BURNSIDE

484 and 434 Barrick Rd, Port Colborne
Environmental Impact Study

Dunsire Properties Inc.
29 Harriet St.
Hamilton ON L8R 2E5

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Environmental Impact Study

Dunsire Properties Inc.
29 Harriet St.
Hamilton ON L8R 2E5

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July 2025
300059392.0000

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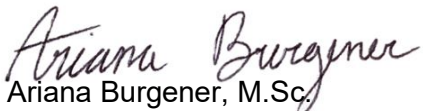
Revision	Date	Description
0	July 23, 2025	Initial Submission to City of Port Colborne

R.J. Burnside & Associates Limited

Report Prepared By:



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Terrestrial Ecologist & ISA Certified Arborist
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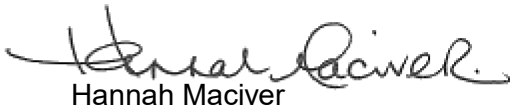
Report Reviewed By:



Hannah Maciver
Project Manager / Senior Ecologist
HM:js

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1.0 Introduction

1.1 Background and Purpose

R.J. Burnside & Associates Limited (Burnside) has been retained by Dunsire Properties Inc. (the Client) to complete an Environmental Impact Study (EIS) for lands located at 484 and 434 Barrick Road in the City of Port Colborne (City), within the Regional Municipality of Niagara (Region) (herein referred to as the "subject lands") (see Figure 1). This work has been completed in support of a Draft Plan of Subdivision and Consent (Land Severance) Application.

The subject lands consist of two lots, 484 and 434 Barrick Road. 484 Barrick Road is undergoing a consent application to sever the property into two parcels; approximately 1.63 ha will remain in use by the Christian Life Assembly, and approximately 4.07 ha will be severed for the proposed development. The subject lands consist primarily of mowed lawn, with a hedgerow running north-south through the center, and a hedgerow running north-south along the southern portion of the eastern limit of the property. A woodland is located immediately south of the property limits. The purpose of this EIS is to support the Due Diligence process and Consent (Land Severance) Application for consideration of future residential development on the subject lands.

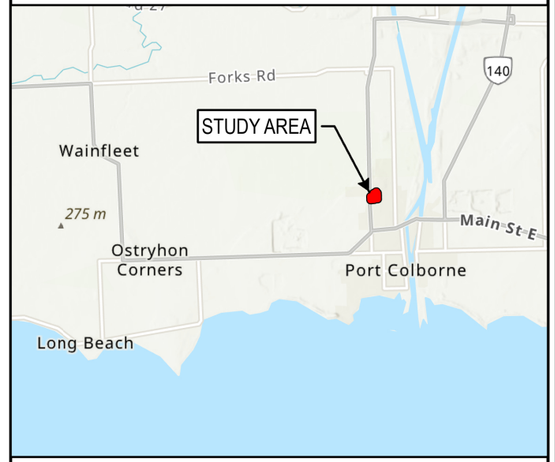
1.2 Scope of Work

This document was prepared in accordance with the approved TOR (Appendix A), Section 4.1 (Natural Heritage) of the Provincial Planning Statement (PPS; MMAH, 2024), the Natural Heritage Reference Manual (NHRM) for Natural Heritage Policies (MNR, 2010) and the Significant Wildlife Habitat Technical Guide (SWHTG; MNR, 2000). As such, the EIS includes:

- A review of applicable environmental policies and regulations.
- A review of existing secondary source data to identify any known natural features.
- Pre-submission consultation with various agencies to identify additional features and to confirm field study methodologies.
- A summary of detailed field assessments that were conducted.
- An assessment of potential impacts resulting from the proposed development.
- Recommended mitigating measures that will allow development to proceed in a manner that is consistent with local, regional, provincial, and federal policies and regulations.

The EIS is organized according to this approach. Each of the report sections corresponds with the above objectives.

Subject Lands



Sources:

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BURNSIDE

Client

DUNSIRE PROPERTIES INC.

Figure Title

DUNSIRE - BARRICK RD, PORT COLBORNE ENVIRONMENTAL IMPACT STUDY

STUDY AREA

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2.0 Planning and Environmental Policy Considerations

The following policies, Acts and regulations apply to features present on the subject lands.

2.1 Federal Species at Risk Act, 2002

The *Species at Risk Act, 2002* (SARA), provides protection for Species at Risk (SAR) and their habitat. Schedule 1 of SARA is considered the official list of wildlife SAR that receive legal protection under the Act and includes species that have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COESWIC) as Extirpated, Endangered, Threatened or Special Concern (Government of Canada, 2017).

To ensure the protection of SAR, Section 32(1) and (2) of the SARA states:

> *(1) No person shall kill, harm, harass, capture or take an individual of a wildlife species that is listed as an extirpated species, an endangered species, or a threatened species*
>
> *(2) No person shall possess, collect, buy, sell or trade an individual of a wildlife species that is listed as an extirpated species, an endangered species or a threatened species, or any part or derivative of such an individual*

And Section 33 of the SARA states:

> *No person shall damage or destroy the residence of one or more individuals of a wildlife species that is listed as an endangered or threatened species, or that is listed as an extirpated species if a recovery strategy has recommended reintroduction of the species into the wild in Canada*

SARA prohibitions pertaining to private lands include:

- Aquatic species listed on Schedule 1 as Endangered, Threatened or Extirpated.
- Migratory birds listed under the Migratory Birds Convention Act, 1994 (MBCA) and listed on Schedule 1 as Endangered, Threatened or Extirpated.
- May apply through an order, to other species listed on Schedule 1 (i.e., not an aquatic or migratory bird species) as Endangered, Threatened or Extirpated, if provincial / territorial legislation or voluntary measures do not adequately protect the species and its habitat.

Although Environment and Climate Change Canada (ECCC) is the overall administrator of SARA, responsibility for implementation of the Act is shared by ECCC and the

Canadian Wildlife Service, Parks Canada and Department of Fisheries and Oceans (DFO). On private lands, ECCC oversees matters related to migratory birds, while DFO oversees matters related to aquatic species. In most cases pertaining to non-aquatic species on private lands, provincial laws (e.g., the *Endangered Species Act, 2007*) provide protection for critical habitat (i.e., habitat that is necessary for the survival or recovery of a listed endangered, threatened, or extirpated species). Alternatively, SARA prohibitions can be applied by an order, as described above, or through federal legislation (including SARA).

2.2 Federal Migratory Birds Convention Act, 1994 and Migratory Birds Regulations, 2022

The MBCA and Migratory Birds Regulations (MBR) are federal legislative requirement that are binding on members of the public and all levels of government, including federal and provincial governments. The legislation protects certain species[1], controls the harvest of others and prohibits the commercial sale of all species.

The MBCA updated and modernized the MBR in 2022. The previous regulations protected the nests of all migratory birds, at all times, for as long as they existed, which meant that many nests were protected when they no longer benefited migratory birds. The new MBR provides protection to migratory bird nests when they are considered to have a high conservation value for migratory birds.

The nests of all migratory bird species are protected when they contain a live bird or a viable egg. The nests of 18 species (listed in Schedule 1 of the regulations), whose nests are reused by migratory birds, continue to have year-round nest protection, unless they have been shown to be abandoned. To be considered abandoned:

- Minister must be notified, via an online registration system (Notice: Abandoned Nest Registry - Canada.ca) that the nest does not contain a live bird or viable egg; and
- Nest is to remain unused by migratory birds during the designated wait time for that species.
- Of the 18 species, three are known to commonly breed in Southern Ontario: Great Blue Heron, Green Heron, and Pileated Woodpecker.

Permits are available under limited circumstances and mostly relate to egg or nest destruction or relocation "*for the purpose of reducing the danger that they are causing or are likely to cause to human health or public safety or the damage they are causing or are likely to cause to agricultural, environmental or other interests."* Environment Canada and the Canadian Wildlife Service have compiled nesting calendars that show the variation in nesting intensity, by habitat type and nesting zone, within broad geographical areas distributed across Canada. While this does not mean nesting birds will not nest outside of these periods, the calendars can be used to greatly reduce the risk of encountering a nest. Environment Canada advises avoidance as the best approach.

2.3 Provincial Planning Act, 1990

Section 2 of the *Planning Act* contains matters of provincial interest that approval authorities must have regard to in carrying out the responsibilities under the Act. The matters of provincial interest include the protection of ecological systems, including natural areas, features and functions.

2.3.1 Provincial Planning Statement, 2024

The Provincial Planning Statement (PPS; MMAH, 2024) provides general policies on land use patterns, resources, and public health and safety that guide development across Ontario. All planning decisions are required to be consistent with the applicable provisions of the PPS.

Eight types of natural heritage features are identified in Section 4.1, policies 4.1.4 and 4.1.5 of the PPS, where development and site alteration are not permitted unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. The Natural Heritage Reference Manual (NHRM) (MNR, 2010) provides criteria for identifying provincially significant features; these are listed below and described in more detail in Section 6.0 of this report:

1. Significant Wetlands in Ecoregions 5E, 6E, and 7E.
2. Significant Coastal Wetlands.
3. Significant Wetlands in the Canadian Shield, north of Ecoregions 5E, 6E, and 7E.
4. Significant Woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River).
5. Significant Valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and St. Marys River).
6. Significant Wildlife Habitat (SWH).
7. Significant Areas of Natural and Scientific Interest (ANSIs).
8. Coastal wetlands in Ecoregions 5E, 6E, and 7E that are not subject to policy 2.1.4(b).

Section 4.1, policies 4.1.6, 4.1.7 and 4.1.8 identifies three additional development and site alteration prohibitions and exemptions, as follows:

1. Fish habitat, except in accordance with provincial and federal requirements.

2. Habitat of Endangered and Threatened species, except in accordance with provincial and federal requirements.

3. On adjacent lands to the natural heritage features and areas identified in policies 4.1.4, 4.1.5, and 4.1.6, unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

The presence, or potential presence, of these features as well as the policy and planning implications of these features for development, are discussed in detail in this report.

2.4 Provincial Endangered Species Act, 2007

The *Endangered Species Act, 2007* (ESA) provides protection for SAR and their habitat. The ESA is administered by the Ministry of the Environment, Conservation and Parks (MECP) and provides policies for the protection of Extirpated, Endangered and Threatened species, as well as species of Special Concern. These four categories of species form the Species at Risk in Ontario (SARO) List, which are classified by the Committee on the Status of Species at Risk in Ontario (COSSARO). COSSARO is also responsible for maintaining criteria for assessing and classifying SAR.

On June 5, 2025, the Province of Ontario enacted the *Protect Ontario by Unleashing our Economy Act, 2025* (Bill 5). This legislation makes amendments to the ESA and will be in effect until such time as the new *Species Conservation Act, 2025* (SCA) is proclaimed which will replace the amended ESA. The amended ESA reflects changes to the MECP's approach to protecting and conserving species. A new habitat definition has replaced the previous definition in the ESA and "harass" has been removed from the prohibitions regarding harms to species. There are no longer specific permit types and permits now have simplified requirements.

Under the amended ESA, the SARO List is still in place, and conditional exemptions and new permits continue to be available. The SARO List continues to include aquatic species and migratory birds that may also be protected under the federal Species at Risk Act (SARA); this will not be the case under the future SCA. Activities impacting species and their habitat that receive protections under the amended ESA (as outlined on the SARO List) continue to require authorization or exemption.

It will be important for the proponent to continue to be apprised of any amendments to the Act that may come into force for the duration of this project.

2.5 Provincial More Homes Built Faster Act, 2022

One of the goals of the *More Homes Built Faster Act, 2022* (Bill 23) is to "*further focus Conservation Authorities on their core mandate, support faster and less costly*

approvals, streamline Conservation Authority processes and help made land suitable for housing available for development."

When reviewing and commenting on development and land use planning, the Conservation Authorities are limited to commenting on Category 1 programs (Natural Hazards). Category 1 programs include stormwater management, floodplain, steep slopes, erosion prone areas and wetlands.

Under this legislation, Conservation Authorities are no longer able to comment on Category 2 (municipal programs and services they provide at the request of the Municipality) or Category 3 (other programs and services the CA determines to be advisable) programs under certain prescribed Acts including (but not limited to):

- The *Endangered Species Act*
- The *Planning Act*

Category 2 programs include land use planning and development related to Natural Heritage, municipal-led Subwatershed Studies and Tree Planting Plans. Category 3 programs include surface water quality monitoring and land acquisition.

A second goal of Bill 23 was to shift in planning responsibilities from upper-tier municipalities to local municipalities. As a result, effective April 1, 2025, the City of Port Colborne inherited the planning responsibilities previously assigned to Niagara Region. This includes the responsibility for implementation of the Niagara Region Official Plan (OP).

2.6 Niagara Peninsula Conservation Authority

2.6.1 Conservation Authorities Act, 1990

On April 1, 2024, amendments to the *Conservation Authorities Act, 1990* governing the permitting process were proclaimed including a new section, "Part VI – Regulation of Areas Under Which Authorities Have Jurisdiction". A new Minister's regulation for all CAs was approved on February 16, 2024, Ontario Regulation 41/24: Prohibited Activities, Exemptions and Permits, and also came into effect on April 1, 2024. This new, single regulation replaces all existing individual CA permit regulations.

Part VI of the CA Act sets out the Regulatory Powers of CAs. Specifically, the CA Act prohibits, in the absence of a permit "*activities to straighten, change, divert or interfere in any way with the existing channel of a river, creek, stream or watercourse or to change or interfere in any way with a wetland.*" Development activities are also prohibited in hazardous lands, wetlands, river or stream valleys and shorelines in the absence of a permit.

2.6.2 Ontario Regulation 41/24

To implement, in part, the provisions of Part VI of the CA Act, Ontario Regulation 41/24 applies to all CAs in the province, including NPCA. A principal mandate of NPCA is to prevent the loss of life and property due to flooding and erosion and to conserve and enhance natural resources. Ontario Regulation 41/24 is a key tool in fulfilling this mandate because it prevents or restricts development activity in areas where the control of flooding, erosion, dynamic beaches, unstable soil or bedrock may be affected by development. Further development activity is prohibited if an activity is likely to create conditions or circumstances that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in damage or destruction of property.

NPCA will assess any future permit applications to determine if the proposed works will affect regulated features, in accordance with their programs and policies.

There are no NPCA regulated features on the subject lands or adjacent lands.

2.7 City of Port Colborne Official Plan

The City's OP (September 2017) establishes a policy framework for land use planning, designed to promote the health, safety, convenience, and well-being of both current and future residents by guiding future development and land-use decisions within the plan boundaries. According to Schedule A (City-Wide Land use) of the City's OP, the subject lands are within the Urban Area Boundary of the City and mapped as Urban Residential. Urban Residential lands are defined by the City's OP as "*those lands that are primarily used for residential purposes and represent the existing and planned built-up areas within the Urban Area Boundary*".

According to Schedule B (Natural Heritage) of the City's OP, no natural heritage features are present on the subject lands. However, the woodland located south of the subject lands is mapped as an Environmental Conservation Area (ECA). Schedule B2 (Environmental Conservation Area) maps this woodland as a Significant Woodland. Section 4.3.1, f of the City's OP states that an EIS will be required for new development proposals for all adjacent lands within 50 m of designated ECA lands to demonstrate that there will be no negative impacts on surrounding features.

The ECA is within 50 m of the subject lands. As such, it must be demonstrated through an EIS that there will be no negative impacts from the development on the Significant Woodland.

2.7.1 Comprehensive Zoning By-law (6575/30/18) (2018)

The Comprehensive Zoning By-Law (6575/30/18) was created to implement policies of the City's OP and specifies where certain land-uses are permitted and what regulations

should apply to the development of certain lots. According to Schedule A8, 484 Barrick Road is currently zoned (I) Institutional and 434 Barrick Road is zoned (R3) Third Density Residential.

