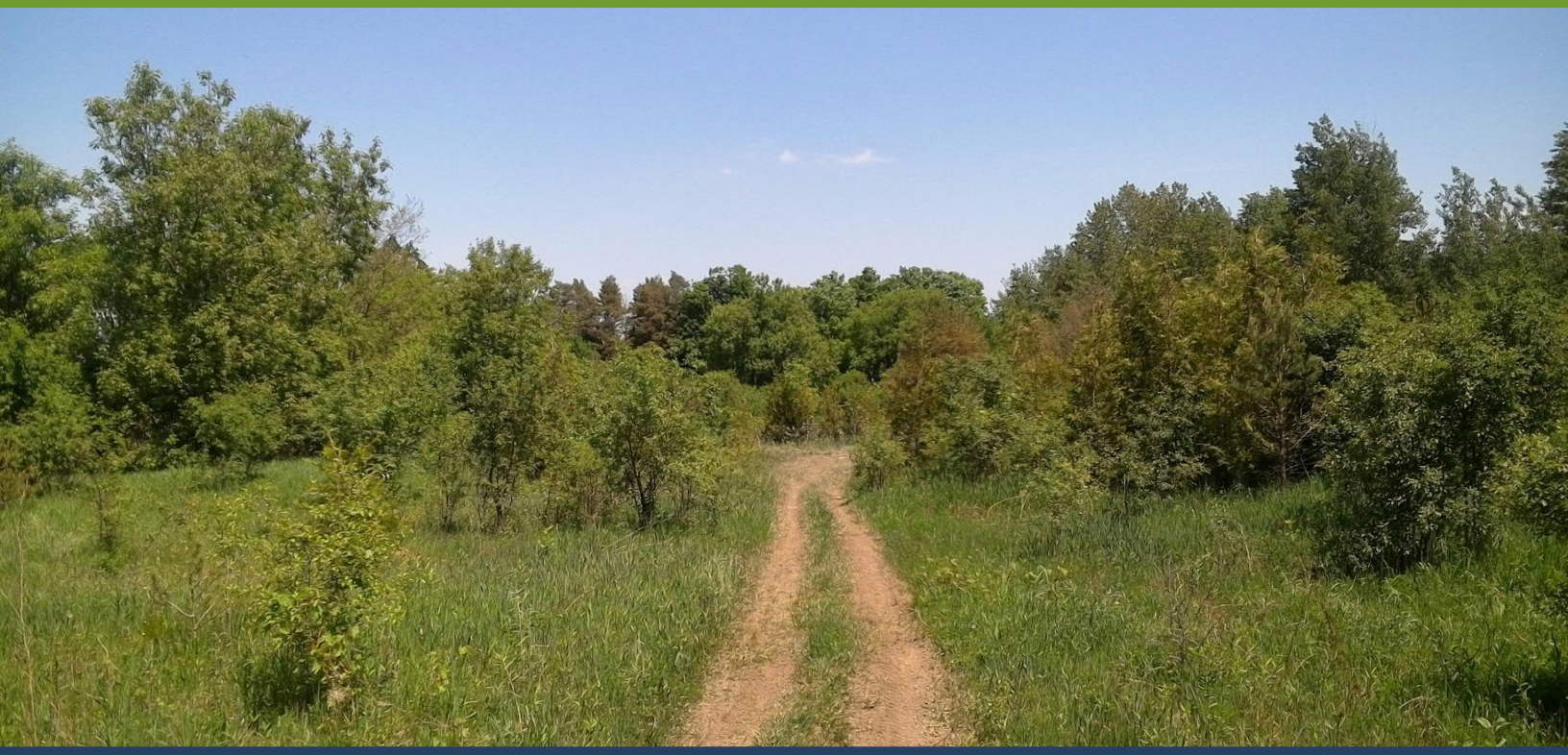
ENVIRONMENTAL IMPACT STUDY

Pt. Lot 35,Conc. 6, Udora

December 2022 updated February 2025



RIVERSTONE

ENVIRONMENTAL SOLUTIONS INC.

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February 19, 2025
RS# 2022-097

J&J Developments
c/o John Cooper

SUBJECT: Environmental Impact Study, Pt. Lot 35, Conc. 6, Udora, Township of Uxbridge

Dear John:

RiverStone Environmental Solutions Inc. is pleased to provide you with the attached report.

Please contact us if there are any questions regarding the report, or if further information is required.

Best regards,

RiverStone Environmental Solutions Inc.

Bev Wicks, Ph.D.
Senior Ecologist/ Principal

ENVIRONMENTAL ASSESSMENT NON-TECHNICAL SUMMARY

<table>
<tr><td colspan="2">Type of Study
Environmental Impact Study</td><td>Date
February 19, 2025</td></tr>
<tr><td>Project Manager
Bev Wicks</td><td>Legal Description
Pt. Lot 35, Conc. 6, Udora, Township of Uxbridge</td><td>Development Proposed
Plan of Subdivision</td></tr>
<tr><td></td><td>Planning Authorities
Township of Uxbridge</td><td>Owner/Agent
J&J Developments
c/o John Cooper</td></tr>
<tr><td colspan="3"><u>Report Summary</u>

This study has been prepared to assess natural heritage constraints associated with a property described as Part of Lot 35, Concession 6 in the Township of Uxbridge (Hamlet of Udora). It is our understanding that the proponent is preparing an application to subdivide/reconfigure one or more existing lots to create a total of seven residential building lots. Based on both a desktop assessment and on-site investigation, RiverStone has determined that:

1. The study area is located within one or more natural heritage features that may receive protections under applicable policies and environmental regulations.
2. Development of proposed lots would inherently result in a loss of natural vegetation cover; however, it is not expected that this will result in a negative impact to the functions of any features that may be considered significant under the policy context.
3. Further discussion is provided in this report to assess the functionality of on-site features and provide recommendations for mitigation where feasible and applicable.

Based on our assessment, it is RiverStone’s opinion that the proposed works can be implemented in a manner that is consistent with applicable planning policies. To achieve this, the development will need to undertake mitigation planning and obtain one or more regulatory approvals. The report below outlines the steps to ensuring compliance in this regard.</td></tr>
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1 BACKGROUND & CONTEXT

RiverStone Environmental Solutions Inc. (hereafter RiverStone) was retained by 2695867 Ontario Inc. to prepare an Environmental Impact Study (EIS) report for a small subdivision development in the hamlet of Udora, Township of Uxbridge (hereafter the 'township'). The proposed development location is described legally as Pt. Lot 35, Conc. 6, comprising a total of two existing privately owned parcels and a third parcel that is owned by the township as an existing road allowance. Combined, the collection of existing parcels is referred to in the report as the 'subject lands'. The general location of the subject lands is depicted in **Figure 1** and **Figure 2** displays the existing parcel configuration.

It is our understanding that proposed development would involve creation/reconfiguration of existing parcels within the subject lands to create a total of seven (7) single detached building lots. The existing municipal road allowance associated with the subject lands represents an unopened extension of an existing residential street to the south called Bird Smith Ct. The proposed subdivision would generally make use of the existing configuration of the road allowance, with a portion of the allowance presumably to be purchased by the proponent and integrated into the proposed lot fabric. A stormwater management pond is proposed to be accessed via easement or future acquisition, and in exchange for the right of way from the township, land from J&J developments would be given to the town and could be used to construct a land swap. Being situated between areas of existing development with the hamlet of Udora, the proposal represents a form of in-fill development. While the exact boundaries of the hamlet settlement area are not clear, we assume that the subject lands are contained within the settlement boundary as these, and adjacent parcels are all zoned for Hamlet Residential (HR) in the Township's Zoning Bylaw (Oct 2021 consolidation – see **Appendix 1**).

Despite the location within a hamlet and a clear history of anthropogenic influences, the subject lands contain a mix of successional natural heritage features. This report has been prepared to delineate the extent of relevant natural heritage features and identify/characterize any potential significant functions. We further assess the potential for proposed development to result in a negative impact to any such features and functions and identify requirements for protection or mitigation through the planning and development process. This report is intended to satisfy policies of the Township's OP related to preparation of an EIS.

2 APPROACH AND METHODS

The approach and methods used to carry out this EIS are detailed in this section. Broadly speaking, this includes:

1. Identifying a study area in which to focus assessment efforts.
2. Gathering and reviewing background biophysical information for the study area, including existing natural feature mapping and records for species of conservation interest which are relevant to the study area.
3. Conducting site investigations and targeted survey methods (where appropriate), as well as consulting with relevant agencies, to field-verify the presence or absence of relevant features, *e.g.*, woodlands, wetlands, habitat for endangered or threatened species, etc.
4. Determining the potential for negative impacts to identified features associated with implementation of development plans.

5. Identifying methods by which potential negative impacts can be mitigated via avoidance, minimization, and/or compensation measures.

2.1 Identification of Study Area

In defining a study area, we have included the direct footprint of the proposed subdivision and municipal roadways. The study area also incorporates a 120 m radius around all limits of the proposed development footprint. This is intended to ensure appropriate consideration for natural heritage features and functions of adjacent lands, consistent with direction in the Natural Heritage Reference Manual (NHRM) under the Provincial Policy Statement (PPS).

2.2 Background Information Sources Reviewed

Information pertaining to the natural features and functions of the subject and the surrounding lands was obtained from the following sources:

- **Township of Uxbridge Official Plan** & Schedules (Consolidated Jan 2014)
- **Lake Simcoe Region Conservation Authority Regulated Area (LSRCA)** Mapping
- **Ministry of Natural Resources and Forestry (MNRF) Natural Heritage Areas and Natural Heritage Information Centre (NHIC)** database regarding information on occurrences of SAR and provincially tracked species (squares: 17PK4401, 17PK4501); accessed Feb 2024, at: http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US).
- **Ontario Breeding Bird Atlas (OBBA) database and the Atlas of the Breeding Birds of Ontario, 2001–2005** (Cadman et al. 2007) regarding birds that were documented to be breeding in the vicinity of the study area during the 2001–2005 period (accessed Feb 2024 at: http://www.birdsontario.org/atlas/squareinfo.jsp).
- **Ontario Reptile and Amphibian Atlas (ORAA)** database regarding records of reptiles and amphibians that have been observed within the vicinity of the study area (accessed Feb 2024 at: http://www.ontarioinsects.org/herpatlas/herp_online.html).
- **Distribution of Fish Species at Risk** generated by Fisheries and Oceans Canada (accessed at: http://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html).
- **Atlas of the Mammals of Ontario** (Dobbyn 1994) regarding mammal records within and adjacent to the study area.
- **Physiography of Southern Ontario** (Chapman and Putnam 2007) for information pertaining to the physiography and soils of the study area and adjacent lands.
- Digital Ontario base maps and aerial photography resources.

2.3 Site Assessment Methods

2.3.1 Habitat-based Wildlife Assessment

RiverStone's primary approach to site assessment is habitat-based. We first focus on evaluating the potential for significant features and species within an area of interest, prior to undertaking any targeted assessments or surveys. An area is considered potential habitat if it satisfies several criteria,

usually specific to a species, but occasionally characteristic of a broader group (*e.g*., several species of turtles use sandy shorelines for nesting, several species of bats use cavity trees as day roosts and maternity sites, etc.). Physical attributes of a site that can be used to assess habitat function include structural characteristics (*e.g*., age and composition of forest canopy, water depth), ecological community (*e.g.*, meadow marsh, rock barren, coldwater stream), and structural connectivity to other habitat features required by a species of interest or indicator species. Species-specific habitat preferences and/or affinities are determined from status reports produced by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), Cadman et al. (2007), published and unpublished documents, and direct experience.

2.3.2 Targeted Biological Assessment

Where appropriate, RiverStone explores further species-specific assessments in accordance with applicable standard methods and protocols. Targeted survey efforts may be undertaken due to one or more triggers, such as a specific request from an approval authority, an existing record for a species of interest, or a limitation to a habitat-based assessment (*e.g*., limited property access). For this study, targeted survey methodologies were employed to support inventory and habitat assessment for one or more species/groups, as described in **Sections 2.3.2.1** and **2.3.2.2** below. RiverStone's plan for targeted survey effort was intended to satisfy study expectation outlined by LSRCA (**Appendix 2**), and to inform a review of compliance and potential authorizations requirements of the ESA.

2.3.2.1 *Breeding Bird Survey*

Breeding bird surveys are conducted following general standards of the Ontario Breeding Bird Atlas (OBBA) protocol (Bird Studies Canada et al. 2001). Surveys are conducted at the appropriate time of day (between dawn and 5 hours after dawn), and during appropriate weather conditions (no rain, wind speed ≤3 on the Beaufort Wind Scale). The purpose of this exercise is two-fold: to identify the presence of potential threatened/endangered bird species, and/or to identify species which may indicate the presence of SWH associated with one or more vegetation communities. The timing, conditions, and other details of RiverStone's breeding bird surveys is provided in **Table 1**. Further discussion on the results of this work is provided in **Section 3**, with potential additional implications pertaining to development constraints discussed in further sections as appropriate.

2.3.2.2 *Vascular Plant Survey*

Vascular plants are typically inventoried during vegetation community classification efforts and other on-site surveys. Additional observations may be recorded incidentally as part of any other field data collection efforts. In this case, surveys were conducted across the spring and summer growing season, allowing for observation of vascular plants during peak growing conditions. RiverStone maintains a working list of observed vascular plant species and collects field samples of unknown species for future verification. A summarized vegetation list is prepared and reviewed to determine if any observed species are identified as having a conservation status that is relevant within the jurisdiction. Conservation status may include a listing as special concern, threatened, or endangered under the provincial ESA and/or a sub-national conservation rank of S1-S3, as administered by the provincial Natural Heritage Information Center (NHIC).

2.3.3 Physical Assessment (Topography, Surficial Geology, & Drainage)

The geophysical setting of this property was determined using topographic mapping, soils mapping, geological mapping, aerial photography, and descriptions gathered through on-site investigations.

Drainage features were identified through the review of background mapping resources and/or delineated in the field.

2.3.4 Vegetation Community Assessment

All natural vegetation communities on the subject property were mapped according to Ecological Land Classification (ELC) community tables (Lee et al., 1998). ELC defines ecological units or communities based on bedrock, climate (temperature, precipitation), physiography (soils, slope, aspect), and corresponding vegetation. Use of the system permits biologists and other land managers to use a common language to describe vegetation communities, which in turn facilitates the identification of communities likely to support certain natural heritage features or functions. The ELC system is an organizational framework that can be applied at different scales. The ecological units most useful for site-specific evaluations are ecosites and vegetation types (also known as ecoelements). In our experience, the ELC classification key is not comprehensive, and improvised classifications are occasionally used to describe communities, e.g., anthropogenic features. Vegetation communities were delineated via aerial photo interpretation and subsequently confirmed and refined in the field. The boundaries of any identified wetlands were delineated in accordance with the "50% wetland vegetation rule" as directed by the Ontario Wetland Evaluation System (OWES), where feasible.

2.3.5 On-Site Investigations

The background review of biophysical information and general preliminary assessment informed the scoping of field data collection activities undertaken in 2022. Cumulatively, site investigations were focused on characterizing and delineating biophysical features that are considered relevant under the specified scope of this assessment, including potential wetlands, woodlands, and biophysical characteristics of the site as they relate to potential habitat for endangered or threatened species. Overall, the on-site data collection effort was considered appropriate given the location and scale of the proposed development plan. Evidence for the presence of a species (or use of an area by a species) was determined from visual and/or auditory documentation (*e.g.*, song, call) and/or observation of nests, tracks, burrows, browse, and scats (where applicable). Discrete feature boundaries (*e.g.*, woodlands) were delineated with a high-accuracy GPS receiver and all relevant features were photographed and catalogued for inclusion in this report (**Appendix 3**).

Table 1 below summarizes the details of field investigations and primary tasks undertaken in support of the EIS.

Table 1. Site Investigation Summary.

Date	Primary tasks	Staff		Hours Spent on Site
May 29, 2022	General recon review, ELC, vascular plant survey, breeding bird survey 1	Mike Francis,	Air Temperature: 17°C; Beaufort Wind: 2; Cloud Cover: 50%; Precipitation: N/A	5 hours
June 13, 2022	Breeding bird survey 2	Mike Francis	Air Temperature: 12°C; Beaufort Wind: 1; Cloud Cover: 0%; Precipitation: N/A	2 hours
July 8, 2022	Breeding bird survey 3, vascular plant survey	Mike Francis	Air Temperature: 20°C; Beaufort Wind: 0; Cloud Cover: 0-20%; Precipitation N/A	3 hours

July 25, 2022	Feature review/delineation with LSRCA	Mike Francis, Jessica Chan (LSRCA)	Air Temperature: 24°C; Beaufort Wind: 0-1; Cloud Cover: 40%; Precipitation: N/A	4 hours

2.4 Key Natural Heritage/Hydrologic Feature Assessment

Provincial and local planning policies employ varying terms for natural heritage features and designations that have recognized 'statuses' within the applicable planning jurisdiction. The study area is located within the planning area for Ontario's Greenbelt Plan and partially within the planning area for the Lake Simcoe Protection Plan (LSPP), the terminology used in this report is consistent with the Greenbelt Plan and LSPP, including reference to relevant features as 'key natural heritage features' (KNHF) and 'key hydrologic features' (KHF). RiverStone conducted a review of the background information sources identified in **Section 2.2** to determine if KNHF/KHF have been identified in association with the subject property by the province and/or local planning authority. The definition of KNHF/KHFs is generally consistent under both the Greenbelt Plan and LSPP; however, the Greenbelt Plan definition is most exhaustive and includes the following:

- Permanent & intermittent streams
- Lakes (and their littoral zones)
- Seepage areas and springs
- Wetlands (including provincially significant wetlands)
- Fish habitat
- Sand barrens, savannahs, tallgrass prairies, and alvars.
- Areas of natural and scientific interest (life science)
- Significant valleylands
- Significant woodlands
- Habitat of endangered and threatened species
- Significant wildlife habitat (includes habitat for rare and special concern species)

RiverStone assesses the potential presence of each of the above KNHF/KHF in accordance with applicable technical guidance documents, including the following:

- *Greenbelt Technical Paper 1 – Technical Definitions and Criteria for Key Natural Heritage Features in the Natural Heritage System of the Protected Countryside* (2005; updated by MNRF as of 2012)
- *Natural Heritage Reference Manual (NHRM) for the Natural Heritage Policies of the Provincial Policy Statement* (MNRF 2010)
- *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (MNRF 2015).

The potential presence/absence of relevant species of conservation interest, such as endangered and threatened species, are assessed using a combination of the background information review outlined in **Section 2.2** and the habitat-based approach outlined in **Section 2.3.1**. Our assessment of KNHF/KHF is provided in **Section 4** of this report.

2.5 Impact Assessment and Mitigation Planning

To carry out a rigorous and defensible ecological assessment of potential impacts associated with the proposed development, RiverStone employs the following approach.

1. *Predict* impacts to features and species of conservation interest on the subject property and adjacent lands based on the proposed development plan (from construction to post-completion), including both direct (*e.g.*, vegetation clearance) and indirect (*e.g*., light pollution, encroachment post-development) impacts.
2. *Evaluate the significance* of predicted impacts to features and species of conservation interest based on their spatial extent, magnitude, timing, frequency, and duration.
3. *Assess the probability or likelihood* that the predicted impacts will occur at the level of significance expected (*e.g.*, high, medium, low probability).

In instances where the potential for negative impacts to features or species of conservation interest exist, ecologically meaningful mitigation measures are offered to avoid, minimize, and/or compensate for such impacts. RiverStone's impact assessment and recommended mitigation measures are provided in **Section 5.**

2.6 Assessment of Conformance with Applicable Environmental Policies

There are several environmental policies (*e.g*., statutes, regulations, plans, guidance documents, etc.) that may apply to the study area and proposed development, which are listed below. A general assessment of the proposed development's consistency and conformity with these environmental policies is offered in **Section 6**.

- Federal *Migratory Birds Convention Act*, S.C. 1994, c. 22
- Provincial Policy Statement, 2024, pursuant to the *Planning Act,* R.S.O. 1990, c. P.13
- Provincial *Endangered Species Act*, S.O. 2007, c. 6
- Greenbelt Plan (2017)
- Lake Simcoe Protection Plan (2009)
- Region of Durham Official Plan (2020)
- Township of Uxbridge Official Plan (2014)

3 EXISTING CONDITIONS

3.1 General Site Conditions & Land Use History

The study area is located within the southwestern corner of the hamlet of Udora in the Township of Uxbridge. Conditions across the entirety of the study area are reflective of a history of successive anthropogenic influences and land uses. The Region of Durham Interactive Mapping application does not appear to provide historical imagery; however, being on the boundary of York Region, we were able to review York's interactive mapping for successive historical images of former land uses on the subject lands. These images are interpreted as follows:

- Dating back to the 1954 aerial image, the subject lands are entirely cleared of vegetation and appear to be largely used for agricultural purposes.

- In a 1970 image, the subject lands and adjacent lands appear to be functioning as a vehicle 'junk yard', with no discernable natural vegetation or features present (see **Appendix 4**).

