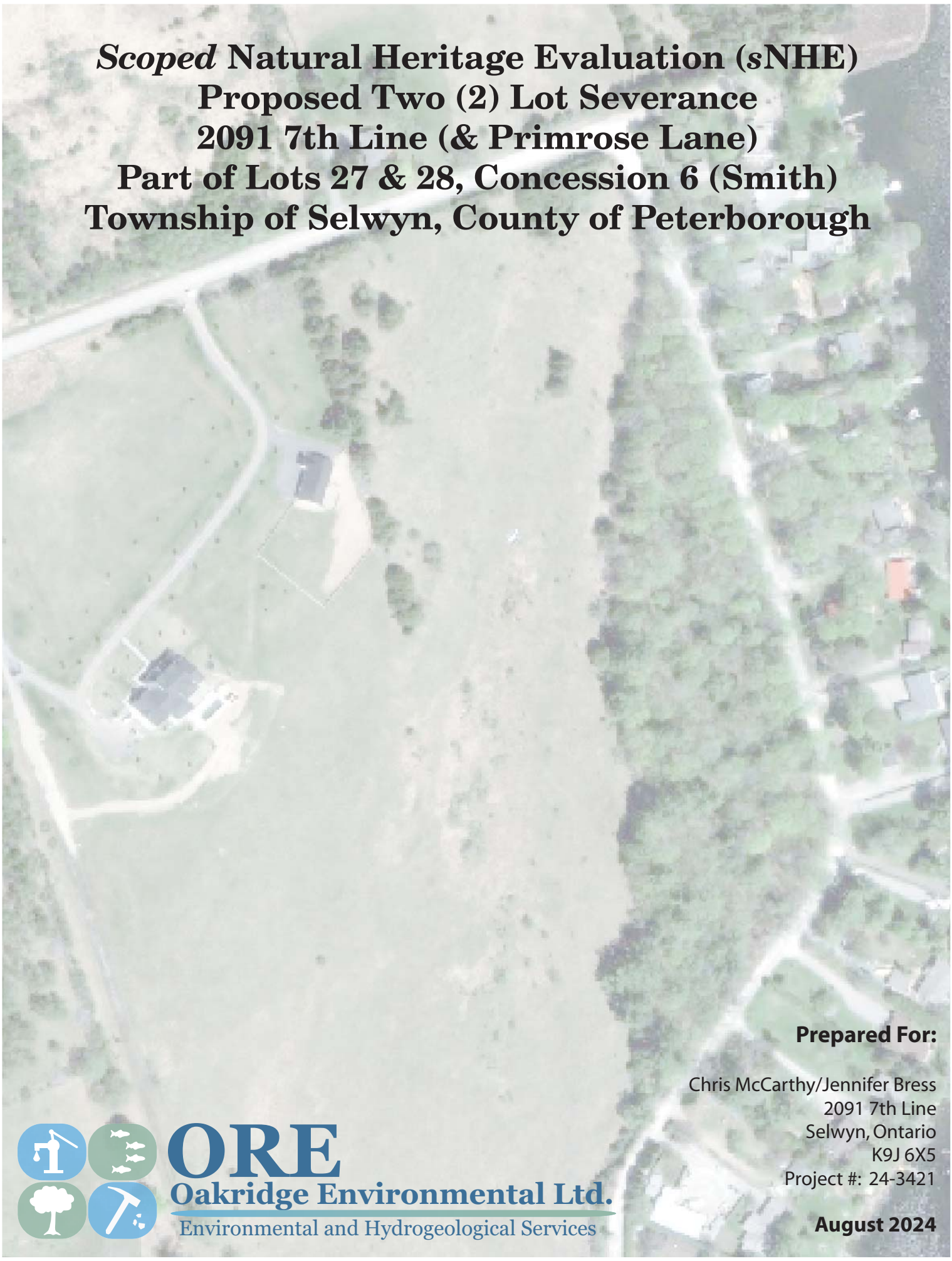
Scoped Natural Heritage Evaluation (*s*NHE)
Proposed Two (2) Lot Severance
2091 7th Line (& Primrose Lane)
Part of Lots 27 & 28, Concession 6 (Smith)
Township of Selwyn, County of Peterborough



Prepared For:

Chris McCarthy/Jennifer Bress
2091 7th Line
Selwyn, Ontario
K9J 6X5
Project #: 24-3421

August 2024

ORE
Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

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August 23rd, 2024

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Selwyn, Ontario
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Attention: **Chris McCarthy/Jennifer Bress**

Re: *Scoped* Natural Heritage Evaluation (*s*NHE)
Proposed Two (2) Lot Severance
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Part of Lots 27 & 28, Concession 6 (Smith)
Township of Selwyn, County of Peterborough
ORE File No. 24-3421

Oakridge Environmental Ltd. (ORE) is pleased to provide this *Scoped* Natural Heritage Evaluation (*s*NHE) for the above-referenced property located in the County of Peterborough.

ORE staff completed one (1) inspection during the spring season. The eastern most proposed severance contains a small part of a larger woodland habitat that extends from the eastern part of the lands to be retained. ORE also identified one (1) intermittent runoff type watercourse feature proximal to the proposed severances, as well.

Although the Species at Risk (SAR) pre-screen suggests there is an abundance of SAR that have been detected in the general vicinity of the subject property, only three (3) SAR were detected during the surveys - Eastern Meadowlark, Grasshopper Sparrow and Wood Thrush.

Recommendations to mitigate potential impacts on the key natural heritage features have been included in this report. It is expected the development can proceed, provided those mitigation recommendations are implemented.

Yours truly,
Oakridge Environmental Ltd.

Rob West, HBSc.
Senior Ecologist

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1.0 Introduction

1.1 General

Oakridge Environmental Ltd. is pleased to present this *Scoped* Natural Heritage Evaluation (*s*NHE) in support of an application for a two (2) lot residential severance within the Township of Selwyn.

The proposed severances are located within 120 m of a hydrologic feature, and are also located within the Growth Plan area for the Greater Golden Horseshoe. As a result, an *s*NHE is required to support the consent application.

The purpose of the study is to characterize the site conditions on the subject site and adjacent lands, and to demonstrate that the proposed developments can be sustainably accommodated without resulting in unacceptable/negative impacts to any Key Hydrologic Features (KHF) or Key Natural Heritage Features (KNHF).

The following sections outline our data sources, methodologies, findings and recommendations.

1.2 Site Description, Location and Access

The subject site is located at 2091 7th Line at the intersection of Primrose Lane, within Part Lots 27 & 28, Concession 6 (Smith), Township of Selwyn, County of Peterborough (Figures 1 & 2). The total property consists of approximately 10.4 ha (25.8 acres). There is an existing residence and shed structure on the subject parcel, these will become part of the retained lands, if the severance is approved.

The proposed severance lots consist primarily of agricultural lands, with some woodlands along the road frontage. A woodland is located within the southeast portion of the lands to be retained. A tributary of the Otonabee River is mapped on the northwest corner of the property. Otonabee River is also located approximately 105 m east of the site.

The site can be accessed through a gate directly off 7th Line.

1.3 Proposed Development

Two (2) lot severances are being proposed for the purpose of single residential development. The proposed severances will be located in the northeast corner of the property with frontage along 7th Line, and will consist of approximately 1 acre (0.4 ha) each. The easternmost lot will also have frontage along Primrose Lane.

A proposed development concept plan has not been provided, as the plan will be based on any potential constraints identified in this report.

2.0 Policy Framework

2.1 Provincial Policy Statement

The 2020 Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning and development. This document stresses the need for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of Natural Heritage Features.

Section 3 of the Planning Act requires that Planning authorities shall "have regard for" the PPS when exercising any authority that affects municipal Planning matters. Since this is a Planning application, the Township and County will usually apply the most recent version of the PPS Natural Heritage section requirements to ensure the relevant natural heritage features are detected and that any required mitigation is applied to protect those features.

ORE is knowledgeable of, and has reviewed Section 2.1 (Natural Heritage) of the 2020 PPS with specific regard to the applicability of the Policy to the subject site. In addition, ORE has reviewed and utilized the methodologies outlined in the Ministry of Natural Resources and Forestry's (MNRF's) *Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement* (2005).

The PPS lists a number of features that must be addressed, including but not limited to the following:

- Significant Woodlands;
- Significant Wetlands;
- Significant Valleylands;
- Significant Wildlife Habitat (SWH);
- Significant Fisheries Habitat, and
- Species at Risk.

The MNRF's assessment requirements under the *"Significant Wildlife Habitat Criteria Schedules For Ecoregion 6E"* is applicable to Planning Applications. ORE staff reviewed the site's vegetation and formed a candidate SWH list which was further refined, based on our knowledge of the site. The SWH assessment focussed on the type of vegetation to be impacted by the development, rather than all of the ELC types observed on the subject property.

Similarly, for any of the remaining Natural Heritage Features listed above that were identified on the property, these have been researched and discussed as per the PPS requirements.

An excerpt of the PPS is found in Appendix A.

2.2 Growth Plan for the Greater Golden Horseshoe (Growth Plan)

It is understood that the proposed severance is subject to a Planning application and related approvals, and that the Growth Plan is applicable.

In July of 2017, the Ministry of Municipal Affairs and Housing (MMAH) issued the Growth Plan for the Greater Golden Horseshoe (Growth Plan or GPGGH). The Growth Plan is a policy document intended to assist planning authorities implement a set of standardized objectives for development within their jurisdictions. Among other things, the Growth Plan established a Natural Heritage System (NHS) in accordance with the PPS for the entire region. The NHS identifies Key Natural Heritage Features (KNHF) and water resource systems (Key Hydrologic Features - KHF).

The Growth Plan also prescribes certain setbacks from these features, typically in the form of a "Vegetation Protection Zone" (VPZ). The NHS and these prescribed setbacks are intended to be applicable to all new developments that require a Planning application, outside the designated settlement areas of the Greater Golden Horseshoe.

The Growth Plan was amended in May 2019 due to its restrictive nature. It was revised to allow Municipalities more decision-making abilities within their jurisdiction by providing their own Natural Heritage System (NHS), rather than adopting the Growth Plan in its entirety.