2.7.2 Niagara Official Plan

As a result of Bill 23, the City is now responsible for administering the Region's OP (November 2022). The Region's OP provides a strategic policy planning framework to manage growth in Niagara and guide land use and development. According to pre-consultation notes and mapping in Schedule C2 (Natural Environment System: Individual Components and Features), the subject lands are adjacent to the Region's Natural Environment System (NES), consisting of a Significant Woodland south of the subject lands.

Niagara OP Policy 3.1.9.7. requires the completion of an EIS when development or site alteration is proposed within 120 m of Significant Woodland (as described above in Section 2.7).

Niagara OP Policy 3.1.9.9.1 requires mandatory buffers from natural heritage features. The width of these buffers is to be determined through an EIS, based on the sensitivity of the ecological functions and the potential impacts of the proposed land use change. An appropriate buffer is proposed in Section 7.0 based on determined natural feature characteristics and ecological functions.

3.0 Background Records Review and Agency Consultation

A comprehensive desktop assessment was completed to review existing natural heritage information available for the subject lands. All areas within 120 m of the subject lands were reviewed as part of the high-level assessment to identify significant natural heritage features located within, or directly adjacent to the subject lands, that may be impacted by future development (herein referred to as "adjacent lands").

Information reviewed included, but was not limited to, the following sources:

- Aerial photographic imaging and 1:10,000 Ontario Base Mapping (OBM).
- Ministry of Natural Resources (MNR) Make a Map: Natural Heritage Areas to identify natural heritage features and Natural Heritage Information Centre (NHIC) data of rare wildlife species on, and in the vicinity of, the subject lands: 1x1 km^2 Squares: 17PH4152.
- MNR Land Information Ontario (LIO) database.
- MNR Natural Heritage Areas Mapping (2025).
- MNR Online GeoHub Search.
- Ontario Hydrology Network (OHN) mapping.
- The Ontario Breeding Bird Atlas (OBBA) 2001-2005 – 10x10 km^2 Square 17PH45.

- Ontario Reptile and Amphibian Atlas (ORAA) – 10x10 km^2 Square 17PH45.
- iNaturalist records.
- eBird records.
- NPCA regulated features mapping.
- The City of Port Colborne Official Plan (September 2017).
- Comprehensive Zoning By-law (By-law 6575/30/18) (2018)
- Niagara Official Plan (November 2022)
- Niagara Region EIS Guidelines (January 2018).
- Provincial Planning Statement (2024).
- Provincial ESA(2007).
- Federal *Fisheries Act* (1985).
- Federal MBCA (1994) and the Migratory Bird Regulations (MBR).

The subject lands are in the jurisdiction of NPCA and Ministry of Natural Resources (MNR) Aylmer Guelph District. Species protected under the ESA are administered by the MECP, Species at Risk Branch. Online NPCA Regulation mapping shows there are no regulated lands within the subject lands.

The following is a summary of agency correspondence background data requests and replies to date:

- A TOR and information data request was sent to the City via email to David Schulz, Planner, and Diana Vasu, Planner, on January 10, 2025.
- A TOR and information data request was sent to the Region via email to Katie Young, Development Planner, and Cara Lampman, Watershed Planner, on January 10, 2025; a response from Lori Karlewicz, Planning Ecologist, Public Works Department, was received on January 27, 2025. Additional correspondence occurred on January 29, 2025, and February 3, 2025.
- Lori Karlewicz requested additional surveys focused on the woodland to be completed; three season vegetation survey, breeding bird surveys, bat surveys, and incidental observations of reptiles and amphibians.
- Following April 1, 2025, the City inherited the planning responsibilities previously assigned to the Region. On May 28, 2025, a meeting with Erik Acs, Chief Planner at the City was arranged to discuss the scope of work for the EIS. During the meeting it was determined that the additional surveys previously requested by the Region were not necessary. A three-season vegetation survey would still be maintained but breeding bird and bat surveys were no longer required.

A copy of the TOR can be found in Appendix A.

3.1 Species at Risk

Species at Risk recorded from Burnside's background records review and field investigations are included in the detailed SAR Screening Table in Appendix B. In summary, the following provincially listed SAR were identified as potentially present on the subject lands and / or adjacent lands:

Birds

- Wood Thrush (*Hylocichla mustelina*) (THR – SARA, SC – ESA)
- Eastern Wood-pewee (*Contopus virens*) (SC – SARA and ESA)
- Red-headed Woodpecker (*Melanerpes erythrocephalus*) (END – SARA and ESA)

Insects

- Monarch (*Danaus plexippus*) (END – SARA, SC – ESA)

Mammals

- Eastern Red Bat (*Lasiurus borealis*) (END - ESA)
- Hoary Bat (*Lasiurus cinereus*) (END - ESA)
- Little Brown Myotis (*Myotis lucifugus*) (END – SARA and ESA)
- Northern Myotis (*Myotis septentrionalis*) (END – SARA and ESA)
- Silver-haired Bat (*Lasionycteris noctivigans*) (END - ESA)
- Tri-colored Bat (*Perimyotis subflavus*) (END – SARA and ESA)

Plants

- Butternut (*Juglans cinerea*) (END – SARA and ESA)
- Black Ash (*Fraxinus nigra*) (END – ESA)
- Eastern Flowering Dogwood (*Cornus florida*) (END – SARA and ESA)
- White Wood Aster (*Eurybia divaricate*) (THR – SARA and ESA)

4.0 Methodology

4.1 Ecological Land Classification and Botanical Inventory

The study limits for characterization of vegetation communities and species included the subject lands plus approximately 50 m beyond, where accessible. The woodland to the south of the subject lands was surveyed, with a specific focus on search for SAR plants. Ecological Land Classification (ELC) and two botanical inventories were undertaken on May 9, 2025 and June 25, 2025. A final visit in autumn 2025 is planned to specifically search for White Wood Aster during its bloom period. Results from this survey will be submitted via an addendum to this EIS.

All species herein are described according to nomenclature and S-ranks provided by the NHIC. Species rarity is based on:

- Species' status under the ESA and SARA..
- Species' S-rank as provided on the NHIC database.
- Rarity for the Region as listed in *Natural Areas Inventory: Checklist of the Vascular Plants of Niagara Regional Municipality, Ontario* (Oldham, 2010).

ELC followed the Ecological Land Classification for Southern Ontario: First Approximation and Its Application (Lee et al. 1998) with a focus on using Second Approximation 2008 codes (Lee, 2008).

4.2 Species at Risk and Significant Wildlife Habitat

One of the objectives of this EIS was to determine the protections required for the Significant Woodland adjacent to the subject lands. As such, careful review for potential SAR and SWH on the subject lands and, in particular, on the adjacent lands was conducted on May 9, 2025 and June 25, 2025. Although comprehensive notes were taken to identify any SAR or SWH, emphasis was placed on the search for:

- Vernal pools or ponds for amphibians
- Snake hibernacula
- Cavities for bats
- Nesting cavities of woodpeckers

A screening table for SAR and SWH can be found in Appendix B and Appendix C, respectively. SAR and SWH are discussed in further detail in Section 6.0, Table 1.

5.0 Existing Conditions

5.1 Ecological Land Classification

CVR_4: Rural Property

The majority of the subject lands are classified as CVR_4. They consist of a regularly mowed lawn, dominated by conventional grass and forb species commonly found in lawns. Kentucky Bluegrass (*Poa pratensis*), Narrow-leaved Plantain (*Plantago lanceolata*), White Clover (*Trifolium repens*) and Red Clover (*Trifolium pratense*). Abundant Black Medic (*Medicago lupulina*) and Field Strawberry (*Frageria vesca*) were also present.

TAGM5: Fencerow

Two fencerows are present both running in a north-south direction. One is located at the centre of the subject lands and the other is located at the eastern limits. Both fencerows are dominated by Black Walnut (*Juglans nigra*) in the canopy, with occasional Black Cherry (*prunus serotina*) and Sugar Maple (*Acer saccharum*). Abundant Green Ash (*Fraxinus pennsylvanica)* regeneration was present in the understory, along with Riverbank Grape (*Vitis riparia*), and Black Raspberry (*Rubus occidentalis*). The ground layer was dominated Thicket Creeper (*Parthenocissus vitacea*) and Canada Avens (*Geum canadense*).

The center fencerow also contained abundant Black Hawthorn (*Crataegus douglasii*) and Tatarian Honeysuckle (*Lonicera tatarica*) and rare Bur Oak (*Quercus macrocarpa*), which were not present in the eastern fencerow.

FODM10: Fresh - Moist Carolinian Deciduous Forest Ecosite

South of the subject lands, there is a woodland approximately 2.5 ha in size, which is mapped as Significant Woodland in the City's OP. The canopy is dominated by Black Walnut, with abundant Sugar Maple and Green Ash. The understory contained abundant Green Ash samplings, Virgina Creeper (*Parthenocissus quinquefolia*), Black Raspberry and American Bladdernut (*Staphylea trifolia*). The understory exhibits a wide variety native woodland ephemerals including Yellow Trout-lily (*Erythronium americanum*), Blue Cohosh (*Caulophyllum thalictroides*), Early Meadow-rue (*Thalictrum dioicum*), Woolly Blue Violet (*Viola sororia*), False Solomon's Seal (*Maianthemum racemosum*), Bloodroot (*Sanguinaria canadensis*), Spotted Geranium (*Geranium maculatum*), May-apple (*Podophyllum peltatum*), White Trillium (*Trillium grandiflorum*), Wood Anemone (*Anemone quinquefolia*) and Spring Beauty (*Claytonia virginica*).

Houses back onto the woodland from the south and east. There is evidence of human use of the woodland in the form of mowed walking trails, occasional littler as well as common woodland invasives, such as Garlic Mustard (*Alliaria petiolate*), Tartarian Honeysuckle and rare occurrences of European Buckthorn (*Rhamnus cathartica*).

Ecological Land Classification

Woodland 10m Setback

Subject Lands

ELC Descriptions
CVR_4: Rural Property
TAGM5: Fencerow
FODM10: Fresh - Moist Carolinian Deciduous Forest

Sources:

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N
Grid North

0 25 50 75 100
Metres

BURNSIDE

Client

DUNSIRE PROPERTIES INC.

Figure Title

DUNSIRE - BARRICK RD, PORT COLBORNE ENVIRONMENTAL IMPACT STUDY

ECOLOGICAL LAND CLASSIFICATION

Drawn	Checked	Date	Figure No.
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5.2 Botanical Inventory

A botanical inventory of species identified on the subject lands can be found in Appendix D. The following summarizes the flora observed on the subject lands during field surveys:

- Ninety-four (94) plant taxa were observed, which were identified to species or subspecies level. Of those species, 59 (63%) were native and 35 (37%) were non-native to Ontario.
- All native species were secure S5 (common) or apparently secure S4 (uncommon, but not rare) in Ontario.
- Six species were observed that are considered uncommon to the Niagara Region (Oldham, 2010):
  - Burreed Sedge (*Carex sparganioides*)
  - Canada Moonseed (*Menispermum canadense*)
  - Virginia Creeper (*Parthenocissus quinquefolia*)
  - Bur Oak (*Quercus macrocarpa*)
  - American Bladdernut (*Staphylea trifolia*)
- One species was observed that is considered rare to the Niagara Region (Oldham, 2010):
  - Limestone Bittercress (*Cardamine douglassii*)
- No SAR flora were observed on the subject lands.

Canada Moonseed was observed in the eastern hedgerow and a sapling Bur Oak was found in the centre hedgerow. All other regionally uncommon and rare species were observed in the woodland south of the subject lands. The plant populations in the woodland will not be impacted by the proposed development (see Section 8.0).

6.0 Identification of Provincially Significant Features

As stated in Section 2.3.1, eight types of provincially significant natural heritage features are identified in policies 4.1.4 and 4.1.5 of the PPS (MMAH, 2024), where development and site alteration are not permitted unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. Table 1 defines each feature and speaks to their presence on the subject lands and adjacent lands.

Table 1: Provincially Significant Features on the Subject Lands and Adjacent Lands

Significant Feature	Definition	Applicable to Subject Lands	Applicable to Adjacent Lands
Provincially Significant Wetlands	Section 8.0 of the PPS (MMAH, 2024) defines Significant Wetlands as "*an area identified as provincially significant using criteria and procedures established by the Province, as amended from time to time.*" PSWs are identified by MNR and can be found by searching the Ontario GeoHub open dataset or NHIC's Make a Map: Natural Heritage Areas.	No PSW on the subject lands.	No PSW on adjacent lands.
Significant Valleylands	The NHRM (MNR, 2010) provides criteria for identifying Significant Valleylands, including a variety of landform related functions and attributes as well as ecological features and functions. According to the NHRM, a Significant Valleyland is defined as: "*a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of the year. Large, well-defined valleylands are often significant landscape features essential to the character of an area."* Additionally, the PPS (2024) defines Significant Valleylands as: "*ecologically important in terms of features, functions, representation, or amount, and contributing to the quality and diversity of an*	No Significant Valleylands on the subject lands. There are no valleys or landform depressions present that meet the provincial criteria.	No Significant Valleylands on the subject lands. There are no valleys or landform depressions present that meet the provincial criteria.

Significant Feature	Definition	Applicable to Subject Lands	Applicable to Adjacent Lands
	identifiable geographic area or natural heritage system".		
Significant Woodlands	The City's OP (2017) defines a Significant Woodland as: "*an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size, or due to site quality, species composition, or past management history*".	No Significant Woodlands on the subject lands.	A Significant Woodland is present immediately south of the subject lands.
Significant Area of Natural and Scientific Interest	According to the PPS (MMAH, 2024), ANSIs are defined as: "*areas of land and water containing natural landscapes or features that have been identified as having life science or earth science values related to protection, scientific study or education.*" According to the NHRM (MNR, 2010), provincially significant ANSIs include some of the most significant and best examples of these features in the province, and only include ANSIs identified as provincially significant. ANSIs are identified by MNR and can be found by searching the Ontario GeoHub open dataset or NHIC's Make a Map: Natural Heritage Areas.	No ANSIs on the subject lands.	No ANSIs on adjacent lands.

Significant Feature	Definition	Applicable to Subject Lands	Applicable to Adjacent Lands
Significant Wildlife Habitat	Determination of SWH is broadly categorized and described in the NHRM (MNR, 2010). Additionally, MNR's SWHTG (2000) and SWH Criteria Schedule for Ecoregion 6E (2015) are further supplemental documents intended to assist in identifying SWH. The four main categories of SWH are: 1. Habitats of seasonal concentrations of animals. 2. Rare vegetation communities, or specialized habitat for wildlife. 3. Habitat of species of conservation concern. 4. Animal movement corridors.	No SWH were identified on the subject lands. See Appendix C for SWH Screening Table.	No SWH were identified on the adjacent lands. See Appendix C for SWH Screening Table.
Habitat of Endangered or Threatened Species	Burnside's background database review, consultation with agencies, and field investigations revealed the potential for species listed as Endangered or Threatened under the ESA on the subject lands and / or adjacent lands (Appendix B).	No habitat of Endangered or Threatened Species were identified on the subject lands.	Candidate habitat of Endangered species were identified on the adjacent lands: • Little Brown Myotis • Northern Myotis • Tri-colored Bat • Eastern Red Bat • Hoary Bat • Silver-haired Bat • Red-headed Woodpecker • White Wood Aster

7.0 Delineation of Environmental Constraints

Environmental constraints have been developed following background review, field investigations and agency consultation. As summarized in Table 1, there are no provincially significant natural heritage features on the subject lands. However, there is a Significant Woodland immediately south of the subject lands.

Per the NHRM (MNR, 2010), it should be demonstrated that the proposed development will have no negative impacts on adjacent natural features or their ecological functions. Furthermore, a buffer from development is required. Section 4.1.1 j) of the City's OP states:

> *"Undisturbed, vegetated buffers will be required between a Natural Heritage Feature and any proposed buildings or structures of adjacent development and unless reduced buffers are determined by an Environmental Impact Study, the size of the buffers shall be:*
>
> *…*
>
> *v) Significant Woodland 50 meters"*

Niagara OP Policy 3.1.9.9.1 requires mandatory buffers from natural heritage features. The width of these buffers is to be determined through an EIS, based on the sensitivity of the ecological functions and the potential impacts of the proposed land use change.

