Blanding's Turtle (<i>Emydoidea blandingii</i>)	THR	THR	THR	END	1	S3	Blanding's turtles are threatened in Ontario primarily as a result of habitat loss and fragmentation. Blanding's turtles spend the majority of their life cycle in the aquatic environment, using terrestrial sites for travel between habitat patches and to lay clutches of eggs. These turtles prefer shallow nutrient rich water with organic sediment and dense vegetation. Blanding's turtles nest in dry coniferous and mixed forest habitats, as well as fields and roadsides (Government of Canada, 2015).	ORAA	P	Suitable wetland habitat present within the Subject Property.	No impacts expected. Suitable wetlands and their buffers associated with the Foxboro swamp and Moira River are proposed to be preserved.
Eastern Musk Turtle (<i>Sternotherus odoratus</i>)	SC	SC	-	SC	1	S3	The eastern musk turtle is a small freshwater turtle with a highly arched shell and a dull black-brown body. These turtles are found primarily in slow moving water bodies with abundant emergent vegetation and mucky bottoms along the southern edge of the Canadian Shield. Wetland drainage and shoreline development are among the most significant contributors to the decline in the population of this species (Ministry of Natural Resources and Forestry, 2014).	ORAA	P	Suitable wetland habitat present within the Subject Property.	No impacts expected. Suitable wetlands and their buffers associated with the Foxboro swamp and Moira River are proposed to be preserved. Special Concern species are no longer listed under the newly enacted SCA.
Northern Map Turtle (<i>Graptemys geographica</i>)	SC	SC	-	SC	1	S3	The northern map turtle is a medium sized turtle with a carapace marked by concentric rings that resemble contour lines on a map. The range of this turtle includes larger lakes and rivers that contain an abundance of their primary prey species; molluscs. Shoreline development, water pollution and the spread of the zebra mussel are notable reasons for the decline in populations of this species (Ministry of Natural Resources and Forestry, 2014).	ORAA	P	Suitable wetland habitat present within the Subject Property.	No impacts expected. Suitable wetlands and their buffers associated with the Foxboro swamp and Moira River are proposed to be preserved. Special Concern species are no longer listed under the newly enacted SCA.
Snapping Turtle (<i>Chelydra serpentina</i>)	SC	SC	-	SC	1	S3	The snapping turtle is a species of special concern in Ontario due to the potential for the species to become threatened or endangered as a result of biological factors or other identified threats. While not presently protected by law, the snapping turtle has been recognized as a species of special concern by COSSARO. Snapping turtles spend the majority of their lives in water and travel slightly upland to gravel or sandy embankments or beaches to lay their eggs (Ontario Ministry of Natural Resources and Forestry, 2014).	NHIC, ORAA	P	Suitable wetland habitat present within the Subject Property.	No individuals observed to date. Suitable wetlands and their buffers, within Phase 1 Lands, are proposed to be preserved. Mitigation measures related to the municipal right-of-way will be required however, Special Concern species are no longer listed under the newly enacted SCA.
VASCULAR PLANTS											



