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# 127 First Line Elora
# Scoped Environmental Impact Study

**Elora Greens Housing Developers**
**120 Matheson Boulevard East, Unit 3**
**Mississauga ON  L4Z 1X1**

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# Scoped Environmental Impact Study

## Elora Greens Housing Developers
## 120 Matheson Boulevard East, Unit 3
## Mississauga ON  L4Z 1X1

**R.J. Burnside & Associates Limited**
**292 Speedvale Avenue West, Unit 20**
**Guelph ON  N1H 1C4 CANADA**

**July 2025**
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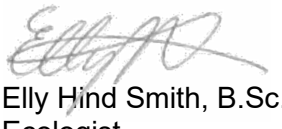
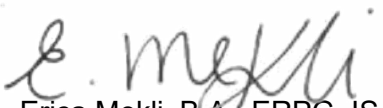
**R.J. Burnside & Associates Limited**

**Report Prepared By:**



Elly Hind Smith, B.Sc. (Envs)., CAN-CISEC
Ecologist
EHS:js



Erica Mekli, B.A., ERPG, ISA Certified Arborist
Ecologist
EM: js

**Report Reviewed By:**



Jennifer Szczerbak, B.Sc., E.M.P.D.
Vice President Ecology
JS:js

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# 1.0 Introduction

## 1.1 Background and Purpose

R.J. Burnside & Associates Limited (Burnside) has been retained by Elora Greens Housing Developers ('the Client') to complete a Scoped Environmental Impact Study (EIS) for the proposed residential development at 127 First Line in Elora ('Town') (herein referred to as the "subject lands"). The subject lands are located south First Line, between Bridge Street and Spencer Drive and is approximately 21.6 ha. The location and limits of the subject lands are shown on Figure 1. Any area within 120 m of the subject lands is defined as the "adjacent lands". The subject lands are currently utilized for agricultural purposes and have limited natural features.

## 1.2 Scope of Work

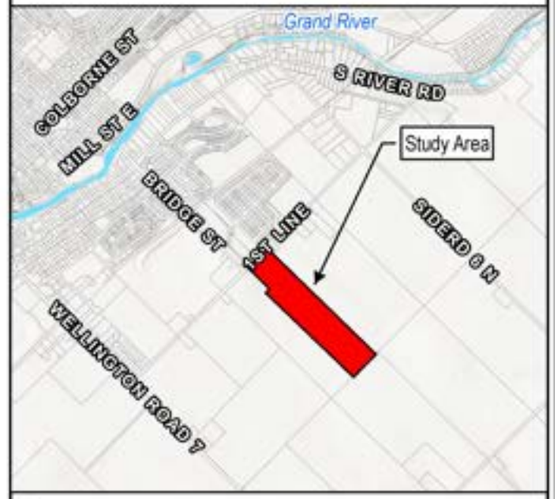
This document was prepared in accordance with the approved Terms of Reference (TOR) (Appendix A), Section 4.1 (Natural Heritage) of the Provincial Planning Statement (PPS; MMAH, 2024), the Natural Heritage Reference Manual (NHRM) for Natural Heritage Policies (MNR, 2010) and the Significant Wildlife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

- 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.
- A description of the proposed development, including conceptual servicing and stormwater management measures.
- 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.
- A review of applicable environmental policies and regulations conformity affecting the subject lands.

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




Subject Lands

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Client
**ELORA GREENS HOUSING DEVELOPERS**

Figure Title
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## SUBJECT LANDS

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## 2.0 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.

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

- Aerial photographic imaging and 1:10,000 Ontario Base Mapping (OBM).
- Ontario Hydrology Network (OHN) mapping.
- Fisheries and Oceans Canada (DFO) Aquatic SAR mapping.
- Ministry of Natural Resources (MNR) Natural Heritage Information Centre (NHIC) database for significant species and designated natural features on and in the vicinity of the subject lands: 1x1 $km^2$ Square: 17NJ4735.
- MNR Land Information Ontario (LIO) database.
- MNR Aquatic Resource Area (ARA) mapping.
- Ontario Hydrology Network (OHN) mapping.
- Grand River Conservation Authority (GRCA) regulated features mapping.
- Ontario Breeding Bird Atlas (OBBA) (2001-2005) 10x10 $km^2$ Square 17TNJ43.
- Ontario Reptile and Amphibian Atlas (ORAA) database for herpetofaunal species 10x10 $km^2$ Square 17TNJ43.
- Species range maps (various sources).
- Federal Fisheries Act (1985)
- Federal Migratory Birds Convention Act, 1994 (MBCA) and the Migratory Bird Regulations (MBR)
- Species Conservation Act (SCA) (2025)
- Provincial Planning Statement (PPS) (2024)
- Conservation Authorities Act and O. Reg. 41/24 Prohibited Activities, Exemptions and Permits
- Centre Wellington Official Plan (2024)
- County of Wellington Official Plan (2025)

The subject lands are in the jurisdiction of GRCA and Ministry of Natural Resources (MNR) Aylmer-Guelph District. Species protected under the SCA are administered by the MECP, Species at Risk Branch.

Online GRCA Regulation mapping shows that there are no regulated features on 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 GRCA (Jessica Conroy) and the Town (Caitlyn Turton) on July 23, 2025, via email.
- Jessica Conroy replied on July 25, 2025 that the subject lands does not contain any regulated features and therefore GRCA permission is not required.
- Caitlyn Turton replied on July 28, 2025 that the Town had no comments on the TOR.

Copies of agency correspondence are found in Appendix B.

## 2.1 Terrestrial Habitat

### 2.1.1 Wildlife

The following is a summary of potential wildlife habitat identified on the subject lands based on a review of background aerial imagery, databases and reports:

- Bat maternity roosting habitat.
- Significant Wildlife Habitat (SWH).
  - Special Concern and Rare Wildlife Species
- SAR and Species of Conservation Concern (SCC).
  - Little Brown Myotis (*Myotis lucifugus*)
  - Hoary Bat (*Lasiurus cinereus*)
  - Northern Myotis (*Myotis septentrionalis*)
  - Silver-haired Bat (*Lasionycteris noctivagans*)
  - Tri-colored Bat (*Perimyotis subflavus*)
  - Eastern Red Bat (*Lasiurus borealis)*
  - Butternut (*Juglans cinerea*)
  - Black Ash (*Fraxinus nigra*)
  - Blanding's Turtle (*Emydoidea blandingii*)
  - Eastern Meadowlark (*Sturnella magna*)
  - Bobolink (*Dolichonyx oryzivorus*)
  - Wood Thrush (*Hylocichla mustelina*)
  - Red-headed Woodpecker (*Melanerpes erythrocephalus*)
  - Bank Swallow (*Riparia riparia*)
  - Barn Swallow (*Hirundo rustica*)
  - Chimney Swift (*Chaetura pelagica*)

SWH and SAR confirmed during Burnside's field investigation are summarized further in Section 5.5 and 5.6, respectively.

# 3.0 Field Methodology

Field investigations were completed in accordance with the approved TOR and included documentation of any confirmed or candidate SAR and / or SAR habitat. Field methodologies and associated protocols are summarized below.

## 3.1 Vegetation Communities and Species

Ecological Land Classification (ELC) communities are described according to the ELC for Southern Ontario: First Approximation and Its Application (Lee et al. 1998), including reference to the 2008 updated classification (Lee 2008, 2013). Detailed investigations of vegetation communities and species were conducted for the entirety of the subject lands. All species herein are described according to nomenclature and S-ranks provided by the NHIC, current to June 18, 2026. Where nomenclature differs between databases or rarity lists, the Database of Vascular Plants of Canada (VASCAN) (2025) was used as a reference for synonyms of plant names to current taxonomic standards.

### 3.1.1 Ecological Land Classification and Botanical Inventory

Surveys for ELC and botanical inventory were undertaken on August 20, 2025. All plant species observed on the subject lands have been analyzed for species rarity based on:

- Species status as listed on the PSO list (updated June 25, 2026), under the SCA.
- Species status as determined by COSEWIC and listed under the SARA, 2002.
- Species S-Rank, as provided by the NHIC species lists (June 18, 2026).
- Rarity for Wellington County as listed in *Significant Plant List for Wellington County* (Dougan & Associates 2009).

### 3.1.2 Tree Inventory

A tree inventory was conducted by an ISA certified Arborist (ON-2367A) to record trees within and immediately adjacent (if permission to enter was granted) to the subject lands that may be impacted by the proposed development. Privately owned trees greater than 10 cm diameter at breast height (DBH) were included in the investigations. The following data were collected for each tree:

- Tree ID #
- Species (Scientific and Common Name)
- DBH (cm)
- Conditions (Good, Fair, Poor, Dead)
- Additional Comments (to supplement condition or location notes)

An industry standard Tree Protection Zone (TPZ) was applied to each tree during the analysis to aid in providing a final recommendation (i.e., preserve or remove). A final preservation recommendation is provided based on the existing conditions and

construction impacts combined. A tree is recommended for preservation if it has been assigned a fair or good condition rating and can be incorporated into the design. A tree is recommended for removal if it has been assigned a poor condition rating and / or will be significantly impacted by, or is in direct conflict with the proposed design.

### 3.1.3 Targeted Butternut and Black Ash Searches

Searches of all trees on the subject lands were completed during the leaf-on season, as defined by MECP (2023), on August 20, 2025. The search was conducted on a clear day, free from rain in the previous 24 hours, so cankers or biological damages could be easily identified.

## 3.2 Bats

As per MECP's *Species at Risk Bats Survey Note 2022*, potential woodland SAR bat habitat should be assessed according to the protocol *Treed Habitats – Maternity Roost Surveys* (2022). The protocol calls for Snag Surveys followed by Acoustic Monitoring Surveys.

### 3.2.1 Snag and Canopy Tree Surveys

Snag surveys are best performed during the fall to early spring. However, the surveys can be completed at any time of year if there is a clear view of trunks and branches. Snag surveys were conducted on August 20, 2025, to identify potential bat maternity roosting habitat for Silver-haired Bat, Little Brown Myotis and Northern Myotis.

The following criteria were considered when identifying candidate maternity roosting tree during this survey:

- Snag Height
- Presence of habitat characteristics
- Diameter at Breast Height (DBH)
- Within 10 m of another tree and / or snag
- Amount of peeling bark
- Cavity height
- Species
- Percent canopy cover
- Decay class

Leaf clusters were also documented during this step, as they provide habitat for Tri-coloured Bat. For each candidate tree, the above information was collected using ArcGIS FieldMaps and marked with a GPS waypoint.

Canopy tree surveys were completed for Hoary Bat and Eastern Red Bat, which are both habitat generalists. These species typically roost among the foliage of trees of both deciduous and coniferous forests and occasionally shrubs. Roost sites that have overhead foliage for cover and open flight space below are selected. Trees used as maternity roosts tend to be large diameter and tall, reaching or exceeding the height of the surrounding canopy (COSEWIC, 2023). Concentrations of trees matching these characteristics were noted and included in the tree inventory.

## 3.3 Incidental Wildlife Observations

General wildlife surveys were conducted concurrently with all field investigations. All observations and signs of species were recorded (e.g., tracks / trails, scat, burrows, dens, browse, vocalizations).

# 4.0 Existing Conditions

## 4.1 Ecological Land Classification

Although highly agricultural, three naturalized vegetation communities were recorded during the ELC evaluation, including deciduous hedgerows, mixed forest and mixed meadow. Below are the summary descriptions of each vegetation community. None of the recorded communities are considered rare, either locally or provincially.

### 4.1.1 OAG- Agricultural Field

At the time of the Ecological Land Classification (ELC) survey, the agricultural fields on the subject lands were actively cultivated with soybean (*Glycine max*).

### 4.1.2 THDM3- Dry-Fresh Deciduous Hedgerows

The western hedgerow is dominated by Norway Maple (*Acer platanoides*) within the canopy with a shrub layer consisting primarily of invasive European Buckthorn (*Rhamnus cathartica*). The vegetation community also includes Bebb's willow (*Salix bebbiana*), Wild Cucumber (*Echinocystis lobata*), Wild Strawberry (*Fragaria virginiana*), Prostrate Knotweed (*Polygonum aviculare*), Panicled Aster (*Symphyotrichum lanceolatum*), Reed Canary Grass (*Phalaris arundinacea*), Spotted Jewelweed (*Impatiens capensis*), White Vervain (*Verbena urticifolia*) and Eastern Enchanter's-nightshade (*Circaea canadensis*).

The central hedgerow is characterized as an invasive European Buckthorn thicket. The sparse canopy consists of scattered Norway Maple and Apple (*Malus sp.*). The subcanopy is dominated by European Buckthorn (*Rhamnus cathartica*), Riverbank Grape (*Vitis riparia*) and Black Raspberry (*Rubus occidentalis*).

The eastern boundary hedgerow is dominated by a sparse canopy of Norway Maple with a shrub layer consisting primarily of European Buckthorn. The ground layer is dominated by Smooth Brome (*Bromus inermis*), Black Raspberry, Virginia Creeper (*Parthenocissus quinquefolia*), Garlic Mustard (*Alliaria petiolata*), Canada Goldenrod (*Solidago canadensis*) and Common Milkweed (*Asclepias syriaca*).

### 4.1.3 WOM- Mixed Forest

A mixed forest community occurs mainly on the adjacent property, along the southwestern boundary of the subject lands, but does encroach minimally. Although located mostly outside the subject lands, this community may be influenced by edge tree removals associated with the proposed development. The canopy is dominated by Black Cherry (*Prunus serotina*), Eastern White Pine (*Pinus strobus*), Green Ash (*Fraxinus pennsylvanica*) and Balsam Poplar (*Populus balsamifera*). The shrub layer is dominated by European Buckthorn, Wild Cucumber (*Echinocystis lobata*) and Honeysuckle (*Lonicera* spp.). The ground layer is dominated by Garlic Mustard, White Avens (*Geum canadense*), Virginia Creeper, White Clover (*Trifolium repens*) and Common Burdock (*Arctium minus*).

### 4.1.4 MEMM3- Dry-Fresh Mixed Meadow

A meadow community is located along the western portion of the subject lands, north of the western hedgerow. This area is characterized as a mixed meadow dominated by Reed Canary Grass (*Phalaris arundinacea*), Canada Goldenrod, Common Milkweed, Common Tansy (*Tanacetum vulgare*), Smooth Brome and Nightshade species (*Solanum* spp.).

## 4.2 Botanical Inventory

A detailed list of plants identified on the subject lands can be found in Appendix C. The following summarizes the flora observed on the subject lands:

- 64 plant taxa were observed. Of those, 63 were identified to species or subspecies level.
- Of those species, 34 (54%) were native and 29 (46%) were non-native to Ontario.
- All native species were ranked ‘apparently secure’ (uncommon but not rare) (S4) or ‘secure’ (common, widespread and abundant)
- No species that are considered “rare” (i.e., occurrence between 1 and 10 natural sites in the county) in Wellington County was identified by Burnside.
- No SAR plants were observed on the subject lands.




Candidate Bat Maternity Tree

Ecological Land Classification

Subject Lands

**ELC Descriptions**

CV: Constructed
CVR_1: Low Density Residential
CVR_4: Rural Property
MEMM3: Dry - Fresh Mixed Meadow
OAG: Agricultural
THD: Deciduous Thicket
THDM3: Dry - Fresh Deciduous Hedgerow Thicket
WOM: Mixed Woodland

**Sources:**

1. Ministry of Natural Resources. © Queen's Printer for Ontario
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Figure Title
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## ECOLOGICAL LAND CLASSIFICATION

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## 4.3 Tree Inventory

A total of 158 trees and two tree groupings were recorded during the tree inventory. Based on the proposed development design, 144 trees will require removal and 14 will be preserved, including two tree groupings along the property line in the northern end of the subject lands. A Tree Protection Plan (TPP) was developed as per the County Forest Conservation By-law (5115-09) and can be viewed in Appendix D.

## 4.4 Bats

In total, one leaf-off candidate maternity roost tree (i.e., snag) was inventoried on the east side of the subject lands within the eastern hedgerow. The tree is a declining Norway Maple with a single-stemmed DBH of 86. There are five potential entry features on the tree in the form of knotholes and peeling bark. The tree appeared to be rotted and hollow on the inside. A total of 27 trees greater than 40 cm DBH were also recorded during the tree inventory, that may be utilized by the SAR bat generalists (Hoary Bat and Eastern Red Bat), all of which are proposed for removal. These 27 trees are located within the multiple hedgerow communities on the subject lands and none are located within the mixed woodland (WOM) community. These large diameter hedgerow trees are isolated and therefore have a lower significance as candidate roosting trees, as opposed to if they had been located along the edge of the WOM community in which case they would have been part of a contiguous wooded area and would therefore be more significant.

MECP's Species at Risk Bats Survey Note (2022) states that if the proposed activity will only remove a proportionately small number of candidate roosts, thus avoiding impairing the function of habitat for supporting bats, and occurs outside of the active bat window, then there is no need to conduct SAR bat surveys. One snag was recorded within the subject lands and the removal of this tree is deemed proportionally small. The 27 large diameter trees are also deemed proportionally small because there are ample wooded areas that can be used by bats for roosting within the local vicinity (~ 5 km radius). Treed areas associated with the Grand River and Elora Gorge Conservation, as well as the woodland immediately adjacent to the west side of the subject lands, provide high quality roosting habitat in the local vicinity.

Due to the proportionally small number of snags being removed from the subject lands, and the ample available habitat in the local vicinity it has been determined that the habitat function of SAR bats will not be impacted due to the proposed tree removals to accommodate the concept plan.

As required by MECP protocol, the removal of the one candidate maternity roost tree, and 27 trees greater than 40 cm DBH must occur outside of the active bat season (i.e., April 1 to October 31) to avoid impacts to SAR bats that may be present.

## 4.5 Incidental Wildlife Observations

Incidental wildlife observations recorded by Burnside during field investigations are listed in Table 1, below.

MNR's provincial ranks (i.e., S1 to S5) are used to set protection priorities for rare species and natural communities. Monarch (*Danaus plexippus*) and Barn Swallow are federally significant and listed as Endangered and Threatened, respectively. Monarch is not protected on a provincial level and therefore does not receive habitat protection in this case. The significance of these species is discussed further in Section 5.0.