- By 1999, the subject lands appear entirely vacant (see **Appendix 4**), with traces of young trees beginning to establish along the margins of hedgerows, etc. on adjacent lands. A dwelling is present in the northeast corner of the subject lands.

- By 2007, the subject lands appear consistent with 1999 imagery, with continued sparse regeneration of vegetation. The lands adjacent to the south are in the process of being developed in the subdivision that exists today. The dwelling in the northeast corner appears to have been removed.

- Successive images from 2007 to present depict steady succession of sparse vegetation across the subject lands and adjacent lands, including rapid expansion of a coniferous community located to the west (determined to be Scots Pine). A network of off-road vehicle trails is established across the subject lands.

Current on-site conditions are generally consistent, with a mix of successional vegetation cover spread across the formerly open area. The only active use of the subject lands appears to be informal trails, both for walking and off-road vehicles. No formal infrastructure or structures are present within the subject lands; however, existing residential parcels are present on all boundaries of the lands. The surrounding landscape includes the small hamlet of Udora and a mix of agricultural uses and natural corridors associated with several major river valleys. It is noted that lands directly adjacent to the west are similarly zoned for 'hamlet residential'. It is our understanding that these lands are subject to ongoing planning for future development.

3.2 Topography, Physiography, and Drainage

The subject lands are situated within the Simcoe Lowlands physiographic region (Chapman and Putnam 1984), contained along the interface of a broad stretch of drumlinized till plain to the south/southeast and sand plain to the north/northwest. Large swaths of the surrounding landscape are interspersed by accumulated organic materials associated with the sluggish drainage corridors of Uxbridge and Pefferlaw Brooks. Ontario Soil Survey mapping categorizes on-site soils as a sandy loam, part of the Pontypool series. Pontypool soils are typically associated with hilly topography, including areas of steep slopes and small depressional basins. Surface organic content is typically low, with overall rapid infiltration rates.

Based on our site review, the subject lands are a mix of flat tablelands separated by a north-facing slope that occurs in the southern half of the lands. No surface drainage features are present within the subject lands; however, one very small depressional area occurs at the base of the aforementioned slope. This area, occurring within the existing road allowance, has been highly compacted by vehicle use and exhibits poor surface drainage.

3.3 Vegetation Conditions

Existing vegetation communities within the subject lands were first assessed via desktop exercise. Preliminary community polygons were mapped using background information sources, including

historical and current aerial photographs. Community delineations were then ground-truthed and refined during site investigations where feasible. Given the anthropogenic history of the site and successional nature of on-site vegetation, the use of ELC may be considered impractical. All identified community polygons represent a form of 'cultural' assemblage, a classification that is often assigned as a catch-all for highly anthropogenic or non-conforming cover types. Combinations or 'complexes' of vegetation communities are used to identify areas that exhibit a reoccurring mosaic of conditions.

All interpretation and classification of vegetation communities was conducted by experts certified in ELC and OWES. On-site limits of potentially constraining features were delineation in the field with staff from LSRCA as per **Table 1**. Vegetation community mapping in accordance with Lee et al. (1998) is provided in **Figure 2**, and vegetation community descriptions are provided in the sections below. Each description includes a list of representative plant species within each community. The overall diversity of vascular plant species observed within the subject lands is relatively low, with all species considered common. A large proportion of observed species are nonnative and, in many cases, considered invasive. **Appendix 5** contains a list of observed species.

3.3.1 ANTH: Anthropogenic

This classification is assigned to lands in the northern portion of the subject lands where neighboring residential areas (i.e., grassed lawns) have extended beyond the property lines. These areas are manicured and contain no natural vegetation cover.

3.3.2 CUM1/CUT1: Cultural Meadow/Thicket Complex

This classification is assigned to a variable mix of relatively open successional communities. Scattered dry meadows are interspersed by young cultural thickets and margins of spreading cultural woodland communities. Herbaceous cover includes typical old field pasture species such as Bluejoint (*Poa compressa*), Orchardgrass (*Dactylis glomerata*), Wild Carrot (*Daucus carota*), Smooth Brome (*Bromus inermis*), Milkweed (*Asclepias syriaca*), and Goldenrod (*Solidago canadensis*). Various areas have been heavily colonized by invasive species such as European Swallowwort (*Cynanchum rossicum*) and Knapweed (*Centaurea stoebe*). Thicket components of this community are highly variable, with clusters of Sumac (*Rhus typhina*), Buckthorn (*Rhamnus cathartica*), and young Manitoba Maple (*Acer negundo*) and Walnut (*Juglans nigra*). A small inclusion of wetland vegetation is present in this community as shown on **Figure 2**. The area is highly disturbed by offroad vehicle rutting but contains a marginal mix of disturbance-tolerant wetland species such as Purple Loosestrife (*Lythrum salicaria*), wet meadow sedges (*Carex flava, C. granularis, C. aurea, Scirpus spp*.), Reed Canary-grass (*Phalaris arundinacea*), and some sparse Willow (*Salix spp*.).

3.3.3 FOD3/CUW1: Dry – Fresh Poplar Deciduous Forest/Cultural Woodland Complex

This small patch of successional woodland is located in the central portion of the subject lands. The canopy is largely composed of a young to mid-aged Aspen (*Populus tremuloides*) colony with mixed associates of Manitoba Maple, Walnut, and Scots Pine (*Pinus sylvestris*). Canopy coverage varies from full canopy to sparse (~50%), especially around the margins of the spreading Aspen colony. Lower strata include a shrub layer of Buckthorn, regeneration of canopy species, dense vine coverage of Grape (*Vitis riparia*) and Thicket Creeper (*Parthenocissus sp*.). Groundcover consists mainly of mixed meadow species, Dame's Rocket (*Hesperis matronalis*), and spreading mats of European Swallowwort.

3.3.4 FOD5: Dry – Fresh Deciduous Forest Ecosite

This small woodland patch represents the remnant area of semi-mature deciduous forest. Remnants of an old, demolished dwelling are present here, and the associated vegetation is reflective of this former use. The canopy is largely composed of semi-mature Sugar Maple (*Acer saccharum*), Norway Maple (*Acer platanoides*), and some larger Walnut. Lower cover includes a mix of Buckthorn, Alternate-leaved Dogwood (*Cornus alternifolia*), and dense carpets of Garlic Mustard (*Alliaria petiolata*) and Lily-of-the-Valley (*Convallaria majalis*).

3.3.5 CUP3-3: Scots Pine Cultural Plantation

This community represents a small portion of Scots Pine-dominant woodland/plantation that occurs in the western portion of the subject lands and continues off site to the west. Based on on-site observations, the canopy is almost entirely Scots Pine, with scattered occurrences of White Cedar (*Thuja occidentalis*). Buckthorn is dense in a lower sub-canopy/shrub layer, and groundcover is generally absent, except for along the perimeter where meadow species are present.

3.4 Fish & Wildlife Habitat

The cumulative results of RiverStone's background review and on-assessment indicate that the study area is likely to provide habitat for a limited assortment of wildlife. We note that the subject lands generally lack features that would be expected to support sensitive or significant habitat functions. Generic breeding bird assemblages are present, as per the results of our targeted breeding bird survey program (see **Appendix 6** for results and **Figure 2** for survey locations). Being situated in a rural settlement area with limited areas of woodland vegetation, the lands would reasonably be expected to support habitat for other urban-tolerant species, such as Raccoon (*Procyon lotor lotor*), Grey Squirrel (*Sciurus carolinensis*), etc. However, our site assessment documented no direct evidence of usage by wildlife species other than birds.

A search of the local area through the Natural Heritage Information Center (NHIC) database (data squares #17PK4401, 17PK4501) identifies element occurrences for multiple wildlife species of conservation concern such as Bobolink (*Dolichonyx oryzivorous*). A discussion on wildlife species and/or habitat features that are relevant within the policy context, including individuals of species at risk, are provided in **Section 4** of this report within the context of KNHFs.

4 KEY NATURAL HERITAGE/HYDROLOGIC FEATURE ASSESSMENT

Based on the biophysical information collected during background information gathering, and the summarized existing conditions of the study area as described above, **Table 2** below identifies all KNHFs (and KHFs) that are present (or potentially present) within the study area. RiverStone's rationale for identifying such features is provided in the sections that follow.

Table 2. Summary of the Assessment of Key Natural Heritage Features and Key Hydrologic Features within the Study Area.

Key Natural Heritage/Hydrologic Feature	Presence/Absence within the Study Area
Permanent & Intermittent Streams	Absent. See **Section 4.1**
Lakes and Littoral Zones	Absent. See **Section 4.2**

Key Natural Heritage/Hydrologic Feature	Presence/Absence within the Study Area
Seepage Areas and Springs	Absent. See **Section 4.3**
Wetlands (Including PSWs)	Potentially Present. See **Section 4.4**
Fish Habitat	Absent. See **Section 4.5**
Sand barrens, savannahs, tallgrass prairies, and alvars	Absent. See **Section 4.5**
Areas of Natural and Scientific Interest	Absent. See **Section 4.6**
Significant Valleylands	Absent. **See Section 4.7**
Significant Woodlands	Potentially Present. **See Section 4.8**
Habitat of Endangered and Threatened Species	Potentially Present. See **Section 4.9**
Significant Wildlife Habitat	Potentially Present. **See Section 4.10**

Shaded rows denote KNHF/KHF that are present or have the potential to be present within the study area.

4.1 Permanent & Intermittent Streams

As discussed, no surface drainage features were observed within the subject lands. The nearest drainage feature mapped in background resources is on the north side of Ravenshoe Rd., separated from the subject lands by several residential properties and a major roadway. This small drainage, represented by a roadside ditch, is not considered relevant to the proposal. No further assessment undertaken.

4.2 Lakes (and Littoral Zones)

No lakes were identified within the study area during RiverStone's on-site assessment or background information review. No further assessment undertaken.

4.3 Seepage Areas and Springs

No seeps or springs were identified within the study area during RiverStone's on-site assessment or background information review. No further assessment undertaken.

4.4 Wetlands

There are no wetlands mapped on the subject lands within background databases. The nearest mapped unevaluated wetland unit occurs approximately 150 m to the west, while a larger complex of designated provincially significant wetland occurs ~500 to the west of the subject lands. Notwithstanding, during on-site review staff noted a small area (~0.1 ha) containing sparse wetland vegetation within the central portion of the subject lands, contained within the township road allowance (see **Figure 2**). Despite containing wetland-typical vegetation, we do not believe that the area warrants recognition as a functional wetland feature. The area appears to have been subject to regular disturbance by off-road vehicles, that have created a series of deep tire ruts and generally denuded most vegetation cover across the width of the road allowance. Sparse disturbance-prone wetland vegetation does occur here, but no wetland functions or habitat structure are present. As discussed in **Section 3.3**. for the purposes of vegetation community classification, we have encompassed the area within the broader CUM/CUT complex and identified it as an inclusion. Further

discussion, including impacts and mitigation planning related to the proposed development plan is provided in **Section 5.1.**

4.5 Sand Barrens, Savannahs, Tallgrass Prairies, and Alvars

No vegetation communities representing sand barrens, savannahs, tallgrass prairies, or alvars were identified within the study area during RiverStone's on-site assessment or background information review. No further assessment undertaken.

4.6 Areas of Natural and Scientific Interest (Life Science)

It is the responsibility of the MNRF to designate and administer mapping for areas of natural and scientific interest (ANSIs). Based on available background mapping, the nearest ANSI occurs nearly 2 km west of the study area. No further assessment undertaken.

4.7 Significant Valleylands

Significant valleylands represent valleys or other landform depressions with recognized significant attributes, such as supporting natural vegetation cover with associated ecological linkages and corridors. Designation of significant valleylands is ultimately the responsibility of the relevant planning authority; however, site-specific designation of these feature can be undertaken using standardized provincial criteria provided by the province and/or the planning authority. No prominent valley landforms are present within the study area that might require further assessment as potential significant valleylands. No further assessment undertaken.

4.8 Significant Woodlands

Significant woodland features represent areas of forested cover with recognized significant attributes, such as large contiguous blocks of woodland, woodlands with unique characteristics, and/or woodlands that support economic values, cultural values, or other ecosystem services. It is generally the responsibility of the applicable planning authority to designate significant woodland on a comprehensive basis; however, where appropriate or required, identification of candidate significant woodland can be undertaken on a site-specific basis using standardized criteria endorsed by the province and/or the planning authority.

Based on our background review, schedules to the Township OP do not identify significant woodland in association with the subject property. We further reviewed schedules in the Region of Durham OP (see **Appendix 1**), including Schedule A (Regional Structure) and Schedule B (Greenbelt Natural Heritage System & Key Natural Heritage and Hydrologic Features). On a coarse scale, Schedule A2 depicts the subject lands as being contained outside of the regional 'Greenlands System'. Schedule B likewise depicts the subject lands as being outside of the Greenbelt Natural Heritage System and outside of the associated overlay of KNHFs and KHFs. Therefore, neither the lower- or upper-tier planning authority have designated significant woodland on or adjacent to the subject lands.

Notwithstanding the lack of existing designations related to woodland, it is acknowledged that woodland cover is present within the subject lands and adjacent lands. Therefore, additional site-specific assessment is provided herein to further review whether such features warrant potential designation and treatment as significant woodland in the planning process. Based on our site-specific assessment, there are three discernible 'patches' of woodland associated with the subject lands, all of which are characterized by successional/cultural assemblages. **Figure 2** depicts the limits of woodland

patches identified on the subject lands (verified on site with LSRCA staff) and community classifications for each. **Figure 3** provides additional context for contiguous woodland connections on adjacent lands and beyond; however, community structure for off-site woodlands is based on an estimate where applicable. The three woodland patches are summarized as follows:

- Patch 1 – Community FOD3/CUW1:
  - Measures approximately 0.3 ha and is fully contained on the subject lands.
- Patch 2 – Community FOD5:
  - Measures approximately 0.3 ha, with a small portion occurring on adjacent lands.
- Patch 3 – Community CUP3-3:
  - Measures approximately 2.3 ha, with the majority occurring on adjacent lands.

The following technical guidelines provide support to practitioners in the identification of significant woodland features within the jurisdiction:

- *Greenbelt Technical Paper 1 – Technical Definitions and Criteria for Key Natural Heritage Features in the Natural Heritage System of the Protected Countryside* (2005; updated by MNRF as of 2012)
- *Technical Definitions and Criteria for Identifying Key Natural Heritage Features and Key Hydrologic Features for the Lake Simcoe Protection Plan* (MNRF 2015)
- *Natural Heritage Reference Manual (NHRM) for the Natural Heritage Policies of the Provincial Policy Statement* (MNRF 2010)

RiverStone defers to the 'Greenbelt Technical Paper 1' cited above for primary guidance on criteria for site-specific determination of woodland significance. It is noted that the LSPP Technical Definitions for significant woodland are identical to those contained in the Greenbelt Plan paper. **Table 2** below outlines the various criteria provided in Technical Paper 1, with interpretation provided to assess the significance of the woodland feature identified within the study area.

Table 2. Assessment of significant woodland criteria contained in Greenbelt Technical Paper 1.

Criteria	Description	Area Threshold (north region)	Assessment
Size	Any woodlands of this size or greater are significant	10 hectares or more	The woodland features associated with the study area are well below this threshold. **Does not meet criteria.**
Natural Composition	Any woodlands containing this area of naturally occurring (not planted) trees listed in the table in Appendix D that meet the definition of woodland	4 hectares or more	The woodland features associated the study area is primarily composed of Scots Pine, Manitoba Maple, Black Walnut, and Trembling Aspen. The features do not support 4 ha or more of the

			species listed in Appendix D to Technical Paper 1. **Does not meet criteria.**
Age or Tree Size	Any woodlands of this size with either: a) 10 or more trees per ha that are either greater than 100 years old or 50 cm or more in diameter or b) containing a basal area of at least 8 square metres per hectare in native trees that are 40 cm or more in diameter	4 hectares or more	The woodland features associated with the study area are in very early states of woodland succession. Trees measuring 40-50 cm in diameter are absent. **Does not meet criteria.**
Proximity	Any woodlands of this size wholly or partially within 30 metres of a: significant wetland; significant habitat of an endangered or threatened species; significant woodland	4 hectares or more	The woodland features associated with the study area are not located within 30 m of significant wetlands, significant woodlands, or habitat for SAR. **Does not meet criteria.**
Rarity	Any woodlands of this size containing: a provincially rare treed vegetation community with an S1, S2 or S3 in its ranking by the MNR's NHIC; or habitat of a woodland plant species with an S1, S2 or S3 in its ranking or an 8, 9, or 10 in its Southern Ontario Coefficient of Conservatism by the NHIC, consisting of 10 or more individual stems or 100 or more square metres of leaf coverage	0.5 hectares or more	The woodland features do not contain provincially-rare treed vegetation communities. Provincially-rare woodland plant species were not observed and are not expected to occur. **Does not meet criteria.**

As per the assessment contained in **Table 2**, woodland features associated with the subject lands do not meet applicable significant woodland criteria contained Technical Paper 1. In addition to these area-based criteria, it is noted that the size and dimensions of the woodland feature are insufficient to support any 'interior' habitat, *i.e.*, areas of woodland located a minimum of 100-200 m from the nearest edge. The features are also situated outside of any applicable Natural Heritage System (see **Figure 1**) and in a location that supports no definable linkage or wildlife corridor. RiverStone's targeted breeding bird surveys did not document use of the woodland by any rare or otherwise habitat-specific breeding bird species. One or more of these woodland features are largely represented by invasive or otherwise locally-introduced species (*e.g.*, Scots Pine, Common Buckthorn, Manitoba Maple, Black Walnut, Norway Maple). Finally, we note that the largest of these woodland patches (Patch 3 as per above) is primarily contained on adjacent lands to the west. It is our understanding that this parcel is subject to an existing draft-approved Plan of Subdivision, meaning that the portion of woodland on adjacent lands is already subject to removal through existing approvals.

Based on our assessment above, it is clear that the woodlands associated with the subject lands are not designated as nor representative of significant woodlands. These features do not represent a KNHF for the purpose of applying relevant Greenbelt Plan, LSPP, or municipal OP policies. Notwithstanding, it is acknowledged that the woodland feature can be assumed to provide some general habitat functions, such as seasonal habitat for migratory birds. Therefore, the impact discussion provided in **Section 5.2** addresses potential impacts to general woodland habitat, providing mitigation recommendations where appropriate.

4.9 Habitat of Endangered and Threatened Species

To assess the potential presence of individuals and/or habitat for endangered and threatened species within the study area, RiverStone staff conducted the following:

- Review of the list of species designated as endangered and threatened in Ontario, as per Schedules 2 and 3 of Ontario Regulation 230/08 [(Species at Risk in Ontario List (SARO List)], located here: https://www.ontario.ca/laws/regulation/080230. In our experience, the potential presence of most provincially endangered and/or threatened species can be ruled out based on their limited geographical ranges in the province and/or a lack of specific habitat conditions which they require to carry out key life processes.
- Reviewed the NHIC database for existing records of element occurrences for endangered or threatened species (data squares 17PK4401, 17PK4501). Databases of Inaturalist, OBBA, and ORAA are also reviewed.
- On-site investigations undertaken in 2022, during which vegetation conditions were characterized for detailed habitat-based assessment.

Information from the above assessment process was used to inform a site-specific screening, as contained in **Appendix 7**. Through this screening, the species discussed below were identified as having the potential to be present within the subject property or directly adjacent lands. Where relevant, potential development-related impacts to these species are discussed further in **Section 5.3**.

4.9.1 Endangered Bat Species (*Myotis lucifugus, M. septentrionalis, Perimyotis subflavus*)

These species, assessed as a species guild (related species with similar habitat characteristics), include several bat species listed as endangered in Ontario. Bats are highly mobile; however, individuals and groups of the noted bat species are also recognized as having some degree of fidelity to suitable local sites for daily and seasonal 'roosting' activities. While some species (*i.e.*, *Myotis lucifugus*) exhibit a preference for roosting in anthropogenic structures, natural roosting sites are also important. Natural roosting sites are generally associated with mature forests containing a sufficient density of large trees in various stages of decay, otherwise known as 'snags'. Snags provide features such as cavities and/or loose bark, on which bats rely for shelter and thermoregulation throughout the active season.

Treed features within the subject lands are limited in extent, including scattered successional communities and young woodlands. The majority of individual trees are well under <25 cm diameter at breast height (DBH), a size threshold that is typically used in provincial guidance documents to identify trees that may represent important snags. Such conditions are generally not conducive to concentrations of snags, as the early stages of woodland growth have not yet provided for the decline and turnover of mature trees. While no formal snag density assessment has been conducted, RiverStone staff conducted a general qualitative review of woodland canopy conditions and did not observe any prominent clusters or concentrations of snags. Being situated within a settled area, and with plentiful areas of mature woodland available on the broader regional landscape, it is not expected that the subject lands would represent a major attractant for bats during the active season.