NAME	SARA STATUS	COSSARO	PSOL	COSEWIC	SCHEDULE	S-RANK	HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Butternut (<i>Juglans cinerea</i>)	END	END	END	END	1	S2?	The butternut is designated as endangered by COSSARO and is tracked by the NHIC as a species at risk. The tree is federally regulated by the Species at Risk Act (2002). Butternut belongs to the walnut family and produces edible nuts which are a preferred food source for wildlife. The range of butternut trees is south of the Canadian Shield on soils derived from calcium rich limestone bedrock. Butternut trees, which at one time were much more common to the south extending to the northern aspect of zone 6E, have been declining due to factors including forest loss and disease. Butternut trees suffer from a highly transmissible fungal disease called butternut canker. Butternut canker is causing very rapid decline in this tree species across its native range. The fungal disease is easily transmitted by wind and is very difficult to prevent. Trees often die within a few years of infection by butternut canker (Ministry of Natural Resource and Forestry, 2014).	Professional Experience	Y	A Butternut sapling was recorded adjacent to Foxboro Swamp, outside of Phase 1 Lands. None observed within Phase 1 Lands to date.	None observed in Phase 1. Potential impacts and mitigations to Butternut outside of Phase 1 Lands will be discussed in future development phases should this species be observed within developable lands.
Black Ash (<i>Fraxinus nigra</i>)	No Status	END	END	THR	No Schedule	S4	Found throughout Ontario in moist ecosystems; commonly found in northern swampy woodlands (MNRF 2018). This species typically grows on mucky or peaty soils and is considered a facultative wetland species (Reznicek et al. 2011).	Professional Experience	P	Suitable habitat may be present throughout the swamp communities on the Subject Property.	No trees observed. Suitable wetlands and their buffers are proposed to be preserved.
Ogden's Pondweed (<i>Potamogeton ogdenii</i>)	END	END	END	END	1	SH	Ogden's pondweed is an underwater, or submersed, aquatic plant that grows in clear, slow-moving streams, ponds, and lakes. Like other pondweeds, it has alternate leaves with a prominent mid-vein. Its stems are thread-like; leaves are narrow and five (5) to seven (7) centimeters long. It is very hard to differentiate Ogden's pondweed from other narrow-leaved pondweeds. It is threatened by habitat destruction and competition from invasive aquatic plants, such as Eurasian water-milfoil (<i>Myriophyllum spicatum</i>) (Ministry of Natural Resources and Forestry, 2014).	NHIC	N	Potential habitat for this species exists outside of the Subject Property. No impacts are anticipated in or immediately adjacent to the Moira River.	None.
MAMMALS											
Tri-colored Bat (Eastern Pipistrelle) (<i>Perimyotis subflavus</i>)	END	END	END	END	1	S3?	The eastern pipistrelle is a small bat that is widely distributed in eastern North America and whose range extends north to southern Ontario. The eastern pipistrelle is rare in this region of Ontario which is at the northernmost limit of the natural range for the species. These bats prefer to nest in foliage, tree cavities and woodpecker holes, and are occasionally found in buildings; though this is not their preferred habitat. Winter hibernation takes place in caves, mines and deep crevices. Eastern pipistrelles feed primarily on small insects and prefer an open forest habitat type in proximity to water (University of Michigan Museum of Zoology, 2004).	Professional Experience	Y	Suitable forest habitat present within the Subject Property.	Low potential for impacts expected. Mitigation: As SAR bats are typically active between early April and late October, tree removal should be carried out between December 1 - March 31. This will avoid harm or impacts to individuals. Additional mitigation measures such as the installation of bat boxes may be needed. Registration and/or permitting under the newly enacted SCA may be required if SAR bats and/or their habitat are determined to be present.
Eastern Small-footed Myotis (<i>Myotis leibii</i>)	No Status	END	END	No Status	No Schedule	S2S3	The eastern small-footed myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Eastern small-footed bat's fur has black roots and shiny light brown tips, giving it a yellowish-brown appearance. Its face mask, ears and wings are black, and its underside is grayish-brown, about 8 cm long in size and weighs 4-5 grams. In the spring and summer, eastern small-footed bats will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. They change their roosting locations daily and hunt at night for insects to eat, including beetles, mosquitos, moths, and flies. They hibernate in winter, often in caves and abandoned mines. They can be found from south of Georgian Bay to Lake Erie and east to the Pembroke area, and choose colder and drier sites (Ministry of Natural Resources and Forestry, 2014).	Professional Experience	P	Suitable forest habitat present within the Subject Property.	Low to no potential for impacts expected as rock out crops or talus slopes are not present within the Phase 1 Lands. Mitigation: As most SAR bats are typically active between early April and late October, tree removal should be carried out between December 1 - March 31. This will avoid harm or impacts to individuals. Additional mitigation measures such as the installation of bat boxes may be needed. Registration and/or permitting under the newly enacted SCA may be required if SAR bats and/or their habitat are determined to be present.

NAME	SARA STATUS	COSSARO	PSOL	COSEWIC	SCHEDULE	S-RANK	HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Little Brown Myotis (<i>Myotis lucifugus</i>)	END	END	END	END	1	S4	Little brown myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Little brown bats have glossy brown fur and usually weigh between four and 11 grams. Bats are nocturnal. During the day they roost in trees and buildings. They often select attics, abandoned buildings and barns for summer colonies where they can raise their young. Little brown bats hibernate from October or November to March or April, most often in caves or abandoned mines that are humid and remain above freezing – an ideal environment for the fungus to grow and flourish. The syndrome affects bats by disrupting their hibernation cycle, so that they use up body fat supplies before the spring when they can once again find food sources (Ministry of Natural Resources and Forestry, 2014).	Professional Experience	Y	Suitable forest habitat present within the Subject Property.	Low potential for impacts expected. Mitigation: As SAR bats are typically active between early April and late October, tree removal should be carried out between December 1 - March 31. This will avoid harm or impacts to individuals. Additional mitigation measures such as the installation of bat boxes may be needed. Registration and/or permitting under the newly enacted SCA may be required if SAR bats and/or their habitat are determined to be present.
Northern Myotis (<i>Myotis septentrionalis</i>)	END	END	END	END	1	S3	The northern long-eared myotis, a bat, are an endangered species threatened by a disease known as white nose syndrome, caused by a fungus from Europe. Northern long-eared bats have dull yellow-brown fur with pale grey bellies. They are approximately eight cm long, with a wingspan of about 25 cm, and usually weigh six to nine grams. Northern long-eared bats can be found in boreal forests, roosting under loose bark and in the cavities of trees. These bats hibernate from October or November to March or April, most often in caves or abandoned mines (Ministry of Natural Resources and Forestry, 2014).	Professional Experience	Y	Suitable forest habitat present within the Subject Property.	Low potential for impacts expected. Mitigation: As SAR bats are typically active between early April and late October, tree removal should be carried out between December 1 - March 31. This will avoid harm or impacts to individuals. Additional mitigation measures such as the installation of bat boxes may be needed. Registration and/or permitting under the newly enacted SCA may be required if SAR bats and/or their habitat are determined to be present.
Eastern Red Bat (<i>Lasiurus borealis</i>)	S3	END	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	Y	Suitable forest habitat present within the Subject Property.	Low potential for impacts expected. Mitigation: As SAR bats are typically active between early April and late October, tree removal should be carried out between December 1 - March 31. This will avoid harm or impacts to individuals. Additional mitigation measures such as the installation of bat boxes may be needed. Registration and/or permitting under the newly enacted SCA may be required if SAR bats and/or their habitat are determined to be present.
Hoary Bat (<i>Lasiurus cinereus</i>)	S3	END	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	Y	Suitable forest habitat present within the Subject Property.	Low potential for impacts expected. Mitigation: As SAR bats are typically active between early April and late October, tree removal should be carried out between December 1 - March 31. This will avoid harm or impacts to individuals. Additional mitigation measures such as the installation of bat boxes may be needed. Registration and/or permitting under the newly enacted SCA may be required if SAR bats and/or their habitat are determined to be present.