Section 4.2.3.1 of the Growth Plan states that *"outside of settlement areas, development or site alteration is not permitted in key natural heritage features that are part of the Natural Heritage System for the Growth Plan or in key hydrologic features…"*. Since the Natural Heritage System for the Growth Plan has not yet been implemented by the County of Peterborough or the Township, this policy currently does not prohibit development in key natural heritage features. Similarly, there is no County NHS mapping that identifies Significant Valleylands, nor does the OP identify any criteria to

evaluate Valleylands. Therefore, no policies exist with respect to development in valleylands at this point. However, the Growth Plan provides protection to the key hydrologic features from development and site alteration.

It is possible that a new/revised PPS may be adopted by the province in the near future, amalgamating the Growth Plan and PPS planning requirements.

For now, ORE staff have identified all KNHFs/KHFs that apply to the proposed severance areas. The applicable setbacks have been applied, as per the Growth Plan, which is still in effect.

2.3 Otonabee Region Conservation Authority (ORCA)

The subject site is regulated by Ontario Regulation 41/24 *Prohibited Activities, Exemption, and Permits* and is in the jurisdiction of the Otonabee Region Conservation Authority (ORCA).

Based on our review, there is no flood constraint associated with the nearby hydrologic features. Therefore, a flood boundary has not been applied to the subject property. This study has regard for regulated features such as hazardous lands, wetlands, and adjacent lands which may impact the associated feature.

This study was prepared to meet the requirements of the new provincial regulation effective April 1st, 2024.

2.4 County of Peterborough

At the time of preparing this report, a Preliminary Severance Review (PSR) had not yet been prepared by the County of Peterborough.

Nevertheless, ORE staff are knowledgeable of the typical concerns that need to be addressed in the *s*NHE. As such, this study has been prepared to address the County requirements.

An excerpt from the County's Official Plan is included in Appendix B. The excerpt includes the requirements for an environmental study.

2.5 Township of Selwyn

It is anticipated that the proponent's application will be circulated to the Township of Selwyn for the purpose of obtaining Planning approvals. The Township may rely on the County and its peer review process to ascertain whether the natural heritage objectives have been adequately addressed in this *s*NHE.

3.0 Scope of Work

In completing this *s*NHE, the following tasks were completed:

- Relevant background information regarding the site (air photos, topographic mapping, etc.) was compiled and reviewed. Queries of the following databases were completed: Natural Heritage Information Centre (NHIC), iNaturalist, eBird and the Ontario Breeding Bird Atlas (OBBA).

- One (1) site inspection was completed in the spring season. A biological inventory of visible flora and fauna of the property was completed. Basic vegetation communities were identified, where possible.

  Any significant environmental features or important wildlife species or habitat were identified and their positions/boundaries were determined utilizing a GPS.

- All data were interpreted and this report was prepared.

4.0 Physical Setting

4.1 Topography and Drainage

As illustrated by Figure 2, the proposed severance lots occur on an east-facing valley slope overlooking the Otonabee River. While the main river valley is a terraced remnant erosional feature from the post-glacial period (when the river was a major spillway), the top of the slope is also the northernmost part of a series of elongated drumlin ridges that occur west of the river. Of the subject property's approximately 23 m of topographic relief, the proposed severance lots exhibit about 14 m of relief.

There are no mapped watercourses on, or immediately adjacent to, the proposed lots. However, a small unnamed tributary crosses the northwestern corner of the lands to be retained, eventually conveying flows to the Otonabee River, about 200 m north of the site. The tributary appears to be a headwater feature, beginning in an elevated area where a small pond occurs (at approximately elevation 248 masl). The headwater

occurs in a linear trough between two sets of drumlin ridges, likely indicating the water table elevation in that area. As such, it is possible that minor groundwater seepage could occur along the lower slopes, depending on the soil conditions.

4.2 Geological Setting

As illustrated by Figure 3, the entire site area is mapped as containing stone-poor carbonate-rich silt and sand till. The till is referred to as the Newmarket Till, which is a low-permeability soil unit that is widely recognized as a regional aquitard. The Newmarket Till is commonly drumlinized and several drumlin ridges are mapped in the local area, including the main ridge containing the proposed lots. While the till tends to exhibit low permeability, its upper, weathered surface can be sandy, somewhat enhancing permeability.

South of the site (within the river valley), layered glaciofluvial deposits are mapped, often consisting of sand gravel and cobble, representing the remnants of the ancient spillway. While not mapped immediately adjacent to the subject property, similar deposits could occur close to the river.

Occasional sandy glaciolacustrine deposits also occur in the site area. These represent the remnants of ancient glacial lakes or ponds, typically deposited on the till substrate. Given their presence in the area, it is conceivable that other (unmapped) occurrences could also be present, depending on which areas were inundated. Elsewhere in the site area, localized deposits of organic soils occur. These are largely alluvium and wetlands.

Below the site, limestone bedrock of the Verulam Formation occurs. The Verulam Formation is generally characterized by interbedded bioclastic limestone beds (~10 cm thick) and shaly limestone beds (~6 cm thick). Although not illustrated by Figure 3, limestone outcrops occur along the river valley in the site area.

Although the thickness of the overburden cover can be approximately discerned from the bedrock outcrops along the river, those outcrops have been eroded by the river. As such, the bedrock surface is likely higher below the site. This can be further evaluated from a perusal of Ministry of the Environment, Conservation and Parks (MECP) well records of the site area. For example, nearby well No. 5105000 (situated on Primrose Lane) penetrated 5.5 m of clay and boulders (Newmarket Till) above the limestone. At that location, the reported static water level was only 2.1 m below the ground surface, suggesting a fairly shallow water table within the till.

5.0 Background Data

5.1 Natural Heritage Information Centre (NHIC)

The NHIC provides an online database managed by the Ministry of Natural Resources and Forestry (MNRF). Within the database, Ontario has been divided into a grid consisting of 1 km^2 areas or regional squares, each given a unique identifier. The squares can be searched for species of conservation concern, plant communities, wildlife concentration areas and natural areas. This search includes 120 m of adjacent lands around the property.

The search area falls within two (2) of the 1 km^2 squares: 17QK1720 & 17QK1721.

The query indicates that eleven (11) Species at Risk (SAR) have been recorded in the area:

Common Name	**Scientific Name**	**SAR Status**
Bobolink	*Dolichonyx oryzivorus*	Threatened
Canada Warbler	*Cardellina canadensis*	Special Concern
Eastern Meadowlark	*Sturnella magna*	Threatened
Eastern Milksnake	*Lampropeltis triangulum*	NAR[1]
Eastern Musk Turtle	*Sternotherus odoratus*	Special Concern
Least Bittern	*Ixobrychus exilis*	Threatened
Midland Painted Turtle	*Chrysemys picta marginata*	Special Concern[2]
Northern Map Turtle	*Graptemys geographica*	Special Concern
Snapping Turtle	*Chelydra serpentina*	Special Concern
Western Chorus Frog[3]	*Pseudacris maculata pop. 1*	NAR[4]
Wood Thrush	*Hylocichla mustelina*	Special Concern

1 Not at Risk (SARO); Special Concern (SARA/COSEWIC)
2 COSEWIC status only
3 Great Lakes - St. Lawrence - Canadian Shield population
4 Not at Risk (SARO); Threatened (SARA/COSEWIC)

The query indicates that four (4) provincially rare species of note (not a SAR but tracked by the ministry) have been recorded in the area:

Common Name	**Scientific Name**	**S-Rank**
American Coot	*Fulica americana*	S3B,S4N
Blue-winged Teal	*Spatula discors*	S3B,S4M
Common Gallinule	*Gallinula galeata*	S3B
Upland Sandpiper	*Bartramia longicauda*	S2B

Brief descriptions of the above SAR species and their preferred habitats are included in Appendix C. Our site inspections included targeted searches for potential SAR habitat of these species.

An excerpt from the NHIC's website illustrating the location of the squares relative to the 120 m search area around subject site is also included in Appendix D.

5.2 Ontario Breeding Bird Atlas (OBBA)

The OBBA[1] provides up-to-date reliable information on birds within Ontario. The information includes species descriptions, habitats, range, documented sightings, etc. The subject site occurs within the 10 km^2 area mapped as 1717TQK12, Region 16, Peterborough. The Summary Sheets for this atlas area are provided in Appendix E.

From our review of the information, significant breeding species that could potentially be associated with habitats in the site area include the following:

Common Name	**Scientific Name**	**SARO Status**
Bank Swallow	*Riparia riparia*	Threatened
Barn Swallow	*Hirundo rustica*	Special Concern
Black Tern	*Chlidonias niger*	Special Concern
Bobolink	*Dolichonyx oryzivorus*	Threatened
Canada Warbler	*Cardellina canadensis*	Special Concern
Cerulean Warbler	*Setophaga cerulea*	Threatened
Chimney Swift	*Chaetura pelagica*	Threatened
Common Nighthawk	*Chordeiles minor*	Special Concern
Eastern Meadowlark	*Sturnella magna*	Threatened
Eastern Whip-poor-will	*Antrostomus vociferus*	Threatened
Eastern Wood-Pewee	*Contopus virens*	Special Concern
Grasshopper Sparrow	*Ammodramus savannarum*	Special Concern
Least Bittern	*Ixobrychus exilis*	Threatened
Wood Thrush	*Hylocichla mustelina*	Special Concern

Brief descriptions of the listed species and their preferred habitats are included in Appendix C. The site inspections included a review of potential SAR habitat and targeted searches for the listed species.

[1] managed by Bird Studies Canada.

5.3 eBird

eBird is a citizen science database, whereby birding individuals can attend public areas referred to as "hotspots" and list species of bird they detect each time they visit the hotspot location. According to the eBird Geographic Information System (GIS) database, the nearest hotspot is the Otonabee River - between Lock 25 and Lakefield (L1862781) site, located approximately 1 km northeast of the site. A total of one-hundred and forty-one (141) species were recorded at this hotspot (Appendix F). Of the 141, nine (9) are SAR and listed below:

Common Name	**Scientific Name**	**Status**
Bank Swallow	*Riparia riparia*	Threatened
Barn Swallow	*Hirundo rustica*	Special Concern
Black Tern	*Chlidonias niger*	Special Concern
Bobolink	*Dolichonyx oryzivorus*	Threatened
Chimney Swift	*Chaetura pelagica*	Threatened
Eastern Wood-Pewee	*Contopus virens*	Special Concern
Evening Grosbeak	*Coccothraustes vespertinus*	Special Concern
Horned Grebe	*Podiceps auritus*	Special Concern
Rusty Blackbird	*Euphagus carolinus*	Special Concern

Brief descriptions of each of the SAR and their preferred habitats are included in Appendix C.

