



6404 Mayfield Road, Caledon

Environmental Impact Study

Prepared for:

G.N. Transport Inc.
25 Newkirk Court, Unit 8
Brampton, Ontario L6Z 0J8

Project No. 3626 | June 2026



NATURAL RESOURCE SOLUTIONS INC.

Aquatic, Terrestrial and Wetland Biologists

6404 Mayfield Road, Caledon
Environmental Impact Study

Project Team

Ryan Archer	Project Manager; Senior Terrestrial and Wetland Biologist
Hashveenah Manoharan	Terrestrial and Wetland Biologist
Stephen Burgin	Aquatic Biologist
Laura Cobham	GIS Specialist

Report submitted on June 29, 2026



Ryan Archer, M.Sc.

Project Manager
Senior Terrestrial and Wetland Biologist

Table of Contents

1.0	Introduction	1
2.0	Project Scoping	4
2.1	Background Information Review	4
2.2	Significant Species and Habitat Screening.....	5
2.2.1	Species at Risk Habitat Screening	5
2.2.2	Significant Wildlife Habitat Screening.....	6
2.3	Relevant Policies, Legislation and Planning Studies.....	8
3.0	Field Methods	6
4.0	Existing Conditions.....	7
4.1	Soils, Terrain and Drainage.....	7
4.2	Vegetation	7
4.2.1	Vegetation Communities.....	7
4.2.2	Vascular Flora	10
4.3	Wildlife.....	12
4.3.1	Birds	12
4.3.2	Herpetofauna.....	13
4.3.3	Mammals.....	13
4.3.4	Insects	14
4.4	Aquatic Features.....	15
4.4.1	Salt Creek.....	15
5.0	Natural Environment Constraints.....	17
5.1	Salt Creek Linkage.....	17
5.1.1	Natural Feature and Area	18
5.1.2	Wetlands.....	18
5.1.3	Local Landscape Linkage	19
5.2	Supporting Features and Areas.....	21
5.3	Watercourse and Fish Habitat	22
5.4	Species at Risk	23
5.4.1	Redside Dace Habitat.....	23
5.4.2	Potential Species at Risk Bat Habitat.....	24
5.5	Significant Wildlife Habitat.....	24
5.5.1	Confirmed Significant Wildlife Habitat	25
5.5.2	Candidate Significant Wildlife Habitat	26

5.5.3	Significant Wildlife Habitat Considered Absent	27
5.6	Toronto and Region Conservation Authority Regulated Areas.....	28
5.7	Regionally Significant Species	29
5.8	Buffer.....	29
6.0	Impact Assessment.....	32
6.1	Description of the Proposed Development.....	32
6.1.1	Permeable Landscape Zone	32
6.2	Approach to Impact Assessment	33
6.3	Direct Impacts	34
6.3.1	Vegetation Removal and Site Grading	34
6.3.2	Impacts to Terrestrial Wildlife and Their Habitats	35
6.3.3	Impacts to Fish and Aquatic Habitat.....	38
6.4	Indirect Impacts	38
6.4.1	Construction Disturbance to Adjacent Natural Features and Habitats	38
6.4.2	Changes to Hydrological Regime.....	41
6.4.3	Sedimentation and Erosion	43
6.4.4	Water Quality	45
6.5	Induced Impacts	47
7.0	Restoration and Enhancement.....	48
8.0	Monitoring.....	50
8.1	Pre-Construction Monitoring	50
8.2	Construction Monitoring	51
8.3	Post-Construction Monitoring	51
9.0	Summary.....	53
9.1	Summary of Recommendations	54
10.0	References	58

List of Tables

Table 1. Relevant policies, legislation, regulations and planning studies.....	0
Table 2. Field survey summary.	6
Table 3. Vegetation communities within the study area.....	8
Table 4. FQI value for the study area vegetation communities with inclusion.	12
Table 5. Summary of Candidate Significant Wildlife Habitat Categories Identified During Preliminary Screening Considered Absent.....	28
Table 6. Summary of EIS recommendations.	55

List of Appendices

APPENDIX I Natural Heritage and Natural Environment Systems Mapping

APPENDIX II Town of Caledon Comments

APPENDIX III Terms of Reference

APPENDIX IV Vascular Flora Species Reported from the Study Area

APPENDIX V Bird Species Reported from the Study Area

APPENDIX VI Herpetofauna Species Reported from the Study Area

APPENDIX VII Mammal Species Reported from the Study Area

APPENDIX VIII Lepidoptera Species Reported from the Study Area

APPENDIX IX Odonata Species Reported from the Study Area

APPENDIX X Aquatic Conditions Photolog

APPENDIX XI Proposed Development Plan

1.0 Introduction

Natural Resource Solutions Inc. (NRSI) was retained by G.N. Transport Inc. to complete an Environmental Impact Study (EIS) associated with the planned construction of a transportation (trucking) terminal on a property located at 6404 Mayfield Road in the Town of Caledon. The proponent is seeking temporary use zoning for the proposed development. See Map 1 for the subject property location.

The subject property was previously developed as a rural residential property. Although it is no longer used for that purpose, the property still contains a house and a detached garage structure. Aside from remaining manicured lawns, natural feature cover has been largely cleared within the subject property. Lands to the north and east of the subject property are predominantly agricultural with rural residential land uses. Lands to the west, associated with the hamlet of Tullamore, are largely developed or are undergoing development. Lands to the south mainly comprise fully developed residential subdivisions and fall within the City of Brampton. An EIS study area has been identified that comprises lands within 120m of the subject property as shown on Map 1. For the purposes of this report, true northwest is referred to as “north”, true northeast is referred to as “east”, etc.

The subject property is located immediately east of a naturalized riparian corridor conveying Salt Creek. This corridor was generally characterized through desktop review as part of the Region of Peel’s Settlement Area Boundary Expansion (SABE) Environmental Screening and Scoped Subwatershed Study (SWS) natural heritage technical studies (Wood 2022a, b, c), and through that work was identified as part of the preliminary Natural Heritage System (NHS) for the SABE study area. Key Features of the NHS as well as a Local Landscape Linkage, as defined in that study, were identified immediately adjacent to and extending within a portion of the subject property. SABE preliminary NHS features were also mapped as extending along the north and east sides of the subject property. See Appendix I, which includes Figure DA2-11c from the SABE SWS (Wood 2022b) showing the Preliminary NHS Key Features and Supporting Features on/adjacent to the subject property.

Figure 7 of the Peel Region Official Plan (OP) (2024) maps the presence of Core Area of the Regional Greenlands system on or adjacent to the subject property, associated with the Salt Creek naturalized riparian corridor. The mapped Core Area furthermore contains Natural

Heritage Features and Areas as defined in the Regional Official Plan. The Salt Creek corridor also represents an important Linkage within the broader Greenlands system.

As shown on Schedule F1 of the Future Caledon Official Plan (2025) (herein, “Town OP”), the subject property is located within an area mapped as “New Employment Area” and is subject to the policies associated with this component of Caledon’s Urban System. Schedules D2 and D2b of the Town OP identifies the Salt Creek riparian corridor as a “Natural Feature and Area with 30m buffer”, as well as “Potential Linkage”. Lands to the north and east of the subject property are also mapped as “Supporting Features and Areas”. See Appendix I for Schedule D2b of the Town OP. Schedule D3, which illustrates Natural and Supporting Features and Areas within the Town, further identifies the Salt Creek riparian corridor as representing a “Valley and Stream Corridor”.

The subject property also falls within lands that are regulated by the Toronto and Region Conservation Authority (TRCA) due to the presence of hazards associated with the Salt Creek watercourse and its associated floodplain, valley slopes, wetland and associated regulatory allowances. The TRCA does not map wetland within the riparian corridor immediately west of the subject property, but does map riparian wetland to the immediate south of Mayfield Road (TRCA 2025).

Due to the proposed development being located on lands adjacent to components of the Town’s Natural Environment System, including components of the SABE SWS preliminary NHS, an EIS is required to demonstrate that the proposed development will not negatively impact the natural features or their ecological functions. This report has been scoped to review and confirm the presence and mapping of SABE NHS Key Features and Linkage areas on and adjacent to the subject property, and as mapped in the Town OP. It will also confirm and refine the NHS that was identified through the SABE Scoped Subwatershed Study through review of the criteria presented in that study (Wood 2022a, b, c). The EIS will also confirm and refine the presence of watercourse and wetland hazard features that are regulated by the TRCA. Mapping of these features will be used to inform refinements to the limits of TRCA-regulated area on the subject property with reference to regulatory allowances from feature boundaries. This EIS has been developed to ensure that the development plan conforms with the Natural Environment System policies as presented in the Town’s OP (2025).

This report summarizes background information on natural heritage features, as well as results of field surveys completed within the study area. This information was used to identify and delineate natural environment development constraints based on significance and sensitivity of the features, to inform the design of the development. An impact assessment has been completed based on the comparison of the existing natural features to the grading and site plan details as prepared by Urban Watershed Group (2026a). Recommendations have been provided to avoid, or otherwise suitably mitigate impacts to the existing natural features and their ecological functions.

2.0 Project Scoping

2.1 Background Information Review

In order to determine a study approach for the EIS, existing natural heritage information was first gathered and reviewed to identify key natural heritage features and species that are known or have potential to occur within the study area. Background information on the natural environment features and species records within the study area vicinity was also gathered from the Natural Heritage Information Centre (NHIC) online database of provincially-tracked species (OMNR 2025), the OMNR's Land Information Ontario mapping, and relevant taxa-specific databases, as listed below.

Initial wildlife species lists were compiled to provide information on species reported from the vicinity of the study area (within a 10x10km survey square (17PJ05) containing the subject property) using various atlases, including the Ontario Mammal Atlas (Dobbyn 1994), the Ontario Breeding Bird Atlas (BSC et al. 2008), the Ontario Reptile and Amphibian Atlas (Ontario Nature 2019), the Ontario Butterfly Atlas (Macnaughton et al. 2025), and the Ontario Odonata Atlas (OOAD 2023).

A key source of background natural heritage information of relevance to the study area was the Region's SABE SWS (Wood 2023a, b, c). In completion of the SWS, natural features were generally characterized within a large Focused Study Area that included the subject property and this EIS study area. Natural feature characterization and mapping completed for the SWS was based on compilation of background information resources and desktop-level review, and represented the outcome of an analysis and inclusion of ecological criteria and thresholds to determine which features and areas would be incorporated into the SABE preliminary NHS. Limited field-based work was undertaken to verify and ground-truth specific natural features as part of this process. The preliminary NHS was defined and mapped with the intention of future feature characterization and boundary refinement as part of future local or site-specific studies, such as a Local Subwatershed Study (LSS), or as implemented through this EIS. Preliminary NHS mapping applicable to the EIS study area, as developed for the SABE SWS, was referenced in completion of this EIS and used as a basis for identification of significant natural features and linkage corridors to inform the subject property development planning process.

It is NRSI's understanding that a LSS is currently underway for an area that contains the subject property and its EIS study area. At the time of EIS preparation, it is understood that the LSS is in an early stage of implementation, and information derived from the LSS was not available to

inform this EIS (T. Bal, Town of Caledon, pers. comm., March 2026). In the absence of a LSS, Town staff confirmed that, for the purposes of this temporary zoning application, a site-specific EIS that implements the targets, criteria and recommendations of the SABE SWS is an acceptable equivalent to a LSS (J. Elliott, Town of Caledon, pers. comm., January 2026).

Other information sources that were reviewed to inform project scoping included the following:

- Peel Region Official Plan (2024);
- Future Caledon Official Plan (2025);
- eBird (eBird 2025); and,
- iNaturalist (iNaturalist 2025).

Based on the findings of the background review, a draft Terms of Reference for the EIS was prepared by NRSI and submitted to the Town on September 26, 2025. The Town's Environmental Planner provided emailed responses on December 5, 2025 (see Appendix II) and stated that an updated TOR would not be required provided the EIS addressed the Town's comments. See Appendix III for the EIS Terms of Reference.

2.2 Significant Species and Habitat Screening

2.2.1 Species at Risk Habitat Screening

Species at Risk (SAR) are those listed on the Protected Species in Ontario List (MECP 2026). These include species identified by the Committee on the Status of Species at Risk in Ontario (COSSARO) as provincially Endangered or Threatened. Species listed as Endangered or Threatened are protected under the *Species Conservation Act* (SCA), which includes protection of their habitat. SAR also include those species that are listed under Schedule 1 of the federal *Species at Risk Act* (SARA). Since the study area does not include federal lands, only migratory birds and aquatic species that are listed under Schedule 1 of the SARA receive protection within the study area. For the purposes of this report, the term "SAR" will refer to provincially or federally Threatened and Endangered species regulated under the SCA or SARA.

Based on NRSI's examination of background sources and federally or provincially significant species with occurrence records in the study area vicinity (within 10km), an assessment of SAR and SCC suitable habitat presence within the study area was completed. Assessments of habitat suitability in the study area were made by cross-referencing each species' known habitat

preferences or requirements (e.g., OMNR 2000) against existing habitat conditions as determined from background information sources, satellite imagery interpretation and available mapping.

Based on the result of the habitat screenings, the following SAR that are regulated under the SCA or SARA are known to occur, or have potentially suitable habitat within the study area that required further investigation as part of the EIS:

- Chimney Swift (*Chaetura pelagica*)
- Eastern Red Bat (*Lasiurus borealis*)
- Hoary Bat (*Lasiurus cinereus*)
- Little Brown Myotis (*Myotis lucifugus*)
- Northern Myotis (*Myotis septentrionalis*)
- Redside Dace (*Clinostomus elongatus*)
 - Assumed present based on the presence of mapped Critical Habitat in Salt Creek adjacent to the subject property (DFO 2025)
- Silver-haired Bat (*Lasionycteris noctivagans*)
- Tri-colored Bat (*Perimyotis subflavus*)

See the TOR (Appendix III) for the full habitat screening table for SAR with occurrence records in the study area vicinity.

Since completion of the TOR, the *Endangered Species Act* has been replaced by the SCA. Migratory birds such as Chimney Swift and its habitat no longer receive provincial legislative protection under the SCA. However, as a migratory bird, this species and its Critical Habitat are protected under the SARA outside of federal lands.

2.2.2 Significant Wildlife Habitat Screening

A preliminary screening for the presence of SWH was also completed for the study area, as summarized in the TOR. The Significant Wildlife Habitat Technical Guide (SWHTG) outlines the types of habitats that the OMNR considers significant in Ontario as well as criteria to identify these habitats for Ecoregion 6E, in which the study area is located (OMNR 2000, MNRF 2015). The SWHTG groups SWH into four broad categories: seasonal concentration areas, rare

vegetation communities and specialized wildlife habitat, habitats of Species of Conservation Concern (SCC), and animal movement corridors.

The definition of SCC includes the following:

- species that have been assigned a conservation status (S-Rank) of S1 to S3 or SH by the Natural Heritage Information Centre (MNR 2021), and
- species that are designated federally as Threatened or Endangered by the Committee for the Status of Endangered Wildlife in Canada (COSEWIC) but not provincially by the COSSARO. These species may be protected by the federal SARA if they are listed as Threatened or Endangered on Schedule 1 of the SARA.

Habitat for SCC is considered Significant Wildlife Habitat (SWH) (OMNR 2010), which is afforded protection under the Provincial Planning Statement (OMMAH 2024) and municipal natural heritage protection policies.

Based on the results of this preliminary screening exercise, the following SWH types were initially considered Candidate SWH for the study area to inform the need for further assessment:

- Bat Maternity Colonies
- Reptile Hibernaculum
- Waterfowl Nesting Area
- Turtle Nesting Area
- Amphibian Breeding Habitat (Woodland)
- Terrestrial Crayfish
- Special Concern and Rare Wildlife Habitat for the following species:
 - Barn Swallow (*Hirundo rustica*)
 - Eastern Wood-Pewee (*Contopus virens*)
 - Harpoon Clubtail (*Phanogomphus descriptus*)
 - Monarch (*Danaus plexippus*)
 - Northern Ribbonsnake (*Thamnophis sauritus septentrionalis*)
 - Snapping Turtle (*Chelydra serpentina*)

- Western Chorus Frog (*Pseudacris triseriata*)

See Appendix III for the detailed SWH screening tables, including rationale as to whether the SWH types are considered “candidate” or not present within the study area. Appendix III also includes the results of a habitat screening for SCC (along with SAR) based on existing habitats within the study area.

2.3 Relevant Policies, Legislation and Planning Studies

Table 1 provides an overview of natural heritage-based policies, legislation, planning studies and regulations that were considered and informed the EIS. To help inform suitable land-use concepts, guide the layout of development, and identify areas to be protected, inventoried natural features were evaluated against relevant policies, regulations and legislation outlined in the following sections. The specific implications of these policies to the proposed development are discussed in further in Section 5.0.

Table 1. Relevant policies, legislation, regulations and planning studies.

Policy/Legislation	Description	Project Relevance
Provincial Planning Statement (OMMAH 2024).	• Issued under the authority of Section 3 of the Planning Act and came into effect on October 20, 2024, replacing the 2020 Provincial Policy Statement. • Section 4.1 of the PPS – Natural Heritage establishes clear direction on the adoption of an ecosystem approach and the protection of resources that have been identified as 'significant'. • The Natural Heritage Reference Manual (MNR 2010) and the Significant Wildlife Habitat Technical Guide (MNR 2000, MNRF 2015) were prepared by the MNR to provide guidance on identifying natural features and in interpreting the Natural Heritage sections of the PPS.	• Natural features that occur or may occur within the study area, and which receive protection under the PPS, include: ○ Significant Valleyland ○ Fish habitat ○ Potential Significant Wildlife Habitat, and ○ Potential habitat for Endangered and Threatened species. • Section 4.1.5 of the PPS states that development or site alteration shall not be permitted in Significant Valleylands or Significant Wildlife Habitat unless it has been demonstrated that there will be no negative impacts on the features or their ecological functions. • Section 4.1.6 of the PPS states that development or site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements. • Section 4.1.8 of the PPS states that development and site alteration shall not be permitted on adjacent lands to the natural features described above unless it is demonstrated that there will be no negative impacts to the natural features or their ecological functions. • Section 4.1.7 of the PPS states that development or site alteration shall not be permitted in habitat of Endangered or Threatened species except in accordance with provincial or federal requirements. • Section 4.1.2 of the PPS states that the connectivity of natural features in an area should be maintained, restored, or where possible, improved.
Peel Region Official Plan (2024)	• Peel Region's natural environment has been mapped and organized as a natural heritage system referred to as the Greenlands System. • The Greenlands system is made up of Natural Heritage Features and Areas and the Linkages among them.	• Schedule C1 identifies the Salt Creek riparian corridor as a component of the Greenlands System Overlay, while Schedule C2 further identifies it as a Core Area of the Greenlands System. • Figure 8 of the OP identifies the study area reach of the Salt Creek riparian corridor to contain "Existing Natural Cover" and "Potential Enhancement Area"

Policy/Legislation	Description	Project Relevance
	The policy framework for the Greenlands system builds on the systems approach in provincial policies and plans, and integrates with provincial plan areas present in the Region including the Greenbelt Plan, Oak Ridges Moraine Conservation Plan, and the Niagara Escarpment Plan.	as part of the Conservation Authority Natural Heritage System. - Development and site alteration of the type that is proposed on the subject property is prohibited in Core Areas of the Greenlands System, in accordance with Section 2.14.15. - Natural Areas and Corridors are defined in accordance with Section 2.14.18, and Potential Natural Areas and Corridors are defined in accordance with Section 2.14.19. - Development and site alteration is prohibited in fish habitat, the habitat of Threatened and Endangered Species, and the habitat of aquatic SAR, except in accordance with federal and provincial requirements, as per Sections 2.14.35-2.14.37.
Future Caledon Official Plan (2025)	- Caledon's Natural Environment System comprises a Natural Heritage System and a Water Resource System, which are intrinsically linked. - The Natural Environment System is in turn made up of various components; of relevance to the study area, this includes: - Natural Features and Areas (identified as Core Areas of the Greenlands System in the Regional OP); - Supporting Features and Areas (identified as Natural Areas and Corridors and Potential Natural Areas and Corridors in the Regional OP); - The Water Resource System, which includes, but is not limited to, permanent and intermittent streams and wetlands. - The OP incorporates policies to ensure the long-term protection of the Natural Environment System in conjunction with other Provincial and Regional plans and conservation authority regulations.	- Schedule D1 of the Town OP identifies the presence of Natural Features and Areas associated with the Salt Creek riparian corridor, and Supporting Features and Areas on lands to the north and east of the subject property. - Schedule D2b also shows the above Natural Features and Areas, and Supporting Features and Areas, as part of the New Urban Area Preliminary Natural Environment System. It also identifies the Salt Creek riparian corridor as a "Potential Linkage". - Map D3 identifies the Salt Creek riparian corridor as a "Valley and Stream Corridor". - As per Section 13.3.3 of the OP, the type of development that is proposed on the subject property is not permitted within Natural Features and Areas. - As per Section 13.3.6, development adjacent to a Natural Feature and Area requires completion of an EIS to demonstrate that there will be no negative impact to the natural feature or its ecological functions or its hydrologic functions. - As per Section 13.3.3 and 13.4.3 of the OP, development and site alteration is not permitted within or adjacent to Supporting Features and Areas unless it

Policy/Legislation	Description	Project Relevance
		can be demonstrated that there will be no negative impact to the natural feature or its ecological functions or its hydrologic functions. • The Potential Linkage identified for the Salt Creek corridor on Schedule D2b should be evaluated in accordance with Section 13.4.13. • In accordance with Section 13.10.2, management of the Natural Environment System within the EIS study area will be guided by the net benefit mitigation hierarchy that applies to lands that were subject to the SABE SWS (Wood 2022a, b, c). This will include review and management of Linkage features following guidelines, criteria and targets identified in the SWS, in accordance with OP Section 13.10.8. • As per Section 13.12.1 and 13.12.2, development and site alteration is not permitted in fish habitat or in habitat for Endangered or Threatened species except in accordance with Federal and Provincial requirements. • As per Section 13.12.3, where development and site alteration within aquatic Species at Risk habitat is proposed, it must be demonstrated that reasonable alternatives have been considered and that the development will not jeopardize the survival, recovery, and conservation of the Species at Risk, including their residences and Critical Habitat.
Peel Region Settlement Area Boundary Expansion Environmental Screening and Scoped Subwatershed Study (Wood 2023a, b, c)	• The purposes of the Settlement Area Boundary Expansion (SABE) Environmental Screening and Scoped Subwatershed Study (SWS) was to provide water resources and natural heritage input towards a SABE study that was undertaken to determine new areas of settlement growth within Peel Region. • Phase 1 comprised the Environmental Screening, which, in part, defined natural feature-related constraints that must be accounted for in defining settlement area expansion (Wood 2023a).	• In the absence of an existing/completed Local Subwatershed Study, this EIS is implementing the recommendations of the SABE SWS as they pertain to the EIS study area. • Figure DA2-10 (Wood 2023b) identified a Preliminary NHS that, within the EIS study area, included a Key Feature associated with the Salt Creek riparian corridor. This corridor was also identified as a “Local Landscape Linkage – Minimum Vegetation Width”. Lands to the north and east of the subject property were mapped as “Supporting Features” within the Preliminary NHS.

Policy/Legislation	Description	Project Relevance
	- Phase 2 comprised the scoped SWS; it incorporated a detailed characterization of the existing conditions and an impact assessment associated with future development of the project study area (Wood 2023b). - Phase 3 provided recommendations for the refinement, management and monitoring of the preliminary NHS identified through this study, to be implemented as part of future local or site-specific studies (Wood 2023c).	- Figure DA2-11c (Wood 2023b) further identified the Salt Creek riparian corridor with a conceptual “Minimum Vegetation Width” and a “Permeable Landscape Zone” that extend into the subject property. - Of relevance to the subject property and EIS study area are the Implementation Plan’s (Wood 2023c) recommendations and guidance with respect to the identification, design and management of buffers, and in defining the limits and preservation/restoration of linkages. - In defining and refining the limits, and management goals, of the EIS study area’s linkage feature, aspects of linkage definition including Minimum Vegetated Width and Permeable Landscape Zone must be confirmed and mapped.
<i>Species Conservation Act</i>	- The SCA came into force in April 2026, replacing the earlier Endangered Species Act - The SCA prohibits killing or harming of SAR and protects their defined habitats from damage and destruction. - Species that are subject to protections under the SCA are listed in the Protected Species in Ontario list (Ontario Regulation 60/26).	Based on a preliminary assessment, multiple SAR were identified as having the potential to occur within the study area based on presence of suitable habitat.
<i>Species at Risk Act</i>	- The SARA is a federal piece of legislation that protects species listed as Endangered, Threatened or Special Concern on Schedule 1 of the Act. - SARA prohibits killing, harming, harassing, capturing, or taking of individuals. - Under SARA, prohibitions regarding individuals and residences for migratory birds and aquatic species at risk apply wherever they occur in Canada (including private lands). - For terrestrial species at risk, these prohibitions only apply on federal lands.	- Species at risk protected by the SARA were identified as occurring or potentially occurring in the vicinity of the study area. The field program was scoped to confirm if habitat for these species is present. - If species at risk protected by the SARA and/or their Critical Habitat are confirmed within the study area a mitigation plan or permit from Environment and Climate Change Canada (ECCC) may be required. - DFO SAR mapping (Government of Canada 2024 and 2025) indicates that Critical Habitat for the SAR Redside Dace is present within the watercourse within the study area.

Policy/Legislation	Description	Project Relevance
	- In the case of a migratory bird species listed under the <i>Migratory Birds Convention Act</i>, certain SARA prohibitions protecting individuals and residences (e.g., nests or dens) of endangered, threatened and extirpated species apply automatically. Additionally, Critical Habitat for these species, where identified, is protected. - In the case of aquatic species at risk, SARA prohibitions protect individuals, residence (e.g., fish spawning areas, mussel beds or burrows) and identified critical habitat.	- For projects that may affect aquatic SAR, their residences, or Critical Habitat, a Fisheries and Oceans Canada (DFO) Request for Review is required. - The required authorization from DFO typically falls under one or more of the following legal instruments: SARA permit, Letter of Advice or Fisheries Act Authorization
Ontario Regulation 41/24 (Prohibited Activities, Exemptions and Permits)	- Regulation issued under <i>Conservation Authorities Act</i>, R.S.O. 1990. Effective date April 1, 2024. - Interim policy guidelines are provided for this regulation while preceding regulations are updated - TRCA has the responsibility to regulate activities in and adjacent to hazardous areas (i.e., areas in and near rivers, streams, floodplains, wetlands, and slopes).	- Wetlands and a watercourse (Salt Creek), including the watercourse floodplain, are present within the study area. - Wetlands, watercourses and their floodplains are regulated as hazard features by TRCA. Development and site alteration is prohibited in regulated areas unless permitted by TRCA.
<i>Fisheries Act</i>	- Manages threats to the sustainability and productivity of Canada's commercial, recreational and Aboriginal fisheries. - The Act prohibits "serious harm to fish" including destruction of habitat.	- Salt Creek provides permanent fish habitat. - If alteration or removal of direct or indirect fish habitat is proposed, the DFO must be consulted through their Request for Review process to determine if a permit under the <i>Fisheries Act</i> may be required.
<i>Migratory Birds Convention Act</i>	- The <i>Migratory Birds Convention Act</i> (MBCA) protects migratory game birds, insectivorous birds, and several other migratory non-game birds from persecution in the form of harassment. - The schedule of on-site work must consider MBCA windows, with timing of breeding bird season typically occurring between April 1 and August 31; however, this is a guideline, since the MBCA applies anytime a migratory bird is nesting.	Any vegetation removal required for construction of the proposed development must have regard for this legislation in the form of timing window restrictions or other suitable mitigation measures.

Policy/Legislation	Description	Project Relevance
	• “Incidental take” (unintentional harming, killing, disturbance, or destruction of migratory birds, their nests, or eggs as a result of an activity that is not specifically targeting the bird or nest) is considered illegal, with the exception of a permit obtained by the Canadian Wildlife Service. • Schedule 1 of the MBR 2022 provides year-round nest protection for 18 species that are known to re-use nests annually.	
<i>Fish and Wildlife Conservation Act</i>	• The <i>Fish and Wildlife Conservation Act</i> (FWCA) provides protection for certain bird species not protected under the MBCA (e.g., raptors), as well as furbearing mammals and their dens or habitual dwellings, aside from the Red Fox (<i>Vulpes vulpes</i>) and Striped Skunk (<i>Mephitis mephitis</i>)	• The timing of construction activities, especially vegetation clearing and site grading must have consideration for bird nesting and den sites for furbearing mammals. • Wildlife sweeps by a qualified biologist are recommended in advance of any vegetation clearing and site grubbing during the bird active season to ensure that no active nests/dens are present.

3.0 Field Methods

The EIS field survey methodology was described in the Terms of Reference as submitted to the Town (Appendix III). Table 2 provides a summary of field surveys undertaken as described in the TOR. In total, four site visits were completed between August and November 2025 to characterize and map the study area natural features.

Table 2. Field survey summary.

Survey Type	Survey Protocol	Dates
Vegetation community mapping	Lee et al. 1998	August 22, 2025
		September 25, 2025
Vegetation inventory	Comprehensive area search by ELC polygon	August 22, 2025
		September 25, 2025
Aquatic habitat assessment	Stanfield 2017	September 17, 2025
General habitat assessment	N/A	September 25, 2025
Bat treed habitat assessment	MECP 2022a, b	November 26, 2025

A general habitat assessment was completed during the September 25, 2025 site visit to investigate the presence of potential SWH features, based on the results of the preliminary SWH screening (Section 2.2.2). This included inspection of the foundations of the existing structures that will be retained for evidence of crumbling conditions that could provide access to snake hibernacula, as well as inspection of the building exteriors for evidence of previous nesting by the SAR Barn Swallow. The site was also inspected for the presence of suitable turtle nesting habitat and substrates.

4.0 Existing Conditions

4.1 Soils, Terrain and Drainage

The study area is located along a divide between two physiographic regions: the South Slope generally to the north and west, and the Peel Plain generally located to the south and east. These regions incorporate drumlinized till plains and bevelled till plains physiographic features, respectively (Soil Engineers 2025). The site is underlain by a layer of silty clay till that extends to at least 5.1m below ground surface. Bedrock was found to be at a relatively shallow depth below the subject property (Soil Engineers 2025).

The subject property has been graded relatively flat, generally sloping toward the south (Soil Engineers 2025), with western portions sloping down toward Salt Creek. Salt Creek represents the only defined surface drainage feature within the study area. It drains a portion of the larger Humber River watershed where it occurs within the West Humber subwatershed. Salt Creek flows in a generally southwards direction through the study area and confluences with the West Humber River approximately 4.5km to the southeast.

Groundwater monitoring completed at the site yielded water table elevations that ranged between 1.5-2.5m below ground surface across the site and across monitoring dates between July 28-August 27, 2025. The measured groundwater levels may represent groundwater that is perched within the fill material under the site. Since monitoring wells were screened within the fill material, determination of a prevailing groundwater flow direction was not feasible (Soil Engineers 2025).

4.2 Vegetation

4.2.1 Vegetation Communities

The subject property was previously developed as a rural residential property and contains no natural vegetation community cover. The property contains a house (no longer used for residential purposes) at the property frontage surrounded by an area of lawn, and a detached garage structure that is located within the central portion of the property. The majority of the property to the rear of the house has been stripped of vegetation and comprises a compacted gravel surface. Natural vegetation growth on the subject property is largely limited to isolated trees and shrubs, several of which were planted, as well as some weedy herbaceous species.

The western boundary of the subject property is lined by an off-property treed hedgerow, beyond which is the Salt Creek floodplain. The floodplain west of the property is largely in an

open condition and was confirmed through NRSI site investigation to contain riparian meadow marsh wetland. This wetland was not previously identified on OMNR or TRCA mapping (OMNR 2025, TRCA 2025). Previously-mapped TRCA wetland was confirmed within the floodplain on the south side of Mayfield Road, comprising a complex of meadow marsh and shallow marsh habitat. The remainder of the floodplain lands west of the subject property comprise mainly cultural meadow, with a small lowland woodland stand. Tableland to the north of the subject property is in an early stage of woody successional growth following being historically cleared as agricultural meadow/pasture land, and comprises a large Common Buckthorn (*Rhamnus cathartica*)-dominated shrub thicket.

Vegetation community and other land cover mapping for the study area is shown on Map 2. Additional details of the ELC vegetation communities are provided in Table 3 below.

Table 3. Vegetation communities within the study area.

ELC Ecosite Type	ELC Description	Environmental Characteristics
Cultural		
CUM	Cultural Meadow	A cultural meadow is found off-property to the southeast of Mayfield Road, and was assessed from roadside. This community was historically agricultural and appears to be recently graded, succeeding into a disturbed cultural meadow. Young vegetation was observed growing over fill piles and construction fencing. The community is dominated by Canada Goldenrod (<i>Solidago canadensis</i>) and Panicked Aster (<i>Symphyotrichum lanceolatum</i>). Lesser amounts of other ruderal species such as Wild Carrot (<i>Daucus carota</i>), White Sweet Clover (<i>Melilotus albus</i>), Common Ragweed (<i>Ambrosia artemisiifolia</i>), and Canada Thistle (<i>Cirsium arvense</i>) are also found. A cultural meadow community of similar composition but denser growth was also observed to the west of the subject property, within upland areas that slope slightly into Salt Creek.
CUT	Cultural Thicket	Beyond the limit of the northern property boundary, an off-site cultural thicket occurs. The thicket is dominated by invasive Common Buckthorn, interspersed with lesser amounts of honeysuckle (<i>Lonicera</i> sp.). Canopy cover is limited to few sparse young Siberian Elm (<i>Ulmus pumila</i>), Manitoba Maple (<i>Acer negundo</i>), and Green Ash (<i>Fraxinus pennsylvanica</i>) trees with low coverage. At the time of inventory, the community had a dense undergrowth of late-season herbaceous species such as Canada Goldenrod, Panicked Aster, Grass-leaved Goldenrod (<i>Euthamia graminifolia</i>), and New England Aster (<i>Symphyotrichum novae-angliae</i>). Other species typical of open and semi-open communities were also observed, including Common

ELC Ecosite Type	ELC Description	Environmental Characteristics
		Milkweed (<i>Asclepias syriaca</i>), Wild Grape (<i>Vitis riparia</i>), and Smooth Brome (<i>Bromus inermis</i>). A cultural thicket is also found to the south of Mayfield Road, where dense Common Buckthorn growth occurs on the banks of Salt Creek and beyond. In this area, occasional declining individuals of American Elm (<i>Ulmus americana</i>) were also observed.
H	Hedgerow	A hedgerow abuts the western property boundary. This feature is relatively disturbed, and is expected to have historically experienced edge effects from the adjacent residential land use. Canopy cover is mixed and highly cultural, with species such as Siberian Elm, Manitoba Maple, White Spruce (<i>Picea glauca</i>), Green Ash, American Elm, and Staghorn Sumac (<i>Rhus typhina</i>). It is anticipated that some of the tree species found within this community may have been planted or escaped from residential landscaping. Wild Grape was observed growing densely across vertical canopy layers within this feature. The shrub layer is similarly dense, dominated by Common Buckthorn. Other disturbance-tolerant plants were found in the shrub and understorey layers, including Common Privet (<i>Ligustrum obtusifolium</i>) and Dog Strangling Vine (<i>Vincetoxicum rossicum</i>). Late-season herbaceous vegetation, such as Canada Goldenrod, various aster species, and Smooth Brome were abundant in the understorey.
N/A	Cleared/Lawn	The entirety of the subject property consists of manicured Kentucky Blue Grass (<i>Poa pratensis</i>) lawn abutting Mayfield Road, and gravel surfaces towards the property interior. Tree cover within the property boundary is limited to few planted trees, such as small Eastern White Cedar (<i>Thuja occidentalis</i>) groupings and hedgerows. Limited naturalizing tree and shrub growth was observed along the property peripheries, with few opportunistic individuals of Trembling Aspen (<i>Populus tremuloides</i>), Siberian Elm, and Common Buckthorn. Herbaceous species that are likely remnants and escapees of residential landscapes were found occasionally within the cleared area, including Ground Ivy (<i>Glechoma hederacea</i>) and Scarlet Pimpernel (<i>Lysimachia arvensis</i>). Other species common to these disturbed conditions were also present, including Common Dandelion (<i>Taraxacum officinale</i>), White Sweet Clover, Common Ragweed, and White Goosefoot (<i>Chenopodium album</i>).
Wetland		
MAM2-2	Reed-canary Grass Mineral Meadow Marsh Type	A meadow marsh occurs along the low-lying banks of Salt Creek to the west of the subject property. This community was assessed from the roadside, and appeared to be entirely dominated by Reed Canary Grass. Small patches of Canada Goldenrod and other upland vegetation were infrequently observed within the

ELC Ecosite Type	ELC Description	Environmental Characteristics
		meadow marsh, expected to be attributed to topographical variation within the floodplain.
MAM2-2/MAS2-1	Reed-canary Grass Mineral Meadow Marsh Type / Cattail Mineral Shallow Marsh Type	A Reed Canary Grass-dominated meadow marsh continues adjacent to Salt Creek to the south of Mayfield Road, interspersed with small even patches of cattail (<i>Typha</i> sp.). Cattail growth is limited within the meadow marsh community to the north of Mayfield Road. This community is bounded by a Common Buckthorn-dominated cultural thicket, with some incursion of Common Buckthorn within the marsh. Upland meadow species attributed to the cultural meadow described above can be found at the sloped crests of this community.
Forest		
FOD7	Fresh-Moist Lowland Deciduous Forest Ecosite	A small patch of lowland woodland is found to the west of Salt Creek, to the west of the subject property. This community is characterized by increased tree cover relative to the Reed Canary Grass-dominated floodplain of Salt Creek. The community occurs within a transitional zone between the watercourse and a manicured, treed residential area to the west. Access to this community was limited, but roadside surveys confirmed that the canopy includes species such as Black Walnut (<i>Juglans nigra</i>), Green Ash, and Norway Spruce (<i>Picea abies</i>).

4.2.2 Vascular Flora

In total, 80 plant species were inventoried within the study area. A complete list of these species is appended to this report (Appendix IV).

No federally or provincially significant species were inventoried within the study area. All of the inventoried native species are common with secure or apparently secure populations in Ontario (MNRF 2021). However, certain inventoried species are considered significant or notable within Peel Region (Varga 2000) or the broader TRCA watershed jurisdiction (TRCA 2022):

- Cleavers (*Galium aparine*) – R4 (Rare; known from four stations) in Peel Region; located within the hedgerow;
- Eastern Red Cedar (*Juniperus virginiana*) – R5 (Rare; known from five stations) in Peel Region; located in the CUT cultural thicket;
- White Spruce (*Picea glauca*) – R3 (Rare; known from three stations) in Peel Region; TRCA Rank L3 (Locally Vulnerable); located in the hedgerow, CUT cultural thicket and the lawn;

- Early Goldenrod (*Solidago juncea*) – Uncommon in Peel Region; located in the CUM cultural meadow and the lawn;
- Canada Yew (*Taxus canadensis*) – TRCA Rank L3 (Locally Vulnerable); located on the lawn.

Of the above-listed regionally significant species, White Spruce and Canada Yew are not considered significant in the context of the study area. The Canada Yew was planted within the subject property. The White Spruce individuals on the subject property were also planted, and individuals growing within the adjacent hedgerow and CUT cultural thicket are likely the result of previous cultural influences.

The coefficient of conservatism (CC) is a value ranging from 0 (low) to 10 (high), which is based on a species' tolerance of disturbance and fidelity to a specific habitat integrity (Oldham et al. 1995). Higher values are assigned to species that have specific environmental growing requirements and are less tolerant of disturbance. All of the natural vegetation communities within the study area have low average CC values, ranging from a high average value of 1.13 (Fresh-Moist Lowland Deciduous Forest (FOD7)) to 0.51 (Cultural Meadow (CUM)). These values are indicative of species assemblages that are highly generalist in their habitat preferences and thrive in ecologically disturbed conditions.

Of the 80 inventoried species, 71 (89%) had CC values of 0-3. An outlier in terms of high CC value was Canada Yew, with a CC value of 7. However, as noted above, this species is not naturally occurring within the study area. Of the inventoried species, 55% percent are non-native in Ontario.

In order to quantify the floristic quality of the subject property natural features, a Floristic Quality Index (FQI) was calculated. The FQI is calculated by establishing a mean (average) CC value for all plant species (including non-native species), which is then multiplied by the square root of the total number of plant species, as shown in the formula below.

$$FQI = X\sqrt{N}$$

N = total number of species

X = mean coefficient of conservatism

Generally speaking, FQI values of 1-19 represent low quality habitat, 20-35 represent high quality habitat, and above 35 is considered to be of exceptional quality (Spyreas 2019). See below for a summary of FQI values for the subject property's vegetation communities:

Table 4. FQI value for the study area vegetation communities with inclusion.

ELC Community	Mean CC	No. Species	FQI Value
Hedgerow	0.70	50	4.95
CUT	0.84	38	5.18
CUM	0.51	35	4.22
MAM2-2	0.57	7	2.00
FOD7	1.13	8	3.01

The FQI results indicate a low floristic quality for all of the study area natural features.

In interpreting these results, it should be noted that the off-property natural features were inventoried based on what could be viewed from the subject property or roadside and were not directly accessed.

4.3 Wildlife

4.3.1 Birds

In total, 100 bird species are reported from within 10km of the study area based on the OBBA (BSC et al. 2008). Five bird species were incidentally recorded within the study area during site investigations. Refer to Appendix V for a list of bird species recorded within the study area.

Of the observed species, one was the SAR Barn Swallow. Specifically, individuals were observed foraging over the Salt Creek natural corridor and over the subject property during the August 22 site visit. Based on observations made during the site investigation, it is believed that the Barn Swallows may have been nesting within a large shed structure located on the property to the west of the Salt Creek corridor. No evidence of Barn Swallow nesting, including old/inactive nests, was observed on the subject property.

The chimney of the house located on the subject property was inspected from the ground due to the potential presence of SAR Chimney Swift habitat within the study area (Section 2.2.1). The chimney appeared to be capped and therefore is not considered functional habitat for this species. No Chimney Swifts were observed during site investigations.

Suitable habitat for other federally or provincially significant bird species that are known from the study area vicinity (Appendix III) is absent within the study area. All other bird species that are

anticipated to occupy the study area are considered relatively common on the landscape with secure or apparently secure populations in Ontario (MNRF 2021).

4.3.2 Herpetofauna

In total, 17 herpetofauna (reptile and amphibian) species are reported from within 10km of the study area based on the Ontario Amphibian and Reptile Atlas (Ontario Nature 2019). No targeted surveys for herpetofauna were completed and no incidental observations of herpetofauna species were recorded during site investigations. A complete list of herpetofauna species reported from the study area and vicinity is provided in Appendix VI.

Due to the presence of riparian wetland habitat within the Salt Creek floodplain, it can be assumed that some level of anuran breeding activity may occur within the feature. It may also provide habitat for relatively common snake species that are known from the area, such as Eastern Gartersnake (*Thamnophis sirtalis sirtalis*).

Three SCC reptiles were screened as having potential to occur within the study area (Section 2.2.2): Northern Ribbonsnake, Snapping Turtle, and Western Chorus Frog. The meadow marsh habitat present within the Salt Creek floodplain provides suitable habitat for Northern Ribbonsnake and Western Chorus Frog, and should be assumed to represent habitat in the absence of targeted surveys. Although typical habitat for Snapping Turtle is absent within the study area (e.g., permanent water bodies with soft muddy bottoms), the Salt Creek corridor may represent a movement path for this species between suitable habitat areas given this species' propensity to travel long distances over the landscape. The natural corridor should therefore be considered a potential movement corridor for Snapping Turtle.