In order to evaluate the sensitivity of the woodland, the feature was searched to determine if it met the criteria of any SWH, for the presence of SAR flora and for candidate habitat of SAR fauna. The woodland did not meet the criteria for SWH and did not contain any SAR plants. However, it did contain potential habitat for SAR bats, Red-headed Woodpecker and White Wood Aster.

Cavity trees and large canopy trees were observed within the woodland. While they were not observed in great enough concentrations to be considered SWH for Silver-haired or Big Brown Bat, they still have the potential to act as habitat for six of the seven endangered species of bat. All potential SAR bat habitat is confined to the limits of the woodland. While no Red-headed Woodpecker cavities were observed within the woodland, their presence cannot be ruled out. A buffer wide enough to ensure tree root zones are not impacted is sufficient to protect the candidate bat and Red-headed Woodpecker habitat present in the woodland.

No SAR flora were observed in the woodland, therefore buffer requirements for the woodland do not need to consider protection of SAR flora. However, a supplementary site visit will be conducted in autumn 2025 to search for presence of White Wood Aster. White Wood Aster typically blooms from August to October and can be identified with the

most certainty during this period. The results of this survey will be provided in an addendum to this EIS. If the aster is present, the required buffer for its protection will be determined in consultation with MECP.

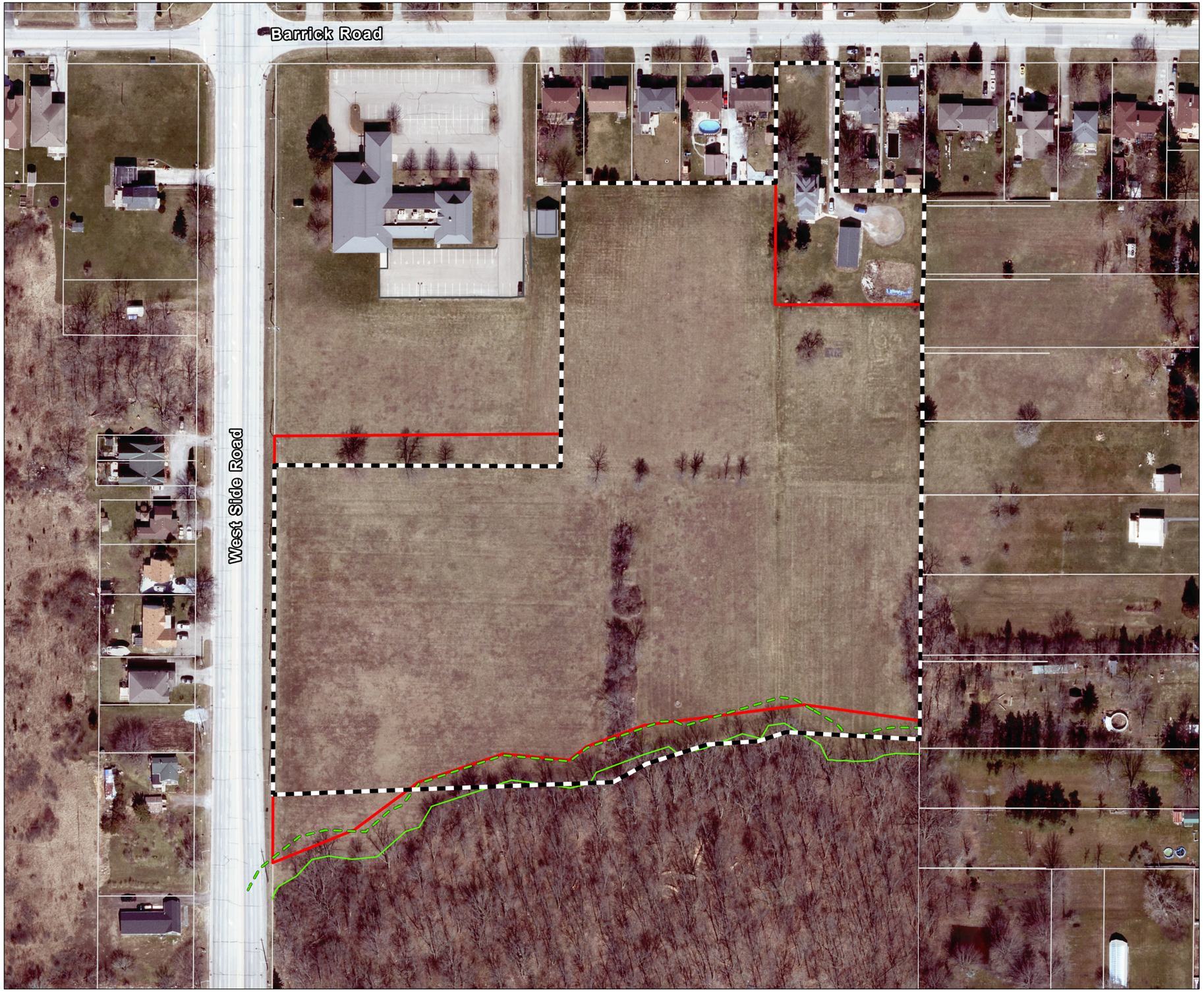
In determining an appropriate buffer for the natural heritage feature, the feature's sensitivity to negative impacts was considered. The PPS (2024) defines *Negative Impacts* in regard to natural heritage features as the "*degradation that* **threatens the health and integrity** *of the natural features* **or ecological functions** *for which an area is identified due to single, multiple or successive development or site alteration activities.*"

No trees or other vegetation within the woodland are proposed for removal, the feature is not being fractured, the woodland edge will remain unchanged and no existing connections or corridors are being removed. As such, no edge effects such as wind scald or sun scald will be caused by the proposed development. Furthermore, the woodland is an isolated fragment that is currently bordered on each side by anthropogenic land uses – residential, institutional and infrastructure. The proposed development will not remove any natural vegetation that would have provided protection to the woodland edge.

The woodland has existing trails and pressures from human populations. As an urban woodlot with existing impacts from humans, the goal of buffers is not to eliminate indirect impacts, but to mitigate and reduce them, allowing the woodland to function as it has previous to the proposed development.

It is Burnside's assessment that a buffer of 10 m would maintain the health and integrity of the woodland and ensure its ecological function. This buffer is sufficient to protect the roots of the trees retained within the woodland. The Arborist Report (RJB, January 2025) inventoried all trees on the woodland edge and mapped their Tree Protection Zones (TPZs). All TPZs are well within the 10 m buffer, ensuring that none of the retained trees' roots will be impacted by the development.

The proposed lot line has been drawn to be an average of 10m from the dripline. Communication with Erik Acs, Chief Planner at the City on July 22, 2025 indicated that the lot line should follow the 10m buffer closely, but that the line could smooth out the strongest peaks and divots, so long as they were balanced out. Figure 3 shows the proposed lot line.



Proposed Lot Line

Surveyed Dripline

Surveyed Dripline 10m Buffer

Subject Lands

Sources:

1. Ministry of Natural Resources, © Queen's Printer for Ontario
2. Natural Resources Canada © Her Majesty the Queen in Right of Canada.

Disclaimer:

R.J. Burnside & Associates Limited and the above mentioned sources and agencies are not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

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BURNSIDE

Client

DUNSIRE PROPERTIES INC.

Figure Title

DUNSIRE - BARRICK RD, PORT COLBORNE ENVIRONMENTAL IMPACT STUDY

PROPOSED LOT LINE

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8.0 Impacts and Mitigation

8.1 Direct Impacts and Mitigation

Two hedgerows will be removed from the subject lands, along with a single Bur Oak sapling and a small population of Canada Moonseed. Both are regionally uncommon according to Oldham (2010) but are provincially ranked as Secure S5 and Apparently Secure S4, respectively.

During vegetation removal, there is potential for disturbance or destruction of migratory breeding birds and their habitat (prohibitions under the MBCA). To reduce the risk of contravening the MBCA, timing constraints shall be applied to avoid removal of the hedgerow vegetation during the breeding bird period – broadly from April 1 to August 31 for most species (regardless of the calendar year). Therefore, hedgerows must be removed between September 1 and March 31.

The proposed development is not anticipated to cause any direct impacts to natural heritage features.

8.2 Indirect Impacts and Mitigation

While there are no anticipated direct impacts to the Significant Woodland on adjacent lands, possible indirect impacts from the proposed development have been considered which may put pressure on the woodland's integrity. The NHRM (2010) suggests some possible impacts to consider. These are listed in Table 2, along with recommended mitigation measures.

Table 2: Significant Woodland - Indirect Impacts and Mitigation Measures

Potential Indirect Impact	Recommended Mitigation Measures
Increased output of nutrients and contaminants from fertilizers and herbicides	The woodland is currently bordered on each side by anthropogenic land uses. The proposed development is unlikely to increase pressure from nutrients and contaminants by a significant amount. Hickey and Doran (2002) found that buffers of 10 m provided benefits to reducing nitrogen and sediment runoff. It was noted in the report that the vegetation within the buffer (e.g., grasses vs woody vegetation) also makes a significant impact in the buffer filtration ability. A dense mix of both seemed to provide the greatest protection. The buffer will naturalize over time and both herbaceous and woody species will colonize the buffer zone.
Dumping of debris and compost in natural areas	Houses backing onto the woodland buffer will have fences clearly delineating the property boundaries. This will reduce encroachment into the buffer from residents looking to expand their backyards and reduce the likelihood of dumping in the woodlot. “No Dumping” signs will be erected along the woodland boundary with fines marked to further deter impacts from debris and compost dumping. Each new home will be provided with a welcome package that will include a brochure on activities to avoid and rules for buffer protection.

Potential Indirect Impact	Recommended Mitigation Measures
Trampling of vegetation and soil compaction from informal trails	"No Trespassing" signs are currently placed along the woodland boundary. These will remain in place to deter residents from entering the private property that the woodland is situated on.
Introduction of invasive species	The welcome package for residents will include a link to the Ontario Invasive Plant Council's "Grow Me Instead" Guide (2020), which suggests native plants to use in home gardens instead of common invasive plants.
Increased predation from pets	Kays and DeWan (2004) found house cats primarily hunt within their or their immediate neighbor's yard or in the first 10 m of woodland. A 10 m vegetated buffer would greatly reduce impacts from hunting house cats. A more recent study by Kays et al (2020) also determined that "most (75%) cats used primarily (90%) disturbed habitats". Indicating that the impacts of urban cats on the adjacent woodland may be smaller than expected.
Impacts from construction activities	The limits of the construction area should be delineated with silt fencing. A detailed Erosion and Sediment Control (ESC) Plan will be established during the detailed design approvals process for the site. Construction activity should be contained to the development area of the site. No stockpiling or refuelling should occur within 30 m of the woodland.

9.0 Summary

This EIS has been completed in support of a Consent (Land Severance) Application to sever the property located at 484 Barrick Road into two parcels. Approximately 4.07 ha is to be severed for the proposed development. The subject lands consist primarily of mowed lawn and two hedgerows. A Significant Woodland is located immediately south of the subject lands, outside the property limits.

A two-season botanical inventory, ELC survey and dedicated searches for SWH and SAR habitat were completed on the subject lands and in the adjacent woodland. No sensitive features such as SWH or SAR flora were observed on the subject lands or in the adjacent woodland; however, potential SAR habitat is present in the woodland. An autumn 2025 survey will be completed to determine presence or absence of White Wood Aster in the woodland.

A 10 m buffer is recommended to avoid impacts to the woodland. The proposed lot severance line will be situated along the outside edge of the 10 m buffer to the woodland. As such, neither the natural heritage feature nor its buffer will be severed.

Direct impacts to the subject lands are limited to hedgerow removals which will remove a population of regionally uncommon Canada Moonseed and a single Bur Oak sapling. Impacts to migratory birds will be avoided by clearing vegetation between September 1 and March 31 of any calendar year. There are no direct impacts to the adjacent woodland or its buffer.

Indirect impacts to the woodland from the proposed development have been considered in Section 8.0. Several mitigation measures have been proposed to reduce the significance of these potential impacts. With these mitigation measures in place, there are no negative impacts anticipated to the Significant Woodland adjacent to the subject lands.

10.0 References

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R.J. Burnside & Associates. 2025. Barrick Rd, Port Colborne Arborist Report

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Appendix A

Agency Communication

R.J. Burnside & Associates Limited 1266 South Service Road, Suite C2-1 Stoney Creek ON L8E 5R9 CANADA
telephone (289) 246-7400 **fax** (226) 526-9660 **web** www.rjburnside.com

BURNSIDE
[THE DIFFERENCE IS OUR PEOPLE]

January 10, 2025

Via: Email

David Schulz
Planner
City of Port Colborne
66 Charlotte St
Port Colborne ON L3K 3C8

Dear Mr. David Schulz:

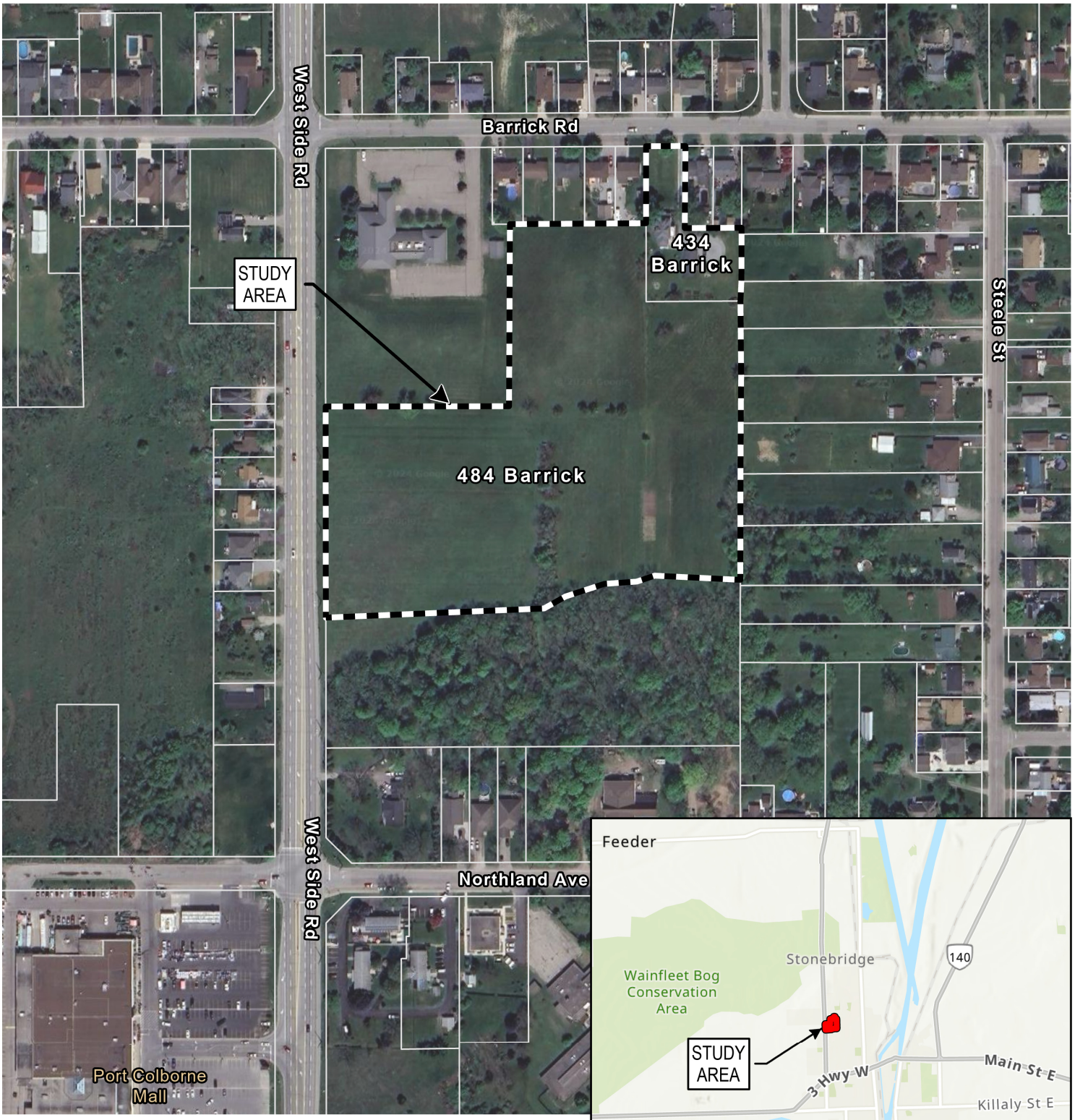
Re: Barrick Rd, Port Colborne
Environmental Impact Study Terms of Reference
Project No.: 300059392.0000

R.J. Burnside & Associates Limited (Burnside) has been retained by Dunsire Properties Inc. to undertake an Environmental Impact Study (EIS) for the lands located at 484 and 434 Barrick Road in the City of Port Colborne (City), within the Regional Municipality of Niagara (Region) (herein referred to as the subject lands), shown in Figure 1. The subject lands are being considered for a future residential development and an EIS will be prepared as part of the due diligence process and severance application. 484 Barrick Road is undergoing a consent application to sever the property into two parcels; approximately 1.63 ha to remain in use by the Christian Life Assembly, and approximately 4.07 ha to be severed for the proposed development.