5.4 iNaturalist

The iNaturalist database provides a geographical site map which contains individual species occurrences. The NHIC and Species at Risk in Canada projects on the iNaturalist database is specific to those species tracked by the two projects. These include SAR as per those identified in the Species at Risk Ontario website and also provincially rare species that are tracked by the NHIC. The occurrence data includes the professional/surveyors name, confirmation identification by other professionals, occurrence photos, and the date the species was observed. The search extent is an approximate 2 km radius from the approximate property boundary.

The iNaturalist database was reviewed to determine if any SAR sightings of research grade have occurred either on, or within the vicinity of the subject site. Seventeen (17) SAR species were reported either directly on or in the general vicinity of the subject site. The SAR occurrences have been compiled below:

Common Name	**Scientific Names**	**SAR Status**
American Bumble Bee	*Bombus pensylvanicus*	Special Concern
Barn Swallow	*Hirundo rustica*	Special Concern
Black Ash	*Fraxinus nigra*	Endangered
Black Tern	*Chlidonias niger*	Special Concern
Bobolink	*Dolichonyx oryzivorus*	Threatened
Chimney Swift	*Chaetura pelagica*	Threatened
Eastern Meadowlark	*Sturnella magna*	Threatened
Eastern Milksnake	*Lampropeltis triangulum*	NAR[1, 2]
Eastern Wood-Pewee	*Contopus virens*	Special Concern
Evening Grosbeak	*Coccothraustes vespertinus*	Special Concern
Lesser Yellowlegs	*Tringa flavipes*	Threatened
Midland Painted Turtle	*Chrysemys picta marginata*	Special Concern[2]
Monarch	*Danaus plexippus*	Special Concern
Northern Map Turtle	*Graptemys geographica*	Special Concern
Red-necked Phalarope	*Phalaropus lobatus*	Special Concern
Snapping Turtle	*Chelydra serpentina*	Special Concern
Yellow-banded Bumble Bee	*Bombus terricola*	Special Concern

1 Not at Risk (NAR)
2 Special concern (SARA/COSEWIC)

Rare species were reported as follows:

Common Name	**Scientific Name**	**S-Rank**
Boreal Chorus Frog	*Pseudacris maculata*	S5
Barrow's Goldeneye	*Bucephala islandica*	S2N
Caspian Tern	*Hydroprogne caspia*	S3B,S5M
Faint-spotted Palthis Moth	*Palthis asopialis*	S3S4
Northern Bush Katydid	*Scudderia septentrionalis*	S3?
Rayless Alkali Aster	*Symphyotrichum ciliatum*	S3?
Redhead	*Aythya americana*	S2B,S4N
Widow Yellowjacket	*Vespula vidua*	S3
Wilson's Phalarope	*Phalaropus tricolor*	S2B,S4M

Descriptions of the SAR species occurrences are provided in Appendix C.

5.5 Ontario Reptile & Amphibian Atlas

The Ontario Reptile & Amphibian Atlas provides broad information on turtles, snakes,

frogs, salamanders, and lizards within Ontario. The information includes earliest and latest observations dates within the square. The Atlas ceased collecting data for the project in 2019. The subject site occurs within the 10 km^2 area mapped as 17QK12.

SAR species within the square are listed below:

Common Name	**Scientific Names**	**SAR Status**
Blanding's Turtle	*Emydoidea blandingii*	Threatened
Eastern Milksnake	*Lampropeltis triangulum*	NAR[1, 2]
Eastern Musk Turtle	*Sternotherus odoratus*	Special Concern
Midland Painted Turtle	*Chrysemys picta marginata*	Special Concern[2]
Northern Map Turtle	*Graptemys geographica*	Special Concern
Snapping Turtle	*Chelydra serpentina*	Special Concern
Western Chorus Frog	*Pseudacris maculata pop. 1*	NAR[1 3]

1 Not at Risk (NAR)
2 Special concern (SARA/COSEWIC)
3 Threatened (SARA/COSEWIC)

Descriptions of the SAR species occurrences are provided in Appendix C.

6.0 Inspection Methodologies

6.1 Vegetation

The site has been characterized by its various vegetation communities using the methodologies included in the *Ecological Land Classification (ELC) - First Approximation and Its Applications* (1998). The 1998 Ecological Land Classification - First Approximation is a guide used by Ecologists to standardize the classification of different vegetation community types across Ontario. The classification system enables an ecologist to identify vegetation communities based on the species present, soil materials and moisture regimes.

There have been a number of updates to the ELC scheme to further refine the classification of Ecosites throughout Ontario. As a result, the 2008 *Draft* ELC Guide provides a further breakdown of the 1998 ELC Guide - First Approximation communities and includes many new communities to index from. The 2008 ELC scheme also provides a cross-reference to the 1998 guide communities. This report uses a combination of the 1998 ELC communities (which are considered the primary vegetation communities) and the 2008 Draft ELC, to supplement the vegetation community lists, when the 1998 ELC does not accurately define the habitat.

Prior to conducting the site inspections, aerial photography of the subject site was analysed to roughly delineate communities based on recognizable vegetation differences. Each identified vegetation community was subsequently inspected during the growing season. Dominant vegetation types were recorded and boundaries of the various communities mapped using a GPS (when the boundary of the ELC community is not recognizable on the air photo).

In addition to identifying and mapping the ELC communities, ORE staff assessed each vegetation community from the perspective of whether they are hydrologically sensitive, and/or whether they may represent SAR habitat. No hand augers were required as there was a clearly defined difference between the hydrological features and the upland areas of the site. Any wetland related species were only associated with the intermittent watercourse feature and it was a very narrow channelized feature in the bottom of the small valley.

6.2 Avifauna Surveys

ORE staff attended the site within the spring season migratory bird period and endeavoured to detect all available avian species by sight, calls and notes, within and proximal to the site. Bird calling devices and "pishing and squeaking" were used to attract bird species from within the forest communities.

All species overheard or observed during the surveys were recorded.

If a SAR bird was detected, the habitat was identified in relation to the proposed severances and it was determined whether the proposed developments represent a potential risk to that avian SAR and/or its habitat.

6.3 Mammals

Mammals were detected utilizing the methodologies outlined in the MNRF's March 1998 - Wildlife Monitoring Programs and Inventory Techniques for Ontario. Mammals were generally identified by either direct observation or via their tracks and/or scat droppings[2].

No live traps were set/installed at the site as a permit is necessary to trap mammals. This was deemed unnecessary as there are no known SAR mammals within the area. Tracking and other signs to detect mammals were sufficient for the purpose of this

[2] Tracking and the Art of Seeing, 2nd Edition: How to Read Animal Tracks and Signs, Paul Rezendes, Harper Collins Publisher. March 24th, 1999.

study.

6.4 Herptiles

ORE staff conducted inspections for the purpose of detecting herptiles. If present, the habitat was identified in relation to the proposed severance locations and whether the proposed lots represent a potential risk to the herptile(s). One (1) inspection was conducted during the spring season for observing herptiles. ORE staff rolled downed woody debris or barn/construction materials debris to detect basking herptiles in the morning period, when they are most likely to still be under cover/shelter.

6.5 Significant Wildlife Habitat (SWH)

SWH has been evaluated utilizing the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E*, published by the MNRF (January 2015).

Potential SWH were evaluated according to the criteria outlined in the schedules for candidate SWH. The SWH tables were consulted to assess whether the area of the proposed severances possesses Seasonal Concentration Areas of Animals, Rare Vegetation Communities, Specialized Habitats of Wildlife considered SWH, and Animal Movement Corridors.

7.0 Site Inspection Data

7.1 General

For this *s*NHE, ORE staff conducted one (1) site inspections on the following date:

Date of Inspection	Time of Inspection	Temp. ^{O}C	Beaufort (Wind) Index	Conditions
Diurnal - May 9th , 2024	5:30 AM - 8:30 AM	14	0 - Calm	Mostly sunny with 5% cloud cover and minor fog. Single site visit to review the proposed severance areas with the property owner. Ecological Land Classification - vegetation surveys, topography and setting surveys. Verify mapped drainage features and any other hydrological features. SAR or SAR habitat diurnal period detection based on Pre-screen.

The above inspection was completed to identify any/all species on the property. The resulting species list was examined to identify any sensitive and/or rare species (S1, S2, S3), and whether they have a SARO status of Special Concern, Threatened, or Endangered. The vegetation types were also reviewed in the context of whether they are classified by the NHIC as provincially rare ecotypes.

7.2 Ecological Land Classification (ELC)

ELC inspections were focussed on the proposed severance area and the immediate adjacent lands, as per the recommendations of the MNRF's Natural Heritage Reference Manual. The identified ELC communities are illustrated on Figure 4, with photos of the communities/site conditions provided in Figure 5. None of the ELC communities listed below are considered to be provincially rare by the NHIC.

A list of species identified within these communities is provided in Appendix G.

Based on our site inspections, the following vegetation communities have been identified on the site, as per the *1998 and/or the draft 2008 Ecological Land Classification (ELC) for Southern Ontario*:

Upland Communities

1. **Dry – Fresh White Birch – Poplar – Conifer Mixed Forest (FOM5)**

The ELC (2008) describes a Dry – Fresh White Birch - Poplar - Conifer Mixed Forest (FOM5) as having a mix of greater than 25% coniferous species and greater than 25% deciduous species, which are comprised of primarily Trembling Aspen *(Populus tremuloides)* or Largetooth Aspen *(Populus grandidentata)* with Balsam Fir *(Abies balsamea)*, White Pine *(Pinus strobus)* and Eastern White Cedar *(Thuja occidentalis)*. The substrate typically has moderately to fresh soil moisture regimes.

This community is located on the eastern portion of the property along Primrose Lane. It is predominantly located on the lands to be retained, with a small incursion into the easternmost proposed severance lot.

A Wood Thrush was detected in this community.

2. **Rural Property (CVR_4)**

No description is provided in the draft May 2008 Ecological Land Classification for

Southern Ontario

The CVR_4 community defines the area where the existing buildings and associated maintained lawn areas are situated on the subject property. This area occurs within the retained lands.