No suitable turtle nesting habitat was observed on the subject property; gravel on the property was too firm and compacted for nesting. The foundations of the house and garage on the property were examined and found to be in relatively good repair. Cracks or crumbling concrete that could provide access to underground snake hibernacula were not observed.

4.3.3 Mammals

According to the Mammal Atlas of Ontario (Dobbyn 1994), 43 mammal species are reported from within 100km of the study area. Of these, evidence of two mammal species was observed: Eastern Gray Squirrel (*Sciurus carolinensis*) (direct observation) and Coyote (*Canis latrans*) (scat). Neither of these species are considered federally or provincially significant, and both have secure populations in Ontario (MNRF 2021). With the exception of bats, all other mammal

species that are expected to occur in the study area are relatively common and ubiquitous on the landscape. A complete list of mammals reported from the study area and vicinity is included in Appendix VII.

Bat Habitat Assessment

Based on the results of the treed bat habitat assessment, five potential bat roosting habitat trees were identified within the subject property. All five of these trees were located within a small cluster of trees growing along the west side of the garage. They comprised three dead or declining (suckering) White Ash (*Fraxinus americana*) trees and one declining American Elm (*Ulmus americana*) tree. Potential roosting habitat was predominantly observed as loose/peeling bark on these trees. See Map 3 for the locations of these trees on the subject property.

Trees located outside of the subject property, such as in the hedgerow and the FOD7 woodland, were not specifically investigated for the presence of bat habitat. These features, as well as all other woody vegetation that is >1m in height, should therefore be assumed to represent habitat for SAR bats.

4.3.4 Insects

According to the Ontario Butterfly Atlas (Macnaughton et al. 2025), 59 butterfly species are known to occur within 10km of the study area. No butterflies were incidentally recorded during site investigations. A complete list of butterfly species reported from the study area vicinity is provided in Appendix VIII.

One SCC butterfly, Monarch, was screened as having potential to occur within the study area (Section 2.2.2). No Monarchs were observed during site investigations. Their host plant, Common Milkweed (*Asclepias syriaca*) was scattered within the study area and more abundant within the CUT thicket to the north. However, the habitat is too far from Lake Ontario to be considered migratory butterfly stop-over SWH.

Twenty-two (22) odonate (dragonfly/damselfly) species, are known to occur within the 10x10km square containing the study area in the Ontario Odonate Atlas Database (OOAD 2023). No odonate species were incidentally recorded during site investigations. A complete list of odonate species reported from the study area vicinity is provided in Appendix IX.

One SCC odonate species, Harpoon Clubtail, was screened as having potential to occur within the study area (Section 2.2.2). This species is known to use small to medium-sized streams that are clear and cold to cool in temperature, with substrates ranging from sand to boulders with intermittent riffles and rapids. Salt Creek may therefore represent suitable habitat for this species.

4.4 Aquatic Features

4.4.1 Salt Creek

Salt Creek was assessed by NRSI at its crossing of Mayfield Road, near the southwest corner of the study area. Due to access restrictions, the channel of the creek could not be assessed beyond the right-of-way (ROW). At the time of the assessment the creek was not actively flowing, indicating that this reach is characterized by an intermittent flow regime. However, NRSI biologists did observe flow within the channel shortly afterwards (September 25, 2025). Small, isolated pools of water were observed during the aquatic assessment on September 17 within a relatively narrow channel upstream from the culvert while one large, relatively deep pool occurred in the immediate vicinity of the road culvert, which extended the width of the culvert and slightly upstream and downstream. The water depths within the culvert pool ranged from 0.30 to 0.80m and substrates throughout the area consisted of rubble, cobble, gravel, and silt. Both upstream and downstream from the culvert, the channel narrows to a more natural form and based on a review of aerial imagery, it appears that the channel exhibits areas of braiding further upstream and adjacent to the subject property. Channel widths were approximately 2.0m wide and were incised with bank height measuring up to approximately 0.3m in some areas. Bank vegetation was noted to be abundant and included a variety of terrestrial grasses and forbs that overhung the main channel. Representative site photographs are provided in Appendix X.

In situ water quality parameters were collected within the culvert pool at 11:30 am at an air temperature of 20°C. At this time the water temperature was relatively cool at 16.5°C, although no groundwater indicators (e.g. Watercress (*Nasturtium officinale*), iron staining etc.) were observed in the vicinity. Total dissolved solids were 1.15ppt, conductivity was 2.3mS, and pH was 7.35. Dissolved oxygen concentrations could not be measured due to equipment error.

As noted, isolated pools were observed within the assessed reach, which would effectively prevent the movement of fish throughout the channel. While no targeted fish community surveys were completed under the scope of the assessment, fish were observed within the

large culvert pool, including Creek Chub (*Semotilus atromaculatus*) and darter species (*Etheostoma sp.*), indicating that Salt Creek provides direct fish habitat. Historical fish sampling records were reviewed for Salt Creek within the study area, including reaches approximately 5km upstream and downstream from the study area. These records indicate that the fish community within the study area is characterized by a variety of relatively common and widespread, cool- and warmwater species (Government of Ontario 2026). The majority of the species noted to be historically present are native, small-bodied minnow and darter species, although some larger species may also be present, including Rock Bass (*Ambloplites rupestris*) and White Sucker (*Catostomus commersonii*). One SAR fish; Redside Dace, is also known to occur historically within Salt Creek. Redside Dace is listed as Endangered federally and is discussed in further detail in Section 5.4.1.

In addition to Salt Creek, an ephemeral roadside ditch occurs along the south side of the subject property, north of Mayfield Road, and extends towards Salt Creek. It is understood that this feature collects and directs water westward where it outlets directly to the creek. This feature was dry during the September 17 assessment.

5.0 Natural Environment Constraints

Analysis of the significance of existing natural features was used to identify those features and habitats that are sensitive to disturbance based on the rarity or sensitivity of the feature or the functions/processes that contribute toward their significance. These areas are identified as “constraints” to the proposed development and are discussed in the context of natural heritage policies governing their protection. Conversely, opportunities for development may occur outside of these natural environment constraints within the subject property. Development or site alteration within certain natural feature constraints may be permitted by the regulatory agencies subject to permitting and/or implementation of recommended measures to appropriately mitigate anticipated impacts as discussed below.

This EIS is also fulfilling the role of a LSS at the site-specific scale to review and refine the Preliminary NHS features that were identified in the SABE SWS (Wood 2023a, b, c) and as further depicted in Town OP mapping (2025). Through these refinements to natural feature characterization and mapped boundaries, more detailed recommendations have been provided with respect buffers, Linkage Minimum Vegetated Width (MVW), and the Permeable Landscape Zone (PLZ) on the subject property, associated with the adjacent Salt Creek riparian Linkage, in accordance with guidelines and targets presented in the SABE SWS and the policies of the Town OP. This information was used to determine updated and refined mapping of ecological development constraints on the subject property that align with the objectives and targets set out in the SABE SWS and in accordance with municipal natural heritage policies.

5.1 Salt Creek Linkage

The Salt Creek Linkage represents the primary natural feature within the study area that informs the design and limits of the proposed development on the subject property, specifically through the implementation of buffers, and transitional and compatible land uses (e.g., PLZ) along and adjacent to its limits. These are necessary to ensure that the Preliminary NHS identified in the SABE SWS, and Caledon’s Natural Environment System more broadly, is maintained and enhanced with respect to ecological form and function in conjunction with adjacent land developments. The Salt Creek riparian corridor was identified as a Local Landscape Linkage in the SWS (Wood 2022b). It is also mapped as a “Natural Feature and Area” in the Town OP due to its identification as a Core Area of Peel Region’s Greenlands System (Town of Caledon 2025) (Schedule D2b). It is more specifically mapped as a Valley and Stream Corridor within the Town’s classifications of Natural and Supporting Features and Areas (Schedule D3).

Based on NRSI's field investigations and site-level natural feature characterization, the natural Salt Creek riparian corridor that is interpreted to represent the Local Landscape Linkage feature is considered to comprise Salt Creek and the adjacent Reed Canary Grass Mineral Meadow Marsh (MAM2-2), Cultural Meadow (CUM), Fresh-Moist Lowland Deciduous Forest (FOD7) and the naturalized hedgerow (H) feature to the west of the subject property. On the south side of Mayfield Road, within the study area, the Linkage also contains Cultural Thicket (CUT), additional CUM meadow, and a complex of Reed Canary Grass Mineral Meadow Marsh and Cattail Mineral Shallow Marsh (MAM2-2/MAS2-1). See Map 3 for the extent of the existing Linkage feature within the study area. No portion of the Linkage natural features themselves extend into the subject property.

5.1.1 Natural Feature and Area

Section 13.3.1 of the Town OP defines "Natural Features and Areas" as a designation within Caledon's land use mapping. Of the criteria that define this designation, the Salt Creek Linkage corresponds to criterion 13.3.1(g), that being "valley and stream corridors meeting one or more of the criteria for Core Area valley and stream corridors in Table 2 of the Region of Peel Official Plan" (Town of Caledon 2025). The Salt Creek riparian corridor within the study area meets the definition of "Core Area Valley and Stream Corridors" based on Table 2 of the Regional OP due to Salt Creek representing a "major tributary", having direct confluence with West Humber River (Region of Peel 2024).

Development of the type proposed within the subject property is not permitted within Natural Features and Areas, in accordance with Section 13.3.3 of the Town OP. Section 13.3.6 specifies that when development is proposed adjacent to Natural Features and Areas, an EIS will be required to demonstrate that the proposed development will not negatively impact the natural feature and its ecological functions. The "Natural Feature and Area" designation within the study area is interpreted to represent the existing limits of the Local Landscape Linkage as shown on Map 3.

5.1.2 Wetlands

Wetlands comprise a component of the Town's Natural Environment System and fall within the criteria that define both the Town's NHS and the Water Resource System. Through completion of the site investigations, NRSI biologists identified the presence of wetland within the Salt Creek riparian corridor that is currently unmapped by the OMNR (2025) and TRCA (2026). This wetland was identified as riparian Reed Canary Grass Mineral Meadow Marsh (MAM2-2) that is

associated with the floodplain bottomland. NRSI biologists also confirmed the presence of TRCA-mapped wetland within the floodplain on the south side of Mayfield Road, comprising the MAM2-2/MAS2-1 marsh complex (Map 3).

The study area wetlands, including the previously unmapped wetlands on the north side of Mayfield Road, are not mapped by the OMNR (2025). These wetlands are therefore considered “unevaluated wetlands”, which represent a category of the “Supporting Features and Areas” overlay designation in the Town OP (2025). However, since in this case the wetlands fall within the broader Linkage feature that is mapped a “Natural Area and Feature” in the OP, the latter designation and constraint level applies. See below for further discussion about TRCA regulation limits and ecological buffers as they apply to these wetland features.

5.1.3 Local Landscape Linkage

The importance of Linkages was recognized in the SABE SWS as a means of ensuring that the ecological integrity and functionality of the SWS NHS can be maintained in a progressively urbanizing landscape, that ecological connectivity and wildlife movement corridors can be preserved and enhanced, and as a means of building in NHS resilience to the effects of climate change. An objective of the SWS was also to maintain and enhance the function of Linkages in an urbanized land matrix by introducing ecological restoration targets and land use controls for lands immediately adjacent to Linkages, in order to allow for proper transition between natural and built/developed land uses (Wood 2023c). These are described further below in the context of the subject property and proposed development.

The SABE SWS classified Linkages into three categories based on their relative size and importance of landscape connectivity within the SWS study area. In this context, the Salt Creek riparian corridor that falls within the EIS study area was classified and mapped as a Local Landscape Linkage. Local Landscape Linkages are defined as linkages that are relatively smaller-scale in width and which provide connectivity to areas within or outside of the SWS study area. They provide important redundancy in landscape connectivity and link blocks of natural features on the landscape. Local Landscape Linkages are comprised of a MVW and PLZ as defined in the SWS (Wood 2023c).

As stated above, the existing Local Landscape Linkage is interpreted to represent the natural feature communities that were characterized and mapped in completion of this EIS as shown on Map 3. This Linkage is located entirely outside of the subject property and will be retained in its

entirety with no effects on its ecological functionality or connectivity on the landscape. To achieve the objectives of the SWS in ensuring appropriate ecological connectivity, a MVW must be identified, which is the minimum width of natural self-sustaining vegetation to be established within the Linkage. Existing natural vegetation within this MVW is to be retained and/or enhanced. Areas of the MVW currently not containing natural self-sustaining vegetation are to be established as such through a vegetation restoration and enhancement plan. For Local Landscape Linkages, a MVW of 60m is required (Wood 2023c).

To identify the limits of a MVW for the Linkage, the width of the existing Linkage feature was first measured and found to range between 33m to >77m wide within the study area. Generally, the portion of the Linkage that abuts the southern half of the subject property comprises its narrowest point within the study area, and this portion of the Linkage was therefore subject to the application of MVW limits to achieve a minimum linkage width of 60m. See Map 3 for the limits of the Linkage MVW, which were calculated from the measured centre point of the existing Linkage natural features. The total 60m width applies to the entire Linkage (i.e., including lands to the west of the Linkage); therefore, a Linkage MVW of up to 30m extends into the subject property. Lands within the Linkage MVW on the subject property are currently in a developed state and contain portions of lawn and an edge of the cleared/disturbed area under the existing condition. This area must therefore be subject to natural restoration plan as further described in Section 7.0.

The SABE SWS also identifies that Local Landscape Linkages are subject to the application of an additional 30m PLZ beyond the limits of the MVW (Wood 2023c). It is understood that this additional 30m width requirement is split between both sides of the Linkage, representing a total width of 15m within the subject property (J. Elliott, Town of Caledon, pers. comm., November 2025). The PLZ is intended to transition the natural and built forms, and incorporates proportional land cover targets and land use restrictions within the PLZ to achieve that objective. In the context of the subject property, the PLZ must contain the following:

- Buffers, as applicable (see below);
- At least 30% comprising natural self-sustaining vegetation (i.e., “Linkage Enhancements”) (can include buffers);
- Up to 30% of the “developable lands” within the PLZ comprising general development and associated infrastructure;

- General development within the PLZ should be generally compatible with the adjacent natural feature cover (e.g., comprise low-rise structures), and should incorporate measures and design elements (e.g., LID) to adequately mitigate impacts to the adjacent Linkage natural features;
- At least 70% (i.e., the remainder) of the developable lands within the PLZ comprising “Linkage Compatible Uses”;
 - “Linkage Compatible Uses” are non-natural land uses that support or preserve the function of the Linkage and include examples such as naturalized gardens or landscaping, natural-design stormwater management facilities, open space or parks, and trails (Wood 2023c);
 - In the context of the subject property and proposed development “Linkage Compatible Use” within the subject property can also include lawn since the proposed development is a temporary zoning proposal (J. Elliott, Town of Caledon, pers. comm., January 2026).

See Map 3 for the outer limit of the PLZ on the subject property. See Section 6.1.1 for further discussion about the proposed composition of the PLZ on the subject property in the context of the proposed development.

5.2 Supporting Features and Areas

Lands to the north and east of the subject property are mapped as Supporting Features and Areas of Caledon’s Natural Environment System on Schedule D2b of the Town OP (2025). This overlay designation is defined in Section 13.4.1 of the OP. The area mapped as Supporting Features and Areas is interpreted to correspond to the naturalized area immediately north of the subject property. The property to the immediate east of the subject property is a residential lot, and the Supporting Feature and Area that is mapped in the OP as east of the subject property is interpreted to be to the east of that adjacent residential lot.

As described in Section 4.2.1 and shown on Map 2, the naturalized land to the north of the subject property was characterized as a Cultural Thicket (CUT) that is dominated by growth of the non-native/invasive Common Buckthorn. As a shrub thicket, this feature does not represent a form of “woodland”. It is also not identified as a potential Enhancement Area on OP mapping, nor does this CUT feature explicitly align with the other criteria defining Supporting Features and Areas in Section 13.4.1. However, Enhancement Areas are defined in the OP as including

areas that “*have the potential to be restored to a natural state*” and include “*naturally vegetated...lands that expand, connect, link, or border natural heritage features and areas and that have been or are planned to be rehabilitated or restored to support ecological functions*” (Town of Caledon 2025). NRSI is not aware of existing plans to restore the natural area north of the subject property. However, it represents an area that has re-naturalized from a previously cleared/agricultural condition to become contiguous with the natural Salt Creek Linkage lands to its immediate west. It can therefore be understood to ecologically support the form and function of the Linkage in its local context. For this reason, and because NRSI biologists could not directly access the feature to more fully characterize it, the CUT thicket is assumed to meet the definition of Supporting Feature and Area and is treated as such in the EIS.

Section 13.4.2 of the Town OP states that development and site alteration is not permitted within the Supporting Natural Feature and Area overlay designation unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions and/or their hydrological functions, that there is no reasonable alternative to locating the development outside of the designation area, and that the development or site alteration is directed away from the designation area to the greatest extent possible, or if avoidance is not possible, that the impact is minimized, and that any impact to the feature is restored or enhanced (Town of Caledon 2025).

5.3 Watercourse and Fish Habitat

Based on the aquatic habitat assessment completed on September 17, 2025, Salt Creek occurs as an intermittent watercourse that provides direct fish habitat. No flow was observed through the channel, but small to large, isolated pools of water were present and small-bodied fish were observed within the large culvert pool under Mayfield Road, which included Creek Chub and darter species. Fish habitat in general is protected under the federal *Fisheries Act*, which is administered by Fisheries and Oceans Canada.

A DFO self-assessment screening is required to assess the need for DFO review of works being proposed in fish habitat, or that may impact fish and fish habitat (e.g. stormwater management discharge), including for Redside Dace and its protected habitat. Based on the assessment of the proposed works in Salt Creek, DFO review will be required for activities pertaining to the outfall of the proposed development’s stormwater management system, and specifically as it relates to potential impacts on water quality within Salt Creek that may be affected by stormwater that is leaving the subject property under a post-construction condition. Direct

impacts relating to the construction and overall footprint of the stormwater management outfall are expected to be negligible but are further discussed in Section 6.3.3. Once project specifications are finalized and approved, a Request for Review form will need to be completed and submitted to the regional DFO office to initiate the review process.

5.4 Species at Risk

SAR individuals and their habitats are protected in accordance with the SCA and SARA. Activities that would cause mortality to SAR individuals, or destroy their habitats, are prohibited unless activities are undertaken in accordance with Ontario Regulation 75/26 pursuant to the SCA, or otherwise as permitted by the MECP, ECCC or DFO.

5.4.1 Redside Dace Habitat

A review of historical fish data (Government of Ontario, 2026) and aquatic SAR mapping (Government of Canada, 2024; 2025) indicate that Salt Creek within the study area is designated as Critical Habitat for Redside Dace. Redside Dace is listed federally as Endangered under Part 2 of Schedule 1 to the SARA, and its habitat, including Critical Habitat, are protected under the SARA and the *Fisheries Act*, which also protects fish habitat in general. Critical Habitat for Redside Dace is defined in the recovery strategy for the species as follows:

“Run, riffle, or pool areas in stream reaches with slow to moderate flow for juveniles and slow to fast flow for adults, within the entire bankfull channel width. Additional features of critical habitat include the meander belt width, the riparian vegetation within it, and associated 30 m of vegetated area extending from the meander belt width.” (Government of Canada, 2024).

The area encompassing Redside Dace protected habitat is shown on Map 3b. This area, which includes the meander belt of Salt Creek plus 30m extends onto the subject property at its southwest corner. Note that the meander belt illustrated on Map 3b is approximated based on TRCA mapping (TRCA 2025). Under existing conditions portions of the area within the subject property include a packed gravel lot, manicured lawn, and existing buildings. The project proposes improving some of this area through restoration and enhancement activities, where possible. This is further described in Section 7.0.

Based on provincial legislation, aquatic species are no longer protected under the new SCA. Therefore, the protection of Redside Dace and its habitat are solely the responsibility of Fisheries and Oceans Canada under the SARA and *Fisheries Act*. Development and construction activities proposed within and/or adjacent to Redside Dace-protected habitat that

has the potential to impact the habitat is required to be submitted to Fisheries and Oceans Canada for review.

5.4.2 Potential Species at Risk Bat Habitat

Five trees on the subject property were identified as representing potential habitat trees for SAR bats that use cavities, loose or peeling bark for roosting purposes (i.e., Little Brown Myotis, Northern Myotis, and Silver-haired Bat). Woodland habitat within the study area is limited to the small FOD7 community within the floodplain. However, this feature and any of the other trees and shrubs that are >1m in height, such as within the hedgerow feature, should be assumed to represent potential SAR bat habitat for any of the seven bat SAR that could occur within the study area (i.e., Little Brown Myotis, Northern Myotis, Tri-colored Bat, Eastern Small-footed Myotis (*Myotis leibii*), Silver-haired Bat, Hoary Bat and Eastern Red Bat).

Under the SCA, SAR bat habitat is defined to include hibernating and swarming habitat; maternity roosting habitat; migratory stopover habitat; and overwintering habitat. Within the study area, only maternity roosting habitat may potentially occur. Maternity roosting habitat is defined as “*a dwelling place, the natural roost feature (e.g., tree, snag, rock) or entire anthropogenic structure (e.g., entire bridge, barn, or rock pile) occupied for breeding (gestation, birth) and rearing pups*” as well as “*the portion of the area required by the species for breeding and rearing pups, up to a 1000m radius from the maternity roost*”. In the context of the study area, the wooded natural features (i.e., the FOD7 woodland, the CUT cultural thicket and the hedgerow feature, as well as the five individual potential roost trees on the subject property) are considered to represent the potential maternity roost habitat. The open habitat natural features within the study area (i.e., CUM cultural meadow, MAM2-2 and MAS2-1 wetlands are identified as addition habitat that supports the ecological functioning of the maternity roost habitat. Collectively, these areas comprise the potential SAR bat habitat within the study area (Map 3b). The subject property itself, which is largely devoid of natural vegetation growth, is not considered to represent SAR bat habitat.

5.5 Significant Wildlife Habitat

Based on the results of background information review and field studies, one form of SWH was confirmed within the study area: Special Concern/Rare Habitat for the SCC Barn Swallow. Multiple forms of Candidate SWH were also identified for the study area because they couldn't be ruled out through the completed fieldwork scope:

- Amphibian Breeding Habitat (Wetland)
- Terrestrial Crayfish
- Special Concern and Rare Species Habitat:
 - Harpoon Clubtail
 - Northern Ribbonsnake
 - Snapping Turtle
 - Western Chorus Frog

SWH is identified as a form of “Supporting Feature and Area” in the Caledon OP. Furthermore, SWH is protected in accordance with Section 4.1.5(d) of the Provincial Planning Statement, which states that development and site alteration are prohibited within SWH unless it can be demonstrated that there will be no negative impacts on the natural features or their ecological functions (OMMAH 2024).

5.5.1 Confirmed Significant Wildlife Habitat

Habitat for Special Concern and Rare Species - Barn Swallow

Barn Swallow is listed as a species of Special Concern by COSSARO (COSSARO 2026), and is therefore considered a SCC (OMNR 2010). This species was observed foraging over the Salt Creek natural corridor as well as over the subject property during the August 22 site investigation. In defining the habitat of the species, the previously defined general habitat description that was used when species was regulated as a SAR (MNRF undated) was used. This description identifies habitat for the species as comprising lands up to 200m from a nesting site, with the foraging habitat being recognized as being relatively tolerant to development-related alterations. The specific nesting site of the observed Barn Swallows is not confirmed, but based on the site observations is suspected of being a large shed located immediately west of the natural corridor. The observed areas of Barn Swallow foraging are therefore assumed to be within 200m of their nesting site. The natural vegetation cover present within the Salt Creek corridor, as well as the watercourse itself, provide a source of insect prey that Barn Swallows forage on. Open foraging habitat surrounding the assumed off-site nesting habitat structures is somewhat restricted within the surrounding landscape, portions of which have been developed (e.g., to the south and portions of land to the west) and are less suitable to provide insect prey. For this reason, the natural features are considered a form of SWH to support the local Barn

Swallow population (Map 3b). However, the subject property, which is largely devoid of vegetation cover, would represent a relatively poor source of insect prey and is therefore not considered SWH.

5.5.2 Candidate Significant Wildlife Habitat

Amphibian Breeding Habitat (Wetland) and Special Concern/Rare Species Habitat – Western Chorus Frog

Anuran (frog/toad) call surveys were not completed as part of the EIS fieldwork scope. This form of Candidate SWH is identified on the basis of suitable habitat being present within the study area in the form of the Reed Canary Grass Mineral Meadow Marsh (MAM2-2), as well as its complex with Cattail Mineral Shallow Marsh (MAS2-1). These habitat features are located entirely outside of the subject property as shown on Map 3b.

Terrestrial Crayfish

Two species of terrestrial crayfish occur in Ontario that are primary or secondary burrowers. Of these, only one occurs in the study area vicinity: Chimney Crayfish (*Fallicambarus fodiens*). Chimney Crayfish is considered to be a SCC in Ontario; accordingly, its habitat is considered SWH and is afforded protection under the Provincial Planning Statement (2024). This species maintains colonies of underground tunnels of up to 0.4ha in size, and is usually associated with marshy fields, drainage ditches, marshes and ponds (MNR 2014).

The MAM2-2 and MAS2-1 wetland habitats within the study area may provide ideal conditions for terrestrial crayfish, particularly along the margins of the marsh within the CUM cultural meadow community where moist, but not wet/inundated soils, occur. Since these communities are located entirely outside of the subject property and could not be directly accessed to assess the significance of crayfish chimneys, the habitat is considered potentially present. Specifically, the Candidate SWH is identified as the MAM2-2, MAS2-1 and CUM communities as shown on Map 3b.

Special Concern/Rare Species Habitat – Harpoon Clubtail

Harpoon Clubtail is ranked S3 (“Vulnerable” in Ontario) according to the NHIC (OMNR 2025); it is therefore considered a SCC in Ontario (OMNR 2010). Harpoon Clubtails prefer medium- to small-sized streams that are typically clear and cold to cool in temperature (Government of Massachusetts 2026). As described in Section 4.4, Salt Creek is identified as possibly having a

coolwater thermal regime. This thermal regime also supports its habitat function for Redside Dace as described above. Since the species is known from the general vicinity of the study area (OoAD 2023), Salt Creek should therefore be considered potential habitat for the species. The Candidate SWH is considered to be limited to the watercourse as well as the surrounding wetland and cultural meadow features (Map 3b).

Special Concern/Rare Species Habitat – Northern Ribbonsnake

Northern Ribbonsnake is a semi-aquatic species that is often found near pond edges, streams, marshes, swamps and bogs. It prefers quiet, shallow water with low, dense vegetation that is sun-lit and ideal for basking (COSEWIC 2002). Suitable habitat for this species was identified within the study area, specifically associated with the MAM2-2 and MAS2-1 riparian wetland features and adjacent CUM cultural meadow as shown on Map 3b. Since targeted surveys for these species were not completed, and because these habitats are entirely located outside of the subject property, they are assumed to represent habitat and are identified as Candidate SWH.

Special Concern/Rare Species Habitat – Snapping Turtle

As stated in Section 4.3.2, typical habitat for Snapping Turtle (e.g., permanent water bodies with soft muddy bottoms) is not present within the study area. However, Snapping Turtles are known to travel long distances across the landscape (e.g., up to 8km along watercourses) when accessing suitable nesting habitat (COSEWIC 2008). The Salt Creek riparian corridor traverses large distances across the landscape and appears to contain or be located adjacent to ponds that could potentially support the species. It is therefore conceivable that this species may use the study area reach of Salt Creek as a movement corridor. For this reason, and following a precautionary approach, it is assumed to represent SWH for Snapping Turtle, specifically as a movement corridor to support its critical habitat functions such as nesting site access. The Candidate SWH has been interpreted to comprise the watercourse as well as its adjacent MAM2-2 and MAS2-1 wetlands and CUM cultural meadow communities (Map 3b).

5.5.3 Significant Wildlife Habitat Considered Absent

Other forms of SWH that were initially identified during SWH screening during the TOR stage (Appendix III), and as summarized in Section 2.2, were subsequently ruled out based on the results of targeted surveys. The following summarizes the assessment of these Candidate

SWH types. This summary does not include species that were previously considered SCC under the *Endangered Species Act* but are not under the current SCA (see Section 2.2.2).

Table 5. Summary of Candidate Significant Wildlife Habitat Categories Identified During Preliminary Screening Considered Absent

Significant Wildlife Habitat Type	Assessment Result
Bat Maternity Colonies	Forest cover within the study area is limited to the small/narrow FOD7 feature, which is unlikely to meet significance criteria to be considered Bat Maternity Colonies SWH
Reptile Hibernaculum	Structure foundations within the subject property were in relatively good repair and did not show evidence of providing access to subterranean areas. No other potential snake hibernaculum access features were observed on the subject property.
Waterfowl Nesting Habitat	Insufficient area of upland terrestrial habitat, surrounding wetland, is present within the study area to support this SWH function based on established habitat size criteria (MNRF 2015).
Turtle Nesting Habitat	The gravel substrate on the subject property is too firm and compacted to provide potential turtle nesting habitat.
Amphibian Breeding Habitat (Woodland)	Amphibian Breeding Habitat (Wetland) is considered more appropriate in the context of the study area and is addressed above.
Special Concern/Rare Wildlife Habitat – Eastern Wood-Pewee	Woodland habitat availability is very limited in the study area. Significant habitat for this species is absent.
Special Concern/Rare Wildlife Habitat – Monarch	Although Common Milkweed was documented within naturalized portions of the study area, the study area does not function as important Monarch habitat and is too far from Lake Ontario to be considered migratory stop-over habitat.

Additionally, due to the identification of Candidate Amphibian Breeding Habitat (Wetland) SWH in the study area, SWH for Amphibian Movement Corridors must be considered. Within the study area, the Salt Creek riparian corridor represents a potential movement corridor for amphibians. They may travel through the existing culvert and may also pass over the road surface, which would expose them to road mortality hazards. However, provincially significant Amphibian Movement Corridors should comprise several layers of vegetation and should be unbroken by roads (MNRF 2015). Since the study area corridor is bisected by Mayfield Road, it is not considered to represent a form of SWH. However, it is recognized as having more localized importance in conveying wildlife movement across the landscape.

5.6 Toronto and Region Conservation Authority Regulated Areas

The Salt Creek riparian corridor is already mapped as falling within the TRCA's regulation limit due to the presence of regulated hazard features and areas such as the watercourse, flood hazards (estimated and engineered), meander belt and slopes. Wetland, with associated 30m adjacent lands, are also mapped as occurring within the corridor on the south side of Mayfield

Road. A portion of the regulation limit derived from the composite of these regulated features extends into the subject property (TRCA 2025).

The previously unmapped wetland (MAM2-2) that was observed to the west of the subject property would also be regulated by the TRCA. Specifically, the regulated area would comprise the MAM2-2 wetland plus a 30m “area of interference” surrounding the wetland. See Map 3a, which overlays an estimated “area of interference” that would represent an outermost limit from TRCA regulated wetland areas. This is superimposed against existing TRCA regulation mapping on the subject property for comparison.

Development and site alteration are prohibited within TRCA-regulated lands unless permitted in accordance with Ontario Regulation 41/24.

5.7 Regionally Significant Species

Three species (Cleavers, Eastern Red Cedar and Early Goldenrod) were identified in the study area that are considered significant in Peel Region. These species predominantly grow outside of the subject property, within the hedgerow feature (Cleavers), the Cultural Thicket (CUT) (Eastern Red Cedar) and the Cultural Meadow (CUM) (Early Goldenrod). Although Early Goldenrod was also observed growing within a lawn area on the subject property, the lawn is not considered natural or significant habitat for the species.

While regionally significant species are not in and of themselves protected under Regional or Town OP policy, efforts should be made to preserve vegetation species individuals, or habitats of wildlife species, to the extent feasible within the development plan.

5.8 Buffer

Buffers form a part of Caledon’s Natural Environment System and are required as one means among a suite of measures to mitigate negative impacts that can arise from development and site alteration activities on adjacent natural features and ecological functions. They also provide opportunities to restore or enhance the adjacent natural features such as through establishment of native vegetation species growth or invasive species management measures.

Section 13.9 of the Caledon OP (2025) sets out minimum buffer widths from various components of the Natural Environment System. Of relevance to the study area, the OP identifies minimum buffer widths of 30m from wetlands and 15m from SWH. A 30m buffer was also generally applied to the Natural Feature and Area that comprises the Salt Creek linkage

feature as depicted in OP Schedule D2b. These buffers do not include regulatory allowances from hazard features that are required in accordance with TRCA policies.

However, specific site-scale buffer recommendations are further informed through localized studies such as EISs. Section 13.10.4 of the Town OP states that buffers are to be informed by both existing conditions and sensitivities, and the anticipated impacts that a buffer is intended to mitigate. Section 13.10.6 further states that, based on this additional site-scale and development plan information, refinements to the preliminarily identified buffers may be made in an EIS, including increases or decreases to those preliminary buffers. Other factors that are to be considered in determining a final recommended buffer width include planned measures for buffer restoration and enhancement, and other impact mitigation strategies. These are further described in Section 6.0.

Within the study area, the most ecologically sensitive natural feature comprises the Salt Creek watercourse (e.g., fish habitat, core habitat for SAR Redside Dace; see Section 5.4.1 for associated constraints), as well as the riparian wetland communities that surround the watercourse (e.g., Candidate SWH for Terrestrial Crayfish, Wetland Amphibian Breeding; for the SCC Harpoon Clubtail). The wetland features warrant application of a buffer to set-back development and to ensure adjacent land use impacts can be appropriately mitigated, in conjunction with other measures.

Although the wetlands are significant in the context of the local site scale, and recognizing that these features comprise an important component of the broader Linkage feature and the Natural Environment System landscape-level connectivity that it provides, the study area wetlands are relatively low-sensitivity wetland features. They primarily comprise invasive Reed Canary Grass-dominated meadow marsh features that are relatively resilient to, and have largely arisen as a result of, ecological disturbance. As described in Section 4.2.2, the Reed Canary Grass Mineral Meadow Marsh (MAM2-2) wetland that occurs west of the study area is a relatively low quality feature from a floristic standpoint. However, this doesn't negate the beneficial ecological functions that it provides, such as described above. A buffer width of 15m is therefore considered sufficient to adequately set-back development and mitigate impacts that may occur from the proposed subject property land use. This is with consideration for the details of the proposed development that is the subject of the temporary use zoning application on the subject property as described in Section 6.0. This is also with consideration for the proposed development design measures that conform with the requirements of the Linkage edge

transitional land use planning (e.g., PLZ) in accordance with the SABE SWS guidelines (Wood 2023c) and Town OP policies. See Map 3 for the location of the 15m wetland buffer, which falls within the limits of the 60m Linkage MVW described above.

6.0 Impact Assessment

6.1 Description of the Proposed Development

G.N. Transport Inc. proposes to apply for temporary use zoning for the subject property to permit a transportation terminal on the subject property. The land use would specifically include the storage of trucks and trailers on a surface-level parking area within the rear portion of the property. The existing house and garage structures would remain as part of the proposed land use, as would the property's existing septic system and lawns. The surface parking area will comprise a surface of crushed gravel. The existing driveway access to Mayfield Road will be maintained.

A stormwater management system has been designed that would comprise a combination dry pond and infiltration basin as the primary form of water quantity and quality control, as well as a secondary bioswale LID feature along the west edge of the property that will provide supplementary water quality controls and contribute to site water balance requirements.. The bioswale would discharge excess flows to Salt Creek via a headwall and outlet structure that would be constructed on the adjacent property to the west.

See Appendix XI for the proposed development plan for the subject property, which is overlaid onto the existing conditions as presented in Map 4.

6.1.1 Permeable Landscape Zone

The SABE SWS specifies proportional coverage targets of specific land use types within the PLZ to ensure that an appropriate transition is established between the Local Landscape Linkage (i.e., the Salt Creek riparian corridor) and the adjacent proposed land use. See Section 5.1.3 for a break-down of the PLZ targets that were identified in the SWS (Wood 2023c).

With regard for these targets, the proposed development has been designed to incorporate a PLZ that contains the following proportional land cover areas:

- 42.5% will represent "Linkage Vegetative Enhancement" area (SWS target = $\geq 30\%$), comprising areas that will be restored with native self-sustaining vegetation growth
 - This area includes the wetland buffer and the Linkage MVW zone
 - This area will also include natural vegetation along the west side of the development, including the bioswale, to the west of the septic bed and the truck parking area.

- See Section 8.0 for further discussion about recommended restoration and enhancement measures on the site.
- 21.7% will represent “Development” (SWS target = ≤30%), which will comprise a portion of the proposed truck parking area and the existing house.
- 35.9% will represent “Linkage Compatible Use”, which will comprise sod and the dry pond/infiltration basin.
 - Sodded areas will comprise the remainder of the existing front lawn that will be retained and not converted to native self-sustaining vegetation, a narrow access path along the west side of the house outside of the native vegetation zone, and new sod that is to be replaced on the septic bed to the rear of the house.
 - The dry pond/infiltration basin will be maintained with natural vegetative cover, and based on its function to facilitate infiltration of flows and maintain water balance functions, is not considered an obtrusive or impactful use adjacent to the off-site natural features.

See Map 4 for proposed proportional land cover areas within the PLZ on the subject property.

6.2 Approach to Impact Assessment

Potential impacts arising from the proposed development are determined by comparing the details of the proposed undertaking with the characteristics of the existing natural features and their ecological functions. Where the development limits overlap with the natural features or indirectly affect their functions, impacts may arise. The following is a description of the types of impacts which will be discussed.

- Direct impacts to the natural features within the subject property associated with disruption or displacement caused by the actual proposed ‘footprint’ of the development, including impacts caused by site grading.
- Indirect impacts associated with changes in site conditions such as drainage, water balance and water quantity/quality, and effects of construction on adjacent natural features and habitats.
- Induced impacts associated with post-construction use of the development such as disturbance or degradation of adjacent natural features and species habitats caused by increased human use of the area.

6.3 Direct Impacts

6.3.1 Vegetation Removal and Site Grading

The subject property was historically fully developed and currently contains no natural vegetation community cover. The majority of the property has been previously cleared, with much of the remainder comprising lawn and other developed areas. Therefore, relatively little vegetation removal will be required to accommodate the proposed development. Most of the existing lawn areas and their associated plantings will remain intact as part of the development. The relatively little vegetation removal required within the rear portion of the property will mainly comprise previously planted and adventitious tree growth (including dead/declining trees) and small areas of weedy regeneration. No significant vegetation species will require removal.

The proposed development will require the installation of a drainage pipe and outlet within the adjacent naturalized riparian corridor. See Map 4 for the location of the outlet, headwall and plunge pool structures that will be located within the boundary of the treed hedgerow and CUM cultural meadow features. It is anticipated that some tree removal will be required through the hedgerow to install the drain pipe, and additional localized vegetation removal will be required to construct the headwall and plunge pool. These vegetation communities are not considered sensitive and the proposed construction is not expected to represent a negative impact to these features. However, areas that are disturbed by construction should be restored, including replanting native tree growth within the hedgerow feature and application of a native seed mix within the disturbed portion of CUM cultural meadow (see Section 7.0).

It is recommended that a future Tree Protection Plan (TPP) be prepared to clearly identify which trees will require removal, and which should be retained and protected, as part of the drainage infrastructure installation that will pass through the hedgerow feature. The TPP would specify necessary mitigation measures, including the location of tree protection fencing to protect adjacent tree growth. If a TPP is not required by the Town, it is otherwise recommended that trees requiring removal be marked by a Certified Arborist or Registered Professional Forester.

There is potential for the regionally significant species Cleavers or Early Goldenrod to be removed to accommodate the installation of the drainage infrastructure within the natural area. It is therefore recommended that the construction zone be inspected prior to the initiation of construction activities. If any regionally significant species are identified within the defined construction zone, individuals should be transplanted to a suitable alternate habitat location if feasible, or seed collected and dispersed in the alternate habitat location.

6.3.2 Impacts to Terrestrial Wildlife and Their Habitats

Barn Swallow Significant Wildlife Habitat

The Barn Swallow foraging habitat was identified following a precautionary approach since the proximity of the nesting site(s) is not confirmed. However, the nesting habitat is suspected to be located within a large shed structure on the west side of the Salt Creek riparian corridor. As described above, foraging habitat within 200m of the nest is considered to represent a form of the significant habitat for the species; however, this is a relatively low-sensitivity form of habitat. Barn Swallows forage over a wide array of open habitats (including developed lands) provided suitable insect prey is present. Suitable open habitat is relatively abundant on the surrounding landscape, and individuals may continue to forage over the development area provided insect prey are still present. Furthermore, the proposed development is not expected to significantly change the existing form of the subject property (i.e., much of the subject property is already in a cleared state) whereas the proposed development will result in increased vegetative cover along the west side of the development relative to the existing condition. Therefore, no impacts to Barn Swallow SWH are expected to occur as a result of the proposed development.

Candidate Significant Wildlife Habitats

The forms of Candidate SWH identified for the study area (i.e., Amphibian Breeding Habitat (Wetland); Terrestrial Crayfish; and Special Concern/Rare Habitat for the SCC Northern Ribbonsnake, Snapping Turtle, and Harpoon Clubtail) are all associated with the off-site Salt Creek riparian corridor and are considered together for the purposes of this impact assessment. None of these Candidate SWH types will be directly impacted by the proposed truck terminal/parking area itself since they are located off-property. However, they have the potential to be indirectly impacted as a result of stormwater runoff quantity and quality effects from the proposed development lands.

The proposed development will require a small/localized direct habitat impact associated with installation of the drainage infrastructure, including the headwall and plunge pool that will be located at the boundary between the hedgerow and CUM cultural meadow features (Map 4). Consequently, this will require construction encroachment within an area that was identified as Candidate SWH for Terrestrial Crayfish, and the SCC Northern Ribbonsnake and Snapping Turtle. However, since the structures are to be located along an outer edge of the CUM cultural meadow, away from the wetland and watercourse, it is unlikely that the area of localized direct impact provides important functions for this habitat types. Furthermore, with consideration for

the small size of the anticipated disturbance area, negative impacts to these Candidate SWH types are not anticipated. Nevertheless, it is recommended that, prior to construction initiation, a search of the defined construction zone be undertaken to determine if any terrestrial crayfish chimneys are present that would be impacted. If any chimneys are observed within the construction zone, it is recommended that a terrestrial crayfish salvage be completed prior to construction to capture and relocate individuals to an adjacent area of suitable habitat within the floodplain.

Measures should also be taken to ensure that small wildlife, such as Northern Ribbonsnakes, do not enter the construction zone surrounding the drainage infrastructure including headwall and plunge pool. The perimeter of this construction zone will be aligned with ESC silt fencing (see Section 6.4.3). Provided this fencing is keyed into the ground and regularly inspected to ensure the fencing is in good repair, the silt fencing is considered sufficient to exclude small wildlife from the construction zone during the period of infrastructure installation.