**Table 1: Summary of Incidental Wildlife Observations by Burnside Staff on the Subject Lands**

| Common Name | Scientific Name | Number Observed | S-Rank | Location / Comments |
|---|---|---|---|---|
| White-tailed Deer | *Odocoileus virginianus* | Multiple observations | S5 | Deer scat and beds observed throughout the subject lands |
| Barn Swallow | *Hirundo rustica* | One | S4B | One seen foraging over the subject lands |
| Monarch | *Danaus plexippus* | Multiple observations | S4B, S2N | Host larvae plant, Common Milkweed (*Asclepias syriaca*) observed as well as adult individuals throughout the subject lands. |

# 5.0 Identification of Significant Features

## 5.1 Significant Woodlands

According to Section 8.0 of the PPS (MMAH, 2024), significant woodland is defined 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 the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history.*

The PPS indicates that significant woodland criteria is to be identified using criteria and procedures established by the Province. Significant Woodlands are typically identified by the local municipality be applying the NHRM Evaluation (MNRF, 2010), criteria as they apply to that municipality.

There are no significant woodlands identified by the County of Wellington or Centre Wellington on the subject or adjacent lands, as seen in the screen shot of the County of Wellington Official Plan Schedule B1 (Figure 3; County of Wellington 2026). A 30 m buffer is required for a Significant Woodland, however since the existing woodland in the southwest corner of the subject lands that extends onto the adjacent lands is not deemed significant by the County, no buffer is required.

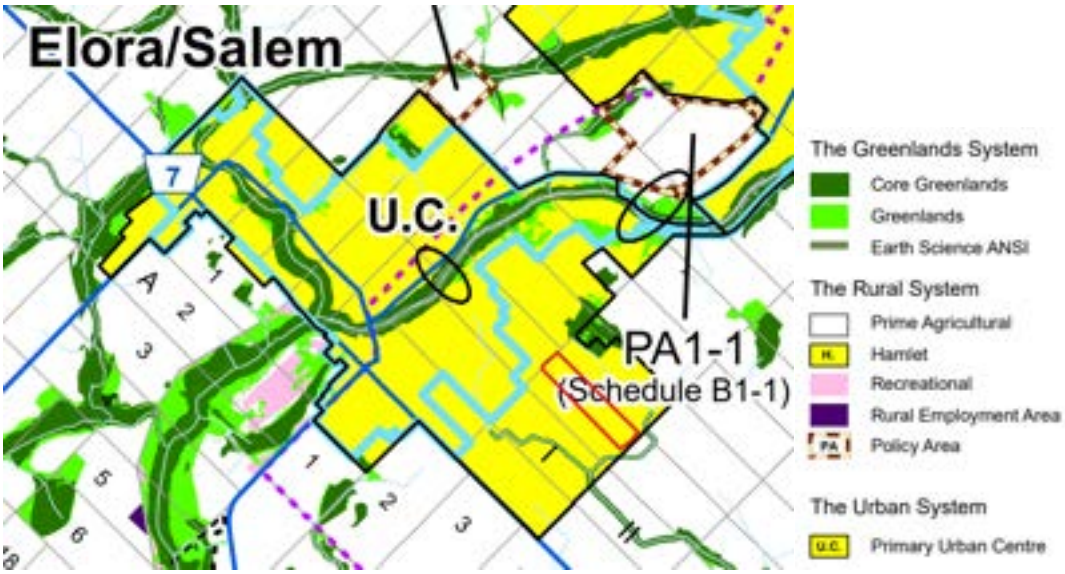


**Figure 3: Screenshot of Schedule B1 County of Wellington Official Plan (red polygon is subject lands)**

## 5.2 Provincially Significant Wetlands

Section 8.0 of the PPS (MMAH, 2024) defines significant wetlands as:

> *an area identified as provincially significant using evaluation criteria and procedures established by the Province, as amended from time to time.*

Provincially Significant Wetlands (PSW) are identified by MNR and can be found by searching the Ontario GeoHub open dataset or NHIC's Make a Map: Natural Heritage Areas.

There are no PSWs on the subject or adjacent lands.

## 5.3 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*

The NHRM further defines the recommended Significant Valleyland evaluation criteria and standards for areas with well-defined valley morphology (i.e., floodplains, meander belts, and valley slopes). One of the criteria is that features having an average width of 25 m are considered significant. Others, within headwater areas, may not have a defined watercourse channel where flow is overland and originates from springs, seepage areas and surface runoff.

Additionally, Section 8.0 of the PPS (2020) defines Significant Valleylands as:

> *ecologically important in terms of features, functions, representation, or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system*

There are no Significant Valleylands on the subject or adjacent lands.

## 5.4 Significant Areas 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*

The NHRM (MNR, 2010) states that 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.

Provincially significant ANSI's are identified as provincially significant using evaluation criteria and procedures established by the Province, as amended from time to time. 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.

There are no ANSI's on the subject or adjacent lands.

## 5.5 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 identified as:

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.

Section 2.1 includes a screening of the various categories of SWH for the subject lands and adjacent lands, based on background records review, agency records and aerial photo interpretation as well as Burnside's field investigations for the subject lands, completed in 2025.

Through field investigations, it was determined that no SWH is present within the subject lands or adjacent lands.

## 5.6 Habitat of Endangered and Threatened Species

Burnside's background database review, consultation with agencies and field investigations in 2025 revealed the potential for SAR on the subject lands and/or adjacent lands, defined as either:

1. Habitat of Endangered or Threatened species under the SCA Protected Species in Ontario (PSO) list, or

2. Aquatic and migratory bird species (protected under MBCA) not listed under the SCA but listed under SARA Schedule 1 as Extirpated, Endangered, or Threatened.

### 5.6.1 Candidate SAR Birds

Based on the SAR assessment of the species recorded during the background review there are two SAR birds that have candidate habitat within the subject lands and the adjacent lands, including Red-headed Woodpecker and Wood Thrush. Additionally, as discussed in Section 4.5, Barn Swallow was also observed on the subject lands during field investigations, although habitat criteria are not met within the subject lands. The Barn Swallow was only observed foraging and thus would not be protected under Schedule 1 of SARA.

The Red-headed Woodpecker and Wood Thrush have candidate habitat only within the mixed woodland (WOM) community in the southwest corner of the subject lands and on the adjacent lands. Although not protected under the SCA, these three bird species are protected under Schedule 1 of the SARA and mitigation measures, as outlined in Section 7.0, must be followed to avoid contravening the SARA and MBCA.

### 5.6.2 Candidate SAR Bats

Acoustic surveys to determine the presence of SAR bats were not conducted, therefore presence must be presumed. Due to the proposed tree removal being proportionally small and other suitable habitat being available on adjacent lands in close proximity to the subject lands, it can be noted that sufficient suitable habitat will remain for SAR bats following the tree removals required for development. Mitigation measures, as outlined in Section 7.0, must be followed to avoid contravening the SCA.

## 6.0 Proposed Development

The preliminary plan shows that the proposed development will include 296 - 677 residential units and mixed-use buildings as well as a park, pump station, a stormwater management pond and internal roadways. The proposed stormwater management pond is large and is located on both the subject lands and the adjacent lands where a separate development is proposed. Additionally, there is a trail proposed to begin at First Line and travel south to the SWM block at the south end of the subject lands.




Proposed Development

Subject Lands

**Sources:**

1. Ministry of Natural Resources. © Queen's Printer for Ontario
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**ELORA GREENS HOUSING DEVELOPERS**

Figure Title

# 127 FIRST LINE ELORA ENVIRONMENTAL IMPACT STUDY

## PROPOSED DEVELOPMENT

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# 7.0 Preliminary Impact Assessment, Avoidance and Mitigation Measures

The following preliminary evaluation of environmental impacts and recommended mitigation measures is based on an assessment of the potential effects that could occur to natural heritage features and functions over the short and long term, following the implementation of the proposed Concept Plan. This section also identifies planning, design and construction practices that will pinpoint avoidance, mitigation and / or restoration opportunities as well as net effects and monitoring measures, if applicable. Net effects are defined as negative environmental effects of a project and related activities that will remain after mitigation and impact management measures have been applied.

This impact assessment, provided in Table 2, is provided based on field investigations, the proposed concept plan, grading and SWM plans.

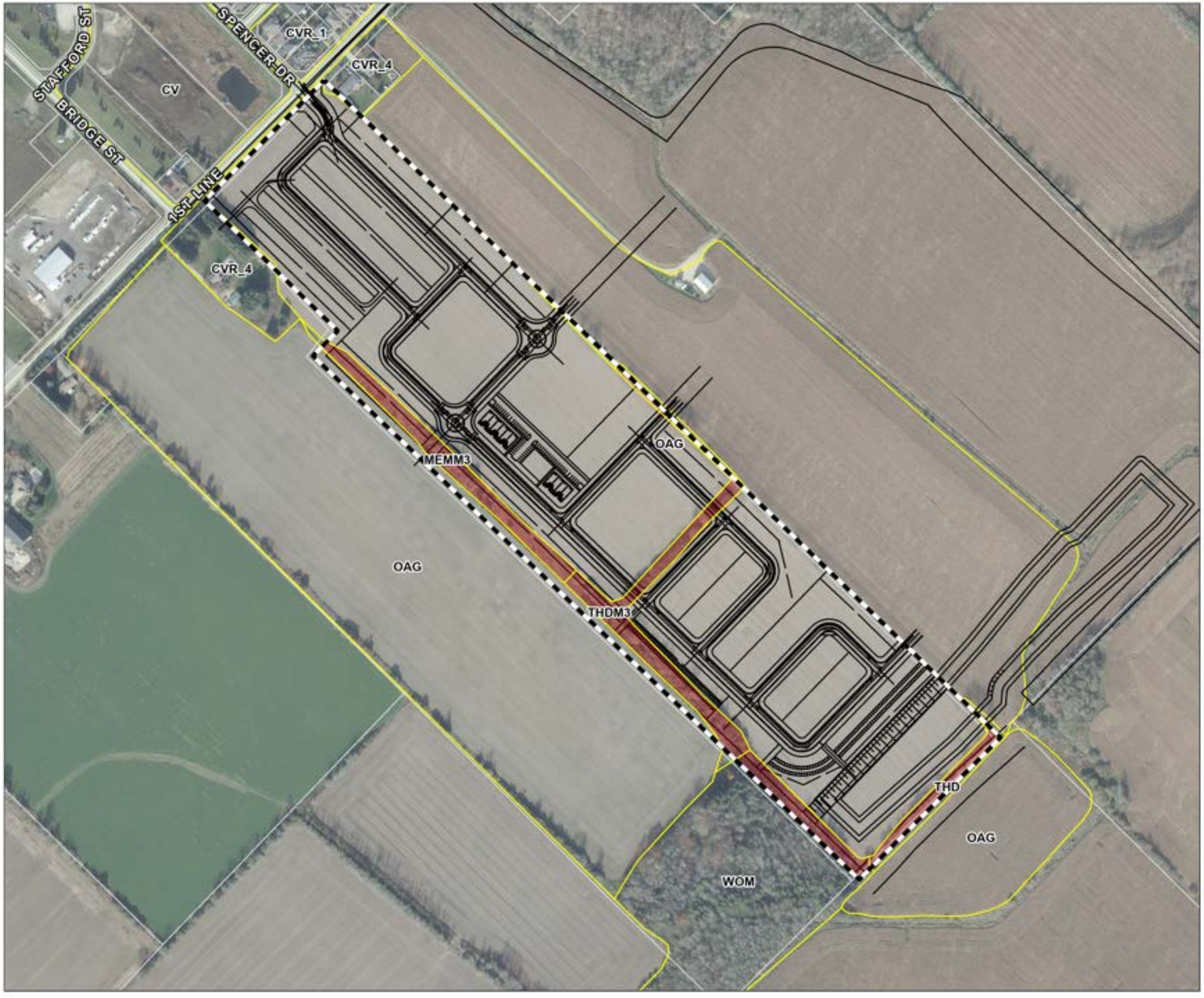
**Table 2: Impact Assessment and Mitigation Measures**

| Environmental Component | Potential Environmental Effects | Avoidance, Mitigation and/or Restoration Measures |
|---|---|---|
| Vegetation Communities | Proposed development impacts the natural vegetation communities on the subject lands as they will all be removed. As part of these communities, 144 trees will require removal within the subject lands. A TPP was developed in accordance with the County Forest Conservation By-law (5115-09) and can be viewed in Appendix D.<br><br>• 10,894.9 $m^2$ of hedgerow will be removed<br>• 6,367 $m^2$ of meadow will be removed<br>• 3,278 $m^2$ of mixed woodland edge will be removed<br><br>Negative edge effects are expected in the adjacent southwest woodland due to the removal of perimeter trees along the western property boundary. Increased exposure to wind, sunlight and precipitation may result in windthrow, tree stress and a decline in overall forest health. | Vegetation loss will be minimized as much as possible.<br><br>Avoid vegetation clearing or disturbance during sensitive times of the year for local wildlife.<br><br>Generally, the following avoidance windows apply:<br>• Breeding birds and/ or birds protected under the SARA/ MBCA (trees/ shrubs): April 1 to August 31<br>• Bats (trees): April 1 to October 31<br><br>Compensation for tree removal, within the hedgerows and the mixed woodland, is anticipated and will need to be confirmed and calculated with the Township as there is no private tree by-law presently. A proposed compensation ratio for tree removals is 1:1. This tree compensation will also aid in increasing bat roosting habitat opportunities on the subject lands.<br><br>Opportunities to install compensation meadow plantings should be explored. This can be achieved through a meadow seed mix, that includes Milkweed species, being applied to areas surrounding the SWM pond. The goal is to compensation at a ratio of 1:1. Compensation planting to include native seed mixes with Common Milkweed, to support Monarch habitat.<br><br>Installation of fencing along the western property boundary is recommended to provide tree protection and reduce human disturbance to the adjacent forest community associated with the proposed walking path. |

| Environmental Component | Potential Environmental Effects | Avoidance, Mitigation and/or Restoration Measures |
|---|---|---|
| | | The Clean Equipment Protocol For Industry (2013) must be followed to avoid the introduction or spread of invasive plant species. |
| Wildlife and General Wildlife Habitat | Provincially common species considered "habitat generalists" have been noted in the area during field investigations. Displacement of these wildlife species, or their habitat, will occur due to the removal of natural vegetation communities on the subject lands and subsequent development, limiting wildlife movement and reducing usable habitat.<br><br>Temporary disturbance will also occur during development (i.e. noise, light etc.). | Generally, the following avoidance windows apply if work within any of these habitats:<br>• Breeding birds and / or birds protected under the MBCA (trees / shrubs): April 1 to August 31<br>• Bats (trees): April 1 to September 30<br><br>Silt fencing should be installed and inspected prior to any land disturbance to prevent wildlife from entering the construction area. The excluded area should be searched immediately following fencing installation for any wildlife that may have become trapped. Any wildlife should be safely relocated or permitted to escape to a suitable habitat. Fencing shall be inspected regularly to ensure damage is repaired promptly and that additional risk to wildlife is minimized.<br><br>If a nesting migratory bird is identified within or adjacent to the construction site (or during operations and maintenance activities) and the activities are such that continuing works in that area would result in a contravention of the MBCA, all activities should stop and the Contract Administrator (with assistance from an Avian Biologist) should discuss mitigation measures with the Town.<br><br>If wildlife is encountered during construction and does not leave the work area, the Contract Administrator shall be notified. If continuing work could harm the animal, construction in that area shall stop temporarily and MNR or MECP (for Species at Risk) shall be contacted for direction. |

| Environmental Component | Potential Environmental Effects | Avoidance, Mitigation and/or Restoration Measures |
|---|---|---|
| Significant Wildlife Habitat | No direct effects.<br><br>No potential significant wildlife habitat was noted during desktop background review assessment or during field investigations. | Silt fencing should be installed prior to commencement of construction activities.<br><br>No storage of materials or equipment is permitted outside of the silt fencing and in the natural feature.<br><br>After construction completion it is highly recommended that plantings be placed along the boundary of the subject lands, where applicable, to help provide a natural buffer between the anthropogenic use of the subject lands and the adjacent natural communities. |
| Habitat of Endangered and Threatened Species | Candidate SAR bat roosting habitat was noted on the subject lands. Bats are habitat generalists and will occupy diversity of habitats, typically roosting in foliage of trees/ tree cervices, or in anthropogenic structures.<br><br>Due to the proposed tree removal being proportionally small and other suitable habitat is available on adjacent lands in close proximity to the subject lands, it can be noted that sufficient suitable habitat will remain for SAR bats following the tree removals require for development. Therefore, no additional surveys or Conservation Plan under the SCA for SAR bats is required.<br><br>However, appropriate timing windows must still be strictly adhered to. | Any tree removal should follow the appropriate vegetation clearing window.<br><br>Generally, the following avoidance windows apply if work within any of these habitats:<br>• Breeding birds and / or birds protected under the MBCA (trees / shrubs): April 1 to August 31<br>• Bats (trees): April 1 to October 31<br><br>If wildlife is encountered during construction and does not leave the work area, the Contract Administrator shall be notified. If continuing work could harm the animal, construction in that area shall stop temporarily and MNR or MECP (for species at risk) shall be contacted for direction.<br><br>Tree compensation for hedgerow and mixed woodland community will also aid in increasing bat roosting habitat opportunities on the subject lands. |

| Environmental Component | Potential Environmental Effects | Avoidance, Mitigation and/or Restoration Measures |
|---|---|---|
| Soils, Erosion and Sediment Control, and Surface Water | Potential for localized surface water or groundwater impacts as a result of spills, discharge or dumping of materials, fluids and other wastes. | ESC measures shall be installed and maintained during the construction phase and until all areas of the construction site have been stabilized.<br><br>ESC measures shall be inspected at intervals to confirm they are functioning and maintained, as required. A Qualified Environmental Inspector shall inspect, suggest, and confirm the repair of ESC measures as needed. If ESC measures are not functioning properly, no further work in the affected areas will occur until the sediment and / or erosion problem is resolved.<br><br>Workers shall report any instances of spills to their supervisors. |




Proposed Development
Ecological Land Classification
Permanent Impact
Subject Lands

**Sources:**

1. Ministry of Natural Resources. © Queen's Printer for Ontario
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**ELORA GREENS HOUSING DEVELOPERS**

Figure Title
**127 FIRST LINE ELORA ENVIRONMENTAL IMPACT STUDY**
ECOLOGICAL IMPACTS

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# 8.0 Planning and Environmental Policy Conformity

## 8.1 Federal Migratory Birds Convention Act, 1994 and Migratory Birds Regulations, 2022

### *Policy Overview*

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. 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.

### *Applicability to Development*

Bird species protected under the MBCA were documented during targeted breeding bird surveys and are present on the subject lands. Red-headed Woodpecker and Wood Thrush were recorded during the background review and have candidate habitat within and adjacent to the subject lands.

### *Policy Conformity*

The proposed development conforms with this policy by implementing the avoidance and mitigation measures, outlined in Section 7.0, that are required to avoid contravening the MBCA and its Regulations.