3. **Mineral Fencerow (TAGM5)**

The Mineral Fencerow (TAGM5) is described under the ELC as having a loamy substrate. Fencerow's can be "Fine", "Medium", and "Coarse", referring to the type of substrate the fencerow possesses.

The fencerow is present along the northern edge of the property along 7th Line and northeastern edge along Primrose Lane. There is also a connected swath east of the existing residence and west of the proposed severances, which runs perpendicular to 7th line.

No SAR were detected/observed in this community.

4. **Mineral Cultural Meadow (CUM1)**

The ELC describes the CUM1 communities as resulting from cultural or anthropogenic-based disturbances/alterations to land. Tree cover is typically less than 25% and the presence of shrubs is also less than 25%.

This community spans the majority of the severances and retained lands.

Both the Eastern Meadowlark and Grasshopper Sparrow were detected in this community.

Wetland Communities

5. **Red-osier and Mixed Willow Mineral Deciduous Thicket Swamp (SWT2-5 and SWTM3-6)**

The ELC describes the Red-osier and Mixed Willow Mineral Deciduous Thicket Swamp (SWT2-5 and SWTM3-6) must contain greater than 25% tree being less than 5 m in height. It can experience variable flooding regimes and would possess 20% or more vernal pooling. During the drought periods in the late summer, the vernal pools can be dry. This ecosite is typically fern and sedge rich, dominated by Red-osier Dogwood (*Cornus sericea*) and Willow species *(Salix ssp.)*.

This community occurs within the narrow confines of the small seepage zone located south of the proposed lots, where dogwoods/willows were observed. There was runoff and groundwater observed within this feature that contain a variety of horsetail species, sedges, and Reed Canary Grass (*Phalaris arundinacea*).

7.3 Fauna

All faunal species identified during the site inspections were recorded. The list of faunal species observed at the site is presented in Appendix G. Relevant observations of faunal activities on and adjacent to the site are briefly discussed below.

7.3.1 Avifauna

ORE staff completed one (1) diurnal inspection during the early migratory/breeding bird period. The spring inspection was completed under ideal conditions in the early morning period of May 9th, 2024.

Although all species were detected and recorded according to their vocalizations and/or sightings, the focus was on detecting any potential Species at Risk avian and/or their habitat, either on or directly adjacent to the site.

Three (3) SAR avian were identified on-site during the inspection:

1. One (1) Eastern Meadowlark calling within the core open field areas on the lands to be retained;
2. One (1) Grasshopper Sparrow calling within the core open field areas on the lands to be retained, and
3. One (1) Wood Thrush calling within the on-site woodland/fencerow and also within the woodlands on a neighbouring parcel to the north.

7.3.2 Herptiles

Herptiles include amphibians, salamanders, lizards, turtles and snakes species. Diurnal searches were conducted in the habitats on-site where these species could occur.

Blanding's Turtle, Snapping Turtle, Midland Painted Turtle, Eastern Musk Turtle, and Northern Map Turtle were detected during the SAR pre-screen. ORE staff assume that some of these turtles could be associated with the Otonabee River and wetlands proximal to the subject property. There was no evidence of turtle nests or dead-on-road specimens in the area of the subject property.

No other herptile species were detected within the databases during the SAR pre-screen.

No amphibians, salamanders, lizards or snake species of significance were identified during the site inspection.

7.3.3 Mammals

Mammals include species such as fox, coyote, white-tailed dear, racoon, skunk, bats, etc.

The ESA lists very few species of mammal within south-central Ontario as either Endangered, Threatened, or Special Concern. The majority of the mammals that have attained SAR status occur within Northern and Southwestern Ontario. Very few of those mammal species listed within SARO occur in the Peterborough region, other than certain bats and Mountain Lion (*Puma concolor*).

Mountain Lion sightings are sometimes recorded in the local newspapers. ORE staff completed a search for local sightings, and there are no records of sightings in the area of Selwyn 7th Line.

ORE staff did not conduct nighttime surveys nor did we complete a bat assessment. Although the proposed east severance location contains some of the mature woodland habitat on-site and includes ELC communities identified to be bat habitat in the Guelph Districts - as per Bats and Bat Habitats: Guidelines for Wind Power Projects, bat detectors were not deployed as there were no good quality snags identified directly within the woodland that the proposed east severance possesses. There are some good quality snags on the retained parcel further south/southeast, however, these will be maintained for any roosting bats. The subject site does not contain fractured or exposed bedrock that could constitute bat hibernaculum. The site appears to contain relatively thick overburden.

ORE staff observed/detected only common/secure species of mammals on the subject property.

7.4 Endangered - Threatened or Provincially Rare Species

ORE staff completed a thorough search for potential SAR (and/or their habitat) on the subject property when conducting the inspection. This included efforts to identify Butternut and any of the database's provincially rare species identified in the pre-screen.

A total of three (3) SAR birds were identified on-site during the inspections. The Wood

Thrush was overheard off-site when the surveys first started, within a tract of woodland to the north on a neighbour's parcel. It moved southward and called a few times in the most northerly corner of the property towards the end of the surveys. The Eastern Meadowlark was initially overheard calling in the most northerly portion of the field, between the two (2) proposed lots. It then flew south into the lands to be retained where the sun was shining on the western meadow slope. The Grasshopper Sparrow calls were very faint and likely in the southern portion of the meadow, well removed from the proposed severances.

8.0 Significant Wildlife Habitat Assessment (SWH)

The assessment of SWH is divided into five (5) broad categories, consisting of Seasonal Concentration Area of Animals; Rare Vegetation Communities; Specialized Habitat for Wildlife; Habitat for Species of Conservation Concern (other than Endangered or Threatened), and Animal Movement Corridors. A summary table is provided in Appendix H indicating the potential for SWH to occur based on the criteria provided by the MNRF and whether the site has suitable habitat and/or species occurrences.

The following provides a discussion of areas deemed to be confirmed SWH (based on the MNRF criteria) and as indicated in Appendix H.

The SWH detected within the proposed severance lots are summarized below:

SWH	**SWH Location**	**Confirmed Within Proposed Severances Y/N**
Bat Maternity Colonies	Includes the mature wooded areas on-site and surrounding connective woodland habitats in the vicinity of the subject property.	Y - Although we did not deploy bat detectors, the woodland and cottages/residences along the river would most likely possess Big Brown Bat and Silver-haired Bat based on our experience. *Maternity colonies can be found in tree cavities, vegetation and often in buildlings (buildings are not considered to be 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. This would be associated with the Otonabee River directly east of the subject property.	Y - One or more active Osprey or Bald Eagle nests in an area. Osprey was observed flying over the subject site during the surveys. Presumably, it was nesting in the area. *For an Osprey, the active nest and a 300 m radius around the nest or the contiguous woodland stand is the SWH, maintaining undisturbed shorelines with large trees within this area is important*.
Seeps and Springs	Seeps/Springs are areas where ground water comes to the surface. Often they are found within headwater areas within forested habitats. Any forested Ecosite within the headwater areas of a stream could have seeps/springs.	N- not observed in a woodland setting but in an open field area on the subject property. The small channelized flows in the base of the small valley on-site possesses an intermittent seepage area. There is also another area within the woodland that is not proximal to the proposed severances within the retained lands. *Presence of a site with 2 or more seeps/springs should be considered SWH and the ecosite containing the seeps/springs is the SWH. The protection of the recharge area considering the slope, vegetation, height of trees and groundwater condition need to be considered in delineation the habitat*.
Woodland Area-Sensitive Breeding Bird Habitat	Large, natural blocks of mature woodland habitat within the settled areas of Southern Ontario are important habitats for area sensitive interior forest song birds. This occurs along the eastern edge of the property and extends off-site along the shoreline where the cottages along the Otonabee River are situated.	Y - This SWH is within the core woodland areas along the east side of the subject property and further south within the retained lands. There were at least 3 species of woodland area sensitive species calling during the migratory bird period. Therefore the *"Presence of nesting or breeding pairs of 3 or more of the listed wildlife species"* is met and if ORE staff were able to complete the additional surveys we are certain it would have met the following criteria: *"Conduct field investigations in spring and early summer when birds are singing and defending their territories"*.

Special Concern and Rare Wildlife Species	All Special Concern and Provincially Rare (S1-S3, SH) plant and animal species. Lists of these species are tracked by the Natural Heritage Information Centre. The only Special Concern species is the Wood Thrush. It was associated with the woodland tracts along the edge of the Otonabee River and was overheard on-site within suitable nesting habitat - the secondary succession woodland along the east side of the subject property.	Y - The criteria used to confirm this SWH is; *Assessment/inventory of the site for the identified special concern or rare species needs to be completed during the time of year when the species is present or easily identifiable and the area of the habitat to the finest ELC scale that protects the habitat form and function is the SWH, this must be delineated through detailed field studies. The habitat needs be easily mapped and cover an important life stage component for a species e.g. specific nesting habitat or foraging habitat.*

Mitigation for SWH is provided in the 2014 Significant Wildlife Habitat Mitigation Support Tool (SWHMiST). Mitigation is provided in the following sections and has regard for the tools outlined for Ecoregion 6E.

A brief description of the SWH on and immediately adjacent to the property is provided in Appendix H.

9.0 Impact Assessment and Mitigation

9.1 Sensitive Features

The main receptor with respect to potential impacts associated with future development of the subject site is the intermittent watercourse/seepage KHF habitat situated south of the proposed severances. Potential impacts considered herein include the following:

- Potential impacts to the water quality of the downgradient intermittent watercourse/seepage feature from septic effluent;
- Potential impacts to the intermittent watercourse/seepage feature resulting from runoff water quality deterioration due to erosion and sedimentation during the construction phase;
- Potential impacts to the woodland SWH from vegetation removal/degradation;
- Potential impacts from importation of fill to the site to raise or level areas of the lots for development; and

- Potential impacts from introduction of invasive non-native species in the construction and post construction era, via machinery and/or imported materials.

Specific recommendations for mitigating potential impacts to sensitive features on and adjacent to the site are provided in a following section.