Potential Bat Species at Risk Habitat

Five suitable snag/cavity roosting trees for SAR bats that utilize these features (Little Brown Myotis, Northern Myotis, Silver-haired Bat) were identified among the small grouping of trees located along the west side of the garage (Map 3b). All of these trees will require removal to accommodate the proposed development. Additionally, a relatively small number of trees may require removal to accommodate the drainage pipe installation through the hedgerow feature. The removal of these on-property and off-property trees would not represent a proportionally large removal of habitat relative to what is available on the landscape, and would not impact SAR bat habitat in a way that would fragment existing bat habitat or create a barrier to habitat use by bats. Therefore, no negative impact to SAR bat habitat is anticipated, and no consultation or permitting/authorization requirements from the MECP are considered necessary.

No other potential snag/cavity roost trees were identified within the subject property. However, it is understood that the SAR Hoary Bat and Eastern Red Bat may roost singly in a wide variety of tree and shrub species including isolated growth. It is therefore recommended that any woody vegetation (trees or shrubs) that is >1m in height that falls within the development footprint be removed outside of the bat active period for the SAR bats that may occur on site (i.e., removals should occur outside of the period March 15-November 30). By following this timing window, negative impacts to SAR bat individuals can be effectively avoided.

Other Wildlife Species

Aside from the SAR bats, all of the wildlife species that are known to occur within the study area and which have suitable habitat in the study area have secure or apparently secure populations in Ontario (MNR 2021), and the majority are relatively common on the landscape. These species are generally tolerant and adaptable to human-occupied areas, and are expected to continue using the study area post-development. Wildlife habitat removal within and adjacent to the subject property will be minimal to negligible given the relatively little tree/vegetation growth that will be required. No direct negative impacts to general wildlife habitats on the subject property are anticipated.

Vegetation clearing has the potential to directly impact bird breeding activity through damage and destruction of nests, eggs and young, or avoidance of the area by breeding adults. Vegetation removal should therefore occur outside of the period March 15-November 30 so as to limit disturbances to nesting activities of birds and to avoid destruction of active nests while also avoiding impacts to SAR bats (as described above). Herbaceous vegetation and woody vegetation that is <1m in height that is not subject to SAR bat habitat protections should be removed outside of the bird nesting period of April 1-August 31 to avoid damage or destruction to bird nests and or disturbance to bird nesting activities. The destruction of migratory birds and their nests is prohibited under the federal *Migratory Birds Convention Act* (MBCA).

Wildlife Movement

The Salt Creek riparian corridor represents the functional ecological linkage that conveys most land-based wildlife through the study area. The identification of this feature as a Local Landscape Linkage in large part reflects its importance for the movement of wildlife across this portion of the landscape, and in maintaining connectivity between other core natural features and habitats located to the north and south. The subject property itself is peripheral to this movement corridor, and given its largely cleared/developed state, the subject property does not contribute significant environmental benefit or support to the functioning of the adjacent corridor. The proposed development will provide an opportunity to restore and enhance portions of the Linkage where it abuts and extends into the subject property, such as through the establishment of natural vegetation cover within a Linkage MVW and buffer, and through the implementation of compatible transitional land uses within the Linkage PLZ.

No direct impacts to wildlife movement corridor habitat, or inhibition of wildlife movement activities within the Salt Creek riparian corridor/Linkage, will occur as a result of the proposed development.

6.3.3 Impacts to Fish and Aquatic Habitat

Salt Creek provides direct fish habitat adjacent to the subject property and is characterized by an intermittent flow regime, while still providing standing pools of water under low-flow conditions, which act as refuge areas for the local fish community. The proposed development will require the installation of a drainage pipe and outlet within the adjacent naturalized riparian corridor. See Map 4 for the location of the outlet, headwall and plunge pool structures that will be located within the boundary of the treed hedgerow and CUM cultural meadow features. The footprint of this feature does not appear to overlap with the defined channel bed and banks of Salt Creek, which occurs west from the proposed outfall location. Given the location of the outlet structure footprint, the proposed activities for this project will occur beyond the top of bank of the watercourse and will not directly affect fish and/or fish habitat within Salt Creek. It is still recommended that activities related to the construction of the outlet structure occur under low-flow and dry conditions.

6.4 Indirect Impacts

6.4.1 Construction Disturbance to Adjacent Natural Features and Habitats

Vegetation clearing, site grading and other construction activities have the potential to inadvertently destroy, damage and degrade existing vegetation along the development limits unless the development limit boundaries are clearly marked. For example, construction activities can cause scarring and decreased health of adjacent trees whose branches or root systems have been damaged by machinery or affected by construction-related dust and sedimentation. Damage to trees and other vegetation can also be caused by the compaction of soils within tree rooting zones along natural feature edges.

Direct damage and indirect disturbances can cause stresses on the natural features that weaken their ecological integrity. In these states, natural features are more prone to establishment and proliferation of invasive, non-native species such as Common Buckthorn. Proliferation of invasive, non-native species within natural communities decreases their ecological value such as by suppressing native species, diminishing biodiversity and reducing habitat suitability.

Disturbance to the treed hedgerow and the Cultural Thicket (CUT) along the west and north sides of the development, respectively, must be avoided by clearly delineating the limit of construction and grading limit and ensuring that construction activity is maintained outside of these features. The exception to this is where fencing must align the perimeter of the stormwater outlet infrastructure installation work zone that will extend into the Salt Creek riparian corridor natural features. Construction limits should be delineated through the installation of Erosion and Sediment Control (ESC) fencing (i.e., silt fencing). Where appropriate and subject to the requirements of the Town, combination ESC/tree protection fencing should be installed to ensure that adjacent tree or other woody vegetation growth is not damaged or disturbed during construction. Tree protection fencing must be installed where directed by a TPP, if required, and must conform to municipal guidelines in terms of fencing type, signage requirements, etc. Protective tree fencing should be installed at least 1m from the dripline of retained trees where possible to adequately protect the root zone from soil compaction and other disturbances, unless otherwise specified in the TPP. All tree protection fencing must be installed prior to site alteration and construction activities, and inspected by a Certified Arborist/Registered Professional Forester or environmental inspector. Where tree protection fencing and ESC fencing is not required along construction area limits, other forms of boundary demarcation should be used which may include brightly-coloured snow fencing.

As shown on Map 4, the development is not proposed to approach the limits of the wetland buffer or the Linkage MVW where they extend into the subject property; these areas are located within a south portion of the property where no new development is proposed.

Designated areas for construction lay-down, vehicle access and parking, equipment storage, materials stockpiling, and any on-site construction offices should be located outside of the wetland buffer and away from the adjacent natural feature edges to limit potential to indirectly impact the terrestrial and aquatic features.

When construction equipment is moved from one site to another, it has the potential of inadvertently transporting seeds and other vegetative material of non-native and invasive plant species. This may therefore lead to the introduction and colonization of a site's natural features with invasive plants. This risk is heightened where construction is planned to extend into the Salt Creek riparian corridor for construction of the stormwater outlet infrastructure. Construction vehicles and machinery should therefore be properly cleaned of soils, mud and water to ensure

that invasive plant species are not transported to the subject property where they can establish within the natural features. The following general steps should be taken:

- Vehicles and equipment should be inspected before leaving the site, or if moving from one part of the site to another where one area is known to contain a concentration of invasive plant species;
- Vehicles and equipment should be inspected after having transported soil that has the potential to contain invasive plant species;
 - Vehicles and equipment should be inspected for dirt, plant material and seeds that may be lodged in or adhered to surfaces;
- Based on the above inspections, vehicles and equipment should be thoroughly cleaned in an area where there is no risk of spreading invasive species. The interior and exterior of vehicles and equipment should be cleaned to remove mud and debris, including along undersides and around wheels.

See the Clean Equipment Protocol for Industry (Halloran et al. 2016) for additional details of methods that should be followed to mitigate the spread of invasive plant species between natural areas.

During construction activities such as vegetation clearing and site grading, dust can potentially result in the following:

- Changes in vegetation due to increased heat absorption and decreased transpiration,
- Immediate visual impacts.

Impacts due to dust should be mitigated by moistening areas of bare, dry soil with water as needed during construction activities to reduce the amount of dust produced.

Excessive noise, vibrations, artificial lighting and human presence caused by site preparation and construction activities may cause wildlife to temporarily avoid the area. These impacts can be mitigated by restricting the daily timing of construction activities to between 7:00hr and 19:00hr. This timing restriction should also apply to the use of generators or pumps insofar as possible. Any artificial lighting used for construction purposes should be turned off or directed away from the adjacent woodland feature following the completion of daily construction activities.

Such impacts resulting from dust, noise, and vibrations are expected to be temporary, minimal and localized during the construction of the proposed development. Significant effects on wildlife are not anticipated and it is expected that displaced wildlife species will return to the vicinity of the subject lands following the cessation of construction activities.

6.4.2 Changes to Hydrological Regime

Surface Water Drainage and Quantity Control

A stormwater management plan has been designed for the site that will generally preserve the existing drainage patterns on the site, whereby much of the site currently drains to Salt Creek while a portion of the property's frontage drains toward the Mayfield Road ROW. The majority of stormwater collected on-site, falling within the "controlled, impervious" catchment (Urban Watershed Group 2026a) will be directed toward the dry pond/infiltration basin. Controlled runoff from the dry pond will be conveyed toward Salt Creek via the outflow structure. The dry pond will represent the primary form of water quantity and quality control for the development. The dry pond will provide peak flow control such that the development area is controlled to no more than 2-year existing peak release rate under a 100-year storm event. Flow control from the dry pond will be achieved through use of a standpipe with integrated orifice plate to maintain water level within the water quality control cell (Urban Watershed Group 2026a).

An area of combined pervious and impervious cover in the central-west portion of the property will be drained via uncontrolled flow, which will be intercepted by a bioswale LID feature before draining off-site (Urban Watershed Group 2026a). The bioswale will be 35m long x 2m wide and will be located along the western boundary of the subject property. Excess water that is not infiltrated within the bioswale will be discharged via the outflow pipe toward Salt Creek. In addition to providing water quality treatment, the bioswale will contribute toward achieving the water balance targets for the site. Through application of these stormwater detention measures, the peak flow rate for stormwater discharge to Salt Creek under all storm events up to the 100-year storm will be maintained at or below the pre-development peak flow rates (Urban Watershed Group 2026a).

The catchment area of water directed to Salt Creek within the subject property will not be enlarged relative to the pre-development condition. As a result, additional stormwater volumes will not be directed toward Salt Creek relative to existing conditions (A. McEwen, Urban Watershed Group, pers. comm., April 2026). Negative hydrological impacts associated with

changes in water quantity inputs to Salt Creek from the subject property are therefore not anticipated.

Infiltration and Groundwater Recharge

The native soils on the subject property predominantly comprise clay loam with “imperfect” drainage qualities (Urban Watershed Group 2026a). It is therefore anticipated that the subject property does not represent an important source of groundwater recharge via infiltration under the existing condition. Furthermore, based on what could be viewed from the subject property boundary and Mayfield Road ROW, no groundwater indicator vegetation species growth was identified within or along Salt Creek that would suggest that localized upwelling or seepage of shallow groundwater was occurring adjacent to the subject property. The subject property therefore does not likely contribute important sources of groundwater input or baseflow to terrestrial and aquatic features on the adjacent lands.

Although site-level infiltration on the subject property is not required to meet water balance targets for adjacent ecological receptors, the stormwater management plan has been designed to enhance stormwater infiltration capacity on the site primarily for the purposes of reducing stormwater runoff volumes and rates as well as for water quality treatment. This will be achieved through infiltration of stormwater within the dry pond/infiltration basin as well as from the bioswale (Urban Watershed Group 2026a). Increasing infiltration capacity on the site will also allow for some recharge of shallow groundwater that benefits groundwater receptors located further down-gradient within the system.

Thermal Impacts

Due to the sensitivities of Salt Creek as habitat for the SAR Redside Dace, potential thermal impacts to the watercourse as caused by the development must be considered given Redside Dace’s requirement for cold/coolwater watercourse temperatures. Surface water runoff that is exposed to sunlight for prolonged periods may cause spikes in water temperature within the receiving watercourse where stormwater discharge or runoff to the feature occurs.

The stormwater management system for the development was designed to account for the thermal impact sensitivities of the adjacent Salt Creek watercourse. As such, a dry pond/infiltration basin design has been proposed, as opposed to a wet pond stormwater management design, to avoid solar exposure of detained stormwater which would cause a warming effect prior to its release into Salt Creek. Instead, by more rapidly infiltrating collected

stormwater, opportunities for thermal cooling of the stormwater will be increased by directing water underground. The energy dissipation that will occur at the stormwater outfall structure, where the water will flow over rip rap, will allow for further energy dissipation and temperature reduction in the stormwater prior to its release into Salt Creek (Urban Watershed Group 2026a).

To further mitigate potential warming effects on the water prior to its discharge to Salt Creek, it is recommended that localized native and shrub plantings be installed around the drainage outlet and flow path to the watercourse to increase shading (see Section 7.0).

Based on these measures, it is anticipated that thermal impacts to Salt Creek as a result of the proposed development can be avoided.

6.4.3 Sedimentation and Erosion

Construction-Stage

No significant vegetation cover removal or soil stripping will be required on site. However, the site alteration work will disturb currently settled gravel substrates and expose underlying soils that have the potential to erode during rainfall events and impact adjacent lands and vegetation. Further, localized vegetation removal and soil disturbance will be required for installation of the drainage outlet infrastructure to the west of the subject property. Construction-related compaction of soils may also increase the potential for stormwater flow to down-slope areas, such as into the adjacent wetland and watercourse features if not appropriately mitigated. Increased stormwater surface flow and erosion processes may cause the deposition of sediments onto down-slope vegetation, ultimately causing vegetation die-back or impaired health. Sedimentation of the watercourse could also cause turbidity and other aquatic habitat impairments. As such, erosion and sedimentation must be mitigated appropriately to prevent impacts to adjacent natural features, particularly as it applies to sensitive receptors such as the SAR Redside Dace habitat function provided by Salt Creek.

An ESC Plan has been prepared (Urban Watershed Group 2026b) and must be implemented prior to and in conjunction with construction activities on-site. The primary principles associated with sedimentation and erosion protection measures are to: (1) minimize the duration of soil exposure, (2) retain existing vegetation, where feasible, (3) encourage re-vegetation, (4) divert runoff away from exposed soils, (5) keep runoff velocities low, and (6) trap sediment as close to the source as possible.

As stated in the Stormwater Management Report and shown on the ESC Plan (Urban Watershed Group 2026a, 2026b), a double-row of silt fencing is recommended to be installed along the west side of the development limits, including along the perimeter of the drainage outlet installation zone, to prevent water-borne sediments from escaping the site as runoff, and given the sensitivity of the adjacent features to the west. A single row of silt fencing is also recommended to be installed along the northern limit of the development to protect natural land cover to the north.

The ESC Plan should also include, but not be limited to, the following measures:

- Timing of construction activities to occur during dry periods, where possible;
- Regular inspection, maintenance/repair and where necessary, replacement of damaged silt fencing;
- Operation and storage of all materials and equipment in a manner that prevents any deleterious substance from leaving the construction zone;
- Strategic placement of soil stockpiles, and placement of sediment control fencing around all stockpile areas; and,
- Re-vegetation of completed areas as soon as possible after construction.

A rock check dam is also recommended to be installed at the Salt Creek discharge location to prevent erosion during the construction period (Urban Watershed Group 2026b).

Post-Construction

Stormwater discharge toward Salt Creek from the development's stormwater management system has the potential to scour erosion paths at the discharge outlet, thereby causing sedimentation of down-slope vegetation and the watercourse itself. These risks are particularly acute during periods of heavy rainfall or snowmelt that cause higher flow rates and "flashy" flows that temporarily overwhelm the on-site stormwater retention capacities. To mitigate these effects, a plunge pool is proposed to be located at the discharge outlet to capture and attenuate high flow rates before the water is released downslope toward the wetland and watercourse features. The plunge pool is designed to dissipate energy and will be constructed of riverstone to disperse flows before leaving the structure (Urban Watershed Group 2026c). This will promote flow dispersion via sheet flow as opposed to a concentrated outlet discharge and will

lessen the potential for eroded flow paths. Existing dense meadow vegetation immediately downslope of the structure will also function to effectively disperse and attenuate flows.

6.4.4 Water Quality

Decreases in water quality, such as through discharge of deleterious substances in stormwater runoff, can cause both acute and chronic toxicity impacts within biological communities. These impacts include increased mortality rates, impaired health conditions, decreased reproductive productivity and other reproductive impairments in wildlife. Environmental contaminants are also known to biomagnify along increasing biological trophic levels, where higher-level predators are particularly susceptible to impacts. Water quality impairments can also pose health risks to humans wherever there is potential to come into contact with untreated or inadequately treated water discharge.

Impervious (compacted gravel) surfaces that will be used for vehicle parking during the post-development condition represent the primary source of deleterious substances (e.g., oils, sediments) that could impact the quality of water leaving the site. Untreated or improperly treated stormwater runoff has the potential to negatively impact receiving natural features, such as the wetland and Salt Creek west of the subject property. Salt Creek is particularly susceptible to impairment due to its function as habitat for the SAR Redside Dace, which requires clean, low-turbidity water. Specifically, stormwater runoff inputs to receiving watercourses that provide Redside Dace habitat must be maintained below 25mg/L TSS concentration (MNRF 2016). Improperly treated runoff could also negatively affect the quality of the habitats provided for other fish and terrestrial wildlife within the riparian corridor, including the Candidate SWH identified for Amphibian Breeding (Wetland), Terrestrial Crayfish, and SCC habitat for Northern Ribbonsnake, Snapping Turtle, and Harpoon Clubtail. Anurans, in particular, are known to be highly sensitive to the effects of poor water quality, which can cause mortality or longer-term effects on reproductive success.

The stormwater management system has been designed to achieve water quality treatment criteria including the need to maintain total suspended solids (TSS) concentrations in stormwater outflow to <25mg/L for the protection of SAR Redside Dace habitat, and to achieve a net 80% TSS removal efficiency in accordance with TRCA requirements (Urban Watershed Group 2026a). Water quality treatment is provided for the central and rear portions of the subject property that will incorporate controlled and uncontrolled discharge toward Salt Creek,

while the property frontage, which will not be redeveloped, will continue to drain runoff toward the Mayfield Road ROW without specific water quality controls.

Water quality treatment for runoff collected within the dry pond will be achieved via the infiltration basin that will be located at the stormwater facility's outlet. Additional water quality treatment will be provided for uncontrolled flows that are intercepted by the bioswale feature (Urban Watershed Group 2026a).

A TSS mass balance analysis was completed for the controlled and uncontrolled flows within the proposed development. Based on the analysis, it was concluded that the proposed infiltration basin and bioswale are suitably sized to achieve an 80% TSS removal efficiency and to maintain TSS concentrations below the 25mg/L threshold for the protection of the adjacent Redside Dace habitat (Urban Watershed Group 2026a). The proposed stormwater management system is therefore considered effective in meeting the water quality threshold to avoid negative impacts to the adjacent Redside Dace habitat within Salt Creek.

Furthermore, no amount of uncontrolled flow from the impervious parking surface should be allowed to flow untreated into the adjacent natural features.

Other areas of uncontrolled runoff from pervious surfaces (i.e., lawn surrounding the house) is considered clean runoff, and treatment of this runoff is not necessary before it migrates off-site. However, it is recommended that the use of fertilizers and pesticides be minimized as part of lawn maintenance activities to mitigate the potential runoff of these substances into the adjacent natural features.

Water chemistry analyses completed on groundwater samples collected at the site identified exceedances of various parameters (e.g., total suspended solids, total arsenic, total copper, etc.). For this reason, groundwater dewatering discharge cannot be allowed to passively drain into the adjacent natural features and Salt Creek. It is instead anticipated that dewatering discharge will be directed into the municipal sewer system following appropriate pre-treatment to reduce measured parameters to acceptable levels for sewer use (Soil Engineers 2025). No portion of this discharge will be directed toward the adjacent natural features or Salt Creek.

Construction-stage measures should be implemented to ensure that spills, debris and other deleterious substances are prevented from migrating off-site into the adjacent natural features. These measures should be incorporated into the ESC Plan for the development. Vehicle

refueling and equipment stockpiling should not occur within 30m of the natural feature boundaries. A Spill Response Plan should be prepared and be ready to be implemented on-site if required.

There are no feasible site-level measures to reduce the concentration of winter road salts once they enter stormwater runoff flows. Downslope terrestrial and aquatic features are vulnerable to salt loading via runoff and discharge that is generated from the site. It is therefore recommended that salt application be minimized within the parking area to the extent feasible and that alternatives to salt be considered.

6.5 Induced Impacts

The proposed use of the site as a truck terminal may increase the potential for disturbance impacts to the adjacent natural features relative to the existing condition. Based on the proposed use as employment lands, the potential for encroachment disturbances (e.g., trail formation and vegetation damage) to the riparian floodplain corridor or adjacent cultural thicket is considered to be low. However, the proposed development presents the potential for impact as caused by dumping garbage and debris within the adjacent natural areas. It is therefore recommended that permanent chain-link fencing be installed along the limits of the development where they face the natural features to inhibit unauthorized access and debris dumping within these areas.

Property boundary fencing is not required along the far southwest portion of the property within the area that will be maintained as lawn around the house since no change in land use is anticipated with respect to that portion of the property. Property line fencing is also not recommended since it would physically sever a portion of the Linkage MVW and buffer area that extends onto the property from the adjacent feature to the west.

The wildlife species that are expected to occur within the study area are relatively tolerant and adaptable to human-occupied landscapes. Species that occupy the adjacent natural features would already be acclimated to an urbanized environment, and the proposed development is not expected to significantly affect species' potential for use of the adjacent natural features.

7.0 Restoration and Enhancement

In accordance with the guidelines of the SABE SWS (Wood 2023c), the following areas will be restored to comprise natural self-sustaining vegetation:

- the wetland buffer;
- the Linkage MVW zone;
- the remainder of the Linkage Vegetative Enhancement zone within the PLZ.

See Map 4 for proposed land use/land cover within the PLZ on the subject property.

The following additional areas are recommended to also be restored to comprise natural self-sustaining vegetation:

- the remainder of the lands along the west and north perimeters of the proposed trucking parking area that face adjacent natural areas;
- areas that are disturbed to accommodate installation of the stormwater drainage infrastructure within the adjacent natural features;
- the off-property portion of land that currently comprises a contiguous western edge of the cleared gravel surface, subject to agreement with the adjacent property owner.

The portion of the existing lawn that falls within the buffer and MVW will be removed and a native herbaceous seed mix that is appropriate to the local site conditions will be established in its place. Native herbaceous seed mix will also be applied to the narrow on-site perimeter surrounding the parking area as well as the off-site restoration zone to the west of the property. The off-site restoration will require removal of the existing gravel surface, and soil preparation or amendment may be required if the existing substrates are highly compacted. It is anticipated that restored areas will be naturally colonized by woody vegetation species over time and will become contiguous extensions of the adjacent natural features.

However, it is recommended that native woody tree and/or shrub species be actively planted at the stormwater drainage outlet location, and the flow path toward Salt Creek, to immediately increase shading of stormwater runoff sheet flow. This will further mitigate thermal warming effects on the Redside Dace habitat provided by Salt Creek (see Section 6.4.2). Since this location is off-property, restoration actions within this location may also be subject to authorization by the adjacent landowner.

Subject to access to the adjacent property to the west, it is recommended that a single invasive species management treatment be implemented where it is considered feasible and where growth can be reasonably managed. This may include application of a herbicide treatment (e.g., Garlon) to Common Buckthorn growth prior to or in conjunction with restoration activities to lessen the short-term incidence of buckthorn colonization within restoration areas.

Restoration of the lands disturbed for off-property drainage infrastructure installation are expected to include application of a native seed mix, which will also function to stabilize sloped soils. Native tree plantings should be established to replace trees that require removal (based on at least a 1:1 ratio), using species that are appropriate to the local site conditions and that reflect the existing adjacent species assemblage.

A detailed Restoration and Enhancement Plan will be prepared during the detailed design stage to further guide the recommended measures, including identification of specific mix/species composition, application rates, and site preparation steps.

8.0 Monitoring

Pre-, during-, and post-construction monitoring is recommended to ensure that the adjacent natural features are not impacted throughout all stages of property development, and that the ecologically restored lands on the subject property are establishing as intended. The recommended monitoring components are described below.

8.1 Pre-Construction Monitoring

Prior to any construction activity on-site, including vegetation clearing and site grading, on-site inspections of the following should be undertaken to ensure proper installation:

- Sediment and erosion control measures (e.g., silt fencing) in accordance with the ESC Plan (Urban Watershed Group 2026c); and
- Proper installation of tree protection fencing in accordance with a Tree Protection Plan or otherwise as directed by a Certified Arborist or Registered Professional Forester.

Additionally, up-to-date baseline water quality measurements should be collected within Salt Creek upstream and downstream from the proposed stormwater drainage outlet to capture the current water quality parameters prior to the initiation of construction activities, focusing on water temperature, TSS, and dissolved oxygen. Available guidance for activities that may affect Redside Dace habitat recommends targets for these water quality parameters, which represent the maximum temperature and preferred oxygen conditions for Redside Dace. These should be considered in the development of construction-phase and post-construction monitoring plans as well. The following targets are recommended (MNRF 2016):

- The discharge of water from urban development construction areas, including the discharge of water from the proposed development into Redside Dace habitat should not exceed 25 mg/L of TSS above the background stream level of TSS in baseflow conditions;
- Discharge temperatures for stormwater management facilities connected to Redside Dace streams should be below 24°C; and
- Discharge dissolved oxygen concentrations for stormwater management facilities connected to Redside Dace streams should be at ≥ 7 mg/L.

8.2 Construction Monitoring

Construction monitoring is the responsibility of the proponent and is to be undertaken by a designated environmental inspector or qualified delegate. Generally, construction monitoring must occur to ensure compliance with the conditions of various permits. Construction monitoring measures are to include the following:

- Periodic monitoring of the above fencing measures to ensure maintenance and effectiveness;
- Pruning of any limbs or roots of trees to be retained that are damaged during construction, by a Certified Arborist or Registered Professional Forester;
- Inspection of the adjacent natural features, as viewed from the subject property, to ensure no unauthorized construction encroachments, damage to trees, or other disturbances caused by construction activities outside of the construction limits; and
- Measurements of water quality within Salt Creek, including water temperature, TSS, and dissolved oxygen against the parameters described above.

8.3 Post-Construction Monitoring

The post-construction period will begin once site alteration/construction activities for the proposed trucking terminal have been completed. A post-construction monitoring plan will be implemented to include the following components.

- Inspection of the wetland buffer, Linkage MVW zone, and the remainder of the ecologically restored lands on and adjacent to the subject property to ensure proper growth and establishment by a qualified biologist or Certified Arborist/Registered Professional Forester. For areas that receive a native seed mix application, an initial inspection should be completed one year after application to ensure that the desired herbaceous species are growing in successfully, and to inform the need for any supplementary seeding. An additional inspection should be completed two years after replacement tree planting, which typically conforms to the warranty period for tree and shrub materials. Dead tree/shrub stock should be replaced on a 1:1 basis. Remedial measures should be taken as necessary to address declining or poor-condition stock (e.g., enhanced watering schedule, installation of tree guards to mitigate deer browse, cutting back competing vegetation). All tree staking is to be removed just prior to final inspection. Note that this monitoring component is tied to the timing of

seeding/vegetation planting establishment and may be initiated prior to the formal pre-construction monitoring phase.

- Inspection of the restored wetland buffer, Linkage MVW zone, the other restoration zones on and adjacent to the subject property, and the adjacent natural features as viewed from the subject property, to ensure that post-construction human use impacts are not occurring as a result of the development, such as encroachment or garbage/debris dumping. This human disturbance inspection will be completed in conjunction with the above inspections of restoration seeding and planting success described above. If impacts are observed, additional mitigation measures will be recommended to the proponent as required.
- Measurements of water quality (water temperature, TSS, and dissolved oxygen) within Salt Creek to ensure that the stormwater management system including bioswale are functioning properly to treat runoff from the subject property and to ensure that the release of stormwater from the site is suitable for Redside Dace.

9.0 Summary

NRSI was retained by G.N. Transport Inc. to complete an EIS associated with a proposed trucking terminal to be located at 6404 Mayfield Road in Caledon, Ontario. The proposed development is intended to be a temporary use. The subject property has been previously fully developed and contains an open and graded rear portion with a gravel surface. The site would be modified to accommodate truck, trailer and car parking areas within the rear portion of the property. An existing house and garage structure on the property would be retained as part of the planned site use. The subject property does not contain any natural feature cover.

However, the property is located adjacent to a naturalized riparian corridor that conveys Salt Creek, which has been mapped as habitat for the SAR Redside Dace. The riparian corridor is mapped as a Core Feature of the Peel Region Greenlands system, and is further identified as a “Natural Feature and Area” within the Future Caledon OP. This corridor was also identified as a Key Feature within the Preliminary NHS that was mapped for the SABE SWS, and was classified as a Local Landscape Linkage. Previously unmapped wetland was identified within the corridor immediately west of the property through completion of NRSI site investigations. The riparian corridor, including newly identified wetland and its 30m adjacent lands, are regulated by the TRCA. Supporting Natural Feature and Area, as mapped in the Caledon OP, is also located to the immediate north of the subject property.

This report has been prepared to meet requirements under the Future Caledon OP to demonstrate that the proposed development will not negatively impact the adjacent natural features and their ecological functions. It provides a characterization of the existing natural features and species habitats, and assesses their significance and sensitivity to inform the design of the proposed development. Potential impacts to natural features and functions were assessed based on development details provided by the Project Team.

Through completion of the EIS, the Local Landscape Linkage as mapped in the SABE SWS was further characterized and its boundaries refined. SWS guidelines for Local Landscape Linkages were applied to the EIS study area, including the identification of a wetland buffer and Linkage MVW that extended into the subject property. The limits of a PLZ were also identified on the subject property and informed proposed land use planning on the subject property to ensure PLZ proportional cover targets, as presented in the SWS, were met and that an appropriate transitional zone between the natural features and the proposed development was incorporated.

Recommendations have been provided to avoid or otherwise mitigate potential negative effects caused by the development. These include recommendations to mitigate direct, indirect and induced impacts that may arise through construction and human use of the proposed development. A stormwater management system has been proposed that would meet Provincial targets to ensure that water quality for the SAR Redside Dace within Salt Creek is not impaired through the release of stormwater runoff to that watercourse from the site.

Recommendations have been provided to ecologically restore and enhance lands within the buffer, Linkage MVW limits, and portions of the PLZ to create a vegetated transition zone. Other lands surrounding the proposed development have also been recommended for restoration, including a contiguous area of cleared gravel surface that extends into the adjacent property, subject to landowner authorization. Monitoring measures have been recommended to ensure that construction-stage mitigation measures are functioning as intended, that ecological restoration measures have been successfully established, and that the restoration zones and adjacent natural features are being respected and maintained during and following construction. Pre-, during- and post-construction monitoring of the watercourse is also recommended to ensure that the proposed stormwater management system is effectively functioning to mitigate water quantity and quality effects of stormwater discharge to Salt Creek, including specific criteria required to maintain SAR Redside Dace habitat.

Based on the results of the impact assessment, in conjunction with proposed restoration/enhancement measures, negative impacts to the municipally-mapped Natural Environment System features, including the SWS NHS Local Landscape Linkage, are not anticipated subject to implementation of the recommended measures and to confirmation that water quality treatment targets for Redside Dace can be met. Subject to this confirmation, and implementation of the recommended measures, the proposed development is considered to be in conformance with the applicable policies outlined in Section 1.2.

9.1 Summary of Recommendations

The following is a summary of EIS recommendations to mitigate impacts, to restore and enhance, and to monitor the existing natural features and their ecological functions within the study area. Please refer to the relevant section of the report for additional details about each recommendation.

Table 6. Summary of EIS recommendations.

Number	Recommendation
<i>Direct Impact Mitigations</i>	
1.	A 15m buffer should be established from the limits of the MAM2-2 and MAM2-2/MAS201 wetland communities to set-back development from the wetland edges and to mitigate adjacent land use impacts.
2.	A Tree Protection Plan should be prepared to identify tree removal, retention and protection requirements, in accordance with municipal requirements, or otherwise trees requiring removal should be reviewed on-site and marked by a Certified Arborist or Registered Professional Forester.
3.	Regionally significant vegetation species that will fall within the development footprint should be relocated to nearby suitable habitat prior to initiation of construction or site alteration activities.
4.	If terrestrial crayfish chimneys are observed within the stormwater outlet infrastructure installation work zone, a salvage should be completed to capture and relocate terrestrial crayfish to a nearby suitable habitat area prior to initiation of construction or site alteration activities.
5.	Trees and woody vegetation >1m in height should be removed outside of the period March 15-November 30 to avoid impacts to SAR bats and to migratory birds, their nests and eggs that are subject to <i>Migratory Birds Convention Act</i> protections.
6.	If trees or woody vegetation >1m in height must be removed during the bat active period (March 15-November 30), additional actions may be required to ensure conformance with the <i>Species Conservation Act</i> .
7.	Herbaceous vegetation and woody vegetation <1m in height should be removed outside of the period April 1-August 31 to avoid impacts to migratory birds, their nests and eggs that are subject to <i>Migratory Birds Convention Act</i> protections.
8.	If vegetation removal is required during the bird nesting period (April 1-August 31), nest searches may be undertaken in “simple habitats” by a qualified biologist within 48 hours of vegetation removal.
9.	Construction of the stormwater outflow infrastructure should take place during watercourse low-flow and dry conditions.
<i>Indirect Impact Mitigations</i>	
10.	The limits of construction must be clearly marked with tree protection fencing, Erosion and Sediment Control silt fencing, a combination thereof, or where these are not required, brightly coloured snow fencing.
11.	Tree protection fencing must be installed in accordance with an approved Tree Protection Plan, or otherwise overseen or inspected by a Certified Arborist or Registered Professional Forester.
12.	Designated areas for construction lay-down, vehicle access and parking, equipment storage, materials stockpiling, and any on-site construction offices should be located outside of the wetland buffer and away from the adjacent natural feature edges.
13.	The Clean Equipment Protocol (Halloran et al. 2016) should be implemented during construction to mitigate the potential spread of invasive plant species from one site to another during construction.
14.	Impacts due to dust should be mitigated for by moistening areas of bare, dry soil with water as needed during site grading and construction activities to reduce the amount of dust produced.
15.	Daily construction activity should be limited to the period 7:00hr to 19:00hr, and artificial lighting should be turned off or directed away from the adjacent natural features, to avoid disturbance to night-time wildlife habitat use.
16.	Post-development peak flow rates for stormwater drainage to Salt Creek must not exceed pre-development peak flow rates for all storm events up to the 100-year storm, in accordance with the Stormwater Management Plan (Urban Watershed Group 2026a).

17.	Infiltration LID measures via the proposed bioswale and the infiltration basin should be implemented in accordance with the Stormwater Management Plan (Urban Watershed Group 2026a).
18.	Erosion and Sediment Control measures, including double- and single-row silt fencing around the perimeter of the development area, must be implemented in accordance with the Erosion and Sediment Control Plan (Urban Watershed Group 2026c).
19.	A plunge pool should be installed at the stormwater discharge outlet, in accordance with the Erosion and Sediment Control Plan, to attenuate and dissipate surface drainage flows toward Salt Creek.
20.	The infiltration basin and bioswale should be collectively implemented to achieve the water quality treatment targets for the areas of controlled and uncontrolled stormwater drainage as identified in the Stormwater Management Report (Urban Watershed Group 2026a).
22.	The stormwater management infrastructure, including the bioswale LID feature, must be designed such that stormwater drainage derived from impervious surfaces will meet suitable water quality parameters to allow discharge into Salt Creek, which provides habitat for the SAR Redside Dace.
23.	No amount of uncontrolled flow from the impervious parking surface should be allowed to flow untreated into the adjacent natural features.
24.	A DFO Request for Review must be submitted in accordance with the requirements of the <i>Species at Risk Act</i> and the <i>Fisheries Act</i> to obtain authorization for the proposed stormwater discharge plan or to determine if a Fisheries Act Authorization is required.
25.	Groundwater dewatering discharge should not be directed into Salt Creek.
26.	The use of fertilizers and pesticides on the subject property's manicured lawns should be minimized.
27.	Vehicle fueling and equipment stockpiling should not occur within 30m of the natural feature boundaries.
28.	A Spill Response Plan should be prepared and be ready to be implemented on-site if required.
29.	The use of road salt within the vehicle parking area should be minimized to the extent possible, and alternatives to road salt considered.
Induced Impact Mitigations	
30.	Permanent chain-link fencing should be installed along the limits of the rear property vehicle parking area and dry pond.
Restoration and Enhancement	
31.	Natural self-sustaining vegetation comprising application of native seed mixes that are suitable to the local site conditions will be applied to the following areas to ecologically restore and enhance natural feature edges on and adjacent to the subject property: • 15m wetland buffer • Linkage Minimum Vegetated Width on the subject property • Linkage Vegetative Enhancement Areas of the Permeable Landscape Zone on the subject property • Other lands along the west and north perimeters of the proposed vehicle parking area • The contiguous area of open/cleared gravel surface that extends into the property to the west of the subject property, subject to landowner authorization • The area of vegetation disturbance within the stormwater outlet infrastructure work zone.
32.	Trees that require removal within the stormwater outlet infrastructure work zone should be replaced with native tree species on at least a 1:1 basis or as otherwise recommended in a future Tree Protection Plan.
33.	Native tree and/or shrub plantings should be established at the stormwater drainage outlet and along the flow path toward Salt Creek to provide additional shading for runoff sheet flow.
34.	A single round of invasive species management should be implemented along the natural feature edge to the west of the subject property, to control invasive species growth where management is feasible, prior to or in conjunction with restoration activities.

35.	A detailed Restoration and Enhancement Plan should be prepared to guide vegetative restoration actions on and adjacent to the subject property.
<i>Monitoring</i>	
36.	Pre-construction and construction-stage inspections of tree protection and silt fencing must be completed in accordance with Tree Protection Plan and Erosion and Sediment Control Plan requirements, respectively, to ensure proper installation and function.
37.	Remedial measures should be taken by a Certified Arborist or Registered Professional Forester in the event that damage to retained trees occurs during construction.
38.	Areas receiving native seed mix application should be inspected one year after application to ensure proper growth results. Areas of deficient growth should be re-seeded as required.
39.	Replacement tree plantings should be inspected for survival and health condition at the time of planting and at the end of the two-year warranty period. Remedial actions should be taken where planted individuals show signs of impaired growth (e.g., through enhanced watering during drought, installing tree guards, cutting away competing vegetation); dead individuals should be replaced on a 1:1 basis.
40.	Construction- and post-construction inspections of the natural features and ecologically restored zones should be completed to ensure no unauthorized entry into or damage to these areas.
41.	Pre-construction baseline monitoring, construction-stage monitoring, and post-construction monitoring of water quality within Salt Creek upstream and downstream of the stormwater discharge outlet should be completed to confirm that the stormwater management system is functioning effectively and meeting the water quality parameters required to maintain suitable SAR Redside Dace habitat.

10.0 References

- Bird Studies Canada (BSC), Environment Canada's Canadian Wildlife Service, Ontario Nature, Ontario Field Ornithologists and Ontario Ministry of Natural Resources. 2008. Ontario Breeding Bird Atlas Database. <http://www.birdsontario.org/atlas/aboutdata.jsp?lang=en>
- Dobbyn, J.S. 1994. Atlas of the Mammals of Ontario. Don Mills, Federation of Ontario Naturalists.
- eBird. 2026. eBird records (all years, year-round) within approximately 5km of study area (hotspot "Colonel Baldwin Pond"). Accessed September 2025.
- Government of Canada. 2024. Redside Dace (*Clinostomus elongatus*): Recovery Strategy and Action Plan (Proposed) 2024. Available at: <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/recovery-strategies/redside-dace-proposed-2024.html#toc11>. Last updated 2024-06-05.
- Government of Canada. 2025. Aquatic Species at Risk Map. Available at: <https://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html>. Last updated 2025-02-03.
- Government of Canada. 2026. Schedule 1. List of Wildlife Species at Risk. Last Amended February 6, 2026. <https://laws.justice.gc.ca/eng/acts/s-15.3/page-10.html>.
- Government of Massachusetts. 2026. Harpoon Clubtail. Division of Fisheries and Wildlife. Massachusetts State Wildlife Action Plan. <https://www.mass.gov/info-details/harpoon-clubtail>. Accessed April 2026.
- Government of Ontario. 2026. Ontario Geohub. Aquatic Resource Area Line Segment. Available online at: <https://geohub.lio.gov.on.ca/datasets/aquatic-resource-area-line-segment/explore?location=49.291899%2C-84.834657%2C4>. Last updated 2026-04-08.
- Halloran, J. H. Anderson, and D. Tassie. 2016. Clean Equipment Protocol for Industry. Peterborough Stewardship Council and Ontario Invasive Plant Council. Peterborough, ON. April 2013. Updated May 2016.
- iNaturalist. 2025. Manual search of records within approximately 1km of the study area. Accessed September 2025.
- Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.
- Macnaughton, A., R. Layberry, and C. Jones. 2025. Ontario Butterfly Atlas Online. Toronto Entomologists' Association. http://www.ontarioinsects.org/atlas_online.htm. Accessed September 2025.
- Ministry of Natural Resources and Forestry (MNR). 2016. Guidance for Development Activities in Redside Dace Protected Habitat. Version 1.2 Ontario Ministry of Natural Resources and Forestry, Peterborough, Ontario. iv+32 pp.

- Oldham, M.J., W.D. Bakowsky and D.A. Sutherland. 1995. Floristic quality assessment for southern Ontario. OMNR, Natural Heritage Information Centre, Peterborough. 68 pp.
- Ontario Ministry of Environment, Conservation and Parks (MECP). 2022a. Species at Risk Bat Survey Note - 2022. 3pp.
- Ontario Ministry of Environment, Conservation and Parks (MECP). 2022b. Maternity Roost Surveys (Forests/Woodlands). 3pp.
- Ontario Ministry of the Environment, Conservation and Parks (MECP). 2026. Ontario Regulation 60/26. Protected Species in Ontario List. <https://www.ontario.ca/laws/regulation/r26060>. March 30, 2026.
- Ontario Ministry of Municipal Affairs and Housing (MMAH). 2024. Provincial Planning Statement. Approved by the Lieutenant Governor in Council, Order in Council No. 1099/2024.
- Ontario Ministry of Natural Resources (MNR). 2000. Significant Wildlife Habitat Technical Guide. October 2000.
- Ontario Ministry of Natural Resources (MNR). 2010. Natural Heritage Reference Manual for Policies of the Provincial Policy Statement, Second Edition. March 18, 2010.
- Ontario Ministry of Natural Resources and Forestry. 2014. Significant Wildlife Habitat Mitigation Support Tool. Version 2014.
- Ontario Ministry of Natural Resources and Forestry (MNRF). 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. January 2015.
- Ontario Ministry of Natural Resources and Forestry (MNRF). 2016. Guidance for Development Activities in Redside Dace Protected Habitat. Ministry of Natural Resources and Forestry, Species at Risk Conservation Policy. Version 1.2. March 2016.
- Ontario Ministry of Natural Resources and Forestry (MNRF). 2021. Natural Heritage Information Centre (NHIC): Species List for Ontario. Published: 2014-07-17. All Species List Updated: 2021-07-29. (<https://www.ontario.ca/page/get-natural-heritage-information>).
- Ontario Ministry of Natural Resources (MNR). 2025. Natural Heritage Information Centre (NHIC): Make a Natural Heritage Area Map Application (<https://www.ontario.ca/page/make-natural-heritage-area-map>). Accessed August 2025.
- Ontario Nature. 2019. Reptiles and Amphibians of Ontario Range Maps. http://www.ontarioinsects.org/herpatlas/herp_online.html.
- Ontario Odonata Atlas Database (OOAD). 2023. Natural Heritage Information Centre, Ontario Ministry of Natural Resources and Forestry. Species data by 10x10 km square 17NJ31. OOAD records downloaded by square as of February 2023.
- Region of Peel. 2024. Region of Peel Official Plan. April 2022. June 2024 Consolidation.
- Soil Engineers Ltd. 2025. A Geotechnical Investigation for Proposed Transportation Terminal, 6404 Mayfield Road, Town of Caledon. Prepared for G.N. Transport Inc. August 8, 2025.