The subject lands consist primarily of mowed lawn, with a hedgerow running north-south, through the center of the land, and north-south along the southern portion of the eastern limit of the property. A woodland is located immediately south of the property limits. The City may be required to attend a site visit with Burnside ecologists to confirm the limits of the woodland. The EIS will recommend appropriately sized buffers based on natural feature characteristics and ecological functions, as well as applicable policies.

This letter provides the proposed Terms of Reference (TOR) for the EIS in support of a Draft Plan of Subdivision and Consent (Land Severance) Application. At this time, we are seeking your input and would appreciate any comments on our approach, as well as any additional information you may have that is relevant to our study.

484 AND 434 BARRICK RD
STUDY AREA



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Checked By: AB
Client: Dunsire Properties Inc.
Project: Dunsire - Barrick Rd Port Colborne
Project Number: 300059392
Date: 2025/01/07

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Part I: Background Secondary Source Information

Burnside has conducted a site visit and reviewed the following background sources:

- Aerial photographic imaging and 1:10,000 Ontario Base Mapping (OBM).
- Ministry of Natural Resources (MNR) Natural Heritage Information Centre (NHIC) database for significant species and designated natural features.
- Ontario Breeding Bird Atlas (OBBA) database for avian species records within the general area.
- Ontario Reptile and Amphibian Atlas (ORAA) database for herpetofauna species records within the general area.
- MNR Land Information Ontario (LIO) database.
- MNR Natural Heritage Areas Mapping (2025).
- Niagara Peninsula Conservation Authority (NPCA) regulated features mapping.
- The City of Port Colborne Official Plan (September 2017).
- Comprehensive Zoning By-law (By-law 6575/30/18) (2018).
- Niagara Official Plan (November 2022).
- Niagara Region Environmental Impact Study Guidelines (January 2018).
- Provincial Policy Statement (PPS) (2024).
- Provincial *Endangered Species Act* (2007).
- Federal *Fisheries Act* (1985).
- Federal *Migratory Birds Convention Act*, 1994 (MBCA) and the Migratory Bird Regulations (MBR).

Based on this review, we have identified the following relevant information:

The subject lands are within the Urban Area Boundary of the City of Port Colborne and mapped as Urban Residential on Schedule A (City-Wide Land Use) of the City OP. 484 Barrick Road is currently zoned (I) Institutional and 434 Barrick Road is zoned (R3) Third Density Residential.

Schedule B (Natural Heritage) of the City OP does not show any natural heritage features on the subject lands. However, the woodland adjacent to the subject lands to the south is listed as Environmental Conservation Area (ECA). Schedule B2 (Environmental Conservation Area) maps the woodland as Significant Woodland.

According to the pre-consultation notes, the subject lands are impacted by the Region's Natural Environment System (NES), consisting of significant woodland. Niagara Official Plan Policy 3.1.9.7 requires the completion of an EIS when development or site alteration is proposed within 120 m of significant woodland.

The subject lands are located within NPCA jurisdiction, but there are no regulated features (watercourses, wetlands, or hazard lands) present on the subject lands. The subject lands are not within the mapped regulated area.

The subject lands are located approximately 1,200 m from the Wainfleet Bog Area of Natural and Scientific Interest (ANSI).

The following Endangered (END), Threatened (THR), and Species of Special Concern (SC) were identified in the background review as having the potential to be found on the subject lands or adjacent woodland:

- Wood Thrush (*Hylocichla mustelina*) SC
- Eastern Wood-pewee (*Contopus virens*) SC
- Grass Pickerel (*Esox americanus*) SC
- Eastern Ribbonsnake (*Thamnophis saurita*) SC
- Red-headed Woodpecker (*Melanerpes erythrocephalus*) END
- Least Bittern (*Ixobrychus exilis*) THR
- Little Brown Myotis (*Myotis lucifugus*) END
- Northern myotis (*Myotis septentrionalis)* END
- Tri-colored bat (*Perimyotis subflavus*) END

Part II: Proposed EIS Methodology

Field investigations, in combination with background information obtained from the natural heritage databases will be used to undertake a screening for potential SAR habitat as well as Significant Wildlife Habitat (SWH) and to delineate environmental constraints. On-site limits of NHS features, such as woodlands and wetlands, will be delineated for future feature staking with the agencies.

Fieldwork Methodology

Based on the background review and the urban nature of the subject lands, a single site visit is considered adequate. A site visit in late spring is recommended to conduct the following surveys on the subject lands and adjacent woodland:

- Ecological Land Classification (ELC)
- Botanical Inventory
- Identification and characterization of Significant Wildlife Habitats
- Targeted search for SAR plants, such as Butternut (*Juglans cinerea*), Black Ash (*Fraxinus nigra*), and Eastern Flowering Dogwood (*Cornus florida*)

A preliminary site visit was conducted December 17, 2024, to inventory the trees for an Arborist Report and Tree Preservation Plan. These will be available under a separate cover from the EIS.

Criteria for Determining the Significance, Sensitivity, and Rarity of Features

In accordance with the Natural Heritage Reference Manual (NHRM) (MNR, 2010), habitats of endangered and threatened species are identified and evaluated based on provincial criteria. Significant Wildlife Habitat (SWH) will be evaluated based on the Ecoregional Criteria for Ecoregion 7E (MNRF, 2015).

Species rarity will be based on:

- Species' status under the Species at Risk in Ontario List (O. Reg. 230/08) of the *Endangered Species Act*, 2007.
- Species' S-Rank as provided on the NHIC database.
- Rarity for Niagara Region as listed in *Natural Areas Inventory: Checklist of the Vascular Plants of Niagara Regional Municipality, Ontario* (Oldham, 2010).

The locations of all provincially rare species encountered will be recorded using GPS and included on the Figures (except those classified as Restricted Species). Locally rare species will also be recorded in the ELC unit in which they are found.

Analysis and Recommendations

The EIS will provide an analysis of constraints to development, potential impacts, recommended mitigation measures to minimize impacts, and demonstrate conformity with all applicable natural heritage policies.

Specifically, the EIS will include the following:

- Summary of background review and methodology.
- Results of all field investigations, including a description of ELC communities, botanical inventory and significant wildlife habitat, if any, and an assessment of their function.
- Mapping of ELC communities and natural heritage features.
- A constraints analysis, including identification of the environmental features potentially impacted by development, proposed buffers to adequately protect natural features and mapping of the recommended development footprint.
- A general description of the proposed development, including mapping.
- A demonstration of how and where the development can proceed, without a negative impact on the natural heritage features and their ecological functions.
- Quantification of impacts on any natural heritage features that may result from the development.
- Identification of mitigation, enhancement, and ecological offsetting measures, where necessary.
- Conclusions demonstrating conformity with all applicable natural heritage policies, including City and Region Official Plans, and the PPS.

All findings will be summarized in a report, complete with figures.

Part III: Information and Feature Staking Requests

We request the following information to assist in our study:

- Any additional records of natural features, flora, or fauna in the area.

- A copy of any locally rare species lists, or comment on which locally rare species list is preferred, to assist with the assessment of species significance and rarity.

In addition, we would like to schedule a site visit with you, at your earliest convenience, to confirm the woodland dripline boundary to be staked and surveyed.

If you have any questions or comments regarding these Terms of Reference, please feel free to contact the undersigned.

Yours truly,

R.J. Burnside & Associates Limited

Ariana Burgener, M.Sc.
Terrestrial Ecologist & ISA Certified Arborist
AB:js

cc: Diana Vasu, City of Port Colborne (enc.) (Via: Email)
Katie Young, Niagara Region (enc.) (Via: Email)
Cara Lampman, Niagara Region (enc.) (Via: Email)
Shawn Keeper, Dunsire Properties Inc. (enc.) (Via: Email)
Denise Landry, Nethery Planning (enc.) (Via: Email)

Outlook

RE: 484 and 434 Barrick Rd - EIS Terms of Reference

From Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Date Mon 2/3/2025 3:00 PM
To Ariana Burgener <Ariana.Burgener@rjburnside.com>
Cc Daniels, Rachel <Rachel.Daniels@niagararegion.ca>; Boudens, Adam <Adam.Boudens@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; David Schulz <David.Schulz@portcolborne.ca>; Diana Vasu <Diana.Vasu@portcolborne.ca>; Young, Katie <Katie.Young@niagararegion.ca>

Hi Ariana,

Thanks for chatting with me today. As a summary of our phone conversation, for any recommended surveys not completed, a precautionary principle will need to be applied to assume those species (for example, SAR bats) or Significant Wildlife Habitat is present and mitigation will need to be implemented (for example, bat boxes and/or a larger buffer).

Additionally, I wanted to send along the Niagara Official Plan policy regarding buffers in Settlement Areas, stating that the buffer is determined through an EIS. There is no “typical” buffer.

NOP policy 3.1.9.9.1 states that within *settlement areas*, mandatory *buffers* from *natural heritage features and areas* are required. The width of an ecologically appropriate *buffer* would be determined through an *environmental impact study.* The width of the *buffer* would be based on the sensitivity of the *ecological functions* from the proposed *development* or *site alteration*, and the potential for impacts to the feature and *ecological functions* as a result of the proposed change in land use.

Thanks,

Growing Better Together
Niagara Region
Lori Karlewicz
Planning Ecologist
Public Works Department
Niagara Region
P: (905) 980-6000 ext. 3396
W: www.niagararegion.ca
E: lori.karlewicz@niagararegion.ca

My workday may look different from your workday. Please do not feel obligated to respond outside of your normal working hours.

From: Ariana Burgener <Ariana.Burgener@rjburnside.com>
Sent: Monday, February 3, 2025 11:26 AM
To: Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Subject: Re: 484 and 434 Barrick Rd - EIS Terms of Reference

Hi Lori,

Thanks for making time for me today. I can send a Teams invite for 2:30 if that time still works well for you?

Thanks,
Ariana

Ariana Burgener
Terrestrial Ecologist & ISA Certified Arborist

R.J. Burnside & Associates Limited | www.rjburnside.com
Office: +1 800-265-9662 Direct: +1 905-821-5942

From: Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Sent: Monday, February 3, 2025 10:24 AM
To: Ariana Burgener <Ariana.Burgener@rjburnside.com>
Subject: RE: 484 and 434 Barrick Rd - EIS Terms of Reference

Hi Ariana,

I'm free anytime today 2-4 or tomorrow 11-1, let m know what works for you.

Thanks,

Growing Better Together
Niagara Region

Lori Karlewicz
Planning Ecologist
Public Works Department
Niagara Region
P: (905) 980-6000 ext. 3396
W: www.niagararegion.ca
E: lori.karlewicz@niagararegion.ca

My workday may look different from your workday. Please do not feel obligated to respond outside of your normal working hours.

From: Ariana Burgener <Ariana.Burgener@rjburnside.com>
Sent: Wednesday, January 29, 2025 1:05 PM
To: Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Subject: Re: 484 and 434 Barrick Rd - EIS Terms of Reference

Niagara Region Security Warning:	This is an external email, use caution when opening attachments or clicking links

Hi Lori,

Thank you for your feedback on the TOR. I was wondering if you have time this week for a quick call to discuss the scope of the surveys requested?

Thank you for your time,
Ariana

Ariana Burgener
Terrestrial Ecologist & ISA Certified Arborist

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From: Karlewicz, Lori <Lori.Karlewicz@niagararegion.ca>
Sent: Monday, January 27, 2025 1:43:52 PM
To: Ariana Burgener <ariana_jude@hotmail.com>
Cc: Daniels, Rachel <Rachel.Daniels@niagararegion.ca>; Boudens, Adam <Adam.Boudens@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; David Schulz <David.Schulz@portcolborne.ca>; Diana Vasu <Diana.Vasu@portcolborne.ca>; Young, Katie <Katie.Young@niagararegion.ca>; Denise Landry <denise@netheryplanning.ca>; Shawn Keeper <shawn.keeper@dunsire.com>; lindsay.ward@dunsire.com <lindsay.ward@dunsire.com>
Subject: RE: 484 and 434 Barrick Rd - EIS Terms of Reference

Hi Ariana,

Regional Environmental Planning staff have reviewed the attached Terms of Reference (TOR) for the subject lands located at 484 and 434 Barrick Road, in the City of Port Colborne, and offer the following modifications to work plan proposed:

1. Staff are not supportive of a single season vegetation survey (late spring) to characterize the Significant Woodland. In addition to the proposed late spring inventory, a summer inventory is also required, with a potential fall survey as well, if White Wood Aster habitat is present.
2. Staff require that breeding bird surveys are completed as part of the EIS.
3. Staff require that bat surveys are completed. As it relates to Maternity Habitat for Endangered Species of Bats, if potential roost trees are identified, then acoustic surveys should be completed in the month of June. Please refer to the protocol provided by the MECP.
4. Staff require reptile and amphibian surveys, using incidental observations at minimum.
5. Consistent with NOP policy 3.1.20.2, the EIS shall demonstrate how enhancements to ecological function, ecological integrity, or biodiversity of the natural environment system can be achieved. Examples include:
    1. Increases in the spatial extent of a feature or features;
    2. Increases in biological and habitat diversity;
    3. Enhancement of ecological system function;
    4. Enhancement of wildlife habitat;
    5. Enhancement or creation of wetlands, water systems or woodlands;
    6. Enhancement of ecological services;
    7. Enhancement of groundwater recharge areas; and
    8. Establishment or enhancement of linkages or connectivity between key natural heritage features, and/or natural heritage features and areas.

    Please ensure that the Final Report includes a specific section detailing consideration of the above.

6. Consistent with NOP policies, please ensure *supporting features and areas* are considered, including but not limited to grasslands, thickets, meadows, etc., that support the ecological functions of adjacent features and wildlife habitat that is not considered to be significant wildlife habitat.

Staff look forward to receiving an invitation to the Significant Woodland staking in the spring, once leaf-out has occurred.

Please also note that the EIS must identify an appropriate buffer for all features that are found to be present, and that lot lines are not permitted within features or their buffers.

Kind regards,

Growing Better Together

Niagara Region

Lori Karlewicz

Planning Ecologist

Public Works Department

Niagara Region

P: (905) 980-6000 ext. 3396

W: www.niagararegion.ca

E: lori.karlewicz@niagararegion.ca

My workday may look different from your workday. Please do not feel obligated to respond outside of your normal working hours.