9.2 NHIC Species

According to the NHIC, the following SAR have been detected in the 1 km square areas the subject site falls within. The table indicates if habitat is present or was detected during the inspection:

Species	**Preferred Habitat**	**Habitat Present/Detected During Site Inspections**
Bobolink	Open field that appears to be either cut or grazed by livestock recently.	Yes, but not detected during surveys.
Butternut	Wooded areas along the edge partially within the proposed east lot and within the retained lands.	Yes, but not detected during the surveys.
Canada Warbler	Wooded areas along the river are consistent with Canada Warbler habitat but not on-site.	No, and not detected.
Eastern Meadowlark	Open field that appears to be either cut or grazed by livestock recently.	Yes, and detected on-site during the surveys.
Eastern Milksnake	Open field that appears to be either cut or grazed by livestock recently and also buildings or structures including farmhouses and barns.	No, there are some buildings on the subject parcel, but these will remain with the retained lands and be unaffected by the proposed severances.
Eastern Musk Turtle	Wetland and Waterways such as the Otonabee River.	No, a minor intermittent stream feature detected but not habitat for this turtle species.
Least Bittern	Reedy wetland and waterways such as the Otonabee River.	No, the on-site minor intermittent/seepage zone feature does not contain the reedy habitats this species prefers. Any other features are greater than 120 m from the proposed severances.
Midland Painted Turtle	Wetland and Waterways such as the Otonabee River.	No, and not detected within the intermittent stream feature observed on-site.

Northern Map Turtle	Wetland and Waterways such as the Otonabee River.	No, and not detected within the intermittent stream feature observed on-site.
Snapping Turtle	Wetland and Waterways such as the Otonabee River.	No, but could migrate up the intermittent stream feature to nest in the early spring period. Not detected during site inspections.
Western Chorus Frog	Wetland and Waterways such as the Otonabee River.	No, the intermittent watercourse feature is not within the periphery of any large wetlands that would constitute the core wetland habitat for this amphibian species. It was not detected during the surveys.
Wood Thrush	Wooded area along the eastern edge of the property is a deciduous secondary succession woodland, which is good quality nesting habitat.	Yes, and it was observed/overheard flying between the neighbouring property to north and the subject parcel.

9.3 Ontario Breeding Bird Atlas (OBBA)

The following species of SAR avian were detected in the general vicinity of the site during OBBA surveys. The table indicates if habitat is present or was detected during the inspection:

Species	**Preferred Habitat**	**Habitat Present/Detected During Site Inspections**
Bank Swallow	Bank Swallows prefer steeply cut banks that this species constructs cavity nests within.	No, banks not present for this species to nest within 120 m of the proposed severance areas.
Barn Swallow	Barn Swallow prefers open meadow fields and/or permanent watercourses and structures that would attract this Special Concern species.	No, not observed within the area of the proposed severances. There are other farm fields, barns, agricultural operations in the vicinity of the subject property that could contain this Special Concern species.
Black Tern	Black Tern prefers large marshy habitat with interspersion areas/openings/channels that it can quickly fly within to access the nests.	No, habitat is not present on or directly adjacent to the subject property.

Bobolink	Bobolink prefers open field that appears to be either cut or grazed by livestock recently similar to Eastern Meadowlark and Grasshopper Sparrow.	Yes, but Bobolink not detected during surveys.
Canada Warbler	Prefers conifer-lined waterways to breed and nest within, and it will nest within swamps, wooded creeks and rivers. The subject site does not contain any relatively large swamps, creeks or rivers. The Otonabee River occurs east of the subject property. Therefore, Canada Warbler may utilize the shores of the river to nest within.	No, the habitat was not detected directly on-site it may occur closer to the Otonabee River. Canada Warbler was not detected during the surveys.
Cerulean Warbler	Prefers relatively mature wooded areas which is marginally present within the proposed east severance and predominantly present within the retained lands.	Yes, however it was not detected during the spring season surveys.
Chimney Swift	Prefers either hollowed trees or chimneys in residential/commercial settings.	No, and it was not detected during the surveys. Chimney Swift has been detected by the author in the Village of Lakefield many times in the past.
Common Nighthawk	Prefers relatively open scrubby rock barren thicket habitats overlooking waterways. This type of habitat is not present within 120 m of the proposed east severance. Many Common Nighthawk migrate through the Peterborough area in the spring and fall seasons, however, very few stay within the vicinity of Peterborough to breed.	No, it was not observed nor overheard during the spring season survey and there is not suitable habitat on or directly adjacent to the subject property in the area of the proposed severances.
Eastern Meadowlark	Prefers similar habitat to Bobolink. The subject property contains meadow field/agricultural field areas on-site, therefore, this species could very well be nesting on the subject property.	Yes, and it was detected on-site during the surveys.
Eastern Whip-poor-will	Prefers relatively mature wooded areas which is marginally present within the proposed east severance and predominantly present within the retained lands.	Yes, but not detected during surveys.
Eastern Wood-Pewee	Prefers relatively mature wooded areas which is marginally present within the proposed east severance and predominantly present within the retained lands.	Yes, although it was not detected during the surveys.
Grasshopper Sparrow	Grasshopper Sparrow prefers large agricultural fields similar to Eastern Meadowlark and Bobolink.	Yes, and Grasshopper Sparrow was detected on-site during the spring season site inspection.

Least Bittern	Least Bittern prefers similar marsh-type habitat to what Black Tern prefers.	No, and this species was not detected during the early spring season site inspection. There does not appear to be any substantial areas of marsh along the Otonabee River in the general area of the subject property.
Wood Thrush	This species prefers to nest within mature late/secondary succession deciduous and mixed woodland habitats.	Yes, The woodland type in the area of the proposed east severance is a deciduous rich type community which Wood Thrush typically nests within. Wood Thrush was detected on or near the proposed severances during the spring season survey.

The Eastern Meadowlark and Grasshopper Sparrow appear to be drawn to the open agricultural field areas within the proposed severance and retained lands. The Wood Thrush was drawn to the wooded area along the eastern edge of the subject parcel that occurs predominantly within the retained lands.

9.4 eBird

Species	**Preferred Habitat**	**Habitat Present/Detected During Site Inspections**
Evening Grosbeak	This species prefers to nest within mature late/secondary succession mixed or conifer dominated woodland habitats.	No, although the woodland type in the area of the proposed east severance parcel contains suitable mixed treed type community nesting habitat, it was not detected during the spring season surveys.
Horned Grebe	Prefers large waterways and would most likely nest in and around the Otonabee River. There is not habitat that this species would utilize on the subject parcel for its life cycle.	No, and this species was not detected during the spring season surveys.
Rusty Blackbird	Prefers edge habitats adjacent to wetland and waterways. This type of habitat is associated with the Otonabee River and not on the subject property.	No, and this species was not detected during the spring season surveys.

9.5 iNaturalist

The iNaturalist database detected several species in the vicinity of the subject property and the majority have already been discussed in previous database sections (above) with the exception of the following:

Species	**Preferred Habitat**	**Habitat Present/Detected During Site Inspections**
American Bumble Bee	This species prefers open meadows and edge habitats.	Yes, it was not detected during the spring season surveys.
Eastern Milksnake	This species prefers open meadows and edge habitats. It can also occur within or near farm related structures such as barns, outbuildings, etc.	Yes, it was not detected during the spring season surveys.
Lesser Yellowlegs	This species prefers wetlands and watercourses. The nearest feature would be the Otonabee River.	No, the habitat would be proximal to the Otonabee River and it was most likely detected in the early spring as a migratory species.
Monarch	This species prefers open meadows and edge habitats, including wetland meadows. It seeks out milkweed which occurs in these settings, which is its larval foodplant. It can also occur within or near farm related structures such as barns, outbuildings, etc.	Yes, none were observed on-site likely due to the lack of milkweed plants in the area of the proposed severances.
Red-necked Phalarope	This species prefers wetlands and watercourses. The nearest feature would be the Otonabee River.	No, the habitat would be proximal to the Otonabee River and it was likely detected in the early spring as a migratory species.
Yellow-banded Bumble Bee	This species prefers open meadows and woodland edge habitats.	Yes, it was not detected during the spring season surveys.

9.6 Significant Wildlife Habitat

An assessment of SWH was completed based on the vegetation types observed from the classification of the vegetation communities in Appendix H.

Recommendations to protect the SWH should be implemented to mitigate direct and/or indirect impacts to the predominantly confirmed habitats in accordance with the Significant Wildlife Habitat Mitigation Support Tool (SWHMiST).

A 30 m Vegetation Protection Zone shall be applied to all of the hydrologic features/seepage zones identified on the subject property. This setback area provides an

added buffer to any development that is proposed within the adjacent lands to these KHF. This setback meets or exceeds the primary avoidance criteria in the SWHMiST requirements. Therefore, neither the form, function nor the SWH itself associated with the KHFs will be affected by the proposed severance development.

ORE provides some mitigation/recommendations for the wooded areas that marginally occur within the proposed east severance lot to protect the Wood Thrush habitat.

9.7 Identified SAR/SAR Habitat

Three (3) SAR birds were detected during the May 9th spring season inspection.

The Eastern Meadowlark has a status of threatened. Therefore, it is subject to the provisions in the Endangered Species Act (ESA) in addition to the provisions under the 2020 PPS or County OP.

Both the Grasshopper Sparrow and the Wood Thrush have a Special Concern status and both were detected on-site during the surveys. Therefore, some measures are required to protect the habitat of these Special Concern species under the SWHMiST.

9.8 Construction

General potential impacts related to eventual construction activities are listed below:

- vegetation removal/disturbances/site alteration;
- erosion and sedimentation generated by exposed unconsolidated soils during excavation and grading activities;
- mismanagement of fill materials and presence of construction debris or waste materials during the construction period, and
- importation of materials containing invasive species that out-compete well established native species.

To mitigate the potential for impacts associated with the above, appropriate construction scheduling will need to be considered. In addition, careful attention to the limits associated with building/grading envelopes and maintaining buffers will be required.

Specific recommendations for mitigation of impacts associated with construction activities are provided in a following section.

10.0 Conclusions

10.1 The future building envelopes of the proposed lots will need to maintain a distance greater than or equal to 30 m from the on-site seepage SWH observed south of the proposed severance areas (which represents the site alteration area as per the 2020 PPS). Provided the site alterations are contained within the proposed lots, the development should be permitted as the minimum Vegetation Protection Zone (VPZ) requirements under the Growth Plan will be met (Figure 6). The proposed development can also adhere to the "no negative impact test" requirement to any/all identified KHFs on the property, thus complying with the Official Plans, and 2020 PPS requirements.

Detailed recommendations are provided in the following section to protect the KHF/seepage area from being impacted as a result of future construction on the proposed lots.