Typical direction from MECP prescribes that targeted surveys of treed habitats/snags are not necessary to quantify the quality/extent of potential habitat for endangered bat species IF a project would involve removal of only a small number of potential maternity or day roost trees in treed habitats (or none at all). This approach assumes that other appropriate mitigation measures (*i.e.*, timing windows) are employed to avoid impacts to individuals of endangered bat species. For the purpose of our

assessment, it is RiverStone's opinion that significant habitat features for bats species are unlikely to occur within the subject lands; however, it is not possible to rule out the potential for *individuals* of endangered bat species (or other bat species) to be present during the active season in any individual trees (i.e., through migration and regular daily movements). Further discussion, including an assessment of potential impacts to individuals of endangered bat species resulting from implementation of the proposed development plan, is provided in **Section 5.3.**

4.10 Significant Wildlife Habitat

SWH represents a range of habitat features that are recognized as providing specialized or otherwise important functions for various forms of wildlife. Designation of confirmed SWH is ultimately the responsibility of the relevant planning authority, and it is our understanding that no specific SWH designations have been applied to the study area. Notwithstanding, it is recognized that SWH features and functions are generally impractical to identify and designate on a broad scale, and candidate SWH can be identified on a site-specific basis, often triggered through a large-scale development application.

To ensure due diligence in this regard, RiverStone has reviewed applicable technical guidance for the identification of specific SWH features and functions as contained in the SWH Criteria Schedules for Ecoregion 6E (MNRF 2015). A preliminary assessment of the criteria schedules is contained within **Appendix 8**. The results of RiverStone's field program and background review indicate that SWH features/functions are unlikely to occur within the study area. Notwithstanding, there are existing local records for one or more species of special concern. Therefore, this single category is considered further, as discussed below.

4.10.1 Special Concern and Rare Wildlife Species

RiverStone staff have conducted a review of the list of species designated as special concern in Ontario, as per Schedule 4 of Ontario Regulation 230/08, located here: https://www.ontario.ca/laws/regulation/080230. RiverStone further reviewed several biodiversity databases for existing records of element occurrences for special concern or rare species, including: NHIC, iNaturalist, OBBA, and ORAA. Through a review of background and on-site survey data, as well as application of staff knowledge and experience, RiverStone noted the following species as being potentially present within the subject lands:

4.10.1.1 Monarch *(Danaus plexippus;* Special Concern)

Monarchs are ubiquitous within any open and successional habitats (*e.g*., meadows, roadsides, woodland edges) where its host plant, Milkweed (*Asclepias* spp.), occurs. Common Milkweed (*A. syriaca*) was noted as occurring within the subject lands in low densities, indicating potential for Monarchs to utilize portions of the subject lands to fulfill various life processes. We note that the NHIC database contains no records of element occurrence for this species associated with the subject property. Moreover, RiverStone staff observed no individuals Monarch during on-site investigations. While it is possible that this species could occur on the subject lands, there is no expectation that the area would represent significant habitat for this species. No further assessment provided.

4.10.1.2 Snapping Turtle *(Chelydra serpentina;* Special Concern)

NHIC's database contains a record of element occurrence for this species for one or more of the 1 km grid squares that overlap the subject lands. However, individual Snapping Turtle were not observed during RiverStone's on-site investigations and none of the on-site vegetation communities would be

capable of supporting functional habitat for this species. Despite the presence of a small, disturbed wetland inclusion within the cultural mosaic of the property, there are no areas of standing water, surface drainage features, or marsh vegetation assemblages that would provide suitable cover. In general, there is no expectation that this species would occur on the subject lands. No further assessment provided.

5 IMPACT ASSESSMENT AND RECOMMENDATIONS

As discussed in the introduction of this report, the proposed development location is described legally as Pt. Lot 35, Conc. 6, comprising a total of two existing privately owned parcels and a third parcel that is owned by the township as an existing road allowance. The general location of the subject lands is depicted in **Figure 1**; **Figure 2** displays the existing parcel configuration. It is our understanding that proposed development would involve creation/re-configuration of existing parcels within the subject lands to create a total of seven (7) residential building lots. A stormwater management pond which will outlet to Ravenshoe Road through a future easement or acquisition is also proposed. The existing municipal road allowance associated with the subject lands represents an unopened extension of an existing residential street to the south called Birdie Smith Ct. The proposed subdivision would generally make use of the existing configuration of the road allowance, with a portion of the allowance presumably to be purchased by the proponent and integrated into the proposed lot fabric and additional land from the proponent would be donated to the town for use in the proposed land swap.

As discussed in **Section 4**, one or more KNHF/KHFs have been confirmed or have the potential to occur within the subject lands and/or adjacent lands. The potential for negative impacts on all identified KNHF/KHFs is discussed in the sections below, and recommendations are listed (where applicable) to support a scenario of no net negative impacts and/or appropriate authorizations where impacts cannot be avoided. In assessing and identifying potential negative impacts through a development process, it is important to highlight how the PPS defines negative impacts, *i.e.*:

> "…*degradation that threatens the health and integrity of the natural features or ecological functions for which an area is identified due to single, multiple or successive development or site alteration activities*"

The NHRM provides more detailed guidance to practitioners in determining what constitutes a negative impact in the context of development and site alteration. Section 13.2 of the NHRM states the following:

> "*To determine negative impacts on a significant natural heritage feature or area, the cumulative negative impacts from development or site alteration activities (e.g., impacts that adversely affect the stability of the feature and its ability to continue) must be considered against the integrity of the feature. The current and future ecological functions of the natural feature or area as they relate to the surrounding natural heritage system (e.g., connectivity) must be considered as well. The PPS definition for "negative impacts" <u>does not state that all impacts are negative, nor does it preclude the use of mitigation to prevent, modify or alleviate the impacts to the significant natural heritage feature or area</u>*".

RiverStone's impact assessment is intended to be reflective of the above guidance, with consideration for the integrity and function of each feature as a whole, and in acknowledgement that not all development and site alteration represents a negative impact. Ultimately, RiverStone's assessment is intended to inform a review of the above proposal by the appropriate approval authority. Our

assessment is based on a review of existing conditions at the time of our site investigations. Our understanding of the proposed development is based on plans provided by the applicant as displayed in **Figure 3** and **Appendix 9**.

5.1 Wetlands

As discussed, a small wetland inclusion is contained within vegetation community CUM1/CUT1, measuring approximately 0.1 ha. Sparse patches of wetland vegetation are present in this location; however, the area is highly disturbed by regular off-road vehicle traffic and provides no structure that could support wetland-specific habitat functions. Given the land use history of the property, it may be that the presence of wetland vegetation is simply a result of soil compaction and rutting caused by regular off-road vehicle use.

This inclusion is proposed to be removed to accommodate development of the municipal roadway, meaning that feature-specific mitigation planning is not applicable. However, specific permissions may be required to facilitate removal of the wetland inclusion. The feature, while not currently included within LSRCA mapped regulation limit, may be subject to LSRCA's regulation (O. Reg. 179/06 under the *Conservation Authorities Act*). Despite its very small size, we are not aware of a minimum wetland size threshold that would preclude requirement for permission from LSRCA. We note that LSRCA administers an internal policy called the 'Ecological Offsetting Policy' which prescribes criteria for determining eligibility to offset for the removal of wetland features. The policy further outlines requirements for offsetting in scenarios where this is determined to be an appropriate mitigation strategy.

Acknowledging that avoidance and minimization are the default stages for mitigating impacts to wetland features, we highlight that the identified feature is situated in a municipal road allowance. As the proposed roadway is critical to facilitating access to the proposed parcels, avoidance/minimization would not appear to represent a viable option. As noted above, given the very small scale and highly disturbed nature of the feature, we don't believe that efforts to avoid and retain the feature are warranted.

Section 3.3.1.1 of LSRCA's offsetting policy regarding exceptions to requirements for wetland offsetting states the following:

> *Ecological offsetting will not be required for wetlands that are smaller than 0.5 ha or manmade features where it can be demonstrated to the satisfaction of the LSRCA, that the wetland or feature does not provide any of the following features or functions:*
>
> - *A groundwater hydrologic linkage to an adjacent key hydrologic or protected feature.*
> - *A component of or ecological linkage to an adjacent key natural heritage or protected feature.*
> - *A surface water hydrologic linkage (permanent or intermittent surface water connection) between the wetland and an adjacent key hydrologic or protected feature.*

Based on the above guidance, we recommend that the identified wetland inclusion be exempt from any requirement to offset. The feature is well below the applied size threshold of 0.5 ha and supports none of the listed features or functions. If the LSRCA does ultimately require offsetting for removal of the wetland inclusion, we would defer to their guidance on the process for quantifying and implementing such. Given that the feature is situated within lands owned by the Township, and removals would facilitate development of municipal infrastructure, the roles and responsibilities for offsetting would need to be determined by LSRCA.

5.2 Woodlands (Non-Significant)

As discussed in **Section 4.8**, woodland features associated with the subject lands are not designated as significant woodlands by any planning authority. Further, it is our opinion that these features do not meet technical criteria to be considered significant (*i.e.*, KNHF) for the purpose of applying relevant municipal and provincial planning policies. It is acknowledged that the LSRCA's Ecological Offsetting Plan, as discussed above regarding wetlands, is also intended to apply to woodland features. The document does not stipulate that offsetting requirements only apply to *significant* woodlands, with the inference being that offsetting requirements apply to all woodland features. However, we are unclear on the mechanism for applying offsetting requirements to features that are not protected under any municipal/provincial planning policies, nor regulated by the LSRCA. Further clarification may be required from LSRCA in this regard. Regardless, we note that Section 3.3.2.1 of the policy, relating to exceptions for woodland offsetting requirements, states the following:

> *Ecological offsetting will not be required … for woodlands identified smaller than 0.5 ha where it can be demonstrated to the satisfaction of the LSRCA that it does not provide any of the following features or functions:*
>
> - *Any woodlands wholly or partially within 30 m of a key natural heritage / key hydrological or protected feature.*
> - *Any woodland containing a provincially rare treed vegetation community with an S1, S2 or S3 in its ranking by the Ministry of Natural Resources and Forestry Natural Heritage Information Centre (NHIC).*
>
> *Additional exclusions may be considered for communities that are dominated by the invasive non-native tree species buckthorn (Rhamnus species) or Norway maple (Acer platanoides), which threaten good forestry practices and environmental management. Such exceptions may be considered where native species cover less than 10% of the ground and are represented by less than 100 stems of any size per hectare*.

Based on the above guidance, we recommend that any woodlands within the subject lands be exempt from any requirement to offset. Two of the three identified woodland patches are under the applied size threshold and contain no rare vegetation communities nor are they proximate to other KNHF/KHFs. The third woodland patch exceeds the 0.5 ha exemption threshold (when including off-site portions) but is composed almost entirely of Scots Pine and Common Buckthorn, both invasive/exotic species. If the LSRCA does ultimately require offsetting for any removal or partial removal of these woodland patches, we would defer to their guidance on the process for quantifying and implementing such. Given that the application for development involves subdivision/re-configuration of parcels, but includes no site-specific development concept, it is not possible to quantify the area of potential woodland removals through this assessment.

Notwithstanding the above discussion, it is acknowledged that general/generic habitat functions may be associated with on-site woodland patches, and mitigation measures should be employed on a best-efforts basis. The following measures are recommended in this regard:

- **Ensure that any future development of lots adjacent to retained woodland utilizes downward-facing directional lighting for backyard spaces to avoid light pollution into any retained natural areas.**

- **Avoid any removal of vegetation, including residential/ornamental plantings, between April – August of any given year. If vegetation removals must occur during this period, a nest survey should be conducted by a qualified avian biologist prior to commencement of construction activities to identify and locate active nests of migratory bird species covered by the MBCA or FWCA. If a nest is located or evidence of breeding noted, then a mitigation plan should be developed to address any potential impacts on migratory birds or their active nests. Mitigation may require establishing appropriate buffers around active nests or delaying construction activities until the conclusion of the nesting season.**

5.3 Habitat of Endangered & Threatened Species

As per Section 10 of the ESA, areas of identified habitat for any endangered or threatened species are protected from destruction, unless otherwise authorized. Additionally, Section 9 of the ESA protects individuals of endangered or threatened species, prohibiting individuals from being killed, harmed, or harassed without appropriate authorizations. In many cases, mitigation planning is sufficient to ensure that development can occur in a manner that is consistent with the above provisions. The following section(s) provide an assessment of potential impacts to any endangered or threatened species considered relevant to the development application, as determined through our screening exercise (**Appendix 6**) and subsequent assessment in **Section 4.9**.

5.3.1 Endangered Bats

In general, it is not expected that forested ecosites within the subject lands would support any significant or functional bat habitat. The structure and composition of woodland cover within the study area is not conducive to supporting roosting, foraging, or other key life processes for bats. Notwithstanding, it would be impossible to conclude that individuals of endangered bats could not occur within these lands during the active season, whether through incidental daily movements or seasonal migrations. For such scenarios, common direction from MECP regarding impact avoidance for individuals of endangered bats includes strict adherence to vegetation removal timing windows. By limiting the timing window in which trees can be removed to outside of the active season for bats, development activities can avoid incidental harm to individuals of endangered bat species. Assuming implementation of appropriate tree removal timing windows, there is no expectation that the proposal will result in any negative impacts to individuals of endangered bat species. Recommendations are clarified as follows:

- **Any tree removals required to accommodate potential future development take place outside of the season in which endangered bats may be active, *i.e.*, April 1 – Sept 30.**

- **If tree clearing must occur within the above-noted timing window, additional studies may need to be completed to confirm the presence or absence of SAR bats. These studies can include snag tree surveys and acoustic monitoring of the area where trees will be removed, by a qualified professional. If SAR bats may be impacted by the development proposal, the MECP should be contacted to determine if a permit would be required to proceed.**

6 COMPLIANCE WITH ENVIRONMENTAL LEGISLATION AND POLICIES

The following section outlines the federal, provincial, and municipal environmental legislation, including plans, regulations, and/or bylaws that are applicable to the proposed development. RiverStone provides a list of policies and provisions and summarizes the means by which the development can demonstrate conformity and consistency. Where potential conformity issues exist, we cite recommended mitigation strategies that are intended to guide the proposal toward meeting the intent of relevant requirements.

6.1 Federal *Fisheries Act*, R.S.C. 1985

The *Federal Fisheries Act* states that:

34.4 (1) No person shall carry on any work, undertaking or activity, other than fishing, that results in the death of fish.

35. (1) No person shall carry on any work, undertaking or activity that results in harmful alteration, disruption or destruction of fish habitat.

DFO further states that "under subsection 35(1) a person may carry on such works, undertakings or activities without contravening this prohibition, provided that they are carried on under the authority of one of the exceptions listed in subsection 35(2), and in accordance with the requirements of the appropriate exception. In most cases, this exception would be Ministerial authorizations granted to proponents in accordance with the *Authorizations Concerning Fish and Fish Habitat Protection Regulations."*

It is RiverStone's opinion that proposed development will not result in the death of fish or the harmful alteration, disruption, or destruction of fish habitat.

6.2 Federal *Migratory Birds Convention Act* (1994)

Section 6 of the Migratory Birds Regulations under the *Migratory Birds Convention Act, 1994* (MBCA) prohibits the disturbance or destruction of nests, eggs, or nest shelters of a migratory bird. The provincial *Fish and Wildlife Conservation Act, 1997* (FWCA) extends the protection of bird nests and eggs to species that are not listed under the Migratory Birds Regulations (e.g., Corvids).

Restricting clearing of vegetation for any current or future proposed development to times outside of the period of April 1 to August 31 inclusive, will prevent contravention of Section 6 of the regulations. As previously noted, if vegetation removal must occur during this period, a nest survey should be conducted by a qualified avian biologist prior to commencement of construction activities to identify and locate active nests of migratory bird species covered by the MBCA or FWCA. If a nest is located or evidence of breeding noted, then a mitigation plan should be developed to address any potential impacts on migratory birds or their active nests. Mitigation may require establishing appropriate buffers around active nests or delaying construction activities until the conclusion of the nesting season.

6.3 Provincial *Endangered Species Act*, S.O. 2007, c. 6

The ESA protects designated endangered and threatened species in Ontario from being killed, harmed, or harassed (s. 9) or having their habitat damaged or destroyed (s. 10). **Section 4.10** identified one or more species that have the potential to occur within or adjacent to the study area and provided an

explanation of presence/absence and extent of potential habitat based on available technical guidelines and literature. **Section 5.2** provided a subsequent discussion of potential impacts to species for which habitat has been confirmed or is considered likely to occur. Based on this assessment, and assuming full implementation of mitigation measures (where recommended), it is RiverStone's opinion that no endangered or threatened species or their habitat are expected to be negatively impacted by implementation of the proposed development. On this basis, there is no expectation that the proposed development will result in a contravention of the ESA. It is noted that this assessment does not represent 'clearance' with respect to ESA compliance. It remains a proponent's continued and sole responsibility to ensure that a project does not result in a contravention to the ESA.

6.4 Provincial *Conservation Authorities Act*, O.Reg 41/24

LSRCA's regulatory jurisdiction extends to areas within and adjacent to valley and stream corridors, shorelines, hazard lands (*i.e.,* floodplains, valley slopes), watercourses, and wetlands as provided for under Regulation 41/24 of the Conservation Authorities Act. LSRCA's regulated area does not presently overlap with the subject lands (see **Appendix 1**); however, as noted in this report, a small wetland inclusion is present that may be subject to LSRCA's regulation. Therefore, a permit from LSRCA may be required for the proposed development to proceed. The details contained in this report are intended to facilitate review by LSRCA staff.

6.5 Provincial Planning Statement, pursuant to the *Planning Act*, R.S.O. 1990, c. P. 13

The Provincial Planning Statement (PPS, 2024) is promulgated under the *Planning Act* and provides direction to municipalities on matters of provincial interest related to land-use planning. The PPS was updated in 2020. Municipal OP's must be consistent with the PPS. Key natural heritage-related provisions of the PPS, as assessed in this report, are listed below:

> **4.1.4** Development and site alteration shall not be permitted in:
>
> a) significant wetlands in Ecoregions 5E, 6E, and 7E1; and
> b) significant coastal wetlands.
>
> **4.1.5** Development and site alteration shall not be permitted in:
>
> a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E[1];
> b) significant woodlands in Ecoregions 6E and 7E;
> c) significant valleylands in Ecoregions 6E and 7E;
> d) significant wildlife habitat;
> e) significant areas of natural and scientific interest; and
> f) coastal wetlands in Ecoregions 5E, 6E and 7E[1] that are not subject to policy 2.1.4(b)
>
> unless it has been demonstrated that there will be *no negative impacts on the natural features or their ecological functions.*
>
> **4.1.6** Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.
>
> **4.1.7** Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

> **4.1.8** Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.

Based on the results of RiverStone's impact assessment, and contingent on the implementation of the recommendations outlined in **Section 5** of this report, it is RiverStone's opinion that the development can be accomplished in a manner that is consistent with Sections 4.1.4 to 4.1.8 of the PPS.

6.6 Greenbelt Plan (2017)

The subject lands are located within the planning area of the Greenbelt Plan and further located in a hamlet settlement within the broader Protected Countryside designation. The following interpretation of relevant natural heritage-related Greenbelt Plan policies is provided:

- Section 1.4.2 of the plan states that "*this Plan does not apply to lands within the boundaries of Towns/Villages and Hamlets. Official plans will continue to govern land use within these settlement areas based on policy direction provided by the Growth Plan*". We note that natural heritage policies of Growth Plan are similarly not applicable within settlements.

- Section 3.2.2 outlines permitted and prohibited uses within the Greenbelt NHS. The study area is largely contained within the boundaries of a hamlet settlement. No part of the subject lands are contained within the NHS.

- Section 3.2.5 outlines policies and provisions for lands associated with KNHF/KHFs. As per Section 1.4.2 above, these policies are not considered applicable to lands within settlement areas.

Based on our assessment, the subject lands are contained within a hamlet settlement area and generally not subject to policies of the Greenbelt Plan. As such, it is RiverStone's opinion that the proposal is consistent with natural heritage-related provisions of the Greenbelt Plan.

6.7 Lake Simcoe Protection Plan

Policies of the LSPP prescribe similar protections and minimum setback requirements as the Greenbelt Plan. As per Section 6.20DP of the plan, policies related to protection of KNHF/KHFs (i.e., Policies 6.20 – 6.29) *apply to those areas outside of existing settlement areas and outside of the Greenbelt area and Oak Ridges Moraine area*. As the subject lands are located within a hamlet settlement, policies regarding protection of KNHF/KHFs (6.23) and MVPZs (6.24) are not considered applicable to the proposal.

6.8 Region of Durham Official Plan (2024)

The Regional OP contains several objectives, policies, and provisions related to the preservation of the natural environment through development of a comprehensive Greenlands System, as represented through the designation of protected Major Open Space Areas. The Regional OP also clarifies the extent of the Greenbelt Plan NHS and provides preliminary mapping of KNHF/KHFs throughout the Region. Relevant natural heritage-related policies of the Regional OP are summarized below, with interpretation provided.

- The Regional OP states that: *the general location of key natural heritage and/or hydrologic features are shown on Schedule '2' – Map '2C'. The individual features and their associated vegetation protection zones are to be identified and shown in more detail in area municipal official plans and zoning by-laws. The location and extent of key natural heritage and/or hydrologic features may be further confirmed through appropriate studies such as a watershed plan or an environmental impact study in accordance with Policy 7.4.15.*

  Interpretation: Schedule 2 - Map 2C depicts no KNHF/KHFs within the subject lands. Our assessment generally supports that conclusion, notwithstanding a small wetland inclusion identified within the municipal road allowance. As per discussion in this report, the inclusion is highly disturbed, and it is not clear that it provides the size and function warranted to be considered a KHF. Regardless, the inclusion is situated within an established settlement area.