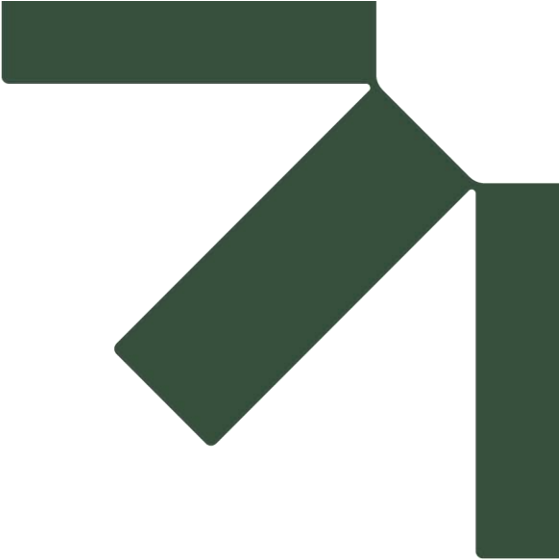


NAME	SARA STATUS	COSSARO	PSOL	COSEWIC	SCHEDULE	S-RANK	HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Silver-haired Bat (<i>Lasionycteris noctivagans</i>)	S3	END	END	END	-	-	Silver-haired Bats occurs primarily under bark and in the cavities of 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	Y	Suitable forest habitat present within the Subject Property.	Low potential for impacts expected. Mitigation: As SAR bats are typically active between early April and late October, tree removal should be carried out between December 1 - March 31. This will avoid harm or impacts to individuals. Additional mitigation measures such as the installation of bat boxes may be needed. Registration and/or permitting under the newly enacted SCA may be required if SAR bats and/or their habitat are determined to be present.
FISH											
American Eel (<i>Anguilla rostrata</i>)	No Status	END	END	THR	No Schedule	S1?	The American eel is a long, slender bodied fish, with one long fin extending down the back and around the tail, and two small pectoral fins. It has thick lips, and a protruding lower jaw that extends out above the upper jaw. American eel spawn in the Sargasso Sea and the larva drift up the eastern seaboard of North America before undergoing metamorphosis into glass eels and then elvars. At this stage the juveniles swim up the St. Lawrence River to reach Lake Ontario and connected tributaries where they will remain for eight (8) to 23 years before migrating back to their spawning grounds. In Ontario the American eel prefers mud, sand or gravel substrates during the juvenile stage when they reside primarily in the benthic zone of waterbodies. More mature eels are able to thrive in most environments provided there is available cover during daylight hours, and the habitat is accessible. The greatest threat to this species is the density and design of hydro power facilities along migration routes. American eels are affected during migration by the inability to pass these barriers while travelling upstream, and the high rates of mortality experienced by individuals pulled into turbines while heading downstream (Government of Canada, 2016).	NHIC	N	Potential habitat for this species exists outside of the Subject Property. No impacts are anticipated in or immediately adjacent to the Moira River.	None.
Channel Darter (<i>Percina copelandi</i>)	THR	SC	-	END (Lake Erie and Lake Ontario populations)/SC (St. Lawrence populations)	1	S2	In Ontario, the Channel Darter lives in clean streams and lakes with sandy or gravel bottoms. During the breeding season in late spring, it prefers riffle areas with fairly fast moving water but spends the winter in deeper, calmer water. It eats mostly aquatic insect larvae from the bottom of the stream.	DFO, NHIC	N	Potential habitat for this species exists outside of the Subject Property. No impacts are anticipated in or immediately adjacent to the Moira River.	None.
Rainbow Mussel (<i>Villosa iris</i>)	END	SC	-	END	-	S2S3	Rainbow mussel utilize small to medium-sized rivers with a moderate to strong current and sand, rocky, or gravel bottoms. They are found in or near riffle areas and along the edges of vegetation in water less than one metre deep.	DFO, NHIC	N	Potential habitat for this species exists outside of the Subject Property. No impacts are anticipated in or immediately adjacent to the Moira River.	None.
OTHER											