- Spyreas, G. 2019. Floristic Quality Assessment: A critique, a defense, and a primer. *Ecosphere*. 10(8) August 2019.
- Stanfield, L. 2017. Ontario Stream Assessment Protocol. Version 10.
- Toronto and Region Conservation Authority (TRCA). 2022. Flora Ranks and Scores for the TRCA Jurisdiction, 2022.
- Toronto and Region Conservation Authority. 2025. TRCA Draft Regulation Mapping. <https://trca.ca/regulation-mapping-update/>. Accessed September 2025.
- Town of Caledon. 2025. Future Caledon Official Plan. October 2025.
- Urban Watershed Group Ltd. 2026a. Proposed Trucking Facility, 6404 Mayfield Road Stormwater Management Report. Town of Caledon, ON. June 19, 2026.
- Urban Watershed Group Ltd. 2026b. Erosion & Sediment Control Plan. Proposed Trucking Facility, 6404 Mayfield Road, Caledon East, Ontario. June 10, 2026.
- Urban Watershed Group Ltd. 2026c. Site Grading Plan. Proposed Trucking Facility, 6404 Mayfield Road, Caledon East, Ontario. June 10, 2026.
- Varga, S. 2000. Distribution and status of the vascular plants of the Greater Toronto Area. Ontario Ministry of Natural Resources, Aurora District. 103 pp.
- Wood Environment & Infrastructure Solutions (Wood). 2023a. Scoped Subwatershed Study, Part A: Existing Conditions and Characterization (Final Report). Settlement Area Boundary Expansion. Prepared for the Regional Municipality of Peel. 1/11/2022.
- Wood Environment & Infrastructure Solutions (Wood). 2023b. Scoped Subwatershed Study, Part B: Detailed Studies and Impact Assessment (Final Report). Settlement Area Boundary Expansion. Prepared for the Regional Municipality of Peel. 1/11/2022.
- Wood Environment & Infrastructure Solutions (Wood). 2023c. Scoped Subwatershed Study, Part C: Implementation Plan (Final Report). Settlement Area Boundary Expansion. Prepared for the Regional Municipality of Peel. 1/11/2022.

Maps



Path: X:\3626_EISMayfieldRoadCaledon\3626_EISMayfieldRoadCaledon.aprx

Map 1

6404 Mayfield Road, Caledon Study Area

REGIONAL MUNICIPALITY OF PEE
Brampton

Legend

Study Area (120m)

Subject Property

Primary Road

Secondary Road

Intermittent Watercourse

Waterbody

Wooded Area (OMNR-mapped)

NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Map Produced by Natural Resource Solutions Inc. This map is proprietary and confidential and must not be duplicated or distributed by any means without express written permission of NRSI. Data provided by MNR© Copyright: King's Printer Ontario. Imagery: ESRI (2025).

Project: 3626 Date: April 8, 2026	NAD83(CSRS)v7 - UTM Zone 17 Size: 11x17" 1:2,000
--------------------------------------	--

020406080100120 Meters



Path: X:\3626_EISMayfieldRoadCaledon\3626_EISMayfieldRoadCaledon.aprx

Map 2

6404 Mayfield Road,
Caledon

Vegetation Communities

Legend

Subject Property

Intermittent Watercourse

Ecological Land Classification (ELC)

(CUM) Cultural Meadow

(CUT) Cultural Thicket

(FOD7) Fresh - Moist Lowland Deciduous Forest Ecosite

(H) Hedgerow

(MAM2-2) Reed-canary Grass Mineral Meadow Marsh Type

(MAS2-1) Cattail Mineral Shallow Marsh Type

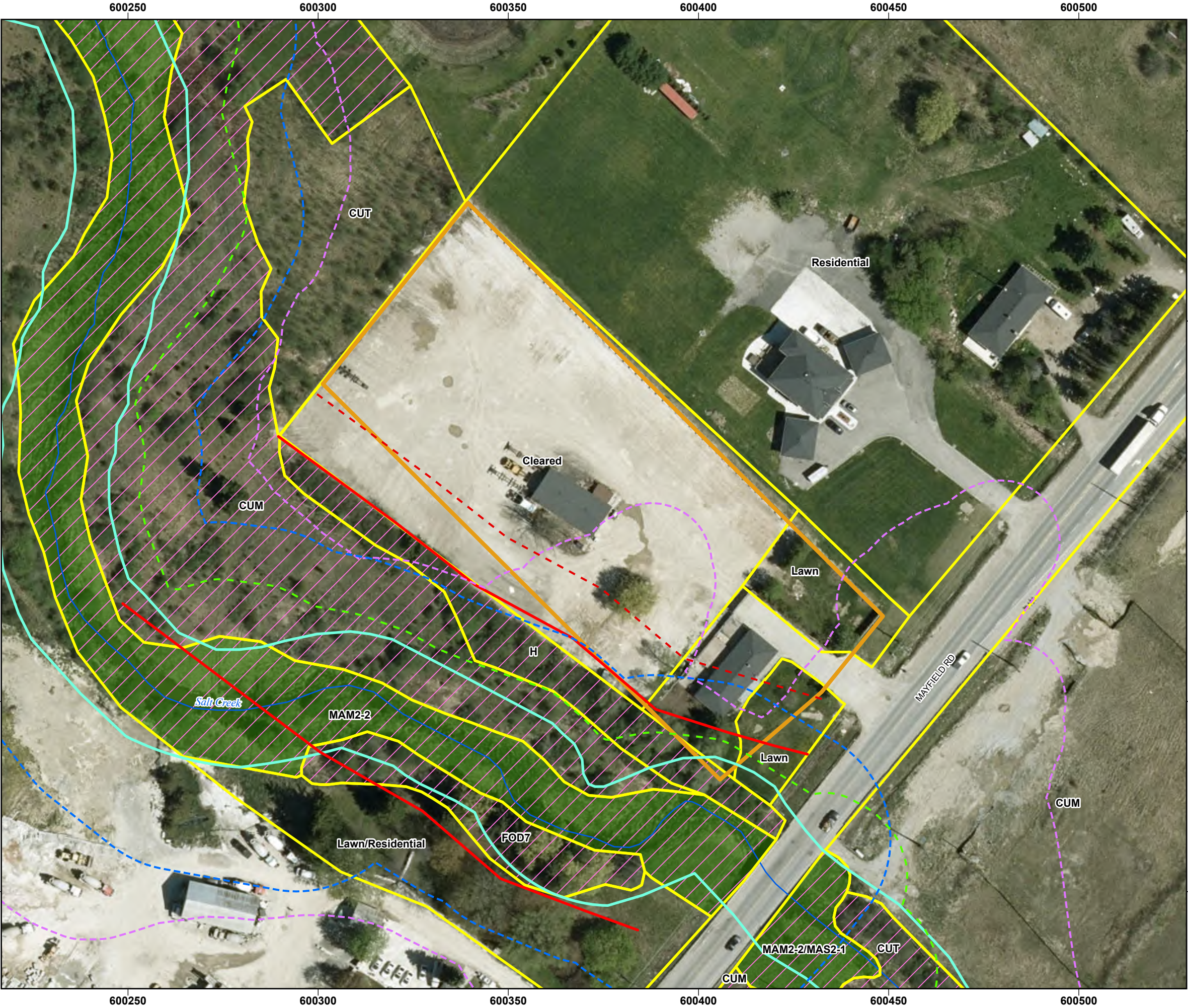
NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Map Produced by Natural Resource Solutions Inc. This map is proprietary and confidential and must not be duplicated or distributed by any means without express written permission of NRSI. Data provided by MNR© Copyright: King's Printer Ontario. Imagery: ESRI (2025).

Project: 3626
Date: April 8, 2026

NAD83(CSR)Sv7 - UTM Zone 17
Size: 11x17"
1:1,000

0102030405060 Meters



Path: X:\3626_EISMayfieldRoadCaledon\3626_EISMayfieldRoadCaledon.aprx

Map 3a

6404 Mayfield Road,
Caledon

Natural Environment Constraints

Legend

Subject Property

Fish Habitat

Meanderbelt Limit (TRCA)

Wetland

Wetland Buffer (15m)

Wetland Area of Interference Limit (Estimated TRCA Regulation Limit Update)

Existing TRCA Regulated Area

Linkage Minimum Vegetated Width (60m)

Permeable Landscape Zone Limit

Local Landscape Linkage (Existing Conditions)

Ecological Land Classification (ELC)

(CUM) Cultural Meadow

(CUT) Cultural Thicket

(FOD7) Fresh - Moist Lowland Deciduous Forest Ecosite

(H) Hedgerow

(MAM2-2) Reed-canary Grass Mineral Meadow Marsh Type

(MAS2-1) Cattail Mineral Shallow Marsh Type

NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

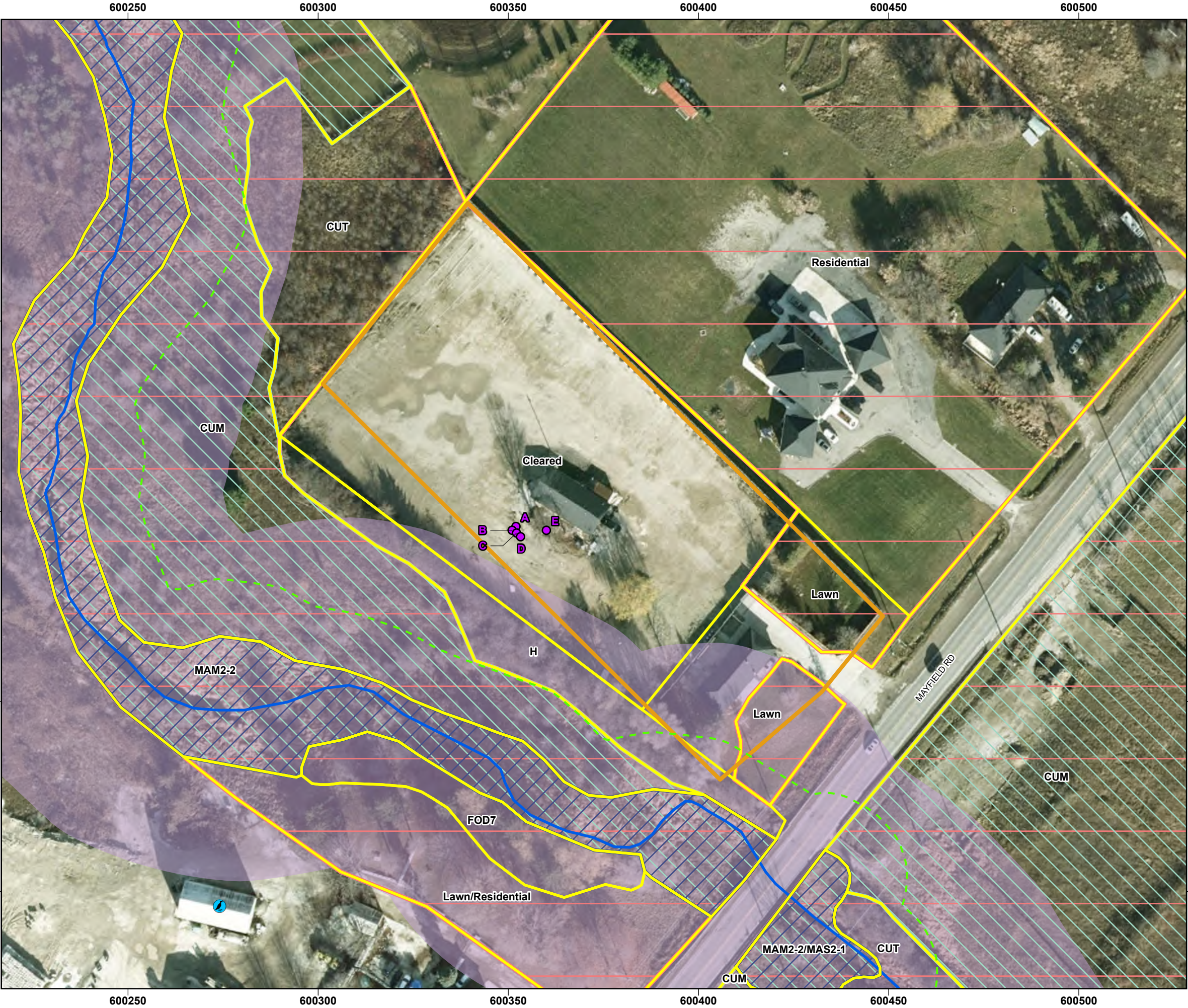
Map Produced by Natural Resource Solutions Inc. This map is proprietary and confidential and must not be duplicated or distributed by any means without express written permission of NRSI. Data provided by MNR© Copyright: King's Printer Ontario. Imagery: ESRI (2025).

Project: 3626
Date: April 8, 2026

NAD83(CSRS)v7 - UTM Zone 17
Size: 11x17"
1:1,000

0102030405060 Meters

Path: X:\3626_EISMayfieldRoadCaledon\3626_EISMayfieldRoadCaledon.aprx



Path: X:\3626_EISMayfieldRoadCaledon\3626_EISMayfieldRoadCaledon.aprx

Map 3b

6404 Mayfield Road,
Caledon
Significant Habitats

Legend

Subject Property

Potential SAR Bat Roosting Habitat Tree

Potential Barn Swallow Nesting Site

Wetland Buffer (15m)

Redside Dace Species at Risk Habitat

Ecological Land Classification (ELC)

(CUM) Cultural Meadow

(CUT) Cultural Thicket

(FOD7) Fresh - Moist Lowland Deciduous Forest Ecosite

(H) Hedgerow

(MAM2-2) Reed-canary Grass Mineral Meadow Marsh Type

(MAS2-1) Cattail Mineral Shallow Marsh Type

Confirmed Significant Wildlife Habitat

Barn Swallow Foraging Habitat

Candidate Significant Wildlife Habitat

Harpoon Clubtail Habitat

Amphibian Breeding Habitat (Wetland) and Western Chorus Frog Habitat

Terrestrial Crayfish, Northern Ribbonsnake, and Snapping Turtle Habitat

NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Map Produced by Natural Resource Solutions Inc. This map is proprietary and confidential and must not be duplicated or distributed by any means without express written permission of NRSI. Data provided by MNR© Copyright: King's Printer Ontario. Imagery: ESRI (2025).

Project: 3626
Date: June 23, 2026

NAD83(CSRS)v7 - UTM Zone 17
Size: 11x17"
1:1,000

0

10

20

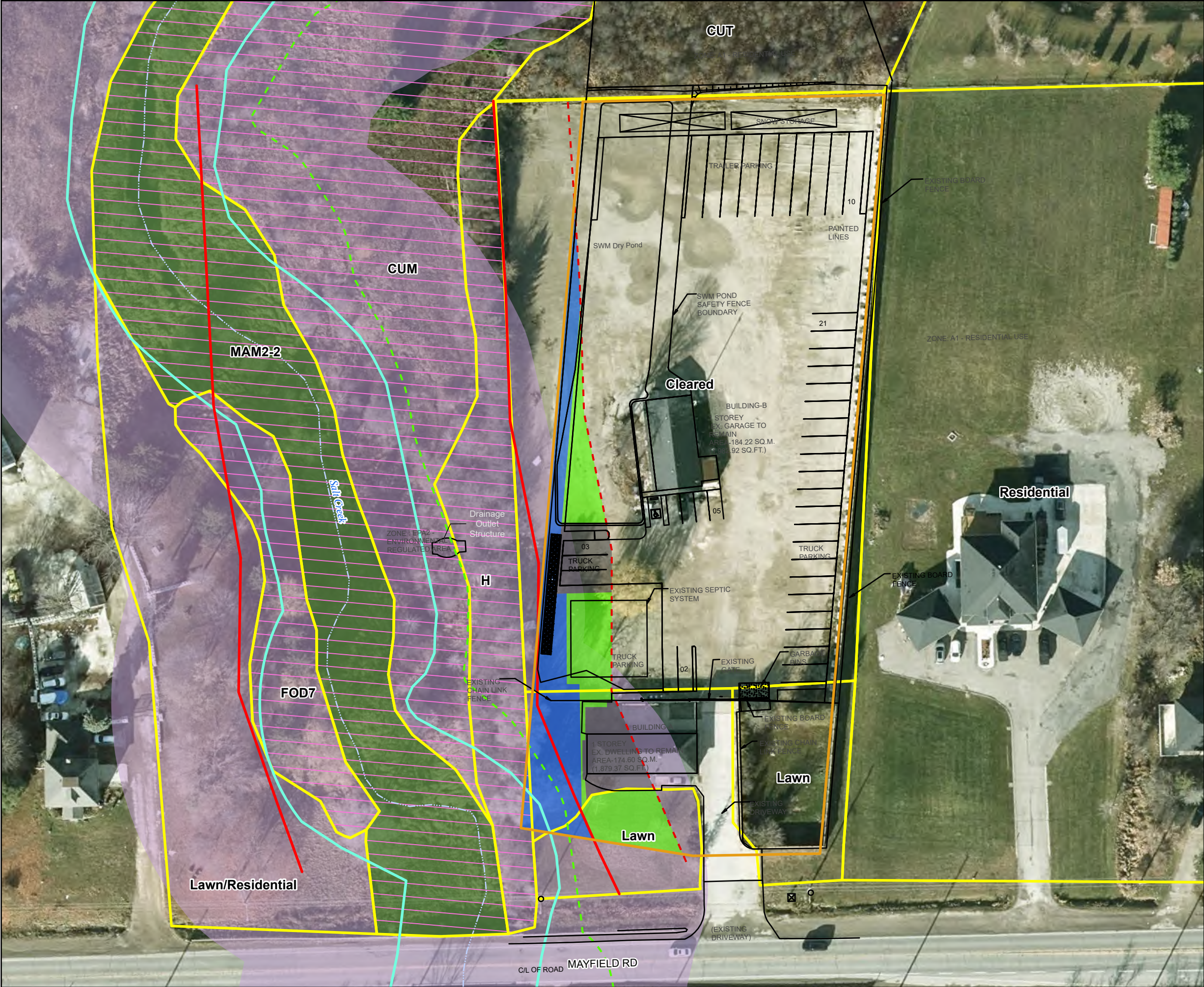
30

40

50

60

Meters



Map 4

6404 Mayfield Road, Caledon

Proposed Development

Legend

- Subject Property
- Proposed Development
- Intermittent Watercourse
- Wetland
- Wetland Buffer (15m)
- Permeable Landscape Zone Limit
- Linkage Minimum Vegetated Width (60m)
- Meanderbelt Limit (TRCA)
- Local Landscape Linkage (Existing Conditions)
- Redside Dace Species at Risk Habitat
- Ecological Land Classification (ELC)

(CUM) Cultural Meadow
(CUT) Cultural Thicket
(FOD7) Fresh - Moist Lowland Deciduous Forest Ecosite
(H) Hedgerow
(MAM2-2) Reed-canary Grass Mineral Meadow Marsh Type

Land Cover

- Linkage Vegetative Enhancement
- Linkage Compatible Use
- Development

NATURAL RESOURCE SOLUTIONS INC.

Aquatic, Terrestrial and Wetland Biologists

Map Produced by Natural Resource Solutions Inc. This map is proprietary and confidential and must not be duplicated or distributed by any means without express written permission of NRSI. Data provided by MNR© Copyright: King's Printer Ontario. Imagery: ESRI (2025).

Project: 3626
Date: June 29, 2026

NAD83(CSR)Sv7 - UTM Zone 17
Size: 11x17"
1:750

01020304050

Meters

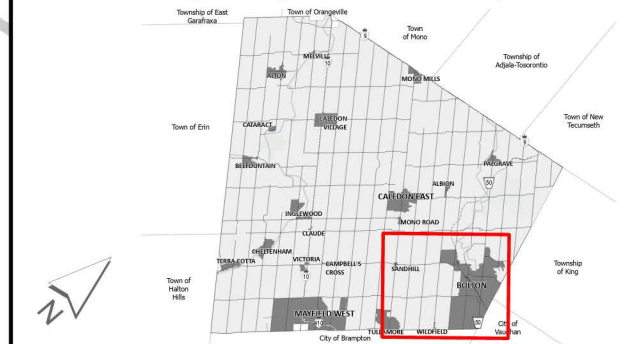
Path: X:\3626_EISMayfieldRoadCaledon\3626_EISMayfieldRoadCaledon.aprx

Appendix I
SABE SWS Figure DA2-11c and Future Caledon OP Schedule D2b

Schedule D2b

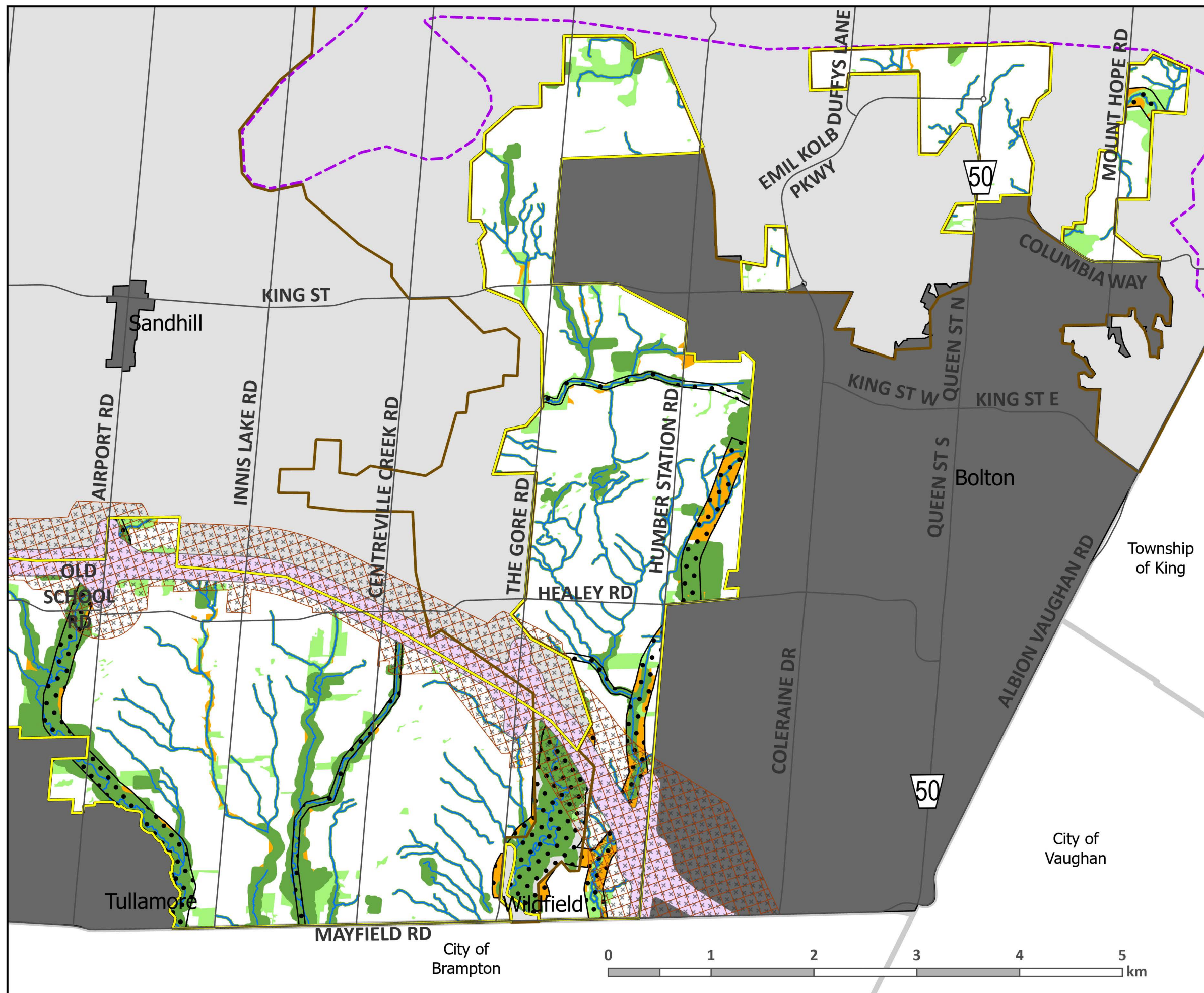
New Urban Area Preliminary Natural Environment System

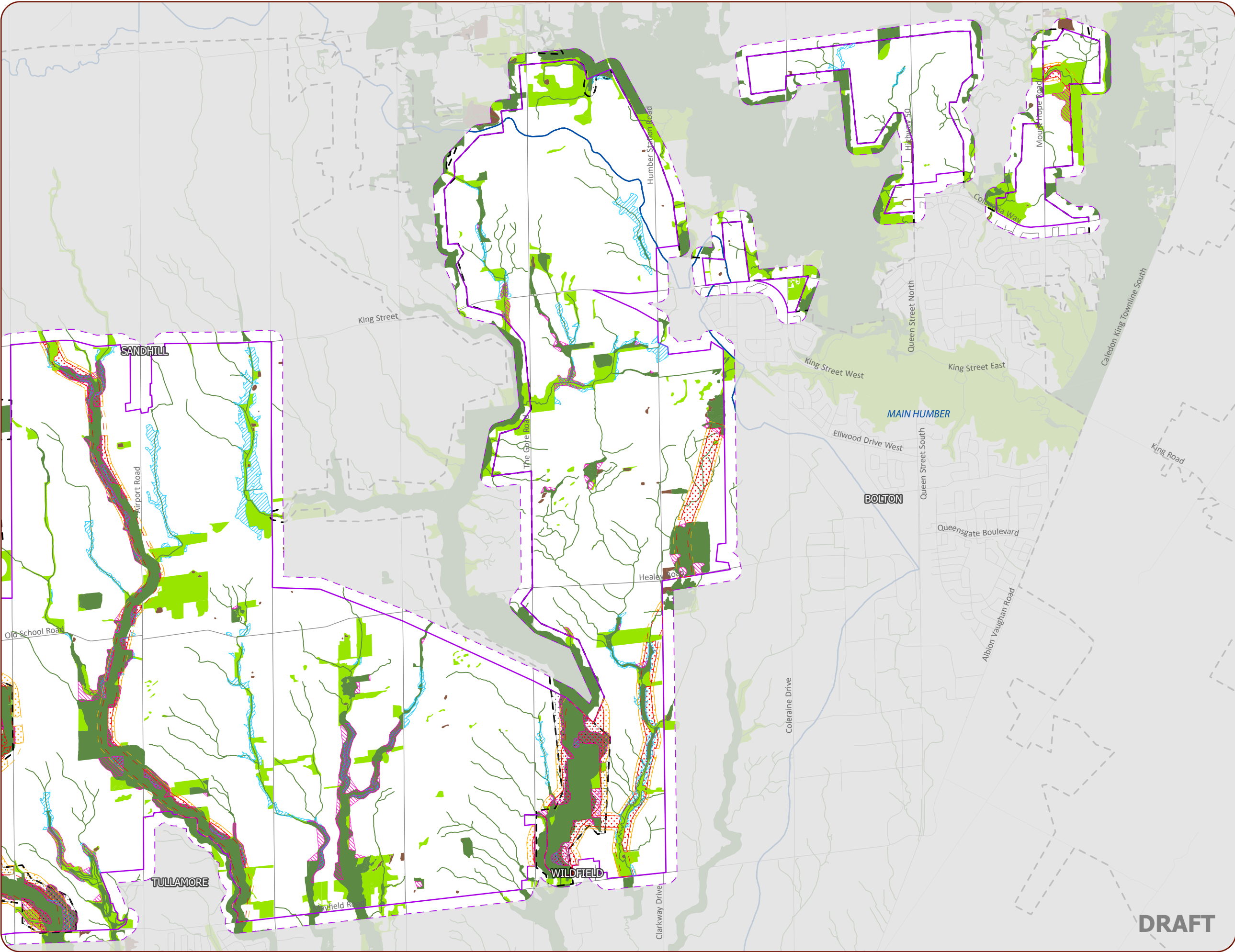
-  Natural Features and Areas with 30m Buffer
-  Supporting Features and Areas
-  Permanent and Intermittent Streams
-  Potential Linkage
-  Potential Enhancement Area
-  Greenbelt Plan Boundary
-  New Urban Area and Schedule Boundary
- Other Map Elements**
 -  Oak Ridges Moraine Conservation Plan Boundary
 -  Refer to Part A, Section 1.2
 -  Planned Highway 413 Transportation Corridor
 -  Highway 413 Focused Analysis Area
 -  NWGTA Transmission Corridor Narrowed Area of Interest
 -  Rural System (See Schedule E1)



Date of print: 10/6/2025
Sources: Town of Caledon, Regional Municipality of Peel
Contains information licensed under the Open Government Licence – Ontario

This map forms part of the Future Caledon Official Plan of the Town of Caledon and must be read in conjunction with the text, other schedules and secondary plans. The boundaries/alignments of designations on this schedule are approximate and are not intended to be scaled.





DA2-11c: Preliminary Natural
Heritage System and
Enhancements - East FSA
Region of Peel Settlement Area Boundary
Expansion Scoped Subwatershed Study

Part B: Detailed Studies and Impact Assessment

- Focused Study Area
- FSA 120m Adjacent Lands
- Subwatersheds ¹
- Provincial NHS ²
- Preliminary NHS**
 - Key Features
 - Supporting Features
 - Other Features

Preliminary Landscape Linkages

- Minimum Vegetation Width
- Permeable Landscape Zone

Preliminary Enhancement Areas

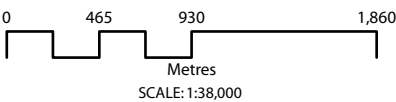
Defined Enhancements

- Shape, Size and Contiguity Enhancements
- Floodplain Enhancements
- Linkage - Minimum Vegetation Width Enhancement

Un-Defined Enhancements

- Linkage - Permeable Landscape Zone Enhancement
- Provincial NHS Enhancements

1) Data used with permission of The Region of Peel (2020)
2) MNRF (2020)



Disclaimer:
The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation. MNRF data provided by Queen's Printer of Ontario. Use of the data in any derivative product does not constitute an endorsement by the MNRF or the Ontario Government of such products.

DRAFT

Appendix II
Agency Correspondence

Subject: RE: 6404 Mayfield Road EIS Terms of Reference (proj3626)

From: Jason Elliott <Jason.Elliott@caledon.ca>

Date: 05/12/2025, 1:27 p.m.

To: Ryan_Archer <rarcher@nrsi.on.ca>

CC: Anthony Sirianni <asirianni@gwdplanners.com>, Kirat Hothi | G.N Transport Inc. <kirat@gntrucking.ca>, "Roy, Yvette" <yvette.roy@cvc.ca>

Hi Ryan,

Apologies for my delayed response.

Further to our productive conversation during the meeting held on November 11, 2025, I have reviewed the proposed EIS ToR and have the following comments below that are to be addressed in the EIS report. For clarity, revisions to the ToR are not required. Include the ToR and this correspondence in the report appendices. Additionally, note the pre-consultation PARC comment indicating that efforts to coordinate with the Local Subwatershed Study that is being conducted in support of Secondary Planning that encompasses the property should be made to the extent feasible.

Regards,
Jason

Comments:

- The ToR was prepared when the Town's 1978 Official Plan was in force and effect on the subject lands. Since that time, the Town's Future Caledon Official Plan has come into force and effect on the subject lands. Therefore, it is no longer conformance with the Town's previous Ecosystem Framework policies that must be demonstrated. Rather, conformance with the Town's Natural Environment System policies contained within Section 13 of Future Caledon must be demonstrated. Ensure that this is addressed in the report.
- The bat habitat assessment does not outline anything in relation to SWH Bat Maternity Colonies despite the ToR indicating that the habitat could be present in the study area. Ensure that the potential for that habitat is included in the site investigations/report.
- It is indicated that staking of features with agency staff is not proposed. While acceptable in this case, note that feature delineation overlain on aerial imagery must be included in the report.
- It is indicated that the preliminary NHS identified for the Salt Creek corridor will be confirmed/refined. Ensure that the supporting feature mapped along the north property line is also confirmed/refined.
- Appendix A indicates that Redside Dace is possibly present in the study area. Additionally, the ToR indicates that consultation with MECP will be conducted if negative impacts to SAR habitat is anticipated. As outlined in the ToR, the adjacent reach of Salt Creek is designated Critical Habitat for the species. Therefore, Redside Dace habitat is present and must be mapped and protected according to Provincial/Federal requirements. Due to recent legislative changes that have resulted in a lack of clarity on regulated habitat for the species, ensure the MECP is consulted with respect to the delineation of Redside Dace habitat in Salt Creek and associated correspondence included in the report.
- It appears that the aerial imagery in Maps 1 and 2 is circa 2020 and includes an incorrect property boundary. Ensure that existing conditions and the correct boundary are assessed.

Jason Elliott (*he/him*)

Senior Planner, Environment - Parks and Natural Heritage

Planning Department

Office: 905.584.2272 x4420

Email: jason.elliott@caledon.ca



 x.com/townofcaledon
 facebook.com/thetownofcaledon
 instagram.com/townofcaledon

From: Ryan_Archer <rarcher@nrsi.on.ca>
Sent: Friday, September 26, 2025 12:02 PM
To: Jason Elliott <Jason.Elliott@caledon.ca>
Cc: Anthony Sirianni <asirianni@gwdplanners.com>; Kirat Hothi | G.N Transport Inc. <kirat@gntrucking.ca>
Subject: 6404 Mayfield Road EIS Terms of Reference (proj3626)

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

Hi Jason,

Natural Resource Solutions Inc. is undertaking the required EIS associated with the planned development of 6404 Mayfield Road, Caledon as a transportation terminal. I have reviewed the pre-consultation meeting comments that were prepared to inform this application.

See attached for a draft EIS Terms of Reference. Please let me know if there are any comments or questions on this. Once any comments have been addressed or necessary revisions made, I will circulate a finalized version of the TOR.

Regards,

--



Ryan Archer M.Sc.
Senior Terrestrial and Wetland Biologist
Natural Resource Solutions Inc.
Proudly Indigenous-owned
415 Phillip Street, Unit C
Waterloo, ON N2L 3X2
(p) 519-725-2227 Ext. 414 (f) 519-725-2575
(m) 519-580-0758
(w) www.nrsi.on.ca (e) rarcher@nrsi.on.ca
 [Linked In](#)
Over 25 years of environmental consulting excellence

"This message (and any associated files) is intended only for the use of the individual or entity to which it is addressed. The content of the message is the property of the Corporation of the Town of Caledon. The message may contain information that is privileged, confidential, subject to copyright and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are notified that any dissemination, distribution, copying, or modification of this

Subject: RE: 6404 Mayfield Road EIS Terms of Reference (proj3626)

From: Jason Elliott <Jason.Elliott@caledon.ca>

Date: 07/01/2026, 10:35 a.m.

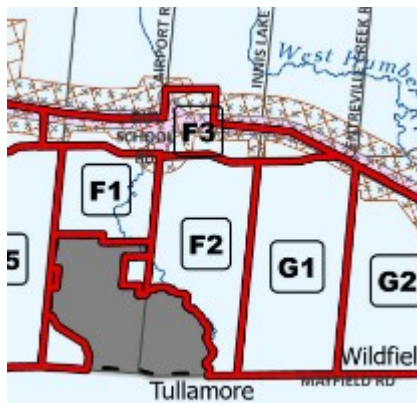
To: Ryan_Archer <rarcher@nrsi.on.ca>

CC: Anthony Sirianni <asirianni@gwdplanners.com>, Kirat Hothi | G.N Transport Inc. <kirat@gntrucking.ca>, "Roy, Yvette" <yvette.roy@cvc.ca>, Tanjot Bal <Tanjot.Bal@caledon.ca>

Hi Ryan,

Thanks for reaching out.

You are correct that it was agreed that the EIS would in effect be functioning as the Local Subwatershed Study in the context of this development application. The LSS I am referring to in my comment that you outlined is in the early stages – to date we have only reviewed a proposed LSS ToR. The study area for that LSS corresponds to the F2 Secondary Planning Area on Figure F3 of the Future Caledon OP. As you can see in the snip from the figure below, F2 encompasses 6404 Mayfield Road. As both studies are on-going at the same time, they should be coordinated to the extent feasible. Hence the comment. I have copied Tanjot Bal, Senior Development Planner who is the lead planner on that Secondary Plan. You can reach out to her for more information on if/how you can coordinate with that LSS.



As you may know, Future Caledon is now in force. Therefore, as per FC 13.14.1, the subject application must conform with the Natural Environment System policies. Nevertheless, we have determined that for temporary zoning applications such as this, a site-specific EIS that implements the targets, criteria and recommendations of the SABE Scoped SWS is an acceptable equivalent study (to a LSS) as permitted by FC 13.10.1. I mention this because you referenced the old OP in your email. Ensure that the EIS address FC policies, not the old OP. As you were already implementing the SABE Scoped SWS requirements, that should not change the outcome of your EIS, just any policy references.

Regarding the Linkage Compatible Use requirement, while lawn is not one of the uses listed in the Scoped SWS Part C report, it is acceptable in this case because it is a temporary zoning proposal. For clarity, it would not be accepted in the context of a Secondary Plan. Note that there does not appear to be much existing lawn area on the property. Refer to the snip of the 2025 aerial below that displays the lot line. It appears that much of the existing lawn is within the Mayfield Rd RoW. I mention this so that you ensure that your calculations are specific to the subject property.



Hope that helps. Happy to discuss if desired.

Jason

Jason Elliott

Senior Planner Environmental

Planning Development

Office: 905-584-2272, 4420

Email: Jason.Elliott@caledon.ca



NOTICE: This email and any attachments are intended only for the named recipient(s) and may contain confidential information. If you received this in error, please notify the sender and delete it immediately. Unauthorized use or disclosure is prohibited.

From: Ryan_Archer <rarcher@nrsl.on.ca>

Sent: Tuesday, January 6, 2026 4:25 PM

To: Jason Elliott <Jason.Elliott@caledon.ca>

Cc: Anthony Sirianni <asirianni@gwdplanners.com>; Kirat Hothi | G.N Transport Inc. <kirat@gntrucking.ca>; Roy, Yvette <yvette.roy@cvc.ca>

Subject: Re: 6404 Mayfield Road EIS Terms of Reference (proj3626)

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

Hi Jason,

Thanks for your earlier comments on the EIS Terms of Reference. I'd like to request clarification on one of your comments:

"Additionally, note the pre-consultation PARC comment indicating that efforts to coordinate with the Local Subwatershed Study that is being conducted in support of Secondary Planning that encompasses the property should

be made to the extent feasible."

My understanding from our November 6 call was that the EIS would in effect be functioning as the Local Subwatershed Study in the context of this development application, reflecting language that was in the previous Caledon OP that was in force at the time that the pre-consultation comments were made. I'm not aware of another LSS that is being conducted that our EIS needs to coordinate with. I believe we had discussed that the EIS would refine and confirm the natural heritage features identified in the Subwatershed Study and would implement the SWS requirements, in place of an LSS. If you can clarify this point for our understanding that would be appreciated.

I also wanted to follow-up on one other discussion item from that call. We had discussed whether the existing lawn area of the property that will be retained as part of the temporary land use zoning can be considered a "Linkage Compatible Use" adjacent to the Salt Creek linkage feature. This factors in to our calculations of land use within the Permeable Landscape Zone as required by the SWS. We would also appreciate any further clarification on this.

Regards,



Ryan Archer M.Sc.

Senior Terrestrial and Wetland Biologist

Natural Resource Solutions Inc.

Proudly Indigenous-owned

415 Phillip Street, Unit C

Waterloo, ON N2L 3X2

(p) 519-725-2227 Ext. 414 (f) 519-725-2575

(m) 519-580-0758

(w) www.nrsi.on.ca (e) rarcher@nrsi.on.ca

 [Linked In](#)

Over 25 years of environmental consulting excellence

On 05/12/2025 1:27 p.m., Jason Elliott wrote:

Hi Ryan,

Apologies for my delayed response.

Further to our productive conversation during the meeting held on November 11, 2025, I have reviewed the proposed EIS ToR and have the following comments below that are to be addressed in the EIS report. For clarity, revisions to the ToR are not required. Include the ToR and this correspondence in the report appendices. Additionally, note the pre-consultation PARC comment indicating that efforts to coordinate with the Local Subwatershed Study that is being conducted in support of Secondary Planning that encompasses the property should be made to the extent feasible.

Regards,

Jason

Comments:

1. The ToR was prepared when the Town's 1978 Official Plan was in force and effect on the subject lands. Since that time, the Town's Future Caledon Official Plan has come into force and effect on

Subject: RE: Redside Dace - Buffer Clarification Question
From: "McAllister, Aurora (MECP)" <Aurora.McAllister@ontario.ca>
Date: 11/12/2025, 10:58 AM
To: Steve Burgin <sburgin@nrsl.on.ca>

Hi Steve,

Redside Dace reach of stream mapping is not available publicly or through NHIC. Some information on the current distribution of the species is available in the recovery strategy, and MECP can also confirm the current known status of a reach of stream in relation to Redside Dace.

Although it is no longer protected under the amended ESA, Salt Creek is still protected as critical habitat for Redside Dace, so there may be requirements under SARA.

Kind regards,

Aurora McAllister (she/her) | Management Biologist – Species at Risk | Permissions | Species at Risk Branch | Ministry of the Environment, Conservation & Parks |

From: Steve Burgin <sburgin@nrsl.on.ca>
Sent: November 7, 2025 3:32 PM
To: McAllister, Aurora (MECP) <Aurora.McAllister@ontario.ca>
Subject: Re: Redside Dace - Buffer Clarification Question

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

That is very helpful. Thank you!

When determining recovery vs occupied reaches, is it best to reach out directly to MECP (such as yourself) to confirm, or is that type information all publicly available through NHIC?

So, given that Salt Creek is no longer protected we no longer need to consider Redside Dace habitat as a constraint, correct?

Thank you for providing that additional context and information.

Enjoy your weekend,

Steve



Steve Burgin F.W.T. B.Sc.

Aquatic Biologist

Natural Resource Solutions Inc.

Proudly Indigenous-owned

415 Phillip Street, Unit C

Waterloo, ON N2L 3X2

(p) 519-725-2227 Ext. 404 (f) 519-725-2575

(w) www.nrsl.on.ca (e) sburgin@nrsl.on.ca

 [Linked In](#)

Over 25 years of environmental consulting excellence

On 11/7/2025 3:15 PM, McAllister, Aurora (MECP) wrote:

Hi Steve,

Thanks for your email.

Salt Creek is not currently an occupied reach of stream for Redside Dace. It was previously protected under the habitat regulation as 'recovery' habitat, as the stream was historically occupied by the species. As of June 5, only occupied reaches of stream are protected under the amended *Endangered Species Act, 2007* (ESA).