- Sections 7.4.11, 7.4.13, provide policies pertaining to permitted uses within the Greenlands System as well as Major Open Space Areas. Section 7.1 of the Regional OP further clarifies the range of permitted uses and requirements related to both Major Open Space Areas as well as lands contained with the Greenbelt Plan NHS.

  Interpretation: As per Schedules 1 and 2 to the Regional OP, the study area is not contained in a Major Open Space Area, nor within the Greenbelt NHS. It is the conclusion of this EIS that KNHF/KHFs are generally absent within the subject lands, notwithstanding a small wetland inclusion identified within the municipal road allowance. As per discussion in this report, the inclusion is highly disturbed, and it is not clear that it provides the size and function warranted to be considered a KHF. Being within a rural settlement, Section 5.4.9f)ii further states that requirements for vegetation protection zones should be assessed and established through an EIS, satisfied through this report

Based on our assessment, it is RiverStone's opinion that the proposed development is consistent with the natural heritage-related policies and provisions of the Region of Durham OP.

6.9 Township of Uxbridge Official Plan (2014)

The Town's OP sets out goals, objectives, and policies that direct and manage land-use and future development activities and their effects on the social and natural environment of the municipality. Provided herein is a description of relevant environmental and natural heritage policies contained within the Town's OP and an assessment of how the proposed development plan can be accomplished in conformity with such policies.

Section 1.8.7 of the Township OP discusses development policies for hamlets, stating, in part, that "*development in … hamlets shall be permitted in accordance with the policies of the Greenbelt Plan and the Durham Regional Official Plan*". Discussion of conformity with these plans has been provided in the preceding sections.

7 CONCLUSIONS

The preceding report provides the results of RiverStone's EIS. This report includes details regarding existing physical and ecological conditions on the subject property, a description of the development plan, an assessment of potential impacts to identified features (if present), and a general assessment of consistency and conformity with relevant municipal, provincial, and federal environmental policies.

Based upon the findings presented in this report and contingent upon the implementation of and adherence to the recommendations made herein, it is our conclusion that proposed development can be accomplished in conformity with relevant legislation and planning policies. We advise that any recommended mitigation measures outlined in **Section 5** be implemented through conditions of draft plan approval or other mechanism as appropriate.

8 REFERENCES

Cadman, M. D., D. A. Sutherland, G. G. Beck, D. Lepage, and A. R. Couturier. 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.

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Hoffman, D. W., R. E. Wicklund, and N. R. Richards. 1962. Soil Survey of Simcoe County. Report No. 29, Ontario Soil Survey. Research Branch, Agriculture Canada and Ontario Agricultural College. 110 pp.

Lee, H. T., W. D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig, and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch.

MNRF. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E.

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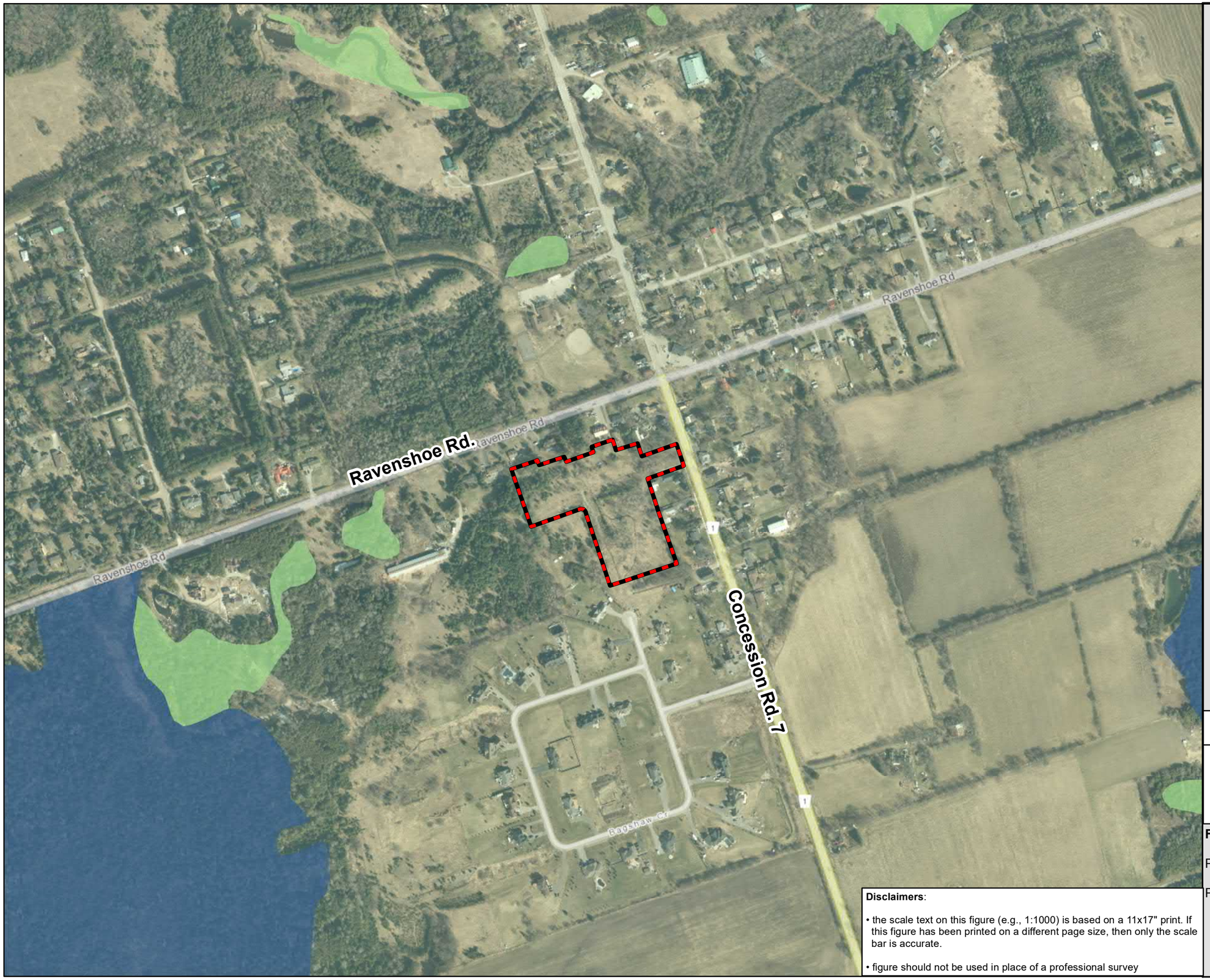
OMNR. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition. Toronto: Queen's Printer for Ontario. 248 pp.



Legend

Subject Property

Provincial Wetland Layer (Land Information Ontario)

Evaluated - Provincially Significant

Unevaluated

N

Scale	RS Project No.	Date Last Updated	By
1:5,000	2022-097	Nov 11, 2022	RS

0 70 140 Metres

RiverStone Environmental Solutions Inc.

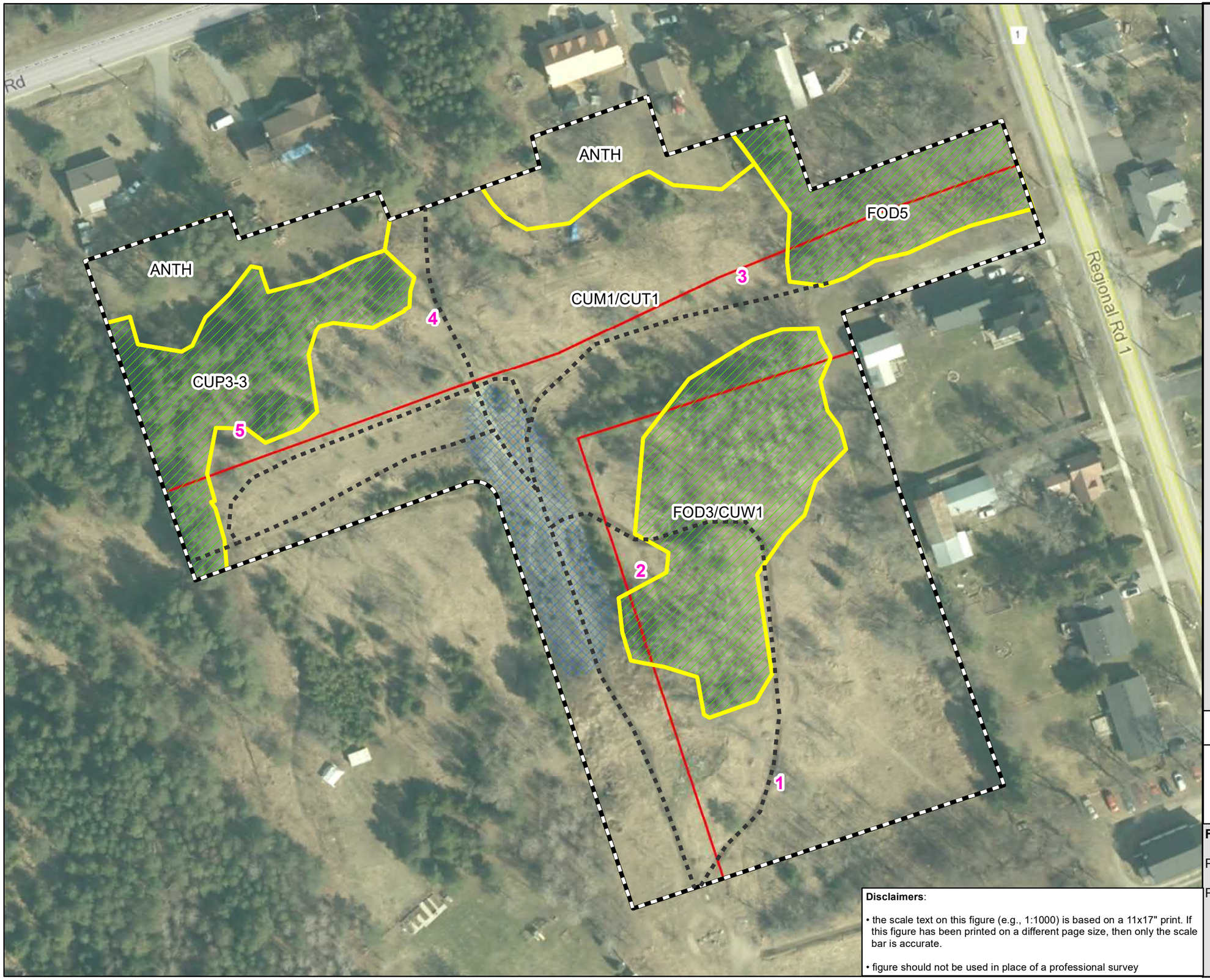
Figure 1. Subject Lands - Location and Context.

Pt. Lot 35, Conc. 6, Udora, Township of Uxbridge

Prepared for: 2695867 Ontario Inc.

Disclaimers:

- the scale text on this figure (e.g., 1:1000) is based on a 11x17" print. If this figure has been printed on a different page size, then only the scale bar is accurate.
- figure should not be used in place of a professional survey



Legend

- Subject Lands
- Existing Parcel Fabric
- ATV Trails
- 1,2,3.. Breeding Bird Survey Stations
- Woodland
- Disturbed Wetland (Inclusion)

Vegetation Communities

- ANTH: Anthropogenic - Maintained Lawn
- CUM1/CUT1: Mineral Cultural Meadow/Thicket Complex
- CUP3-3: Scots Pine Coniferous Plantation
- FOD3/CUW1: Dry - Fresh Poplar Deciduous Forest/Cultural Woodland Complex
- FOD5: Dry - Fresh Deciduous Forest Ecosite

Scale	RS Project No.	Date Last Updated	By
1:900	2022-097	Nov 12, 2022	RS

0 10 20 Metres

RiverStone Environmental Solutions Inc

Disclaimers:

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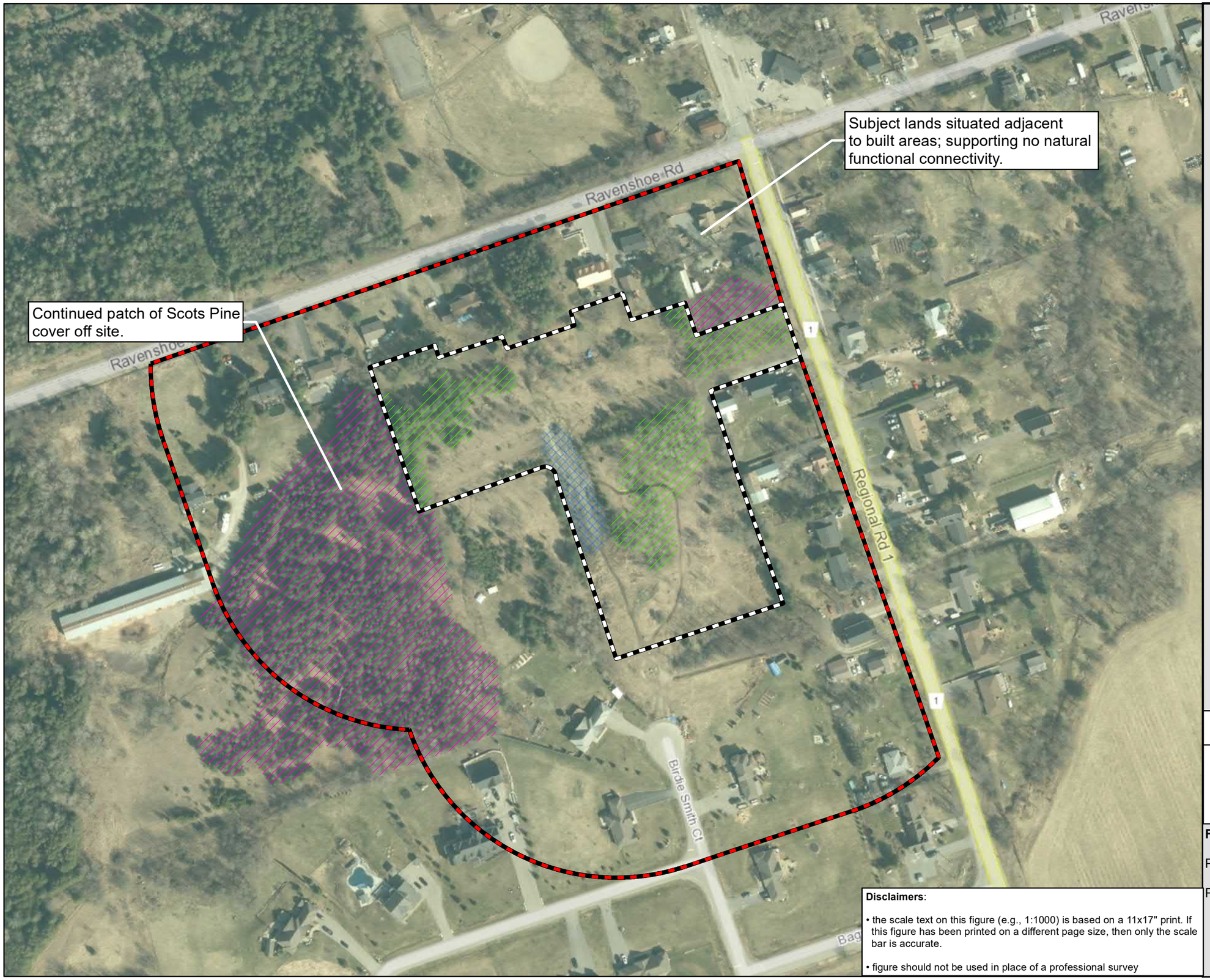
- figure should not be used in place of a professional survey

Figure 2. Existing Conditions - Subject Lands.

Pt. Lot 35, Conc. 6, Udora, Township of Uxbridge

Prepared for: 2695867 Ontario Inc.



Legend

- Subject Lands
- Adjacent Lands (120 m)
- Woodland
- Disturbed Wetland Inclusion

N

Scale	RS Project No.	Date Last Updated	By
1:2,000	2022-097	Nov 12, 2022	RS

0 30 60 Metres

RiverStone Environmental Solutions Inc

Figure 3. Existing Conditions - Adjacent Lands.

Pt. Lot 35, Conc. 6, Udora, Township of Uxbridge

Prepared for: 2695867 Ontario Inc.

Disclaimers:

- the scale text on this figure (e.g., 1:1000) is based on a 11x17" print. If this figure has been printed on a different page size, then only the scale bar is accurate.
- figure should not be used in place of a professional survey

Disclaimers:

- the scale text on this figure (e.g., 1:1000) is based on a 11x17" print. If this figure has been printed on a different page size, then only the scale bar is accurate.
- figure should not be used in place of a professional survey

Legend

- Subject Property
- Woodland
- Disturbed Wetland Inclusion

N

DRAWING:
DRAFT PLAN OF SUBDIVISION
FLAGSHIP DEVELOPMENTS
Date: Jan 20/25
Drawing: DP-1

Orthorectified aerial photo - spring 2023

Scale	RS Project No.	Date Last Updated	By
1:900	2022-097	Feb 04, 2025	JG

0 10 20 Metres

RIVERSTONE

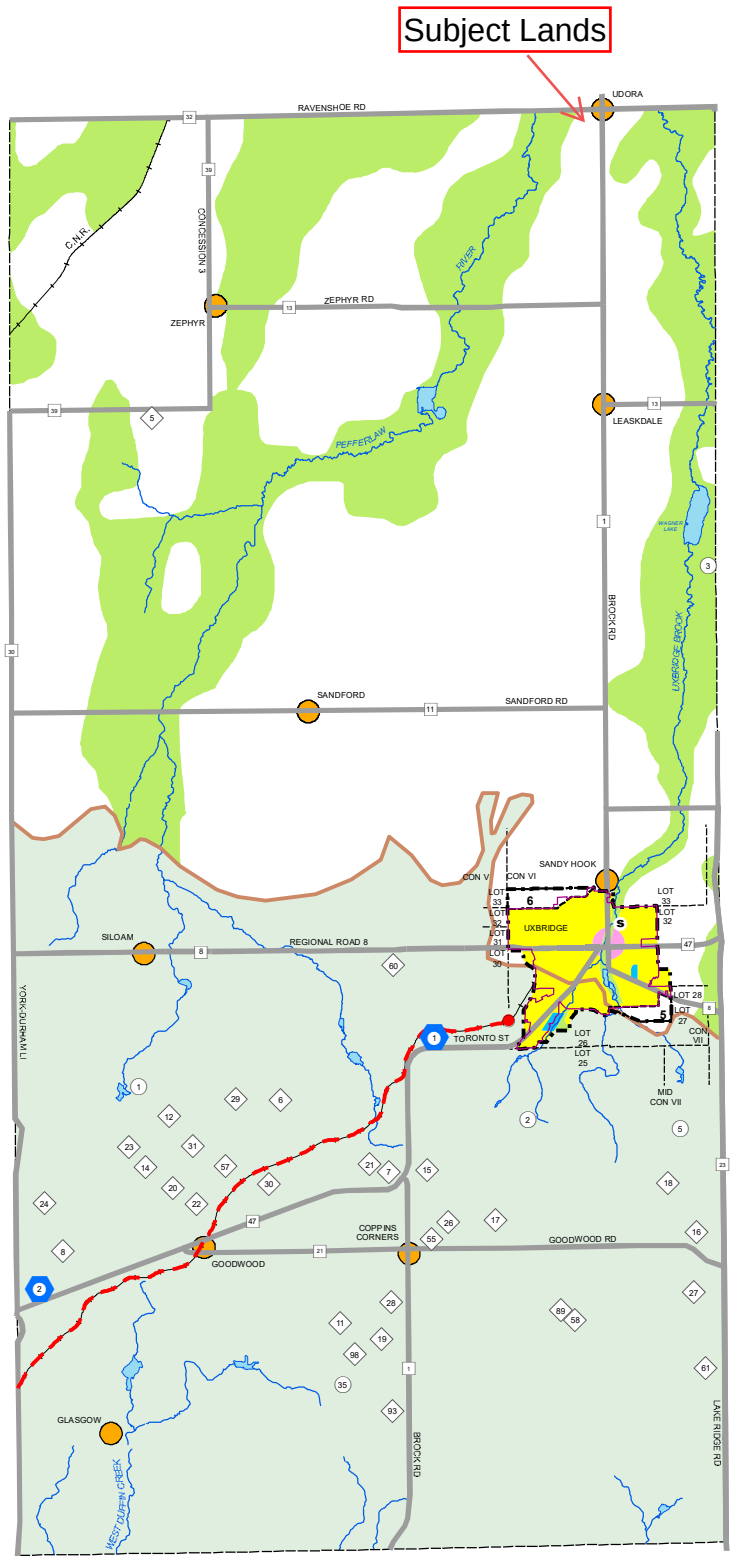
Figure 4. Proposed Development

Pt. Lot 35, Conc. 6, Udora, Township of Uxbridge

Prepared for: 2695867 Ontario Inc.