NAME	SARA STATUS	COSSARO	PSOL	COSEWIC	SCHEDULE	S-RANK	HABITAT REQUIREMENTS	SOURCE OF RECORD	HABITAT PRESENT (Y/P/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
Monarch Butterfly (<i>Danaus plexippus</i>)	SC	SC	-	END	1	S2N,S4B	The monarch is an orange and black butterfly with small white spots and is classified as a species of special concern by COSSARO. The monarch relies on milkweed plants as a food source for growing caterpillars, but the adult butterflies forage in diverse habitats for nectar from wildflowers. The greatest threat to the monarch is loss of overwintering habitat in Mexico. Other threats include use of pesticides and herbicides throughout its range (Ministry of Natural Resources and Forestry, 2014).	OBA	Y	Open areas containing milkweed are present on the Subject Property however, minimal foraging opportunities are present within Phase 1 Lands.	Loss of Common Milkweed (considered to be widespread in Ontario), as a result of the proposed work, is not anticipated to impact this species. Special Concern species are no longer listed under the newly enacted SCA.

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, N = No, P = Potential



Appendix F Significant Wildlife Habitat Assessment

Revised Environmental Impact Study (Phase 1 Lands) and Environmental Constraints Analysis for Black Bear Ridge Resort

City of Belleville

Black Bear Ridge GP Inc.

SLR Project No.: 244.024334.00000

June 18, 2026

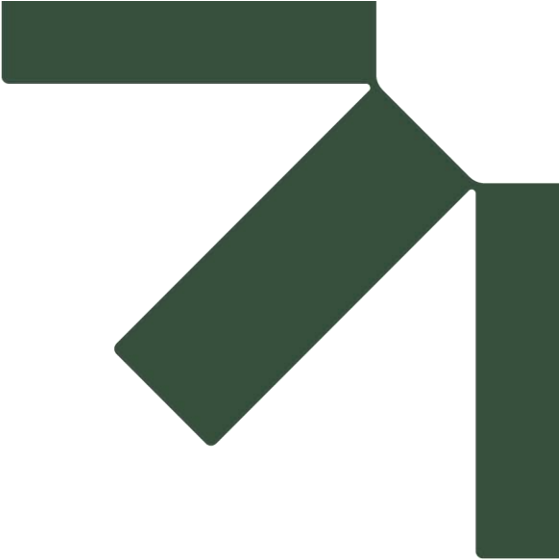


SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Confirmed, Candidate, or Absent (N)?	Additional Notes and Species Observations
Seasonal Concentration Areas of Animals					
Waterfowl Stopover and Staging Areas (Terrestrial)	Ducks	CUM + CUT ecosites	Fields with sheet-water flooding mid-March to May	N	Suitable habitat/sheet water areas are absent within the Subject Property.
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.	Confirmed	A constructed migratory bird sanctuary present on the Subject Property was identified as SWH in MNAL's <i>Environmental Impact Study</i> (2004).
Shorebird Migratory Stopover Area	Shorebirds	Beaches, Dunes, Meadow Marshes	Shorelines. Sewage treatment ponds and storm water ponds not SWH.	N	Suitable shoreline habitat is absent within the Subject Property.
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	Large forest habitat adjacent to open water (e.g., Moira River) is present on the Subject Property however, insufficient meadow size found on the property.
Bat Hibernacula	Big Brown Bat, Tri-coloured Bat	Caves, Crevices, mines, karsts	Buildings and active mine sites not SWH.	N	Suitable habitat is absent within the Subject Property.
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.	Candidate	Forest habitats with cavity trees >25 cm DBH are present within the Subject Property. All forest communities are considered Candidate SWH until species-specific surveys are conducted. Suitable habitat is less likely to be present within Phase 1 Lands.
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.	Candidate	Moira River is considered Candidate SWH for turtle wintering however, is unable to be confirmed. Constructed ponds are not considered for SWH.
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	Access below frost line: 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	No evidence of hibernacula has been recorded within the Subject Property. No targeted surveys have been conducted to date.
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	Exposed bank habitat is absent within the Subject Property. No individuals were observed.
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 tree tops.	N	No heron colonies were observed during breeding bird surveys on the Subject Property. Green Heron, which is not a colonial breeder, may have nested on the property however, no direct evidence was observed.
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	None observed during SLR's breeding bird surveys.
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	Subject Property is not within 5 km of Lake Ontario; meadows are not >10 ha.
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	While some woodlots are >10 ha, the Subject Property is not within 5 km of Lake Ontario.
Deer Yarding Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	Suitable habitat is absent within the Subject Property. No Deer Yarding Areas mapped by the MNRF and conifer cover is minimal across site.
Deer Winter Congregation Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	Suitable habitat is absent within the Subject Property. No Deer Yarding Areas mapped by the MNRF and conifer cover is minimal across site.
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 absent within the Subject Property.
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 absent within the Subject Property.
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 absent within the Subject Property.



SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Confirmed, Candidate, or Absent (N)?	Additional Notes and Species Observations
Old Growth Forest	Trees >140 yrs; heavy mortailty = 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.	Candidate	While there is potential for old growth in Foxboro Swamp PSW, it is unlikely to be present due to the scarcity of old growth in southern Ontario. Habitat not present within Phase 1 Lands.
Savannah	Prairie Grasses w/ trees	TPS1, TPS2, TPW1, TPW2, CUS2	A Savannah is a <u>tallgrass prairie</u> habitat that has tree cover of 25 – 60%. <50% cover of exotic species.	N	Suitable habitat is absent within the Subject Property.
Tallgrass Prairie	Prairies Grasses dominate	TPO1, TPO2	An <u>open Tallgrass Prairie</u> habitat has < 25% tree cover. Less than 50% cover of exotic species.	N	Suitable habitat is absent within the Subject Property.
Other Rare Vegetation Communities		Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of SWHTG.	Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.	N	Suitable habitat is absent within the Subject Property.
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	Only one Mallard was observed during breeding bird surveys and there is minimal suitable habitat adjacent to wetlands.
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	No nesting habitat recorded during SLR's breeding bird surveys.
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.	Candidate	Suitable habitat (i.e., Foxboro Swamp) and one territory of both Sharp-shinned Hawk and Broad-winged Hawk were observed outside of Phase 1 Lands, at least one nest of the listed species would be expected on the property.
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	No suitable habitat observed within the Subject Property.
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).	N	No springs were reported on the Subject Property or additional lands as per Palmer's <i>Hydrogeological Assessment</i> (2023).
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	Criteria not met on the Subject Property.
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.	Confirmed	American Bullfrog recorded in two conctructed ponds (Station 8 and 9) within Phase 1 Lands in 2022. Low numbers of Northern Spring Peeper and Leopard Frog were recorded at station 8 (north of Corbyville PSW). A chorus of Gray Treefrogs were recorded at both Station 8 and 9.
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.	Confirmed	Breeding habitat was confirmed on the Subject Property for five woodland area-sensitive birds (based on Ecoregion 6E criteria). Additional forest area-sensitive birds (OMNR, 2000) were observed by SLR. No habitat under this category was recorded within the Phase 1 Lands.
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	The marsh breeding bird community was quite low in diversity, one Green Heron observation has been covered under the Colonially-nesting Bird Breeding Habitat (Tree/Shrubs) SWH category.
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	SWH criteria was not met, only one listed grassland species (Savannah Sparrow) was recorded.
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	Insufficient numbers of early successional species were observed to meet the criteria. There were no large areas of early successional habitat. Brown Thrasher, Field Sparrow, and Eastern Towhee were recorded, in small numbers, within the Subject Property.
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).	N	While Suitable wetland habitat could be present within the Subject Property, No chimney crayfish 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.	Confirmed	SWH for Special Concern (under COSSARO, SARA) Eastern Wood-Pewee was identified based on 12 (out of 17) territories of the species. Five territories (out of six) of Wood Thrush (Special Concern (COSSARO), Threatened (SARA)) are within this area. Wood Thrush is still considered under this category due to its Special Concern designation under COSSARO.
Animal Movement Corridors					
Amphibians	Amphibians	all ecosites assoc. w/ water	When Breeding Habitat - wetland confirmed	N	No movement corridors identified by the MNRF or planning authority on the Subject Property.
Deer Movement	White-tailed Deer	all forested ecosites	When Deer Wintering Habitat confirmed	N	No Deer Yarding habitat mapped by MNRF.
Exceptions for Ecoregion 6E					
Mast Producing: 6E-14	Black Bear	Forested Ecosites	>30 ha w/ mast producing species: Cherry (berries), Oak, Beech (nuts).	N	Subject Property is not within 6E-14.
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	Subject Property is not within 6E-17.





Appendix G Black Bear Village Structure Plan and Phase 1 Draft Plan of Subdivision (Biglieri Group, December 2025)

Revised Environmental Impact Study (Phase 1 Lands) and Environmental Constraints Analysis for Black Bear Ridge Resort