From: Ariana Burgener <Ariana.Burgener@rjburnside.com>
Sent: Friday, January 10, 2025 2:33 PM
To: David Schulz <David.Schulz@portcolborne.ca>; diana.vasu@portcolborne.ca; Young, Katie <Katie.Young@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>
Cc: Denise Landry (denise@netheryplanning.ca) <denise@netheryplanning.ca>; Shawn Keeper (shawn.keeper@dunsire.com) <shawn.keeper@dunsire.com>; Lindsay Ward <lindsay.ward@dunsire.com>
Subject: 484 and 434 Barrick Rd - EIS Terms of Reference

Niagara Region Security Warning:	This is an external email, use caution when opening attachments or clicking links

Hello David,

Burnside has been retained by Dunsire Properties Inc. to conduct an Environmental Impact Study in support of the proposed land severance and development at 484 and 434 Barrick Rd in Port Colborne. Attached is our Terms of Reference for your review and approval. Please let me know if you have any questions.

Kind Regards,

Ariana

BURNSIDE

Ariana Burgener
Terrestrial Ecologist & ISA Certified Arborist

R.J. Burnside & Associates Limited
1266 South Service Road, Suite C2-1, Hamilton, ON L8E 5R9
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Appendix B

SAR Screening Table

Background Review of Potential Species at Risk and Species of Conservation Concern on the Subject Lands and/or Adjacent Lands

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK[1]	Provincial SARO Status[2]	COSEWIC[3]	Federal SARA Status[3]	Federal SARA Schedule[4]	Habitat Description[5]	Habitat Present on the Subject Lands and/or Adjacent Lands?
Birds								
Eastern Wood-Pewee (Source: NHIC)	*Contopus virens*	S4B	SC	SC	SC	1	Prefers open space near the nest in the form of forest edges, clearings, roadways, and water. Does not require large areas of woods but occurs less frequently in woodlots surrounded by development than in those without.[6]	No habitat potential on subject lands. No woodland communities are present. Habitat potential on adjacent lands where a deciduous woodland is present.
Grasshopper Sparrow (Source: OBBA)	*Ammodramus savannarum*	S4B	SC	SC	SC	1	Prefers drier, sparsely vegetated grasslands, particularly rough or unimproved pastures with scattered forb and shrub growth, at least 30 ha in size. It will occasionally also use cultivated hayfields and cereal crops.[6]	No habitat potential on subject lands or adjacent lands.
Least Bittern (Source: OBBA)	*Botaurus exilis*	S4B	THR	SC	THR	1	Most frequently found in marshes of at least 5 ha, although much smaller marshes, including sites such as cattail stands along creeks and farm ponds partially filled with cattail, may be used occasionally. Breeding sites typically dominated by cattail, but also sometimes bulrush, grasses, horsetail, and willow. Nests usually close to edge of a stand of vegetation or near openings such as muskrat trails, although may be as far as 45 m from open water.[6]	No habitat potential on subject lands or adjacent lands. Wetland communities are not present.
Red-headed Woodpecker (Source: NHIC, OBBA)	*Melanerpes erythrocephalus*	S3	END	END	END	1	Prefers open woodland and woodland edges and often found in parks, golf courses and cemeteries because these areas typically have many dead trees which the woodpecker uses for nesting and perching.[8]	Limited habitat potential on subject lands. No woodland communities are present. Furthermore, during surveys for the Arborist Report, each tree on the subject lands was observed and no cavities were recorded. Habitat potential on adjacent lands where a deciduous woodland is present. A targeted search for cavities was conducted in the woodland and none were recorded. However, the possibility of their presence cannot be entirely ruled out due to the size of the woodland.
Wood Thrush (Source: NHIC)	*Hylocichla mustelina*	S4B	SC	THR	THR	1	Inhabits and breeds in woodlands ranging from small (3 ha) and isolated to large and contiguous. The presence of tall trees and a thick understorey are usually prerequisites for site occupancy.[6]	No habitat potential on subject lands. No woodland communities are present. Habitat potential on adjacent lands where a deciduous woodland is present.

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK[1]	Provincial SARO Status[2]	COSEWIC[3]	Federal SARA Status[3]	Federal SARA Schedule[4]	Habitat Description[5]	Habitat Present on the Subject Lands and/or Adjacent Lands?
Insects								
Monarch (Source: iNaturalist)	*Danaus plexippus*	S2N, S4B	SC	END	END	1	Throughout their life cycle, Monarchs use three different types of habitats. Only the caterpillars (larvae) feed on milkweed plants and are confined to meadows and open areas where milkweed grows. Adult butterflies can be found in more diverse habitats where they feed on nectar from a variety of wildflowers. Monarchs spend the winter in Oyamel Fir forests found in central Mexico. The largest threat to Ontario Monarchs is habitat loss and fragmentation at overwintering sites in central Mexico where forests are being logged and converted into agricultural fields and pastures. Widespread pesticide and herbicide use throughout the Monarch's range may also limit recovery.[9]	No potential. The larval host plant, Common Milkweed (*Asclepias syriaca*), was not recorded during ELC surveys on the subject or adjacent lands. Adult individuals were not observed on the subject or adjacent lands.
Mammals								
Little Brown Myotis (Source: Burnside)	*Myotis lucifugus*	S3	END	END	END	1	Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh).[11]	No habitat potential on subject lands. No woodland communities are present. Habitat potential on adjacent lands where a deciduous woodland is present. Candidate roosting cavities observed.
Northern Myotis (Source: Burnside)	*Myotis septentrionalis*	S3	END	END	END	1	Overwintering habitat: Caves and mines that remain above 0 degrees Celsius. Maternal Roosts: Often associated with cavities of large diameter trees (25-44 cm dbh). Occasionally found in structures (attics, barns etc.)[11]	No habitat potential on subject lands. No woodland communities are present. Habitat potential on adjacent lands where a deciduous woodland is present. Candidate roosting cavities observed.
Tri-colored Bat (Source: Burnside)	*Perimyotis subflavus*	S3?	END	END	END	1	Overwintering habitat: Deepest parts of caves and mines where temperature is the least variable. Maternal Roosts: Less is known about roosts of Tri-colored Bats. Most roost sites found within forested habitats. May roost in clumps of dead foliage and lichens. In more anthropogenically modified landscapes, maternity roosts may be barns or similar human-made structures.[11]	No habitat potential on subject lands. No woodland communities are present. Habitat potential on adjacent lands where a deciduous woodland is present. Maple (*Acer sp.*) trees observed which could provide leaf clusters.

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK[1]	Provincial SARO Status[2]	COSEWIC[3]	Federal SARA Status[3]	Federal SARA Schedule[4]	Habitat Description[5]	Habitat Present on the Subject Lands and/or Adjacent Lands?
Silver-haired Bat (Source: Burnside)	*Lasionycteris noctivagans*	S4	END	END	-	-	Roosting by Silver-haired Bats occurs primarily under bark and in the cavities of trees, making them reliant on habitats where large, decaying trees are available. Large DBH, taller height compared to nearby trees, and an open canopy are important characteristics. Common roosting sites include heart-rot infections at the site of limb breakages, large sheets of exfoliating bark and old woodpecker cavities. Roost switching often occurs every three days to trees within close proximity (180-280 m). Silver-haired bats occasionally roosting on or in anthropogenic structures, especially during migration. [24]	No habitat potential on subject lands. No woodland communities are present. Habitat potential on adjacent lands where a deciduous woodland is present. Candidate roosting cavities observed.
Hoary Bat (Source: Burnside)	*Lasiurus cinereus*	S4	END	END	-	-	As habitat generalists, Hoary Bat occupy a wide diversity of habitats across their geographic range. Hoary Bats typically roost among the foliage of trees and occasionally shrubs. Roost sites that have overhead foliage for cover and open flight space below are selected. Hoary Bats use both deciduous and coniferous forests, of any age class. Trees used as maternity tend to be large diameter and tall, reaching or exceeding the height of the surrounding canopy. Individuals and family groups typically use several trees during the breeding season. Hoary bats may roots switch as often as every other day, or use the same tree for several weeks at a time. Often, roost trees are within close proximity to each other. [24]	No habitat potential on subject lands. No woodland communities are present. Habitat potential on adjacent lands where a deciduous woodland is present.
Eastern Red Bat (Source: Burnside)	*Lasiurus borealis*	S4	END	END	-	-	As habitat generalists, Eastern Red Bat occupy a wide diversity of habitats across their geographic range. Eastern Red Bats typically roost among the foliage of trees and occasionally shrubs. Roost sites that have overhead foliage for cover and open flight space below are selected. Eastern Red Bats use both deciduous and coniferous forests, of any age class. Trees used as maternity tend to be large diameter and tall, reaching or exceeding the height of the surrounding canopy. Individuals and family groups typically use several trees, within variable ranges (from < 1 ha to 90 ha) during the breeding season. Roost switching every other day is common. [24]	No habitat potential on subject lands. No woodland communities are present. Habitat potential on adjacent lands where a deciduous woodland is present.

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK[1]	Provincial SARO Status[2]	COSEWIC[3]	Federal SARA Status[3]	Federal SARA Schedule[4]	Habitat Description[5]	Habitat Present on the Subject Lands and/or Adjacent Lands?
Reptiles and Amphibians								
Blanding's Turtle (Source: ORAA)	*Emydoidea blandingii*	S3	THR	END	END	1	Generally occur in freshwater lakes, permanent or temporary pools, slow-flowing streams, marshes and swamps. They prefer shallow water that is rich in nutrients, organic soil and dense vegetation. Adults are generally found in open or partially vegetated sites, and juveniles prefer areas that contain thick aquatic vegetation including sphagnum, water lilies and algae. They dig their nest in a variety of loose substrates, including sand, organic soil, gravel and cobblestone. Overwintering occurs in permanent pools that average about one metre in depth, or in slow-flowing streams.[13]	No habitat potential on subject lands or adjacent lands. Wetland communities are not present.
Eastern Milksnake (Source: NHIC, ORAA)	*Lampropeltis triangulum*	S4	No status	SC	SC	1	Habitat generalist. Found in wide variety of habitats, from open woodlands, bogs, swamps, woodland edges, marshes, lakeshores, old fields, pastures, farmyards, parks, gardens. Often in or near farm outbuildings, barns, and sheds, and are attracted to piles of rocks, logs, firewood, or building materials, or any place that offers shelter to snakes and their prey (rodents).[10]	No habitat potential on subject lands given the history of disturbance and manicured lawns. Habitat potential on adjacent lands where a deciduous woodland is present. Individuals were not observed on the subject or adjacent lands during targeted searches No hibernacula were observed.
Eastern Ribbonsnake (Source: NHIC)	*Thamnophis sarita*	S4	SC	SC	SC	1	Widespread and locally common in parts of southern Ontario. A semi-aquatic species found along the edges of shallow ponds, streams, marshes, swamps or bogs bordered by dense vegetation that provides cover. Abundant exposure to sunlight is also required.[7]	No habitat potential on subject lands or adjacent lands. Wetland communities are not present.
Massasauga (Carolinian population) (Source: NHIC, ORAA)	*Sistrurus catenatus*	S1	END	Non-active	END	1	Inhabits grasslands, meadows, peatlands, shorelines, and rocky-forest mosaics, especially near wetlands. During the active season, favors microhabitats with low canopy cover and dense vegetation, rocks, or shrubs for shelter. Gestation occurs in rock crevices, which aid thermoregulation. Overwinters in deep bedrock cracks, root hollows, mossy hummocks, and animal burrows.[10]	No habitat potential on subject lands or adjacent lands. Habitat for Massassaugas can be found in the Wainfleet Bog, located approximately 700 m from the subject lands. Access to the subject lands is cut off by a major 4-lane roadway.
Snapping Turtle (Source: ORAA)	*Chelydra serpentina*	S4	SC	SC	SC	1	Generally inhabit shallow waters where they can hide under the soft mud and leaf litter. Nesting sites usually occur on gravely or sandy areas along streams. Snapping Turtles often take advantage of man-made structures for nest sites, including roads (especially gravel shoulders), dams and aggregate pits.[9]	No habitat potential on subject lands or adjacent lands. Wetland communities are not present.

COMMON NAME	SCIENTIFIC NAME	Provincial S-RANK[1]	Provincial SARO Status[2]	COSEWIC[3]	Federal SARA Status[3]	Federal SARA Schedule[4]	Habitat Description[5]	Habitat Present on the Subject Lands and/or Adjacent Lands?
Plants								
Butternut (Source: Burnside)	*Juglans cinerea*	S2?	END	END	END	1	Butternut grows best in rich, moist and well-drained soils or limestone gravel sites. They are less commonly found in dry, rocky and sterile soils. They generally grow alone or in small groups in deciduous forests that are commonly comprised of Basswood, Black Cherry, Beed, Black Walnut, Elm, Hemlock, Hickory, Oak, Red Maple, Sugar Maple, Poplar, White Ash and Yellow Birch. In Ontario, they can be found throughout the southern Ontario, south of the Canadian Shield.[9]	Habitat potential on both subject lands and adjacent lands. However, none were observed during targeted searches.
Black Ash (Source: Burnside)	*Fraxinus nigra*	S4	END	THR	-	-	Black Ash grows best on rich, moist to wet sites such as swamps, bogs, and riparian areas. Black ash occurs throughout most of Ontario, except for the Far North. [16]	No habitat potential on subject lands. No moist area or wetlands. Low habitat potential on adjacent lands where a fresh-moist deciduous woodland is present. Sometimes, individuals are found outside their preferred habitat of wetlands, but none were observed during targeted searches.
Eastern Flowering Dogwood (Source: Burnside)	*Cornus florida*	S2?	END	END	END	1	Generally grows in deciduous and mixed forests, in the drier areas of its habitat, although it is occasionally found in slightly moist environments; Also grows around forest edges and hedgerows.[13]	Low habitat potential on subject lands, along hedgerows. Habitat potential on adjacent lands where a deciduous woodland is present. However, none were observed during targeted searches.
White Wood Aster (Source: Burnside)	*Eurybia divaricate*	S3	THR	SC	THR	1	Generally grows in open, dry, deciduous forests. It has been suggested that it may benefit from some disturbance, as it often grows along trails.[13]	No habitat potential on subject lands. No woodland communities are present. Habitat potential on adjacent lands where a deciduous woodland is present. Targeted search to be conducted in Autumn 2025 to confirm presence or absence.

** Sources: Natural Heritage Information Centre (NHIC) database of records searched on May 8, 2025 (4- 1x1 km2 Squares: 17PH4152); Ontario Breeding Bird Atlas (2001-2005) searched on May 8, 2025 (Squares 17PH45); Ontario Reptile and Amphibian Atlas (ORAA) searched on May 8, 2025 (Squares 17PH45); MNRF SAR List, provided on February 19, 2025; R.J. Burnside & Associates (Burnside) observations during ecological field surveys in 2025.

[1]S-Ranks (provincial)
Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario (Please refer to: http://explorer.natureserve.org/nsranks.htm)

SX — Presumed Extirpated - Species or community is believed to be extirpated from the province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
SH — Possibly Extirpated (Historical) - Species or community occurred historically in the province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20–40 years. A species or community could become SH without such a 20-40 year delay if the only known occurrences in a province were destroyed or if it had been extensively and unsuccessfully looked for. The SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.
S1 — Critically Imperiled - Critically imperiled in the province or state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the province.
S2 — Imperiled - Imperiled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the province.
S3 — Vulnerable - Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4 — Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5 — Secure - Common, widespread, and abundant in the province.
SNR — Unranked - Province conservation status not yet assessed.
SU — Unrankable - Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

SNA — Not Applicable - A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
S#S# — Range Rank - A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).
S#? – Inexact or Uncertain - Denotes inexact or uncertain numeric rank.

Breeding Status Qualifiers
B – Breeding Conservation status refers to the breeding population of the species in the nation or state/province.
N – Nonbreeding Conservation status refers to the non-breeding population of the species in the province.
M – Migrant species occurring regularly on migration at particular staging areas or concentration spots where the species might warrant conservation attention. Conservation status refers to the aggregating transient population of the species in the province.

[2]**SARO *Endangered Species Act, 2007***
(provincial status from http://www.ontario.ca/environment-and-energy/how-species-risk-are-listed#section-3)
The provincial review process is implemented by the MNRF's Committee on the Status of Species at Risk in Ontario (COSSARO).