## 9.0 Provincial Planning Act, 1990

### *Policy Overview*

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.

### 9.1 Provincial Planning Statement, 2024

The 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.

### *Applicability to Development*

As summarized in Section 5.0, there are no significant natural features on the subject lands or adjacent lands.

### *Policy Conformity*

The proposed development conforms with these policies. Methods to demonstrate there will be no negative impacts on natural features or their ecological functions are described in Section 5.0. All avoidance and mitigation measures required to have conform with not negative impacts are outlined in Section 7.0.

## 10.0 Provincial Species Conservation Act, 2025

### *Policy Overview*

The Species Conservation Act, 2025 (SCA) is Ontario's provincial statute governing the identification, protection, and management of SAR. It replaces the former Endangered Species Act, 2007 (ESA) and reflects a shift towards integrating biodiversity conservation with economic and land use considerations. The SCA has two main objectives:

- To identify SAR using scientific, community and Indigenous knowledge.

- To protect and conserve species while considering social and economic factors, including sustainable development.

O. Reg. 60/26 - Protected Species in Ontario (PSO) List provides a full list of species that are protected under the SCA. This list includes species classified as Extirpated, Endangered or Threatened listed by the Committee on the Status of Species at Risk in Ontario (COSSARO), with the exception of aquatic species and migratory birds, which are protected under the federal SARA.

O. Reg. 61/26 - Excepted Activities provides a list of activities that do not require a permit or registration. The following are activities listed under O. Reg. 61/26 that relate to the development industry:

- Protecting a person or animal from an imminent risk to health and safety.
- Trapping, incidental killing, harming, capturing or taking etc.
- Black Ash or Butternut that are identified as unhealthy (as determined by a professional).

O. Reg. 74/26 - Permit Activities provides a list of activities that require a permit. These activities include killing, harming, capturing, or taking a species as the primary purpose of the activity and is not an incidental result of a broader activity. These activities also include possessing, transporting, collecting, buying or selling species. It is unlikely that activities associated with development will fall within this regulation.

O. Reg. 75/26 - Registrable Activities provides a list and required actions when registering an activity through the Species Conservation Registry. Registration of an activity will require the creation of a Conservation Plan, Mitigation Measures, Conservation Measures, Training, Monitoring and Annual Reporting.

### *Applicability to Development*

As summarized in Section 5.6 and Appendix F, SAR bats, Red-headed Woodpecker and Wood Thrush all have candidate habitat within the subject lands and adjacent lands. It has been determined that the candidate bat habitat removal will not impair habitat function within the local vicinity and therefore does not require registration under the SCA. As the concept plan proposes removal of this habitat mitigation measures must be implemented to avoid contravening the SARA and MBCA.

### *Policy Conformity*

The proposed development conforms with this policy.

## 10.1 Township of Centre Wellington Official Plans

The Township of Centre Wellington Official Plan (OP) only applies to the Elora and Fergus Urban Centers. As per Schedule A-1 (dated March 2025), the subject lands are not located within the Elora Urban Centre and thus this Official Plan does not apply. Instead, the subject lands fall within the boundary of the County of Wellington's OP. However, the County of Wellington's OP has been updated more recently (July 2026) and it shows the subject lands within the Elora Urban Boundary. This likely indicates that the Centre Wellington OP will show an updated urban boundary that includes the subject lands in its next consolidation. At present, County of Wellington OP policies will be applied to the project.

### *Applicability to Development*

Due to the current data gap between the Centre Wellington OP and the County of Wellington OP, the Centre Wellington OP is not applicable to the project.

## 10.2 County of Wellington Official Plans

The County of Wellington Official Plan (July 2026) provides the policy framework to guide growth, land use planning and environmental protection throughout the County. The OP establishes policies to promote sustainable development, protect natural heritage and water resources, support agricultural lands and direct growth to appropriate locations. Although the subject property is located within the Township of Centre Wellington urban center (only as per the July 2026 OP), the proposed development has been evaluated for conformity with the applicable policies of the County of Wellington OP, including those related to the County's Greenlands Systems and natural heritage protection.

The Greenlands System is divided into Core Greenlands, which include the most environmentally significant and sensitive features such as provincially significant wetlands, significant habitat of endangered and threatened species, hazardous lands and Greenlands, which include other natural heritage features and linkages such as woodlands, wetlands, valleylands, watercourses, ponds, lakes and natural corridors. Section 5.6 of the Official Plan establishes policies to protect these areas by directing development and site alteration away from the most sensitive features. Schedule B of the OP identifies Greenland Systems, however there are no Greenlands located within, or immediately adjacent to the subject lands. The closest mapped Greenland designation is along the tributary south of the subject lands.

### *Applicability to Development*

As no Greenlands are mapped within the subject lands on the OP Schedule B1, the County of Wellington OP policies relating to the Urban System are the only ones applicable.

### *Policy Conformity*

The proposed development conforms with this policy from an ecological perspective.

## 11.0 Summary

The subject lands located at 127 First Line Elora have been evaluated through an EIS to determine how the proposed concept plan will impact natural heritage features and what mitigation measures are required to ensure no negative impact to the environment. Field studies were completed on August 20, 2025, and included ELC, botanical inventory, tree inventory, leaf off maternity roost assessment and incidental wildlife observations. Based on the completed field assessments the following items are of note:

- No locally or provincially rare vegetation communities within or adjacent to the subject lands.
- No locally or provincially rare plant species within or adjacent to the subject lands.
- 144 trees are proposed for removal to accommodate the proposed concept plan.
- No significant woodlands, wetlands, valleylands, ANSI's or SWH.
- Candidate habitat for SAR bats and two SAR birds located within the mixed woodland community in the southwest corner of the subject lands and adjacent lands.
- Proportionally small number candidate bat habitat trees (snags and large diameter trees) are being removed from the subject lands and due to ample available habitat within the local vicinity it has been determined that SAR bat habitat function will not be impaired due to the proposed development.
- Meadow habitat and tree compensation (1:1 ratio) will be required to compensate for the removal of these existing communities within the subject lands.
- All mitigation measures must be followed to ensure no negative impact to the natural heritage features and to avoid contravention of applicable policies.

The preliminary evaluation of potential environmental impacts and recommended mitigation measures has been completed in consideration of the proposed development activities. Overall, it is Burnside's opinion that the proposed development is in general agreement with applicable natural heritage legislation and policies.

## 12.0 References

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# Appendix A

# Terms of Reference

**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
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July 23, 2025

**Via: Email**

Caitlyn Turton
Planning & Development Coordinator
Township of Centre Wellington
1 MacDonald Square
Elora, ON N0B 1S0

Dear Ms. Turton:

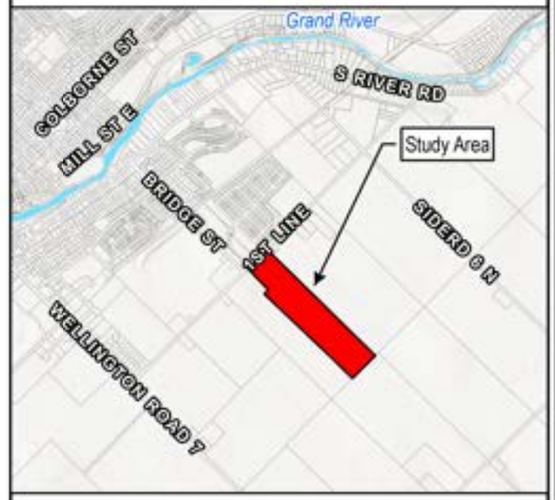
**Re: 127 First Line Elora**
**Environmental Impact Study and Tree Management Plan Terms of Reference**
**Project No.: 300060523.0000**

R.J. Burnside & Associates Limited ("Burnside") has been retained by Elora Greens Housing Developers ("the Client") to undertake a Scoped Environmental Impact Study (EIS) and Tree Management Plan (TMP) for the lands located at 127 First Line in Elora, herein referred to as the "subject lands". The subject lands are located southeast of the community of Elora in the Township of Centre Wellington ("Town"), County of Wellington ("County") and within the jurisdiction of the Grand River Conservation Authority (GRCA). The subject lands (seen in Figure 1) are approximately 21.6 ha. The proposed development includes mixed-type residential buildings including singles, semis, street towns, apartment, and commercial components.

This letter provides the proposed Terms of Reference (TOR) for the Scoped EIS and TMP in support of a Draft Plan of Subdivision. 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.




Subject Lands

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**ELORA GREENS HOUSING DEVELOPERS**

Figure Title

**127 FIRST LINE ELORA ENVIRONMENTAL IMPACT STUDY**

SUBJECT LANDS

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## 1.0 Background Secondary Source Information

Burnside has reviewed the following background sources:

- Aerial photographic imaging and 1:10,000 Ontario Base Mapping (OBM)
- Ontario Hydrology Network (OHN) mapping
- Fisheries and Oceans Canada (DFO) Aquatic SAR mapping
- Ministry of Natural Resources (MNR) Natural Heritage Information Centre (NHIC) database for significant species and designated natural features
- MNR Land Information Ontario (LIO) database
- MNR Aquatic Resource Area (ARA) mapping
- Ontario Hydrology Network (OHN) mapping
- GRCA regulated features mapping
- Ontario Breeding Bird Atlas (OBBA) (2001-2005) database for avian species records within the general area
- Ontario Reptile and Amphibian Atlas (ORAA) database for herpetofaunal species records within the general area
- Vetted civilian science databases, such as iNaturalist and eBird
- Species range maps (various sources)
- Federal Fisheries Act (1985)
- Federal Migratory Birds Convention Act, 1994 (MBCA) and the Migratory Bird Regulations (MBR)
- Interim Provincial Endangered Species Act
- Provincial Planning Statement (PPS) (2024)
- Conservation Authorities Act and O. Reg. 41/24 Prohibited Activities, Exemptions and Permits
- Centre Wellington Official Plan (2024)
- County of Wellington Official Plan (2025)

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

The subject lands consist primarily of active agriculture and hedgerows. Online GRCA regulation mapping does not identify any regulated features on the subject lands. Municipal Drain No. 8 is located on adjacent properties to the east, south and west of the subject lands. The Drain's associated Regulation Limits fall just outside of the subject land limits. Per Schedule B1 of the County's Official Plan (May 2025), the subject lands are currently designated as Prime Agricultural, with no other natural heritage features identified. As part of OPA 126, the lands would be added to the County's Primary Urban Centre land use designation.

According to the Town's OP (2024), the Town may, in consultation with GRCA provide consideration for a Scoped EIS format for use by proponents of development applications that are generally minor in nature with limited potential impacts.

A high-level assessment of the Species at Risk (SAR) that have candidate habitat on or directly adjacent to the subject lands include:

- Barn Swallow (*Hirundo rustica*)
- Bobolink (*Dolichonyx oryzivorus*)

- Eastern Meadowlark (*Sturnella magna*)
- Eastern Wood-pewee (*Contopus virens*)
- Wood Thrush (*Hylocichla mustelina*)
- Eastern Red Bat (*Lasiurus borealis*)
- Little Brown Myotis (*Myotis lucifugus*)
- Northern Hoary Bat (*Lasiurus cinereus*)
- Northern Myotis (*Myotis septentrionalis*)
- Silver-haired Bat (*Lasionycteris noctivagans*)
- Tri-colored Bat (*Perimyotis subflavus*)
- Butternut (*Juglans cinerea*)
- Black Ash (*Fraxinus nigra*)

## 2.0 Proposed EIS and TMP Methodology

Based on the background review and a cursory review of potential habitats, the proposed fieldwork methodology for the Scoped EIS and TMP is summarized in Table 1 below.

**Table 1: Proposed Field Investigations**

| Study Component | Existing Data | Fieldwork Requirements | Areas to be Assessed | Survey Timing Window |
|---|---|---|---|---|
| Tree Assessment for Tree Management Plan | Google Earth imagery. | An ISA Certified Arborist that is Tree Risk Assessment Qualified (TRAQ) will complete an assessment of all trees 10 cm DBH and greater and trees of all sizes within the public road rights-of-way. | The subject lands, adjacent lands that are within 6 m of potential impacts (where permission to enter has been granted), and within the public road rights-of-way within 6 m of the proposed development. | To be completed concurrently with summer ELC and botany in Summer 2025. |
| Targeted Butternut / Black Ash Survey | No existing data in background sources, but based on their known range and habitat preferences, these two species have potential to occur on the subject property. | Identification of Butternut and Black Ash trees during leaf-on period on subject property as part of the botanical inventory.<br><br>If Butternut are located, a Butternut Health Assessment, reporting and permitting may be necessary. If Black Ash are located a Black Ash Health Assessment, reporting and permitting may be required. A separate scope of work and cost estimate would be provided, as required. | Subject property and 50 m adjacent lands, where permission to enter has been granted. | To be completed concurrently with summer ELC and botany in Summer 2025. |
| Bat Habitat Assessment | Habitat suitability identified on Google Earth imagery based | One leaf-on survey to look for candidate SAR bat habitat following the | Hedgerows, areas of intrusions into natural features and other | Leaf-on survey to be completed concurrently with ELC |

| Study Component | Existing Data | Fieldwork Requirements | Areas to be Assessed | Survey Timing Window |
|---|---|---|---|---|
| | on the presence of trees and hedgerows. | MNR Species at Risk Bats Survey Note (2022) and Treed Habitat Maternity Roost Survey (2022). If candidate habitat is found acoustic monitoring may need to be completed. | trees that will be removed or impacted by the development. | and botany in Summer 2025.<br><br>Note: Follow-up acoustic surveys may be required based on the results of the leaf-on survey and must be completed in June. TAcoustic surveys are not included in this current scope of work. |
| Identification and characterization of wildlife habitats and incidental wildlife observations | NHIC indicates the presence of natural features that may represent Significant Wildlife Habitat (SWH). | Recording features present that may be considered wildlife habitat, such as:<br>• Dens<br>• Reptile hibernacula<br>• Structures<br>• Uncapped chimneys<br>• Foundations<br><br>Observations will be recorded during all site visits. | Subject property and adjacent natural heritage features, where accessible. | Completed concurrently with ELC and botany in Summer 2025. |

**Criteria for Determining the Significant, 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 6E (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 Wellington County as listed in *Significant Plant List for Wellington County (Dougan & Associates 2009).*

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 TMP will include the tree number (ID), tree species (Common and Scientific name), DBH, condition (health and structure), Minimum Tree Protection Zone (MTPZ), proposed action, location, and ownership. All on-site tree locations will be included in the tree inventory mapping using a GPS and Trimble R1 GNSS Receiver during the assessment.

Through an online review, it has been determined that the Town does not have an individual tree protection by-law, however the County does have a Forest Conservation By-law (5115-09). Based on this, a tree management plan drawing accompanied by a tree assessment data sheet will be prepared for this submission.

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, if any.
- 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 Town and County Official Plans, and the PPS.

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

## 3.0 Information Requests

We request the following information to assist in our study:

- Any relevant natural heritage or regulation GIS data not available from GRCA's open data website.
- 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.

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**



Elly Hind Smith, B.Sc. (Env),. CAN-CISEC-IT,
Ecologist & Project Manager
EHS:js

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# Appendix B

# Agency Correspondence

Outlook

## RE: 300060523 127 First Line Elora Scoped EIS - TOR for Review

**From** Caitlyn Turton <cturton@centrewellington.ca>

**Date** Mon 7/28/2025 4:06 PM

**To** Elly Hind Smith <Elly.HindSmith@rjburnside.com>

**Cc** Erica Mekli <Erica.Mekli@rjburnside.com>; Juliane vonWesterholt <jvonwesterholt@mhbcplan.com>; Chantalle Pellizzari <CPellizzari@centrewellington.ca>; Mariana Iglesias <MIglesias@centrewellington.ca>

Hi Elly,

Thank you for your email. We won't be making comments on the TOR for the Scoped EIS field studies for this application.

Best Regards,

Centre Wellington

**Caitlyn Turton**
Planning & Development Coordinator
1 MacDonald Square, Elora ON, N0B 1S0
T: 519-846-9691 x264
www.centrewellington.ca

---

**From:** Elly Hind Smith <Elly.HindSmith@rjburnside.com>
**Sent:** July 23, 2025 3:36 PM
**To:** Caitlyn Turton <cturton@centrewellington.ca>
**Cc:** Erica Mekli <Erica.Mekli@rjburnside.com>; Juliane vonWesterholt <jvonwesterholt@mhbcplan.com>
**Subject:** 300060523 127 First Line Elora Scoped EIS - TOR for Review

You don't often get email from elly.hindsmith@rjburnside.com. Learn why this is important
CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Caitlyn,

Burnside has been retained by Elora Greens Housing Developers to conduct a Scoped Environmental Impact Study (EIS) in support of a proposed residential development located at 127 First Line in Elora.

We are seeking your input and approval on the attached Terms of Reference (TOR) for the Scoped EIS field studies we are proposing for the study area.

Kind regards,
Elly

**Elly Hind Smith**
Ecologist

R.J. Burnside & Associates Limited
1266 South Service Road, Suite C2-1, Hamilton, ON
L8E 5R9
Office: +1 800-265-9662 Direct: +1 519-838-2350
www.rjburnside.com

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Thank you.

**********

## Erica Mekli

**From:** Jessica Conroy <jconroy@grandriver.ca>
**Sent:** Friday, July 25, 2025 3:14 PM
**To:** Elly Hind Smith
**Cc:** Erica Mekli; jvonwesterholt@mhbcplan.com
**Subject:** RE: 300060523 127 First Line Elora Scoped EIS - TOR for Review
**Attachments:** GRCA map - 127 First Line, Elora.pdf

Good afternoon,

Thank you for your email.

The subject property does not contain any watercourses, floodplains, shorelines, wetlands, valley slopes or other natural hazard features of interest to GRCA. A copy of our resource mapping is attached.

The property is not subject to Ontario Regulation 41/24. Therefore, permission from GRCA is not required, and we have no comments on the EIS Terms of Reference.

Unfortunately, we cannot provide any natural heritage information.

Thank you,
Jessica

**Jessica Conroy**, MES Pl.
Resource Planner
Grand River Conservation Authority

400 Clyde Road, PO Box 729
Cambridge, ON N1R 5W6
Office: 519-621-2763 ext. 2230
Toll-free: 1-866-900-4722
Email: jconroy@grandriver.ca
www.grandriver.ca | Connect with us on social media

---

**From:** Elly Hind Smith <Elly.HindSmith@rjburnside.com>
**Sent:** July 23, 2025 3:15 PM
**To:** Jessica Conroy <jconroy@grandriver.ca>
**Cc:** Erica Mekli <Erica.Mekli@rjburnside.com>; jvonwesterholt@mhbcplan.com
**Subject:** 300060523 127 First Line Elora Scoped EIS - TOR for Review

Good afternoon Jessica,

Burnside has been retained by Elora Greens Housing Developers to conduct a Scoped Environmental Impact Study (EIS) in support of a proposed residential development located at 127 First Line in Elora.