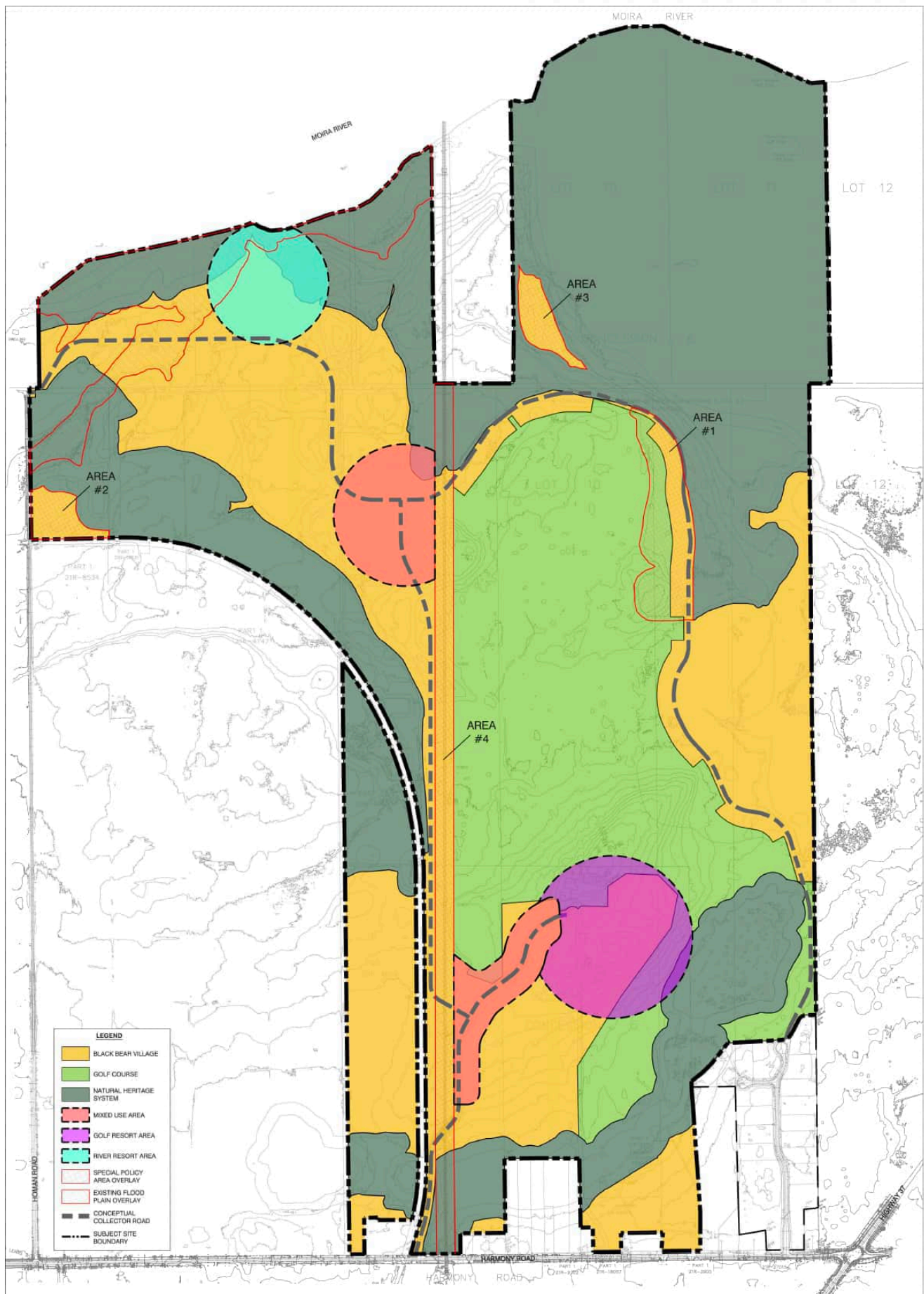
City of Belleville

Black Bear Ridge GP Inc.

SLR Project No.: 244.024334.00000

June 18, 2026



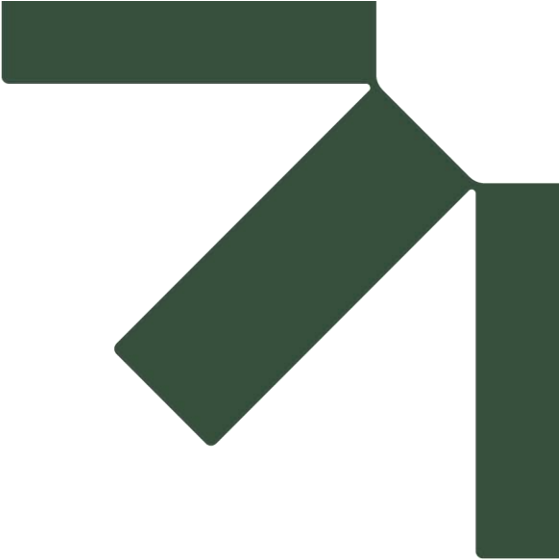


**BLACK BEAR
VILLAGE
SECONDARY
PLAN
SCHEDULE "A"**

LEGAL DESCRIPTION:
Part of Lots 8, 9, 10 and 11,
Concession 5
Part of Lots 7, 8, 9, 10 and 11,
Concession 6
Township of Thurlow
Now in the City of Belleville
County of Hastings

STRUCTURE PLAN





Appendix H Proposed Emergency Access Road (Jewell Engineering, November 2025)

Revised Environmental Impact Study (Phase 1 Lands) and Environmental Constraints Analysis for Black Bear Ridge Resort