Extinct - A species that no longer exists anywhere.
Extirpated (EXT) - Lives somewhere in the world, and at one time lived in the wild in Ontario, but no longer lives in the wild in Ontario.
Endangered (END) - Lives in the wild in Ontario but is facing imminent extinction or extirpation.
Threatened (THR) - Lives in the wild in Ontario, is not endangered, but is likely to become endangered if steps are not taken to address factors threatening it.
Special concern (SC) - Lives in the wild in Ontario, is not endangered or threatened, but may become threatened or endangered due to a combination of biological characteristics and identified threats.
Not at Risk (NAR) - A species that has been evaluated and found to be not at risk.
Data Deficient (DD) - A species for which there is insufficient information for a provincial status recommendation.

[3]**SARA (Federal *Species at Risk Act*) Status and Schedule (includes COSEWIC Status)**
The Act establishes Schedule 1, as the official list of wildlife species at risk. It classifies those species as being either Extirpated, Endangered, Threatened, or Special Concern. Once listed, the measures to protect and recover a listed wildlife species are implemented.

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

[4]**SARA Schedule**
Schedule 1: is the official list of species that are classified as extirpated, endangered, threatened, and of special concern.
Schedule 2: species listed in Schedule 2 are species that had been designated as endangered or threatened and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.
Schedule 3: species listed in Schedule 3 are species that had been designated as special concern and have yet to be re-assessed by COSEWIC using revised criteria. Once these species have been re-assessed, they may be considered for inclusion in Schedule 1.

The Act establishes Schedule 1 as the official list of wildlife species at risk. However, please note that while Schedule 1 lists species that are extirpated, endangered, threatened and of special concern, the prohibitions do not apply to species of special concern.

Species that were designated at risk by COSEWIC prior to October 1999 (Schedule 2 & 3) must be reassessed using revised criteria before they can be considered for addition to Schedule 1 of SARA. After they have been assessed, the Governor in Council may on the recommendation of the Minister, decide on whether or not they should be added to the List of Wildlife Species at Risk.

[5]**Sources:**
[6]Cadman, M.D., et al. (eds). 2007. Atlas of the Breeding Birds of Ontario, 2001-2005. Bird Studies Canada, Environment Canada, Ontario Field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto, xxii + 706 pp
[7]Species at Risk Public Registry https://species-registry.canada.ca/
[8]McCracken, J.D. et al. 2013. Recovery Strategy for the Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources and Forestry, Peterborough, Ontario, viii + 88 pp.
[9]SARO List Species Descriptions (Species at risk in Ontario | ontario.ca)
[10]Ontario Nature Reptile and Amphibian Atlas (ON Reptile & Amphibian Atlas (ontarioinsects.org))
[11]Environment Canada. 2015. Recovery Strategy for Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*) and Tri-colored Bat (*Perimyotis subflavus*) in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. Ix + 110 pp.
[13]MNRF. 2018. City of Niagara Falls Species at Risk Table. Guelph District.
[16]MNRF. (2020). Tree Atlas.
[24]COSEWIC. 2023. COSEWIC assessment and status report on the Hoary Bat Lasiurus cinereus, Eastern Red Bat Lasiurus borealis and Silver-haired Bat, Lasionycteris noctivagans, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxi + 100 pp.

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Appendix C

SWH Ecoregion 7E Criteria Screening Table

Significant Wildlife Habitat Screening in the Study Area– Ecoregion 7E Criteria (2015)

Habitat	CANDIDATE - Significant Wildlife Habitat		CONFIRMED - Significant Wildlife Habitat		
	Ecological Land Classification Ecosite Codes	Habitat Criteria	Wildlife Species	Defining Criteria	Presence of Confirmed Significant Wildlife Habitat in the Study Area?
Table 1.1: Seasonal Concentration Areas of Animals					
Waterfowl Stopover & Staging Areas (Terrestrial) **<u>Rationale</u>**: Habitat important to migrating waterfowl.	CUM1 CUT1 - Plus evidence of annual spring flooding from melt water or run-off within these ecosites. Fields with seasonal flooding and waste grains in the Long Point, Rondeau, Lake St. Clair, Grand Bend and Point Pelee areas may be important to Tundra Swans.	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.	American Black Duck Northern Pintail Gadwall Blue-winged Teal Green-winged Teal American Wigeon Northern Shoveler Tundra Swan	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. • Any mixed species aggregations of 100 or more individuals required. • The flooded field ecosite habitat plus a 100-300 m radius area, dependent on local site conditions and adjacent land use is the SWH. • 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 Index #7** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Waterfowl Stopover & Staging Areas (Aquatic) **<u>Rationale:</u>** 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.	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 SWM 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).	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 Long-tailed Duck Surf Scoter White-winged Scoter Black Scoter Ring-necked duck Common Goldeneye Bufflehead Redhead Ruddy Duck	**Studies carried out & verified presence of:** • Aggregations of 100 or more of listed species for 7 days, results in >700 waterfowl use days. • Areas with annual staging of ruddy ducks, canvasbacks, and redheads are SWH. • The combined area of the Ecological Land Classification (ELC) ecosites and a 100 m radius area is the SWH. • Wetland area and shorelines associated with sites identified within the SWHTG Appendix K are SWH. • Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”. • 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 Index #7** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

Habitat	CANDIDATE - Significant Wildlife Habitat		CONFIRMED - Significant Wildlife Habitat		
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			Red-breasted Merganser Brant Canvasback Ruddy Duck		
Shorebird Migratory Stopover Area **<u>Rationale</u>**: High quality shorebird stopover habitat is extremely rare and typically has a long history of use.	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.	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 RuddyTurnstone Sanderling Dunlin	**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 (<24 hrs.) 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 100 m radius area. • Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects". • **SWHMiST Index #8** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Raptor Wintering Area **<u>Rationale</u>**: Sites used by multiple species, a high number of individuals and used annually are most significant.	<u>Hawks/Owls:</u> Combination of ELC Community Series; need to have present one Community Series from each land class; <u>Forest:</u> FOD, FOM, FOC. <u>Upland</u>: CUM; CUT; CUS; CUW. <u>Bald Eagle:</u> Forest community Series: FOD,	• The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors. • Raptor wintering sites (hawk/owl) need to be **>** 20 ha, with a combination of forest and upland. • Least disturbed sites, idle/fallow or lightly grazed field/meadow (>15ha) with adjacent woodlands. • 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.	Rough-legged Hawk Red-tailed Hawk Northern Harrier American Kestrel Snowy Owl **<u>Special Concern:</u>** Short-eared Owl Bald Eagle	**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 of the listed hawk/owl species. • To be significant a site must be used regularly (3 in 5 years) 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." • **SWHMiST Index #10 and #11** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

Habitat	CANDIDATE - Significant Wildlife Habitat		CONFIRMED - Significant Wildlife Habitat		
	Ecological Land Classification Ecosite Codes	Habitat Criteria	Wildlife Species	Defining Criteria	Presence of Confirmed Significant Wildlife Habitat in the Study Area?
	FOM, FOC, SWD, SWM or SWC on shoreline areas adjacent to large rivers or adjacent to lakes with open water (hunting area).				
Bat Hibernacula **<u>Rationale</u>**: Bat hibernacula are rare habitats in all Ontario landscapes.	**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.	Big Brown Bat Tri-coloured Bat	• All sites with confirmed hibernating bats are SWH. • The habitat area includes a 200 m radius around the entrance of the hibernaculum for most development types and 1000 m for wind farms. • Studies are to be conducted during the peak swarming period (August to September). Surveys should be conducted following methods outlined in the “Bats and Bat Habitats: Guidelines for Wind Power Projects”. • **SWHMiST Index #1** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Bat Maternity Colonies **<u>Rationale:</u>** Known locations of forested bat maternity colonies are extremely rare in all Ontario landscapes.	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 are not considered to be SWH). • Maternity roosts are not found in caves and mines in Ontario. • Maternity colonies located in Mature deciduous or mixed forest stands with >10/ha large diameter (>25 cm dbh) wildlife trees. • Female Bats prefer wildlife tree (snags) in early stages of decay, class 1-3 or class 1 or 2. • 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.	Big Brown Bat Silver-haired Bat	• 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”. • **SWHMiST Index #12** provides development effects and mitigation measures.	No potential on the subject lands. No potential on adjacent lands. Snag surveys were completed and a total of 14 were identified within the 2.5 ha woodland. This does not meet the snag density of 10 snags per ha in the habitat criteria for Significant Wildlife Habitat.
Turtle Wintering Areas **<u>Rationale:</u>** Generally, sites are the only known sites in the area. Sites with the highest number of individuals are most significant.	Snapping and Midland Painted Turtles. **ELC Community Classes:** SW, MA, OA and SA **ELC Community Series:**	• 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. • Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH.	Midland Painted Turtle **<u>Special Concern:</u>** Northern Map Turtle Snapping Turtle	• 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 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 (September–October) or spring (March–May).	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

Habitat	CANDIDATE - Significant Wildlife Habitat		CONFIRMED - Significant Wildlife Habitat		
	Ecological Land Classification Ecosite Codes	**Habitat Criteria**	**Wildlife Species**	**Defining Criteria**	**Presence of Confirmed Significant Wildlife Habitat in the Study Area?**
	FEO and BOO For Northern Map Turtle: Open Water areas such as deeper rivers or streams and lakes with current can also be used as over-wintering habitat.			• Congregation of turtles is more common where wintering areas are limited and therefore significant. • **SWHMiST Index #28** provides development effects and mitigation measures for turtle wintering habitat.	
Reptile Hibernaculum **<u>Rationale</u>**: Generally, sites are the only known sites in the area. Sites with the highest number of individuals are most significant.	For all snakes, habitat may be found in any ecosite other than very wet ones. Talus, Rock Barren, Crevice, Cave, and Alvar sites may be directly related to these habitats. Observations or congregations of snakes on sunny warm days in the spring or fall is a good indicator.	• For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural or naturalized locations. The existence of features that go below 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. • 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 groundcover.	**<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	**Studies confirming:** • Presence of snake hibernacula used by a minimum of five individuals of a snake sp. or; individuals of two or more snake spp. • Congregations of a minimum of five individuals of a snake sp. or; individuals of two or more snake spp. near potential hibernacula (e.g., foundation or rocky slope) on sunny warm days in Spring (April/May) and Fall (September/October). • **Note**: If there are Special Concern Species present, then site is SWH. • **Note:** 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 is located plus a 30 m radius area is the SWH. • **SWHMiST Index #13** provides development effects and mitigation measures for snake hibernacula.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present. Targeted surveys looking for potential hibernacula were conducted and no habitat features were found. No individuals were observed basking during the spring site visit.
Colonially - Nesting Bird Breeding Habitat (Bank & Cliff) **<u>Rationale</u>:** Historical use and number of nests in a colony make this habitat significant. An identified colony can be very important to local populations. All	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	• 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.	Cliff Swallow Northern Rough-winged Swallow (this species is not colonial but can be found in Cliff Swallow colonies)	**Studies confirming:** • Presence of 1 or more nesting sites with 8 or more cliff swallow pairs and/or rough-winged swallow pairs during the breeding season. • A colony identified as SWH will include a 50 m radius habitat area from the peripheral nests. • 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”. • **SWHMiST Index #4** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

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swallow population are declining in Ontario.	BLT1 CLO1 CLS1 CLT1				
Colonially - Nesting Bird Breeding Habitat (Tree/Shrubs) **<u>Rationale:</u>** Large colonies are important to local bird population, typically sites are only known colony in area and are used annually.	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 15 m from ground, near the top of the tree.	Great Blue Heron Black-crowned Nigh-Heron Great Egret Green Heron	**Studies confirming:** • Presence of 2 or more active nests of Great Blue Heron or other listed species. • The habitat extends from the edge of the colony and a minimum 300 m radius or extent of the Forest ecosite containing the colony or any island <15.0 ha with a colony is the SWH. • 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 Index #5** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Colonially - Nesting Bird Breeding Habitat (Ground) **<u>Rationale;</u>** Colonies are important to local bird population, typically sites are only known colony in area and are used annually.	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 low bushes in close proximity to streams and irrigation ditches within farmlands.	Herring Gull Great Black-backed Gull Little Gull Ring-billed Gull Common Tern Caspian Tern Brewer's Blackbird	**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. • 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 150 m radius area of habitat, or the extent of the ELC ecosites containing the colony or any island <3.0 ha with a colony is the SWH. • Studies would be done during May/June when actively nesting. Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects". • **SWHMiST Index #6** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Migratory Butterfly Stopover Areas **<u>Rationale:</u>** Butterfly stopover areas are extremely rare habitats and are biologically important for butterfly species	Combination of ELC Community Series; need to have present one Community Series from each land class. <u>Field</u>: CUM CUT CUS	• 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 Erie or Ontario. • 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. • 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.	Painted Lady Red Admiral <u>Special Concern</u> Monarch	S**tudies confirm:** • The presence of Monarch Use Days (MUD) during fall migration (August/October). 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, significant variation can occur between years and multiple years of sampling should occur.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

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that migrate south for the winter.	Forest: FOC FOD FOM CUP Anecdotally, a candidate site for butterfly stopover will have a history of butterflies being observed.	• 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.		• 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 Index #16** provides development effects and mitigation measures.	
Landbird Migratory Stopover Areas **Rationale:** Sites with a high diversity of species as well as high numbers are most significant.	**All ecosites associated with these ELC Community Series:** FOC FOM FOD SWC SWM SWD	• Woodlots >5 ha in size and within 5 km of Lake Erie and Ontario. • If woodlands are rare in an area of shoreline, woodland fragments 2-5 ha can be considered for this habitat. • If multiple woodlands are located along the shoreline those Woodlands <2 km from Lake Ontario are more significant. • Sites have a variety of habitats; forest, grassland and wetland complexes. • The largest sites are more significant. • Woodlots and forest fragments are important habitats to migrating birds, these features located along the shore and located within 5 km of Lake Erie and Ontario are Candidate SWH.	All migratory songbirds. Canadian Wildlife Service Ontario website: http://www.ec.gc.ca/nature/default.asp?lang=En&n=421B7A9D-1 All migrant raptors species: *Ontario Ministry of Natural Resources: Fish and Wildlife Conservation Act, 1997.* Schedule 7: Specially Protected Birds (Raptors)	**Studies confirm:** • Use of the habitat 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 (April/May) and fall (August/October) migration using standardized assessment techniques. Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects". • **SWHMiST Index #9** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Deer Winter Congregation Areas **Rationale:** Deer movement during winter in the southern areas of Ecoregion 7E 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.	**All Forested ecosites with these ELC Community Series:** FOC FOM FOD SWC SWM SWD Conifer plantations much smaller than 50 ha may also be used.	• Woodlots >100 ha in size or if large woodlots are rare in planning area woodlots >50 ha. • Deer movement during winter in the southern areas of Ecoregion 7E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands. • Large woodlots > 100 ha and up to 1500 ha are known to be used annually by densities of deer that range from 0.1-1.5 deer/ha. • Woodlots with high densities of deer due to artificial feeding are not significant.	White-tailed Deer	**Studies confirm:** • Deer management is an MNRF responsibility, deer winter congregation areas considered significant will be mapped by MNRF. • 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 MNRF. • Studies should be completed during winter (January/February) when >20 cm of snow is on the ground using aerial survey techniques, ground or road surveys. or a pellet count deer density survey. • **SWHMiST Index #2** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Table 1.2.1: Rare Vegetation Communities					
Cliffs and Talus Slopes	**Any ELC ecosite within Community Series:**	• Most cliff and talus slopes occur along the Niagara Escarpment.		• Confirm any ELC Vegetation Type for Cliffs or Talus Slopes.	No potential on the subject lands or adjacent lands. The habitat criteria for