10.2 The survey was conducted during the migratory bird period, a week or two before the start of the breeding bird period (May 9th) which is very close to the ideal period to detect breeding birds. Three (3) SAR birds were detected. No SAR flora were detected.

Eastern Meadowlark

The Eastern Meadowlark was overheard calling in the area of the proposed severances early during the survey, but then moved to the west side of the open field area and resumed calling and flying down to the ground in this area. Presumably, the Eastern Meadowlark is nesting in the area identified on Figure 6. Considering there will be a large contiguous meadow/open field area maintained within the lands to be retained (4.3 ha) and the open meadow on the proposed severance areas will total 0.65 ha, 15% of the habitat for Eastern Meadowlark will be lost on the subject property as a result of the proposed severances. Therefore, the Eastern Meadowlark would be able to function within the retained meadow/open country areas (~85% retained spatial-wise) while the proposed severances would assume/remove only a small portion of the overall habitat in the very northern portion of the property.

It is our opinion that the proposed severances would not negatively impact the Eastern Meadowlark as the portion of habitat to be displaced is in the edge of the open field and not within the core of the open field where this species was observed to be nesting. The nesting location is estimated on Figure 6.

Grasshopper Sparrow

The Grasshopper Sparrow calls were faint and appeared to be from the core/middle of the open meadow/field habitat in the southern portion of the subject parcel within the lands to be retained. It was not overheard in the area of the proposed severances. Therefore, it will not be negatively impacted by the development. The core open country field habitat will be retained for this avian species and the Eastern Meadowlark which are protected by the ESA. Therefore, there will be some overlap in the protection measures afforded for the Grasshopper Sparrow. That being said, the habitat of the Grasshopper Sparrow will be avoided, which is the main objective in the SWHMiST for Special Concern species.

Wood Thrush

The Wood Thrush could be nesting within the secondary succession woodland on-site. The proposed easternmost severance lot area marginally imposes on the habitat in its southeast corner.

The main objective in the SWHMiST is to avoid the habitat. Therefore, no site alterations will be allowed to occur within 6 m of the dripline setback off the woodland to protect the habitat of this species. The setback is meant to protect the root zone of the existing trees along the woodland edge. A 6 m setback is illustrated on Figure 6.

Provided the building envelope respects the 6 m setback distance from the woodland dripline, the SWH for this Special Concern species among other SWH associated with this habitat will be protected.

10.3 In regards to the SWH, mitigation should be in the form of maintaining the form and function of the nearest intermittent seepage area. The seepage occurs well away from the proposed severances (>30 m). The seepage area and surrounding wooded areas are what support the majority of the SWH on the subject property. Both the KHF and the immediately surrounding woodlands (that draw the majority of the wildlife) will be maintained within the proposed severance lots and within the lands to be retained. Avoidance is the primary objective in the SWHMiST with respect to maintaining the SWH. When it is not possible to completely avoid the SWH, the secondary objective is to locate any residential or commercial developments within the periphery of the SWH, thus sustaining the core of the SWH.

The proposed severance development will comply with the primary SWHMiST criteria of avoiding the KHFs and woodland habitat on the lands to be retained. A 30 m setback/VPZ has been applied to the KHF whereby no site alterations (as per the definition under the 2020 PPS will be permitted). This means activities, such as

grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site will not be allowed within the VPZ. Considering no site alterations will occur within 30 m of the KHFs, there would be no negative impact to these features and the proposed development will, therefore, comply with the Growth Plan and PPS requirements (Figure 6), which exceeds the SWHMiST requirements.

Similarly, a 6 m dripline setback has been applied to the small segment of woodland that occurs in the southeast corner of the proposed east lot. This will protect the SWH associated with this woodland feature. Therefore, the primary avoidance objective in the SWHMiST will still be met with respect to SWH occurring within the development area.

10.4 Provided the recommendations outlined in this *s*NHE report are adhered to and the site alterations occur outside both the 30 m VPZ for the KHF and the 6 m dripline setback off the Woodland SWH, there should be no negative impacts to either the KNHF/KHF/SAR and/or localized SWH identified on Figure 6.

11.0 Recommendations

11.1 If the single residential severance lots are created as illustrated on Figure 6, the building envelope on the easternmost lot should be confined to the area outside the 6 m dripline of the Woodland SWH to ensure the site alterations adhere to the Growth Plan and PPS requirements. The 30 m VPZ to protect the seepage zone/discharge area occurs greater than 30 m from the proposed lots and no negative impacts are anticipated with respect to this KHF.

Below are some additional mitigation measures that should be applied to the severance lots to mitigate tree removal on the lots:

- Reduce the site alteration area to retain as much of the trees as possible along the edge of the property (even in the Fencerow habitats) to retain perching trees around the perimeter of the property. In this instance, the building envelopes on each lot should be targeted within the open areas.

- The proposed easternmost residential lot is marginally located within the edge of the woodland, although not in the core of the woodland, thereby protecting the core of the SWH. The 6 m setback off the dripline should also mitigate any woodland SWH losses.

- The access road/laneway can be situated such that it mitigates mature tree

removal within the cedar dominated fencerows along the north edge of the property. This will maintain perching trees for the Wood Thrush and Eastern Meadowlark as these trees overlook the open field on the subject property and meadow fields on the adjacent neighbouring property to the north.

Provided the above mentioned mitigation measures are applied, it should be possible to construct a single residence on each proposed lot while complying with the mitigation measures outlined in the SWHMiST. These additional measures are meant to retain the woodland SWH by limiting the clearing of the trees in these residential development areas so that as many trees as possible are retained for the woodland sensitive breeding bird species and Special Concern Wood Thrush.

11.2 Proper erosion/sedimentation controls will be required at all times while heavy equipment is in operation at this site (as per Appendix I). A single row of heavy-duty silt fence must be installed to identify the boundaries of the approved development envelopes (i.e., site alteration areas) on the lots, once defined. The silt fence should be checked and maintained on a regular basis. If any eroded materials from the construction bypass the silt fence, the materials should be removed manually (without equipment) and reestablished in the construction zone.

The contractor and/or property owner should provide a drawing that illustrates any/all Erosion Sediment Controls (ESC) necessary to contain sediment within the construction area. Neither track-mounted nor tire-mounted construction equipment should operate during heavy precipitation events nor should the equipment operate outside the proposed lot lines or within the 30 m VPZ identified on Figure 6. After any such events, the ESC should be checked to ensure their effectiveness. Ultimately, it is up to the contractor and/or property owner to ensure the effectiveness of the ESC and their Site Plan should account for whatever controls (temporary or permanent) are required, based on the site conditions and final grades.

If filling/grading is necessary, the volume of imported fill and areas to be filled should be illustrated on the same plan as the ESC. Any/all fill materials must be contained on the respective lot and any containment ESC applied to prevent it from migrating off-lot towards either the seepage KHF or the on-site woodland.

Any imported fill should not contain organic materials such as plant debris or topsoil that may contain exotic or invasive species. If imported topsoil is required, screened topsoil should be the only material applied as top dressing. Any construction equipment operating on the subject property should be inspected and cleaned according to the province's Clean Equipment Protocol for Industry.

11.3 There is the potential for bird species to be impacted during their nesting, breeding and fledging stages, as a consequence of clearing/vegetation removal. To mitigate the potential for such impacts, the property owner must not conduct any vegetation removal between April 1st and August 31st, corresponding to the main Breeding Bird period under the Migratory Bird Convention Act. This is a standard requirement for all construction. Provided any/all vegetation is removed outside this period, the remainder of the construction within the building envelope can proceed during the Migratory bird/breeding bird period.

The wooded area to the southeast of the proposed lots may contain roosting/maternity bat habitats. Therefore, the migratory bird /vegetation removal window should be extended from the end of August to the end of October 31st each year to include the bat roosting period.

The remainder of the construction can be completed inside this window which only pertains to the tree/vegetation removal.

11.4 Following construction, any disturbed areas shall be quickly seeded or sodded with native grass species to re-establish the root structure within the upper soils. Once the seeding or sodding is determined to be a success and the soils are stable (i.e., vegetation has taken root), the erosion/sedimentation controls can be removed.

11.5 As part of the planning application package, the proponent shall provide the authorities with a survey of the proposed lot areas. As it stands, a conceptual development footprint/site alteration area has been identified for both lots on Figure 6 that respects both the prescribed SWH, KHF VPZ, and also respects the mitigation measures to retain trees within the proposed lots. If the severances are approved, an OLS should return to the site and stake the lot as it is proposed (or similar to what is illustrated).