Appendix 1. Planning & Zoning Schedules.

RIVERSTONE
ENVIRONMENTAL SOLUTIONS INC.



NOTES:
1) THIS MAP FORMS PART OF THE OFFICIAL PLAN OF THE REGIONAL MUNICIPALITY OF DURHAM AND MUST BE READ IN CONJUNCTION WITH THE TEXT.
2) THE DESIGNATIONS FOR THE DEFERRED AREA REFLECT THE POSITION OF REGIONAL COUNCIL. PLEASE REFER TO POLICY 15.13.
3) OFFICE CONSOLIDATION - MAY 26, 2020.

SOURCES:
1) OAK RIDGES MORAINE: BOUNDARY, MINISTRY OF MUNICIPAL AFFAIRS & HOUSING, 2002, 1:100,000.
2) GREENBELT PLAN © QUEEN'S PRINTER FOR ONTARIO, 2005. REPRODUCED WITH PERMISSION.
3) DELINEATED BUILT BOUNDARY: © QUEEN'S PRINTER FOR ONTARIO, 2008. REPRODUCED WITH PERMISSION.

OFFICIAL PLAN OF THE REGIONAL MUNICIPALITY OF DURHAM

SCHEDULE 'A' - MAP 'A2' REGIONAL STRUCTURE

INDEX

LEGEND

URBAN SYSTEM

- URBAN AREA BOUNDARY
- REGIONAL CENTRE
- URBAN GROWTH CENTRE
- REGIONAL CORRIDOR
- LIVING AREAS
- EMPLOYMENT AREAS
- S — MUNICIPAL SERVICE
- AREAS DEVELOPABLE ON FULL/PARTIAL MUNICIPAL SERVICES
- AREAS DEVELOPABLE ON MUNICIPAL WATER SYSTEMS & PRIVATE WASTE DISPOSAL SYSTEMS
- AREAS DEVELOPABLE ON PRIVATE WELLS & MUNICIPAL SEWER SYSTEMS
- AREAS DEVELOPABLE ON PRIVATE WELLS & PRIVATE WASTE DISPOSAL SYSTEMS
- BUILT BOUNDARY

RURAL SYSTEM

- PRIME AGRICULTURAL AREAS

RURAL SETTLEMENTS :

- HAMLET
- 3 — RURAL EMPLOYMENT AREA (SEE TABLE E3 FOR DESCRIPTION)
- 12 — COUNTRY RESIDENTIAL SUBDIVISION (SEE TABLE E2 FOR DESCRIPTION)
- SHORELINE RESIDENTIAL
- 8 — REGIONAL NODE (SEE SECTION 9C FOR DESCRIPTION)
- 12 — AGGREGATE RESOURCE EXTRACTION AREA (SEE TABLE E1 FOR DESCRIPTION)

GREENLANDS SYSTEM

- MAJOR OPEN SPACE AREAS
- OAK RIDGES MORAINE AREAS
- WATERFRONT AREAS
- OAK RIDGES MORAINE BOUNDARY
- GREENBELT BOUNDARY
- TOURIST ACTIVITY / RECREATIONAL NODE
- WATERFRONT PLACE
- OPEN SPACE LINKAGE
- WATERFRONT LINKS

TRANSPORTATION SYSTEM

SEE SCHEDULE C FOR DESIGNATIONS

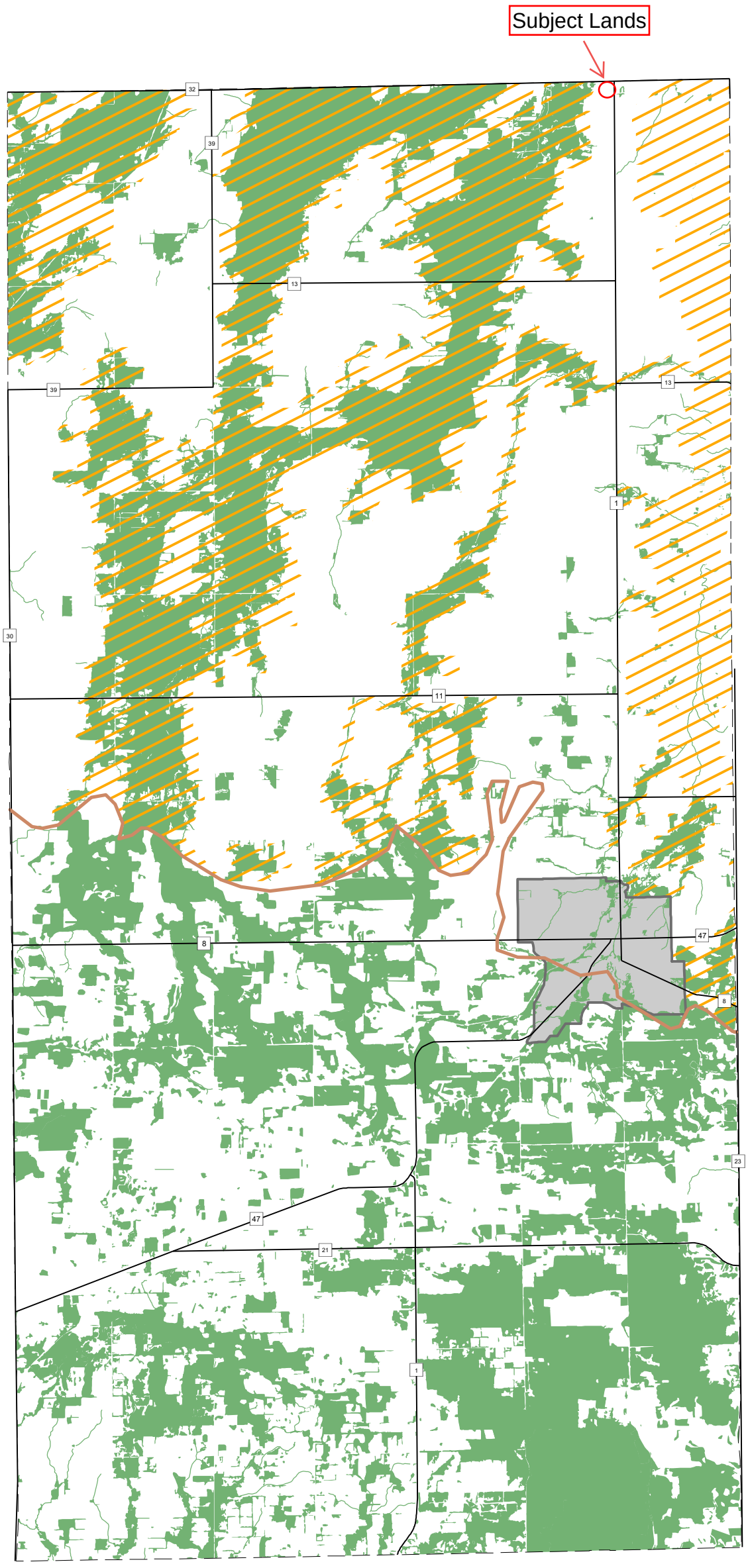
THE FOLLOWING IS SHOWN SELECTIVELY, FOR EASE OF INTERPRETATION OF OTHER DESIGNATIONS ONLY.

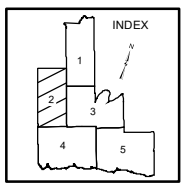
EXISTING		FUTURE
	ARTERIAL ROAD	
	FREEWAY	
	INTERCHANGE	
	GO RAIL	
	GO STATION	

SPECIAL AREAS

- 2 — SPECIAL STUDY AREA
- A — SPECIFIC POLICY AREA
- D2 — DEFERRED BY MINISTER OF MUNICIPAL AFFAIRS
- APPEALED TO O.M.B.
- LANDS APPEALED TO OMB, REFER TO POLICY 14.13.7

OFFICIAL PLAN OF THE REGIONAL MUNICIPALITY OF DURHAM





SCHEDULE 'B' - MAP 'B1b' GREENBELT NATURAL HERITAGE SYSTEM & KEY NATURAL HERITAGE AND HYDROLOGIC FEATURES

LEGEND

- KEY NATURAL HERITAGE AND HYDROLOGIC FEATURES
- GREENBELT NATURAL HERITAGE SYSTEM
- OAK RIDGES MORAINE CONSERVATION PLAN AREA BOUNDARY
- URBAN AREA
- LANDS APPEALED TO OMB, REFER TO POLICY 14.13.7.
- SPECIFIC POLICY AREA

NOTES:
1) THIS MAP FORMS PART OF THE OFFICIAL PLAN OF THE REGIONAL MUNICIPALITY OF DURHAM AND MUST BE READ IN CONJUNCTION WITH THE TEXT.

2) ROADS ARE FOR REFERENCE PURPOSES ONLY.

3) OFFICE CONSOLIDATION - MAY 26, 2020.

SOURCES:
1) OAK RIDGES MORAINE: BOUNDARY, MINISTRY OF MUNICIPAL AFFAIRS & HOUSING, 2002, 1:100,000.

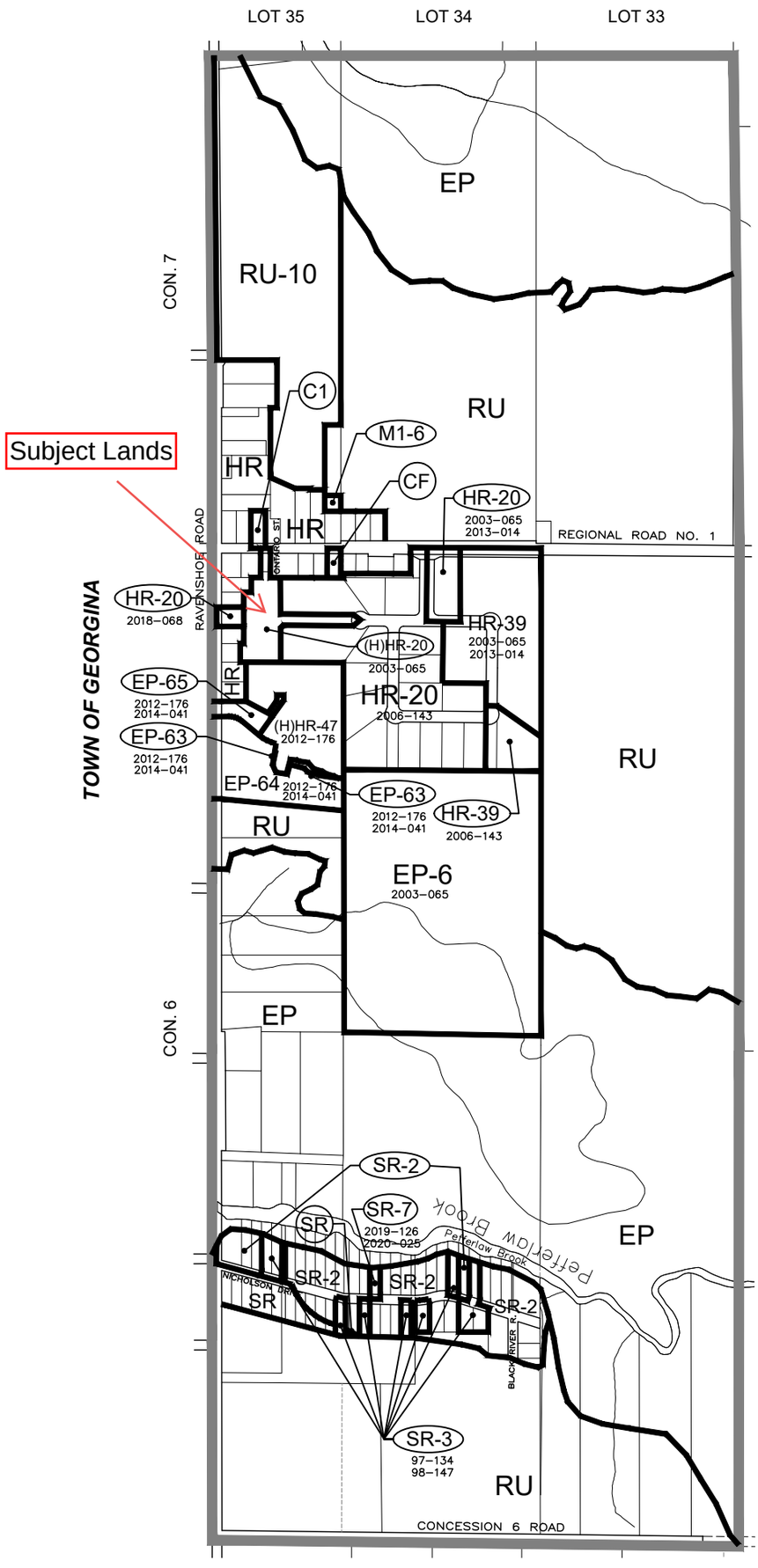
2) NATURAL HERITAGE FEATURES: MINISTRY OF NATURAL RESOURCES, 1:10,000.

3) CONSERVATION AUTHORITIES.

4) GREENBELT PLAN: © QUEEN'S PRINTER FOR ONTARIO, 2005. REPRODUCED WITH PERMISSION.

SCHEDULE 'A6'

ZONE MAP
CORPORATION OF THE TOWNSHIP
OF UXBRIDGE



DETAIL OF UDORA AREA

GENERAL ZONE CATEGORIES

EP ENVIRONMENTAL PROTECTION ZONE

RU RURAL ZONE

SR SHORELINE RESIDENTIAL ZONE

HR HAMLET RESIDENTIAL ZONE

RH RESIDENTIAL HOLDING ZONE

C1 HAMLET COMMERCIAL ZONE

CF COMMUNITY FACILITY ZONE

M1 RURAL INDUSTRIAL ZONE

Note:

This Schedule 'A6' has been prepared for consolidation purposes only. It incorporates those amendments to Schedule 'A6' as of October 2021. For accurate reference, the original of the individual by-law should be consulted.

0 50 100 200 METRES

Lake Simcoe Region conservation authority

THIS PRODUCT WAS PRODUCED BY THE LAKE SIMCOE REGION CONSERVATION AUTHORITY AND SOME INFORMATION DEPICTED ON THIS MAP MAY HAVE BEEN COMPILED FROM VARIOUS SOURCES. WHILE EVERY EFFORT HAS BEEN MADE TO ACCURATELY DEPICT THE INFORMATION, DATA/MAPPING ERRORS MAY EXIST.
THIS MAP WAS PRODUCED FOR ILLUSTRATIVE PURPOSES ONLY. © LAKE SIMCOE REGION CONSERVATION AUTHORITY, 2019. ALL RIGHTS RESERVED.
THE FOLLOWING DATA SETS OF MUNICIPAL BOUNDARY, LOT_CONCESSION ARE © QUEEN'S PRINTER FOR ONTARIO (2018). REPRODUCED WITH PERMISSION.
ORTHOPHOTOGRAPHY 2018, 2016, 2013, 2008 © FIRST BASE SOLUTIONS INC.

RIVERINE HAZARDS WERE BASED ON EXISTING FLOOD PLAIN MAPPING. FLOOD PLAIN LIMITS WHERE ENGINEERING PRODUCTS DID NOT EXIST WERE DETERMINED BY LSRCA STAFF.
RIVERINE EROSION HAZARDS WERE DETERMINED BY LSRCA STAFF. A 15-METER SETBACK WAS APPLIED FROM THE LIMITS OF ALL RIVERINE HAZARDS.
SHORELINE FLOOD HAZARDS WERE DETERMINED BY LSRCA STAFF BY APPLYING THE EQUATIONS PREVIOUSLY DEVELOPED THROUGH AN ENGINEERING STUDY.
SHORELINE EROSION HAZARDS WERE DETERMINED BY LSRCA STAFF.
WETLANDS WERE DELINEATED BY THE MINISTRY OF NATURAL RESOURCES & FORESTRY. SETBACKS OF 120-M FROM PROVINCIALLY SIGNIFICANT WETLANDS (PSWs) AND 30-M FROM ALL OTHER WETLANDS WERE APPLIED.
MEANDERBELT WIDTHS WERE ESTABLISHED THROUGH A STUDY. IN THE ABSENCE OF A STUDY, MEANDERBELT WIDTHS WERE CALCULATED AS 20 TIMES THE BANKFULL WIDTHS ESTIMATED FROM THE CORRESPONDING DRAINAGE AREAS.

PLEASE REFER TO "REFERENCE MANUAL FOR DETERMINATION OF REGULATION LIMITS" (LSRCA, 2005) OR CONTACT LSRCA (905-895-1281) FOR MORE INFORMATION

1:10,000

0 0.225 0.45 0.9 1.35 1.8

Kilometers

NO.	REVISIONS	DATE
0	ONTARIO REGULATION 179/06 APPROVED	MAY 8, 2006
1	Mapping revisions to the regulation limit have been completed as referenced in the document "Regulation Limit Changes, May 2007"	SEPT. 28, 2007
2	Mapping revisions to the regulation limit have been completed as referenced in the document "Regulation Limit Changes, April 2009". Ortho imagery changed to reflect most recent imagery available. Map/data disclaimer changed to reflect most current disclaimers in use	APRIL 24, 2009
3	Mapping revisions to the regulation limit have been completed as referenced in the document "Regulation Limit Changes, July 2013". Ortho imagery changed to reflect most recent imagery available. Map/data disclaimer changed to reflect most current disclaimers in use	JULY 26, 2013
4	Mapping revisions to the regulation limit have been completed as referenced in the document "Regulation Limit Changes, September, 2014". Ortho imagery reflects most recent imagery available. Map/data disclaimer changed to reflect most current information	SEPT. 26, 2014
5	Mapping revisions to the regulation limit have been completed as referenced in the document "Regulation Limit Changes, April, 2018". Ortho imagery reflects most recent imagery available. Map/data disclaimer changed to reflect most current information.	APRIL 1, 2018
6	Mapping revisions to the regulation limit have been completed as referenced in the document "Regulation Limit Changes, April, 2019". Ortho imagery reflects most recent imagery available. Map/data disclaimer changed to reflect most current information.	APRIL 1, 2019

CHECKED - NATURAL HERITAGE	KB
CHECKED - REGULATIONS	JP
CHECKED - ENGINEERING	JP
APPROVED	TH
DATE:	JANUARY 2006
MAPPED BY:	JB

(ONTARIO REGULATION 97/04)

REGULATION OF DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATIONS TO SHORELINES AND WATERCOURSES.

ONTARIO REGULATION 179/06

PLOT DATE: APRIL 2019 FILE LOCATION:

SHEET NO. 57 OF 134

Appendix 2. Terms of Reference Correspondence.

Mike Francis

From:	Emma Dias <E.Dias@lsrca.on.ca>
Sent:	May 17, 2022 4:27 PM
To:	Mike Francis
Cc:	Jessica Chan
Subject:	RE: Pt. Lot 35, Conc. 6 - Terms of Reference
Attachments:	222-097_Udora EIS_LSRCA TOR checklist - LSRCA edits.pdf

Good afternoon Mike.

Thank you for sending along the Terms of Reference. They are acceptable with the following changes:

- A two-season vegetation survey is required
- A staking exercise with the LSRCA is requested in order to stake and assess the wooded area present on the site (more details below about the staking)
- Recommendation of a VPZ, Landscaping/restoration/planting plan, and edge management plan may be required depending on the determination of the wooded feature present
- Please ensure a third bird survey is conducted

For the staking exercise, a Site Visit fee of $1,530 will be required to be paid in advance of the site meeting. If the payment has not been made by 4pm the day prior to the scheduled meeting, the site meeting will be cancelled.
Fee payments can be made in the following ways (please include a reference to the PROPERTY ADDRESS): *Please note that a receipt will be provided at time of payment*

1. *By cheque: sent via Canada Post or Purolator to our office location, noted in my signature below.*
2. *By credit card: Contact Julie Gerrard at 905-716-4762 and she will be happy to process your credit card payment over the phone.*
3. *By direct bank deposit to LSRCA: Landowners/Applicants/Consultants who have been pre-approved/authorized by LSRCA's Planning Department can make payment by Electronic Funds Transfer. Contact k.nesbitt@LSRCA.on.ca to receive the necessary details. Please allow 2 business days for processing.*

*** Interac/ E-transfers are not accepted ***

Please let me know once payment has been made.

With the current provincial restrictions in effect, we have updated our site visit protocols to the following:

- If anyone is feeling unwell, or is experiencing COVID-19 like symptoms, they will not attend.
    - It is requested that the feature boundaries be pre-staked in advance of the site visit. You'll need to ensure that wooden stakes are available.
    - If the site has not been pre-staked, surveyors will be required to attend the site during our site visit. If the site has been pre-staked, surveyors are required to return to the site within 2 days (same day is preferred) of our meeting to obtain the survey information of the delineated features.

Thank you for your understanding and cooperation. Please let me know if you have any questions.

Kind regards,

Emma Dias
Junior Planning and Natural Heritage Analyst
Lake Simcoe Region Conservation Authority
120 Bayview Parkway, Newmarket, Ontario L3Y 3W3
905-895-1281, ext. 247 | 1-800-465-0437 | Mobile: 289-231-0365

e.dias@LSRCA.on.ca| www.LSRCA.on.ca

Twitter: @LSRCA
Facebook: LakeSimcoeConservation

Please note: the LSRCA Board of Directors approved a change to our Fee Policy. The new fees took effect on January 3, 2022. Please click here to view the staff report and see page 34-40 for the new fee schedule.