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Rationale: Cliffs and Talus Slopes are extremely rare habitats in Ontario.	TAO CLO TAS CLS TAT CLT	• A Cliff is vertical to near vertical bedrock >3 m in height. • A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris.		• **SWHMiST Index #21** provides development effects and mitigation measures.	Significant Wildlife Habitat are not present.
Sand Barren **Rationale;** 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%.	A sand barren area >0.5 ha in size. • Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion. 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%.		• Confirm any ELC Vegetation Type for Sand Barrens • Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotic sp.). • **SWHMiST Index #20** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Alvar **Rationale;** Alvars are extremely rare habitats in Ecoregion 7E.	ALO1 ALS1 ALT1 FOC1 FOC2 CUM2 CUS2 CUT2-1 CUW2 **Five Alvar Indicator Species:** *Carex crawei* *Panicum philadelphicum* *Eleocharis compressa* *Scutellaria parvula* *Trichostema brachiatum* These indicator species are very specific to Alvars within Ecoregion 7E.	• 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 and comprising a number of characteristic or indicator plants. Undisturbed alvars can be phyto- and zoogeographically 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. • An Alvar site > 0.5 ha in size. • Alvar is particularly rare in Ecoregion 7E where the only known sites are found in the western islands of Lake Erie.		**Field studies that identify:** • Four of the five Alvar Indicator Species at a Candidate Alvar site is Significant. • Site must not be dominated by exotic or introduced species (<50% vegetative cover are exotic sp.). • The alvar must be in excellent condition and fit in with surrounding landscape with few conflicting land uses. • **SWHMiST Index #17** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Old Growth Forest **Rationale;** Due to historic logging practices and land clearance	**Forest Community Series:** FOD FOC FOM	• 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.		**Field Studies will determine:** • If dominant trees species of the are >140 years old, then the area containing these trees is SWH. • The forested area containing the old growth characteristics will have experienced no	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

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for agriculture, old growth forest is rare in the Ecoregion 7E.	SWD SWC SWM			recognizable forestry activities (cut stumps will not be present). • The area of forest ecosites combined or an eco-element within an ecosite that contains the old growth characteristics is the SWH. • Determine ELC vegetation types for the forest forest area containing the old growth characteristics. • **SWHMiST Index #23** provides development effects and mitigation measures.	
Savannah **<u>Rationale:</u>** Savannahs are extremely rare habitats in Ontario.	TPS1 TPS2 TPW1 TPW2 CUS2	• 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. • A Savannah is a tallgrass prairie habitat that has tree cover between 25–60%. • In Ecoregion 7E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in Toronto area (north of Lake Ontario).		**Field studies confirm:** • one or more of the Savannah indicator species listed in Appendix N should be present. **Note**: Savannah plant spp. list from Ecoregion 7E should be used. • Area of the ELC ecosite is the SWH. • Site must not be dominated by exotic or introduced species (<50% vegetative cover is exotic sp.). • **SWHMiST Index #18** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Tallgrass Prairie **<u>Rationale:</u>** Tallgrass Prairies are extremely rare habitats in Ontario.	TPO1 TPO2	• No minimum size to site. Site must be restored or a natural site. Remnant sites such as railway Right of Ways (ROW) are not considered to be SWH. • A Tallgrass Prairie has ground cover dominated by prairie grasses. An open Tallgrass Prairie habitat has < 25% tree cover. • In Ecoregion 7E, known Tallgrass Prairie and savannah remnants are scattered between Lake Huron and Lake Erie, near Lake St. Clair, north of and along the Lake Erie shoreline, in Brantford and in Toronto area (north of Lake Ontario).		**Field studies confirm:** • One or more of the Prairie indicator species listed in Appendix N should be present. **Note:** Prairie plant spp. list from Ecoregion 7E should be used. • Area of the ELC ecosite is the SWH. • Site must not be dominated by exotic or introduced species (<50% vegetative cover is exotic sp.). • **SWHMiST Index #19** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Other Rare Vegetation Communities **<u>Rationale:</u>** 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. • Any ELC ecosite Code that has a possible ELC Vegetation Type that is Provincially Rare is Candidate SWH.	• ELC ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in Appendix M. • The MNRF/Natural Heritage Information Centre (NHIC) will have up to date listing for rare vegetation communities. • Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.		**Field studies should confirm:** • If an ELC Vegetation Type is a rare vegetation community based on listing within Appendix M of SWHTG. • Area of the ELC Vegetation Type polygon is the SWH. • **SWHMiST Index #37** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

Habitat	CANDIDATE - Significant Wildlife Habitat		CONFIRMED - Significant Wildlife Habitat		
	Ecological Land Classification Ecosite Codes	**Habitat Criteria**	**Wildlife Species**	**Defining Criteria**	**Presence of Confirmed Significant Wildlife Habitat in the Study Area?**
Table 1.2.2: Specialized Habitats for Wildlife considered Significant Wildlife Habitat					
Waterfowl Nesting Area **<u>Rationale;</u>** Important to local waterfowl populations, sites with greatest number of species and highest number of individuals are significant.	**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 (PSW).	• A waterfowl nesting area extends 120 m from a wetland (> 0.5 ha) or a wetland (>0.5ha) and any small wetlands (0.5ha) within 120 m or a cluster of 3 or more small (<0.5 ha) wetlands within 120 m of each individual wetland where waterfowl nesting is known to occur. • Upland areas should be at least 120 m wide so that predators such as racoons, skunks, and foxes have difficulty finding nests. • Wood Ducks and Hooded Mergansers utilize large diameter trees (>40 cm dbh) in woodlands for cavity nest sites.	American Black Duck Northern Pintail Northern Shoveler Gadwall Blue-winged Teal Green-winged Teal Wood Duck Hooded Merganser Mallard	**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”. • 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 120 m from the wetland and will provide enough habitat for waterfowl to successfully nest. • **SWHMiST Index #25** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Bald Eagle & Osprey Nesting, Foraging & Perching Habitat **<u>Rationale;</u>** Nest sites are fairly uncommon in Eco-region 7E and are used annually by these species. Many suitable nesting locations may be lost due to increasing shoreline development pressures and scarcity of habitat.	**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).	Osprey **Special Concern** Bald Eagle	**Studies confirm the use of these nests by**: • One or more active Osprey or Bald Eagle nests in an area. • 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 300 m radius around the nest or the contiguous woodland stand is the SWH, maintaining undisturbed shorelines with large trees within this area is important. • For a Bald Eagle the active nest and a 400-800 m radius around the nest is the SWH. Area of the habitat from 400-800 m is dependent on-site lines from the nest to the development and inclusion of perching and foraging habitat. • 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. • 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”.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

Habitat	CANDIDATE - Significant Wildlife Habitat		CONFIRMED - Significant Wildlife Habitat		
	Ecological Land Classification Ecosite Codes	**Habitat Criteria**	**Wildlife Species**	**Defining Criteria**	**Presence of Confirmed Significant Wildlife Habitat in the Study Area?**
				• **SWHMiST Index #26** provides development effects and mitigation measures.	
Woodland Raptor Nesting Habitat **<u>Rationale:</u>** Nests sites for these species are rarely identified; these area sensitive habitats and are often used annually by these species.	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 >30 ha with >4ha of interior habitat. Interior habitat determined with a 200 m buffer. • 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 Coopers hawk nest along forest edges sometimes on peninsulas or small off-shore islands. • In disturbed sites, nests may be used again, or a new nest will be in close proximity to old nest.	Northern Goshawk Cooper's Hawk Sharp-shinned Hawk Red-shouldered Hawk Barred Owl Broad-winged Hawk	**Studies confirm:** • Presence of 1 or more active nests from species list is considered significant. • Red-shouldered Hawk and Northern Goshawk – A 400 m radius around the nest or 28 ha area of habitat is the SWH (the 28 ha habitat area would be applied where optimal habitat is irregularly shaped around the nest). • Barred Owl – A 200 m radius around the nest is the SWH. • Broad-winged Hawk and Coopers Hawk– A 100 m radius around the nest is the SWH. • Sharp-Shinned Hawk – A 50 m radius around the nest is the SWH. • Conduct field investigations from early 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 Index #27** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Turtle Nesting Areas **<u>Rationale:</u>** These habitats are rare and when identified will often be the only breeding site for local populations of turtles.	**Exposed mineral soil (sand or gravel) areas adjacent (<100 m) 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.	Midland Painted Turtle <u>Special Concern Species:</u> Northern Map Turtle Snapping Turtle	**Studies confirm:** • Presence of 5 or more nesting Midland Painted Turtles. • One or more Northern Map Turtle or Snapping Turtle nesting is a SWH. • The area or collection of sites within an area of exposed mineral soils where the turtles nest, plus a radius of 30-100 m around the nesting area dependent on slope, riparian vegetation and adjacent land use is the SWH. • Travel routes from wetland to nesting area are to be considered within the SWH as part of the 30-100 m area of habitat. • 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 Index #28** provides development effects and mitigation measures for turtle nesting habitat.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

Habitat	CANDIDATE - Significant Wildlife Habitat		CONFIRMED - Significant Wildlife Habitat		
	Ecological Land Classification Ecosite Codes	**Habitat Criteria**	**Wildlife Species**	**Defining Criteria**	**Presence of Confirmed Significant Wildlife Habitat in the Study Area?**
Seeps and Springs **<u>Rationale</u>:** Seeps/Springs are typical of headwater areas and are often at the source of coldwater streams.	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. • Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species.	Wild Turkey Ruffed Grouse Spruce Grouse White-tailed Deer Salamander spp.	**Field Studies confirm:** • Presence of a site with 2 or more seeps/springs should be considered SWH. • The area of a ELC forest ecosite or an ecoelement within 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. • **SWHMiST Index #30** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Amphibian Breeding Habitat (Woodland) **<u>Rationale:</u>** These habitats are extremely important to amphibian biodiversity within a landscape and often represent the only breeding habitat for local amphibian populations.	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) >500 m^2 (about 25 m diameter) within or adjacent (within 120 m) to a woodland (no minimum size). 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.	Eastern Newt Blue-spotted Salamander Spotted Salamander Gray Treefrog Spring Peeper Western Chorus Frog Wood Frog	**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) or 2 or more of the listed frog species with Call Level Codes of 3. • A combination of observational study and call count surveys 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 wetland area plus a 230 m radius of woodland area. If a wetland area is adjacent to a woodland, a travel corridor connecting the wetland to the woodland is to be included in the habitat. • **SWHMiST Index #14** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present. Targeted surveys looking for ponds or vernal pools were conducted in spring, and none were found.
Amphibian Breeding Habitat (Wetlands) **<u>Rationale;</u>** Wetlands supporting breeding for these amphibian species are extremely important and fairly rare within Central Ontario landscapes.	**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)	• Wetlands >500 m2 (about 25 m diameter), supporting high species diversity are significant; some small or ephemeral habitats may not be identified on MNRF mapping and could be important amphibian breeding habitats. • 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.	Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	**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 with at least 20 individuals (adults or eggs masses) 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 will be required during the spring (March-June) when amphibians are concentrated around suitable breeding habitat within or near the wetlands.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

Habitat	CANDIDATE - Significant Wildlife Habitat		CONFIRMED - Significant Wildlife Habitat		
	Ecological Land Classification Ecosite Codes	**Habitat Criteria**	**Wildlife Species**	**Defining Criteria**	**Presence of Confirmed Significant Wildlife Habitat in the Study Area?**
	may be adjacent to woodlands.			• 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 Index #15** provides development effects and mitigation measures.	
Woodland Area-Sensitive Bird Breeding Habitat **<u>Rationale</u>:** Large, natural blocks of mature woodland habitat within the settled areas of Southern Ontario are important habitats for area sensitive interior forest song birds.	**All ecosites associated with these ELC Community Series:** FOC FOM FOD SWC SWM SWD	• Habitats where interior forest breeding birds are breeding, typically large mature (>60 yrs. old) forest stands or woodlots >30 ha. • Interior forest habitat is at least 200 m from forest edge habitat.	Yellow-bellied Sapsucker Red-breasted Nuthatch Veery Blue-headed Vireo Northern Parula Black-throated Green Warbler Blackburnian Warbler Black-throated Blue Warbler Ovenbird Scarlet Tanager Winter Wren Pileated Woodpecker **Special Concern:** Cerulean Warbler Canada Warbler	**Studies confirm:** • Presence of nesting or breeding pairs of 3 or more of the listed wildlife species. • **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”. • **SWHMiST Index #34** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Table 1.3: Habitat for Species of Conservation Concern considered Significant Wildlife Habitat					
Marsh Breeding Bird Habitat **<u>Rationale;</u>** Wetlands for these bird species are typically productive and fairly rare in Southern Ontario landscapes.	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. • 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.	American Bittern Virginia Rail Sora Common Moorhen American Coot Pied-billed Grebe Marsh Wren Sedge Wren Common Loon Green Heron Trumpeter Swan **Special Concern:** Black Tern Yellow Rail	**Studies confirm:** • Presence of 5 or more nesting pairs of Sedge Wren or Marsh Wren or breeding by any combination of 4 or more of the listed species. • **Note**: any wetland with breeding of 1 or more Black Terns, Trumpeter Swan, Green Heron or Yellow Rail is SWH. • 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”. • **SWHMiST Index #35** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Open Country Bird Breeding Habitat **<u>Rationale;</u>** This wildlife habitat is declining throughout Ontario and North America. Species such as the	CUM1 CUM2	• Large grassland areas (includes natural and cultural fields and meadows) >30 ha. • 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). • Grassland sites considered significant should have a history of longevity, either abandoned	Upland Sandpiper Grasshopper Sparrow Vesper Sparrow Northern Harrier Savannah Sparrow **Special Concern** Short-eared Owl	**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 Owls is to be considered SWH. • The area of SWH is the contiguous ELC ecosite field areas.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

Habitat	CANDIDATE - Significant Wildlife Habitat		CONFIRMED - Significant Wildlife Habitat		
	Ecological Land Classification Ecosite Codes	Habitat Criteria	Wildlife Species	Defining Criteria	Presence of Confirmed Significant Wildlife Habitat in the Study Area?
Upland Sandpiper have declined significantly the past 40 years based on CWS (2004) trend records.		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 grassland species.		• 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". • **SWHMiST Index #32** provides development effects and mitigation measures.	
Shrub/Early Successional Bird Breeding Habitat **Rationale;** 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.	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 >10 ha 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). • Shrub thicket habitats (>10 ha) are most likely to support and sustain a diversity of these species. • Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or pasturelands.	**Indicator Spp:** Brown Thrasher Clay-coloured Sparrow **Common Spp.** Field Sparrow Black-billed Cuckoo Eastern Towhee Willow Flycatcher **Special Concern:** Yellow-breasted Chat Golden-winged Warbler	**Field Studies confirm:** • Presence of nesting or breeding of 1 of the indicator species and at least 2 of the common species. • A habitat with breeding Yellow-breasted Chat or Golden-winged Warbler is to be considered as SWH. • 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". • **SWHMiST cxlix Index #33** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Terrestrial Crayfish **Rationale:** Terrestrial Crayfish are only found within SW Ontario in Canada and their habitats are very rare.	MAM1 MAM2 MAM3 MAM4 MAM5 MAM6 MAS1 MAS2 MAS3 SWD SWT SWM CUM1 with inclusions of above meadow marsh or swamp ecosites can be used by terrestrial crayfish.	• Wet meadow and edges of shallow marshes (no minimum size) 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 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.	Chimney or Digger Crayfish (*Fallicambarus fodiens*) Devil Crayfish or Meadow Crayfish (*Cambarus Diogenes*)	**Studies Confirm:** • Presence of 1 or more individuals of species listed or their chimneys (burrows) in suitable meadow marsh, swamp or moist terrestrial sites. • Area of ELC ecosite or an ecoelement area of meadow marsh or swamp within the larger ecosite area is the SWH. • Surveys should be done April to August in temporary or permanent water. **Note** the presence of burrows or chimneys are often the only indicator of presence, observance or collection of individuals is very difficult. • **SWHMiST Index #36** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Special Concern and Rare Wildlife Species **Rationale:**	All plant and animal Element Occurrences (EO) within a 1 or 10 km grid.	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.	All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species. Lists of these species are tracked by the NHIC.	**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.	No rare species were observed on the subject or adjacent lands during the spring or summer site visit. Targeted surveys for SAR plant species were conducted in the adjacent woodland. A final visit in autumn