* end of *s*NHE *

Yours truly,
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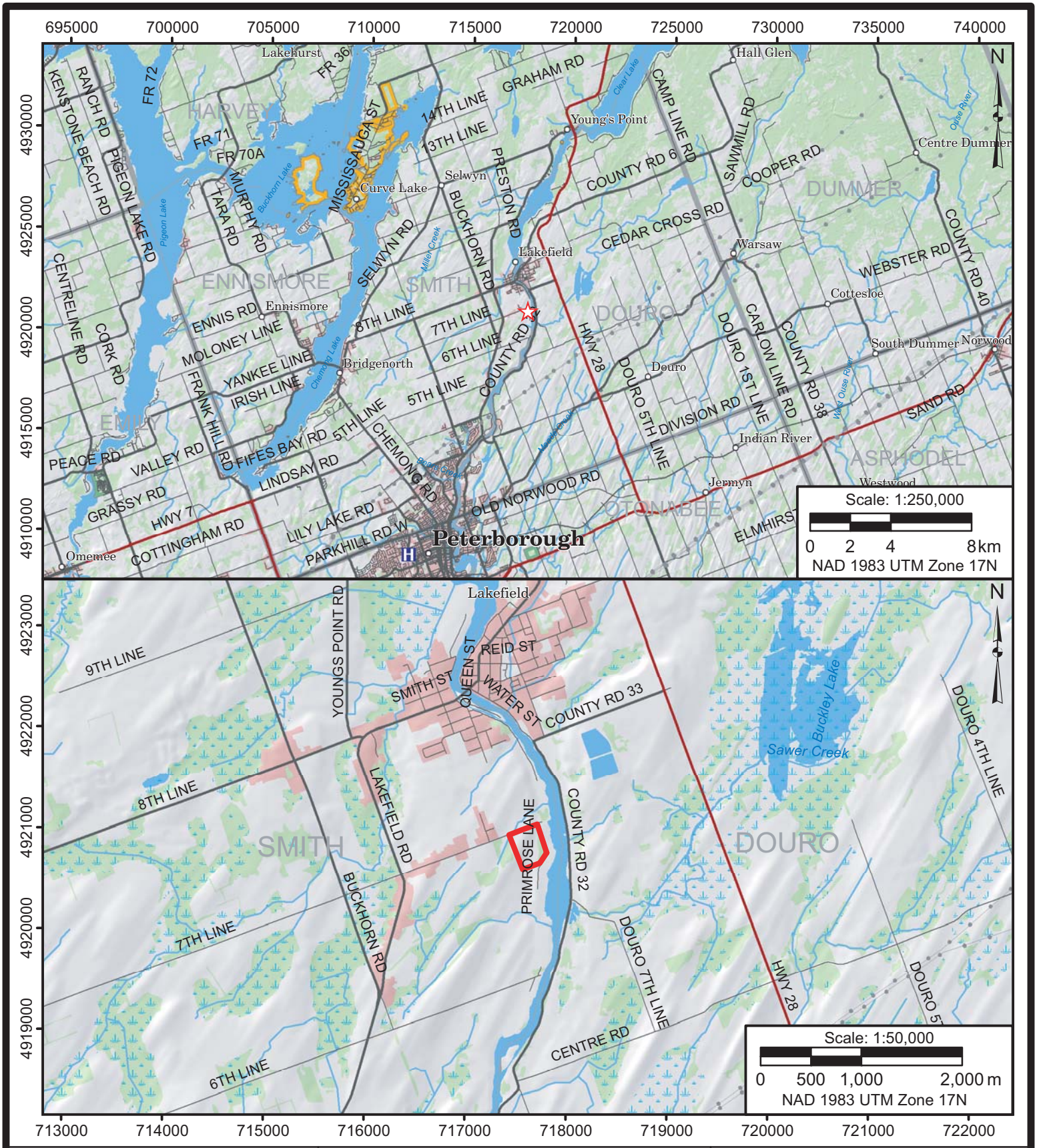
Figures



☆ Approximate Site Location

▭ Approximate Property Boundary

Notes:
Base mapping provided by Ontario Ministry of Natural Resources and Forestry (MNRF) Land Information Ontario (LIO) database, copyright the King's Printer (2023)

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***Scoped* Natural Heritage Evaluation (*s*NHE)**
Proposed Two (2) Lot Severance
2091 7th Line (& Primrose Lane)
Part of Lots 27 & 28, Concession 6 (Smith)
Township of Selwyn, County of Peterborough

North American Datum (NAD) 1983

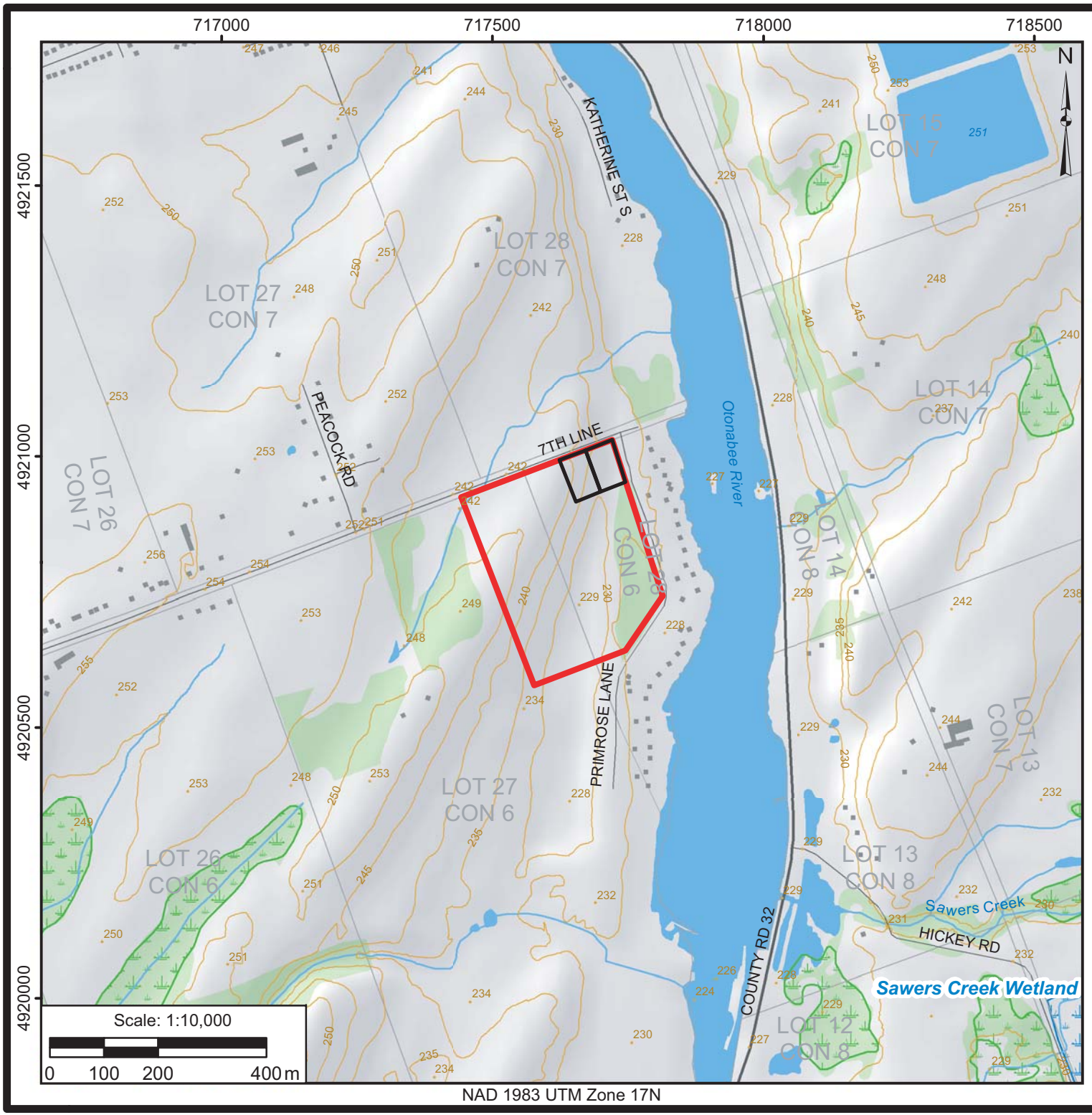
TITLE
General Location

ORE
Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT #
24-3421

DATE
August 2024

FIGURE NO.
1



***Scoped* Natural Heritage Evaluation (*s*NHE)**
Proposed Two (2) Lot Severance
2091 7th Line (& Primrose Lane)
Part of Lots 27 & 28, Concession 6 (Smith)
Township of Selwyn, County of Peterborough

- Approximate Property Boundary
- Proposed Severance
- Wooded Area
- Waterbody
- Wetland (Unevaluated)
- Wetland (Provincially Significant)
- Watercourse
- Contour (5m Intervals)
- Spot Height (m asl)
- Building (symbol)
- Building (to scale)
- Arterial Road
- Road
- Geographic Lot Fabric

Notes:
Base mapping provided by Ontario Ministry of Natural Resources and Forestry (MNRF) Land Information Ontario (LIO) database, copyright the King's Printer (2023)

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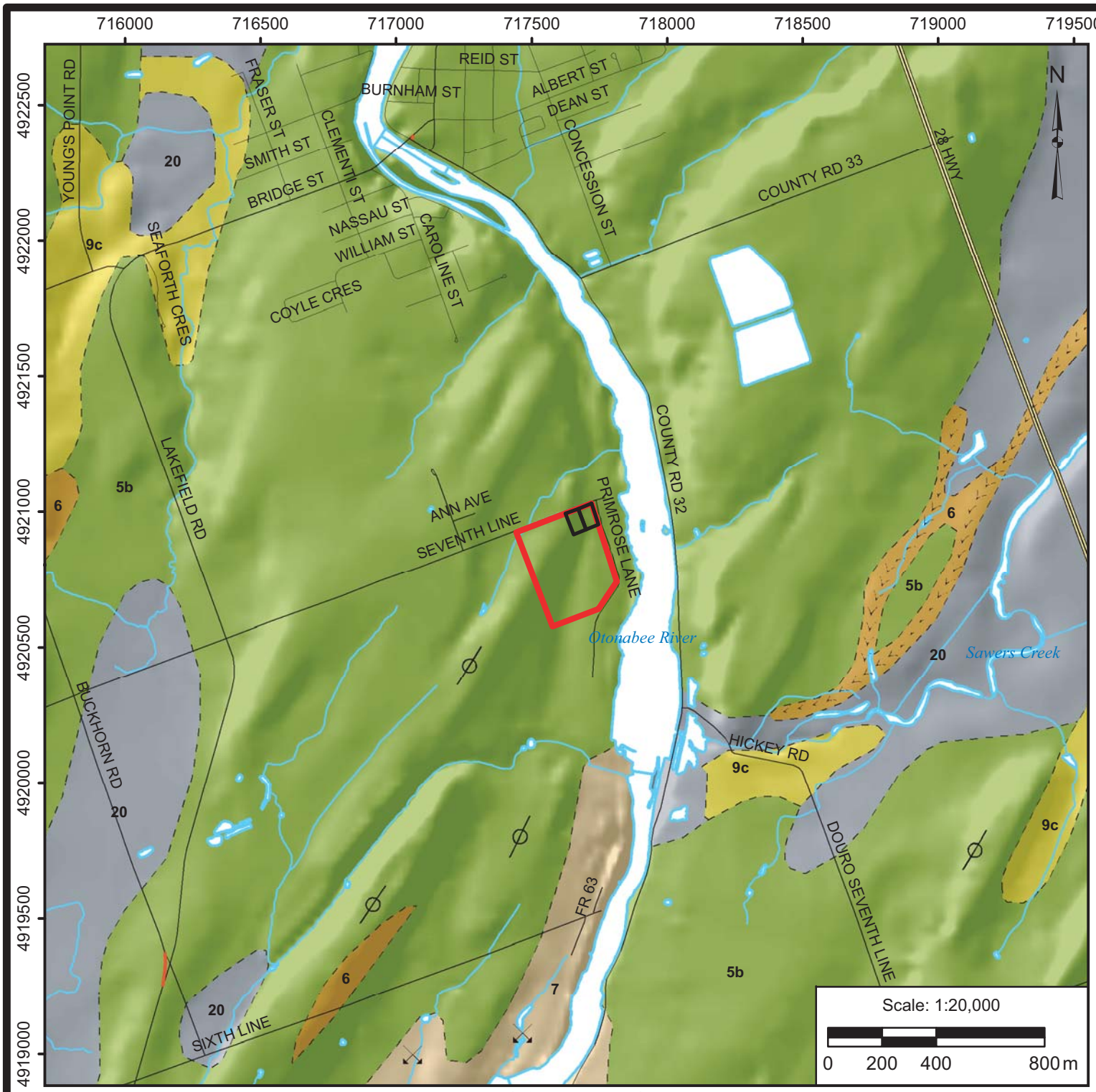
TITLE
Topography and Drainage