We are seeking your input and approval on the attached Terms of Reference (TOR) for the Scoped EIS field studies we are proposing for the study area. The TOR letter also includes a request for background data from GRCA, if available.

Kind regards,
Elly Hind-Smith

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**Elly Hind Smith**
Ecologist

R.J. Burnside & Associates Limited
1266 South Service Road, Suite C2-1, Hamilton, ON L8E 5R9
Office: +1 800-265-9662 Direct: +1 519-838-2350
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# Appendix C

# Plant List

**Appendix C - Botanical Inventory Plant List**

| *Scientific Name* | Common Name | SCA | COSEWIC | SARA | S-Rank | Native/ Introduced | Significant Plant List for Wellington |
|---|---|---|---|---|---|---|---|
| *Abies balsamea* | Balsam Fir | | | | S5 | N | |
| *Acer platanoides* | Norway Maple | | | | SNA | I | |
| *Acer saccharum* | Sugar Maple | | | | S5 | N | |
| *Achillea millefolium* | Common Yarrow | | | | SNA | I | |
| *Alliaria petiolata* | Garlic Mustard | | | | SNA | I | |
| *Amaranthus retroflexus* | Redroot Amaranth | | | | SNA | I | |
| *Ambrosia artemisiifolia* | Common Ragweed | | | | S5 | N | |
| *Anthriscus sylvestris* | Wild Chervil | | | | SNA | I | |
| *Arctium lappa* | Great Burdock | | | | SNA | I | |
| *Arctium minus* | Common Burdock | | | | SNA | I | |
| *Asclepias syriaca* | Common Milkweed | | | | S5 | N | |
| *Bromus inermis* | Smooth Brome | | | | SNA | I | |
| *Carex lacustris* | Lake Sedge | | | | S5 | N | |
| *Cirsium arvense* | Canada Thistle | | | | SNA | I | |
| *Convolvulus arvensis* | Field Bindweed | | | | SNA | I | |
| *Cyperus esculentus* | Perennial Yellow Flatsedge | | | | S5 | N | |
| *Dactylis glomerata* | Orchard Grass | | | | SNA | I | |
| *Daucus carota* | Wild Carrot | | | | SNA | I | |
| *Digitaria sanguinalis* | Hairy Crabgrass | | | | SNA | I | |
| *Dipsacus fullonum* | Common Teasel | | | | SNA | I | |
| *Echinocystis lobata* | Wild Cucumber | | | | S5 | N | |

| *Scientific Name* | Common Name | SCA | COSEWIC | SARA | S-Rank | Native/ Introduced | Significant Plant List for Wellington |
|---|---|---|---|---|---|---|---|
| *Epilobium coloratum* | Purple-veined Willowherb | | | | S5 | N | |
| *Equisetum arvense* | Field Horsetail | | | | S5 | N | |
| *Erigeron philadelphicus* | Philadelphia Fleabane | | | | S5 | N | |
| *Fragaria virginiana* | Wild Strawberry | | | | S5 | N | |
| *Fraxinus pennsylvanica* | Red Ash | | | | S4 | N | |
| *Geum canadense* | Canada Avens | | | | S5 | N | |
| *Impatiens capensis* | Spotted Jewelweed | | | | S5 | N | |
| *Lotus corniculatus* | Garden Bird's-foot Trefoil | | | | SNA | I | |
| *Oenothera biennis* | Common Evening-primrose | | | | S5 | N | |
| *Onoclea sensibilis* | Sensitive Fern | | | | S5 | N | |
| *Oxalis stricta* | Upright Yellow Wood-sorrel | | | | SNA | I | |
| *Panicum capillare* | Common Panicgrass | | | | S5 | N | |
| *Parthenocissus quinquefolia* | Virginia Creeper | | | | S4? | N | |
| *Persicaria maculosa* | Spotted Lady's-thumb | | | | SNA | I | |
| *Phalaris arundinacea* | Reed Canarygrass | | | | S5 | N | |
| *Phragmites australis* | Common Reed | | | | SU | N | |
| *Pinus strobus* | Eastern White Pine | | | | S5 | N | |
| *Plantago major* | Common Plantain | | | | SNA | I | |
| *Polygonum aviculare* | Prostrate Knotweed | | | | S4? | N | |
| *Portulaca oleracea* | Common Purslane | | | | SNA | I | |
| *Prunus serotina* | Black Cherry | | | | S5 | N | |

| *Scientific Name* | Common Name | SCA | COSEWIC | SARA | S-Rank | Native/ Introduced | Significant Plant List for Wellington |
|---|---|---|---|---|---|---|---|
| *Rhamnus cathartica* | European Buckthorn | | | | SNA | I | |
| *Rhus typhina* | Staghorn Sumac | | | | S5 | N | |
| *Rubus occidentalis* | Black Raspberry | | | | S5 | N | |
| *Salix bebbiana* | Bebb's Willow | | | | S5 | N | |
| *Setaria viridis* | Green Foxtail | | | | SNA | I | |
| *Solanum dulcamara* | Bittersweet Nightshade | | | | SNA | I | |
| *Solidago altissima* | Tall Goldenrod | | | | S5 | N | |
| *Solidago canadensis* | Canada Goldenrod | | | | S5 | N | |
| *Sonchus arvensis* | Field Sow-thistle | | | | SNA | I | |
| *Sorbus americana* | American Mountain-ash | | | | S5 | N | R-A |
| *Symphyotrichum lanceolatum* | Panicled Aster | | | | S5 | N | |
| *Tanacetum vulgare* | Common Tansy | | | | SNA | I | |
| *Taraxacum officinale* | Common Dandelion | | | | SNA | I | |
| *Trifolium repens* | White Clover | | | | SNA | I | |
| *Tussilago farfara* | Coltsfoot | | | | SNA | I | |
| *Verbascum thapsus* | Common Mullein | | | | SNA | I | |
| *Verbena urticifolia* | White Vervain | | | | S5 | N | |
| *Viburnum lentago* | Nannyberry | | | | S5 | N | |
| *Viburnum opulus* | Cranberry Viburnum | | | | S5 | N | |
| *Vicia cracca* | Tufted Vetch | | | | SNA | I | |
| *Vitis riparia* | Riverbank Grape | | | | S5 | N | |

Natural Heritage Information Centre. 2018. Vascular Plant Species List (28 Jun 2018). Downloaded on November 15, 2018.

Dougan & Associates 2009. Significant Plant List for Wellington County. City of Guelph Natural Heritage Study

**SCA Status**

Species at Risk in Ontario list: The list of species that are classified as species at risk under the Species Conservation Act, 2025.

| | |
|---|---|
| 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. |

**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.

**Significant Plant List for Wellington County (Dougan & Associates 2009)**

Codes are defined as follows:

R - A R
: Included based on “rare” status (i.e. occurrence at between 1 and 10 natural sites in the County) in the Flora of Wellington County (Anderson and Frank 2004, unpublished) and subsequent revisions by A. Anderson over 2005-2008).

R - B
: Added as a plant record from post-1990 environmental studies within Guelph with global and /or provincial significance.

R - C
: Added based on records provided by Mike Oldham (NHIC) for Wellington County in 2005, verification of records in OAC herbarium (Jan.-Feb. 2008) and supplementary review by Mike Oldham Dec. 2007 - Feb. 2008.

R - D
: New record for Wellington County (observed during field work conducted by Dougan & Associates 2005-2006).

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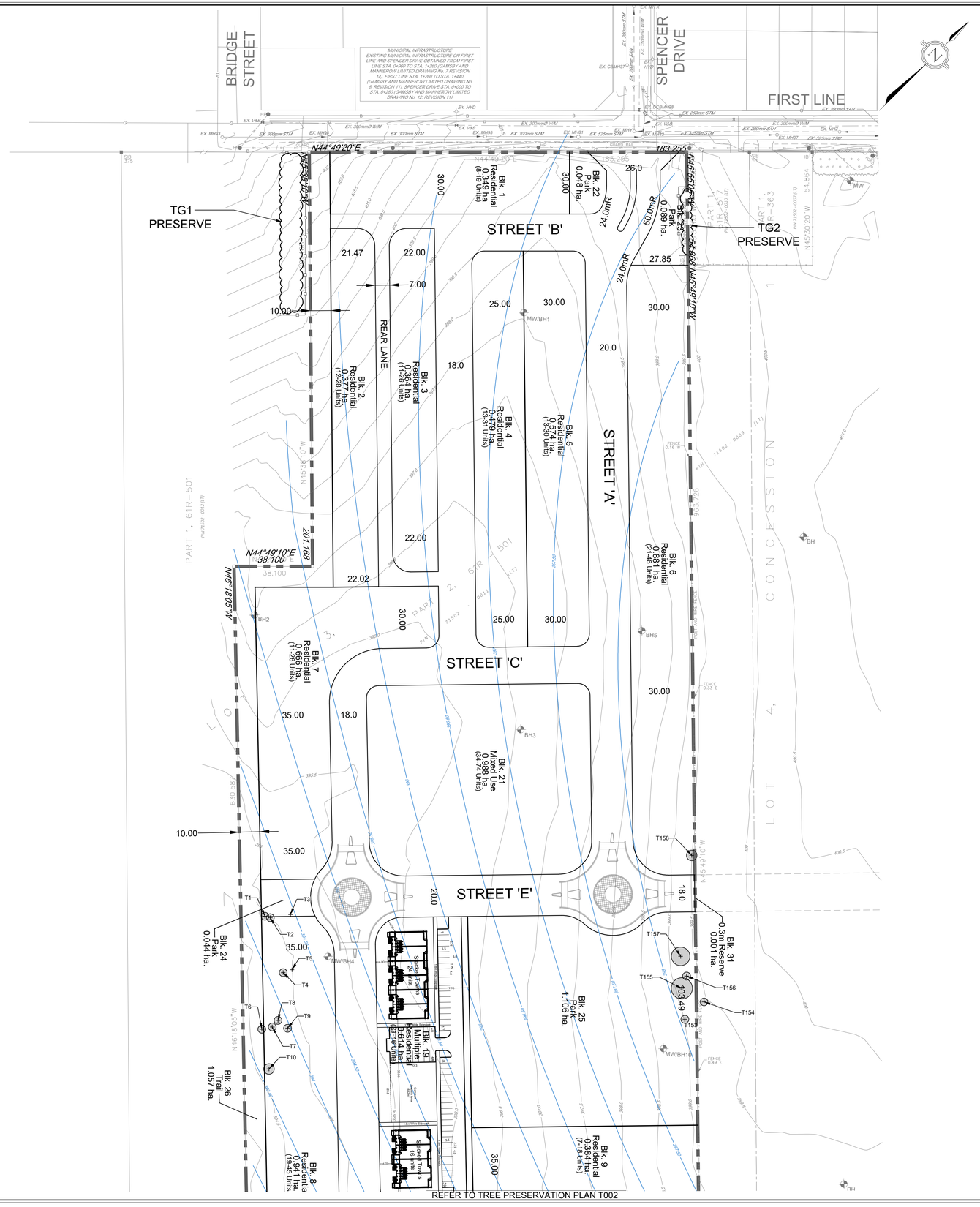
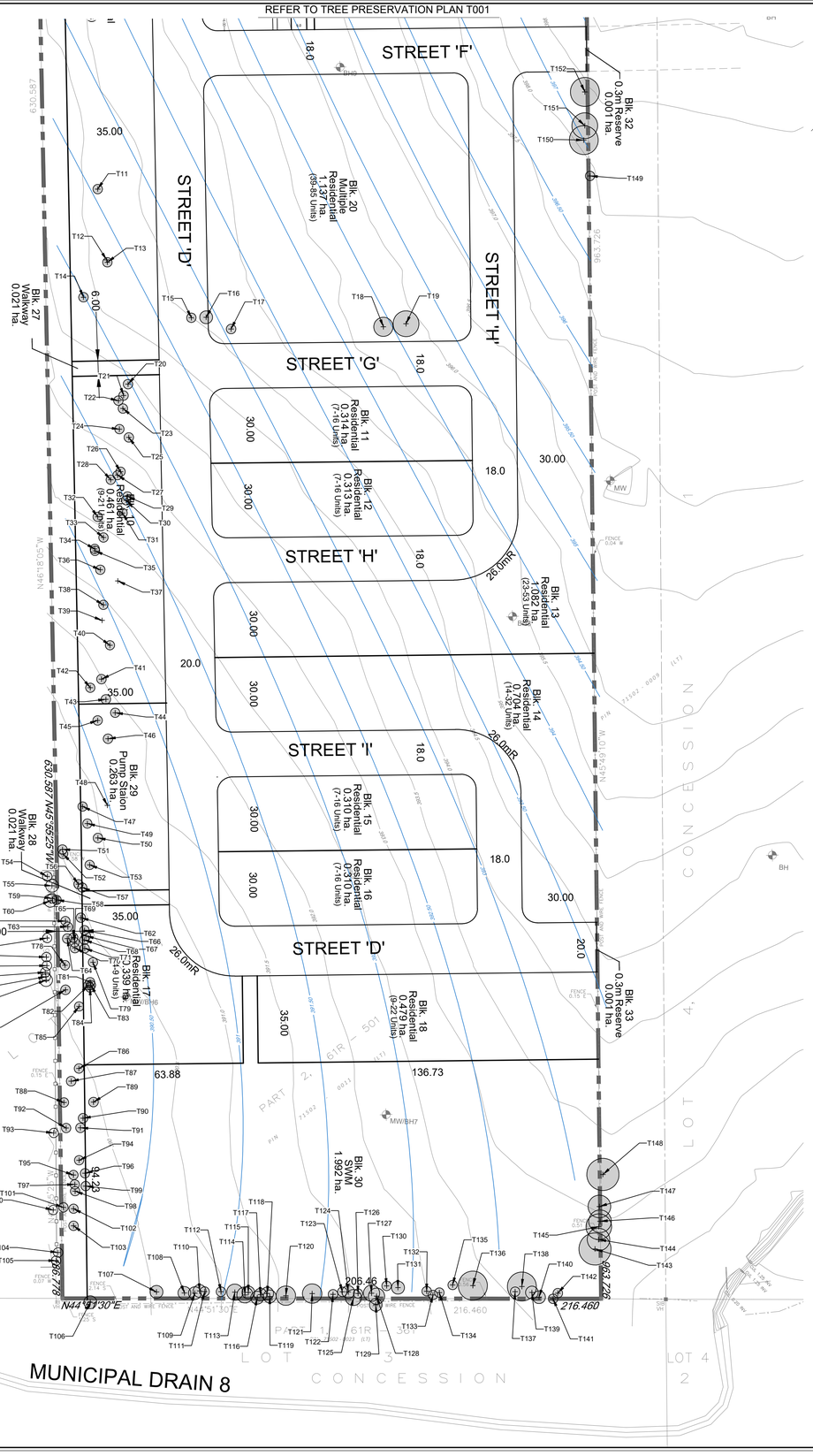
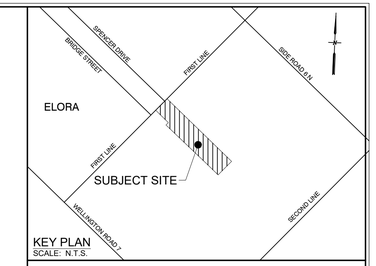
# Appendix D

# Tree Protection Plan


BRIDGE STREET
SPENCER DRIVE
FIRST LINE
MUNICIPAL INFRASTRUCTURE
EXISTING MUNICIPAL INFRASTRUCTURE ON FIRST LINE AND SPENCER DRIVE OBTAINED FROM FIRST LINE STA. 0+960 TO STA. 1+260 (GAMSBY AND MANNEROW LIMITED DRAWING No. 7 REVISION No.4); FIRST LINE STA. 1+260 TO STA. 1+440 (GAMSBY AND MANNEROW LIMITED DRAWING No. 8, REVISION 11), SPENCER DRIVE STA. 0+000 TO STA. 0+280 (GAMSBY AND MANNEROW LIMITED DRAWING No. 12, REVISION 11)
N44°49'20"E
183.255
N44°49'20"E
183.255
TG1 PRESERVE
TG2 PRESERVE
STREET 'A'
STREET 'B'
STREET 'C'
STREET 'D'
STREET 'E'
REAR LANE
Blk. 1 Residential 0.349 ha. (8-19 Units)
Blk. 2 Residential 0.377 ha. (12-26 Units)
Blk. 3 Residential 0.361 ha. (11-26 Units)
Blk. 4 Residential 0.344 ha. (13-31 Units)
Blk. 5 Residential 0.370 ha. (13-30 Units)
Blk. 6 Residential 0.484 ha. (21-48 Units)
Blk. 7 Residential 0.666 ha. (11-26 Units)
Blk. 8 Residential 0.941 ha. (19-45 Units)
Blk. 9 Residential 0.384 ha. (7-18 Units)
Blk. 19 Multiple Residential 0.814 ha. (21-61 Units)
Blk. 21 Mixed Use 0.988 ha. (34-74 Units)
Blk. 22 Park 0.048 ha.
Blk. 23 Park 0.089 ha.
Blk. 24 Trail 0.044 ha.
Blk. 25 Park 1.106 ha.
Blk. 26 Trail 1.057 ha.
Blk. 31 0.3m Reserve 0.001 ha.
Stacked Townhouse 16 Units
Stacked Townhouse 16 Units
Stacked Townhouse 16 Units

REFER TO TREE PRESERVATION PLAN T001




## LEGEND

- SITE BOUNDARY LINE
- EXISTING CONTOURS
- ESTIMATED EXISTING SEASONALLY HIGH GROUNDWATER ELEVATION
- TREELINE
- EXISTING FENCE
- EXISTING TREE
- EXISTING SANITARY SEWER NETWORK
- EXISTING STORM SEWER NETWORK
- EXISTING SINGLE CATCH BASIN
- EXISTING WATERMAIN
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING HYDRO POLE AND OVERHEAD WIRES
- EXISTING MONITORING WELL / BOREHOLE
- EXISTING TREE RECOMMENDED FOR REMOVAL (CIRCLE REPRESENTS MINIMUM TREE PROTECTION ZONE OF TREE
- EXISTING TREE RECOMMENDED FOR PRESERVATION
- EXISTING TREE GROUP, RECOMMENDED FOR PRESERVATION
- PROTECTIVE FENCING

## TOPOGRAPHIC AND LEGAL INFORMATION

TOPOGRAPHIC AND LEGAL BOUNDARY INFORMATION PROVIDED BY VAN HARTEN SURVEYING Inc. DATED APRIL 16, 2025

## BENCHMARK NOTE

BENCHMARK INFORMATION PROVIDED BY VAN HARTEN SURVEYING Inc.: ELEVATIONS ARE BASED ON GNSS OBSERVATIONS FROM PERMANENT REFERENCE STATIONS IN THE NAD83 (CSRS-2010) COORDINATE SYSTEM, WITH HEIGHTS CONVERTED TO ORTHOMETRIC ELEVATIONS ON THE CGVD28 DATUM (1978 ADJUSTMENT) WITH GEOID MODEL HTv2.0, AS SUPPLIED BY NATURAL RESOURCES CANADA.