Habitat guidance under the amended ESA is in the process of being developed. Based on the best available interpretation of the technical guidance to date, the definition of habitat for species at risk (SAR) fish in streams and rivers, which applies to Redside Dace, is now as follows:

The area immediately surround the dwelling place essential to maintaining the conditions for breeding, rearing, and wintering:

1. In streams and small rivers (Strahler order 5 or less), the entire area of the occupied reach to the normal high-water mark (bankfull level).
 1. A 30 m vegetated riparian area along the length of the occupied reach would generally be considered habitat where it is essential to maintaining the conditions of the dwelling place.
2. As medium and large rivers (Strahler order 6+) are generally more stable and resilient than smaller ones, an area immediately around the dwelling place would likely not be essential for maintaining the function of the dwelling place.

Development or site alteration in protected habitat may require authorization under the amended ESA. However, not every activity that occurs within or near habitat will damage or destroy it. Activities that take place in protected habitat but do not result in damage or destruction can proceed without the need for a permit or exemption. Conversely, you should also keep in mind that in some cases, activities that take place outside of protected habitat can still result in impacts, such as introducing pollution to a waterway that results in habitat impacts further downstream. Impacts to individual members of a species should also be considered when undertaking an impact assessment.

When assessing whether or not an activity is likely to result in the damage or destruction of habitat, you can refer to the definitions of these terms in the [Categorizing and Protecting Habitat under the ESA](#). Please note that this policy guidance was developed prior to the June 5, 2025 legislative amendments, and therefore some aspects are no longer relevant.

Kind regards,

Aurora McAllister (she/her) | Management Biologist – Species at Risk | Permissions | Species at Risk Branch | Ministry of the Environment, Conservation & Parks |

From: Steve Burgin <sburgin@nrsl.on.ca>

Sent: November 6, 2025 1:29 PM

To: McAllister, Aurora (MECP) <Aurora.McAllister@ontario.ca>

Subject: Redside Dace - Buffer Clarification Question

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hi Aurora,

I work as an aquatic biologist for NRSI. I'm currently working on an EIS in the Caledon area adjacent to Salt Creek, which we have identified as Redside Dace habitat based on DFO SAR mapping. Given the recent changes and uncertainty with Redside Dace habitat protections, I'm hoping to quickly clarify that my understanding of the buffer requirement is accurate as we work through our constraints assessment.

As I understand it, the meander belt + 30m no longer applies. Instead, we need to consider the "dwelling place" of the species, plus a 30m buffer, with the dwelling place encompassing the bankfull channel width.

Further to this, if a portion of the development is proposed within the buffer, then as long as the project is implementing appropriate planning and mitigation measures so as to prevent potential impacts to the adjacent habitat, then no additional review/registration/permitting is required. I do understand that this needs to be considered on a case-by-case basis and all potential impacts need to be carefully considered and mitigated appropriately.

I look forward to hearing from you, and please feel free to let me know if I have overlooked anything.

Regards,

Steve

--



Steve Burgin F.W.T. B.Sc.

Aquatic Biologist

Natural Resource Solutions Inc.

Proudly Indigenous-owned

415 Phillip Street, Unit C

Waterloo, ON N2L 3X2

(p) 519-725-2227 Ext. 404 (f) 519-725-2575

(w) www.nrsi.on.ca (e) sburgin@nrsi.on.ca

 [Linked In](#)

Over 25 years of environmental consulting excellence

Appendix III
EIS Terms of Reference



NATURAL RESOURCE SOLUTIONS INC.

Aquatic, Terrestrial and Wetland Biologists

September 26, 2025

#3626

Jason Elliott
Senior Environmental Planner
Town of Caledon
6311 Old Church Road
Caledon, Ontario L7C 1J6

Dear Mr. Elliott,

**RE: 6404 Mayfield Road Environmental Impact Study Terms of Reference
(Draft)**

On behalf of Natural Resource Solutions Inc. (NRSI), I am pleased to provide the following Terms of Reference (TOR) to undertake an Environmental Impact Study (EIS) associated with the proposed development of a transportation terminal on the property located at 6404 Mayfield Road in the Town of Caledon.

The subject property occurs immediately adjacent to and contains a portion of Key Features and a Local Landscape Linkage as identified in the Region of Peel's Settlement Area Boundary Expansion Scoped Subwatershed Study Preliminary Natural Heritage System. The subject property also contains areas that are regulated by the Toronto and Region Conservation Authority due to the presence of hazard features including Salt Creek and its associated floodplain, valley slopes, and a riparian wetland that is mapped south of Mayfield Road. The Salt Creek riparian corridor is also mapped as a Core Area of Peel Region's Greenlands system, and as Environmental Policy Area in the Caledon Official Plan. For these reasons, an EIS is required to demonstrate that the proposed development will not negatively impact the natural heritage features and their ecological functions.

The following TOR has been prepared to outline NRSI's proposed work plan to complete the required EIS. This work plan has been scoped to accord with the Town's Official Plan requirements for Environmental Impact Studies.

Sincerely,

Ryan Archer, M.Sc.
Senior Terrestrial & Wetland Biologist
Natural Resource Solutions Inc.

6404 Mayfield Road, Caledon Environmental Impact Study Terms of Reference (Draft)

Introduction

The property located at 6404 Mayfield Road (herein referred to as the 'subject property') is bounded by Mayfield Road to the south, residential lands to the east, and natural feature cover to the north and west. For the purposes of this TOR, true northwest is referred to as 'north', true northeast is referred to as 'east', etc. The subject property was previously developed as a rural residential property. Although it is no longer used for that purpose, the property still contains a house and a detached garage structure. Aside from remaining manicured lawns, natural feature cover has been largely cleared within the subject property. Lands within 120m of the subject property have been identified as the EIS study area. Lands to the north and east of the study area are predominantly agricultural with rural residential land uses. Lands to the west, associated with the hamlet of Tullamore, are largely developed or are undergoing development. Lands to the south mainly comprise fully developed residential subdivisions and fall within the City of Brampton. See Map 1 for the subject property location and mapped study area.

The subject property is entirely developed from its previous land use. It is located adjacent to a naturalized riparian corridor conveying Salt Creek. This corridor was generally characterized through desktop review as part of the Region of Peel's Settlement Area Boundary Expansion (SABE) Scoped Subwatershed Study natural heritage technical studies (Wood 2022a, b, c), and through that work was identified as part of the preliminary Natural Heritage System (NHS) for the SABE study area. Key Features of the Natural Heritage System as well as a Local Landscape Linkage, as defined in that study, were identified immediately adjacent to and extending within a portion of the subject property. SABE preliminary NHS features were also mapped as extending along the north and east sides of the subject property.

Figure 7 of the Peel Region Official Plan (2022) maps the presence of Core Area of the Regional Greenlands system on or adjacent to the subject property, associated with the Salt Creek naturalized riparian corridor. The mapped Core Area furthermore contains Natural Heritage Features and Areas as defined in the Regional Official Plan. The Salt Creek corridor also represents an important Linkage within the broader Greenlands system. Schedule A of the Caledon Official Plan (2024) also maps the Salt Creek corridor as an Environmental Policy Area. The Environmental Policy Area is in turn comprised of Natural Core Areas and Natural Corridors that represent a part of Caledon's broader Ecosystem Framework.

The subject property also falls within lands that are regulated by the Toronto and Region Conservation Authority (TRCA) due to the presence of hazards associated with the Salt Creek watercourse and its associated floodplain, valley slopes, wetland and associated regulatory allowances. The TRCA does not map wetland within the riparian corridor immediately west of the subject property, but does map riparian wetland to the immediate south of Mayfield Road (TRCA 2025).

A pre-consultation meeting for the proposed development was held on June 5, 2025. The resulting study requirements identified through that meeting were used to inform the

EIS scope. In accordance with the pre-consultation comments, the EIS has been scoped to review and confirm the presence and mapping of SABE NHS Key Features and Linkage areas on and adjacent to the subject property, as well as components of the Regional Greenlands system and Town Environmental Policy Areas as defined in their respective Official Plans. The EIS will assess the proposed development's conformance with Caledon's Ecosystem Framework policies as presented in the Official Plan. It will also confirm and refine the NHS that was identified through the SABE Scoped Subwatershed Study, through review of the criteria presented in that study.

The EIS will also confirm and refine the presence of watercourse and wetland hazard features that are regulated by the TRCA. Mapping of these features will be used to inform refinements to the limits of TRCA-regulated area on the subject property with reference to regulatory allowances from feature boundaries. Since any wetland located within the study area falls within off-site private lands, confirmation of wetland boundaries using the Ontario Wetland Evaluation System (MNRF 2022) is not expected to be feasible. Wetland boundaries will be estimated based on what can be viewed on-site and within the Mayfield Road right-of-way in addition to existing background mapping and aerial photo interpretation. The limits of other TRCA-regulated features (e.g., floodplain, slope hazards) will be determined by other members of the Project Team which, in conjunction with NRSI mapping, will be used to identify an outer regulation limit within the subject property.

Collection and Review of Background Information

Background information pertaining to the biological resources on and within 10km of the subject property has been collected and compiled. This included a review of the following sources:

- Natural Heritage Information Centre (NHIC) database of provincially-tracked species (OMNR 2025);
- Region of Peel Official Plan (Region of Peel 2022);
- Town of Caledon Official Plan (Town of Caledon 2024);
- Scoped Subwatershed Study, Part A: Existing Conditions and Characterization (Final Report). Settlement Area Boundary Expansion (Wood 2022a);
- Scoped Subwatershed Study, Part B: Detailed Studies and Impact Assessment (Final Report). Settlement Area Boundary Expansion (Wood 2022b);
- Scoped Subwatershed Study, Part C: Implementation Plan (Final Report). Settlement Area Boundary Expansion (Wood 2022c);
- TRCA regulation mapping (TRCA 2025);
- Ontario Breeding Bird Atlas (BSC et al. 2008);
- Ontario Reptile and Amphibian Atlas (Ontario Nature 2019);
- Mammal Atlas of Ontario (Dobbyn 1994);
- Ontario Butterfly Atlas Online (Macnaughton et al. 2025);
- Ontario Odonata Atlas Database (OOAD 2023);
- Department of Fisheries and Oceans Aquatic Species at Risk mapping (DFO 2025); and

- Citizen science databases (iNaturalist (2025), eBird (2025)).

A request for existing natural heritage and species record background information was submitted to the TRCA on September 24, 2025.

Species at Risk and Species of Conservation Concern Habitat Screening

Based on the review of background information, a Species at Risk (SAR) and Species of Conservation Concern (SCC) screening exercise has been completed to identify any significant species that are known to occur within the vicinity of the study area (up to 10km). A Significant Wildlife Habitat (SWH) screening exercise has also been completed based on available background information to identify any SWH types that may have the potential to occur in the study area. The SAR/SCC and SWH screening tables, informed in part by our initial site survey, are appended to this TOR.

SAR are those listed on the Species at Risk in Ontario list (MECP 2025). For the purposes of this report, SAR are defined as species listed as provincially Threatened or Endangered that are afforded protection under the *Endangered Species Act*. Within Ontario, Species of Conservation Concern (SCC) refer to:

- Species designated provincially as Special Concern;
- Species that have been assigned a conservation status (S-Rank) of S1 to S3 or SH by the NHIC;
- Species that are designated federally as Threatened or Endangered by the Committee for the Status of Endangered Wildlife in Canada (COSEWIC) but not provincially by the Committee on the Status of Species at Risk in Ontario. These species may be protected by the federal *Species at Risk Act* (SARA) if they are listed as Threatened or Endangered on Schedule 1 of the SARA.

Habitats of SCC are considered a form of SWH (OMNR 2010), which is afforded protection under the Provincial Policy Statement and the Town Official Plan. See below for discussion about SCC habitats in the context of potential SWH in the study area.

Based on the result of the habitat screenings, the following SAR that are regulated under the *Endangered Species Act* are known to occur, or have potentially suitable habitat within the study area that may require further investigation as part of the EIS:

- Chimney Swift (*Chaetura pelagica*)
- Eastern Red Bat (*Lasiurus borealis*)
- Hoary Bat (*Lasiurus cinereus*)
- Little Brown Myotis (*Myotis lucifugus*)
- Northern Myotis (*Myotis septentrionalis*)
- Redside Dace (*Clinostomus elongatus*)
 - Assumed present based on the presence of mapped Critical Habitat in Salt Creek adjacent to the subject property (DFO 2025)
- Silver-haired Bat (*Lasionycteris noctivagans*)
- Tri-colored Bat (*Perimyotis subflavus*)

See Appendix A for the complete SAR/SCC habitat screening table.

The following SWH types were screened as having potential to occur within the study area:

- Bat Maternity Colonies
- Reptile Hibernaculum
- Waterfowl Nesting Area
- Turtle Nesting Area
- Amphibian Breeding Habitat (Woodland)
- Terrestrial Crayfish
- Special Concern and Rare Wildlife Habitat for the following species:
 - Barn Swallow (*Hirundo rustica*)
 - Eastern Wood-Pewee (*Contopus virens*)
 - Harpoon Clubtail (*Phanogomphus descriptus*)
 - Monarch (*Danaus plexippus*)
 - Northern Ribbonsnake (*Thamnophis sauritus septentrionalis*)
 - Snapping Turtle (*Chelydra serpentina*)
 - Western Chorus Frog (*Pseudacris triseriata*)

See Appendix B for the complete SWH screening table.

Field Studies

The following is a summary of the field survey methodology that have been or will be used to characterize the existing natural features and ecological functions within the study area. Note that certain field surveys described below have already been completed to meet their seasonal survey timing requirements, as noted.

Ecological Land Classification

Vegetation communities within the study area were mapped and classified following the Ecological Land Classification (ELC) system for southern Ontario (Lee et al. 1998). Any natural feature coverage located outside of the subject property that was inaccessible to NRSI biologists was mapped based on aerial imagery and based on what could be viewed from the subject property boundaries and from the Mayfield Road right-of-way. Details of the vegetation communities were recorded including species composition, dominance, uncommon species or features, and evidence of human impacts. To date, vegetation community mapping for the study area has been completed during August and will continue to be refined as part of subsequent site investigations. See Map 2 for the draft vegetation community mapping that has been prepared to date.

Vegetation Inventory

A two-season vegetation inventory will be completed during August and late September 2025, representing the summer and fall growth periods, respectively. Vegetation species will be inventoried through a systematic area search of the subject property in addition to adjacent lands based on what can be viewed from the subject property boundaries and the Mayfield Road right-of-way. Any rare species and their location(s) will be recorded with a handheld GPS unit. Vascular flora species will be recorded according to their ELC polygon or land cover type.

Aquatic Habitat Assessment

An aquatic habitat assessment of Salt Creek was completed and included documentation of the flow regime, adjacent land uses, basic channel morphology, substrates, in-water habitat and cover, riparian and shoreline habitat and cover, aquatic vegetation, important habitat features and in-situ water quality (temperature, pH, and dissolved oxygen). Due to lack of direct property access, the watercourse was investigated where it crosses under Mayfield Road. Aquatic features were assessed in terms of the quality and characteristics of fish habitat provided, including that for Redside Dace, which is mapped as having Critical Habitat within the study area reach of Salt Creek (DFO 2025). The subject property itself was also investigated to identify whether any small contributing drainage features or small tributaries exist. The aquatic habitat assessment was completed during September 2025.

Bat Habitat Assessment (Treed Habitats)

An examination of trees within the subject property will be completed to assess their potential to provide roosting habitat for bats, based on the presence of features such as tree cavities or loose/peeling bark in accordance with provincial guidelines for treed habitats (MECP 2022a, b). This assessment will be completed to identify the locations of potential habitat for SAR bats that use these feature types (i.e., Little Brown Myotis, Northern Myotis, and Silver-haired Bat). The assessment will focus on trees within the subject property that may require removal to accommodate the proposed development (i.e., outside of off-site woodlands). The bat habitat assessment will be completed during the leaf-off period in accordance with protocol requirements. Surveys for residual dead leaf clusters that are characteristically used by Tri-colored Bat will also be surveyed for as part of this work.

As part of the above site visit, the quality of the Salt Creek riparian woodland adjacent to the subject property will be examined for quality and potential to provide suitable habitat for the SAR Eastern Red Bat and Hoary Bat. Specifically, the presence of prominent supercanopy trees within the woodland would indicate potentially good roosting habitat for the species.

Habitat Assessments and Documentation of Other Wildlife

NRSI biologists will document incidental wildlife and their habitats within the study area during all site visits. Any features that may be indicative of SWH or habitat for SAR or SCC will be documented in detail, photographed, and georeferenced using a hand-held GPS unit. This will include an area search for the presence of potential snake hibernaculum access points (e.g., building foundations that are in poor condition) and terrestrial crayfish chimneys. Any potential significant habitat features will be documented in detail, including photographs and GPS coordinates.

Incidental observations of birds, reptiles, amphibians, mammals, herpetofauna, butterflies and odonates (dragonflies/damselflies) observed on-site during site visits will be recorded. In addition to direct observations, any evidence such as dens, tracks, and scat will also be documented.

Other Notes with Respect to Fieldwork Scope

Based on review of aerial photo mapping and preliminary site investigation, natural feature coverage within the subject property is absent (see Map 2 attached). Natural feature boundaries associated with the Salt Creek naturalized corridor occur off-site or

along the western boundary of the subject property. For these reasons, a site meeting to review and confirm natural feature boundaries with agency staff has not been included in this scope of work.

This EIS fieldwork scope does not include targeted surveys for wildlife such as birds and anurans. Where suitable habitat for SAR and SWH (including SCC) exists based on the results of the habitat screenings and site-based assessments, those habitats will be assumed to be significant and will be treated as such in the impact assessment. Measures to avoid or mitigate impacts to these features and habitats will be recommended accordingly.

A bat habitat assessment of the structures will not be completed since those structures will be retained as part of the property redevelopment concept. The structures will be examined for evidence of Barn Swallow nesting.

Reporting

Natural Feature Constraints Analysis

The results of the field surveys will be combined with the background information to provide a detailed summary of the existing natural features that occur within the study area, including any significant habitat features or functions that exist. This will include an assessment of the adjacent reach of Salt Creek in terms of its characteristics as SAR Redside Dace habitat. Through this work, preliminary NHS features that were identified for the Salt Creek corridor in the SABE Scoped Subwatershed Study will be confirmed, and boundaries refined, with reference to the NHS criteria identified in that study. Ecological sensitivities associated with the NHS features will also be identified that must be accounted for in the impact assessment. The EIS results will also be used to refine the limits of Regional and Town-mapped natural heritage features as mapped in their respective Official Plans.

SAR habitat mapping will be provided where SAR are or where potential habitat exists on-site. Confirmed and candidate SWH types will be described and mapped based on provincial criteria (MNR 2015). Assessments of natural feature significance and sensitivity will be used to inform recommendations for ecological buffers or development setbacks.

Natural feature characterization and mapping will be used to confirm the presence or absence of wetlands within the Salt Creek corridor adjacent to the subject property. This information will be used to inform the extent of TRCA-regulated lands on the subject property, with reference to “areas of interference” that extend from the wetland boundaries. NRSI watercourse and wetland mapping will be provided to members of the Project Team who will precisely determine, with reference to other hazard mapping components (e.g., floodplain and slope hazards), where the outer TRCA regulation falls within the subject property.

EIS Impact Assessment, Mitigations, and Other Recommendations

An impact assessment will be completed based on details of the proposed development. The assessment will be made with reference to the confirmed and refined characterization of the adjacent Salt Creek corridor NHS features, including its ecological function as a Local Landscape Linkage. NRSI will rely on technical studies and plans to be completed by other Project Team members that are relevant to the

impact assessment such as hydrological/hydrogeological, geotechnical hazard limits and stormwater management. Any areas of conflict between any significant features or ecological functions and the development will be discussed with the client and options for avoiding or minimizing impacts will be recommended. Potential impacts will be described in detail, with corresponding recommended mitigation measures where impacts cannot be avoided.

The impact of the development on the existing natural features and ecological functions will be determined based on the following:

- Direct impacts (i.e., natural feature or habitat removal) associated with the actual 'footprint' of the proposed development area. The approach to identifying and delineating constraint areas, discussed above, will be used to avoid direct impacts from the development on any significant natural features.
- Indirect impacts associated with changes in site conditions such as drainage and water quantity/quality or temporary construction-related impacts.
- Induced impacts associated with post-construction human use of the property.

If negative impacts to SAR or their habitats are anticipated, this will be described in the EIS and a separate process of consultation with the MECP will be initiated.

Enhancement and Monitoring

Recommendations for ecological enhancement or restoration will be made where opportunities exist. Details will be based on the results of site the characterization and may include specific areas of restoration or enhancement, native species buffer plantings, invasive species management, etc. Recommendations will be made with reference to the targets and recommendations for NHS restoration and enhancement identified in the SABE Scoped Subwatershed Study. Where appropriate, monitoring recommendations may be provided to ensure that mitigation and restoration measures are functioning appropriately during and/or following construction.

EIS Report

The findings of the natural feature characterization, constraints analysis and the impact assessment with associated mitigation, enhancement, and monitoring recommendations will be summarized in an EIS report. The report will include the approved TOR, records of agency correspondence, the findings of the EIS, and a description of the proposed undertaking, including a review of the relevant guidelines and policies governing the development. Species lists will be appended and natural features will be shown on a series of maps including existing conditions, development opportunities and constraints, and the development concept.

References

- Bird Studies Canada (BSC), Environment Canada's Canadian Wildlife Service, Ontario Nature, Ontario Field Ornithologists and Ontario Ministry of Natural Resources. 2008. Ontario Breeding Bird Atlas Database. <http://www.birdsontario.org/atlas/aboutdata.jsp?lang=en>
- Department of Fisheries and Oceans (DFO). 2025. Aquatic Species at Risk Map. Prepared by Fisheries and Oceans Canada. Available online at: <http://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html>. Accessed August 2025.
- Dobbyn, J.S. 1994. Atlas of the Mammals of Ontario. Don Mills, Federation of Ontario Naturalists.
- eBird. 2025. eBird records (all years, all time periods) within approximately 5km of study area (hotspot “Brampton – Colonel Baldwin Pond”). <https://ebird.org/home>. Accessed September 2025.
- iNaturalist. 2025. Manual search of records within approximately 1km of the study area. <https://www.inaturalist.org/observations>. Accessed September 2025.
- Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.
- Macnaughton, A., R. Layberry, and C. Jones. 2025. Ontario Butterfly Atlas Online. Toronto Entomologists' Association. <https://www.ontarioinsects.org/atlas/>. Accessed September 2025.
- Ontario Ministry of the Environment, Conservation and Parks (MECP). 2022a. Species at Risk Bats Survey Note - 2022. 3pp.
- Ontario Ministry of the Environment, Conservation and Parks. 2022b. Maternity Roost Surveys (Forests/Woodlands). 3pp.
- Ontario Ministry of the Environment, Conservation and Parks (MECP). 2025. Ontario Regulation 230/08. Species at Risk in Ontario List. <https://www.ontario.ca/laws/regulation/080230>. Last updated September 22, 2025.
- Ontario Ministry of Natural Resources (OMNR). 2000. Significant Wildlife Habitat Technical Guide. October 2000.
- Ontario Ministry of Natural Resources and Forestry (MNRF). 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. January 2015.
- Ontario Ministry of Natural Resources and Forestry (MNRF). 2022. Ontario Wetland Evaluation System. Southern Manual. 4th Edition.

- Ontario Ministry of Natural Resources (OMNR). 2025. Natural Heritage Information Centre (NHIC): Make a Natural Heritage Area Map Application (<https://www.ontario.ca/page/make-natural-heritage-area-map>) Accessed August 2025.
- Ontario Nature. 2019. Ontario Reptile and Amphibian Atlas. Ontario Nature, Ontario. Available: <https://www.ontarioinsects.org/herp/index.html>
- Ontario Odonata Atlas Database (OOAD). 2023. Natural Heritage Information Centre, Ontario Ministry of Natural Resources and Forestry. Species data by 10x10 km square 17PJ05. OOAD records downloaded by square as of February 2023.
- Region of Peel. 2022. Region of Peel Official Plan. April 2022.
- Toronto and Region Conservation Authority (TRCA). 2025. TRCA Regulation Mapping. <https://experience.arcgis.com/experience/1a3f466a3d014cd8aac79421df381c53>. Accessed August 2025.
- Town of Caledon. 2024. Town of Caledon Official Plan. Consolidated in March 2024.
- Wood. 2022a. Scoped Subwatershed Study, Part A: Existing Conditions and Characterization (Final Report). Settlement Area Boundary Expansion. The Regional Municipality of Peel. 1/11/2022.
- Wood. 2022b. Scoped Subwatershed Study, Part B: Detailed Studies and Impact Assessment (Final Report). Settlement Area Boundary Expansion. The Regional Municipality of Peel. 1/11/2022.
- Wood. 2022c. Scoped Subwatershed Study, Part C: Implementation Plan (Final Report). Settlement Area Boundary Expansion. The Regional Municipality of Peel. 1/11/2022.



Path: X:\3626_EIS\MayfieldRoadCaledon\3626_EISMayfieldRoadCaledon.aprx

Map 1

6404 Mayfield Road, Caledon

Study Area

REGIONAL MUNICIPALITY OF PEELE
Brampton

Legend

Study Area (120m)

Subject Property (approximate)

Primary Road

Secondary Road

Permanent Watercourse

Waterbody

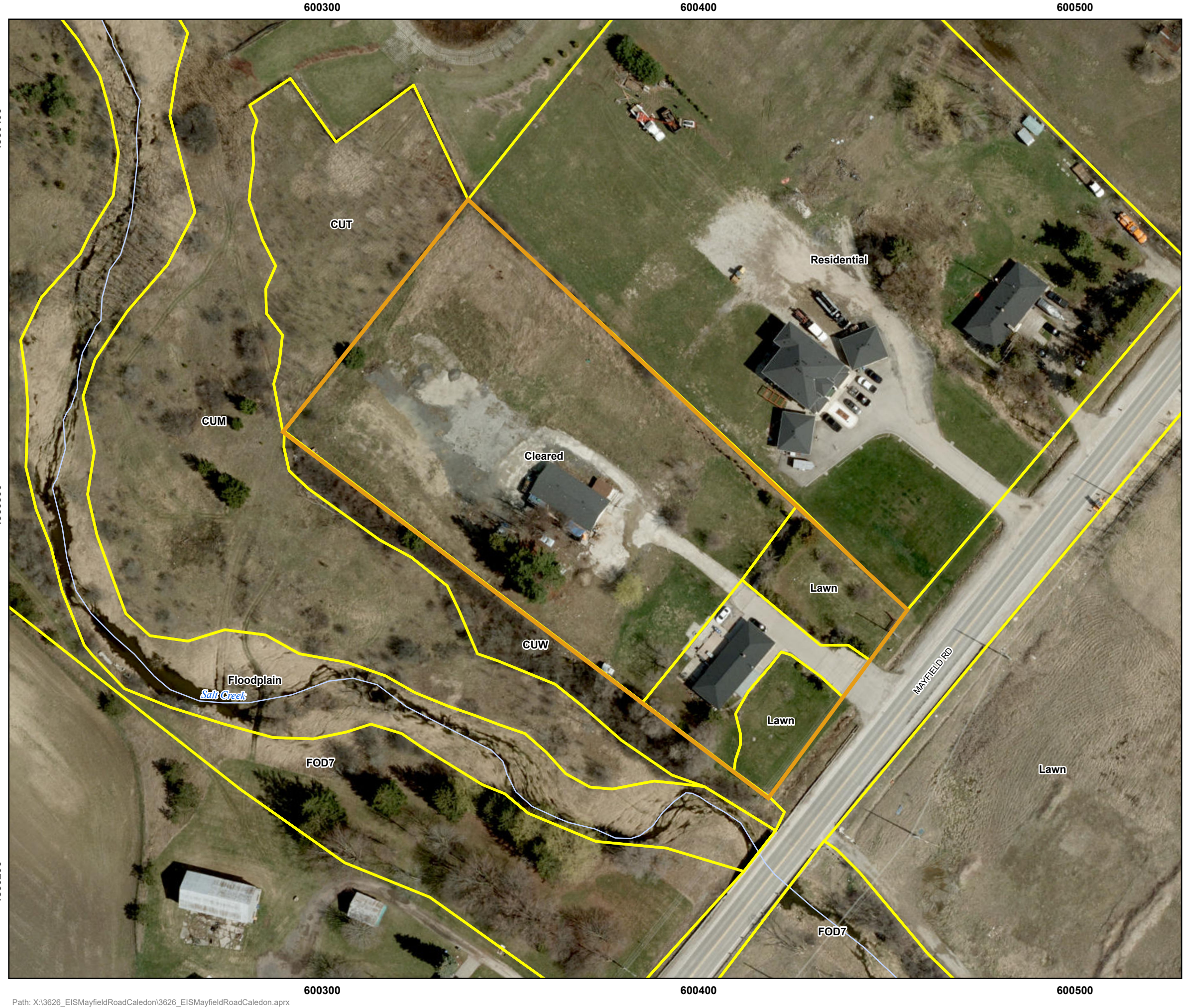
Wooded Area

NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Map Produced by Natural Resource Solutions Inc. This map is proprietary and confidential and must not be duplicated or distributed by any means without express written permission of NRSI. Data provided by MNR© Copyright: King's Printer Ontario. Imagery: ESRI (2024).

Project: 3626 Date: September 2, 2025	NAD83 - UTM Zone 17 CSRS Size: 11x17" 1:2,000
--	--

020406080100120 Meters



Map 2

6404 Mayfield Road,
Caledon

Vegetation Communities

Legend

Subject Property

Permanent Watercourse

Ecological Land Classification (ELC)

(CUM) Cultural Meadow

(CUT) Cultural Thicket

(CUW) Cultural Woodland

(FOD7) Fresh - Moist Lowland Deciduous Forest Ecosite

NATURAL RESOURCE SOLUTIONS INC.
Aquatic, Terrestrial and Wetland Biologists

Map Produced by Natural Resource Solutions Inc. This map is proprietary and confidential and must not be duplicated or distributed by any means without express written permission of NRSI. Data provided by MNR© Copyright: King's Printer Ontario. Imagery: ESRI (2024).

Project: 3626
Date: September 3, 2025

NAD83 - UTM Zone 17 CSRS
Size: 11x17"
1:1,000

0102030405060 Meters

Scientific Name	Common Name	S-RANK ¹	SARO ¹	COSEWIC ²	SARA ²	SARA Schedule ²	Background Source	Habitat Requirements	Suitable Habitats within Study Area	Rationale
Birds										
<i>Chaetura pelagica</i>	Chimney Swift	S3B	THR	T	T	Schedule 1	BSC et al. 2008; eBird 2025	Commonly found in urban areas near buildings; nests in chimneys, hollow trees, and crevices of rock cliffs. Feeds over open water. ^{3,4}	Possibly	The house on the subject property contains a chimney that could potentially provide nesting or roosting habitat for Chimney Swifts
<i>Chordeiles minor</i>	Common Nighthawk	S4B	SC	SC	T	Schedule 1	BSC et al. 2008	Open ground; clearings in dense forests (including burns and logged areas); rock barrens; peat bogs; ploughed fields; gravel beaches or barren areas with rocky soils; open woodlands; flat gravel roofs. ^{3,4}	No	Suitable habitat is absent within the study area
<i>Contopus virens</i>	Eastern Wood-Pewee	S4B	SC	SC	SC	Schedule 1	BSC et al. 2008	Mid-canopy layer of forest clearings and edges of deciduous and mixed forest. Abundant in intermediate-age mature forest stands with little understory vegetation. ^{3,4}	Yes	Woodland within the study area may be used by the species
<i>Bartramia longicauda</i>	Upland Sandpiper	S2B					BSC et al. 2008	Open pasture, fields of alfalfa, clover, hayfields; forest clearings; extensive, dry, old grassy fields with little to no shrubs or trees; requires tracts of grassland of 25-50ha.	No	Suitable habitat is absent within the study area
<i>Dolichonyx oryzivorus</i>	Bobolink	S4B	THR	T	T	Schedule 1	OMNR 2025; BSC et al. 2008	Large (>10 ha), open expansive grasslands, pastures, hayfields, meadows or fallow fields with dense ground cover. Occasionally nest in large (>50 ha) fields of winter wheat and rye in southwestern Ontario. ^{3,4}	No	Suitable habitat is absent within the study area
<i>Empidonax virescens</i>	Acadian Flycatcher	S1B	END	E	E	Schedule 1	BSC et al. 2008	Mature, shady, deciduous and mixed forests; heavily wooded ravines; creek bottoms or river swamps. Generally needs at least 30 ha of forest. ^{3,4}	No	Suitable habitat is absent within the study area
<i>Falco peregrinus</i>	Peregrine Falcon	S4	SC	NAR	SC	Schedule 1	eBird 2025	Usually nest on tall, steep cliff ledges close to large bodies of water. Can also nest on the ledges of tall buildings. ^{3,4}	No	<i>Suitable habitat is absent within the study area</i>
<i>Hirundo rustica</i>	Barn Swallow	S4B	SC	SC	T	Schedule 1	BSC et al. 2008; eBird 2025; iNaturalist 2025	Farmlands, rural areas and other open or semi-open areas near body of water. Nests almost exclusively on human-made structures such as open barns, buildings, bridges and culverts. ^{3,4}	Yes	Structures on the subject property may be used for nesting
<i>Hylocichla mustelina</i>	Wood Thrush	S4B	SC	T	T	Schedule 1	BSC et al. 2008	Carolinian and Great Lakes-St. Lawrence forest zones. Undisturbed moist mature deciduous or mixed forest with deciduous sapling growth. Near pond or swamp. Must have some trees higher than 12 m. ^{3,4}	No	Woodland within the study area is too small to support this species
<i>Riparia riparia</i>	Bank Swallow	S4B	THR	T	T	Schedule 1	BSC et al. 2008; eBird 2025	Nests in burrows in natural and human-made settings with vertical faces in silt and sand deposits. Usually on banks of river and lakes, but also found in sand and gravel pits. ^{3,4}	No	Suitable nesting habitat is absent within the study area.
<i>Sturnella magna</i>	Eastern Meadowlark	S4B, S3N	THR	T	T	Schedule 1	OMNR 2025; BSC et al. 2008; eBird 2025	Open pastures, hayfields, grasslands or grassy meadows with elevated singing perches (small trees, shrubs or fence posts). Also weedy borders of croplands, roadsides, orchards, airports, shrubby overgrown fields or other open areas. Generally prefers larger tracts of habitat >10 ha, but will sometimes use smaller tracts. ^{3,4}	No	Suitable habitat is absent within the study area
Herpetofauna										
Turtles										
<i>Chelydra serpentina</i>	Snapping Turtle	S4	SC	SC	SC	Schedule 1	Ontario Nature 2019; iNaturalist 2025	Slow-flowing rivers and streams, lakes, and permanent or semi-permanent wetlands with soft substrates and vegetation. Key habitat requirements: open areas with structures for basking, open sand or gravel areas for nesting, shallow areas with soft substrates to bury in, soft banks or substrates for hibernation. ³	Yes	Salt Creek may be used as a movement corridor for the species
Snakes										
<i>Thamnophis sauritus septentrionalis</i>	Northern Ribbonsnake	S4	SC	SC	SC	Schedule 1	Ontario Nature 2019	Sunny grassy areas with low dense vegetation near bodies of shallow permanent quiet water; wet meadows, marshes, borders of ponds, lakes or streams. ³	Yes	Suitable grassy habitat may occur within the floodplain of Salt Creek
Frogs and Toads										

Scientific Name	Common Name	S-RANK ¹	SARO ¹	COSEWIC ²	SARA ²	SARA Schedule ²	Background Source	Habitat Requirements	Suitable Habitats within Study Area	Rationale
<i>Pseudacris triseriata</i>	Western Chorus Frog (Great Lakes - St. Lawrence - Canadian Shield population)	S4	NAR	T	T	Schedule 1	Ontario Nature 2019	Moist forest, prairie, meadows, cultural meadows, or marshes. Breeds in shallow, temporary, fishless wetlands, including flooded ditches, marshes, flooded fields, pastures, temporary ponds, pools, and swamps. Hibernates in terrestrial habitats under rocks, logs, leaf litter, loose soil, or in animal burrows. ²¹	Yes	This species may breed within wetland habitat located in the Salt Creek floodplain south of Mayfield Road
Mammals										
<i>Lasionycteris noctivagans</i>	Silver-haired Bat	S4	END	E			COSEWIC 2023	Woodlands with large-diameter decaying trees	Yes	Suitable roosting trees may occur within the study area woodland
<i>Lasiurus borealis</i>	Eastern Red Bat	S4	END	E			COSEWIC 2023	Deciduous and coniferous forests with open understories, containing large-diameter and some tall trees	Yes	Suitable roosting trees may occur within the study area woodland
<i>Lasiurus cinereus</i>	Hoary Bat	S4	END	E			COSEWIC 2023	Deciduous and coniferous forests with open understories, containing large-diameter and some tall trees	Yes	Suitable roosting trees may occur within the study area woodland
<i>Myotis leibii</i>	Eastern Small-footed Myotis	S2S3	END				Humphrey 2017	Roosts in caves, mine shafts, crevices or buildings that are in or near woodland. Hibernates in cold dry caves or mines. Maternity colonies in caves or buildings. Hunts in forests. ^{3,4}	No	Suitable roosting habitat is absent in the study area.
<i>Myotis lucifungus</i>	Little Brown Myotis	S3	END	E	E	Schedule 1	ECCC 2018	Uses caves, quarries, tunnels, hollow trees or buildings for roosting. Winters in humid caves. Maternity sites in dark warm areas such as attics and barns. Feeds primarily in wetlands and forest edges. ^{3,4}	Yes	Suitable roosting habitat trees may occur within the study area
<i>Myotis septentrionalis</i>	Northern Myotis	S3	END	E	E	Schedule 1	ECCC 2018	Roosts in houses and man-made structures but prefers hollow trees or under loose bark. Hibernates in mines or caves. Hunts within forest, below the canopy. ^{3,4}	Yes	Suitable roosting habitat trees may occur within the study area
<i>Perimyotis subflavus</i>	Tri-colored Bat	S3?	END	E	E	Schedule 1	ECCC 2018	Roosts and maternity colonies in older forests and occassionally in barns or other sturctures. Forage over water and along streams in the forest. Hibernates in caves. ^{3,4}	Yes	Suitable roosting habitat may occur within the study area woodland
Butterflies										
<i>Danaus plexippus</i>	Monarch	S2N, S4B	SC	END	SC	Schedule 1	Macnaughton et al. 2025	Adults found in a diversity of habitats with a variety of wildflowers. Caterpillars are confined to meadows and open areas where milkweeds grow (larval food plants). ³	Yes	Milkweed host plants may occur within open habitats of the study area outside of the subject property
Odonates										
<i>Phanogomphus descriptus</i>	Harpoon Clubtail	S3					OOAD 2023	Small to medium-sized streams that are clear and cold to cool in temperature. Substrates ranging from sand to boulders with intermittent riffles and rapids.	Yes	Salt Creek may provide the appropriate habitat conditions to support this species
<i>Phanogomphus quadricolor</i>	Rapids Clubtail	S2	THR	E	E	Schedule 1	OOAD 2023	Typically found in clear, cool medium-to-large rivers with gravel shallows and muddy pools. ³	No	Suitable habitat is absent within the study area
<i>Libellula semifasciata</i>	Painted Skimmer	S3					OOAD 2023	Marshy forest ponds; bogs or slow streams	No	Suitable habitat is absent within the study area
Fish										
<i>Clinostomus elongatus</i>	Redside Dace	S1	END	E	E	Schedule 1	DFO 2025	Pools and slow-moving areas of small streams and headwaters with a gravel bottom. Generally found in areas with overhanging grasses and shrubs. Can be found in shallow parts of streams during spawning. ³	Possibly	The reach of Salt Creek within the study area may provide suitable habitat for the species