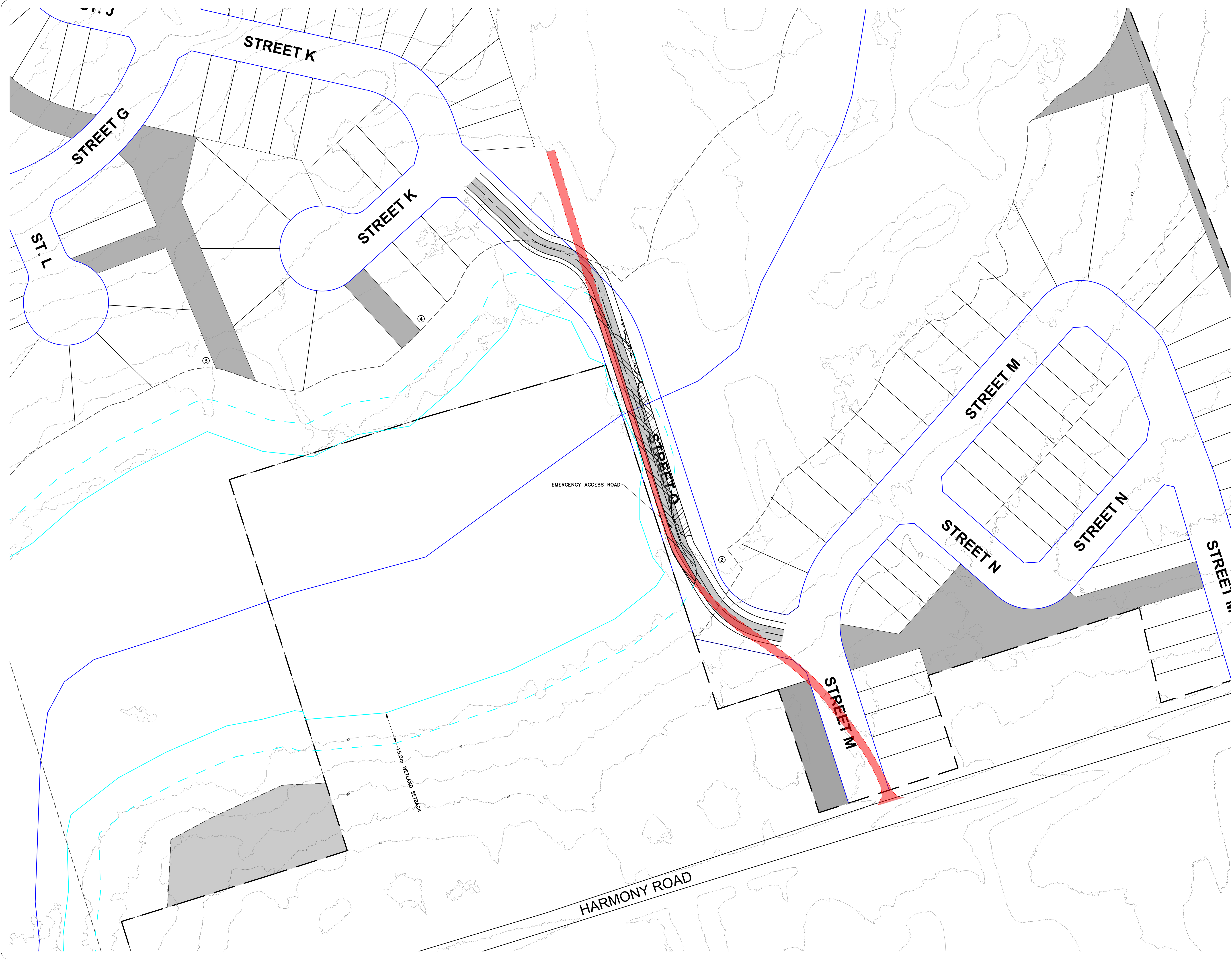
City of Belleville

Black Bear Ridge GP Inc.

SLR Project No.: 244.024334.00000

June 18, 2026





GENERAL NOTES:

- ALL INFORMATION TO BE VERIFIED ON SITE PRIOR TO COMMENCING ANY WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT IMMEDIATELY.
- ALL UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL CONFIRM THE LOCATION ON SITE AND ASSUME ALL LIABILITY FOR DAMAGE TO ALL UTILITIES.
- EXCLUDING THE BENCHMARK AND DESCRIPTION PROVIDED FOR THIS PROJECT, NO OTHER ELEVATIONS ARE TO BE USED AS A REFERENCE ELEVATION FOR ANY PURPOSE.

METRIC NOTE:

- ALL DIMENSIONS SHOWN ARE IN METRES OR MILLIMETRES, UNLESS OTHERWISE NOTED.

GEOMETRIC NOTE:

- ALL SURVEY DATA SHOWN ON THIS DRAWING WAS RECORDED USING REAL-TIME KINETIC (RTK) GPS OBSERVATIONS IN REFERENCE TO UTM 18 NORTH COORDINATE SYSTEM.
- ALL ELEVATIONS ARE IN REFERENCE TO LOCAL DATUM NAD83 - GEODETIC MODEL HTF.2, UNLESS DESCRIBED OTHERWISE.