## GROUNDWATER CONTOUR INFORMATION

EXISTING GROUNDWATER CONTOURS PROVIDED BY PLANET ENGINEERING Inc. DATED MAY 25, 2026

## MUNICIPAL DRAIN INFORMATION

MUNICIPAL DRAIN No. 8 TOWNSHIP OF NICHOL AND MAPPING OBTAINED FROM 1969 REPORT

## GEOTECHNICAL INFORMATION

GEOTECHNICAL INVESTIGATION REPORT PROVIDED BY PLANET ENGINEERING Inc. DATED JULY 4, 2025

## SWM POND AND ADJACENT LAND LAYOUT

SWM POND AND ADJACENT LAND LAYOUT PROVIDED BY WALTERFEDY DATED APRIL 6, 2026

## SITE LAYOUT INFORMATION

SITE LAYOUT INFORMATION PROVIDED BY MHBC PLANNING DATED MARCH 6, 2026

Notes

1. This drawing is the exclusive property of R. J. Burnside & Associates Limited. The reproduction of any part without prior written consent of this office is strictly prohibited.
2. The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to this office prior to construction.
3. This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

| No. | Issue / Revision | Date | Auth. |
|---|---|---|---|
| 1 | XXXXXXXXXXXXX | XX/XX/XX | XX |
| | | | |
| | | | |
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| | | | |


BURNSIDE

**R.J. Burnside & Associates Limited**
292 Speedvale Ave. W., Unit 20
Guelph, Ontario, N1H 1C4
**telephone** 1-800-265-9662
**web** www.rjburnside.com


Client

**ELORA GREENS HOUSING DEVELOPERS**

120 MATHESON BOULEVARD EAST, UNIT 3,
MISSISSAUGA, ON
L4Z 1X1

Drawing Title

**127 FIRST LINE**
**TOWNSHIP OF CENTRE WELLINGTON**
**(ELORA)**

TREE PRESERVATION PLAN

| Drawn | Checked | Designed | Checked | Date | Drawing No. |
|---|---|---|---|---|---|
| M.M. | K.T. | K.T. | A.K. | 26/02/10 | **C002** |
| Project No. | | Contract No. | | Revision No. | |
| 060179 | | ----- | | 0 | |
| Scale | | 0 20 40 60m | | | |
| 1:1,000 | | | | | |

Xref ..\02-REF\060179 - KEYPLAN.dwg

file: \\2060179\2000\03-PROD\179 - TREE PROTECTION PLAN.dwg, Date Printed: June 26, 2026 - 6:36 PM

060523 127 First Line Elora
Tree Inventory

Data collected August 20, 2025
Data collected by Erica Mekli, ISA Arborist (ON-2367A)

| Tree ID | Species | Scientific Name | DBH | MTPZ | Condition | Comments | Recommendation Condition | Recommendation Design | Recommendation Final |
|---|---|---|---|---|---|---|---|---|---|
| T1 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 15 | 3.75 | Dead | - | Remove | Remove | Remove |
| T2 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 18 | 3.78 | Fair-Poor | - | Preserve | Remove | Remove |
| T3 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | - | - | Dead | - | Remove | Remove | Remove |
| T4 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 19 | 3.79 | Fair | - | Preserve | Remove | Remove |
| T5 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | - | - | Dead | - | Remove | Remove | Remove |
| T6 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 20 | 3.8 | Poor | - | Remove | Remove | Remove |
| T7 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 20 | 3.8 | Dead | - | Remove | Remove | Remove |
| T8 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 20 | 3.8 | Good | - | Preserve | Remove | Remove |
| T9 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 20 | 3.8 | Dead | - | Remove | Remove | Remove |
| T10 | - | - | 24/22 | 5.13 | Dead | Dead- likely green ash | Remove | Remove | Remove |
| T11 | - | - | 17 | 3.77 | Fair | - | Preserve | Remove | Remove |
| T12 | - | - | - | - | Dead | - | Remove | Remove | Remove |
| T13 | Apple | *Malus pumila* | 17 | 3.77 | Good | - | Preserve | Remove | Remove |
| T14 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 20 | 3.8 | Fair-Poor | - | Preserve | Remove | Remove |
| T15 | Norway Maple | *Acer platanoides* | 15 | 3.75 | Good | - | Preserve | Remove | Remove |
| T16 | Apple | *Malus pumila* | 26/25 | 5.16 | Good | - | Preserve | Remove | Remove |
| T17 | Apple | *Malus pumila* | 22 | 3.82 | Good | - | Preserve | Remove | Remove |
| T18 | Apple | *Malus pumila* | 51 | 7.71 | Good | - | Preserve | Remove | Remove |
| T19 | Norway Maple | *Acer platanoides* | 78 | 10.38 | Good | - | Preserve | Remove | Remove |
| T20 | - | - | 20 | 3.8 | Dead | - | Remove | Remove | Remove |
| T21 | - | - | 18 | 3.78 | Dead | - | Remove | Remove | Remove |
| T22 | - | - | 20 | 3.8 | Dead | - | Remove | Remove | Remove |
| T23 | Norway Maple | *Acer platanoides* | 20 | 3.8 | Good | - | Preserve | Remove | Remove |
| T24 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 13 | 3.73 | Fair-Poor | - | Preserve | Remove | Remove |
| T25 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 18 | 3.78 | Good | - | Preserve | Remove | Remove |
| T26 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 12 | 3.72 | Fair-Poor | - | Preserve | Remove | Remove |
| T27 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 10 | 3.7 | Fair-Poor | - | Preserve | Remove | Remove |
| T28 | - | - | 12 | 3.72 | Dead | - | Remove | Remove | Remove |
| T29 | - | - | 12 | 3.72 | Dead | - | Remove | Remove | Remove |
| T30 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 12 | 3.72 | Fair | - | Preserve | Remove | Remove |
| T31 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 20 | 3.8 | Fair | - | Preserve | Remove | Remove |
| T32 | - | - | 15 | 3.75 | Dead | Dead- likely green ash | Remove | Remove | Remove |
| T33 | - | - | 16 | 3.76 | Dead | Dead- likely green ash | Remove | Remove | Remove |
| T34 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 10 | 3.7 | Good | - | Preserve | Remove | Remove |
| T35 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 13 | 3.73 | Good | - | Preserve | Remove | Remove |
| T36 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 15 | 3.75 | Good | - | Preserve | Remove | Remove |
| T37 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | - | - | Good | - | Preserve | Remove | Remove |
| T38 | - | - | 12 | 3.72 | Dead | Dead- likely green ash | Remove | Remove | Remove |
| T39 | - | - | - | - | Dead | - | Remove | Remove | Remove |
| T40 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 10 | 3.7 | Fair-Poor | - | Preserve | Remove | Remove |
| T41 | - | - | 20 | 3.8 | Dead | - | Remove | Remove | Remove |
| T42 | - | - | 10 | 3.7 | Dead | - | Remove | Remove | Remove |
| T43 | - | - | 20 | 3.8 | Dead | - | Remove | Remove | Remove |
| T44 | European Mountain-Ash | - | 14 | 3.74 | Good | - | Preserve | Remove | Remove |
| T45 | - | - | 20 | 3.8 | Dead | - | Remove | Remove | Remove |
| T46 | - | - | 20 | 3.8 | Dead | - | Remove | Remove | Remove |
| T47 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 12 | 3.72 | Good | - | Preserve | Remove | Remove |
| T48 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | - | - | Fair-Poor | - | Preserve | Remove | Remove |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| T49 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 11 | 3.71 | Good | - | Preserve | Remove | Remove |
| T50 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 18 | 3.78 | Good | - | Preserve | Remove | Remove |
| T51 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 14 | 3.74 | Fair | - | Preserve | Remove | Remove |
| T52 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 12 | 3.72 | Good | - | Preserve | Remove | Remove |
| T53 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 13 | 3.73 | Good | - | Preserve | Remove | Remove |
| T54 | Black Cherry | *Prunus serotina* | 15/10 | 3.78 | Poor | - | Remove | Preserve | Preserve |
| T55 | - | - | 33 | 5.13 | Dead | Dead | Remove | Preserve | Preserve |
| T56 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 12 | 3.72 | Fair | - | Preserve | Remove | Remove |
| T57 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 11 | 3.71 | Good | - | Preserve | Remove | Remove |
| T58 | European Mountain-Ash | - | 13 | 3.73 | Good | - | Preserve | Remove | Remove |
| T59 | Black Cherry | *Prunus serotina* | 22/18 | 3.88 | Good | - | Preserve | Preserve | Preserve |
| T60 | - | - | 33 | 5.13 | Dead | Dead | Remove | Preserve | Preserve |
| T61 | Black Cherry | *Prunus serotina* | 10 | 3.7 | Good | - | Preserve | Remove | Remove |
| T62 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 14 | 3.74 | Good | - | Preserve | Remove | Remove |
| T63 | - | - | 17 | 3.77 | Dead | Dead | Remove | Remove | Remove |
| T64 | - | - | 25 | 3.85 | Dead | Dead | Remove | Remove | Remove |
| T65 | European Mountain-Ash | - | 10 | 3.7 | Good | - | Preserve | Remove | Remove |
| T66 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 12 | 3.72 | Good | - | Preserve | Remove | Remove |
| T67 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 12 | 3.72 | Good | - | Preserve | Remove | Remove |
| T68 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 12 | 3.72 | Good | - | Preserve | Remove | Remove |
| T69 | - | - | 20 | 3.8 | Dead | Dead | Remove | Remove | Remove |
| T70 | - | - | 22 | 3.82 | Dead | Dead- likely green ash | Remove | Remove | Remove |
| T71 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 11 | 3.71 | Good | - | Preserve | Remove | Remove |
| T72 | Balsam Fir | *Abies balsamea* | 12 | 3.72 | Good | - | Preserve | Preserve | Preserve |
| T73 | Balsam Fir | *Abies balsamea* | 20 | 3.8 | Good | - | Preserve | Preserve | Preserve |
| T74 | Balsam Fir | *Abies balsamea* | 25 | 3.85 | Good | - | Preserve | Preserve | Preserve |
| T75 | Balsam Fir | *Abies balsamea* | 25 | 3.85 | Good | - | Preserve | Preserve | Preserve |
| T76 | Balsam Fir | *Abies balsamea* | 13 | 3.73 | Good | - | Preserve | Preserve | Preserve |
| T77 | Balsam Fir | *Abies balsamea* | 30 | 5.1 | Good | - | Preserve | Preserve | Preserve |
| T78 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 22 | 3.82 | Good | - | Preserve | Remove | Remove |
| T79 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 13 | 3.73 | Good | - | Preserve | Remove | Remove |
| T80 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 25 | 3.85 | Good | - | Preserve | Remove | Remove |
| T81 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 11 | 3.71 | Good | - | Preserve | Remove | Remove |
| T82 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 11 | 3.71 | Good | - | Preserve | Remove | Remove |
| T83 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 10 | 3.7 | Good | - | Preserve | Remove | Remove |
| T84 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 10 | 3.7 | Good | - | Preserve | Remove | Remove |
| T85 | Hawthorn Species | *Crataegus sp.* | 13 | 3.73 | Good | - | Preserve | Remove | Remove |
| T86 | - | - | 17 | 3.77 | Dead | Dead- likely green ash | Remove | Remove | Remove |
| T87 | - | - | 25 | 3.85 | Dead | - | Remove | Remove | Remove |
| T88 | Manitoba Maple | *Acer negundo* | 15 | 3.75 | Good | - | Preserve | Remove | Remove |
| T89 | - | - | 25 | 3.85 | Dead | - | Remove | Remove | Remove |
| T90 | - | - | 20 | 3.8 | Dead | - | Remove | Remove | Remove |
| T91 | - | - | 20 | 3.8 | Dead | - | Remove | Remove | Remove |
| T92 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 13 | 3.73 | Good | - | Preserve | Remove | Remove |
| T93 | Eastern White Pine | *Pinus strobus* | 15 | 3.75 | Good | - | Preserve | Preserve | Preserve |
| T94 | - | - | 15 | 3.75 | Dead | Dead- covered in grapevine | Remove | Remove | Remove |
| T95 | - | - | 13 | 3.73 | Dead | Dead- likely green ash | Remove | Remove | Remove |
| T96 | - | - | 13 | 3.73 | Dead | Dead- likely green ash | Remove | Remove | Remove |
| T97 | - | - | 14 | 3.74 | Dead | Dead- likely green ash | Remove | Remove | Remove |
| T98 | - | - | 14 | 3.74 | Dead | Dead- likely green ash | Remove | Remove | Remove |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| T99 | - | - | 14 | 3.74 | Dead | Dead- likely green ash | Remove | Remove | Remove |
| T100 | Eastern White Pine | *Pinus strobus* | 18 | 3.78 | Good | - | Preserve | Preserve | Preserve |
| T101 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 14 | 3.74 | Good | - | Preserve | Remove | Remove |
| T102 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 11 | 3.71 | Good | - | Preserve | Remove | Remove |
| T103 | - | - | 19 | 3.79 | Dead | Dead-likely green ash | Remove | Remove | Remove |
| T104 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 14/14 | 3.8 | Good | - | Preserve | Preserve | Preserve |
| T105 | White Spruce | *Picea glauca* | 17 | 3.77 | Good | - | Preserve | Preserve | Preserve |
| T106 | - | - | 40 | 5.2 | Dead | - | Remove | Remove | Remove |
| T107 | Norway Maple | *Acer platanoides* | 40 | 5.2 | Good | - | Preserve | Remove | Remove |
| T108 | Norway Maple | *Acer platanoides* | 35 | 5.15 | Good | - | Preserve | Remove | Remove |
| T109 | White Elm | *Ulmus americana* | 30 | 5.1 | Good | - | Preserve | Remove | Remove |
| T110 | White Elm | *Ulmus americana* | 35 | 5.15 | Good | - | Preserve | Remove | Remove |
| T111 | Basswood | *Tilia americana* | 20 | 3.8 | Good | - | Preserve | Remove | Remove |
| T112 | Basswood | *Tilia americana* | 22 | 3.82 | Good | - | Preserve | Remove | Remove |
| T113 | Basswood | *Tilia americana* | 50 | 6.5 | Good | - | Preserve | Remove | Remove |
| T114 | Norway Maple | *Acer platanoides* | 45 | 6.45 | Good | - | Preserve | Remove | Remove |
| T115 | Norway Maple | *Acer platanoides* | 30 | 5.1 | Good | - | Preserve | Remove | Remove |
| T116 | Norway Maple | *Acer platanoides* | 40 | 5.2 | Good | - | Preserve | Remove | Remove |
| T117 | Black Cherry | *Prunus serotina* | 30 | 5.1 | Good | - | Preserve | Remove | Remove |
| T118 | Basswood | *Tilia americana* | 30 | 5.1 | Good | - | Preserve | Remove | Remove |
| T119 | Norway Maple | *Acer platanoides* | 40 | 5.2 | Good | - | Preserve | Remove | Remove |
| T120 | Norway Maple | *Acer platanoides* | 60 | 7.8 | Good | - | Preserve | Remove | Remove |
| T121 | Norway Maple | *Acer platanoides* | 60 | 7.8 | Good | - | Preserve | Remove | Remove |
| T122 | Norway Maple | *Acer platanoides* | 25 | 3.85 | Good | - | Preserve | Remove | Remove |
| T123 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 20 | 3.8 | Good | - | Preserve | Remove | Remove |
| T124 | Basswood | *Tilia americana* | 30 | 5.1 | Good | - | Preserve | Remove | Remove |
| T125 | Basswood | *Tilia americana* | 45 | 6.45 | Good | - | Preserve | Remove | Remove |
| T126 | Green Ash | *Fraxinus pennsylvanica var. subintegerrima* | 10 | 3.7 | Good | - | Preserve | Remove | Remove |
| T127 | Basswood | *Tilia americana* | 50 | 6.5 | Good | - | Preserve | Remove | Remove |
| T128 | Basswood | *Tilia americana* | 50 | 6.5 | Good | - | Preserve | Remove | Remove |
| T129 | Basswood | *Tilia americana* | 30 | 5.1 | Good | - | Preserve | Remove | Remove |
| T130 | Basswood | *Tilia americana* | 20 | 3.8 | Good | - | Preserve | Remove | Remove |
| T131 | Sugar Maple | *Acer saccharum* | 40 | 5.2 | Good | - | Preserve | Remove | Remove |
| T132 | Black Cherry | *Prunus serotina* | 20 | 3.8 | Good | - | Preserve | Remove | Remove |
| T133 | Sugar Maple | *Acer saccharum* | 15 | 3.75 | Good | - | Preserve | Remove | Remove |
| T134 | Basswood | *Tilia americana* | 20 | 3.8 | Good | - | Preserve | Remove | Remove |
| T135 | Hop Hornbeam | *Ostrya virginiana* | 15 | 3.75 | Good | - | Preserve | Remove | Remove |
| T136 | Sugar Maple | *Acer saccharum* | 90 | 11.7 | Good | - | Preserve | Remove | Remove |
| T137 | - | - | 18 | 3.78 | Dead | - | Remove | Remove | Remove |
| T138 | Sugar Maple | *Acer saccharum* | 85 | 11.65 | Good | - | Preserve | Remove | Remove |
| T139 | - | - | 30 | 5.1 | Dead | - | Remove | Remove | Remove |
| T140 | - | - | 30 | 5.1 | Dead | - | Remove | Remove | Remove |
| T141 | Norway Maple | *Acer platanoides* | 20 | 3.8 | Good | - | Preserve | Remove | Remove |
| T142 | Norway Maple | *Acer platanoides* | 19/12 | 3.82 | Good | - | Preserve | Remove | Remove |
| T143 | Norway Maple | *Acer platanoides* | 91 | 12.91 | Good | - | Preserve | Remove | Remove |
| T144 | Norway Maple | *Acer platanoides* | 67 | 9.07 | Good | - | Preserve | Remove | Remove |
| T145 | Norway Maple | *Acer platanoides* | 71 | 10.31 | Good | - | Preserve | Remove | Remove |
| T146 | Norway Maple | *Acer platanoides* | 68 | 9.08 | Good | - | Preserve | Remove | Remove |
| T147 | Norway Maple | *Acer platanoides* | 70 | 9.1 | Good | - | Preserve | Remove | Remove |
| T148 | Norway Maple | *Acer platanoides* | 95 | 12.95 | Good | - | Preserve | Remove | Remove |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| T149 | White Spruce | *Picea glauca* | 14 | 3.74 | Good | - | Preserve | Remove | Remove |
| T150 | Norway Maple | *Acer platanoides* | 81 | 11.61 | Good | - | Preserve | Remove | Remove |
| T151 | Norway Maple | *Acer platanoides* | 77 | 10.37 | Good | - | Preserve | Remove | Remove |
| T152 | Norway Maple | *Acer platanoides* | 86 | 11.66 | Fair | - | Preserve | Remove | Remove |
| T153 | White Spruce | *Picea glauca* | 19/19 | 3.87 | Good | - | Preserve | Remove | Remove |
| T154 | White Spruce | *Picea glauca* | 13 | 3.73 | Fair | - | Preserve | Remove | Remove |
| T155 | Species Unidentifiable | - | 72 | 10.32 | Dead | Dead - no leaves | Remove | Remove | Remove |
| T156 | Apple | *Malus pumila* | 24 | 3.84 | Poor | Dead | Remove | Remove | Remove |
| T157 | White Elm | *Ulmus americana* | 64 | 9.04 | Poor | Dead | Remove | Remove | Remove |
| T158 | Apple | *Malus pumila* | 24/20 | 5.11 | Good | - | Preserve | Remove | Remove |

| **Tree Group** | |
|---|---|
| T1 | Conifer Grouping |
| T2 | Eastern White Cedar Tree Grouping |

| | |
|---|---|
| Total Trees | 158 |
| Total Removal | 144 |
| Total Preserve | 14 |