From: Jessica Chan <J.Chan@lsrca.on.ca>
Sent: May 12, 2022 11:40 AM
To: Emma Dias <E.Dias@lsrca.on.ca>
Cc: Laura Tafreshi <L.Tafreshi@lsrca.on.ca>
Subject: FW: Pt. Lot 35, Conc. 6 - Terms of Reference

From: Mike Francis <mike@rsenviro.ca>
Sent: May 10, 2022 7:23 AM
To: Jessica Chan <J.Chan@lsrca.on.ca>
Cc: 222-097 Udora EIS TWP Uxbridge <222-097@rsenviro.ca>
Subject: Pt. Lot 35, Conc. 6 - Terms of Reference

Hi Jessica. Hope you're having a good week!

Sending along a scoping checklist for an EIS update in Udora (see attached for location). For reference, and per the record provided by the applicant, LSRCA participated in a pre-con meeting for this file on May 25, 2021.

RiverStone prepared an EIS for parts of these lands a few years back (2015-2016?). I've reviewed the old report and relevant background info. There are no identified wetlands or drainage features. There's some potential for SWH/SAR which we are proposing to assess through a scoped program, including breeding bird surveys and a vegetation review. Finally, there is a small successional woodland community on and adjacent to the property. I've taken a brief look and this feature doesn't appear to be designated KNHF in the regional OP and has no direct connectivity to identified KNHF. It also wouldn't appear to meet criteria for significant woodland as per relevant technical guidelines. However, we will assess this in further detail as part of our assessment.

Please let me know if you have any concerns or would like to discuss anything further. Thank you

Mike Francis, **H.B.Sc., M.E.S., E.P.**
Ecologist

RiverStone Environmental Solutions Inc.
47 Quebec Street, Bracebridge, ON P1L 2A5
Primary: 705.644.4815
Office 705.645.9887 | Fax 888.857.4979
Southern Ontario Toll Free 1.866.776.7160

mike@rsenviro.ca I www.rsenviro.ca

1. General Information:

Date: May 10, 2022

Address: Pt. Lot 35, Conc. 6 Udora

Name of consulting firm: RiverStone Environmental

Contact information: Mike Francis; mike@rsenviro.ca

2. Identify all <u>potential</u> natural heritage and hydrologic features in the study area (check all that apply):

**The LSRCA recognizes that this is a preliminary assessment to determine what studies may be suitable for the property. A site visit may be required to verify the presence/absence of features.*

- ☐ Wetland
- ☒ Woodland
- ☐ Valleyland
- ☒ Grassland or meadow
- ☒ Wildlife habitat
- ☐ Area of natural and scientific interest (ANSI)
- ☐ Sand barren, savannah or tallgrass prairie
- ☐ Alvar
- ☐ Drainage feature/watercourse
- ☐ Kettle lake
- ☐ Seepage area or spring
- ☐ Lake or pond (and their littoral zone)
- ☐ Lake Simcoe shoreline
- ☐ Natural areas abutting Lake Simcoe
- ☒ Habitat of endangered and threatened species
- ☐ Fish habitat

3. Activities to be undertaken and studies required for a complete NHE/EIS submission:**

*** Some activities/studies are pre-selected (☒) as they are a minimum requirement for NHE/EIS submissions.*

☒ Consult with the appropriate Municipal and Conservation Authority staff, as required, to establish the required scope of study.

☒ Identify an appropriate study area - generally the area of anticipated disturbance plus 120 m.

☒ Collect and include applicable background information and current environmental mapping for natural heritage and hydrologic features, and the natural heritage system within and surrounding the study area.

☒ Identify and provide detailed descriptions of natural heritage and hydrologic features in the study area, their function, and the broader natural heritage system that they are within. Determine the significance of these natural heritage and hydrologic features under applicable policy.

☒ Evaluate existing vegetation communities using Ecological Land Classification (ELC) for Southern Ontario (Lee et al. 1998. Ecological Land Classification for Southern Ontario: first approximation and its applications. SCSS Field Guide FG-02). Provide a description of ELC communities in the study area and include completed ELC field sheets as an appendix.

☒ Conduct a two -season vegetation inventory in the late spring/summer/fall. Include the inventory categorized by ELC community as an appendix and denote any Species at Risk and/or provincially/locally rare species.

☐ Conduct three (3) breeding amphibian surveys as per the Marsh Monitoring Program protocol (Bird Studies Canada). Observational salamander surveys may be required if potential habitat exists in the study area. Include completed field sheets as an appendix.

⬓ Conduct two (2) dawn breeding bird surveys between May 24 and July 15, under appropriate conditions, with a minimum of 10 days between surveys, and record all occurrences and breeding behaviors. Point counts, wandering transects or a combination of the two must be used according to features present and site conditions. Include completed field sheets as an appendix. A third survey will be required if suitable grassland bird habitat is present.

☒ Record observations of all wildlife occurrences and behaviours and assess wildlife habitat function.

☒ Screen for Species at Risk (SAR), listed under the *Endangered Species Act, 2007,* based on existing or potential habitat. Additional species-specific surveys may be required if SAR habitat is present (e.g. butternut health assessments, snag surveys, bat acoustic monitoring surveys, evening whip-poor-will surveys, etc.), please contact the Ministry of Environment, Conservation and Parks (MECP) for further direction. Include any relevant correspondence with the MECP as an appendix

☒ Assess for Significant Wildlife Habitat (e.g. turtle nesting or wintering area, reptile hibernaculum, woodland raptor nesting habitat, seeps, springs, etc.) as per the Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (MNRF, January 2015).

☒ Identify any ecological linkages or movement corridors within the study area. Demonstrate how connectivity within and between natural heritage and hydrologic features will be maintained and, where possible, improved or restored to allow for the effective dispersal and movement of plants and animals.

☒ Provide a general description of the methodology, dates, timing, and locations of completed field surveys.

▣ Confirm the boundaries of any wetland and/or woodland features on the property through a staking exercise with the LSRCA. Boundary points must be surveyed with a high-accuracy GPS device (accurate to within 10 cm). A professional Ontario Land Surveyor (OLS) may be required to attend. Wetland staking exercises must be completed between June 15 and September 30 (exceptions may apply). Note that a site visit fee may apply.

☐ Complete an aquatic habitat assessment for all drainage features/watercourses in the study area, including characterization of hydrologic features (i.e. permanent, intermittent, ephemeral, headwater drainage feature) and suitability as fish habitat. Include a description of instream and riparian cover, bank stability, substrate composition, stream morphology, dimensions and gradient, thermal regime indicators, potential barriers, woody debris distribution, aquatic vegetation, groundwater seepage areas, etc.

☐ Complete a catchment-based water balance for the study area to assess how existing drainage conditions and moisture regimes that support sensitive hydrologic features (e.g. wetland, woodlands, watercourse) may be impacted by the proposed development. Demonstrate how current hydrologic inputs will be maintained post-development. Please note, the water balance assessment may also be a requirement under other provincial policies, therefore the NHE/EIS should coordinate with/summarize the water balance work undertaken by others.

▣ Recommend the dimensions of an appropriate vegetation protection zone (VPZ)/buffer to natural heritage and hydrologic features required to mitigate impacts from the proposed development. Recommendations for restoration/plantings should be provided for all buffers.

☒ Provide a detailed description of the proposed development.

☒ Map the following information separately on current high quality ortho-air photos:

1) ELC vegetation communities, natural heritage and hydrologic features and their associated VPZs, and the proposed development and anticipated limit of disturbance (e.g. grading limits); and,
2) ELC vegetation communities, survey locations, other environmental features (e.g. linkages, wildlife corridors, seeps, springs, stick nests, wildlife habitat, rare species, invasive species, etc.), and existing structures and/or trails.

☒ Assess the potential direct, indirect, and cumulative impacts of the proposed development on natural heritage and hydrologic features, the natural heritage system, and related ecological and hydrologic functions.

☒ Develop and provide an appropriate avoidance/mitigation/restoration strategy to address the potential impacts of the proposed development.

☒ Demonstrate how the proposed development is in conformity with all federal, provincial, regional, and municipal natural heritage policies applicable in the Lake Simcoe watershed.

☒ Complete one final report for circulation and approval, prepared by qualified professionals, in an electronic format as well as one (1) hard copy.

4. Additional studies or plans that may be required include:

- ▬ Landscape/Restoration/Planting Plan
- ▬ Edge Management Plan
- ☐ Tree Inventory/Arborist Report/Tree Preservation Plan
- ☐ Trails Impact Study
- ☐ Ecological Offsetting Strategy (please refer to LSRCA's Ecological Offsetting Policy)
- ☐ Environmental Monitoring Plan/Report
- ☐ Fluvial Geomorphological Assessment
- ☐ Natural Channel Design

5. Additional notes and/or requirements:

A third breeding bird survey is required

Please note that changes to the study area, the proposed development, and/or policy changes may require additional information/studies.

Please provide current field survey data in the NHE/EIS submission. Field survey data will be considered valid for five (5) years from the date the survey was conducted, except for Species at Risk screenings, which are valid for one (1) year. If outdated field data is provided, additional surveys may be required.

Appendix 3. Photos of Representative Site Conditions.

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Photo 1. Facing north along unopened road allowance from Birdie Smith Ct. (May 29, 2022).

Photo 2. Small open meadow area in southern portion of site (May 29, 2022).

Photo 3. Off-road vehicle trail through thicket vegetation (May 29, 2022).

Photo 4. Variable meadow/thicket coverage within southeastern portion of site (May 29, 2022).

Photo 5. Sumac thicket in northern portion of site (May 29, 2022).

Photo 6. Maintained grass area along northern site boundary (May 29, 2022).

Photo 7. Highly disturbed area in central portion of site, described as wetland inclusion (May 29, 2022).

Photo 8. Wetland inclusion area in mid summer (July 25, 2022).

Photo 9. Small woodland patch in northeastern portion of site; adjacent dwelling and grassed area within Township Right of Way (July 25, 2022).

Photo 10. Scots Pine cover in northern/eastern portion of site (May 29, 2022).

Photo 11. Variable meadow/Buckthorn thicket area in northwestern portion of site; Scots Pine in background extending westward off site (May 29, 2022).

Photo 12. Successional Aspen forest/woodland in central portion of site; meadow vegetation along margins (May 29, 2022).

Appendix 4. Historical Aerial Imagery.

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Subject Lands - 1970

1: 4,514

November 12, 2022

Notes

This map was printed from a YorkMaps application.

Subject Lands - 1999

1: 4,514

November 12, 2022

Notes

This map was printed from a YorkMaps application.

Appendix 5. Vascular Plant Survey Data Summary.

RIVERSTONE
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Vascular Plant List - Surveyed May 29, June 13, July 8, July 25 (2022)

Observed Species		Applicable Status			Associated Communities				
Scientific Name	Common Name	G-Rank	S-Rank	ESA	ANTH	CUM1/CUT1	FOD3/CUW1	FOD5	CUP3-3
Acer negundo	Manitoba Maple	G5	S5			x	x	x	
Acer platanoides	Norway Maple	GNR	SE5					x	
Acer saccharum	Sugar Maple	G5	S5					x	
Agrimonia gryposepala	Hooked Agrimony	G5	S5			x	x		
Alliaria petiolata	Garlic Mustard	GNR	SE5					x	
Amphicarpaea bracteata	American Hog-peanut	G5	S5			x			
Anemone canadensis	Canada Anemone	G5	S5			x			
Anemone virginiana var. virginiana	Virginia Anemone	G5T5	S5			x			
Apocynum cannabinum	Hemp Dogbane	G5	S5			x			
Arctium minus	Common Burdock	GNR	SE5			x			
Asclepias incarnata	Swamp Milkweed	G5	S5			x			
Asclepias syriaca	Common Milkweed	G5	S5			x			
Bidens frondosa	Devil's Beggarticks	G5	S5			x			
Bromus inermis	Awnless Brome	G5TNR	SE5		x	x	x		
Campanula rapunculoides	Creeping Bellflower	GNR	SE5			x	x		
Carex aurea	Golden-fruited Sedge	G5	S5			x			
Carex flava	Yellow Sedge	G5	S5			x			
Carex gracillima	Graceful Sedge	G5	S5			x	x		
Carex granularis	Meadow Sedge	G5	S5			x			
Centaurea stoebe	Spotted Knapweed	GNR	SE5			x			
Cirsium arvense	Canada Thistle	GNR	SE5			x			
Clematis virginiana	Virginia Virgin's-bower	G5	S5				x		
Clinopodium vulgare	Field Basil	G5	S5		x				
Convallaria majalis	European Lily-of-the-Valley	G5	SE5					x	
Cornus stolonifera	Red-osier Dogwood	G5	S5			x	x		
Cynanchum rossicum	European Swallow-wort	GNR	SE5			x	x	x	x
Dactylis glomerata	Orchard Grass	GNR	SE5		x	x			
Daucus carota	Wild Carrot	GNR	SE5			x			
Desmodium canadense	Showy Tick-trefoil	G5	S4			x			
Dianthus armeria	Deptford Pink	GNR	SE5			x			
Equisetum fluviatile	Water Horsetail	G5	S5			x			

Vascular Plant List - Surveyed May 29, June 13, July 8, July 25 (2022)

Observed Species		Applicable Status			Associated Communities				
Scientific Name	Common Name	G-Rank	S-Rank	ESA	ANTH	CUM1/CUT1	FOD3/CUW1	FOD5	CUP3-3
Erigeron annuus	Annual Fleabane	G5	S5			x			
Erigeron canadensis	Canada Horseweed	G5	S5			x			
Eupatorium perfoliatum	Common Boneset	G5	S5			x			
Euthamia graminifolia	Grass-leaved Goldenrod	G5	S5			x			
Fragaria virginiana	Wild Strawberry	G5	S5			x	x		
Fraxinus pennsylvanica	Green Ash	G5	S4				x	x	
Helianthus tuberosus	Jerusalem Artichoke	G5	SU			x			
Hesperis matronalis	Dame's Rocket	G4G5	SE5			x			
Juglans nigra	Black Walnut	G5	S4		x	x	x	x	
Juncus tenuis	Path Rush	G5	S5			x			
Juniperus virginiana	Eastern Red Cedar	G5	S5			x	x		
Lathyrus latifolius	Everlasting Pea	GNR	SE4			x	x		
Leucanthemum vulgare	Oxeye Daisy	GNR	SE5			x			
Liparis loeselii	Loesel's Twayblade	G5	S4S5			x			
Lonicera tatarica	Tartarian Honeysuckle	GNR	SE5			x	x		
Lotus corniculatus	Garden Bird's-foot Trefoil	GNR	SE5			x			
Lycopus uniflorus	Northern Water-horehound	G5	S5			x			
Malus pumila	Common Apple	G5	SE4			x			
Medicago lupulina	Black Medic	GNR	SE5			x			
Melilotus albus	White Sweet-clover	G5	SE5			x			
Oenothera biennis	Common Evening Primrose	G5	S5			x			
Packera paupercula var. paupercula	Balsam Groundsel	G5T5	S5			x			
Parthenocissus inserta	Thicket Creeper	G5	S5			x	x	x	
Phalaris arundinacea	Reed Canary Grass	G5	S5			x			
Phleum pratense	Common Timothy	GNR	SE5			x			
Picea glauca	White Spruce	G5	S5				x		
Pinus sylvestris	Scotch Pine	GNR	SE5				x		x
Plantago lanceolata	English Plantain	G5	SE5			x			
Plantago major	Common Plantain	G5	S5			x			
Poa compressa	Canada Bluegrass	GNR	SE5			x	x		
Poa pratensis ssp. pratensis	Kentucky Bluegrass	G5T5	S5			x			

Vascular Plant List - Surveyed May 29, June 13, July 8, July 25 (2022)

Observed Species		Applicable Status			Associated Communities				
Scientific Name	Common Name	G-Rank	S-Rank	ESA	ANTH	CUM1/CUT1	FOD3/CUW1	FOD5	CUP3-3
Populus alba	White Poplar	G5	SE5			x	x		
Populus balsamifera	Balsam Poplar	G5	S5			x	x		
Populus tremuloides	Trembling Aspen	G5	S5			x	x		
Potentilla recta	Sulphur Cinquefoil	GNR	SE5			x			
Prunella vulgaris ssp. vulgaris	Self-heal	G5TU	SE3			x	x		
Ranunculus acris	Tall Buttercup	G5	SE5			x			
Rhamnus cathartica	Common Buckthorn	GNR	SE5		x	x	x	x	x
Rhus typhina	Staghorn Sumac	G5	S5			x	x		
Robinia pseudoacacia	Black Locust	G5	SE5				x	x	
Rubus allegheniensis	Alleghany Blackberry	G5	S5			x	x		
Rubus idaeus ssp. strigosus	Wild Red Raspberry	G5T5	S5			x			
Rudbeckia hirta var. hirta	Black-eyed Susan	G5T4T5	SU			x			
Salix discolor	Pussy Willow	G5	S5			x			
Salix eriocephala	Heart-leaved Willow	G5	S5			x			
Sambucus canadensis	Common Elderberry	G5T5	S5				x		
Scirpus cyperinus	Cottongrass Bulrush	G5	S5			x			
Silene latifolia	White Campion	GNR	SE5			x			
Silene vulgaris	Maiden's Tears	GNR	SE5			x			
Sisyrinchium montanum var. montanum	Strict Blue-eyed-grass	G5T4T5	S5			x			
Solanum dulcamara	Climbing Nightshade	GNR	SE5			x	x	x	
Solidago altissima ssp. altissima	Eastern Late Goldenrod	GNR	S5			x			
Solidago canadensis var. canadensis	Canada Goldenrod	G5T5	S5			x			
Solidago nemoralis ssp. nemoralis	Gray-stemmed Goldenrod	G5T5	S5			x			
Solidago rugosa var. rugosa	Northern Rough-leaved Goldenrod	G5T5	S5			x	x		
Sonchus arvensis ssp. arvensis	Field Sow-thistle	GNRTNR	SE5			x			

Vascular Plant List - Surveyed May 29, June 13, July 8, July 25 (2022)

Observed Species		Applicable Status			Associated Communities				
Scientific Name	Common Name	G-Rank	S-Rank	ESA	ANTH	CUM1/CUT1	FOD3/CUW1	FOD5	CUP3-3
Symphyotrichum lanceolatum ssp. lanceolatum	Panicled Aster	G5T5	S5			x			
Symphyotrichum lateriflorum	Starved Aster	G5	S5			x			
Symphyotrichum novae-angliae	New England Aster	G5	S5			x			
Tanacetum vulgare	Common Tansy	GNR	SE5			x			
Taraxacum officinale	Common Dandelion	G5	SE5			x	x	x	
Thuja occidentalis	Eastern White Cedar	G5	S5			x	x		x
Tilia americana	American Basswood	G5	S5				x	x	
Toxicodendron radicans	Climbing Poison Ivy	G5	S5				x	x	
Tragopogon dubius	Yellow Goat's-beard	GNR	SE5			x			
Trifolium pratense	Red Clover	GNR	SE5			x			
Trifolium repens	White Clover	GNR	SE5			x			
Tussilago farfara	Colt's-foot	GNR	SE5			x			
Ulmus americana	American Elm	G5?	S5				x	x	
Veronica officinalis	Common Speedwell	G5	SE5				x	x	
Vicia cracca	Tufted Vetch	GNR	SE5			x			
Vinca minor	Periwinkle	GNR	SE5					x	
Vitis riparia	Riverbank Grape	G5	S5			x	x	x	

Appendix 6. Breeding Bird Survey Data Summary.