**** DRAWINGS ARE NOT TO BE SCALED ****

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	31/01/25	FIRST SUBMISSION	DFM
2	17/10/25	FOR CLIENT REVIEW	DFM

LEGEND

①

EXISTING DRIVEWAY

AREA WITHIN WETLAND SETBACK (CURRENTLY COVERED BY ROAD) (420m²)

AREA IN WETLAND SETBACK (NOT CURRENTLY ROAD) (745m²)

POND ENCROACHMENT AREA (372m²)

STORM OUTLET ID

BLACK BEAR RIDGE GP INC.
BLACK BEAR RIDGE VILLAGE

EMERGENCY ACCESS ROAD

DRAWN BY:
DFM

DESIGNED BY:
DFM

CHECKED BY:
BK

APPROVED BY:
BK

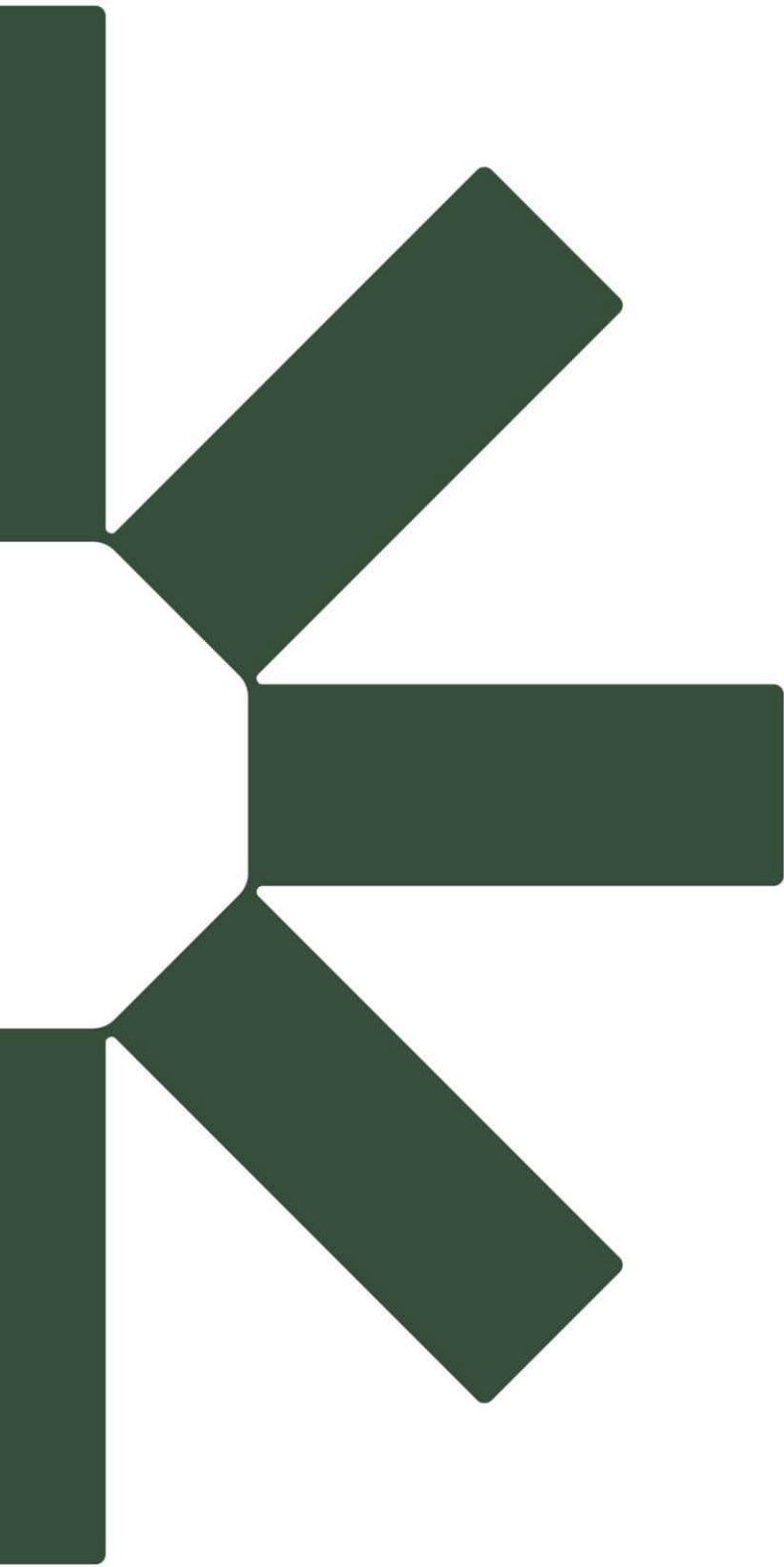
PROJECT NO:
2205260

DATE:
November 2025

SCALE:
HORIZONTAL - 1:300
VERTICAL - N/A

CONTRACT NO:

DRAWING NO:
EA-1



Making Sustainability Happen