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# Appendix E

# Significant Wildlife Habitat Assessment

## Significant Wildlife Habitat Screening – Ecoregion 6E Criteria (2015)

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
|---|---|---|---|---|---|
| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| **Table 1.1: Seasonal Concentration Areas of Animals** | | | | | |
| **Waterfowl Stopover & Staging Areas (Terrestrial)**<br><br>**Rationale:**<br>Habitat important to migrating waterfowl. | CUM1<br>CUT1 - Plus evidence of annual spring flooding from melt water or run-off within these ecosites. | Fields with sheet water during Spring (mid-March to May).<br>• Fields flooding during spring melt and run-off provide important invertebrate foraging habitat for migrating waterfowl.<br>• 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<br>Wood Duck<br>Green-winged Teal<br>Blue-winged Teal<br>Mallard<br>Northern Pintail<br>Northern Shoveler<br>American Wigeon<br>Gadwall | 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.<br>• Any mixed species aggregations of 100 or more individuals required.<br>• The flooded field ecosite habitat plus a 100-300 m radius area, dependent on local site conditions and adjacent land use is the SWH.<br>• 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).<br>• **SWHMiST Index #7** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Waterfowl Stopover & Staging Areas (Aquatic)**<br><br>**Rationale:**<br>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<br>MAS2<br>MAS3<br>SAS1<br>SAM1<br>SAF1<br>SWD1<br>SWD2<br>SWD3<br>SWD4<br>SWD5<br>SWD6<br>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.<br>• These habitats have an abundant food supply (mostly aquatic invertebrates and vegetation in shallow water). | Canada Goose<br>Cackling Goose<br>Snow Goose<br>American Black Duck<br>Northern Pintail<br>Northern Shoveler<br>American Wigeon<br>Gadwall<br>Green-winged Teal<br>Blue-winged Teal<br>Hooded Merganser<br>Common Merganser<br>Lesser Scaup<br>Greater Scaup<br>Long-tailed Duck<br>Surf Scoter<br>White-winged Scoter<br>Black Scoter<br>Ring-necked duck<br>Common Goldeneye<br>Bufflehead<br>Redhead<br>Ruddy Duck | **Studies carried out & verified presence of:**<br><br>• Aggregations of 100 or more of listed species for 7 days, results in >700 waterfowl use days.<br>• Areas with annual staging of ruddy ducks, canvasbacks, and redheads are SWH.<br>• The combined area of the Ecological Land Classification (ELC) ecosites and a 100 m radius area is the SWH.<br>• Wetland area and shorelines associated with sites identified within the SWHTG Appendix K are SWH.<br>• Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”.<br>• 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).<br>• **SWHMiST Index #7** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
|---|---|---|---|---|---|
| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| | | | Red-breasted Merganser<br>Brant<br>Canvasback<br>Ruddy Duck | | |
| **Shorebird Migratory Stopover Area**<br><br>**Rationale**:<br>High-quality shorebird stopover habitat is extremely rare and typically has a long history of use. | BBO1<br>BBO2<br>BBS1<br>BBS2<br>BBT1<br>BBT2<br>SDO1<br>SDS2<br>SDT1<br>MAM1<br>MAM2<br>MAM3<br>MAM4<br>MAM5 | • Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats.<br>• 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.<br>• Sewage treatment ponds and storm water ponds do not qualify as a SWH. | Greater Yellowlegs<br>Lesser Yellowlegs<br>Marbled Godwit<br>Hudsonian Godwit<br>Black-bellied Plover<br>American Golden-Plover<br>Semipalmated Plover<br>Solitary Sandpiper<br>Spotted Sandpiper<br>Semipalmated Sandpiper<br>Pectoral Sandpiper<br>White-rumped Sandpiper<br>Baird's Sandpiper<br>Least Sandpiper<br>Purple Sandpiper<br>Stilt Sandpiper<br>Short-billed Dowitcher<br>Red-necked Phalarope<br>Whimbrel<br>Ruddy Turnstone<br>Sanderling<br>Dunlin | **Studies confirming:**<br><br>• Presence of three 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).<br>• Whimbrel stop briefly (<24 hrs.) during spring migration, any site with >100 Whimbrel used for 3 years or more is significant.<br>• The area of significant shorebird habitat includes the mapped ELC shoreline ecosites plus a 100 m radius area.<br>• Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects".<br>• **SWHMiST Index #8** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Raptor Wintering Area**<br><br>**Rationale**:<br>Sites used by multiple species, a high number of individuals and used annually are most significant. | Hawks/Owls:<br>Combination of ELC Community Series; need to have present one Community Series from each land class;<br><br>Forest:<br>FOD,<br>FOM,<br>FOC. | • The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors.<br>• Raptor wintering sites (hawk/owl) need to be **>** 20 ha, with a combination of forest and upland.<br>• Least disturbed sites, idle/fallow or lightly grazed field/meadow (>15ha) with adjacent woodlands.<br>• Field area of the habitat is to be wind swept with limited snow depth or accumulation.<br>• Eagle sites have open water, large trees and snags available for roosting. | Rough-legged Hawk<br>Red-tailed Hawk<br>Northern Harrier<br>American Kestrel<br>Snowy Owl<br><br>**Special Concern:**<br>Short-eared Owl<br>Bald Eagle | **Studies confirm the use of these habitats by:**<br><br>• One or more Short-eared Owls or; One or more Bald Eagle or; At least 10 individuals and two of the listed hawk/owl species.<br>• 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.<br>• The habitat area for an Eagle winter site is the shoreline forest ecosites directly adjacent to the prime hunting area.<br>• Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects." | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| | Upland:<br>CUM;<br>CUT;<br>CUS;<br>CUW.<br><br>Bald Eagle:<br>Forest community Series:<br>FOD,<br>FOM,<br>FOC,<br>SWD,<br>SWM or<br>SWC on shoreline areas adjacent to large rivers or adjacent to lakes with open water (hunting area). | | | • **SWHMiST Index #10 and #11** provides development effects and mitigation measures. | |
| **Bat Hibernacula**<br><br>**Rationale:**<br>Bat hibernacula are rare habitats in all Ontario landscapes. | **Bat Hibernacula may be found in these ecosites:**<br><br>CCR1<br>CCR2<br>CCA1<br>CCA2<br><br>(Note: buildings are not considered to be SWH) | • Hibernacula may be found in caves, mine shafts, underground foundations and Karsts.<br>• Active mine sites should not be considered SWH.<br>• The locations of bat hibernacula are relatively poorly known. | Big Brown Bat<br>Tri-coloured Bat | • All sites with confirmed hibernating bats are SWH.<br>• The habitat area includes a 200 m radius around the entrance of the hibernaculum for most development types and 1000 m for wind farms.<br>• 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”.<br>• **SWHMiST Index #1** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Bat Maternity Colonies**<br><br>**Rationale:**<br>Known locations of forested bat | Maternity colonies considered SWH are found in forested ecosites. | • Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH).<br>• Maternity roosts are not found in caves and mines in Ontario. | Big Brown Bat<br>Silver-haired Bat | • Maternity Colonies with confirmed use by:<br>– >10 Big Brown Bats<br>– >5 Adult Female Silver- haired Bats | Although there is a mixed woodland within the subject lands and adjacent lands, maternity colonies are extremely rare in Ontario landscapes. Therefore, it can be assumed that this SWH is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| maternity colonies are extremely rare in all Ontario landscapes. | **All ELC ecosites in ELC Community Series:**<br><br>FOD<br>FOM<br>SWD<br>SWM | • Maternity colonies located in Mature deciduous or mixed forest stands with >10/ha large diameter (>25 cm dbh) wildlife trees.<br>• Female Bats prefer wildlife tree (snags) in early stages of decay, class 1-3 or class 1 or 2.<br>• 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. | | • The area of the habitat includes the entire woodland, or a forest stand ELC ecosite or an ecoelement containing the maternity colonies.<br>• Evaluation methods for maternity colonies should be conducted following methods outlined in the “Bats and Bat Habitats: Guidelines for Wind Power Projects”.<br>• SWHMiST Index #12 provides development effects and mitigation measures. | |
| **Turtle Wintering Areas**<br><br>**Rationale:**<br>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.<br><br>**ELC Community Classes:**<br><br>SW,<br>MA,<br>OA and<br>SA<br><br>**ELC Community Series:**<br><br>FEO and BOO<br><br>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. | • For most turtles, wintering areas are in the same general area as their core habitat. Water must be deep enough not to freeze and have soft mud substrates.<br>• Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen.<br>• Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH. | Midland Painted Turtle<br><br>**Special Concern:**<br>Northern Map Turtle<br>Snapping Turtle | • Presence of five over-wintering Midland Painted Turtles is significant.<br>• One or more Northern Map Turtle or Snapping Turtle over-wintering within a wetland is significant.<br>• 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.<br>• 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).<br>• Congregation of turtles is more common where wintering areas are limited and therefore significant.<br>• **SWHMiST Index #28** provides development effects and mitigation measures for turtle wintering habitat. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Reptile Hibernaculum** | For all snakes, habitat may be found in any ecosite other | • For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural or naturalized locations. The existence of | **Snakes**:<br>Eastern Gartersnake<br>Northern Watersnake | **Studies confirming:** | No potential on the the subject lands or adjacent lands. The ecosites are not present |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| **Rationale:**<br>Generally, sites are the only known sites in the area. Sites with the highest number of individuals are most significant. | than very wet ones. Talus, Rock Barren, Crevice, Cave, and Alvar sites may be directly related to these habitats.<br><br>Observations or congregations of snakes on sunny warm days in the spring or fall is a good indicator.<br><br>For Five-lined Skink, ELC Community Series of FOD and FOM and ecosites: FOC1 and FOC3. | features that go below frost line; such as rock piles or slopes, old stone fences, and abandoned crumbling foundations assist in identifying candidate SWH.<br>• Areas of broken and fissured rock are particularly valuable since they provide access to subterranean sites below the frost line.<br>• 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.<br>• Five-lined Skink prefer mixed forests with rock outcrop openings providing cover rock overlaying granite bedrock with fissures. | Northern Red-bellied Snake<br>Northern Brownsnake<br>Smooth Green Snake<br>Northern Ring-necked Snake<br><br>**Special Concern:**<br>Milksnake<br>Eastern Ribbonsnake<br><br>**Lizard: Special Concern:**<br>(Southern Shield population): Five-lined Skink | • Presence of snake hibernacula used by a minimum of five individuals of a snake sp. or; individuals of two or more snake spp.<br>• 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).<br>• **Note**: If there are Special Concern Species present, then site is SWH.<br>• **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 near hibernacula. The feature in which the hibernacula is located, plus a 30 m radius area is the SWH.<br>• **SWHMiST Index #13** provides development effects and mitigation measures for snake hibernacula.<br>• Presence of any active hibernaculum for Skink is significant.<br>• SWHMiST Index #37 provides development effects and mitigation measures for five-lined Skink wintering habitat. | and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Colonially - Nesting Bird Breeding Habitat (Bank & Cliff)**<br><br>**Rationale:**<br>Historical use and number of nests in a colony make this habitat significant. An identified colony can be very important to local populations. All swallow population are | Eroding banks, sandy hills, borrow pits, steep slopes, and sand piles. Cliff faces, bridge abutments, silos, barns.<br><br>**Habitat found in the following ecosites:**<br><br>CUM1<br>CUT1<br>CUS1<br>BLO1<br>BLS1 | • Any site or areas with exposed soil banks, undisturbed or naturally eroding that is not a licensed permitted aggregate area.<br>• Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, soil or aggregate stockpiles.<br>• Does not include a licensed/permitted Mineral Aggregate Operation. | Cliff Swallow<br>Northern Rough-winged Swallow (this species is not colonial but can be found in Cliff Swallow colonies) | **Studies confirming:**<br><br>• Presence of one or more nesting sites with eight or more cliff swallow pairs and/or rough-winged swallow pairs during the breeding season.<br>• A colony identified as SWH will include a 50 m radius habitat area from the peripheral nests.<br>• 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”.<br>• **SWHMiST Index #4** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| declining in Ontario. | BLT1<br>CLO1<br>CLS1<br>CLT1 | | | | |
| **Colonially - Nesting Bird Breeding Habitat (Tree/Shrubs)**<br><br>**Rationale:**<br>Large colonies are important to local bird population, typically sites are only known colony in area and are used annually. | SWM2<br>SWM3<br>SWM5<br>SWM6<br>SWD1<br>SWD2<br>SWD3<br>SWD4<br>SWD5<br>SWD6<br>SWD7<br>FET1 | • Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used.<br>• Most nests in trees are 11 to 15 m from ground, near the top of the tree. | Great Blue Heron<br>Black-crowned Night-Heron<br>Great Egret<br>Green Heron | **Studies confirming:**<br><br>• Presence of two or more active nests of Great Blue Heron or other listed species.<br>• 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.<br>• 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.<br>• **SWHMiST Index #5** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Colonially - Nesting Bird Breeding Habitat (Ground)**<br><br>**Rationale;**<br>Colonies are important to local bird population, typically sites are only known colony in area and are used annually. | Any rocky island or<br>peninsula (natural or artificial) within a lake or large river (two-lined on a 1;50,000 NTS map).<br><br>Close proximity to watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird).<br><br>MAM1 – 6<br>MAS1 – 3<br>CUM<br>CUT | • Nesting colonies of gulls and terns are on islands or peninsulas associated with open water or in marshy areas.<br>• Brewers Blackbird colonies are found loosely on the ground in low bushes in close proximity to streams and irrigation ditches within farmlands. | Herring Gull<br>Great Black-backed Gull<br>Little Gull<br>Ring-billed Gull<br>Common Tern<br>Caspian Tern<br>Brewer's Blackbird | **Studies confirming:**<br><br>• 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.<br>• Presence of five or more pairs for Brewer's Blackbird.<br>• Any active nesting colony of one or more Little Gull, and Great Black-backed Gull is significant.<br>• 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.<br>• Studies would be done during May/June when actively nesting. Evaluation methods to follow "Bird and Bird Habitats: Guidelines for Wind Power Projects".<br>• **SWHMiST Index #6** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
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| **Migratory Butterfly Stopover Areas**<br><br>**Rationale:**<br>Butterfly stopover areas are extremely rare habitats and are biologically important for butterfly species that migrate south for the winter. | Combination of ELC Community Series; need to have present one Community Series from each land class.<br><br><u>Field</u>:<br>CUM<br>CUT<br>CUS<br><br><u>Forest</u>:<br>FOC<br>FOD<br>FOM<br>CUP<br><br>Anecdotally, a candidate site for butterfly stopover will have a history of butterflies being observed. | • A butterfly stopover area will be a minimum of 10 ha in size with a combination of field and forest habitat present and will be located within 5 km of Lake Erie or Ontario.<br>• 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.<br>• 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.<br>• 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. | Painted Lady<br>Red Admiral<br><br><u>Special Concern</u><br>Monarch | **Studies confirm:**<br><br>• 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.<br>• Observational studies are to be completed and need to be done frequently during the migration period to estimate MUD.<br>• MUD of >5000 or >3000 with the presence of Painted Ladies or Red Admiral's is to be considered significant.<br>• **SWHMiST Index #16** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present.<br><br>The subject lands are greater than 5 km from Lake Ontario. |
| **Landbird Migratory Stopover Areas**<br><br>**Rationale:**<br>Sites with a high diversity of species as well as high numbers are most significant. | **All ecosites associated with these ELC Community Series:**<br><br>FOC<br>FOM<br>FOD<br>SWC<br>SWM<br>SWD | • Woodlots >10 ha in size and within 5 km of Lake Ontario.<br>• If woodlands are rare in an area of shoreline, woodland fragments 2-5 ha can be considered for this habitat.<br>• If multiple woodlands are located along the shoreline those Woodlands <2 km from Lake Ontario are more significant.<br>• Sites have a variety of habitats; forest, grassland and wetland complexes.<br>• The largest sites are more significant.<br>• Woodlots and forest fragments are important habitats to migrating birds, these features located along the shore and located within 5 km of Lake Ontario are Candidate SWH. | All migratory songbirds.<br><br>Canadian Wildlife Service Ontario website: http://www.ec.gc.ca/nature/default.asp?lang=En&n=421B7A9D-1<br><br>All migrant raptors species:<br><br>*Ontario Ministry of Natural Resources: Fish and Wildlife Conservation Act, 1997.* Schedule 7: Specially Protected Birds (Raptors) | **Studies confirm:**<br><br>• Use of the habitat by >200 birds/day and with >35 spp with at least 10 bird spp. recorded on at least five different survey dates. This abundance and diversity of migrant bird species is considered above average and significant.<br>• 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".<br>• **SWHMiST Index #9** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present.<br><br>The subject lands are greater than 5 km from Lake Ontario. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
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| **Deer Yarding Areas**<br><br>**<u>Rationale:</u>**<br>Winter habitat for deer is considered to be the main limiting factor for northern deer populations. In winter, deer congregate in "yards" to survive severe winter conditions. Deer yards typically have a long history of annual use by deer, yards typically represent 10-15% of an areas summer range. | **Note:** MNRF to determine this habitat.<br><br>**ELC Community Series** providing a thermal cover component for a deer yard would include:<br><br>FOM<br>FOC<br>SWM<br>SWC<br><br>**Or these ELC ecosites:**<br><br>CUP2<br>CUP3<br>FOD3<br>CUT | • Deer yarding areas or winter concentration areas (yards) are areas deer move to in response to the onset of winter snow and cold. This is a behavioural response and deer will establish traditional use areas. The yard is composed of two areas referred to as Stratum I and Stratum II. Stratum II covers the entire winter yard area and is usually a mixed or deciduous forest with plenty of browse available for food. Agricultural lands can also be included in this area. Deer move to these areas in early winter and generally, when snow depths reach 20 cm, most of the deer will have moved here. If the snow is light and fluffy, deer may continue to use this area until 30 cm snow depth. In mild winters, deer may remain in the Stratum II area the entire winter.<br>• The Core of a deer yard (Stratum I) is located within the Stratum II area and is critical for deer survival in areas where winters become severe. It is primarily composed of coniferous trees (pine, hemlock, cedar, spruce) with a canopy cover of more than 60%.<br>• MNRF determines deer yards following methods outlined in "Selected Wildlife and Habitat Features: Inventory Manual".<br>• Woodlots with high densities of deer due to artificial feeding are not significant. | White-tailed Deer | **No Studies Required:**<br>• Snow depth and temperature are the greatest influence on deer use of winter yards. Snow depths > 40 cm for more than 60 days in a typically winter are minimum criteria for a deer yard to be considered as SWH.<br>• Deer Yards are mapped by MNRF District offices. Locations of Core or Stratum 1 and Stratum 2 Deer yards considered significant by MNRF will be available at local MNRF offices or via Land Information Ontario (LIO).<br>• Field investigations that record deer tracks in winter are done to confirm use (best done from an aircraft). Preferably, this is done over a series of winters to establish the boundary of the Stratum I and Stratum II yard in an "average" winter. MNRF will complete these field investigations.<br>• If a SWH is determined for Deer Wintering Area or if a proposed development is within Stratum II yarding area, then Movement Corridors are to be considered, as outlined in Table 1.4.1 of this Schedule.<br>• 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 is not present. No deer yarding areas were identified by MNRF. |
| **Deer Winter Congregation Areas**<br><br>**Rationale:**<br>Deer movement during winter in the southern areas of Ecoregion 6E are not constrained by snow depth, however deer will annually congregate in | **All Forested ecosites with these ELC Community Series:**<br><br>FOC<br>FOM<br>FOD<br>SWC<br>SWM<br>SWD | • Woodlots will typically be >100 ha in size. Woodlots <100 ha may be considered significant, based on MNRF studies or assessment.<br>• Deer movement during winter in the southern areas of Ecoregion 6E are not constrained by snow depth, however deer will annually congregate in large numbers in suitable woodlands.<br>• If deer are constrained by snow depth refer to the Deer Yarding Area habitat within Table 1.1 of this Schedule.<br>• 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.<br>• Woodlots with high densities of deer due to artificial feeding are not significant. | White-tailed Deer | **Studies confirm:**<br><br>• Deer management is an MNRF responsibility, deer winter congregation areas considered significant will be mapped by MNRF.<br>• 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.<br>• 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.<br>• If a SWH is determined for Deer Wintering Area or if a proposed development is within Stratum II yarding | No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat is not present. No deer yarding areas were identified by MNRF. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| large numbers in suitable woodlands to reduce or avoid the impacts of winter conditions. | Conifer plantations much smaller than 50 ha may also be used. | | | area, then Movement Corridors are to be considered, as outlined in Table 1.4.1 of this Schedule.<br>• **SWHMiST Index #2** provides development effects and mitigation measures. | |
| **Table 1.2.1: Rare Vegetation Communities** | | | | | |
| **Cliffs and Talus Slopes**<br><br>**Rationale:**<br>Cliffs and Talus Slopes are extremely rare habitats in Ontario. | **Any ELC ecosite within Community Series:**<br><br>TAO<br>CLO<br>TAS<br>CLS<br>TAT<br>CLT | • A Cliff is vertical to near vertical bedrock >3 m in height.<br>• A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris. | | • Most cliff and talus slopes occur along the Niagara Escarpment.<br>• Confirm any ELC Vegetation Type for Cliffs or Talus Slopes.<br>• **SWHMiST Index #21** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Sand Barren**<br><br>**Rationale;**<br>Sand barrens are rare in Ontario and support rare species. Most Sand Barrens have been lost due to cottage development and forestry. | **ELC ecosites:**<br><br>SBO1<br>SBS1<br>SBT1<br><br>Vegetation cover varies from patchy and barren to continuous meadow (SBO1), thicket-like (SBS1), or more closed and treed (SBT1). Tree cover always ≤ 60%. | • Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion. 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%. | | • A sand barren area >0.5 ha in size.<br>• Confirm any ELC Vegetation Type for Sand Barrens.<br>• Site must not be dominated by exotic or introduced species (<50% vegetative cover is exotic sp.).<br>• **SWHMiST Index #20** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Alvar**<br><br>**Rationale;**<br>Alvars are extremely rare | ALO1<br>ALS1<br>ALT1<br>FOC1<br>FOC2 | • 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 | | **Field studies that identify:**<br><br>• An Alvar site > 0.5 ha in size.<br>• Four of the five Alvar Indicator Species at a Candidate Alvar site is Significant. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
|---|---|---|---|---|---|
| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| habitats in Ecoregion 6E. | CUM2<br>CUS2<br>CUT2-1<br>CUW2<br><br>**Five Alvar Indicator Species:**<br><br>*Carex crawei*<br>*Panicum philadelphicum*<br>*Eleocharis compressa*<br>*Scutellaria parvula*<br>*Trichostema brachiatum*<br><br>These indicator species are very specific to Alvars within Ecoregion 6E. | 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 rare relict plant and animal species. Vegetation cover varies from patchy to barren with a less than 60% tree cover.<br>• Alvar is particularly rare in Ecoregion 6E, where the only known sites are found in the western islands of Lake Erie. | | • Site must not be dominated by exotic or introduced species (<50% vegetative cover is exotic sp.).<br>• The alvar must be in excellent condition and fit in with surrounding landscape with few conflicting land uses.<br>• **SWHMiST Index #17** provides development effects and mitigation measures. | |
| **Old Growth Forest**<br><br>**Rationale;**<br>Due to historic logging practices and land clearance for agriculture, old growth forest is rare in the Ecoregion 6E. | **Forest Community Series:**<br><br>FOD<br>FOC<br>FOM<br>SWD<br>SWC<br>SWM | Old Growth forests are characterized by heavy mortality or turnover of over-storey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris. | | **Field Studies will determine:**<br><br>• If dominant trees species are >140 years old, then the area containing these trees is SWH.<br>• The forested area containing the old growth characteristics will have experienced no recognizable forestry activities (cut stumps will not be present).<br>• The area of forest ecosites combined or an eco-element within an ecosite that contains the old growth characteristics is the SWH.<br>• Determine ELC vegetation types for the forest area containing the old growth characteristics.<br>• **SWHMiST Index #23** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Savannah**<br><br>**Rationale:** | TPS1<br>TPS2<br>TPW1 | A Savannah is a tallgrass prairie habitat that has tree cover between 25–60%. | | **Field studies confirm:** | No potential on the the subject lands or adjacent lands. The ecosites are not present |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| Savannahs are extremely rare habitats in Ontario. | TPW2<br>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.<br>• One or more of the Savannah indicator species listed in Appendix N should be present. **Note**: Savannah plant spp. list from Ecoregion 6E should be used.<br>• Area of the ELC ecosite is the SWH.<br>• Site must not be dominated by exotic or introduced species (<50% vegetative cover is exotic sp.).<br>• **SWHMiST Index #18** provides development effects and mitigation measures. | and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Tallgrass Prairie**<br><br>**Rationale:**<br>Tallgrass Prairies are extremely rare habitats in Ontario. | TPO1<br>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.<br>• A Tallgrass Prairie has ground cover dominated by prairie grasses. An open Tallgrass Prairie habitat has < 25% tree cover. | | **Field studies confirm:**<br><br>• One or more of the Prairie indicator species listed in Appendix N should be present. **Note:** Prairie plant spp. list from Ecoregion 6E should be used.<br>• Area of the ELC ecosite is the SWH.<br>• Site must not be dominated by exotic or introduced species (<50% vegetative cover is exotic sp.).<br>• **SWHMiST Index #19** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Other Rare Vegetation Communities**<br><br>**Rationale:**<br>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.<br>• Any ELC ecosite Code that has a possible ELC Vegetation Type that is Provincially Rare is Candidate SWH. | Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps. | | • ELC ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in Appendix M.<br>• The MNRF/Natural Heritage Information Centre (NHIC) will have up to date listing for rare vegetation communities.<br><br>**Field studies should confirm:**<br><br>• If an ELC Vegetation Type is a rare vegetation community based on listing within Appendix M of SWHTG.<br>• Area of the ELC Vegetation Type polygon is the SWH.<br>• **SWHMiST Index #37** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