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Waterfowl Stopover and Staging Areas (Terrestrial)					
Habitat important to migrating waterfowl.	American Black Duck Wood Duck Green-winged Teal Blue-winged Teal Mallard Northern Pintail Northern Shoveler American Wigeon Gadwall	CUM1 CUT1 - Plus evidence of annual spring flooding from melt water or run-off within these Ecosites.	Fields with sheet water during Spring (mid March to May). • Fields flooding during spring melt and run-off provide important invertebrate foraging habitat for migrating waterfowl. • Agricultural fields with waste grains are commonly used by waterfowl, these are not considered SWH unless they have spring sheet water available ^{cxlviii} . <u>Information Sources</u> • Anecdotal information from the landowner, adjacent landowners or local naturalist clubs may be good information in determining occurrence. • Reports and other information available from Conservation Authorities (CAs) • Sites documented through waterfowl planning processes (eg. EHJV implementation plan) • Field Naturalist Clubs • Ducks Unlimited Canada • Natural Heritage Information Centre (NHIC) Waterfowl Concentration Area	Studies carried out and verified presence of an annual concentration of any listed species, evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects" ^{ccxi} • Any mixed species aggregations of 100 or more individuals required. • The area of the flooded field ecosite habitat plus a 100-300m radius buffer dependent on local site conditions and adjacent land use is the significant wildlife habitat ^{cxlviii} . • Annual use of habitat is documented from information sources or field studies (annual use can be based on studies or determined by past surveys with species numbers and dates). • SWHMiST ^{cxlix} Index #7 provides development effects and mitigation measures.	Suitable habitat is not present within the study area. Not SWH
Waterfowl Stopover and Staging Areas (Aquatic)					
Important for local and migrant waterfowl populations during the spring or fall migration or both periods combined. Sites identified are usually only one of a few in the eco-district.	Canada Goose Cackling Goose Snow Goose American Black Duck Northern Pintail Northern Shoveler American Wigeon Gadwall Green-winged Teal Blue-winged Teal Hooded Merganser Common Merganser Lesser Scaup Greater Scaup	MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7	• Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration. Sewage treatment ponds and storm water ponds do not qualify as a SWH, however a reservoir managed as a large wetland or pond/lake does qualify. • These habitats have an abundant food supply (mostly aquatic invertebrates and vegetation in shallow water).	Studies carried out and verified presence of: • Aggregations of 100 ^l or more of listed species for 7 days ^l , results in > 700 waterfowl use days. • Areas with annual staging of ruddy ducks, canvasbacks, and redheads are SWH ^{cxlix} • The combined area of the ELC ecosites and a 100m radius area is the SWH ^{cxlvii} • Wetland area and shorelines associated with sites identified within the SWHTG ^{cxlviii} Appendix	Suitable habitat is not present within the study area. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
	Long-tailed Duck Surf Scoter White-winged Scoter Black Scoter Ring-necked Duck Common Goldeneye Bufflehead Redhead Ruddy Duck Red-breasted Merganser Brant Canvasback		<u>Information Sources</u> • Environment Canada • Naturalist clubs often are aware of staging/stopover areas. • OMNRF Wetland Evaluations indicate presence of locally and regionally significant waterfowl staging. • Sites documented through waterfowl planning processes (eg. EHJV implementation plan) • Ducks Unlimited projects • Element occurrence specification by Nature Serve: http://www.natureserve.org • Natural Heritage Information Centre (NHIC) Waterfowl Concentration Area	K^{cxlix} are significant wildlife habitat. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"^{ccxi} • Annual Use of Habitat is Documented from Information Sources or Field Studies (Annual can be based on completed studies or determined from past surveys with species numbers and dates recorded). • SWHMiST^{cxlix} Index #7 provides development effects and mitigation measures.	
Shorebird Migratory Stopover Area					
High quality shorebird stopover habitat is extremely rare and typically has a long history of use.	Greater Yellowlegs Lesser Yellowlegs Marbled Godwit Hudsonian Godwit Black-bellied Plover American Golden-Plover Semipalmated Plover Solitary Sandpiper Spotted Sandpiper Semipalmated Sandpiper Pectoral Sandpiper White-rumped Sandpiper Baird's Sandpiper Least Sandpiper Purple Sandpiper Stilt Sandpiper Short-billed Dowitcher Red-necked Phalarope Whimbrel Ruddy Turnstone Sanderling Dunlin Whimbrel	BBO1 BBO2 BBS1 BBS2 BBT1 BBT2 SDO1 SDS2 SDT1 MAM1 MAM2 MAM3 MAM4 MAM5	Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats. Great Lakes coastal shorelines, including groynes and other forms of armour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October. Sewage treatment ponds and storm water ponds do not qualify as a SWH.	Studies confirming: • Presence of 3 or more of listed species and > 1000 shorebird use days during spring or fall migration period. (shorebird use days are the accumulated number of shorebirds counted per day over the course of the fall or spring migration period) • Whimbrel stop briefly (<24hrs) during spring migration, any site with >100 Whimbrel used for 3 years or more is significant. • The area of significant shorebird habitat includes the mapped ELC shoreline ecosites plus a 100m radius area^{cxviii} • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"^{ccxi} • SWHMiST^{cxlix} Index #8 provides development effects and mitigation measures.	Suitable habitat is not present within the study area. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Raptor Wintering Area					
Sites used by multiple species, a high number of individuals and used annually are most significant	Rough-legged Hawk Red-tailed Hawk Northern Harrier American Kestrel Snowy Owl <u>Special Concern:</u> Short-eared Owl Bald Eagle	Hawks/Owls: Combination of ELC Community Series; need to have present one Community Series from each land class: Forest: FOD, FOM, FOC Upland: CUM, CUT, CUS, CUW	The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors. Raptor wintering sites need to be > 20 ha^{cxlviii, cxlix} with a combination of forest and upland.^{xvi, xvii, xviii, xix, xx, xxi} Least disturbed sites, idle/fallow or lightly grazed field/meadow (>15ha) with adjacent woodlands^{cxlix} Field area of the habitat is to be wind swept with limited snow depth or accumulation. Eagle sites have open water, large trees and snags available for roosting <u>Information Sources</u> • OMNRF Ecologist or Biologist • Field Natural Clubs • Natural Heritage Information Center (NHIC) Raptor Winter Concentration Area • Data from Bird Studies Canada • Reports and other information available from Conservation Authorities CAs.	Studies confirm the use of these habitats by: • One or more Short-eared Owls or; One or more Bald Eagles or; At least 10 individuals and two listed hawk/owl species • To be significant a site must be used regularly (3 in 5 years)^{cxlix} for a minimum of 20 days by the above number of birds • The habitat area for an Eagle winter site is the shoreline forest ecosites directly adjacent to the prime hunting area • Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”^{ccxi} • SWHMiST^{cxlix} Index #10 and #11 provides development effects and mitigation measures.	Suitable habitat is not present within the study area. Not SWH
Bat Hibernacula					
Bat hibernacula are rare habitats in Ontario landscapes.	Big Brown Bat Tri-coloured Bat	Bat Hibernacula may be found in these ecosites: CCR1 CCR2 CCA1 CCA2 (Note: buildings are not considered to be SWH)	• Hibernacula may be found in caves, mine shafts, underground foundations and Karsts. • Active mine sites should not be considered as SWH • The locations of bat hibernacula are relatively poorly known. <u>Information Sources</u> • OMNRF for possible locations and contact for local experts • Natural Heritage Information	• All sites with confirmed hibernating bats are SWH. • The habitat area includes a 200m radius around the entrance of the hibernaculum^{cxlviii, ccvii} for most. • Studies are to be conducted during the peak swarming period (Aug. – Sept.). Surveys should be conducted following methods outlined in the "Bats and Bat Habitats: Guidelines for Wind	Suitable habitat is not present within the study area. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			Center (NHIC) Bat Hibernaculum • Ministry of Northern Development and Mines for location of mine shafts. • Clubs that explore caves (eg. Sierra Club) • University Biology Departments with bat experts.	Power Projects ^{ccv} • SWHMiST ^{cxlix} Index #1 provides development effects and mitigation measures.	
Bat Maternity Colonies					
Known locations of forested bat maternity colonies is extremely rare in all Ontario landscapes.	Big Brown Bat Silver-haired Bat	Maternity colonies considered SWH are found in forested Ecosites. All ELC Ecosites in ELC Community Series: FOD FOM SWD SWM	Maternity colonies can be found in tree cavities, vegetation and often in buildings ^{xxii, xxv, xxvi, xxvii, xxxi} (buildings are not considered to be SWH). • Maternity roosts are not found in caves and mines in Ontario ^{xxii} • Maternity colonies located in Mature deciduous or mixed forest stands ^{ccix, ccx} with >10/ha large diameter (>25cm dbh) wildlife trees ^{ccvii} • Female Bats prefer wildlife tree (snags) in early stages of decay, class 1-3 ^{ccxiv} or class 1 or 2 ^{ccxii} • Silver-haired Bats prefer older mixed or deciduous forest and form maternity colonies in tree cavities and small hollows. Older forest areas with at least 21 snags/ha are preferred. ^{ccx} <u>Information Sources</u> • OMNRF for possible locations and contact for local experts • University Biology Departments with bat experts.	• Maternity Colonies with confirmed use by: • >10 Big Brown Bats • >5 Adult Female Silver-haired Bats • The area of the habitat includes the entire woodland or a forest stand ELC Ecosite or an Ecoelement containing the maternity colonies. • Evaluation methods for maternity colonies should be conducted following methods outlined in the "Bats and Bat Habitats: Guidelines for wind Power Projects ^{ccv} • SWHMiST ^{cxlix} Index #12 provides development effects and mitigation measures.	The woodland adjacent to the subject property may provide suitable conditions for bat maternity colonies. Possible SWH
Turtle Wintering Area					
Generally sites are the only known sites in the area. Sites with the highest number of individuals are most significant	Midland Painted Turtle <u>Special Concern:</u> Northern Map Turtle Snapping Turtle	Snapping and Midland Painted Turtles - ELC Community Classes: SW, MA, OA and SA; ELC Community Series: FEO and BOO Northern Map Turtle - Open Water areas such as deeper rivers or streams and lakes	For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates. • Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen ^{cxix, cx, cxi, cxviii} .	• Presence of 5 over-wintering Midland Painted Turtles is significant. • One or more Northern Map Turtle or Snapping Turtle over-wintering within a wetland is significant. • The mapped ELC ecosite area with the over wintering turtles is the SWH. If the hibernation site	Salt Creek is too shallow to support this habitat function. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
		with current can also be used as over-wintering habitat.	- Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH. <u>Information Sources</u> - EIS studies carried out by Conservation Authorities. - Local field naturalists and experts, as well as university herpetologists may also know where to find some of these sites. - OMNRF ecologist or biologist - Natural Heritage Information Center (NHIC)	is within a stream or river, the deep-water pool where the turtles are over wintering is the SWH. - Over wintering areas may be identified by searching for congregations (Basking Areas) of turtles on warm, sunny days during the fall (Sept. – Oct.) or spring (Mar. – May)^{cxvii} - Congregation of turtles is more common where wintering areas are limited and therefore significant^{cxix, cx, cxi, cxii} - SWHMiST^{cxlix} Index #28 provides development effects and mitigation measures for turtle wintering habitat.	
Reptile Hibernaculum					
Generally sites are the only known sites in the area. Sites with the highest number of individuals are most significant	<u>Snakes:</u> Eastern Gartersnake Northern Watersnake Northern Red-bellied Snake Northern Brownsnake Smooth Green Snake Northern Ring-necked Snake <u>Special Concern:</u> Milksnake Eastern Ribbonsnake <u>Lizard:</u> <u>Special Concern</u> (Southern Shield population): Five-lined Skink	For all snakes, habitat may be found in any ecosite other than very wet ones. Talus, Rock Barren, Crevice and Cave, and Alvar sites may be directly related to these habitats. Observations of congregations of snakes on sunny warm days in the spring or fall is a good indicator. For Five-lined Skink, ELC Community Series of FOD and FOM and Ecosites: FOC1 FOC3	- For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural locations. The existence of features that go below the frost line; such as rock piles or slopes, old stone fences, and abandoned crumbling foundations assist in identifying candidate SWH. - Areas of broken and fissured rock are particularly valuable since they provide access to subterranean sites below the frost line^{cxliv, i, ii, lii, cxlii}. - Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover. - Five-lined skink prefer mixed forests with rock outcrop openings providing cover rock overlaying granite bedrock with fissures cciii. Information Sources	Studies confirming: - Presence of snake hibernacula used by a minimum of five individuals of a snake sp. <u>or</u>; individuals of two or more snake spp. - Congregations of a minimum of five individuals of a snake sp. <u>or</u>; individuals of two or more snake spp. near potential hibernacula (eg. foundation or rocky slope) on sunny warm days in Spring (Apr/May) and Fall (Sept/Oct). <u>Note:</u> If there are Special Concern Species present, then site is SWH <u>Note:</u> Sites for hibernation possess specific habitat parameters (e.g. temperature, humidity, etc.) and consequently are used annually, often by many of the same individuals of a local population [i.e. strong hibernation site fidelity]. Other critical life processes (e.g. mating) often take place in close proximity to hibernacula. The feature in which the hibernacula	Access to snake hibernacula may occur if the structures on the subject property contains old and crumbling foundations. Candidate SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			- In spring, local residents or landowners may have observed the emergence of snakes on their property (e.g. old dug wells). - Reports and other information from CAs. - Local Field naturalists and experts, as well as university herpetologists may also know where to find some of these sites. - clubs - Natural Heritage Information Center (NHIC) - OMNRF ecologist or biologist may be aware of locations of wintering skinks	is located plus a 30m buffer is the SWH ^l • SWHMiST ^{cxlix} Index #13 provides development effects and mitigation measures for snake hibernacula. • Presence of any active hibernaculum for skink is significant. • SWHMiST ^{cxlix} Index #37 provides development effects and mitigation measures for five-lined skink wintering habitat.	
Colonially - Nesting Bird Breeding Habitat (Bank and Cliff)					
Historical use and number of nests in a colony make this habitat significant. An identified colony can be very important to local populations. All swallow populations are declining in Ontario.	Cliff Swallow Northern Rough-winged Swallow (this species is not colonial but can be found in Cliff Swallow colonies)	Eroding banks, sandy hills, borrow pits, steep slopes, and sand piles Cliff faces, bridge abutments, silos, barns Habitat found in the following ecosites: CUM1 CUT1 CUS1 BLO1 BLS1 BLT1 CLO1 CLS1 CLT1	- Any site or areas with exposed soil banks, undisturbed or naturally eroding that is not a licensed/permitted aggregate area. - Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, soil or aggregate stockpiles. - Does not include a licensed/permitted Mineral Aggregate Operation. <u>Information Sources</u> - Reports and other information available from CAs - Ontario Breeding Bird Atlas ^{ccv} - Bird Studies Canada; <i>NatureCounts</i> http://www.birdscanada.org/birdmon/ - Field Naturalist clubs	Studies confirming: • Presence of 1 or more nesting sites with 8 ^{cdvix} or more cliff swallow pairs and/or rough-winged swallow pairs during the breeding season. • A colony identified as SWH will include a 50m radius habitat area from the peripheral nests ^{ccvii} • Field surveys to observe and count swallow nests are to be completed during the breeding season Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects" ^{ccxi} • SWHMiST ^{cxlix} Index #4 provides development effects and mitigation measures	Suitable habitat is not present within the study area. Not SWH
Colonially - Nesting Bird Breeding Habitat (Tree/Shrubs)					
Large Colonies are important to local bird population, typically sites are only known colony	Great Blue Heron Black-crowned Night-heron Great Egret Green Heron	SWM2 SWM3 SWM5 SWM6 SWD1 SWD2 SWD3 SWD4 SWD5 SWD6 SWD7 FET1	- Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used. - Most nests in trees are 11 to 15m	Studies confirming: • Presence of 5 ^l or more active nests of Great Blue Heron or other listed species. • The habitat extends from the edge of the colony and a	Suitable habitat is not present within the study area. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
in area and are used annually.			from ground, near the top of the tree. <u>Information Sources</u> • Ontario Breeding Bird Atlas^{ccv}, colonial nest records. • Ontario Heronry Inventory 1991 available from Bird Studies Canada or NHIC (OMNR). • NHIC Mixed Wader Nesting Colony • Aerial photographs can help identify large heronries • Reports and other information available from CAs • MNRF District Offices • Local naturalist clubs	minimum 300m radius or extent of the Forest Ecosite containing the colony or any island <15.0ha with a colony is the SWH^{cc, ccvii} • Confirmation of active heronries are to be achieved through site visits conducted during the nesting season (April to August) or by evidence such as the presence of fresh guano, dead young and/or eggshells • SWHMiST^{cxlix} Index #5 provides development effects and mitigation measures.	
Colonially - Nesting Bird Breeding Habitat (Ground)					
Colonies are important to local bird populations, typically sites are only known colony in area and are used annually.	Herring Gull Great Black-backed Gull Little Gull Ring-billed Gull Common Tern Caspian Tern Brewer's Blackbird	Any rocky island or peninsula (natural or artificial) within a lake or large river (two-lined on a 1:50,000 NTS map). Close proximity to watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird) MAM1 – 6 MAS1 – 3 CUM CUT CUS	• Nesting colonies of gulls and terns are on islands or peninsulas associated with open water or in marshy areas. • Brewers Blackbird colonies are found loosely on the ground in or in low bushes in close proximity to streams and irrigation ditches within farmlands. <u>Information Sources</u> • Ontario Breeding Bird Atlas^{ccv}, rare/colonial species records. • Canadian Wildlife Service • Reports and other information available from CAs • Natural Heritage Information Center (NHIC) Colonial Waterbird Nesting Area • MNRF District Offices • Field naturalist clubs	Studies confirming: • Presence of >25 active nests for Herring Gulls or Ring-billed Gulls, >5 active nests for Common Tern or >2 active nests for Caspian Tern^l. • Presence of 5 or more pairs for Brewer's Blackbird. • Any active nesting colony of one or more Little Gull, and Great Black-backed Gull is significant. • The edge of the colony and a minimum 150m area of habitat, or the extent of the ELC ecosites containing the colony or any island <3.0ha with a colony is the SWH^{cc, ccvii} • Studies would be done during May/June when actively nesting. Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"^{hccxi} • SWHMiST^{cxlix} Index #6 provides development effects and mitigation measures.	Suitable habitat is not present within the study area. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Migratory Butterfly Stopover Areas					
Butterfly stopovers areas are extremely rare habitats and are biologically important for butterfly species that migrate south for the winter.	Painted Lady Red Admiral <u>Special Concern:</u> Monarch	Combination of ELC Community Series: Need to have present one Community Series from each landclass: <u>Field:</u> CUM CUS CUT <u>Forest:</u> FOC FOM FOD CUP Anecdotally, a candidate sight for butterfly stopover will have a history of butterflies being observed.	A butterfly stopover area will be a minimum of 10 ha in size with a combination of field and forest habitat present, and will be located within 5 km of Lake Ontario ^{cxlix} . • The habitat is typically a combination of field and forest, and provides the butterflies with a location to rest prior to their long migration south ^{xxxli, xxxlii, xxxliii, xxxliv, xxxlv, xxxlvi} . • The habitat should not be disturbed, fields/meadows with an abundance of preferred nectar plants and woodland edge providing shelter are requirements for this habitat cxlviii, cxlix. • Staging areas usually provide protection from the elements and are often spits of land or areas with the shortest distance to cross the Great Lakes ^{xxxvii, xxxviii, xxxix, xl, xli} . <u>Information Sources</u> • OMNRF (NHIC) • Agriculture Canada in Ottawa may have list of butterfly experts. • Field Naturalist Clubs • Toronto Entomologists Association • Conservation Authorities	Studies confirm: • The presence of Monarch Use Days (MUD) during fall migration (Aug/Oct) ^{xliii} . MUD is based on the number of days a site is used by Monarchs, multiplied by the number of individuals using the site. Numbers of butterflies can range from 100-500/day ^{xxxvii} , significant variation can occur between years and multiple years of sampling should occur ^{xl, xlii} . • Observational studies are to be completed and need to be done frequently during the migration period to estimate MUD • MUD of >5000 or >3000 with the presence of Painted Ladies or Red Admiral's is to be considered significant. • SWHMiST ^{cxlix} Index #16 provides development effects and mitigation measures.	The study area is >5km from Lake Ontario. Not SWH
Landbird Migratory Stopover Areas					
Sites with a high diversity of species as well as high number are most significant	All migratory songbirds. Canadian Wildlife Service Ontario website: http://www.on.ec.gc.ca/wildlife_e.html All migrant raptors species: Ontario Ministry of Natural Resources: Fish and Wildlife Conservation Act, 1997.	All Ecosites associated with these ELC Community Series: FOC FOM FOD SWC SWM SWD	Woodlots need to be >10 ha ⁱ in size and within 5km ^{iv, v, vi, vii, viii, ix, x, xi, xii, xlii, xliii, xlv, xvi} of Lake Ontario. • If multiple woodlands are located along the shoreline, those woodlands <2km from Lake Ontario are more significant ^{cxlix} . • Sites have a variety of habitats; forest, grassland and wetland complexes ^{cxlix} . • The largest sites are more significant ^{cxlix} . • Woodlots and forest fragments are important habitats to migrating birds ^{ccxviii} , these features located	Studies confirm: • Use of the woodlot by >200 birds/day and with >35 spp. with at least 10 bird spp. recorded on at least 5 different survey dates. This abundance and diversity of migrant bird species is considered above average and significant. • Studies should be completed during spring (Apr/May) and fall (Aug/Oct) migration using standardized assessment techniques. Evaluation methods to follow "Bird and Bird Habitats:	The study area is >2km from Lake Ontario. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
	Schedule 7: Specially Protected Birds (Raptors)		along the shore and located within 5km of Lake Ontario are Candidate SWH^{cxlviii}. <u>Information Sources</u> • Bird Studies Canada • Ontario Nature • Local birders and naturalist club • Ontario Important Bird Areas (IBA) Program	Guidelines for Wind Power Projects^{ccxi} • SWHMiST^{cxlix} Index #9 provides development effects and mitigation measures.	
Deer Yarding Areas					
Winter habitat for deer is considered to be the main factor for northern deer populations. In winter, deer congregate in "yards" to survive severe winter conditions. Deer yards typically have a long history of annual use by deer, yards typically represent 10-15% of an areas summer range.	White-tailed Deer	Note: OMNRF to determine this habitat. ELC Community Series providing a thermal cover component for a deer yard would include: FOM, FOC, SWM and SWC. Or these ELC Ecosites: CUP2 CUP3 FOD3 CUT	• Deer yarding areas or winter concentration areas (yards) are areas deer move to in response to the onset of winter snow and cold. This is a behavioural response and deer will establish traditional use areas. The yard is composed of two areas referred to as Stratum I and Stratum II. Stratum II covers the entire winter yard area and is usually a mixed or deciduous forest with plenty of browse available for food. Agricultural lands can also be included in this area. Deer move to these areas in early winter and generally, when snow depths reach 20cm, most of the deer will have moved here. If the snow is light and fluffy, deer may continue to use this area until 30cm snow depth. In mild winters, deer may remain in the Stratum II area the entire winter. • The Core of a deer yard (Stratum I) is located within the Stratum II area and is critical for deer survival in areas where winters become severe. It is primarily composed of coniferous trees (pine, hemlock, cedar, spruce) with a canopy cover of more than 60%^{cxclv}. • OMNRF determines deer yards following methods outlined in "Selected Wildlife and Habitat Features: Inventory Manual"^{cxclv} • Woodlots with high densities of	No Studies Required: • Snow depth and temperature are the greatest influence on deer use of winter yards. Snow depths > 40cm for more than 60 days in a typically winter are minimum criteria for a deer yard to be considered as SWH^{lvi, lvii, lviii, lix, lx, l}. • Deer Yards are mapped by OMNRF District offices. Locations of Core or Stratum 1 and Stratum 2 Deer yards considered significant by OMNRF will be available at local MNRF offices or via Land Information Ontario (LIO). • Field investigations that record deer tracks in winter are done to confirm use (best done from an aircraft). Preferably, this is done over a series of winters to establish the boundary of the Stratum I and Stratum II yard in an "average" winter. MNRF will complete these field investigations^{cxclv}. • If a SWH is determined for Deer Wintering Area or if a proposed development is within Stratum II yarding area then Movement Corridors are to be considered as outlined in Table 1.4.1 of this Schedule. • SWHMiST^{cxlix} Index #2	Deer overwintering habitat has not been mapped within or near the study area by the OMNR. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 1. Characteristics of Seasonal Concentration Areas

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			deer due to artificial feeding are not significant.	provides development effects and mitigation measures.	
Deer Winter Congregation Areas					
Deer movement during winter in the southern areas of Ecoregion 6E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands to reduce or avoid the impacts of winter conditions ^{cxlviii}	White-tailed Deer	All Forested Ecosites with these ELC Community Series: FOC FOM FOD SWC SWM SWD Conifer plantations much smaller than 50ha may also be used.	• Woodlots will typically be >100 ha in size. Woodlots <100ha may be considered as significant based on MNRF studies or assessment. • Deer movement during winter in the southern areas of Eco-region 6E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands^{cxlviii}. • If deer are constrained by snow depth refer to the Deer Yarding Area habitat within Table 1.1 of this Schedule. • Large woodlots > 100ha and up to 1500 ha are known to be used annually by densities of deer that range from 0.1-1.5 deer/ha^{ccxxiv}. • Woodlots with high densities of deer due to artificial feeding are not significant. <u>Information Sources</u> • MNRF District Offices • LIO/NRVIS	Studies confirm: • Deer management is an MNRF responsibility, deer winter congregation areas considered significant will be mapped by MNRF^{cxlviii}. • Use of the woodlot by white-tailed deer will be determined by MNRF, all woodlots exceeding the area criteria are significant, unless determined not to be significant by MNR^l. • Studies should be completed during winter (Jan/Feb) when >20cm of snow is on the ground using aerial survey techniques^{ccxxiv}, ground or road surveys, or a pellet count deer density survey^{ccxxv}. • If a SWH is determined for Deer Wintering Area of if a proposed development is within Stratum II yarding area then Movement Corridors are to be considered as outlined in Table 1.4.1 of this Schedule. • SWHMiST^{cxlix} Index #2 provides development effects and mitigation measures.	Deer overwintering habitat has not been mapped within or near the study area by the OMNR. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 2. Characteristics of Rare Vegetation Communities

Rationale	Candidate SWH			Confirmed SWH	Study Area
	ELC Ecosite Codes	Habitat Description	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Cliffs and Talus Slopes					
Cliffs and Talus Slopes are extremely rare habitats in Ontario.	Any ELC Ecosite within Community Series: TAO CLO TAS CLS TAT CLT	A Cliff is vertical to near vertical bedrock >3m in height. A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris.	Most cliff and talus slopes occur along the Niagara Escarpment. <u>Information Sources</u> • The Niagara Escarpment Commission has detailed information on location of these habitats. • OMNRF District • Natural Heritage Information Center (NHIC) has location information on their website • Local naturalist clubs • Conservation Authorities	• Confirm any ELC Vegetation Type for Cliffs or Talus Slopes ^{lxviii} • SWHMiST ^{cxlix} Index #21 provides development effects and mitigation measures.	Cliffs and talus slopes are not present within the study area. Not SWH
Sand Barren					
Sand barrens are rare in Ontario and support rare species. Most Sand Barrens have been lost due to cottage development and forestry.	ELC Ecosites: SBO1 SBS1 SBT1 Vegetation cover varies from patchy and barren to continuous meadow (SBO1), thicket-like (SBS1), or more closed and treed (SBT1). Tree cover always <60%.	Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion. They have little or no soil and the underlying rock protrudes through the surface. Usually located within other types of natural habitat such as forest or savannah. Vegetation can vary from patchy and barren to tree covered but less than 60%.	Any sand barren area, >0.5ha in size. <u>Information Sources</u> • OMNRF Districts. • Natural Heritage Information Center (NHIC) has location information on their website • Field naturalist clubs • Conservation Authorities	• Confirm any ELC Vegetation Type for Sand Barrens ^{lxviii} • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics) ^l . • SWHMiST ^{cxlix} Index #20 provides development effects and mitigation measures.	Sand barrens are not present within the study area. Not SWH
Alvar					
Alvars are extremely rare habitats in Ecoregion 6E. Most alvars in Ontario are in Ecoregion 6E and 7E. Alvars in 6E are small and highly localized just north of the Palaeozoic-	ALO1 ALS1 ALT1 FOC1 FOC2 CUM2 CUS2 CUT2-1 CUW2 Five Alvar Indicator Species:	An alvar is typically a level, mostly unfractured calcareous bedrock feature with a mosaic of rock pavements and bedrock overlain by a thin veneer of soil. The hydrology of alvars is complex, with alternating periods of inundation and drought. Vegetation cover varies from sparse lichen-moss associations to grasslands and shrublands	An Alvar site > 0.5 ha in size ^{lxv} . <u>Information Sources</u> • Alvars of Ontario (2000), Federation of Ontario Naturalists ^{lxvi} . • Ontario Nature – Conserving Great Lakes Alvars ^{cxviii} . • Natural Heritage Information Center (NHIC) has location information on their website • Field Naturalist clubs • Conservation Authorities	Field studies identify four of the five Alvar indicator species ^{lxv, cxlix} at a Candidate Alvar site is Significant. • Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotics sp.). • The alvar must be in excellent condition and fit in with surrounding landscape with few conflicting land uses ^{lxv} .	Alvar is not present within the study area. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 2. Characteristics of Rare Vegetation Communities

Rationale	Candidate SWH			Confirmed SWH	Study Area
	ELC Ecosite Codes	Habitat Description	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Precambrian contact.	1) Carex crawei 2) Panicum philadelphicum 3) Eleocharis compressa 4) Scutellaria parvula 5) Trichostema branchiatum These indicator species are very specific to Alvars within Ecoregion 6E	and comprising a number of characteristic or indicator plant. Undisturbed alvars can be phyto- and zoo geographically diverse, supporting many uncommon or are relict plant and animals species. Vegetation cover varies from patchy to barren with a less than 60% tree cover ^{lxviii} .		• SWHMiST ^{cxlix} Index #17 provides development effects and mitigation measures.	
Old Growth Forest					
Due to historic logging practices, extensive old growth forest is rare in the Ecoregion. Interior habitat provided by old growth forests is required by many wildlife species.	Forest Community Series: FOD FOC FOM SWD SWC SWM	Old Growth forests are characterized by heavy mortality or turnover of over-storey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris.	Woodland Stands areas 30ha or greater in size or with at least 10 ha interior habitat assuming 100m buffer at edge of forest I. Information Sources • OMNRF Forest Resource Inventory mapping • OMNRF Forester, Ecologist or Biologist • Field Local naturalist clubs • Conservation Authorities • Sustainable Forestry License (SFL) companies will possibly know locations through field operations. • Municipal forestry departments	Field Studies will determine: • If dominant trees species of the ecosite are >140 years old, then stand is Significant Wildlife Habitat ^{cxlviii} • The stand will have experienced no recognizable forestry activities ^{cxlviii} • The area of Forest Ecosites combined to make up the stand is the SWH. • Determine ELC Vegetation Type for forest stand ^{lxviii} • SWHDSS ^{cxlix} Index #23 provides development effects and mitigation measures.	Old growth forest is not present within the study area. Not SWH
Tallgrass Prairie					
Tallgrass Prairies are extremely rare habitats in Ontario.	TPO1 TPO2	A Tallgrass Prairie has ground cover dominated by prairie grasses. An open Tallgrass Prairie habitat has < 25% tree cover.	• No minimum size to site Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH. <u>Information Sources</u> • OMNR Districts • Natural Heritage Information Center (NHIC) has location information available on their website • Field naturalists clubs • Conservation Authorities	Field studies confirm one or more of the Prairie indicator species listed in ^{lxv} Appendix N should be present. Note: Prairie plant spp. list from Ecoregion 6E should be used ^{cxlviii} . • Area of the ELC Ecosite is the SWH • Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics). • SWHMiST ^{cxlix} Index #19 provides development effects and mitigation measures.	Tallgrass prairie is not present within the study area. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 2. Characteristics of Rare Vegetation Communities

Rationale	Candidate SWH			Confirmed SWH	Study Area
	ELC Ecosite Codes	Habitat Description	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Savannah					
Savannahs are extremely rare habitats in Ontario.	TPS1 TPS2 TPW1 TPW2 CUS2	A Savannah is a tallgrass prairie habitat that has tree cover between 25 – 60%.	- No minimum size to site - Site must be restored or a natural site. Remnant sites such as railway right of ways are not considered to be SWH. <u>Information Sources</u> - Natural Heritage Information Center (NHIC) has location information on their website - OMNRF Ecologists - Field naturalists clubs - Conservation Authorities	Field studies confirm one or more of the Savannah indicator species listed in^{xxxv} Appendix N should be present. Note: Savannah plant spp. list from Ecoregion 6E should be used^{cxlviii}. - Area of the ELC Ecosite is the SWH. - Site must not be dominated by exotic or introduced species (<50% vegetative cover exotics sp.). - SWHMiST^{cxlix} Index #18 provides development effects and mitigation measures.	
Other Rare Vegetation Communities					
Plant communities that often contain rare species which depend on the habitat for survival.	Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG ^{cxlviii} . Any ELC Ecosite Code that has a possible ELC Vegetation Type that is Provincially Rare is Candidate SWH.	Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.	ELC Ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in appendix M^{cxlviii} The OMNR/NHIC will have up to date listing for rare vegetation communities. <u>Information Sources</u> - Natural Heritage Information Center (NHIC) has location information available on their website - OMNRF Districts - Field naturalists clubs - Conservation Authorities	Field studies should confirm if an ELC Vegetation Type is a rare vegetation community based on listing within Appendix M of SWHTG^{cxlviii}. - Area of the ELC Vegetation Type polygon is the SWH. - SWHMiST^{cxlix} Index #37 provides development effects and mitigation measures.	Other rare vegetation communities are not expected to be present in the study area. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Waterfowl Nesting Area					
Important to local waterfowl populations, sites with greatest number of species and highest number of individuals are significant.	American Black Duck Northern Pintail Northern Shoveler Gadwall Blue-winged Teal Green-winged Teal Wood Duck Hooded Merganser Mallard	All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 SWT1 SWT2 SWD1 SWD2 SWD3 SWD4 Note: includes adjacency to Provincially Significant Wetlands	A waterfowl nesting area extends 120m ^{cxlix} from a wetland (> 0.5 ha) or a wetland (>0.5ha) and any small wetlands (0.5ha) within 120m or a cluster of 3 or more small (<0.5 ha) wetlands within 120m of each individual wetland where waterfowl nesting is known to occur ^{cxlix} . • Upland areas should be at least 120m wide so that predators such as raccoons, skunks, and foxes have difficulty finding nests. • Wood Ducks and Hooded Mergansers utilize large diameter trees (>40cm dbh) in woodlands for cavity nest sites. <u>Information Sources</u> • Ducks Unlimited staff may know the locations of particularly productive nesting sites. • OMNRF Wetland Evaluations for indication of significant waterfowl nesting habitat. • Reports and other information available from CAs	Studies confirmed: • Presence of 3 or more nesting pairs for listed species excluding Mallards, or • Presence of 10 or more nesting pairs for listed species including Mallards. • Any active nesting site of an American Black Duck is considered significant. • Nesting studies should be completed during the spring breeding season (April - June). Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects" ^{ccxi} • A field study confirming waterfowl nesting habitat will determine the boundary of the waterfowl nesting habitat for the SWH, this may be greater or less than 120m ^{cxlviii} from the wetland and will provide enough habitat for waterfowl to successfully nest. • SWHMiST ^{cxlix} Index #25 provides development effects and mitigation measures.	The study area contains upland habitat adjacent to wetland that may be used as waterfowl nesting habitat. Candidate SWH
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat					
Nest sites are fairly uncommon in Eco-region 6E are used annually by these species. Many suitable nesting locations may be lost due to increasing shoreline development pressures and scarcity of habitat.	Osprey <u>Special Concern:</u> Bald Eagle	ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM and SWC directly adjacent to riparian areas – rivers, lakes, ponds and wetlands	• Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water. • Osprey nests are usually at the top a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree's canopy. • Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and constructed nesting platforms).	Studies confirm the use of these nests by: • One or more active Osprey or Bald Eagle nests in an area ^{cxlviii} . • Some species have more than one nest in a given area and priority is given to the primary nest with alternate nests included within the area of the SWH. • For an Osprey, the active nest and a 300m radius around the nest or the contiguous woodland stand is the	Suitable habitat for these species is not present within the study area. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			<u>Information Sources</u> • Natural Heritage Information Center (NHIC) compiles all known nesting sites for Bald Eagles in Ontario. • MNRF values information (LIO/NRVIS) will list known nesting locations. Note: data from NRVIS is provided as a point and does not represent all the habitat. • Nature Counts, Ontario Nest Records Scheme data. • OMNRF Districts • Sustainable Forestry License (SFL) companies will identify additional nesting locations through field operations. • Check the Ontario Breeding Bird Atlas^{ccv} or Rare Breeding Birds in Ontario for species documented • Reports and other information available from CAs. • Field naturalists clubs	SWH ^{ccvii} , maintaining undisturbed shorelines with large trees within this area is important ^{cxlviii} . • For a Bald Eagle the active nest and a 400-800m radius around the nest is the SWH^{ccvi}, ccvii. Area of the habitat from 400-800m is dependent on site lines from the nest to the development and inclusion of perching and foraging habitat^{ccvi}. • To be significant a site must be used annually. When found inactive, the site must be known to be inactive for >3 years or suspected of not being used for >5 years before being considered not significant^{ccvii} • Observational studies to determine nest site use, perching sites and foraging areas need to be done from mid March to mid August. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects"^{cccxi} • SWHMiST^{cxlix} Index #26 provides development effects and mitigation measures	
Woodland Raptor Nesting Habitat					
Nests sites for these species are rarely identified; these area sensitive habitats and are often used annually by these species.	Northern Goshawk Cooper's Hawk Sharp-shinned Hawk Red-shouldered Hawk Barred Owl Broad-winged Hawk	May be found in all forested ELC Ecosites. May also be found in SWC, SWM, SWD and CUP3.	All natural or conifer plantation woodland/forest stands >30ha with >10ha of interior habitat ^{bxxviii, lxxxix, xc, xci, xciii, xciv, xcv, xcvi, cxxxiii} . Interior habitat determined with a 200m buffer ^{cxlviii} . • Stick nests found in a variety of intermediate-aged to mature conifer, deciduous or mixed forests within tops or crotches of trees. Species such as Cooper's hawk nest along forest edges sometimes on peninsulas or small off-shore islands. • In disturbed sites, nests may be	Studies confirm: • Presence of 1 or more active nests from species list is considered significant^{cxlviii}. • Red-shouldered Hawk and Northern Goshawk – a 400m radius around the nest or 28ha area of habitat is the SWH^{ccvii}. • Barred Owl – a 200m radius around the nest is the SWH^{ccvii}. • Broad-winged Hawk and Coopers Hawk – a 100m radius around the nest is the SWH^{ccvii}. • Sharp-shinned Hawk – a 50m radius around the nest is the	Forested habitat within the study area is too small to support this habitat function. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			used again, or a new nest will be in close proximity to old nest. <u>Information Sources</u> • OMNRF • Check the Ontario Breeding Bird Atlas ^{ccv} or Rare Breeding Birds in Ontario for species documented. • Check data from Bird Studies Canada • Reports and other information available from CAs	SWH ^{ccvii} . • Conduct field investigations from mid-March to end of May. The use of call broadcasts can help in locating territorial (courting/nesting) raptors and facilitate the discovery of nests by narrowing down the search area. • SWHMiST ^{cdix} Index #27 provides development effects and mitigation measures.	
Turtle Nesting Areas					
These habitats are rare and when identified will often be the only breeding site for local populations of turtles	Midland Painted Turtle <u>Special Concern:</u> Northern Map Turtle Snapping Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100m) ^{cdviii} or within the following ELC Ecosites: MAS1 MAS2 MAS3 SAS1 SAM1 SAF1 BOO1 FEO1	• Best nesting habitat for turtles are close to water and away from roads and sites less prone to loss of eggs by predation from skunks, raccoons or other animals. • For an area to function as a turtle-nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas. Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH. • Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used. <u>Information Sources</u> • Use Ontario Soil Survey reports and maps to help find suitable substrate for nesting turtles (well-drained sands and fine gravels). • Check the Ontario Herpetofaunal Summary Atlas records or other similar atlases for uncommon turtles; location information may help to find potential nesting habitat for them. • Natural Heritage Information Center (NHIC)	Studies confirm: • Presence of 5 or more nesting Midland Painted Turtles • One or more Northern Map Turtle or Snapping Turtle nesting is a SWH ⁱ • The area or collection of sites within an area of exposed mineral soils where the turtles nest, plus a radius of 30-100m around the nesting area dependent on slope, riparian vegetation and adjacent land use is the SWH ^{cdviii} . • Travel routes from wetland to nesting area are to be considered within the SWH ^{cdix} . • Field investigations should be conducted in prime nesting season typically late spring to early summer. Observational studies observing the turtles nesting is a recommended method. • SWHMiST ^{cdix} Index #28 provides development effects and mitigation measures for turtle nesting habitat.	Suitable nesting habitat may occur adjacent to wetland areas in the study area where suitable soil substrates exist. Candidate SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			Field Naturalist clubs and landowners		
Seeps and Springs					
Seeps/Springs are typical of headwater areas and are often at the source of coldwater streams.	Wild Turkey Ruffed Grouse Spruce Grouse White-tailed Deer Salamander spp.	Seeps/Springs are areas where ground water comes to the surface. Often they are found within headwater areas within forested habitats. Any forested Ecosite within the headwater areas of a stream could have seeps/springs.	Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream or river system^{cxvii, cxlix}. - Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species^{cxix, cxx, cxdi, cxxii, cxiii, cxiv} <u>Information Sources</u> - Topographical Map - Thermography - Hydrological surveys conducted by CAs and MOE - Field naturalists clubs and landowners - Municipalities and Conservation Authorities may have drainage maps and headwater areas mapped.	Field Studies confirm: - Presence of a site with 2 or more seeps/springs should be considered SWH. - The area of a ELC forest ecosite containing the seeps/springs is the SWH. The protection of the recharge area considering the slope, vegetation, height of trees and groundwater condition need to be considered in delineation the habitat^{cxviii} - SWHMiST^{cxlix} Index #30 provides development effects and mitigation measures	The study area does not fall within a headwaters area. Not SWH
Wildlife Habitat: Amphibian Breeding Habitat (Woodland)					
These habitats are extremely important to amphibian biodiversity within a landscape and often represent the only breeding habitat for local amphibian populations.	Eastern Newt Blue-spotted Salamander Spotted Salamander Gray Treefrog Spring Peeper Western Chorus Frog Wood Frog	All Ecosites associated with these ELC Community Series: FOC FOM FOD SWC SWM SWD Breeding pools within the woodland or the shortest distance from forest habitat are more significant because they are more likely to be used due to reduced risk to migrating amphibians.	- Presence of a wetland, pond or woodland pool (including vernal pools) >500m² (about 25m diameter) ^{ccvii} within or adjacent (within 120m) to a woodland (no minimum size)^{clxxxii, lxiii, lxv, lxvi, lxvii, lxviii, lxix, lxx} Some small wetlands may not be mapped and may be important breeding pools for amphibians. - Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat^{cxlviii} <u>Information Sources</u> - Ontario Herpetofaunal Summary Atlas (or other similar atlases) for records - Local landowners may also	Studies confirm: - Presence of breeding population of 1 or more of the listed newt/salamander species or 2 or more of the listed frog species with at least 20 individuals (adults or eggs masses)^{lxxi} or 2 or more of the listed frog species with Call Level Codes of 3. - A combination of observational study and call count surveys^{cviii} will be required during the spring March-June when amphibians are concentrated around suitable breeding habitat within or near the woodland/wetlands. - The habitat is the woodland area plus a 230m radius of woodland area^{lxiii, lxv, lxvi, lxvii, lxviii, lxix}	The study area contains small riparian wetland located near woodland that may support amphibian breeding activities. Candidate SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			provide assistance as they may hear spring-time choruses of amphibians on their property. • OMNRF District • OMNRF wetland evaluations • Field naturalist clubs • Canadian Wildlife Service Amphibian Road Call Survey • Ontario Vernal Pool Association: http://www.ontariovernalpools.org	^{bxx, bxxi} if a wetland area is adjacent to a woodland, a travel corridor connecting the wetland to the woodland is the be included in the habitat. • SWHMiST^{cxlix} Index #14 provides development effects and mitigation measures.	
Wildlife Habitat: Amphibian Breeding Habitat (Wetland)					
These habitats are extremely important to amphibian biodiversity within a landscape and often represent the only breeding habitat for local amphibian populations	Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Tree Frog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	ELC Community Classes SW, MA, FE, BO, OA and SA. Typically these wetland ecosites will be isolated (>120m) from woodland ecosites, however larger wetlands containing predominantly aquatic species (e.g. Bull Frog) may be adjacent to woodlands.	• Wetlands >500m² (about 25m diameter)^{cxvii} supporting high species diversity are significant; some small or ephemeral habitats may not be identified on MNR mapping and could be important amphibian breeding habitats^{cbxxiv}. • Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators. • Bullfrogs require permanent water bodies with abundant emergent vegetation. <u>Information Sources</u> • Ontario Herpetofaunal Summary Atlas (or other similar atlases) • Canadian Wildlife Service Amphibian Road Surveys and Backyard Amphibian Call Count. • OMNRF Districts and wetland evaluations • Reports and other information available from CAs.	Studies confirm: • Presence of breeding population of 1 or more of the listed newt/salamander species or 2 or more of the listed frog/toad species and with at least 20 -individuals (adults or eggs masses)^{bxxi, bxxiii}, or 2 or more of the listed frog/toad species with Call Level Codes of 3. or; Wetland with confirmed breeding Bullfrogs are significant. • The ELC ecosite wetland area and the shoreline are the SWH. • A combination of observational study and call count surveys^{cxviii} will be required during spring March to June) when amphibians are concentrated around suitable breeding habitat within or near the wetlands. • If a SWH is determined for Amphibian Breeding Habitat (Wetlands) then Movement Corridors are to be considered as outlined in Table 1.4.1 of this Schedule. • SWHMiST^{cxlix} Index #15 provides development effects and mitigation measures.	Large or isolated wetland features are not present within the study area. Not SWH
Woodland Area-Sensitive Bird Breeding Habitat					
Large, natural blocks of mature woodland habitat	Yellow-Bellied Sapsucker Red-breasted Nuthatch Veery	All Ecosites associated with these ELC Community Series:	• Habitats where interior forest breeding birds are breeding, typically large mature (>60 yrs	• Presence of nesting or breeding pairs of 3 or more of the listed wildlife species.	Woodland within the study area is too small to support this habitat function. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 3. Characteristics of Specialized Wildlife Habitat

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
within the settled areas of Southern Ontario are important habitats for area sensitive interior forest song birds.	Blue-headed Vireo Northern Parula Black-throated Green Warbler Blackburnian Warbler Black-throated Blue Warbler Ovenbird Scarlet Tanager Winter Wren Special Concern: Cerulean Warbler Canada Warbler	FOC FOM FOD SWC SWM SWD	old) forest stands or woodlots >30 ha. cv, cxood, cxxxii, cxxxiii, cxxxiv, cxov, cxovi, cxxxvii, cxxxviii, cxxxix, cxi, cxli, cxlii, cxliii, cxliv, cxlv, cxlvi, cli, clii, cliii, cliv, clv, clvi, clvii, clviii, clix • Interior forest habitats are at least 200m from forest edge habitat. Information Sources • Local bird clubs • Canadian Wildlife Service (CWS) for the location of forest bird monitoring. • Bird studies Canada conducted a 3-year study of 287 woodlands to determine the effects of forest fragmentation on forest birds and to greatest value to interior species • Reports and other information available from CAs.	• Note: any site with breeding Cerulean Warblers or Canada Warblers is to be considered SWH. • Conduct field investigations in spring and early summer when birds are singing and defending their territories. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects" ccxi • SWHMiST ^{cxlix} Index #34 provides development effects and mitigation measures.	