Habitat	CANDIDATE - Significant Wildlife Habitat		CONFIRMED - Significant Wildlife Habitat		
	Ecological Land Classification Ecosite Codes	**Habitat Criteria**	**Wildlife Species**	**Defining Criteria**	**Presence of Confirmed Significant Wildlife Habitat in the Study Area?**
These species are quite rare or have experienced significant population declines in Ontario.	Older element occurrences were recorded prior to GPS being available, therefore location information may lack accuracy.			• 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 be easily mapped and cover an important life stage component for a species e.g., specific nesting habitat or foraging habitat. • **SWHMiST Index #37** provides development effects and mitigation measures.	2025 will be conducted to search for White Wood Aster (*Eurybia divaricata*).
Table 1.4.1: Animal Movement Corridors					
Amphibian Movement Corridors **<u>Rationale;</u>** Movement corridors for amphibians moving from their terrestrial habitat to breeding habitat can be extremely important for local populations.	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. • 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.	Eastern Newt American Toad Spotted Salamander Four-toed Salamander Blue-spotted Salamander Gray Treefrog Western Chorus Frog Northern Leopard Frog Pickerel Frog Green Frog Mink Frog Bullfrog	• 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. • Corridors should have at least 15 m of vegetation on both sides of waterway or be up to 200 m wide of woodland habitat and with gaps <20 m. • Shorter corridors are more significant than longer corridors, however amphibians must be able to get to and from their summer and breeding habitat. • **SWHMiST Index #40** provides development effects and mitigation measures.	No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.
Table 1.5.1: Significant Wildlife Habitat Exceptions for Ecodistricts within EcoRegion 7E					
7E-2 - Bat Migratory Stopover Area **Rationale:** Stopover areas for long distance migrant bats are important during fall migration.	No specific ELC types	• Long distance migratory bats typically migrate during late summer and early fall from summer breeding habitats throughout Ontario to southern wintering areas. Their annual fall migration may concentrate these species of bats at stopover areas. • This is the only known bat migratory stopover habitats based on current information.	• Long Point ($42^0$35'N, 80^0 30'E, to $42^0$33'N, $80^0$03'E) has been identified as a significant stop-over habitat for fall migrating Silver-haired Bats, due to significant increases in abundance, activity and feeding that was documented during fall migration. • The confirmantion criteria and habitat areas for this SWH are still being determined. • **SWH MIST Index #38** provides development effects and mitigation measures.		No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat are not present.

BURNSIDE

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Appendix D

Plant Inventory

Botanical Inventory Plant List

Scientific Name	Common Name	ESA	COSEWIC	SARA	G-Rank	S-Rank	Native/ Introduced	Niagara Region (Oldham 2010)
Acer platanoides	Norway Maple				GNR	SNA	I	IC
Acer saccharum	Sugar Maple				G5	S5	N	C
Achillea millefolium	Common Yarrow				G5	SNA	I	C
Aesculus hippocastanum	Horse Chestnut				GNR	SNA	I	IU
Agrimonia gryposepala	Hooked Agrimony				G5	S5	N	C
Alliaria petiolata	Garlic Mustard				GNR	SNA	I	IC
Ambrosia artemisiifolia	Common Ragweed				G5	S5	N	C
Anemone quinquefolia	Wood Anemone				G5	S5	N	C
Antennaria neglecta	Field Pussytoes				G5	S5	N	C
Arisaema triphyllum	Jack-in-the-pulpit				G5	S5	N	C
Asparagus officinalis	Garden Asparagus				G5?	SNA	I	IC
Bromus inermis	Smooth Brome				G5T5	SNA	I	IC
Campanula persicifolia	Peach-leaved Bellflower				GNR	SNA	I	
Cardamine douglassii	**Limestone Bittercress**				G5	S4	N	**R**
Carex cephalophora	Oval-leaved Sedge				G5	S5	N	C
Carex plantaginea	Plantain-leaved Sedge				G5	S5	N	U
Carex radiata	Eastern Star Sedge				G5	S5	N	C
Carex sparganioides	Burreed Sedge				G5	S4S5	N	U
Carya cordiformis	Bitternut Hickory				G5	S5	N	C
Carya ovata	Shagbark Hickory				G5	S5	N	C
Caulophyllum thalictroides	Blue Cohosh				G5	S5	N	DD
Centaurea jacea	Brown Knapweed				GNR	SNA	I	IU
Cerastium fontanum	Common Mouse-ear Chickweed				GNR	SNA	I	IC
Chelidonium majus	Greater Celandine				GNR	SNA	I	IC
Claytonia virginica	Eastern Spring Beauty				G5	S5	N	C
Clinopodium vulgare	Wild Basil				G5	S5	N	C
Cornus racemosa	Grey Dogwood				G5	S5	N	C
Convolvulus arvensis	Field Bindweed				GNR	SNA		IC
Crataegus douglasii	Douglas' Hawthorn				G5	S4?	N	
Dactylis glomerata	Orchard Grass				GNR	SNA	I	IC
Daucus carota	Wild Carrot				GNR	SNA	I	IC
Dianthus armeria	Deptford Pink				GNR	SNA	I	IC
Elymus hystrix	Bottlebrush Grass				G5	S5	N	C
Erigeron annuus	Annual Fleabane				G5	S5	N	C

Scientific Name	Common Name	ESA	COSEWIC	SARA	G-Rank	S-Rank	Native/ Introduced	Niagara Region (Oldham 2010)
Erigeron philadelphicus	Philadelphia Fleabane				G5	S5	N	C
Erythronium americanum	Yellow Trout-lily				G5	S5	N	C
Fragaria virginiana	Wild Strawberry				G5	S5	N	C
Fraxinus pennsylvanica	Red Ash				G4	S4	N	C
Galium aparine	Common Bedstraw				G5	S5	N	C
Galium mollugo	Smooth Bedstraw				GNR	SNA	I	IC
Geranium maculatum	Spotted Geranium				G5	S5	N	C
Geranium robertianum	Herb-Robert				G5	S5	N	IC
Geum canadense	Canada Avens				G5	S5	N	C
Hemerocallis fulva	Orange Daylily				GNA	SNA	I	IC
Hypericum perforatum	Common St. John's-wort				GNR	SNA	I	IC
Juglans nigra	Black Walnut				G5	S4?	N	C
Juniperus virginiana	Eastern Red Cedar				G5	S5	N	C
Ligustrum vulgare	European Privet				GNR	SNA	I	IC
Lonicera tatarica	Tatarian Honeysuckle				GNR	SNA	I	IC
Maianthemum racemosum	Large False Solomon's Seal				G5T5	S5	N	C
Medicago lupulina	Black Medick				GNR	SNA	I	IC
Menispermum canadense	Canada Moonseed				G5	S4	N	U
Parthenocissus quinquefolia	Virginia Creeper				G5	S4?	N	U
Parthenocissus vitacea	Thicket Creeper				G5	S5	N	C
Persicaria virginiana	Virginia Smartweed				G5	S4	N	C
Phleum pratense	Common Timothy				GNR	SNA	I	IC
Phytolacca americana	Common Pokeweed				G5	S4	N	C
Picea pungens	Blue Spruce				G5	SNA	I	
Pilosella caespitosa	Meadow Hawkweed				GNR	SNA	I	IC
Pinus strobus	Eastern White Pine				G5	S5	N	C
Plantago lanceolata	English Plantain				G5	SNA	I	IC
Poa pratensis	Kentucky Bluegrass				G5	S5	N	IC
Podophyllum peltatum	May-apple				G5	S5	N	C
Prunella vulgaris	Common Self-heal				G5	S5	N	C
Prunus avium	Sweet Cherry				GNR	SNA	I	IC
Prunus serotina	Black Cherry				G5	S5	N	C
Prunus virginiana	Chokecherry				G5	S5	N	C
Quercus macrocarpa	Bur Oak				G5	S5	N	U
Quercus rubra	Northern Red Oak				G5	S5	N	C

Scientific Name	Common Name	ESA	COSEWIC	SARA	G-Rank	S-Rank	Native/ Introduced	Niagara Region (Oldham 2010)
Ranunculus acris	Common Buttercup				G5	SNA	I	IC
Rhamnus cathartica	European Buckthorn				GNR	SNA	I	IC
Rhus typhina	Staghorn Sumac				G5	S5	N	C
Robinia pseudoacacia	Black Locust				G5	SNA	I	IC
Rosa multiflora	Multiflora Rose				GNR	SNA	I	IC
Rubus allegheniensis	Allegheny Blackberry				G5	S5	N	C
Rubus idaeus ssp. idaeus	European Red Raspberry				G5T5	SNA	I	IR
Rubus occidentalis	Black Raspberry				G5	S5	N	C
Rubus odoratus	Purple-flowering Raspberry				G5	S5	N	C
Sambucus canadensis	Common Elderberry				G5T5	S5	N	C
Sanguinaria canadensis	Bloodroot				G5	S5	N	C
Solanum dulcamara	Bittersweet Nightshade				GNR	SNA	I	IC
Solidago altissima	Tall Goldenrod				G5	S5	N	
Solidago canadensis	Canada Goldenrod				G5	S5	N	C
Staphylea trifolia	American Bladdernut				G5	S4	N	U
Stellaria media	Common Chickweed				GNRTNR	SNA	I	IC
Taraxacum officinale	Common Dandelion				G5	SNA	I	IC
Thalictrum dioicum	Early Meadow-rue				G5	S5	N	C
Tilia americana	Basswood				G5	S5	N	C
Toxicodendron radicans	Poison Ivy				G5	S5	N	C
Trifolium pratense	Red Clover				GNR	SNA	I	IC
Trifolium repens	White Clover				GNR	SNA	I	IC
Trillium grandiflorum	White Trillium				G5	S5	N	C
Ulmus americana	White Elm				G4	S5	N	C
Viola sororia	Woolly Blue Violet				G5	S5	N	C
Vitis riparia	Riverbank Grape				G5	S5	N	C

Niagara Region

Oldham, M.J. 2010. Natural Areas Inventory: Checklist of the Vascular Plants of Niagara Regional Municipality, Ontario. Produced for the Niagara Peninsula Conservation Authority.

R: Rare; known from 10 or fewer recently verified (post 1980) locations in Niagara R.M.

RH: Rare Historic; known from Niagara R.M. but no known records since 1980.

U: Uncommon; known from 11 to 20 recently verified (post 1980) locations in Niagara R.M.

C: Common; known from more than 20 recently verified (post 1980) locations in Niagara R.M.

DD: Data Deficient; native and reliably known from Niagara R.M., but local status unknown usually due to confusion with similar species. Further work is needed to determine status in the region.

I: Introduced; a plant established outside cultivation in Niagara R.M. but not native to the region (i.e. deliberately or accidentally introduced to the area). “I” is followed by one of the above codes to indicate the regional status of introduced plants.

hyb: Hybrid; no Niagara status assigned.

ESA Status

Species at Risk in Ontario list: The list of species that are classified as species at risk under the Endangered Species Act (2007).

EXT:	Extinct – A species that no longer exists anywhere.
EXP:	Extirpated – A species that no longer exists in the wild in Ontario but still occurs elsewhere.
END:	Endangered – A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's Endangered Species Act (ESA).
THR:	Threatened – A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
SC:	Special Concern (formerly Vulnerable) – A species with characteristics that make it sensitive to human activities or natural events.
NAR:	Not at Risk – A species that has been evaluated and found to be not at risk.
DD:	Data Deficient (formerly Indeterminate) – A species for which there is insufficient information for a provincial status recommendation.

COSEWIC Status

Committee on the Status of Endangered Wildlife in Canada status: Species has been assessed by COSEWIC as having status, but status is not necessarily adopted on the official Schedule 1 to SARA.

EXT:	Extinct – A species that no longer exists.
EXP:	Extirpated – A species no longer existing in the wild in Canada, but occurring elsewhere.
END:	Endangered – A species facing imminent extirpation or extinction.
THR:	Threatened – A species likely to become endangered if limiting factors are not reversed.
SC:	Special Concern (formerly vulnerable) – A species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
NAR:	Not At Risk – A species that has been evaluated and found to be not at risk of extinction given the current circumstances.
DD:	Data Deficient (formerly Indeterminate) – Available information is insufficient to resolve a species' eligibility for assessment or to permit an assessment of the species' risk of extinction.

SARA Schedule 1 Status

Species at Risk Act Schedule 1 Status: Schedule 1 is the official list of species that are classified as extirpated, endangered, threatened, and of special concern. The Act establishes Schedule 1, as the official list of species at risk. It classifies those species as being either Extirpated, Endangered, Threatened, or a Special Concern. Once listed, the measures to protect and recover a listed species are implemented.

EXT:	Extinct – A species that no longer exists.
EXP:	Extirpated – A species that no longer exists in the wild in Canada but exists elsewhere in the wild.
END:	Endangered – A species that is facing imminent extirpation or extinction.
THR:	Threatened – A species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
SC:	Special Concern – A species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

Global Rank

GX	Presumed Extinct (species)/Eliminated (ecological communities and systems) — Species not located despite intensive searches and virtually no likelihood of rediscovery. Ecological community or system eliminated throughout its range, with no restoration potential.
GH	Possibly Extinct (species)/ Eliminated (ecological communities and systems) — Known from only historical occurrences but still some hope of rediscovery. There is evidence that the species may be extinct or the ecosystem may be eliminated throughout its range, but not enough to state this with certainty.
G1	Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2	Imperiled—At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors.
G3	Vulnerable—At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.
G4	Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5	Secure—Common; widespread and abundant.

Variant Ranks

G#G#:	Range Rank – A numeric range rank (e.g., G2G3, G1G3) is used to indicate the range of uncertainty about the exact status of a taxon or ecosystem type. Ranges cannot skip more than two ranks (e.g., GU should be used rather than G1G4).

GU:	Unrankable – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends. NOTE: Whenever possible (when the range of uncertainty is three consecutive ranks or less), a range rank (e.g., G2G3) should be used to delineate the limits (range) of uncertainty.
GNR:	Unranked – Global rank not yet assessed
GNA:	Not Applicable – A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

Rank Qualifiers

?:	Inexact Numeric Rank – Denotes inexact numeric rank; this should not be used with any of the Variant Global Conservation Status Ranks or GX or GH.
Q:	Questionable taxonomy that may reduce conservation priority – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon or type in another taxon or type, with the resulting taxon having a lower priority (numerically higher) conservation status rank. The "Q" modifier is only used at a global level and not at a national or subnational level.
C:	Captive or Cultivated Only – Taxon or ecosystem at present is presumed or possibly extinct or eliminated in the wild across their entire native range but is extant in cultivation, in captivity, as a naturalized population (or populations) outside their native range, or as a reintroduced population or ecosystem restoration, not yet established. The "C" modifier is only used at a global level and not at a national or subnational level. Possible ranks are GXC or GHC. This is equivalent to "Extinct" in the Wild (EW) in IUCN's Red List terminology (IUCN 2001).

Subnational Rank

S-Rank: Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre (NHIC) to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks but consider only those factors within the political boundaries of Ontario.

S1:	Critically Imperiled – Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.
S2:	Imperiled – Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
S3:	Vulnerable – Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4:	Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5:	Secure – Common, widespread, and abundant in the nation or state/province.
S#S#:	Range Rank – A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).
SX:	Presumed Extirpated – Species or community is believed to be extirpated from the nation or state/province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
SH:	Possibly Extirpated (Historical) – Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20-40 years. A species or community could become NH or SH without such a 20-40 year delay if the only known occurrences in a nation or state/province were destroyed or if it had been extensively and unsuccessfully looked for. The NH or SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.
SE:	Species is considered exotic in Ontario
SNR:	Unranked – Nation of state/province conservation status not yet assessed.
SU:	Unrankable – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
SNA:	Not Applicable – A conservation status rank is not applicable because the species is not a suitable target for conservation activities.

Native?:

N:	Native to Ontario. Species does not have exotic status under NHIC database.
I:	Introduced to Ontario. Species has exotic status rank under NHIC database.

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