**Table 1.2.2: Specialized Habitats for Wildlife considered Significant Wildlife Habitat**

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| **Waterfowl Nesting Area**<br><br>**Rationale;**<br>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:**<br><br>MAS1 MAS2<br>MAS3 SAS1<br>SAM1 SAF1<br>MAM1 MAM2<br>MAM3 MAM4<br>MAM5 MAM6<br>SWT1 SWT2<br>SWD1 SWD2<br>SWD3 SWD4<br><br>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.<br>• Upland areas should be at least 120 m wide so that predators such as racoons, skunks, and foxes have difficulty finding nests.<br>• Wood Ducks and Hooded Mergansers utilize large diameter trees (>40 cm dbh) in woodlands for cavity nest sites. | American Black Duck<br>Northern Pintail<br>Northern Shoveler<br>Gadwall<br>Blue-winged Teal<br>Green-winged Teal<br>Wood Duck<br>Hooded Merganser<br>Mallard | **Studies confirmed:**<br><br>• Presence of three or more nesting pairs for listed species excluding Mallards, or;<br>• Presence of ten or more nesting pairs for listed species including Mallards.<br>• Any active nesting site of an American Black Duck is considered significant.<br>• 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”.<br>• 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.<br>• **SWHMiST Index #25** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Bald Eagle & Osprey Nesting, Foraging & Perching Habitat**<br><br>**Rationale;**<br>Nest sites are fairly uncommon in Eco-region 6E and are used annually by these species. Many suitable nesting locations may be lost due to increasing shoreline development pressures and | **ELC Forest Community Series:**<br><br>FOD<br>FOM<br>FOC<br>SWD<br>SWM and<br>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.<br>• Osprey nests are usually at the top of a tree, whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree’s canopy.<br>• Nests located on man-made objects are not to be included as SWH (e.g., telephone poles and constructed nesting platforms). | Osprey<br><br>**Special Concern**<br>Bald Eagle | **Studies confirm the use of these nests by**:<br><br>• One or more active Osprey or Bald Eagle nests in an area.<br>• 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.<br>• 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.<br>• 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.<br>• 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. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| scarcity of habitat. | | | | • Observational studies to determine nest site use, perching sites and foraging areas need to be done from mid-March to mid-August.<br>• Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”.<br>• **SWHMiST Index #26** provides development effects and mitigation measures. | |
| **Woodland Raptor Nesting Habitat**<br><br>**Rationale:**<br>Nests sites for these species are rarely identified; these are area sensitive habitats and are often used annually by these species. | May be found in all forested ELC ecosites.<br><br>**May also be found in:**<br>SWC<br>SWM<br>SWD and<br>CUP3 | • All natural or conifer plantation woodland/forest stands >30 ha with >10ha of interior habitat. Interior habitat determined with a 200 m buffer.<br>• 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.<br>• In disturbed sites, nests may be used again, or a new nest will be in close proximity to old nest. | Northern Goshawk<br>Cooper’s Hawk<br>Sharp-shinned Hawk<br>Red-shouldered Hawk<br>Barred Owl<br>Broad-winged Hawk | **Studies confirm:**<br><br>• Presence of one or more active nests from species list is considered significant.<br>• 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).<br>• Barred Owl – A 200 m radius around the nest is the SWH.<br>• Broad-winged Hawk and Coopers Hawk– A 100 m radius around the nest is the SWH.<br>• Sharp-Shinned Hawk – A 50 m radius around the nest is the SWH.<br>• Conduct field investigations from mid-March to end of May. The use of call broadcasts can help in locating territorial (courting/nesting) raptors and facilitate the discovery of nests by narrowing down the search area.<br>• **SWHMiST Index #27** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Turtle Nesting Areas**<br><br>**Rationale;**<br>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:**<br><br>MAS1<br>MAS2<br>MAS3<br>SAS1<br>SAM1 | • Best nesting habitat for turtles are close to water (away from roads) and sites less prone to loss of eggs by predation from skunks, raccoons or other animals.<br>• 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.<br>• Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used. | Midland Painted Turtle<br><br><u>Special Concern Species:</u><br>Northern Map Turtle<br>Snapping Turtle | **Studies confirm:**<br><br>• Presence of 5 or more nesting Midland Painted Turtles.<br>• One or more Northern Map Turtle or Snapping Turtle nesting is a SWH.<br>• 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.<br>• Travel routes from wetland to nesting area are to be considered within the SWH as part of the 30-100 m area of habitat. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| | SAF1<br>BOO1<br>FEO1 | | | • 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.<br>• **SWHMiST Index #28** provides development effects and mitigation measures for turtle nesting habitat. | |
| **Seeps and Springs**<br><br>**Rationale:**<br>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.<br>• 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<br>Ruffed Grouse<br>Spruce Grouse<br>White-tailed Deer<br>Salamander spp. | **Field Studies confirm:**<br><br>• Presence of a site with 2 or more seeps/springs should be considered SWH.<br>• 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.<br>• **SWHMiST Index #30** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Amphibian Breeding Habitat (Woodland)**<br><br>**Rationale:**<br>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:<br><br>FOC<br>FOM<br>FOD<br>SWC<br>SWM<br>SWD<br><br>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 | • 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.<br>• 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<br>Blue-spotted Salamander<br>Spotted Salamander<br>Gray Treefrog<br>Spring Peeper<br>Western Chorus Frog<br>Wood Frog | **Studies confirm:**<br><br>• Presence of breeding population of one or more of the listed newt/salamander species or two or more of the listed frog species with at least 20 individuals (adults or eggs masses) or two or more of the listed frog species with Call Level Codes of 3.<br>• 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.<br>• 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.<br>• **SWHMiST Index #14** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| | migrating amphibians. | | | | |
| **Amphibian Breeding Habitat (Wetlands)**<br><br>**Rationale;**<br>Wetlands supporting breeding for these amphibian species are extremely important and fairly rare within Central Ontario landscapes. | **ELC Community Classes:**<br><br>SW<br>MA<br>FE<br>BO<br>OA and<br>SA.<br><br>Typically, these wetland ecosites will be isolated (>120 m) from woodland ecosites, however larger wetlands containing predominantly aquatic species (e.g., Bull Frog) may be adjacent to woodlands. | • Wetlands >500 $m^2$ (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.<br>• 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.<br>• Bullfrogs require permanent water bodies with abundant emergent vegetation. | Eastern Newt<br>American Toad<br>Spotted Salamander<br>Four-toed Salamander<br>Blue-spotted Salamander<br>Gray Treefrog<br>Western Chorus Frog<br>Northern Leopard Frog<br>Pickerel Frog<br>Green Frog<br>Mink Frog<br>Bullfrog | **Studies confirm:**<br><br>• Presence of breeding population of one or more of the listed newt/salamander species or two or more of the listed frog/toad species with at least 20 individuals (adults or eggs masses) or two or more of the listed frog/toad species with Call Level Codes of 3 or; Wetland with confirmed breeding Bullfrogs are significant.<br>• The ELC ecosite wetland area and the shoreline are the SWH.<br>• 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.<br>• 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.<br>• **SWHMiST Index #15** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Woodland Area-Sensitive Bird Breeding Habitat**<br><br>**Rationale:**<br>Large, natural blocks of mature woodland habitat within the settled areas of Southern Ontario are important habitats for area sensitive interior | **All ecosites associated with these ELC Community Series:**<br><br>FOC<br>FOM<br>FOD<br>SWC<br>SWM<br>SWD | • Habitats where interior forest breeding birds are breeding, typically large mature (>60 yrs. old) forest stands or woodlots >30 ha.<br>• Interior forest habitat is at least 200 m from forest edge habitat. | Yellow-bellied Sapsucker<br>Red-breasted Nuthatch<br>Veery<br>Blue-headed Vireo<br>Northern Parula<br>Black-throated Green Warbler<br>Blackburnian Warbler<br>Black-throated Blue Warbler<br>Ovenbird<br>Scarlet Tanager<br>Winter Wren<br><br>**Special Concern:**<br>Cerulean Warbler<br>Canada Warbler | **Studies confirm:**<br><br>• Presence of nesting or breeding pairs of three or more of the listed wildlife species.<br>• **Note**: any site with breeding Cerulean Warblers or Canada Warblers is to be considered SWH.<br>• Conduct field investigations in spring and early summer when birds are singing and defending their territories.<br>• Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”.<br>• **SWHMiST Index #34** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
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| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| forest song birds. | | | | | |
| **Table 1.3: Habitat for Species of Conservation Concern considered Significant Wildlife Habitat** | | | | | |
| **Marsh Breeding Bird Habitat**<br><br>**Rationale;**<br>Wetlands for these bird species are typically productive and fairly rare in Southern Ontario landscapes. | MAM1<br>MAM2<br>MAM3<br>MAM4<br>MAM5<br>MAM6<br>SAS1<br>SAM1<br>SAF1<br>FEO1<br>BOO1<br><br>**For Green Heron:**<br><br>All SW, MA and CUM1 sites | • Nesting occurs in wetlands.<br>• All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present.<br>• 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<br>Virginia Rail<br>Sora<br>Common Moorhen<br>American Coot<br>Pied-billed Grebe<br>Marsh Wren<br>Sedge Wren<br>Common Loon<br>Sandhill Crane<br>Green Heron<br>Trumpeter Swan<br><br>**Special Concern:**<br>Black Tern<br>Yellow Rail | **Studies confirm:**<br><br>• Presence of five or more nesting pairs of Sedge Wren or Marsh Wren or one pair of Sandhill Cranes breeding by any combination of five or more of the listed species.<br>• **Note**: any wetland with breeding of one or more Black Terns, Trumpeter Swan, Green Heron or Yellow Rail is SWH.<br>• Area of the ELC ecosite is the SWH.<br>• Breeding surveys should be done in May/June when these species are actively nesting in wetland habitats.<br>• Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”.<br>• **SWHMiST Index #35** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Open Country Bird Breeding Habitat**<br><br>**Rationale;**<br>This wildlife habitat is declining throughout Ontario and North America. Species such as the Upland Sandpiper have declined significantly the past 40 years based on CWS (2004) trend records. | CUM1<br>CUM2 | • Large grassland areas (includes natural and cultural fields and meadows) >30 ha.<br>• 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).<br>• Grassland sites considered significant should have a history of longevity, either abandoned fields, mature hayfields and pasturelands that are at least 5 years or older.<br>• The Indicator bird species are area sensitive requiring larger grassland areas than the common grassland species. | Upland Sandpiper<br>Grasshopper Sparrow<br>Vesper Sparrow<br>Northern Harrier<br>Savannah Sparrow<br><br>**Special Concern**<br>Short-eared Owl | **Field Studies confirm:**<br><br>• Presence of nesting or breeding of two or more of the listed species.<br>• A field with one or more breeding Short-eared Owls is to be considered SWH.<br>• The area of SWH is the contiguous ELC ecosite field areas.<br>• Conduct field investigations of the most likely areas in spring and early summer when birds are singing and defending their territories.<br>• Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”.<br>• **SWHMiST Index #32** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
|---|---|---|---|---|---|
| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| **Shrub/Early Successional Bird Breeding Habitat**<br><br>**Rationale;**<br>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<br>CUT2<br>CUS1<br>CUS2<br>CUW1<br>CUW2<br><br>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.<br>• 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).<br>• Shrub thicket habitats (>10 ha) are most likely to support and sustain a diversity of these species.<br>• Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or pasturelands. | **Indicator Spp:**<br>Brown Thrasher<br>Clay-coloured Sparrow<br><br>**Common Spp.**<br>Field Sparrow<br>Black-billed Cuckoo<br>Eastern Towhee<br>Willow Flycatcher<br><br>**Special Concern:**<br>Yellow-breasted Chat<br>Golden-winged Warbler | **Field Studies confirm:**<br><br>• Presence of nesting or breeding of one of the indicator species and at least two of the common species.<br>• A habitat with breeding Yellow-breasted Chat or Golden-winged Warbler is to be considered SWH.<br>• The area of the SWH is the contiguous ELC ecosite field/thicket area.<br>• Conduct field investigations of the most likely areas in spring and early summer when birds are singing and defending their territories.<br>• Evaluation methods to follow “Bird and Bird Habitats: Guidelines for Wind Power Projects”.<br>• **SWHMiST cxlix Index #33** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Terrestrial Crayfish**<br><br>**Rationale:**<br>Terrestrial Crayfish are only found within SW Ontario in Canada and their habitats are very rare. | MAM1<br>MAM2<br>MAM3<br>MAM4<br>MAM5<br>MAM6<br>MAS1<br>MAS2<br>MAS3<br>SWD<br>SWT<br>SWM<br><br>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.<br>• Constructs burrows in marshes, mudflats, meadows, the ground can’t be too moist. Can often be found far from water.<br>• 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*)<br><br>Devil Crayfish or Meadow Crayfish (*Cambarus diogenes*) | **Studies Confirm:**<br><br>• Presence of one or more individuals of species listed or their chimneys (burrows) in suitable meadow marsh, swamp or moist terrestrial sites.<br>• Area of ELC ecosite or an ecoelement area of meadow marsh or swamp within the larger ecosite area is the SWH.<br>• 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.<br>• **SWHMiST Index #36** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Special Concern and** | All plant and animal Element | When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or provincially Rare | All Special Concern and Provincially Rare (S1-S3, SH) plant and animal | **Studies Confirm:** | No Special Concern or provincially rare wildlife species were recorded in the |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
|---|---|---|---|---|---|
| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| **Rare Wildlife Species**<br><br>**Rationale:**<br>These species are quite rare or have experienced significant population declines in Ontario. | Occurrences (EO) within a 1 or 10 km grid.<br><br>Older element occurrences were recorded prior to GPS being available, therefore location information may lack accuracy. | species; linking candidate habitat on the site needs to be completed to ELC ecosites. | species. Lists of these species are tracked by the NHIC. | • 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.<br>• 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.<br>• **SWHMiST Index #37** provides development effects and mitigation measures. | background review or within the subject lands/ adjacent lands during the field studies that do not already receive protection as a SAR. |
| **Table 1.4.1: Animal Movement Corridors** | | | | | |
| **Amphibian Movement Corridors**<br><br>**Rationale;**<br>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.<br><br>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.<br>• 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<br>American Toad<br>Spotted Salamander<br>Four-toed Salamander<br>Blue-spotted Salamander<br>Gray Treefrog<br>Western Chorus Frog<br>Northern Leopard Frog<br>Pickerel Frog<br>Green Frog<br>Mink Frog<br>Bullfrog | • Field Studies must be conducted at the time of year when species are expected to be migrating or entering breeding sites.<br>• Corridors should consist of native vegetation, with several layers of vegetation.<br>• Corridors unbroken by roads, waterways or bodies, and undeveloped areas are most significant.<br>• 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.<br>• Shorter corridors are more significant than longer corridors, however amphibians must be able to get to and from their summer and breeding habitat.<br>• **SWHMiST Index #40** provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **Deer Movement Corridors**<br><br>**Rationale:**<br>Corridors important for all species to be able to access seasonally important life-cycle habitats or to access new habitat for | Corridors may be found in all forested ecosites.<br><br>A Project Proposal in Stratum II Deer Wintering Area has potential to contain corridors. | Movement corridor must be determined when Deer Wintering Habitat is confirmed as SWH from Table 1.1 of this schedule.<br><br>• A deer wintering habitat identified by the MNRF as SWH in Table 1.1 of this Schedule will have corridors that the deer use during fall migration and spring dispersion.<br>• Corridors typically follow riparian areas, woodlots, areas of physical geography (ravines, or ridges). | White-tailed Deer | • Studies must be conducted at the time of year when deer are migrating or moving to and from winter concentration areas.<br>• Corridors that lead to a deer wintering habitat should be unbroken by roads and residential areas.<br>• Corridors should be at least 200 m wide with gaps <20 m and if following riparian area with at least 15 m of vegetation on both sides of waterway.<br>• Shorter corridors are more significant than longer corridors, SWHMiST Index #39 provides development effects and mitigation measures. | No potential on the subject lands or adjacent lands. The habitat criteria for Significant Wildlife Habitat is not present.<br><br>Deer wintering habitat was not identified by the MNRF. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
|---|---|---|---|---|---|
| | **Ecological Land Classification Ecosite Codes** | **Habitat Criteria** | **Wildlife Species** | **Defining Criteria** | **Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands?** |
| dispersing individuals by minimizing their vulnerability while travelling. | | | | | |
| **Table 1.5.1: Significant Wildlife Habitat Exceptions for Ecodistricts within EcoRegion 6E** | | | | | |
| **6E-14**<br>**Mast Producing Areas**<br><br>**Rationale:**<br>The Bruce Peninsula has an isolated and distinct population of black bears. Maintenance of large woodland tracts with mast-producing tree species is important for bear. | **All Forested habitat represented by ELC Community Series**:<br><br>FOM<br>FOD | • Woodland ecosites >30 ha with mast-producing tree species, either soft (cherry) or hard (oak and beech).<br>• Black bears require forested habitat that provides cover, winter hibernation sites, and mast- producing tree species.<br>Forested habitats need to be large enough to provide cover and protection for black bears. | Black Bear | **All woodlands >30 ha with a 50% composition of these ELC Vegetation Types are considered significant:**<br><br>FOM1-1<br>FOM2-1<br>FOM3-1<br>FOD1-1<br>FOD1-2<br>FOD2-1<br>FOD2-2<br>FOD2-3<br>FOD2-4<br>FOD4-1<br>FOD5-2<br>FOD5-3<br>FOD5-7<br>FOD6-5<br><br>SWHMiST Index #3 provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |
| **6E- 17**<br>**Lek**<br><br>**Rationale:**<br>Sharp-tailed grouse only occur on Manitoulin Island in Ecoregion 6E, Leks are an important habitat to maintain their /*population. | CUM<br>CUS<br>CUT | • The Lek or dancing ground consists of bare, grassy or sparse shrubland. There is often a hill or rise in topography.<br>• Leks are typically a grassy field/meadow >15 ha with adjacent shrublands and >30 ha with adjacent deciduous woodland. Conifer trees within 500 m are not tolerated.<br>• Grasslands (field/meadow) are to be >15 ha when adjacent to shrubland and >30 ha when adjacent to deciduous woodland.<br>• Grasslands are to be undisturbed with low intensities of agriculture (light grazing or late haying). | Sharp-tailed Grouse | • Studies confirming Lek habitat are to be completed from late March to June.<br>• Any site confirmed with sharp-tailed grouse courtship activities is considered significant.<br>• The field/meadow ELC ecosites plus a 200 m radius area with shrub or deciduous woodland is the Lek habitat.<br>• SWHMiST cxlix Index #32 provides development effects and mitigation measures. | No potential on the the subject lands or adjacent lands. The ecosites are not present and the habitat criteria for Significant Wildlife Habitat is not present. |

| Habitat | CANDIDATE - Significant Wildlife Habitat | | CONFIRMED - Significant Wildlife Habitat | | |
|---|---|---|---|---|---|
| | Ecological Land Classification Ecosite Codes | Habitat Criteria | Wildlife Species | Defining Criteria | Presence of Candidate or Confirmed Habitat on the Subject Lands and / or Adjacent Lands? |
| | | • Leks will be used annually if not destroyed by cultivation or invasion by woody plants or tree planting. | | | |

BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

# Appendix F

# Species at Risk Assessment

**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] | Protected Species in Ontario List[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** | | | | | | | | |
| Bank Swallow (Source: OBBA) | *Riparia riparia* | S4B | - | THR | THR | 1 | Prefers open habitats including, farmland, lake/river shorelines, grasslands, and wetlands. Nests in exposed earthen banks along shorelines and in artificial sites, such as gravel pits.[5] | No habitat present on the subject lands or adjacent lands. |
| Barn Swallow (Source: OBBA) | *Hirundo rustica* | S4B | - | SC | THR | 1 | Prefers farmland, lake/river shorelines, wooded clearings, urban populated areas, rocky cliffs, and wetlands. Nests inside or on exterior of buildings; under bridges and in road culverts; on rock faces and in caves, etc.[5] | No habitat present on the subject lands or adjacent lands. |
| Bobolink (Source: NHIC and OBBA) | *Dolichonyx oryzivorus* | S4B | - | SC | THR | 1 | Generally, prefers open grasslands and hay fields for nesting, typically featuring relatively tall vegetation. Sometimes uses large fields of winter wheat and rye in southwestern Ontario. Sensitive to vegetation structure and composition. Positively associated with high grass-to-forb ratios; moderate litter depth; tolerate wetter portions of fields compared to Eastern Meadowlark (EAME) and more likely to nest closer to field centres rather than field margins. Lower tolerance to presence of patches of bare ground. Appear to prefer larger fields than EAME.[7] | No habitat present on the subject lands or adjacent lands. |
| Chimney Swift (Source: OBBA) | *Chaetura pelagica* | S3B | - | THR | THR | 1 | Historically nested in large hollow trees, other tree cavities and cracks in cliffs. Currently, most are found in developed areas in large, uncapped chimneys. Proximity to lakes is also a preferred habitat feature as they will forage for flying insects close to water.[5] | No habitat present on the subject lands or adjacent lands. |
| Eastern Meadowlark (Source: NHIC and OBBA) | *Sturnella magna* | S4B, S3N | - | THR | THR | 1 | Generally, prefers grassy pastures, meadows and hay fields. Prefers moderately tall grass with abundant litter cover, a high proportion of grass cover, moderate forb density, low proportions of shrub and woody vegetation cover, and low percent of bare ground. Prefers to nest in drier sites and frequently nests around field margins.[7] | No habitat present on the subject lands or adjacent lands. |
| Red-headed Woodpecker (Source: OBBA) | *Melanerpes erythrocephalus* | S3 | - | 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] | Candidate habitat found within the subject lands and adjacent lands (WOM community). |

| COMMON NAME | SCIENTIFIC NAME | Provincial S-RANK[1] | Protected Species in Ontario List[2] | COSEWIC[3] | Federal SARA Status[3] | Federal SARA Schedule[4] | Habitat Description[5] | Habitat Present on the Subject Lands and/or Adjacent Lands? |
|---|---|---|---|---|---|---|---|---|
| Wood Thrush (Source: NHIC and OBBA) | *Hylocichla mustelina* | S4B | - | 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.[5] | Candidate habitat found within the subject lands and adjacent lands (WOM community). |
| **Mammals** | | | | | | | | |
| Eastern Red Bat (Source: R.J. Burnside) | *Lasiurus borealis* | | END | END | - | - | Maternal Roosts: Often associated with deciduous or coniferous forests of any age class. Prefer tall trees reaching or exceeding the canopy. [12] | Candidate habitat within the subject lands and adjacent lands (WOM community). |
| Hoary Bat (Source: R.J. Burnside) | *Lasiurus cinereus* | S3 | END | END | - | - | Overwintering habitat: Caves and mines that remain above 0 degrees Celsius.<br><br>Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh).[8] | Candidate habitat within the subject lands and adjacent lands (WOM community). |
| Little Brown Myotis (Source: R.J. Burnside) | *Myotis lucifugus* | S3 | END | END | END | 1 | Overwintering habitat: Caves and mines that remain above 0 degrees Celsius.<br><br>Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh).[10] | Candidate habitat within the subject lands and adjacent lands (WOM community). |
| Northern Myotis (Source: R.J. Burnside) | *Myotis septentrionalis* | S3 | END | END | END | 1 | Overwintering habitat: Caves and mines that remain above 0 degrees Celsius.<br><br>Maternal Roosts: Often associated with cavities of large diameter trees (25-44 cm dbh). Occasionally found in structures (attics, barns etc.)[10] | Candidate habitat within the subject lands and adjacent lands (WOM community). |
| Silver-haired Bat (Source: R.J. Burnside) | *Lasionycteris noctivagans* | S3 | END | END | N/A | N/A | Overwintering habitat: Caves and mines that remain above 0 degrees Celsius.<br><br>Maternal Roosts: Often associated with buildings (attics, barns etc.). Occasionally found in trees (25-44 cm dbh). [8] | Candidate habitat within the subject lands and adjacent lands (WOM community). |

| COMMON NAME | SCIENTIFIC NAME | Provincial S-RANK[1] | Protected Species in Ontario List[2] | COSEWIC[3] | Federal SARA Status[3] | Federal SARA Schedule[4] | Habitat Description[5] | Habitat Present on the Subject Lands and/or Adjacent Lands? |
|---|---|---|---|---|---|---|---|---|
| Tri-colored Bat<br>(Source: R.J. Burnside) | *Perimyotis subflavus* | S3? | END | END | END | 1 | Overwintering habitat: Deepest parts of caves and mines where temperature is the least variable.<br><br>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.[10] | Candidate habitat within the subject lands and adjacent lands (WOM community). |
| Eastern Small-footed Myotis<br>(Source: R.J. Burnside) | *Myotis leibii* | S2S3 | END | END | END | 1 | Overwintering habitat: Cool caves and abandoned mines with low humidity and temperatures and relatively stable microclimates. Cave hibernacula known to be used by Eastern Small-footed Myotis in Ontario are found primarily in limestone, but also in sandstone.<br><br>Maternal Roosts: In Ontario, summer habitats, including sites of maternity colonies, are very poorly understood. Some reports include anthropogenic buildings (shed/barn, old structures), rocky habitats. However, the extent of the use of summer rock roosts in Ontario has not been determined.[11] | Candidate habitat within the subject lands and adjacent lands (WOM community). |
| **Plants** | | | | | | | | |
| Butternut<br>(Source: R.J. 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 southern Ontario, south of the Canadian Shield.[8] | No Butternuts recorded within the subject lands. |
| Black Ash<br>(Source: R.J. Burnside) | *Fraxinus nigra* | S4 | END | THR | - | - | Predominantly a wetland species found in swamps, floodplains and fens. [8] | No Black Ash recorded within the subject lands. |
| **Reptiles and Amphibians** | | | | | | | | |
| Blanding's Turtle<br>(Source: ORA) | *Emydoidea blandingii* | S3 | THR | END | END | 1 | Live in shallow water, usually in large wetlands and shallow lakes with lots of water plants. Can also be found hundreds of meters away from | No water features are within the subject lands. Small tributary is located in adjacent lands, however it does not meet the habitat criteria for this species. |

| COMMON NAME | SCIENTIFIC NAME | Provincial S-RANK[1] | Protected Species in Ontario List[2] | COSEWIC[3] | Federal SARA Status[3] | Federal SARA Schedule[4] | Habitat Description[5] | Habitat Present on the Subject Lands and/or Adjacent Lands? |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | nearest waterbody when searching for a mate or travelling to a nesting site. [9] | |

** Sources: Natural Heritage Information Centre (NHIC) database of records searched on July 14, 2026 (1x1 km2 Square: 17NJ4735); Ontario Breeding Bird Atlas (2001-2005) searched on July 14, 2026 (Square 17NJ43) Ontario Reptile and Amphibian Atlas (ORAA) searched on July 14, 2026 (Square 17NJ43); Ontario Butterfly Atlas (OBA) searched on July 14, 2026 (Square 17NJ43); R.J. Burnside & Associates (Burnside) observations during ecological field surveys in 2025 or local habitat knowledge.

**[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] *Species Conservation 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.

**Sources:**

[5]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
[6]Species at Risk Public Registry https://species-registry.canada.ca/
[7]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.
[8]SARO List Species Descriptions (Species at risk in Ontario | ontario.ca)
[9]Ontario Nature Reptile and Amphibian Atlas (ON Reptile & Amphibian Atlas (ontarioinsects.org))
[10]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.
[11]Humphrey, C. 2017. Recovery Strategy for the Eastern Small-footed Myotis (*Myotis leibii*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources and Forestry, Peterborough, Ontario. vii + 76 pp.
[12] COSSARO. 2024. Ontario Species at Risk Evaluation Report for Eastern Red Bat.

R.J. Burnside & Associates Limited