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Job Name:	RS 222-097 - Udora Subdivision																			
Species	Survey 1 Station #					Incidental	Survey 2 Station #					Incidental	Survey 3 Station #					Incidental
	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5	
American Crow (Corvus brachyrhynchos)	x	x	x	x	x		x	x	x	x	Po		x	Po			x	
American Robin (Turdus migratorius)	x						Po	Po		Po	Po		Po	Po	Po	Co	Po	
Black-capped Chickadee (Poecile atricapillus)				x			Po				Po		Po	Po			Po	
Broad-winged Hawk (Buteo platypterus)														x				
Blue Jay (Cyanocitta cristata)		x	x		x				x	x			Po	x	Po	x		
Northern Cardinal (Cardinalis cardinalis)	Po	Po		Po									Po	Po				
Common Grackle (Quiscalus quiscula)				x				x		x	x					x		
Baltimore Oriole (Icterus galbula)											x							
Eastern Phoebe (Sayornis phoebe)								Pr										
European Starling (Sturnus vulgaris)	x																	
American Redstart (Setophaga ruticilla)		Po		Po			Po											
Red-eyed Vireo (Vireo olivaceus)	Po	Po	Po	Po	Po				x									
Red-winged Blackbird (Agelaius phoeniceus)	x		x		x		x											

Survey Details			
	Survey 1	Survey 2	Survey 3
Date (2022)	May 29	June 13	July 8
Staff	M.Francis	M.Francis	M.Francis
Temperature (C)	17	12	20
Wind	2	1	0
Cloud Cover %	50	0	0-20
Background Noise Code	1-2	1-2	1-2

Code Explanations
Confirmed (Co): nest building, nest in use, nest with recent eggshells, adult carrying food or fecal sac, distraction display, fledged young
Probable (Pr): multiple singing birds and/or breeding pair in suitable habitat, mating display, territorial behavoir, agitated behavior, brood patch, nest building by cavity nesting species
Possible (Po): singing, species in suitable nesting habitat
Present (x): bird observed but does not fall under other codes
Incidental: The highest breeding code for a species observed >100m from survey stations or on transit between survey stations

Song Sparrow (Melospiza melodia)	Po	Po		Po	Po			Po		Po			Po		Po		Po			
Chipping Sparrow (Spizella passerina)				Po				Po												
Killdeer (Charadrius vociferus)									x											
House Wren (Troglodytes aedon)	Po												Po	Po	Po					
Canada Goose (Branta canadensis)								x												
Mourning Dove (Zenaida macroura)								x	x				Po	Po	Po					
American Goldfinch (Spinus tristis)							Po				Pr		Po	Po	x					
Pine Warbler (Setophaga pinus)											Po									
Indigo Bunting (Passerina cyanea)					Po						Po		Po							
Belted Kingfisher (Megaceryle alcyon)									x											
Ruby-throated Hummingbird (Archilochus colubris)																Po				
Hairy Woodpecker (Dryobates villosus)										x										
White-breasted Nuthatch (Sitta carolinensis)									Po							Po	Po			

Appendix 7. Endangered and Threatened Species Screening.

Species	General Description of Habitat and Range	Is the study area within the current known range of the species.	Do applicable databases contain records for this species within or adjacent to the study area.	Is suitable habitat present within the study area.	Is suitable habitat present within lands adjacent to the study area.	Discussion of relevance to proposal
Acadian Flycatcher	The Acadian Flycatcher is native to the Carolinian forests of Southern Ontario. It is area sensitive and prefers mature woodlands >25 ha in areas with >30% forest cover. Nesting habitats are deciduous or mixed woodlands with closed canopies, open understories, and limited groundcover. They prefer to nest near permanent or ephemeral ponds or streams. They double-brood and are active from early to mid-May to the end of August.	UNKNOWN	NO	NO	NO	N/A
American Eel	The American Eel spends approximately half it's lifespan in Ontario. After spawning in the Sargasso Sea and maturing into "elver" eels migrate up the St. Lawrence River into the Ottawa River and Lake Ontario. They are habitat generalists and use benthic habitats with stones, debris, and vegetation for cover. Their distribution has been severely limited by human development and damming rivers.	YES	NO	NO	NO	N/A
American Ginseng	American Ginseng requires well-drained but moist acidic to neutral soils overlying limestone or marble bedrock. They are obligate understory plants found in undisturbed mature deciduous and mixed forests, and occasionally in coniferous forests and swamps.	YES	NO	NO	NO	N/A
Bank Swallow	The Bank Swallow is a small aerial insectivore bird that nests colonially in burrows they excavate within banks. Colonies will nest in bluffs, riverbanks, aggregate pits, roadside embankments, and topsoil piles near open habitat that provides a steady source of insects. Colony sites must also be near roosting areas in wetland, reed, or cane beds.	YES	NO	NO	NO	N/A

Species	General Description of Habitat and Range	Is the study area within the current known range of the species.	Do applicable databases contain records for this species within or adjacent to the study area.	Is suitable habitat present within the study area.	Is suitable habitat present within lands adjacent to the study area.	Discussion of relevance to proposal
Barn Swallow	The Barn Swallow forages in open to semi-open agricultural, residential, and aquatic habitats that provide abundant insect prey. Nests are mostly in man-made structures (e.g., buildings, bridges) but can occur in caves and under cliff overhangs. Nesting is almost always colonial and birds have high fidelity to nest sites.	YES	NO	NO	POSSIBLE	The subject property contains a mix of successional communities, including multiple small meadow communities. Such communities are considered too small to support functional habitat for this species. While Barn Swallow may occur in association with agricultural lands on the local landscape, this is not considered relevant to the development proposal. No further assessment undertaken.
Black Ash	The black ash grows everywhere in Ontario except the Far North. These trees love moisture, and are commonly found in northern swampy woodlands, from eastern Manitoba, throughout Ontario, and as far east as Newfoundland.	YES	NO	NO	NO	N/A
Blanding's Turtle	Blanding's Turtle are semi-aquatic and use wetland habitats with shallow water and abundance vegetation. Their habitat includes a broad range of wetlands, forest clearings, and meadows. They breed in aquatic habitat and nest in open natural and anthropogenic upland areas.	YES	NO	NO	NO	N/A
Bobolink	Nests in Southern Ontario hayfield and pastureland. Fields must have 25% or less woody plant cover. They require large fields (>10ha) and avoid small, fragmented habitats. They also avoid habitat within 75m if a forest edge.	YES	NO	NO	NO	The subject property contains successional communities, including multiple small cultural meadows; however, the size and structure of these communities is not considered suitable to support this species, which requires much larger open areas (>5 ha) to support breeding/nesting. Individuals were not seen or heard during on-site investigations, including targeted morning surveys. No further assessment undertaken.
Butternut	Butternut is shade intolerant and grows in rich, moist, well-drained loams along streambanks. Butternut is also found in well-drained gravel sites. It is often found at forest edges where it can access abundant sunlight.	YES	NO	POSSIBLE	POSSIBLE	The subject property contains a mix of successional communities that have the potential to support this species; however, no Butternut were observed during on-site investigations. No further assessment undertaken.

Species	General Description of Habitat and Range	Is the study area within the current known range of the species.	Do applicable databases contain records for this species within or adjacent to the study area.	Is suitable habitat present within the study area.	Is suitable habitat present within lands adjacent to the study area.	Discussion of relevance to proposal
Cerulean Warbler	Found in two small breeding clusters in the Carolinian Forest and the Frontenac Axis. They breed in hilly, mature deciduous forests with a preference for oak and/or maple dominated forests with swampy bottomlands. They are area and edge-sensitive and require large continuous tracts of forest.	POSSIBLE	NO	NO	NO	N/A
Chimney Swift	The Chimney Swift historically nested and roosted in large hollow trees, rock walls, and other vertical surfaces. They now use human-made structures like chimneys and have high site fidelity to nesting chimneys. 95% of nests are within 1 km of a waterbody.	YES	NO	NO	NO	N/A
Eastern Meadowlark	Nests in Southern Ontario hayfields and pastureland. Will also nest in young orchards, golf courses, roadside verges, grain fields, and fencerows. Prefers habitat with >80% grass cover. Needs a minimum of 5 ha of continuous habitat.	YES	YES	NO	POSSIBLE	The subject property contains successional communities, including multiple small cultural meadows; however, the size and structure of these communities is not considered suitable to support this species, which requires much larger open areas (>5 ha) to support breeding/nesting. Individuals were not seen or heard during on-site investigations, including targeted morning surveys. No further assessment undertaken.
Eastern Small-footed Myotis	Eastern Small-footed Myotis overwinter in caves and mines in Ontario and do not disperse far from their hibernacula during the summer. They can be found roosting in rocky habitats singly or in groups but will also use human structures as day roosts. They are aerial insectivores and forage in forests, rocky habitats, and ponds.	POSSIBLE	NO	NO	NO	The subject property provides no suitable rocky features that might support habitat functions for this species. No further assessment undertaken.

Species	General Description of Habitat and Range	Is the study area within the current known range of the species.	Do applicable databases contain records for this species within or adjacent to the study area.	Is suitable habitat present within the study area.	Is suitable habitat present within lands adjacent to the study area.	Discussion of relevance to proposal
Eastern Whip-poor-will	The Eastern Whip-poor-will forages in open natural and anthropogenic habitats and nests in forests and forest edges with well-drained soils and moderate vegetation cover. Habitat immediately at the nest will be a short herbaceous plant, shrub, or sapling providing cover and shade with nearby perches for adults.	YES	NO	NO	NO	N/A
Henslow's Sparrow	Henslow's Sparrows were historically found across much of southern Ontario; however, current breeding habitat is generally limited to Prince Edward County and the Regional Municipality of Halton. Their habitat is open grasslands with dense vegetation at least 30cm tall, thick standing dead material, <1% shrub cover, and intermediate moisture. They prefer larger, continuous grasslands and are sensitive to edge effects.	NO	NO	NO	NO	N/A
Jefferson Salamander	Jefferson Salamanders have aquatic egg and larval stages in predatory fish-free ponds within deciduous and mixed forests. Once they metamorphose into adults they disperse up to a kilometer from their natal pond and use shaded forest habitats with thick leaf litter and high soil moisture. They use stone and woody debris as refugia.	NO	NO	NO	NO	N/A
King Rail	The King Rail is found on Great Lakes shorelines and inland in Bruce and Simcoe counties. They use large marshes (>231 ha) with low shrub cover, emergent vegetation, and open water. Breeding habitat is wetlands with shallow water and dense emergent vegetation to weave nests. Foraging habitat is shallow wetlands and mudflats.	UNKNOWN	NO	NO	NO	N/A

Species	General Description of Habitat and Range	Is the study area within the current known range of the species.	Do applicable databases contain records for this species within or adjacent to the study area.	Is suitable habitat present within the study area.	Is suitable habitat present within lands adjacent to the study area.	Discussion of relevance to proposal
Lake Sturgeon	Lake Sturgeon need large continuous habitats in river and lake systems to provide for spawning, larval, juvenile, sub-adult, and adult habitat. Spawning takes place in shallow fast flowing headwaters where a natural or man-made barrier occurs. Spawning substrates are gravel, rock, hardpan, or sand. Larval and juvenile fish use clayey substrate habitats and older fish inhabit deep pools.	POSSIBLE	NO	NO	NO	N/A
Least Bittern	Breeds in large marshes within Southern Ontario. Creates nest platforms from tall, dense emergent vegetation within 10m of water and prefers Typha spp. Will use other emergent vegetation. Needs 200 ha of wetland for nesting and foraging but does not need to be continuous wetland. Prefers complexes of smaller wetlands. Will avoid marshes surrounded by >30% forest cover or containing large trees.	POSSIBLE	NO	NO	NO	N/A
Little Brown Myotis	Little Brown Myotis are found throughout all of Canada. Their hibernacula are within caves and abandoned mines, wells, and tunnels. Maternity colonies are within a few kilometers of hibernacula within snag trees, rock crevices, exfoliating tree bark, and anthropogenic structures. Roosts and swarming sites are in similar areas around the hibernacula.	YES	NO	POSSIBLE	POSSIBLE	See report for further discussion.
Louisiana Waterthrush	The Louisiana Waterthrush is mainly found along the Niagara Escarpment and north shore of Lake Erie. They are dependent on clear, steep, lower order streams in ravines within large unbroken mature deciduous-mixed forests.	POSSIBLE	NO	NO	NO	N/A

Species	General Description of Habitat and Range	Is the study area within the current known range of the species.	Do applicable databases contain records for this species within or adjacent to the study area.	Is suitable habitat present within the study area.	Is suitable habitat present within lands adjacent to the study area.	Discussion of relevance to proposal
Northern Myotis/Northern Long-eared Bat	Northern Myotis are found below the tree line in Canada and are mostly absent from the prairies. They use live and dead trees near water in forest habitats when active and migrate to caves and abandoned mines for hibernation.	YES	NO	POSSIBLE	POSSIBLE	See report for further discussion.
Purple Twayblade/Large Twayblade	Purple Twayblade is found mostly in southwestern Ontario; however, there multiple known outlier populations. It prefers open forests and savannah with moist soil but will tolerate closed canopies, dry or moist soil, and most soil types. It also grows in swamps, prairies, alvars, and conifer plantations.	NO	NO	NO	NO	N/A
Redside Dace	The Redside Dace is limited to specific tributaries and watersheds of Lake Ontario, Lake Simcoe, Lake Erie, and Lake Huron. There is a population in the Two Tree River near Thunder Bay. They use slow moving clear or brown-tinged streams with overhanging vegetation and pool and riffle habitat, typically in the headwaters of streams. In May when temperatures are between 16 and 18 C they spawn in the nests of Creek Chub and Common Shiner.	NO	NO	NO	NO	N/A
Tricolored Bat	The Tri-colored Bat is found in southern Ontario and southern Quebec but may not breed in the province. They overwinter alone in caves and mines and roost in dead vegetation clumps and lichen in forested habitats near water.	POSSIBLE	NO	POSSIBLE	POSSIBLE	See report for further discussion.

Species	General Description of Habitat and Range	Is the study area within the current known range of the species.	Do applicable databases contain records for this species within or adjacent to the study area.	Is suitable habitat present within the study area.	Is suitable habitat present within lands adjacent to the study area.	Discussion of relevance to proposal
Unisexual Ambystoma (Jefferson Salamander dependent population)	Unisexual Ambystoma have egg and larval stages in predatory fish-free ponds within deciduous and mixed forests. Once they metamorphose into adults they disperse up to a kilometer from their natal pond and use shaded forest habitats with thick leaf litter and high soil moisture. They use stone and woody debris as refugia.	NO	NO	NO	NO	N/A

Appendix 8. Ecoregion 6E Significant Wildlife Habitat Screening.

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Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
Seasonal Concentration Areas of Animals			
Waterfowl Stopover and Staging Areas (Terrestrial)	Fields with sheet water during Spring (mid March to May) Fields flooding during spring melt and run-off provide important invertebrate foraging habitat for migrating waterfowl. Agricultural fields with waste grains are commonly used by waterflow, these are not considered SWH unless they have spring sheet water available.	CUM1 , CUT1 Plus evidence of annual spring flooding from melt water or run-off within these Ecosites.	The subject property does not contain large agricultural fields or meadows that support spring sheet flooding. No further assessment provided - not SWH.
Waterfowl Stopover and Staging Areas (Aquatic)	Ponds, marshes, lakes, bays, coastal inlest, and watercourses used during migration. Sewage treatment Ponds and storm water Ponds do not qualify as a SWH, however a reservoir managed as a large wetland or pond/lake does qualify. These habitats have an abundance food supply (mostly aquatic invertebrates and vegetation in shallow water)	MAS1 , MAS2, MAS3, SAS1, SAM1, SAF1 , SWD1 , SWD2, SWD3, SWD4, SWD5, SWD6, SWD7	The subject property does not support large aquatic features that would be capable of supporting this function. No further assessment provided - not SWH.
Shorebird Migratory Stopover Areas	Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats. Great Lakes coastal shorelines, including groynes and other forms of armour rock lakeshores, are extremely important for migratory shorebirds in May to mid-June and early July to October. Sewage treatment ponds and storm water ponds do not qualify as a SWH.	BBO1, BBO2, BBS1, BBS2, BBT1, BBT2, SDO1, SDS2, SDT1, MAM1 , MAM2, MAM3, MAM4, MAM5	The subject property does not support shoreline areas that would be capable of supporting this function. No further assessment provided - not SWH.
Raptor Wintering Areas	The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors. Raptor wintering sites (hawk/owl) need to be >20 ha with a combination of forest and upland. Least disturbed sites, idle/fallow or lightly grazed field/meadow (>15ha) with adjacent woodlands Field area of the habitat is to be wind swept with limited snow depth or accumulation. Eagle sites have open water, large trees and snags available for roosting.	Hawks/Owls: Combination of ELC Community Series; need to have present one Community Series from each land class; Forest: FOD, FOM, FOC. Upland: CUM; CUT; CUS; CUW. Bald Eagle: Forest community Series: FOD, FOM, FOC, SWD, SWM or SWC on shoreline areas adjacent to large rivers or adjacent to lakes with open water (hunting area).	The subject property does not support large areas of woodland (>20 ha) or open uplands (>15 ha). No further assessment provided - not SWH.
Bat Hibernacula	Hibernacula may be found in caves, mine shafts, underground foundations and Karsts. Active mine sites are not SWH. The locations of bat hibernacula are relatively poorly known.	Bat Hibernacula may be found in these ecosites: CCR1, CCR2, CCA1, CCA2. (Note: buildings are not considered to be SWH).	The subject property does not contain any features that may represent suitable bat hibernacula structures. No further assessment provided - not SWH.
Bat Maternity Colonies	Maternity colonies can be found in tree cavities, vegetation and often in buildings (buildings are not considered to be SWH). Maternity roosts are not found in caves and mines in Ontario Maternity colonies located in Mature (dominant trees > 80yrs old) deciduous or mixed forest stands with >10/ha large diameter (>25cm dbh) wildlife trees Female Bats prefer wildlife trees (snags) in early stages of decay, class 1-3 . 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.	Maternity colonies considered SWH are found in forested Ecosites. All ELC Ecosites in ELC Community Series: FOD, FOM, SWD, SWM.	While detailed snag density assessment was not undertaken, woodland coverage on the subject property is generally limited to successional communities with young trees <25 cm DBH. Through qualitative review, concentrations of dead-standing trees and mature trees with cavities were not observed. There is no expectation that the property is supporting significant bat maternity colonies. No further assessment provided - not SWH.

*as per Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (January 2015)

Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
Turtle Wintering Areas	For most turtles, wintering areas are in the same general area as their core habitat. Water has to be deep enough not to freeze and have soft mud substrates. Over-wintering sites are permanent water bodies, large wetlands, and bogs or fens with adequate Dissolved Oxygen Man-made ponds such as sewage lagoons or storm water ponds should not be considered SWH.	Snapping and Midland Painted Turtles; ELC Community Classes; SW, MA, OA and SA, ELC Community Series; FEO and BOO. Northern Map Turtle; Open Water areas such as deeper rivers or streams and lakes with current can also be used as overwintering habitat.	The subject property does not support suitable aquatic features with organic substrates that would be capable of supporting this function. No further assessment provided - not SWH.
Reptile Hibernaculum	For snakes, hibernation takes place in sites located below frost lines in burrows, rock crevices and other natural or naturalized locations. The existence of features that go below frost line; such as rock piles or slopes, old stone fences, and abandoned crumbling foundations assist in identifying candidate SWH. Areas of broken and fissured rock are particularly valuable since they provide access to subterranean sites below the frost line Wetlands can also be important over-wintering habitat in conifer or shrub swamps and swales, poor fens, or depressions in bedrock terrain with sparse trees or shrubs with sphagnum moss or sedge hummock ground cover. Five-lined skink prefer mixed forests with rock outcrop openings providing cover rock overlaying granite bedrock with fissures.	For all snakes, habitat may be found in any ecosite other than very wet ones. Talus, Rock Barren, Crevice and Cave, and Alvar sites may be directly related to these habitats. Observations or congregations of snakes on sunny warm days in the spring or fall is a good indicator. For Five-lined Skink, ELC Community Series of FOD and FOM and Ecosites: FOC1, FOC3.	Features with potential to function as reptile hibernacula were not observed during on-site assessment. No further assessment provided - not SWH.
Colonially - Nesting Bird Breeding Habitat (Bank and Cliff)	Any site or areas with exposed soil banks, sandy hills, borrow pits, steep slopes, and sand piles that are undisturbed or naturally eroding that is not a licensed/permitted aggregate area. Does not include man-made structures (bridges or buildings) or recently (2 years) disturbed soil areas, such as berms, embankments, soil or aggregate stockpiles. Does not include a licensed/permitted Mineral Aggregate Operation.	Eroding banks, sandy hills, borrow pits, steep slopes, and sand piles. Cliff faces, bridge abutments, silos, barns. Habitat found in the following ecosites: CUM1, CUT1, CUS1, BLO1, BLS1, BLT1, CLO1, CLS1, CLT1.	Features with potential to function as habitat for cliff or bank-nesting species were not observed during on-site assessment. No further assessment provided - not SWH.
Colonially - Nesting Bird Breeding Habitat Breeding Habitat (Tree/Shrubs)	Nests in live or dead standing trees in wetlands, lakes, islands, and peninsulas. Shrubs and occasionally emergent vegetation may also be used. Most nests in trees are 11 to 15 m from ground, near the top of the tree.	SWM2, SWM3, SWM5, SWM6, SWD1, SWD2, SWD3, SWD4, SWD5, SWD6, SWD7, FET1.	Evidence of nesting colonies or relevant indicator species was not observed during on-site assessment. No further assessment provided - not SWH.
Colonially - Nesting Bird Breeding Habitat (Ground)	Nesting colonies of gulls and terns are on islands or peninsulas (natural or artificial) associated with open water, marshy areas, lake or large river (two-lined on a 1;50,000 NTS map). Brewers Blackbird colonies are found loosely on the ground in or in low bushes in close proximity to streams and irrigation ditches within farmlands.	Any rocky island or peninsula (natural or artificial) within a lake or large river (two-lined on a 1;50,000 NTS map). Close proximity to watercourses in open fields or pastures with scattered trees or shrubs (Brewer's Blackbird) MAM1 – 6, MAS1 – 3, CUM, CUT, CUS	Features with potential to function as habitat for ground-nesting species were not observed during on-site assessment. No further assessment provided - not SWH.
Migratory Butterfly Stopover Areas	A butterfly stopover area will be a minimum of 10 ha in size with a combination of field and forest habitat present, and will be located within 5 km of Lake Ontario. The habitat is typically a combination of field and forest, and provides the butterflies with a location to rest prior to their long migration south. The habitat should not be disturbed, fields/meadows with an abundance of preferred nectar plants and woodland edge providing shelter are requirements for this habitat. 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.	Combination of ELC Community Series; need to have present one Community Series from each landclass: <u>Field:</u> CUM, CUT, CUS <u>Forest:</u> FOC, FOD, FOM, CUP Anecdotally, a candidate site for butterfly stopover will have a history of butterflies being observed.	Not applicable - study area not located within specified distance from Lake Ontario shoreline.