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 4. Characteristics of Habitat for Species of Conservation Concern

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Marsh Bird Breeding Habitat					
Wetlands for these bird species are typically productive and fairly rare in Southern Ontario landscapes.	American Bittern Virginia Rail Sora Common Gallinule American Coot Pied-billed Grebe Marsh Wren Sedge Wren Common Loon Sandhill Crane Green Heron Trumpeter Swan <u>Special Concern:</u> Black Tern Yellow Rail	MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 SAS1 SAM1 SAF1 FEO1 BOO1 For Green Heron: All SW, MA and CUM1 sites.	- Nesting occurs in wetlands - All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present^{ccxiv}. - For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees. Less frequently, it may be found in upland shrubs or forest a considerable distance from water. <u>Information Sources</u> - Contact OMNRF, wetland evaluations are a good source of information. - Field naturalist clubs - Natural Heritage Information Center (NHIC) Records - Reports and other information available from CAs. - Ontario Breeding Bird Atlas^{ccv}	Studies confirm: - Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren or 1 pair of Sandhill Cranes; or breeding by any combination of 5 or more of the listed species^l. - Note: any wetland with breeding of 1 or more Black Terns, Trumpeter Swan, Green Heron or Yellow Rail is SWH^l. - Area of the ELC ecosite is the SWH - Breeding surveys should be done in May/June when these species are actively nesting in wetland habitats. - Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”^{ccxi}. - SWHMIST^{cxlix} Index #35 provides development effects and mitigation measures	Riparian meadow marsh may be present within the study area but is too small to support habitat for the indicator species. Not SWH
Open Country Bird Breeding Habitat					
This wildlife habitat is declining throughout Ontario and North America. Species such as the Upland Sandpiper have declined significantly the past 40 years based on CWS (2004) trend records.	Upland Sandpiper Grasshopper Sparrow Vesper Sparrow Northern Harrier Savannah Sparrow <u>Special Concern:</u> Short-eared Owl	CUM1 CUM2	Large grassland areas (includes natural and cultural fields and meadows) >30 ha^{clx, cxli, cxlii, cxliii, cxliv, cxlv, cxlvi, cxlvii, cxlviii, cxlix}. Grasslands not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e. no row cropping or intensive hay or livestock pasturing in the last 5 years)^l. Grassland sites considered significant should have a history of longevity, either abandoned fields, mature hayfields and pasturelands that are at least 5 years or older. The Indicator bird species are area sensitive requiring larger grassland areas than the common	Field Studies confirm: - Presence of nesting or breeding of 2 or more of the listed species. - A field with 1 or more breeding Short-eared Owl is to be considered SWH. - The area of SWH is the contiguous ELC ecosite field areas. - Conduct field investigations of the most likely areas in spring and early summer when birds are singing and defending their territories. - Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”^{ccxi}.	Meadow habitat within the study area is too small to support significant habitat function. Not SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 4. Characteristics of Habitat for Species of Conservation Concern

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
			grassland species. <u>Information Sources</u> • Agricultural land classification maps, Ministry of Agriculture. • Ask local birders • Ontario Breeding Bird Atlas ^{ccv} • Reports and other information available from CAs.	• SWHMiST ^{cxlix} Index #32 provides development effects and mitigation measures.	
Shrub/Early Successional Bird Breeding Habitat					
This wildlife habitat is declining throughout Ontario and North America. The Brown Thrasher has declined significantly over the past 40 years based on CWS (2004) trend records cxcix.	<u>Indicator spp.:</u> Brown Thrasher Clay-coloured Sparrow <u>Common spp.:</u> Field Sparrow Black-billed Cuckoo Eastern Towhee Willow Flycatcher <u>Special Concern:</u> Yellow-breasted Chat Golden-winged Warbler	CUT1 CUT2 CUS1 CUS2 CUW1 CUW2 Patches of shrub ecosites can be complexed into a larger habitat for some bird species.	Large field areas succeeding to shrub and thicket habitats > 10ha ^{clxiv} in size. • Shrub land or early successional fields, not class 1 or 2 agricultural lands, not being actively used for farming (i.e. no row-cropping, haying or live-stock pasturing in the last 5 years) ^l . Shrub thicket habitats (>10 ha) are most likely to support and sustain a diversity of these species ^{clxxiii} . Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or pasturelands. <u>Information Sources</u> • Agricultural land classification maps Ministry of Agriculture Local bird clubs • Ontario Breeding Bird Atlas ^{ccv} • Reports and other information available from CAs	Field Studies confirm: • Presence of nesting or breeding of 1 of the indicator species and at least 2 of the common species ^l . • A field with breeding Yellow-breasted Chat or Golden-winged Warbler is to be considered as Significant Wildlife Habitat. • The area of the SWH is the contiguous ELC ecosite field/thicket area. • Conduct field investigations of the most likely areas in spring and early summer when birds are singing and defending their territories • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects" ^{ccxi} • SWHMiST ^{cxlix} Index #33 provides development effects and mitigation measures.	Early successional habitat types within the study area are too small to support significant habitat function. Not SWH
Terrestrial Crayfish					
Terrestrial Crayfish are only found within SW Ontario in Canada and their habitats are very rare. ^{ccii}	Chimney or Digger Crayfish: (<i>Fallicambarus fodiens</i>) Devil Crawfish or Meadow Crayfish: (<i>Cambarus Diogenes</i>)	MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 MAS1 MAS2 MAS3 SWD	Wet meadow and edges of shallow marshes (no minimum size) identified should be surveyed for terrestrial crayfish. • Constructs burrows in marshes, mudflats, meadows, the ground can't be too moist. Can often be found far from water. • Both species are a semi-terrestrial burrower which spends	Studies Confirm: • Presence of 1 or more individuals of species listed or their chimneys (burrows) in suitable marsh meadow or terrestrial sites ^{ccj} • Area of ELC Ecosite or an ecoelement area of meadow marsh or swamp within the larger ecosite area is the SWH	Terrestrial crayfish may occur within areas in or around riparian meadow marsh in the study area. Candidate SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 4. Characteristics of Habitat for Species of Conservation Concern

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
		SWT SWM	most of its life within burrows consisting of a network of tunnels. Usually the soil is not too moist so that the tunnel is well formed. Information Sources • Information sources from "Conservation Status of Freshwater Crayfishes" by Dr. Premek Hamr for the WWF and CNF March 1998	• Surveys should be done April to August during in temporary or permanent water. Note the presence of burrows or chemistry are often the only indicator of presence, observance or collection of individuals is very difficult^{cc1} • SWHMiST^{cxlix} Index #36 provides development effects and mitigation measures.	
Special Concern and Rare Wildlife Species					
These species are quite rare or have experienced significant population declines in Ontario.	All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species. Lists of these species are tracked by the Natural Heritage Information Centre.	All plant and animal element occurrences (EO) within a 1 or 10km grid. Older element occurrences were recorded prior to GPS being available, therefore location information may lack accuracy.	When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially Rare species; linking candidate habitat on the site needs to be completed to ELC Ecosites^{bxviii}. <u>Information Sources</u> • Natural Heritage Information Centre (NHIC) will have the Special Concern and Provincially Rare (S1-S3, SH) species lists with element occurrences data. • NHIC Website: "Get Information": http://nhic.mnr.gov.on.ca • Ontario Breeding Bird Atlas^{ccv} • Expert advice should be sought as many of the rare spp. have little information available about their requirements.	Studies Confirm: • Assessment/inventory of the site for the identified special concern or rare species needs to be completed during the time of year when the species is present or easily identifiable. • The area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH, this must be delineated through detailed field studies. The habitat needs to be easily mapped and cover an important life stage component for a species e.g. specific nesting habitat or foraging habitat. • SWHMiST^{cxlix} Index #37 provides development effects and mitigation measures.	Multiple Special Concern/rare wildlife species were screened as having potential to occur within the study area. Candidate SWH

Significant Wildlife Habitat Assessment: Ecoregion 6E.

Table 5. Characteristics of Animal Movement Corridors

Rationale	Wildlife Species	Candidate SWH		Confirmed SWH	Study Area
		ELC Ecosite Codes	Habitat Criteria and Information Sources	Defining Criteria	Assessment Details
Amphibian Movement Corridors					
Movement corridors for amphibians moving from their terrestrial habitat to breeding habitat can be extremely important for local populations.	Eastern Newt Blue-spotted Salamander Spotted Salamander Gray Treefrog Spring Peeper Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	Corridors may be found in all ecosites associated with water. • Corridors will be determined based on identifying the significant breeding habitat for these species in Table 1.1.	Movement corridors between breeding habitat and summer habitat ^{cbxiv, cbxv, cbxvi, cbxvii, cbxviii, cbxxix, cbxxx, cbxxxi} . Movement corridors must be determined when Amphibian breeding habitat is confirmed as SWH from Table 1.2.2 (Amphibian Breeding Habitat – Wetland) of this Schedule ^l . <u>Information Sources</u> • MNRF District Office • Natural Heritage Information Center NHIC • Reports and other information available from CAs • Field Naturalist Clubs	• Field Studies must be conducted at the time of year when species are expected to be migrating or entering breeding sites. • Corridors should consist of native vegetation, with several layers of vegetation. Corridors unbroken by roads, waterways or bodies, and undeveloped areas are most significant ^{cxlix} . • Corridors should have at least 15m of vegetation on both sides of waterway ^{cxlix} or be up to 200m wide ^{cxlix} of woodland habitat and with gaps <20m ^{cxlix} . • Shorter corridors are more significant than longer corridors, however amphibians must be able to get to and from their summer and breeding habitat ^{cxlix} . • SWHMiST ^{cxlix} Index #40 provides development effects and mitigation measures.	Significant amphibian movement corridor habitat is not present within the study area. Not SWH
Deer Movement Corridors					
Corridors important for all species to be able to access seasonally important life-cycle habitats or to access new habitat for dispersing individuals by minimizing their vulnerability while travelling.	White-tailed Deer	Corridors may be found in all forested ecosites. A Project Proposal in Stratum II Deer Wintering Area has potential to contain corridors.	Movement corridor must be determined when Deer Wintering Habitat is confirmed as SWH from Table 1.1 of this schedule ^l . • A deer wintering habitat identified by the OMNRF as SWH in Table 1.1 of this Schedule will have corridors that the deer use during fall migration and spring dispersion ^{cbxxxii, cbxxxiii, cxlix, cxciv} . • Corridors typically follow riparian areas, woodlots, areas of physical geography (ravines, or ridges). <u>Information Sources</u> • MNRF District Office • Natural Heritage Information Center (NHIC) • Reports and other information available from CAs • Field Naturalist Clubs	• Studies must be conducted at the time of year when deer are migrating or moving to and from winter concentration areas. • Corridors that lead to a deer wintering yard should be unbroken by roads and residential areas. • Corridors should be at least 200m wide ^{cxlix} with gaps <20m ^{cxlix} and if following riparian area with at least 15m of vegetation on both sides of waterway ^{cxlix} . Shorter corridors are more significant than longer corridors ^{cxlix} . • SWHMiST ^{cxlix} Index #39 provides development effects and mitigation measures.	Significant deer movement corridor habitat is not present within the study area. Not SWH

Appendix IV

Vascular Flora Species Inventoried within the Study Area

Plant Species Reported from the Study Area - 6404 Mayfield Road, Caledon (Project #3626)

Scientific Name	Common Name	CC	SRANK	PSO	COSEWIC	SARA	SARA Schedule	Peel Region	TRCA	NRSI Observed	H	CUT	CUM	MAM2-2	FOD7	Lawn/Roadside	Cleared/Developed
		Oldham et al. 1995	MNRF 2024a	MECP 2026	Government of Canada 2024	Government of Canada 2024	Government of Canada 2024	Varga 2000	TRCA 2022	NRSI Results From 2025							
Gymnosperms	Conifers																
Cupressaceae	Cypress Family																
<i>Juniperus virginiana</i>	Eastern Red Cedar	4	S5					R5	L5 (L4)	X		X					
<i>Thuja occidentalis</i>	Eastern White Cedar	4	S5					X	L5	X	X					X	
Pinaceae	Pine Family																
<i>Picea abies</i>	Norway Spruce		SE3					X	L+	X			X		X		
<i>Picea glauca</i>	White Spruce	6	S5					R3	L3	X	X	X				X	
Taxaceae	Yew Family																
<i>Taxus canadensis</i>	Canada Yew	7	S4					X	L3	X						X	
Dicotyledons	Dicots																
Aceraceae	Maple Family																
<i>Acer negundo</i>	Manitoba Maple	0	S5					X	L+?	X	X	X	X			X	X
<i>Acer platanoides</i>	Norway Maple		SE5					X	L+	X	X						
<i>Acer saccharum</i>	Sugar Maple	4	S5					X	L5	X							X
Anacardiaceae	Sumac or Cashew Family																
<i>Rhus typhina</i>	Staghorn Sumac	1	S5					X	L5	X	X						X
Apiaceae	Carrot or Parsley Family																
<i>Daucus carota</i>	Wild Carrot		SE5					X	L+	X	X	X	X			X	X
Asclepiadaceae	Milkweed Family																
<i>Asclepias syriaca</i>	Common Milkweed	0	S5					X	L5	X	X	X		X			
<i>Vincetoxicum rossicum</i>	European Swallow-wort		SE5					X	L+	X	X	X					
Asteraceae	Composite or Aster Family																
<i>Ambrosia artemisiifolia</i>	Common Ragweed	0	S5					X	L5	X	X	X	X			X	X
<i>Arctium minus</i>	Common Burdock		SE5					X	L+	X		X					X
<i>Cichorium intybus</i>	Chicory		SE5					X	L+	X	X	X	X				X
<i>Cirsium arvense</i>	Creeping Thistle		SE5					X	L+	X		X	X			X	X
<i>Cirsium vulgare</i>	Bull Thistle		SE5					X	L+	X	X	X					
<i>Erigeron annuus</i>	Annual Fleabane	0	S5					X	L5	X		X	X				X
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	2	S5					X	L5	X		X	X				X
<i>Lactuca serriola</i>	Prickly Lettuce		SE5					X	L+	X	X		X				X
<i>Leucanthemum vulgare</i>	Oxeye Daisy		SE5					X	L+	X	X		X				X
<i>Solidago altissima</i>	Tall Goldenrod	1	S5							X		X	X				
<i>Solidago canadensis</i>	Canada Goldenrod	1	S5					X	L5	X	X	X	X	X	X	X	X
<i>Solidago juncea</i>	Early Goldenrod	3	S5					U	L5	X		X	X			X	
<i>Sonchus oleraceus</i>	Field Sow-thistle		SE5							X	X	X	X				X
<i>Symphyotrichum sp.</i>	Aster sp.									X				X	X		
<i>Symphyotrichum lanceolatum</i>	Panicled Aster	3	S5					X	L5	X	X	X	X			X	
<i>Symphyotrichum lateriflorum</i>	Calico Aster	3	S5							X		X	X				
<i>Symphyotrichum novae-angliae</i>	New England Aster	2	S5					X	L5	X		X	X				
<i>Taraxacum officinale</i>	Common Dandelion		SE5					X	L+	X	X	X	X			X	X
Betulaceae	Birch Family																
<i>Betula papyrifera</i>	Paper Birch	2	S5					X	L4	X						X	
Boraginaceae	Borage Family																
<i>Symphytum officinale</i>	Common Comfrey		SE5					X	L+	X	X	X	X				X
Brassicaceae	Mustard Family																
<i>Alliaria petiolata</i>	Garlic Mustard		SE5					X	L+	X	X						
<i>Capsella bursa-pastoris</i>	Common Shepherd's Purse		SE5					X	L+	X	X	X	X			X	X
Caprifoliaceae	Honeysuckle Family																
<i>Lonicera tatarica</i>	Tatarian Honeysuckle		SE5					X	L+	X	X						
Caryophyllaceae	Pink Family																
<i>Saponaria officinalis</i>	Bouncing-bet		SE5					X	L+	X							X
Chenopodiaceae	Goosefoot Family																
<i>Chenopodium album</i>	White Goosefoot		SE5					X	L+	X	X	X	X				X
Clusiaceae	St. John's-wort Family																
<i>Hypericum perforatum</i>	Common St. John's-wort		SE5					X	L+	X							X
Convolvulaceae	Morning-glory Family																
<i>Convolvulus arvensis</i>	Field Bindweed		SE5					X	L+	X							X
Euphorbiaceae	Spurge Family																
<i>Euphorbia virgata</i>	Russian Leafy Spurge		SE5?					X	L+	X	X	X					
Fabaceae	Pea Family																
<i>Medicago lupulina</i>	Black Medick		SE5					X	L+	X	X	X					
<i>Melilotus albus</i>	White Sweet-clover		SE5					X	L+	X	X	X	X			X	X
<i>Trifolium pratense</i>	Red Clover		SE5					X	L+	X		X	X				X
<i>Trifolium repens</i>	White Clover		SE5					X	L+	X	X						
<i>Vicia cracca</i>	Tufted Vetch		SE5					X	L+	X	X	X	X				X
Juglandaceae	Walnut Family																
<i>Juglans nigra</i>	Black Walnut	5	S4?					X	L5	X	X				X		
Lamiaceae	Mint Family																
<i>Glechoma hederacea</i>	Ground Ivy		SE5					X	L+	X	X					X	X
<i>Leonurus cardiaca</i>	Common Motherwort		SE5						L+	X	X						X

<i>Nepeta cataria</i>	Catnip		SE5					X	L+	X	X						X
<i>Prunella vulgaris</i>	Self-heal	0	S5						L+?	X	X						
Lythraceae	Loosestrife Family																
<i>Lythrum salicaria</i>	Purple Loosestrife		SE5					X	L+	X	X					X	
Oleaceae	Olive Family																
<i>Fraxinus pennsylvanica</i>	Green Ash	3	S4					X	L5	X	X	X	X	X	X	X	
<i>Ligustrum obtusifolium</i>	Border Privet		SE1						L+	X	X						
<i>Syringa vulgaris</i>	Common Lilac		SE5					X	L+	X						X	
Papaveraceae	Poppy Family																
<i>Chelidonium majus</i>	Greater Celandine		SE5					X	L+	X	X	X	X			X	
Polygonaceae	Smartweed Family																
<i>Persicaria maculosa</i>	Spotted Lady's-thumb		SE5					X	L+	X		X					
Portulacaceae	Purslane Family																
<i>Portulaca oleracea</i>	Common Purslane		SE5					X	L+	X							X
Primulaceae	Primrose Family																
<i>Lysimachia arvensis</i>	Scarlet Pimpernel		SE4					X	L+	X							X
Rhamnaceae	Buckthorn Family																
<i>Rhamnus cathartica</i>	Common Buckthorn		SE5					X	L+	X	X	X	X	X	X	X	X
Rosaceae	Rose Family																
<i>Crataegus</i> sp.	Hawthorn sp.									X	X						
<i>Rubus idaeus</i> ssp. <i>idaeus</i>	Common Red Raspberry		SE1						L+	X	X						
Rubiaceae	Madder Family																
<i>Galium aparine</i>	Cleavers	4	S5					R4	L5	X	X						
Salicaceae	Willow Family																
<i>Populus tremuloides</i>	Trembling Aspen	2	S5					X	L5	X						X	
<i>Salix</i> sp.	Willow sp.									X			X				X
<i>Salix x fragilis</i>	(<i>Salix alba</i> X <i>Salix euxina</i>)		SNA					X	L+	X							X
Scrophulariaceae	Figwort Family																
<i>Linaria vulgaris</i>	Butter-and-eggs		SE5					X	L+	X	X		X				X
Solanaceae	Nightshade Family																
<i>Solanum emulans</i>	Eastern Black Nightshade	1	S5					X	L5	X							X
Tiliaceae	Linden Family																
<i>Tilia americana</i>	American Basswood	4	S5					X	L5	X							X
Ulmaceae	Elm Family																
<i>Ulmus americana</i>	American Elm	3	S5					X	L5	X	X	X					X
<i>Ulmus pumila</i>	Siberian Elm		SE3					X	L+	X	X	X		X	X	X	
Urticaceae	Nettle Family																
<i>Urtica dioica</i>	Stinging Nettle		SE2							X	X						
Vitaceae	Grape Family																
<i>Parthenocissus vitacea</i>	Thicket Creeper	4	S5					X	L5	X	X	X	X				X
<i>Vitis riparia</i>	Riverbank Grape	0	S5					X	L5	X	X	X	X				
Monocotyledons	Monocots																
Cyperaceae	Sedge Family																
<i>Cyperus esculentus</i>	Perennial Yellow Flatsedge	1	S5					X	L+?	X	X						
Poaceae	Grass Family																
<i>Bromus inermis</i>	Smooth Brome		SE5					X	L+	X	X	X	X			X	X
<i>Panicum capillare</i>	Common Panicgrass	0	S5					X	L5	X	X		X				X
<i>Phalaris arundinacea</i>	Reed Canary Grass	0	S5					X	L+?	X			X	X	X	X	
<i>Phragmites australis</i>	Common Reed	0	SU					X		X						X	
<i>Poa pratensis</i>	Kentucky Bluegrass	0	S5							X		X	X			X	X
<i>Setaria viridis</i>	Green Foxtail		SE5					X	L+	X	X						
Total										80	50	38	35	7	8	26	40

*NHIC Atlas Square: 17PJ0050

References

Oldham, M.J., W.D. Bakowsky and D.A. Sutherland. 1995. Floristic quality assessment for southern Ontario. OMNR, Natural Heritage Information Centre, Peterborough. 68 pp.

Ministry of Natural Resources and Forestry (MNR). 2024a. Natural Heritage Information Centre (NHIC): Species List for Ontario. Published: 2014-07-17. All Species List Updated: 2024-12-02. Available: <https://www.ontario.ca/page/get-natural-heritage-information>

Ministry of the Environment, Conservation, and Parks (MECP). 2026. Species at Risk in Ontario. Published: 2018-07-12. Updated: 2026-03-31. Available: <https://www.ontario.ca/page/species-risk-ontario>

Government of Canada. 2024. Species at Risk Public Registry: Species Search. COSEWIC Last Assessment Date: 2024-11-30. Available: <https://species-registry.canada.ca/index-en.html#/species?sortBy=commonNameSort&sortDirection=asc&pageSize=10>

Varga, S., editor. August 2000. Distribution and status of the vascular plants of the Greater Toronto Area. Ontario Ministry of Natural Resources, Aurora District. 103 pp.

Toronto and Region Conservation Authority (TRCA). 2022. Flora Ranks and Scores for the TRCA Jurisdiction, 2022.

Appendix V

Bird Species Reported from the Study Area and Vicinity

Bird Species Reported from the Study Area - 6404 Mayfield Road, Caledon (Project #3626)

Scientific Name	Common Name	SRANK	PSO	COSEWIC	SARA	SARA Schedule	OBBA*	NRSI Observed: Highest Level of Breeding Evidence
		MNRF 2024a	MECP 2026	Government of Canada 2025	Government of Canada 2024	Government of Canada 2024	BSC et al. 2006	NRSI Results from 2026
Anatidae	Ducks, Geese & Swans							
<i>Aix sponsa</i>	Wood Duck	S5B,S3N					CO	
<i>Anas platyrhynchos</i>	Mallard	S5					CO	
<i>Branta canadensis</i>	Canada Goose	S5					PR	OB
Phasianidae	Partridges, Grouse & Turkeys							
<i>Bonasa umbellus</i>	Ruffed Grouse	S5					CO	
<i>Meleagris gallopavo</i>	Wild Turkey	S5					CO	
Columbidae	Pigeons & Doves							
<i>Columba livia</i>	Rock Pigeon	SNA					CO	
<i>Zenaida macroura</i>	Mourning Dove	S5					CO	
Cuculiformes	Cuckoos & Anis							
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	S4B					CO	
<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo	S4S5B					CO	
Caprimulgidae	Goatsuckers							
<i>Chordeiles minor</i>	Common Nighthawk	S4B		SC	SC	Schedule 1	PR	
Apodidae	Swifts							
<i>Chaetura pelagica</i>	Chimney Swift	S3B		T	T	Schedule 1	PO	
Trochilidae	Hummingbirds							
<i>Archilochus colubris</i>	Ruby-throated Hummingbird	S5B					PR	
Rallidae	Rails, Gallinules & Coots							
<i>Porzana carolina</i>	Sora	S5B					PO	
<i>Rallus limicola</i>	Virginia Rail	S4S5B					PR	
Charadriidae	Plovers & Lapwings							
<i>Charadrius vociferus</i>	Killdeer	S4B					CO	
Scolopacidae	Sandpipers & Allies							
<i>Actitis macularius</i>	Spotted Sandpiper	S5B					CO	
<i>Bartramia longicauda</i>	Upland Sandpiper	S2B					CO	
<i>Gallinago delicata</i>	Wilson's Snipe	S5B					PR	
<i>Scolopax minor</i>	American Woodcock	S4B					PO	
Ardeidae	Herons & Bitterns							
<i>Butorides virescens</i>	Green Heron	S4B					PR	
Cathartidae	Vultures							
<i>Cathartes aura</i>	Turkey Vulture	S5B,S3N					PR	

Accipitridae	Hawks, Kites, Eagles & Allies							
<i>Accipiter cooperii</i>	Cooper's Hawk	S4		NAR	NS	No schedule	PR	
<i>Accipiter striatus</i>	Sharp-shinned Hawk	S5		NAR	NS	No schedule	CO	
<i>Buteo jamaicensis</i>	Red-tailed Hawk	S5		NAR	NS	No schedule	CO	
<i>Circus hudsonius</i>	Northern Harrier	S5B,S4N		NAR	NS	No schedule	PO	
Strigidae	Typical Owls							
<i>Aegolius acadicus</i>	Northern Saw-whet Owl	S5					PR	
<i>Bubo virginianus</i>	Great Horned Owl	S4					CO	
<i>Megascops asio</i>	Eastern Screech-Owl	S4		NAR	NS	No schedule	CO	
Alcedinidae	Kingfishers							
<i>Megasceryle alcyon</i>	Belted Kingfisher	S5B,S4N					CO	
Picidae	Woodpeckers							
<i>Colaptes auratus</i>	Northern Flicker	S5					CO	
<i>Dryobates pubescens</i>	Downy Woodpecker	S5					CO	
<i>Dryobates villosus</i>	Hairy Woodpecker	S5					CO	
<i>Dryocopus pileatus</i>	Pileated Woodpecker	S5					CO	
<i>Sphyrapicus varius</i>	Yellow-bellied Sapsucker	S5B,S3N					PO	
Falconidae	Caracaras & Falcons							
<i>Falco sparverius</i>	American Kestrel	S4					PR	
Tyrannidae	Tyrant Flycatchers							
<i>Contopus virens</i>	Eastern Wood-Pewee	S4B		SC	SC	Schedule 1	PR	
<i>Empidonax alnorum</i>	Alder Flycatcher	S5B					PR	
<i>Empidonax minimus</i>	Least Flycatcher	S5B					PR	
<i>Empidonax traillii</i>	Willow Flycatcher	S4B					PR	
<i>Empidonax virescens</i>	Acadian Flycatcher	S1B		E	E	Schedule 1	PO	
<i>Myiarchus crinitus</i>	Great Crested Flycatcher	S5B					CO	
<i>Sayornis phoebe</i>	Eastern Phoebe	S5B					CO	
<i>Tyrannus tyrannus</i>	Eastern Kingbird	S4B					CO	
Vireonidae	Vireos							
<i>Vireo gilvus</i>	Warbling Vireo	S5B					PO	
<i>Vireo olivaceus</i>	Red-eyed Vireo	S5B					CO	
Corvidae	Crows & Jays							
<i>Corvus brachyrhynchos</i>	American Crow	S5					CO	OB
<i>Cyanocitta cristata</i>	Blue Jay	S5					CO	OB
Alaudidae	Larks							
<i>Eremophila alpestris</i>	Horned Lark	S4					CO	
Hirundinidae	Swallows							
<i>Hirundo rustica</i>	Barn Swallow	S4B		SC	T	Schedule 1	CO	OB
<i>Petrochelidon pyrrhonota</i>	Cliff Swallow	S4S5B					CO	
<i>Riparia riparia</i>	Bank Swallow	S4B		T	T	Schedule 1	CO	
<i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow	S4B					PR	
<i>Tachycineta bicolor</i>	Tree Swallow	S4S5B					CO	
Paridae	Chickadees & Titmice							
<i>Poecile atricapillus</i>	Black-capped Chickadee	S5					CO	

Sittidae	Nuthatches							
<i>Sitta carolinensis</i>	White-breasted Nuthatch	S5					CO	
Certhiidae	Creepers							
<i>Certhia americana</i>	Brown Creeper	S5					PO	
Troglodytidae	Wrens							
<i>Troglodytes aedon</i>	House Wren	S5B					CO	
<i>Troglodytes hiemalis</i>	Winter Wren	S5B,S4N					PO	
Regulidae	Kinglets							
<i>Regulus satrapa</i>	Golden-crowned Kinglet	S5					PO	
Turdidae	Thrushes							
<i>Catharus fuscescens</i>	Veery	S5B					PR	
<i>Hylocichla mustelina</i>	Wood Thrush	S4B		T	T	Schedule 1	PR	
<i>Sialia sialis</i>	Eastern Bluebird	S5B,S4N		NAR	NS	No schedule	CO	
<i>Turdus migratorius</i>	American Robin	S5					CO	
Mimidae	Mockingbirds, Thrashers & Allies							
<i>Dumetella carolinensis</i>	Gray Catbird	S5B,S3N					CO	
<i>Mimus polyglottos</i>	Northern Mockingbird	S4					CO	
<i>Toxostoma rufum</i>	Brown Thrasher	S4B					CO	
Sturnidae	Starlings							
<i>Sturnus vulgaris</i>	European Starling	SNA					CO	
Bombycillidae	Waxwings							
<i>Bombycilla cedrorum</i>	Cedar Waxwing	S5					CO	
Passeridae	Old World Sparrows							
<i>Passer domesticus</i>	House Sparrow	SNA					CO	
Fringillidae	Finches & Allies							
<i>Haemorhous mexicanus</i>	House Finch	SNA					PR	
<i>Spinus tristis</i>	American Goldfinch	S5					CO	
Passerellidae	New World Sparrows & Allies							
<i>Melospiza melodia</i>	Song Sparrow	S5					CO	
<i>Passerculus sandwichensis</i>	Savannah Sparrow	S5B,S3N					CO	
<i>Pipilo erythrophthalmus</i>	Eastern Towhee	S4B,S3N					PR	
<i>Poocetes gramineus</i>	Vesper Sparrow	S4B					PR	
<i>Spizella pallida</i>	Clay-colored Sparrow	S4B					PR	
<i>Spizella passerina</i>	Chipping Sparrow	S5B,S3N					CO	
<i>Spizella pusilla</i>	Field Sparrow	S4B,S3N					PR	
<i>Spizelloides arborea</i>	American Tree Sparrow	S5						OB
Icteridae	Troupials & Allies							
<i>Agelaius phoeniceus</i>	Red-winged Blackbird	S5					CO	
<i>Dolichonyx oryzivorus</i>	Bobolink	S4B		SC	T	Schedule 1	CO	
<i>Icterus galbula</i>	Baltimore Oriole	S4B					CO	
<i>Icterus spurius</i>	Orchard Oriole	S4B					CO	
<i>Molothrus ater</i>	Brown-headed Cowbird	S5					CO	
<i>Quiscalus quiscula</i>	Common Grackle	S5					CO	
<i>Sturnella magna</i>	Eastern Meadowlark	S4B,S3N		T	T	Schedule 1	CO	

Parulidae	Wood Warblers							
<i>Geothlypis philadelphia</i>	Mourning Warbler	S5B					CO	
<i>Geothlypis trichas</i>	Common Yellowthroat	S5B,S3N					CO	
<i>Leiothlypis ruficapilla</i>	Nashville Warbler	S5B					PO	
<i>Mniotilta varia</i>	Black-and-white Warbler	S5B					PO	
<i>Parkesia noveboracensis</i>	Northern Waterthrush	S5B					PR	
<i>Seiurus aurocapilla</i>	Ovenbird	S5B					PR	
<i>Setophaga petechia</i>	Yellow Warbler	S5B					CO	
<i>Setophaga pinus</i>	Pine Warbler	S5B,S3N					PR	
<i>Setophaga ruticilla</i>	American Redstart	S5B					CO	
<i>Setophaga virens</i>	Black-throated Green Warbler	S5B					CO	
<i>Vermivora cyanoptera</i>	Blue-winged Warbler	S4B					PO	
Cardinalidae	Cardinals, Grosbeaks & Allies							
<i>Cardinalis cardinalis</i>	Northern Cardinal	S5					CO	
<i>Passerina cyanea</i>	Indigo Bunting	S5B					CO	
<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	S5B					CO	
<i>Piranga olivacea</i>	Scarlet Tanager	S5B					PO	
Total							100	5

*OBBA Atlas Square: 17PJ05

References

Ministry of Natural Resources and Forestry (MNRF). 2024a. Natural Heritage Information Centre (NHIC): Species List for Ontario. Published: 2014-07-17. All Species List Updated: 2024-12-02. Available: <https://www.ontario.ca/page/get-natural-heritage-information>

Ministry of the Environment, Conservation, and Parks (MECP). 2026. Species at Risk in Ontario. Published: 2018-07-12. Updated: 2026-03-31. Available: <https://www.ontario.ca/page/species-risk-ontario>

Government of Canada. 2025. Species at Risk Public Registry: Species Search. COSEWIC Last Assessment Date: 2024-5-22. Available: <https://species-registry.canada.ca/index-en.html#/species?sortBy=commonNameSort&sortDirection=asc&pageSize=10>

Bird Studies Canada (BSC), Environment Canada's Canadian Wildlife Service, Ontario Nature, Ontario Field Ornithologists and Ontario Ministry of Natural Resources. 2006. Ontario Breeding Bird Atlas Database, 31 January 2008. <https://www.birdsontario.org/jsp/datasummaries.jsp>

Ministry of Natural Resources and Forestry (MNRF). 2024b. Natural Heritage Information Centre (NHIC): Make a Natural Heritage Area Map Application. Published: 2014-07-17. Updated 2024-12-02. Available: <https://www.ontario.ca/page/make-natural-heritage-area-map>

Appendix VI

Herpetofauna Species Reported from the Study Area and Vicinity

Reptile and Amphibian Species Reported from the Study Area - 6404 Mayfield Road, Caledon (Project #3626)

Scientific Name	Common Name	SRANK	PSO	COSEWIC	SARA	SARA Schedule	ORAA*	NRSI Observed
		MNRF 2024a	MECP 2026	Government of Canada 2024	Government of Canada 2024	Government of Canada 2024	Ontario Nature 2019	NRSI Results from 2026
Turtles								
<i>Chelydra serpentina</i>	Snapping Turtle	S4		SC	SC	Schedule 1	X	
<i>Chrysemys picta marginata</i>	Midland Painted Turtle	S4		SC	SC	Schedule 1	X	
Snakes								
<i>Lampropeltis triangulum</i>	Eastern Milksnake	S4	NAR	SC	SC	Schedule 1	X	
<i>Storeria occipitomaculata</i>	Red-bellied Snake	S5					X	
<i>Thamnophis saurita septentrionalis</i>	Northern Ribbonsnake	S4		SC	SC	Schedule 1	X	
<i>Thamnophis sirtalis sirtalis</i>	Eastern Gartersnake	S5					X	
Salamanders								
<i>Ambystoma maculatum</i>	Spotted Salamander	S4					X	
<i>Notophthalmus viridescens viridescens</i>	Red-spotted Newt	S5					X	
<i>Plethodon cinereus</i>	Eastern Red-backed Salamander	S5					X	
Frogs and Toads								
<i>Anaxyrus americanus</i>	American Toad	S5					X	
<i>Dryophytes versicolor</i>	Gray Treefrog	S5					X	
<i>Pseudacris triseriata</i>	Western Chorus Frog (Great Lakes / St. Lawrence - Canadian Shield population)	S4	NAR	T	T	Schedule 1	X	
<i>Pseudacris crucifer</i>	Spring Peeper	S5					X	
<i>Lithobates catesbeianus</i>	American Bullfrog	S4					X	
<i>Lithobates clamitans</i>	Green Frog	S5					X	
<i>Lithobates pipiens</i>	Northern Leopard Frog	S5	NAR	NAR	NS	No schedule	X	
<i>Lithobates sylvaticus</i>	Wood Frog	S5					X	
Total							17	0

*ORAA Atlas Square: 17PJ05

References

Ministry of Natural Resources and Forestry (MNRF). 2024a. Natural Heritage Information Centre (NHIC): Species List for Ontario. Published: 2014-07-17. All Species List Updated: 2024-12-02. Available: <https://www.ontario.ca/page/get-natural-heritage-information>

Ministry of the Environment, Conservation, and Parks (MECP). 2026. Species at Risk in Ontario. Published: 2018-07-12. Updated: 2026-03-31. Available: <https://www.ontario.ca/page/species-risk-ontario>

Government of Canada. 2024. Species at Risk Public Registry: Species Search. COSEWIC Last Assessment Date: 2024-11-30. Available: <https://species-registry.canada.ca/index-en.html#/species?sortBy=commonNameSort&sortDirection=asc&pageSize=10>

Ontario Nature. 2019. Ontario Reptile and Amphibian Atlas Program: Interactive Range Maps. Accessed October 2019.

Appendix VII

Mammal Species Reported from the Study Area and Vicinity

Mammal Species Reported from the Study Area - 6404 Mayfield Road, Caledon (Project #3626)

Scientific Name	Common Name	SRANK	PSO	COSEWIC	SARA	SARA Schedule	Ontario Mammal Atlas	NRSI Observed
		MNRF 2024a	MECP 2026	Government of Canada 2024	Government of Canada 2024	Government of Canada 2024	Dobbyn 1994	NRSI Results from 2025
Didelphimorphia	Opossums							
<i>Didelphis virginiana</i>	Virginia Opossum	S4					X	
Eulipotyphla	Shrews, Moles, Hedgehogs, and Allies							
<i>Blarina brevicauda</i>	Northern Short-tailed Shrew	S5					X	
<i>Condylura cristata</i>	Star-nosed Mole	S5					X	
<i>Parascalops breweri</i>	Hairy-tailed Mole	S4					X	
<i>Sorex cinereus</i>	Masked Shrew	S5					X	
<i>Sorex fumeus</i>	Smoky Shrew	S5					X	
<i>Sorex hoyi</i>	Pygmy Shrew	S4					X	
<i>Sorex palustris</i>	Water Shrew	S5					X	
Chiroptera	Bats							
<i>Eptesicus fuscus</i>	Big Brown Bat	S4					X	
<i>Lasionycteris noctivagans</i>	Silver-haired Bat	S3	END	E	NS	No schedule	X	
<i>Lasiurus borealis</i>	Eastern Red Bat	S3	END	E	NS	No schedule	X	
<i>Lasiurus cinereus</i>	Hoary Bat	S3	END	E	NS	No schedule	X	
<i>Myotis lucifugus</i>	Little Brown Myotis	S3	END	E	E	Schedule 1	X	
<i>Myotis septentrionalis</i>	Northern Myotis	S3	END	E	E	Schedule 1	X	
<i>Perimyotis subflavus</i>	Tri-colored Bat	S3?	END	E	E	Schedule 1	X	
Lagomorpha	Rabbits and Hares							
<i>Lepus americanus</i>	Snowshoe Hare	S5					X	
<i>Lepus europaeus</i>	European Hare	SNA					X	
<i>Sylvilagus floridanus</i>	Eastern Cottontail	S5					X	
Rodentia	Rodents							
<i>Castor canadensis</i>	Beaver	S5					X	
<i>Erethizon dorsatum</i>	Porcupine	S5					X	
<i>Glaucomys sabrinus</i>	Northern Flying Squirrel	S5					X	
<i>Marmota monax</i>	Woodchuck	S5					X	
<i>Microtus pennsylvanicus</i>	Meadow Vole	S5					X	
<i>Mus musculus</i>	House Mouse	SNA					X	
<i>Ondatra zibethicus</i>	Muskrat	S4					X	
<i>Peromyscus leucopus</i>	White-footed Mouse	S5					X	
<i>Peromyscus maniculatus</i>	Deer Mouse	S5					X	
<i>Rattus norvegicus</i>	Norway Rat	SNA					X	
<i>Sciurus carolinensis</i>	Eastern Gray Squirrel	S5					X	X
<i>Tamias striatus</i>	Eastern Chipmunk	S5					X	
<i>Tamiasciurus hudsonicus</i>	Red Squirrel	S5					X	
<i>Zapus hudsonius</i>	Meadow Jumping Mouse	S5					X	
Canidae	Canines							
<i>Canis latrans</i>	Coyote	S5					X	X
<i>Vulpes vulpes</i>	Red Fox	S5					X	
Mephitidae	Skunks and Stink Badgers							
<i>Mephitis mephitis</i>	Striped Skunk	S5					X	

Mustelidae	Weasels and Allies							
<i>Lontra canadensis</i>	North American River Otter	S5					X	
<i>Mustela richardsonii</i>	American Ermine	S5					X	
<i>Neogale frenata</i>	Long-tailed Weasel	S4					X	
<i>Neogale vison</i>	American Mink	S4					X	
Procyonidae	Raccoons and Allies							
<i>Procyon lotor</i>	Northern Raccoon	S5					X	
Ursidae	Bears							
<i>Ursus americanus</i>	American Black Bear	S5	NAR	NAR	NS	No schedule	X	
Artiodactyla	Deer and Bison							
<i>Alces alces</i>	Moose	S5					X	
<i>Odocoileus virginianus</i>	White-tailed Deer	S5					X	
Total							43	2

*Mammal Atlas Square Number: PU05

References

Ministry of Natural Resources and Forestry (MNRF). 2024a. Natural Heritage Information Centre (NHIC): Species List for Ontario. Published: 2014-07-17. All Species List Updated: 2024-12-02. Available: <https://www.ontario.ca/page/get-natural-heritage-information>

Ministry of the Environment, Conservation, and Parks (MECP). 2026. Species at Risk in Ontario. Published: 2018-07-12. Updated: 2026-03-31. Available: <https://www.ontario.ca/page/species-risk-ontario>

Government of Canada. 2024. Species at Risk Public Registry: Species Search. COSEWIC Last Assessment Date: 2024-11-30. Available: <https://species-registry.canada.ca/index-en.html#/species?sortBy=commonNameSort&sortDirection=asc&pageSize=10>

Dobbyn, J.S. 1994. Atlas of the Mammals of Ontario. Don Mills, Federation of Ontario Naturalists. 120p.