*as per Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (January 2015)

Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
Landbird Migratory Stopover Areas	Woodlots need to be > 10 ha in size and within 5 km of Lake Ontario. If multiple woodlands are located along the shoreline of those woodlands <2 km from Lake Ontario are more significant. Sites have a variety of habitats; forest, grassland and wetland complexes. The largest sites are more significant. Woodlots and forest fragments are important habitats to migrating birds, these features location along the shore and located within 5 km of Lake Ontario are Candidate SWH.	All Ecosites associated with these ELC Community Series; FOC, FOM, FOD, SWC, SWM, SWD.	Not applicable - study area not located within specified distance from Lake Ontario shoreline.
Deer Yarding Areas	Deer wintering 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. The Core of a deer yard (Stratum I) is located within Stratum II 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%. OMNRF determines deer yards following methods outlined in “Selected Wildlife and Habitat Features: Inventory Manual". -Woodlots with high densities of deer due to artificial feeding are not significant.	Note: OMNRF to determine this habitat. ELC Community Series providing a thermal cover component for a deer yard would include; FOM, FOC, SWM and SWC. Or these ELC Ecosites; CUP2, CUP3, FOD3, CUT	The study area is not associated with a mapped deer yarding area. No further assessment undertaken.
Deer Winter Congregation Areas	Woodlots will typically be >100 ha in size. Woodlots <100 ha may be considered as significant based on MNRF studies or assessment. 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. If deer are constrained by snow depth refer to the Deer Yarding Area habitat within Table 1.1 of this Schedule. Large woodlots > 100 ha and up to 1500 ha are known to be used annually by densities of deer that range from 0.1-1.5 deer/ha. Woodlots with high densities of deer due to artificial feeding are not significant.	All Forested Ecosites with these ELC Community Series; FOC , FOM, FOD, SWC, SWM, SWD . Conifer plantations much smaller than 50 ha may also be used.	The study area is not associated with a mapped deer winter congregation area. No further assessment undertaken.
Rare Vegetation Communities			
Cliffs and Talus Slopes	A Cliff is vertical to near vertical bedrock >3m in height. A Talus Slope is rock rubble at the base of a cliff made up of coarse rocky debris	Any ELC Ecosite within Community Series: TAO, TAS, TAT, CLO, CLS, CLT	No applicable ELC communities are contained within the study area.
Sand Barren	Sand Barrens typically are exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion. They have little or no soil and the underlying rock protrudes through the surface. Usually located within other types of natural habitat such as forest or savannah. Vegetation can vary from patchy and barren to tree covered but less than 60%.	ELC Ecosites: SBO1, SBS1, SBT1 Vegetation cover varies from patchy and barren to continuous meadow (SBO1), thicket-like (SBS1), or more closed and treed (SBT1). Tree cover always < 60%.	No applicable ELC communities are contained within the study area.

*as per Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (January 2015)

Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
Alvar	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 may be complex, with alternating periods of inundation and drought. Vegetation cover varies from sparse lichen-moss associations to grasslands and shrublands and comprising a number of characteristic or indicator plant. Undisturbed alvars can be phyto- and zoogeographically diverse, supporting many uncommon or are relict plant and animals species. Vegetation cover varies from patchy to barren with a less than 60% tree cover.	ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2 Five Alvar Indicator Species: 1) Carex crawei, 2) Panicum philadelphicum, 3) Eleocharis compressa, 4) Scutellaria parvula, 5) Trichostema brachiatum These indicator species are very specific to Alvars within Ecoregion 6E	No applicable ELC communities are contained within the study area.
Old Growth Forest	Old Growth forests are characterized by exhibiting the greatest number of old-growth characteristics, such as mature forest with large trees that has been undisturbed. Heavy mortality or turnover of overstorey trees resulting in a mosaic of gaps that encourage development of a multi-layered canopy and an abundance of snags and downed woody debris.	Forest Community Series: FOD, FOC, FOM, SWD, SWC, SWM	No old-growth forest conditions are present within the study area.
Savannah	A Savannah is a tallgrass prairie habitat that has tree cover between 25–60%.	TPS1, TPS2, TPW1, TPW2, CUS2	No applicable ELC communities are contained within the study area.
Tallgrass Prairie	Tallgrass Prairie is an open vegetation with less than < 25% tree cover, and dominated by prairie species, including grasses.	TPO1, TPO2	No applicable ELC communities are contained within the study area.
Other Rare Vegetation Community	ELC Ecosite codes that have the potential to be a rare ELC Vegetation Type as outlined in Appendix M. The OMNRF/NHIC will have up to date listing for rare vegetation communities.	Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of the SWHTG. Any ELC Ecosite Code that has a possible ELC Vegetation Type that is Provincially Rare is Candidate SWH.	No rare vegetation communities are contained within the study area.

*as per Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (January 2015)

Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
Specialized Habitats for Wildlife			
Waterfowl Nesting Area	A waterfowl nesting area extends 120 m from a wetland (> 0.5 ha) or a cluster of 3 or more small (<0.5 ha) wetlands within 120 m of each individual wetland where waterfowl nesting is known to occur. Upland areas should be at least 120 m wide so that predators such as raccoons, skunks, and foxes have difficulty finding nests. Wood Ducks, Bufflehead, Common Goldeneye and Hooded Mergansers utilize large diameter trees (>40cm dbh) in woodlands for cavity nest sites.	All upland habitats located adjacent to these wetland ELC Ecosites are Candidate SWH: MAS1, MAS2, MAS3, SAS1, SAM1, SAF1, MAM1, MAM2, MAM3, MAM4, MAM5, MAM6, SWT1, SWT2, SWD1, SWD2, SWD3, SWD4 Note: includes adjacency to provincially Significant Wetlands	The study area supports a very small inclusion of wetland vegetation (<0.5 ha) that supports no standing water that could support waterfowl. No further assessment provided - not SWH.
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands, or on structures over water. Osprey nests are usually at the top a tree whereas Bald Eagle nests are typically in super canopy trees in a notch within the tree's canopy. Nests located on man-made objects are not to be included as SWH (e.g. telephone poles and constructed nesting platforms).	ELC Forest Community Series: FOD, FOM, FOC, SWD, SWM and SWC directly adjacent to riparian areas – rivers, lakes, ponds and wetlands.	No Bald Eagle or Osprey nests were observed within the study area, nor is there appropriate cover on or adjacent to the property that might be expected to support this function. No further assessment provided - not SWH.
Woodland Raptor Nesting Habitat	All natural or conifer plantation woodland/forest stands >30ha with >10ha of interior habitat. Interior habitat determined with a 200m buffer. In disturbed sites, nests may be used again, or a new nest will be in close proximity to old nest.	May be found in all forested ELC Ecosites. May also be found in SWC, SWM, SWD and CUP3.	The subject property is not part of large woodland complex and contains no interior habitat. No further assessment provided - not SWH.
Turtle Nesting Areas	Best nesting habitat for turtles are close to water and away from roads and sites less prone to loss of eggs by predation from skunks, raccoons or other animals. For an area to function as a turtle nesting area, it must provide sand and gravel that turtles are able to dig in and are located in open, sunny areas. Nesting areas on the sides of municipal or provincial road embankments and shoulders are not SWH. Sand and gravel beaches adjacent to undisturbed shallow weedy areas of marshes, lakes, and rivers are most frequently used.	Exposed mineral soil (sand or gravel) areas adjacent (<100m) or within the following ELC Ecosites: MAS1, MAS2, MAS3, SAS1, SAM1, SAF1, BOO1	Features with potential to function as nesting habitat for turtles were not observed during on-site assessment. No further assessment provided - not SWH.
Seeps and Springs	Any forested area (with <25% meadow/field/pasture) within the headwaters of a stream or river system. Seeps and springs are important feeding and drinking areas especially in the winter will typically support a variety of plant and animal species.	Seeps/Springs are areas where groundwater 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.	No seeps or spring were observed within the subject property. No further assessment provided - not SWH.
Amphibian Breeding Habitat (Woodland)	Presence of a wetland or pond >500 m^2 (about 25 m diameter) within or adjacent (within 120m) to a woodland (no minimum size). The wetland, lake or pond and surrounding forest, would be the Candidate SWH. Some small wetlands may not be mapped and may be important breeding pools for amphibians. Woodlands with permanent ponds or those containing water in most years until mid-July are more likely to be used as breeding habitat.	All Ecosites associated with these ELC Community Series; FOC, FOM, FOD, SWC, SWM, SWD Breeding pools within the woodland or the shortest distance from forest habitat are more significant because they are more likely to be used due to reduced risk to migrating amphibians.	No large woodland pools (>25 m diameter) were observed within the subject property. No further assessment provided - not SWH.

*as per Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (January 2015)

Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
Amphibian Breeding Habitat (Wetlands)	Wetlands and pools (including vernal pools) >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. Presence of shrubs and logs increase significance of pond for some amphibian species because of available structure for calling, foraging, escape and concealment from predators. Bullfrogs require permanent water bodies with abundant emergent vegetation.	ELC Community Classes SW, MA, FE, BO, OA and SA. Typically these wetland ecosites will be isolated (>120m) from woodland ecosites, however larger wetlands containing predominantly aquatic species (e.g. Bull Frog) may be adjacent to woodlands.	No suitably-sized or suitably-structured wetland ecosites were observed within the subject property. A very small wetland inclusion was observed, but contains no standing water that could support this function. No further assessment provided - not SWH.
Area-Sensitive Bird Breeding Habitat	Habitats where interior forest breeding birds are breeding, typically large mature (>60 yrs old) forest stands or woodlots >30 ha. Interior forest habitat is at least 200 m from forest edge habitat.	All Ecosites associated with these ELC Community Series; FOC, FOM, FOD, SWC, SWM, SWD.	The subject property is not part of large woodland complex and contains no interior habitat. No further assessment provided - not SWH.
Habitat for Species of Conservation Concern (not including Endangered or Threatened Species)			
Marsh Bird Breeding Habitat	Nesting occurs in wetlands. All wetland habitat is to be considered as long as there is shallow water with emergent aquatic vegetation present. For Green Heron, habitat is at the edge of water such as sluggish streams, ponds and marshes sheltered by shrubs and trees. Less frequently, it may be found in upland shrubs or forest a considerable distance from water.	MAM1, MAM2, MAM3, MAM4, MAM5, MAM6, SAS1, SAM1, SAF1, FEO1, BOO1. For Green Heron: All SW, MA and CUM1 sites.	No suitable marsh habitat was observed within the subject property. No further assessment provided - not SWH.
Open Country Bird Breeding Habitat	Large grassland areas (includes natural and cultural fields and meadows) >30 ha Grasslands not Class 1 or 2 agricultural lands, and not being actively used for farming (i.e., no row cropping or intensive hay or livestock pasturing in the last 5 years). Grassland sites considered significant should have a history of longevity, either abandoned fields, mature hayfields and pasturelands that are at least 5 years or older. The Indicator bird species are area sensitive requiring larger grassland areas than the common grassland species.	CUM1, CUM2	No large grassland or meadow ecosites are present within the subject property. No further assessment provided - not SWH.
Shrub/Early Successional Bird Breeding Habitat	Large field areas succeeding to shrub and thicket habitats >30 ha in size. Shrub land or early successional fields, not class 1 or 2 agricultural lands, not being actively used for farming (i.e., no row-cropping, haying or livestock pasturing in the last 5 years). Shrub thicket habitats (>10 ha) are most likely to support and sustain a diversity of these species. Shrub and thicket habitat sites considered significant should have a history of longevity, either abandoned fields or lightly grazed pasturelands.	CUT1, CUT2, CUS1, CUS2, CUW1, CUW2. Patches of shrub ecosites can be complexed into a larger habitat for some bird species.	No large thicket ecosites are present within the subject property. No further assessment provided - not SWH.

*as per Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (January 2015)

Ecoregion 6E	Candidate Significant Wildlife Habitat	ELC Ecosites	Do site-specific attributes (e.g., ecological system and landscape configuration) assessed from available information sources and on-site assessment indicate that candidate SHW might be present?
Terrestrial Crayfish	Wet meadow and edges of shallow marshes (no minimum size) should be surveyed for terrestrial crayfish. Constructs burrows in marshes, mudflats, meadows, the ground can't be too moist. Can often be found far from water. Both species are a semi-terrestrial burrower which spends most of its life within burrows consisting of a network of tunnels. Usually the soil is not too moist so that the tunnel is well formed.	MAM1, MAM2, MAM3, MAM4, MAM5, MAM6, MAS1, MAS2, MAS3, SWD, SWT, SWM, CUM1 with inclusions of above meadow marsh or swamp ecosites can be used by terrestrial crayfish.	Evidence of terrestrial crayfish was not observed within the study area.
Special Concern and Rare Wildlife Species	When an element occurrence is identified within a 1 or 10 km grid for a Special Concern or Provincially Rare species; linking candidate habitat on the site needs to be completed to ELC Ecosites	All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species. All plant and animal element occurrences (EO) within a 1 or 10 km grid. Older element occurrences were recorded prior to GPS being available, therefore location information may lack accuracy	Evidence for special concern species was not observed within the study area. However, records for one or more SC species are listed in applicable databases. See report for scoped discussion.
Animal Movement Corridors			
Amphibian Movement Corridors	Movement corridors between breeding habitat and summer habitat. Movement corridors must be determined when Amphibian breeding habitat is confirmed as SWH from Table 1.2.2 (Amphibian Breeding Habitat –Wetland) of this Schedule.	Corridors may be found in all ecosites associated with water. Corridors will be determined based on identifying the significant breeding habitat for these species (see above).	Significant amphibian breeding habitat is not present within the study area. Therefore, movement corridors are not considered applicable.
Deer Movement Corridors	Corridors may be found in all forested ecosites. A Project Proposal in Stratum II Deer Wintering Area has potential to contain corridors.	Movement corridor must be determined when Deer Wintering Habitat is confirmed as SWH (see above). A deer wintering habitat identified by the OMNRF as SWH will have corridors that the deer use during fall migration and spring dispersion. Corridors typically follow riparian areas, woodlots, areas of physical geography (ravines, or ridges).	N/A

*as per Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E (January 2015)

Appendix 9. Subdivision Concept Plan.

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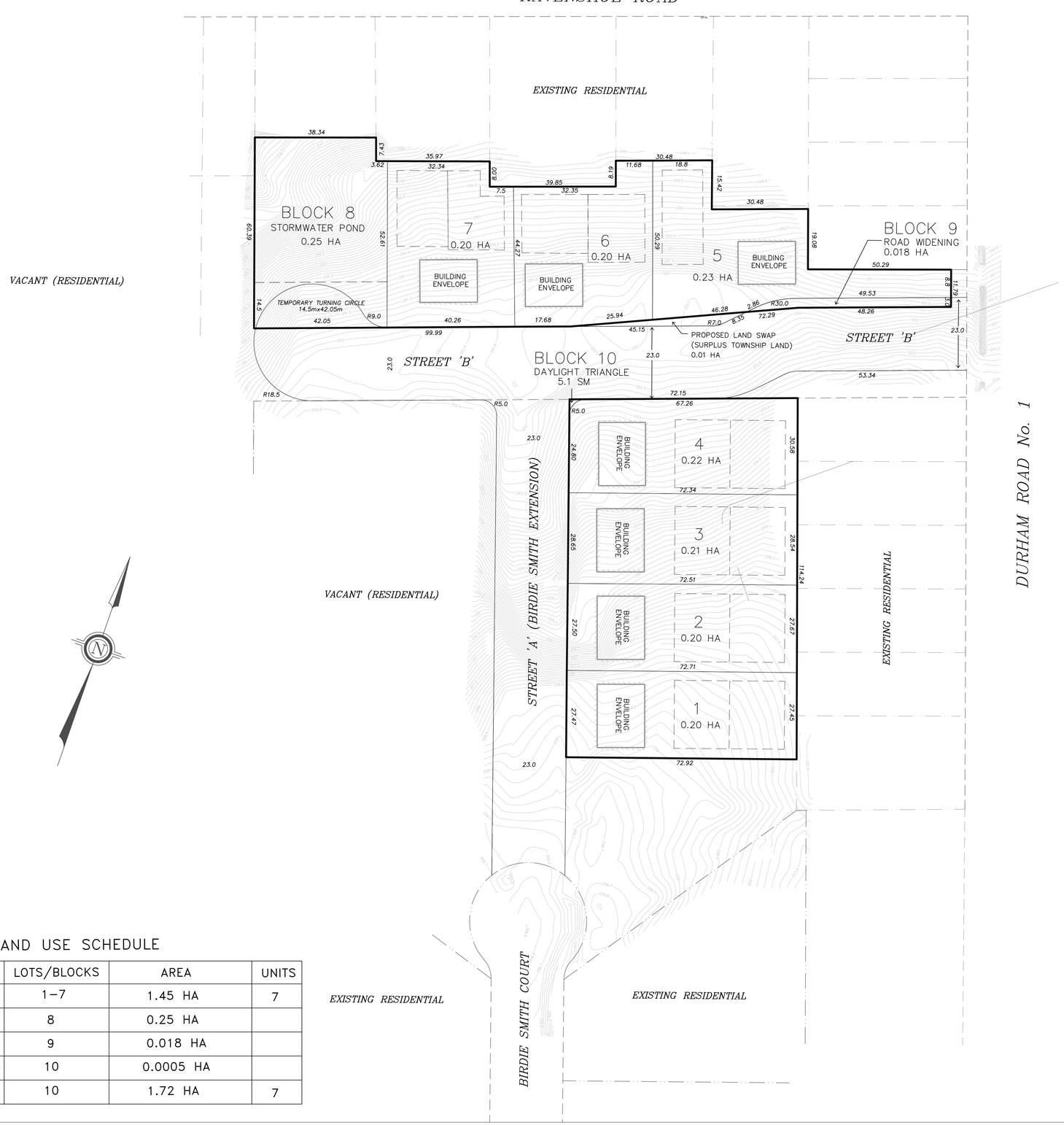
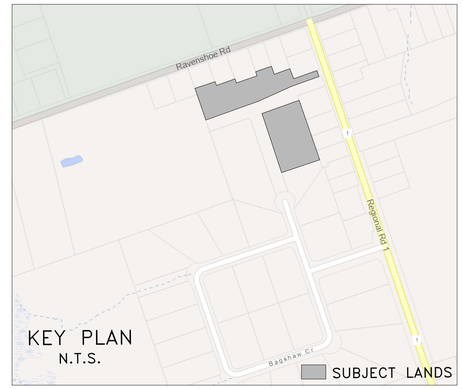


LAND USE SCHEDULE

LAND USE	LOTS/BLOCKS	AREA	UNITS
DETACHED (90'+)	1–7	1.45 HA	7
STORMWATER POND	8	0.25 HA	
ROAD WIDENING	9	0.018 HA	
DAYLIGHT TRIANGLE	10	0.0005 HA	
TOTAL	10	1.72 HA	7



DRAFT PLAN OF SUBDIVISION
FILE NO. _____

PART OF LOT 3
PLAN 40M–2318

LOTS 94, 95, 114 & BLOCK "A"
AND PART OF LOTS 92, 93, 96,
99, 100, 103, 104, 107, 108,
109, 110, 111, 112, 113, 115,
117, 118, 119, 120, 121 & 129

PART OF CHURCH STREET
(CLOSED BY BY–LAW No. 98–022, AS IN INSTRUMENT No. D512150)
REGISTERED PLAN 64

TOWNSHIP OF UXBRIDGE
REGIONAL MUNICIPALITY OF DURHAM

OWNER'S AUTHORIZATION

I HEREBY AUTHORIZE FLAGSHIP DEVELOPMENTS TO PREPARE AND SUBMIT THIS DRAFT PLAN OF SUBDIVISION FOR APPROVAL.

SIGNED _____ DATE _____

JOHN COOPER
2695867 ONTARIO INC.

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AS SHOWN ON THIS PLAN AND THEIR RELATIONSHIP TO ADJACENT LANDS ARE CORRECTLY AND ACCURATELY SHOWN.

SIGNED _____ DATE _____

TED GARDEN, OLS
E.R. GARDEN LIMITED

ADDITIONAL INFORMATION

UNDER SECTION 51(17) OF THE PLANNING ACT, INFORMATION REQUIRED BY CLAUSES A,B,C,D,E,F,G,J,L ARE SHOWN ON DRAFT AND KEY PLANS.

H) PRIVATE WELLS
I) SANDY SILT
K) PRIVATE SEPTIC

JANUARY 20, 2025	ORIGINAL SUBMISSION	DP–1
DATE	REVISION	DWG

FLAGSHIP DEVELOPMENTS	DATE	SCALE	DRAWING
	JAN 20/25	1:500	DP–1