Ministry of Natural Resources and Forestry (MNRF). 2023b. Natural Heritage Information Centre (NHIC): Make a Natural Heritage Area Map Application. Published: 2014-07-17. Updated 2023-03-03. Available: <https://www.ontario.ca/page/make-natural-heritage-area-map>

Appendix VIII

Butterfly Species Reported from the Study Area and Vicinity

Butterfly Species Reported from the Study Area - 6404 Mayfield Road, Caledon (Project #3626)

Scientific Name	Common Name	SRANK	PSO	COSEWIC	SARA	SARA Schedule	Ontario Butterfly Atlas*	NRSI Observed
		MNRF 2024a	MECP 2026	Government of Canada 2024	Government of Canada 2024	Government of Canada 2024	Macnaughton et al. 2023	NRSI Results from 2025
Hesperiidae	Skippers							
<i>Anatrytone logan</i>	Delaware Skipper	S4					X	
<i>Ancyloxypha numitor</i>	Least Skipper	S5					X	
<i>Carterocephalus mandan</i>	Arctic Skipper	S5					X	
<i>Epargyreus clarus</i>	Silver-spotted Skipper	S4					X	
<i>Erynnis baptisiae</i>	Wild Indigo Duskywing	S4					X	
<i>Erynnis icelus</i>	Dreamy Duskywing	S5					X	
<i>Erynnis juvenalis</i>	Juvenal's Duskywing	S5					X	
<i>Euphyes vestris</i>	Dun Skipper	S5					X	
<i>Poanes hobomok</i>	Hobomok Skipper	S5					X	
<i>Polites mystic</i>	Long Dash Skipper	S5					X	
<i>Polites peckius</i>	Peck's Skipper	S5					X	
<i>Polites themistocles</i>	Tawny-edged Skipper	S5					X	
<i>Pompeius verna</i>	Little Glassywing	S4					X	
<i>Thorybes pylades</i>	Northern Cloudywing	S5					X	
<i>Thymelicus lineola</i>	European Skipper	SNA					X	
<i>Wallengrenia egeremet</i>	Northern Broken Dash	S5					X	
Papilionidae	Swallowtails							
<i>Heraclides cresphontes</i>	Giant Swallowtail	S4					X	
<i>Papilio canadensis</i>	Canadian Tiger Swallowtail	S5					X	
<i>Papilio glaucus</i>	Eastern Tiger Swallowtail	S5					X	
<i>Papilio polyxenes</i>	Black Swallowtail	S5					X	
Pieridae	Whites and Sulphurs							
<i>Colias eurytheme</i>	Orange Sulphur	S5					X	
<i>Colias philodice</i>	Clouded Sulphur	S5					X	
<i>Pieris rapae</i>	Cabbage White	SNA					X	
Lycaenidae	Harvesters, Coppers, Hairstreaks, Blues							
<i>Callophrys niphon</i>	Eastern Pine Elfin	S5					X	
<i>Celastrina lucia</i>	Northern Spring Azure	S5					X	
<i>Celastrina neglecta</i>	Summer Azure	S5					X	
<i>Celastrina sp.</i>	Azure species	SNA					X	
<i>Cupido comyntas</i>	Eastern Tailed Blue	S5					X	
<i>Glaucopsyche lygdamus</i>	Silvery Blue	S5					X	
<i>Lycaena hyllus</i>	Bronze Copper	S5					X	
<i>Polyommatus icarus</i>	European Common Blue	SNA					X	
<i>Satyrus acadica</i>	Acadian Hairstreak	S4					X	
<i>Satyrus calanus</i>	Banded Hairstreak	S4					X	
<i>Satyrus caryaevorus</i>	Hickory Hairstreak	S4					X	
<i>Satyrus liparops</i>	Striped Hairstreak	S5					X	
<i>Satyrus titus</i>	Coral Hairstreak	S5					X	
Nymphalidae	Brush-footed Butterflies							
<i>Aglais milberti</i>	Milbert's Tortoiseshell	S5					X	
<i>Cercyonis pegala</i>	Common Wood-Nymph	S5					X	

<i>Coenonympha californica</i>	Common Ringlet	S5					X	
<i>Danaus plexippus</i>	Monarch	S2N,S4B		E	E	Schedule 1	X	
<i>Euphydryas phaeton</i>	Baltimore Checkerspot	S4					X	
<i>Junonia coenia</i>	Common Buckeye	SNA					X	
<i>Lethe anthedon</i>	Northern Pearly-Eye	S5					X	
<i>Limenitis archippus</i>	Viceroy	S5					X	
<i>Limenitis arthemis arthemis</i>	White Admiral	S5					X	
<i>Limenitis arthemis astyanax</i>	Red-spotted Purple	S5					X	
<i>Megisto cymela</i>	Little Wood-Satyr	S5					X	
<i>Nymphalis antiopa</i>	Mourning Cloak	S5					X	
<i>Nymphalis l-album</i>	Compton Tortoiseshell	S5					X	
<i>Phyciodes cocyta</i>	Northern Crescent	S5					X	
<i>Phyciodes tharos</i>	Pearl Crescent	S4					X	
<i>Polygonia comma</i>	Eastern Comma	S5					X	
<i>Polygonia interrogationis</i>	Question Mark	S5					X	
<i>Polygonia progne</i>	Gray Comma	S5					X	
<i>Speyeria atlantis</i>	Atlantis Fritillary	S5					X	
<i>Speyeria cybele</i>	Great Spangled Fritillary	S5					X	
<i>Vanessa atalanta</i>	Red Admiral	S5B					X	
<i>Vanessa cardui</i>	Painted Lady	S5B					X	
<i>Vanessa virginiensis</i>	American Lady	S5					X	
Total							59	0

*TEA Atlas Square: Square 17PJ05

References

Ministry of Natural Resources and Forestry (MNR). 2024a. Natural Heritage Information Centre (NHIC): Species List for Ontario. Published: 2014-07-17. All Species List Updated: 2024-12-02. Available: <https://www.ontario.ca/page/get-natural-heritage-information>

Ministry of the Environment, Conservation, and Parks (MECP). 2026. Species at Risk in Ontario. Published: 2018-07-12. Updated: 2026-03-31. Available: <https://www.ontario.ca/page/species-risk-ontario>

Government of Canada. 2024. Species at Risk Public Registry: Species Search. COSEWIC Last Assessment Date: 2024-11-30. Available: <https://species-registry.canada.ca/index-en.html#/species?sortBy=commonNameSort&sortDirection=asc&pageSize=10>

Macnaughton A., Layberry R., Cavašin R., Edwards B., and C. Jones. 2023. Ontario Butterfly Atlas. Updated January 2023. Available: <https://www.ontarioinsects.org/atlas/index.html>

Ministry of Natural Resources and Forestry (MNR). 2024b. Natural Heritage Information Centre (NHIC): Make a Natural Heritage Area Map Application. Published: 2014-07-17. Updated 2024-12-02. Available: <https://www.ontario.ca/page/make-natural-heritage-area-map>

Appendix IX

Odonata Species Reported from the Study Area and Vicinity

Odonate Species Reported from the Study Area - 6404 Mayfield Road, Caledon (Project #3626)

Scientific Name	Common Name	SRANK	PSO	COSEWIC	SARA	SARA Schedule	Odonate Atlas*	NRSI Observed
		MNRF 2024a	MECP 2026	Government of Canada 2024	Government of Canada 2024	Government of Canada 2024	OOAD 2023	
Calopterygidae	Broadwinged Damselflies							
<i>Calopteryx aequabilis</i>	River Jewelwing	S5					X	
<i>Calopteryx maculata</i>	Ebony Jewelwing	S5					X	
Lestidae	Spreadwings							
<i>Lestes dryas</i>	Emerald Spreadwing	S5					X	
Coenagrionidae	Narrow-winged Damselflies							
<i>Enallagma antennatum</i>	Rainbow Bluet	S4					X	
<i>Enallagma civile</i>	Familiar Bluet	S5					X	
<i>Enallagma exsulans</i>	Stream Bluet	S5					X	
<i>Ischnura verticalis</i>	Eastern Forktail	S5					X	
Aeshnidae	Darners							
<i>Anax junius</i>	Common Green Darner	S5					X	
<i>Basiaeschna janata</i>	Springtime Darner	S5					X	
Gomphidae	Clubtails							
<i>Gomphurus fraternus</i>	Midland Clubtail	S4					X	
<i>Ophiogomphus rupinsulensis</i>	Rusty Snaketail	S4					X	
<i>Phanogomphus descriptor</i>	Harpoon Clubtail	S3					X	
<i>Phanogomphus lividus</i>	Ashy Clubtail	S4					X	
<i>Phanogomphus quadricolor</i>	Rapids Clubtail	S2	THR	E	E	Schedule 1	X	
Libellulidae	Skimmers							
<i>Celithemis elisa</i>	Calico Pennant	S5					X	
<i>Libellula pulchella</i>	Twelve-spotted Skimmer	S5					X	
<i>Libellula quadrimaculata</i>	Four-spotted Skimmer	S5					X	
<i>Libellula semifasciata</i>	Painted Skimmer	S3					X	
<i>Nannothemis bella</i>	Elfin Skimmer	S4					X	
<i>Plathemis lydia</i>	Common Whitetail	S5					X	
<i>Sympetrum internum</i>	Cherry-faced Meadowhawk	S5					X	
<i>Sympetrum obtrusum</i>	White-faced Meadowhawk	S5					X	
Total							22	0

*Odonate Atlas Square Numbers: 17PJ05

References

Ministry of Natural Resources and Forestry (MNRF). 2024a. Natural Heritage Information Centre (NHIC): Species List for Ontario. Published: 2014-07-17. All Species List Updated: 2024-12-02. Available: <https://www.ontario.ca/page/get-natural-heritage-information>

Ministry of the Environment, Conservation, and Parks (MECP). 2026. Species at Risk in Ontario. Published: 2018-07-12. Updated: 2026-03-31. Available: <https://www.ontario.ca/page/species-risk-ontario>

Government of Canada. 2024. Species at Risk Public Registry: Species Search. COSEWIC Last Assessment Date: 2024-11-30. Available: <https://species-registry.canada.ca/index-en.html#/species?sortBy=commonNameSort&sortDirection=asc&pageSize=10>

Ontario Odonata Atlas Database (OOAD). 2023. Natural Heritage Information Centre, Ontario Ministry of Natural Resources and Forestry. Species data by 10x10 km square accessed on June 8, 2023

Ministry of Natural Resources and Forestry (MNRF). 2024b. Natural Heritage Information Centre (NHIC): Make a Natural Heritage Area Map Application. Published: 2014-07-17. Updated 2024-12-02. Available: <https://www.ontario.ca/page/make-natural-heritage-area-map>

Appendix X
Aquatic Conditions Photolog

Appendix X – Aquatic Conditions Photographic Log
6406 Mayfield Road EIS

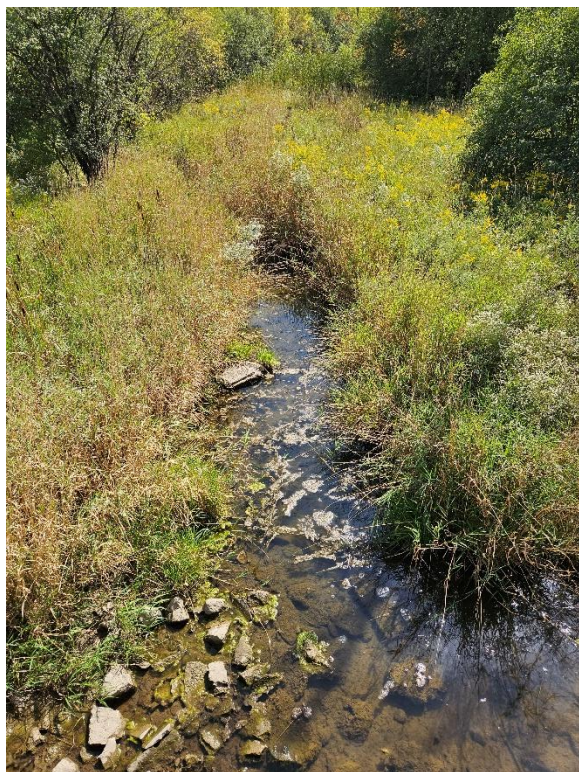


Photo 1. View of Salt Creek facing downstream (southeast) from Mayfield Road. Photo taken on September 17, 2025.



Photo 2. View of Salt Creek facing upstream (northwest) from Mayfield Road. Photo taken on September 17, 2025.

Appendix X – Aquatic Conditions Photographic Log
6406 Mayfield Road EIS



Photo 3. View of Salt Creek facing upstream (northwest) from Mayfield Road. Photo taken on September 17, 2025.



Photo 4. View of Salt Creek facing upstream (northwest) from Mayfield Road. Photo taken on September 25, 2025.

Appendix X – Aquatic Conditions Photographic Log
6406 Mayfield Road EIS



Photo 5. View of Salt Creek facing upstream (northwest) from Mayfield Road. Photo taken on November 26, 2025



Photo 6. View of Salt Creek channel bank upstream from Mayfield Road. Photo taken on September 17, 2025.

Appendix X – Aquatic Conditions Photographic Log
6406 Mayfield Road EIS



Photo 7. View of Salt Creek channel facing downstream towards Mayfield Road culvert. Photo taken on September 17, 2025.



Photo 8. View of pool on the upstream side of the Mayfield Road culvert. Photo taken on September 17, 2025.

Appendix X – Aquatic Conditions Photographic Log
6406 Mayfield Road EIS



Photo 9. View of ephemeral drainage ditch along the north side of Mayfield Road, facing northeast. Photo taken on September 17, 2025.



Photo 10. View of ephemeral drainage ditch along the north side of Mayfield Road, facing southwest towards Salt Creek crossing. Photo taken on September 17, 2025.

Appendix X – Aquatic Conditions Photographic Log
6406 Mayfield Road EIS



Photo 11. View along the southwest side of the subject property, facing east towards Mayfield Road.
Photo taken on November 26, 2025.



Photo 12. View along the southwest side of the subject property, facing east towards Mayfield Road.
Photo taken on November 26, 2025.

Appendix XI
Proposed Development Plan (Urban Watershed Group 2026a)



- SEEDING:**
- SEED MIX SUBSTITUTIONS TO BE APPROVED IN WRITING PRIOR TO PURCHASE.
 - PREPARED TOPSOIL TO BE FREE OF EROSION AND SHALL HAVE A FINE-GRADED UNIFORM SURFACE CULTIVATED TO A DEPTH OF 25MM AND FREE OF STONES GREATER THAN 25MM, FOREIGN MATERIAL, WEEDS AND UNWANTED VEGETATION.
 - LOCATIONS OF DIFFERENT SEED MIXES TO BE STAKED OUT TO INDICATE THE LIMITS OF EACH TYPE OF SEED MIX PRIOR TO SEEDING.
 - SEED AND MULCH COVER TO BE APPLIED BY HYDROSEEDING METHODS. ALTERNATIVE SEEDING METHODS AND MATERIALS TO BE APPROVED IN WRITING PRIOR TO PLACEMENT.
 - NO SEED AND MULCH COVER SHALL COME IN CONTACT WITH ANY STRUCTURES, TREES, SHRUBS, MULCHED AREAS AND WATERBODIES.
 - A NURSE CROP SHALL BE ADDED TO THE SEED MIX AS SPECIFIED IN THE SEED MIX SCHEDULE.
 - SEED MIX, NURSE CROP AND FERTILIZER SHALL BE APPLIED PRIOR TO APPLICATION OF MULCH COVER. SEED MIX, NURSE CROP, FERTILIZER AND WATER SHALL BE THOROUGHLY MIXED IN A HYDRAULIC SEEDER AND MULCHER INTO A HOMOGENOUS SLURRY AND APPLIED UNIFORMLY TO PREPARED TOPSOIL BY NOZZLE SPRAYER OR EXTENSION HOSE TO DESIGNATED AREAS WITHOUT DISLODGING SOIL OR CAUSING EROSION.
 - MULCH TO BE HYDRAULIC MULCH AND APPLIED AS A SEPARATE OPERATION IMMEDIATELY FOLLOWING APPLICATION OF SEED MIX, NURSE CROP AND FERTILIZER.
 - HYDRAULIC MULCH SHALL BE CAPABLE OF DISPERSING RAPIDLY IN WATER TO FORM A HOMOGENOUS SLURRY. APPLIED HYDRAULIC MULCH SHALL BE CAPABLE OF FORMING AN ABSORPTIVE, COHESIVE MAT WHICH WILL ALLOW WATER TO PERCOLATE INTO THE UNDERLYING SOIL. HYDRAULIC MULCH SHALL NOT INHIBIT GERMINATION OR GROWTH OF THE SEED MIX AND BE DRY, FREE OF WEEDS AND OTHER FOREIGN MATERIALS.
 - HYDRAULIC MULCH TO BE APPLIED AT A RATE OF 2.000KG OF DRY PRODUCT PER 10,000M² HYDRAULIC MULCH TO BE THOROUGHLY MIXED INTO A HOMOGENOUS SLURRY AND APPLIED TO UNIFORMLY COVER THE ENTIRE SEEDING TOPSOIL AREA BY NOZZLE SPRAYER OR EXTENSION HOSE WITHOUT DISLODGING SOIL OR CAUSING EROSION.
 - INSTALL ROLLED BIODEGRADABLE EROSION CONTROL BLANKET ON TOP OF SEEDING AREAS IMMEDIATELY AFTER HYDRO SEEDING AND SECURE IN PLACE AS PER MANUFACTURER'S SPECIFICATIONS. BIODEGRADABLE EROSION CONTROL BLANKET TO BE APPROVED BY ENGINEER.
 - ALTERNATIVE METHOD OF SEEDING - IF HYDRO SEEDING METHOD IS NOT UTILIZED, SEED MIXES SHALL BE MIXED (EQUAL PARTS) WITH A CARRIER SUCH AS SAND TO ENSURE EVEN DISTRIBUTION. SAND CAN BE BROADCAST WITH A MECHANICAL SEEDER (I.E. CYCLONE SPREADER) TO SPECIFIC DENSITIES. A "NURSE CROP" OF ANNUAL RYE GRASS SHALL BE MIXED AND BROADCAST WITH THE HERBACEOUS SEED MIX AT A RATE AS SPECIFIED IN THE SEED MIX SCHEDULE TO BE APPLIED IMMEDIATELY AFTER SEED MIX IS APPLIED.
- MAINTENANCE - SEEDING AREAS:**
- MAINTAIN SEEDING AREAS 90% FREE OF NOXIOUS WEEDS FOR TWO (2) YEARS WITH SPOT HERBICIDE APPLICATIONS, AS PERMITTED BY LOCAL AUTHORITIES AND/OR HAND PULLING OF PROBLEMATIC WEEDS.
- SEED MIX NOTES:**
- SOURCE MATERIAL - SEED MIX CONTAINING NO MAINTENANCE, NON-INVASIVE SPECIES 100% REGIONALLY NATIVE FLOWERS AND GRASSES SUITED TO THE ENVIRONMENTAL CONDITIONS.
 - PLANTING TIMES - IDEALLY SEED MIXES SHOULD BE PLANTED IN THE FALL BETWEEN LEAF-FALL (TYPICALLY BETWEEN OCTOBER 15TH AND NOVEMBER 15TH) AND FREEZE-UP (OFTEN MID-NOVEMBER). SPRING PLANTING AFTER FROST HAS LEFT THE GROUND UNTIL EARLY JUNE IS ALSO POSSIBLE HOWEVER DUE TO THE POSSIBILITY OF UNSEASONABLE WEATHER PREVENTING DECENT SEED STRATIFICATION, THERE IS A GREATER CHANCE THAT SEED WILL REMAIN DORMANT AND NOT GERMINATE UNTIL THE SPRING OF THE FOLLOWING YEAR.
 - SEED MIX SUPPLIER - ONTARIO SEED CO. IS LISTED AS A POTENTIAL SOURCE ONLY. SEED MIXES FROM OTHER SUPPLIERS ARE ACCEPTABLE AS LONG AS SEED MIX COMPOSITION MATCHES THE SEED MIX SCHEDULE.

NO.	DESCRIPTION	BY	DATE
4.	ISSUED FOR TEMPORARY ZONING	C.C.	2026/09/19
3.	ISSUED FOR TEMPORARY ZONING	B.K.	2026/04/15
2.	ISSUED FOR TEMPORARY ZONING	B.K.	2026/03/23
1.	ISSUED FOR TEMPORARY ZONING	C.C.	2025/10/27

BENCHMARK:
ELEVATIONS HEREON ARE GEODETIC IN ORIGIN AND WERE DERIVED FROM GPS OBSERVATIONS USING THE "TOPNET" GPS NETWORK AND ARE REFERRED TO THE CGVD-1928: 1978 DATUM. REFER TO SURVEY PREPARED BY MAURO GROUP INC. O.L.S. FOR BENCHMARK INFORMATION.

BEARING NOTE:
BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B, BY REAL TIME NETWORK (TOPNET) OBSERVATIONS, UTM ZONE 17, NAD83 (CSRS) (2010.0)

- LEGEND:**
- EXISTING ELEVATION
 - PROPOSED ELEVATION
 - EXISTING SHEET FLOW
 - PROPOSED SHEET FLOW
 - EXISTING STORM MANHOLE
 - PROPOSED STORM MANHOLE
 - PROPOSED CATCH-BASIN MANHOLE
 - EXISTING SINGLE/DOUBLE CATCHBASIN
 - PROPOSED SINGLE/DOUBLE CATCHBASIN
 - EXISTING SANITARY MANHOLE
 - PROPOSED SANITARY MANHOLE
 - EXISTING VALVE & BOX
 - PROPOSED VALVE & BOX
 - EXISTING HYDRANT & VALVE
 - EX. REGIONAL FLOODLINE
 - PROP. REGIONAL FLOODLINE
 - 100-YR SURFACE STORAGE
 - MAJOR SYSTEM OVERLAND FLOW ROUTE
 - PROPERTY LINE / MATCH EXISTING
 - PROPOSED SWALE ELEVATION
 - BOTTOM OF WALL ELEVATION
 - TOP OF WALL ELEVATION



CONSULTANT:

15955 AIRPORT ROAD, SUITE 304
CALEDON EAST, ONTARIO, L7C 1H9
PHONE: (905) 584-1458 FAX: (905) 584-1461

urban Watershed Group Ltd.

A Member of the **GREENLAND** Group of Companies
urbanwater@grmland.com

DESIGNED BY: P. ELLIS	DATE: JULY 07, 2025
DRAWN BY: B. KLESS	SURVEYED MAURO GROUP BY: INC. O.L.S.
CHECKED BY: A. McEWEN	DWG. No. 25034-GR1
SCALE: 1:250	

PROJECT NAME:
PROPOSED TRUCKING FACILITY

6404 MAYFIELD ROAD
CALEDON EAST, ONTARIO

DRAWING NAME:
SITE GRADING PLAN

- NOTES:**
- VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
 - SURVEY PREPARED BY: MAURO GROUP INC. O.L.S. DATED: 2ND DAY OF JULY, 2025.
 - DO NOT SCALE DRAWINGS.
 - REPORT ALL ERRORS, OMISSIONS OR DISCREPANCIES TO URBAN WATERSHED GROUP LIMITED IMMEDIATELY UPON DISCOVERY.
 - USE ONLY LATEST REVISED DRAWINGS OR THOSE THAT ARE MARKED "ISSUED FOR CONSTRUCTION".
 - THE DRAWINGS ARE THE PROPERTY OF URBAN WATERSHED GROUP LIMITED AND MUST BE RETURNED ON COMPLETION OF THE PROJECT. ANY UNAUTHORIZED USE OF THIS PLAN IS PROHIBITED.
 - URBAN WATERSHED GROUP LIMITED SHALL NOT BE HELD RESPONSIBLE FOR ANY DAMAGES WHICH MAY ARISE FROM THE USE OF THIS DRAWING FOR TENDER, ESTIMATING, CONSTRUCTION OR OTHER PURPOSES PRIOR TO FINAL APPROVAL AND PRIOR TO PERMITS BEING GRANTED FROM ALL AUTHORITIES HAVING JURISDICTION.

LOT 1, CONCESSION 1
(GEOGRAPHIC TOWNSHIP OF ALBION)
TOWN OF CALEDON
REGIONAL MUNICIPALITY OF PEEL

- NOTES:**
- PRIOR TO CONSTRUCTION THE CONTRACTOR IS TO RETAIN SERVICES OF GEOTECHNICAL ENGINEER TO INSPECT THE EXISTING GRANULAR MATERIAL AS NECESSARY TO VERIFY ITS ADEQUACY TO SUPPORT THE INTENDED VEHICULAR LOADING. ANY RECOMMENDED IMPROVEMENTS AND/OR REMEDIAL WORKS REQUIRED TO THE GRAVEL SURFACE SHALL BE SUMMARIZED IN A REPORT PROVIDED TO THE PROJECT ENGINEER.

- CONTRACTORS NOTES AND PRIOR TO CONSTRUCTION:**
- AT THE TIME OF TENDER, THE CONTRACTOR SHALL REVIEW THE DRAWINGS AND INVESTIGATE ALL EXISTING SERVICES, WATERMANS, UTILITIES AND SEWERS AT POINTS OF CROSSING TO THEIR SATISFACTION AND MODIFY THEIR QUOTATION ACCORDINGLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE ADJUSTMENT OF ALL UTILITIES, SEWERS AND WATERMANS AS REQUIRED TO COMPLETE THE CONSTRUCTION OF THE SITE SERVING. THE CONTRACTOR SHALL REPORT IMMEDIATELY TO THE ARCHITECT, AND URBAN WATERSHED GROUP LTD. ANY DISCREPANCIES FOUND ON THIS DRAWING.
 - AT THE TIME OF TENDER THE CONTRACTOR AND THEIR SUPPLIERS SHALL REVIEW THE GEOTECHNICAL INFORMATION FOR THE PROJECT AND SHALL ALLOW FOR THE DESIGN AND INCORPORATION OF COUNTER BUOYANCY MEASURES FOR ALL SUBSURFACE SERVING STRUCTURE.
 - CONTRACTOR SHALL SECURE A ROAD OCCUPANCY PERMIT FROM THE MUNICIPAL WORKS DEPARTMENT PRIOR TO ANY WORK WITHIN THE MUNICIPAL RIGHT-OF-WAY.
 - UPON COMPLETION OF THE SEWER INSTALLATION THE CONTRACTOR SHALL COMPLETE TESTING AS REQUIRED WHICH WILL INCLUDE, BUT NOT BE LIMITED TO, CCTV, DEFLECTION, INFILTRATION / EXFILTRATION AND AIR TESTING. THE WATERMAIN SHALL ALSO BE TESTED FOR CONTINUITY, PRESSURE AND CHLORINATION BY A QUALIFIED THIRD PARTY FIRM. ALL TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE MUNICIPAL AND ONTARIO BUILDING CODE STANDARDS. RESULTS SHALL BE FORWARDED TO THE ARCHITECT AND URBAN WATERSHED GROUP IMMEDIATELY FOLLOWING THE TEST. THE CONTRACTOR SHALL ALSO SUBMIT AS-BUILT ELEVATIONS AND LOCATIONS OF THE SERVING AND GRADING IMMEDIATELY FOLLOWING CONSTRUCTION OF EACH STAGE OF WORK.
 - ALL EARTH MOVING OPERATIONS SHALL BE COMPLETED IN ACCORDANCE WITH OREG. 406/19, REGARDING THE MANAGEMENT OF EXCESS SOIL. FILL MATERIAL SHALL BE CHEMICALLY TESTED TO DETERMINE SUITABILITY TO PROVINCIAL STANDARDS FOR INTENDED USE / DESTINATION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE TO PROPERLY DISPOSE OF UNSUITABLE OR CONTAMINATED MATERIALS.
 - DRAWINGS PREPARED BY URBAN WATERSHED GROUP LIMITED SHALL BE USED FOR GRADING AND SERVING OF WATERMAIN, STORM AND SANITARY SERVICES ONLY. THE CONTRACTOR SHALL USE THE ARCHITECTURAL SITE PLAN FOR SITE LAYOUT PURPOSES.

NOTE:
ALL DRAWINGS IN THIS SET SHALL BE READ IN CONJUNCTION WITH EACH OTHER. DRAWINGS INCLUDE THE FOLLOWING:

- SITE GRADING PLAN - DWG No. 25034 - GR1
- STORMWATER MANAGEMENT POND - DWG No. 25034 - SWM1
- EROSION & SEDIMENT CONTROL PLAN - DWG No. 25034 - ESC1
- CONSTRUCTION NOTES & DETAILS PLAN - DWG. No. 25034 - CND1

NOTE:
THE APPROXIMATE LOCATION OF SEPTIC BED, SEPTIC PIPE AND SEPTIC TANK ARE ACCORDING TO ON-SITE INFORMATION PROVIDED BY DLK SEPTIC SERVICES INC., ON AUGUST 19, 2025.

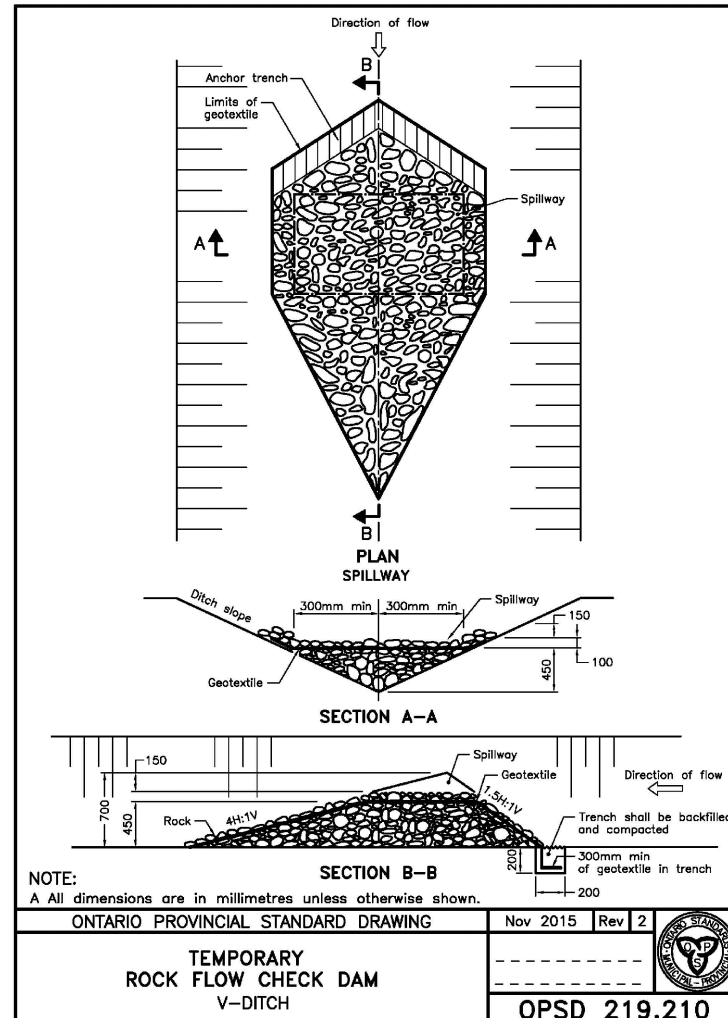
NOTE:
FLOODPLAIN INFORMATION HAS BEEN TAKEN FROM TRCA HUMBER RIVER MAPPING, SHEET 132, DATED MAY 18, 2018.

LEGEND:
REGIONAL FLOOD ELEVATION

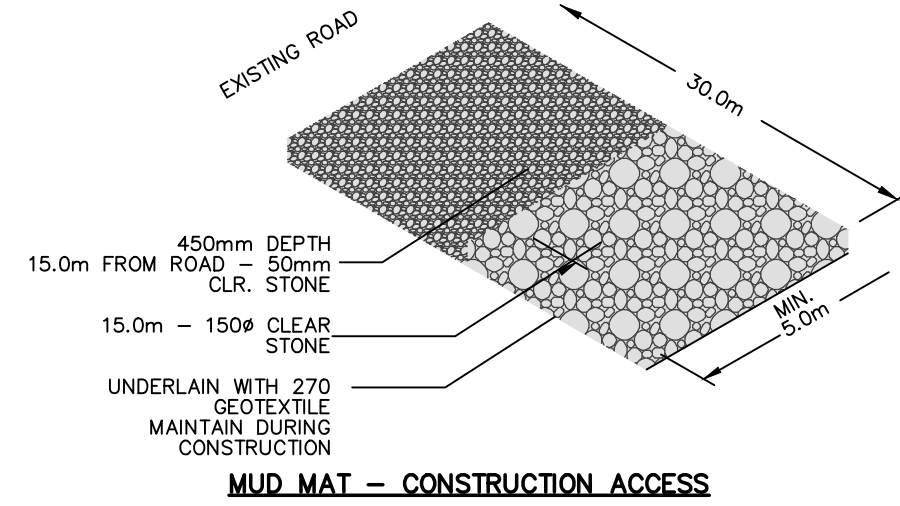
CROSS-SECTION NUMBER → 1007.285

100 YEAR FLOOD ELEVATION (m)

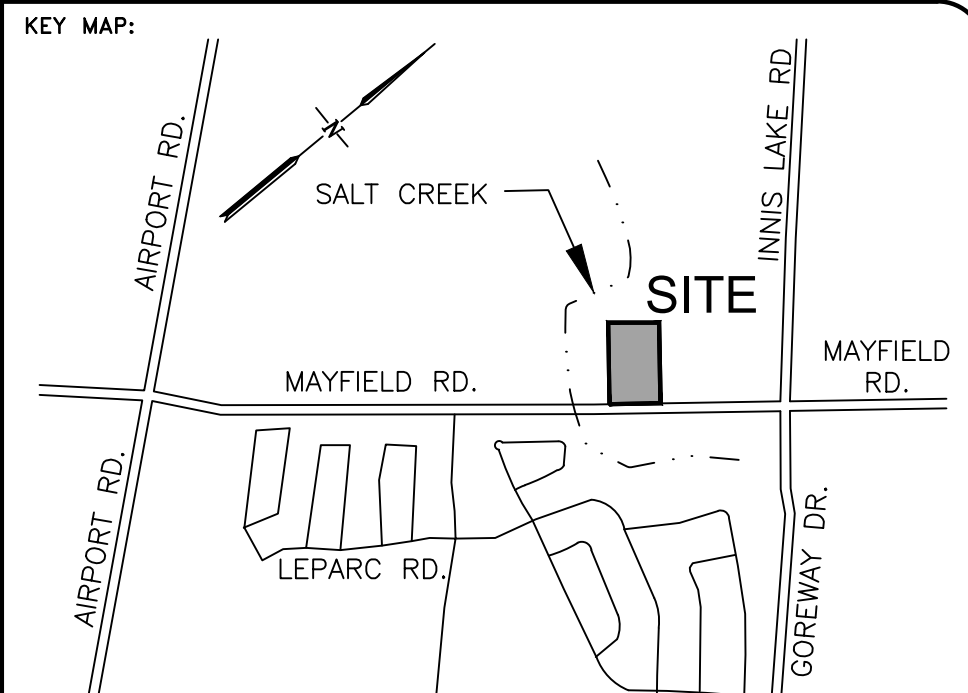
227.14
225.67



1. IDENTIFICATION OF PERSONNEL: NAMES AND CONTACT INFORMATION OF PROJECT MEMBERS ASSIGNED TO EACH TASK AS WELL AS TRCA AGENCY/ENFORCEMENT CONTACTS SHALL BE PROVIDED TO THE CONTRACTOR PRIOR TO CONSTRUCTION. SHOULD A CONCERN ARISE WITH REGARDS TO THE EROSION AND SEDIMENT CONTROL MEASURES THE SITE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
2. DETAILS AND LOCATIONS OF THE ENVIRONMENTAL CONSTRAINTS FOR THE PROJECT INCLUDING MAPS, REPORTS, APPROVALS AND PERMITS SHALL BE PROVIDED IN ADVANCE OF CONSTRUCTION. SPECIAL ATTENTION SHOULD BE DIRECTED TO TYPING RESTRICTIONS AND REPORTING REQUIREMENTS.
3. CONSTRUCTION DRAWINGS SHALL BE PROVIDED TO THE CONTRACTOR DETAILING THE EROSION AND SEDIMENT CONTROLS INSTALLED WHICH IS TO BE UPDATED THROUGH THE CONSTRUCTION PERIOD. HIGH RISK AREAS SHALL BE IDENTIFIED ON THE DRAWINGS AND ROUTINELY EVALUATED. GREATER FREQUENCY OF MONITORING REQUIREMENTS MAY BE REQUIRED FOR AREAS AND PROTECTION MEASURES IMMEDIATELY ADJACENT TO SOIL STOCKPILES, EXCAVATIONS, DEWATERING LOCATIONS, PROTECTED FEATURES/AREAS, AND LOCATIONS WHERE SITE RUNOFF DISCHARGES INTO A BODY OF WATER.
5. INSPECTION SCHEDULE: THIS SHOULD INCLUDE INSPECTION TIMES, AREAS, THAT THE CONTRACTOR IS RESPONSIBLE FOR THE INSPECTIONS, A WALK-THROUGH INSPECTION OF THE CONSTRUCTION SITE SHALL BE UNDERTAKEN IN ANTICIPATION OF LARGE STORM EVENTS (OR A SERIES OF RAINFALL AND/OR SNOWMELT DAYS) THAT COULD POTENTIALLY YIELD SIGNIFICANT RUNOFF VOLUMES. THE REGULAR INSPECTIONS SHALL OCCUR DURING ALL CONSTRUCTION STAGES AND SHALL BE BASED ON AT A MINIMUM THE REQUIREMENTS IDENTIFIED IN THE PERMITS AND APPROVALS. COMMONLY THIS FREQUENCY IS:
 - ON A WEEKLY BASIS;
 - AFTER EVERY RAINFALL EVENT;
 - AFTER SIGNIFICANT SNOWMELT EVENTS; AND,
 - DAILY DURING EXTENDED RAIN OR SNOWMELT PERIODS.
6. DURING INACTIVE CONSTRUCTION PERIODS, WHERE THE SITE IS LEFT ALONE FOR 30 DAYS OR LONGER, A MONTHLY INSPECTION SHALL BE CONDUCTED.
7. ALL DAMAGED ESC MEASURES SHALL BE REPAIRED AND/OR REPLACEMENT WITHIN 48 HOURS OF THE INSPECTION.
8. AN INSPECTION AND MONITORING SHEET MUST BE PREPARED AND KEPT ON SITE FOR A PERIOD OF ONE YEAR AFTER THE DEVELOPMENT IS SUBSTANTIALLY COMPLETE. A SAMPLE OF THIS SHEET CAN BE FOUND IN APPENDIX F OF THE EROSION AND SEDIMENT CONTROL GUIDELINE FOR URBAN CONSTRUCTION FOR THE GREATER GOLDEN HORSESHOE AREA CONSERVATION AUTHORITIES.



MUD MAT - CONSTRUCTION ACCESS



NOTES:

1. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. SURVEY PREPARED BY: MAURO GORDON INC. O.L.S.
DATED: 2ND DAY OF JULY, 2025
3. DO NOT SCALE DRAWINGS.
4. REPORT ALL ERRORS, OMISSIONS OR DISCREPANCIES TO URBAN WATERSHED LIMITED IMMEDIATELY.
5. USE ONLY LATEST REVISED DRAWINGS OR THOSE THAT ARE MARKED "ISSUED FOR CONSTRUCTION".
6. THE DRAWINGS ARE THE PROPERTY OF URBAN WATERSHED GROUP LIMITED AND MUST BE RETURNED ON COMPLETION OF THE PROJECT. ANY UNAUTHORIZED USE OF THIS PLAN IS PROHIBITED.
7. URBAN WATERSHED GROUP LIMITED SHALL NOT BE HELD RESPONSIBLE FOR ANY DAMAGES WHICH MAY ARISE FROM THE USE OF THIS DRAWING FOR TENDER, CONSTRUCTION OR CONSTRUCTION PURPOSES PRIOR TO FINAL APPROVAL AND PRIOR TO PERMITS BEING GRANTED FROM ALL AUTHORITIES HAVING JURISDICTION.

LOT 1, CONCESSION 1
(GEOGRAPHIC TOWNSHIP OF ALBION)
TOWN OF CALEDON
REGIONAL MUNICIPALITY OF PEEL



NOTE:

ALL DRAWINGS IN THIS SET SHALL BE READ IN CONJUNCTION WITH EACH OTHER. DRAWINGS INCLUDE THE FOLLOWING:

1. SITE GRADING PLAN - DWG No. 25034 - GR1
2. STORMWATER MANAGEMENT POND - DWG No. 25034 - SWM1
3. EROSION & SEDIMENT CONTROL PLAN - DWG No. 25034 - ESC1
4. CONSTRUCTION NOTES & DETAILS PLAN - DWG. No. 25034 - CND1

4.	ISSUED FOR TEMPORARY ZONING	C.C.	2026/09/19	
3.	ISSUED FOR TEMPORARY ZONING	B.K.	2026/04/15	
2.	ISSUED FOR TEMPORARY ZONING	B.K.	2026/03/23	
1.	ISSUED FOR TEMPORARY ZONING	C.C.	2025/10/27	
NO.	DESCRIPTION	BY	DATE	
REVISIONS				

BENCHMARK:
ELEVATIONS HEREON ARE GEODETIC IN ORIGIN AND WERE DERIVED FROM GPS OBSERVATIONS USING THE "TOPNET" GPS NETWORK AND ARE REFERRED TO THE CGVD-1928: 1978 DATUM.
REFER TO SURVEY PREPARED BY MAURO GROUP INC. O.L.S. FOR BENCHMARK INFORMATION

BEARING NOTE:
BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B, BY REAL TIME NETWORK (TOPNET) OBSERVATIONS, UTM ZONE 17, NAD83 (CSRS) (2010.0)

LEGEND:

	EXISTING ELEVATION
	PROPOSED ELEVATION
	EXISTING SHEET FLOW
	PROPOSED SHEET FLOW
	EXISTING STORM MANHOLE
	PROPOSED STORM MANHOLE
	PROPOSED CATCHBASIN MANHOLE
	EXISTING SINGLE/DOUBLE CATCHBASIN
	PROPOSED SINGLE/DOUBLE CATCHBASIN
	EXISTING SANITARY MANHOLE

 MUD-MAT CONSTRUCTION ACCESS

 TEMPORARY ROCK CHECK DAM PER
OPSD 219.211 (SEE DETAIL ON
25034-CND1)

 PROPOSED SILT FENCE TO BE INSTALLED
INSIDE ALONG PROPERTY LINE AS PER
TOWN OF CALEDON STD No. 304

 PROPOSED CB SEDIMENT CONTROLS
(SEE DETAIL SHEET)



CONSULTANT:

 15955 AIRPORT ROAD, SUITE 304
CALEDON EAST, ONTARIO, L7C 1H9
PHONE: (905) 584-1458 FAX: (905) 584-1461

Urban Watershed Group Ltd.

*A Member of the **GREENLAND** Group of Companies*
urbanwater@grnland.com

DESIGNED BY: P. ELLIS	DATE: JULY 07, 2025
DRAWN BY: B. KLESS	SURVEYED MAURO GROUP BY: INC. O.L.S.
CHECKED BY: A. McEWEN	DWG. No. 25034-ESC1
SCALE: 1:250	

PROJECT NAME:
PROPOSED TRUCKING FACILITY

6404 MAYFIELD ROAD
CALEDON EAST, ONTARIO

DRAWING NAME:
EROSION & SEDIMENT
CONTROL PLAN