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT #	FIGURE NO.
24-3421	2
DATE: August 2024	



NAD 1983 UTM Zone 17N

***Scoped* Natural Heritage Evaluation (sNHE)**
Proposed Two (2) Lot Severance
2091 7th Line (& Primrose Lane)
Part of Lots 27 & 28, Concession 6 (Smith)
Township of Selwyn, County of Peterborough

- Approximate Property Boundary
- Proposed Severance
- Waterbody
- Watercourse
- Sand and Gravel Pit
- Drumlin or Drumlinoid Ridges
- Esker (direction of flow known)
- Contact (approximate/assumed)
- 5b — Glacial Deposits (Till): Stone-poor, carbonate-derived silty to sandy till
- 6 — Ice-contact stratified deposits
- 7 — Glaciofluvial deposits
- 9c — Coarse-textured glaciolacustrine deposits: Foreshore-basinal deposits
- 20 — Organic deposits

Notes:
Base maps provided by Ontario Geological Survey (OGS), copyright the King's Printer (MRD-128REV, 2009)

Optimized for Oakridge Environmental Ltd. printing

TITLE

Surficial Geology

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT #	FIGURE NO.
24-3421	3
DATE	
August 2024	

Notes:
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Base maps provided by Land Information Ontario and Natural Resources Canada (2024)

Imagery provided by Esri (2022)

Feature locations determined by differential GPS (+/- 3.0 m)

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Scoped Natural Heritage Evaluation (sNHE)
Proposed Two (2) Lot Severance
2091 7th Line (& Primrose Lane)
Part of Lots 27 & 28, Concession 6 (Smith)
Township of Selwyn, County of Peterborough

- Approximate Property Boundary
- Proposed Severance
- Dry – Fresh White Birch – Poplar – Conifer Mixed Forest (FOM5)
- Rural Property (CVR_4)
- Mineral Fencerow (TAGM5)
- Mineral Cultural Meadow (CUM1)
- Red-osier and Mixed Willow Mineral Deciduous Thicket Swamp (SWT2-5 and SWTM3-6)
- Dripline
- Waterbody (Shoreline) LIO
- Watercourse
- Intermittent Watercourse/Seepage Zone
- Intermittent Watercourse/Seepage Zone - Interpreted
- Road
- Contour (5 m Intervals)
- Spot Height (m asl)
- Eastern Meadowlark
- Grasshopper Sparrow
- Wood Thrush

TITLE
Vegetation

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT #	FIGURE NO.
24-3421	4
DATE: August 2024	

Photo A: was taken looking west along the seventh line fencerow corridor. It is mainly comprised of cedar but there are also elm and buckthorns.

Photo B: was taken looking south into the large cultural meadow field. An Eastern Meadowlark was detected on the side slope (right side of the photo).

Photo C: was taken looking in the same direction as Photo B. The intermittent watercourse was observed in the shrubs in the background of the photo .

Photo D: was taken looking west towards what would be the limit of the proposed development. There is an abundance of Dog Strangling Vine in the foreground.

Photo E: was taken looking east from Primrose Lane towards the wooded area west of the subject property.

Photo F: Similar to Photo E, this was taken further down (South) on Primose Lane where the wooded swath widens.

Site photos taken on August 23, 2024

***Scoped* Natural Heritage Evaluation (*s*NHE)**
Proposed Two (2) Lot Severance
2091 7th Line (& Primrose Lane)
Part of Lots 27 & 28, Concession 6 (Smith)
Township of Selwyn, County of Peterborough

TITLE
Site Photos

ORE
Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT #
24-3421

DATE
August 2024

FIGURE NO.
5

Scoped Natural Heritage Evaluation (sNHE)
Proposed Two (2) Lot Severance
2091 7th Line (& Primrose Lane)
Part of Lots 27 & 28, Concession 6 (Smith)
Township of Selwyn, County of Peterborough

- Approximate Property Boundary
- Proposed Severance
- Intermittent Watercourse/Seepage Zone
- Intermittent Watercourse/Seepage Zone - Interpreted
- Intermittent Watercourse/Seepage Zone Setback/VPZ (30 m)
- Waterbody (Shoreline) LIO
- Watercourse
- Dripline
- Dripline Setback (6 m)
- Road
- Contour (5 m Intervals)
- Spot Height (m asl)
- Eastern Meadowlark (Threatened)
- Grasshopper Sparrow (Special Concern)
- Wood Thrush (Special Concern)

TITLE
Constraints

ORE Oakridge Environmental Ltd.
Environmental and Hydrogeological Services

PROJECT #	FIGURE NO.
24-3421	6
DATE: August 2024	

Appendix A

Excerpt from the 2020 Provincial Policy Statement (PPS)

The following has been copied from the 2020 Provincial Policy Statement (PPS):

"*2.1 Natural Heritage*

2.1.1 Natural features and areas shall be protected for the long term.

2.1.2 The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.

2.1.3 Natural heritage systems shall be identified in Ecoregions 6E & 7E1, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.

2.1.4 Development and site alteration shall not be permitted in:
a) significant wetlands in Ecoregions 5E, 6E and 7E1; and
b) significant coastal wetlands.

2.1.5 Development and site alteration shall not be permitted in:
a) significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E1;
b) significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1;
c) significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River)1;
d) significant wildlife habitat;
e) significant areas of natural and scientific interest; and
f) coastal wetlands in Ecoregions 5E, 6E and 7E1 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. Ecoregions 5E, 6E and 7E are shown on Figure 1.

2.1.6 Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.

2.1.7 Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.

2.1.8 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.

2.1.9 Nothing in policy 2.1 is intended to limit the ability of agricultural uses to continue."

Appendix B

Excerpt from the County of Peterborough Official Plan (OP)

The following has been copied from the County of Peterborough Official Plan:

- *"a description of the proposal and statement of rationale for the undertaking;*
- *a description of the existing land use(s) on site and adjacent lands;*
- *the land use designation on site and adjacent lands, as identified by the County and local municipal Official Plans;*
- *a description of alternative development proposals for the site as well as the environmental impacts of the alternatives;*
- *a comprehensive description of the proposal including its direct and indirect effect on the environment and considering both the advantages and disadvantages of the proposal;*
- *an identification of environmental constraint areas;*
- *an environmental inventory of the area under development consideration (plant life, land-based and aquatic wildlife, wetlands, natural landforms, surface waters, hydrogeological features);*
- *a statement of environmental and ecological significance of the area affected by the proposed development;*
- *a statement on how the development will establish or facilitate the establishment of linkages between natural areas within the watershed and adjacent watersheds and how these linkages will contribute to the preservation and enhancement of the natural areas;*
- *a detailed description of mitigating effects;*
- *any additional information requested by the local municipality;*
- *an assessment of options for servicing the development with full municipal or communal water and sewage services as well as the environmental impacts of the servicing options.*

An environmental impact assessment for proposed development within or adjacent to a significant natural heritage feature will include as its study area the natural heritage feature plus the area surrounding that feature as follows:

- *significant wetlands - all lands within 120 metres;*
- *significant portions of the habitat of endangered and threatened species - all lands within 50 metres;*
- *fish habitat - all lands within 30 metres of the high water mark of all watercourses;*
- *significant wildlife habitat - all lands within 50 metres;*
- *significant woodlands south of the southern limit of the Canadian Shield - all lands within 50 metres;*
- *significant valleylands south of the southern limit of the Canadian Shield - all lands within 50 metres;*
- *significant areas of natural and scientific interest (ANSI) - all lands within 50 metres.*"

Appendix C

Species Descriptions

Birds

Bank Swallow (*Riparia riparia*) is listed as "Threatened" by *Species at Risk Ontario* (SARO) and is protected under the *Endangered Species Act* (ESA). This avian species nests in burrows into the banks of silt and sand deposits. Nests tend to be found on the shorelines of rivers and lakes. The Bank Swallow may also inhabit sand and gravel pits. Typically, this species forages on insects in flight, but will also glean insects off the water.

Barn Swallow (*Hirundo rustica*) is listed as "Special Concern" by SARO and is not protected under the ESA. The Barn Swallow inhabits open-rural and urban sites where buildings are situated near watercourses. Nesting is typically sporadic within loose colonies on building structures, bridges and other suitable overhanging structures. The cup-like mud nest is adhered to areas beneath the roof of the structure to conceal the nest from predators and keep it dry. The Barn Swallow feeds on insects by catching them on the wing.

Black Tern (*Chlidonias niger*) is listed as "Special Concern" by SARO, and is not protected under the ESA. The Black Tern prefers shallow, freshwater cattail marshes, wetlands, lake edges and sewage ponds with emergent vegetation. Nesting occurs on dead plant material piled upon aquatic floating vegetation. The Black Tern hunts small insects and minnows along the surface of lakes and ponds.

Bobolink (*Dolichonyx oryzivorus*) is listed as "Threatened" by SARO and is protected under the ESA. The Bobolink prefers large tracts of tallgrass areas, either true prairies or hay fields, as it forages low to the ground in search of larvae and seeds.

Canada Warbler (*Cardellina canadensis*) is listed as "Special Concern" by SARO, and is not protected under the ESA. It prefers large tracts of mixed forests on bottomlands within wetlands or drainage courses. The species nests within the upper extremities of the canopy in deciduous and coniferous trees. The Canada Warbler feeds on beetles, caterpillars and common insects. Typically, this species prefers creeks and mixed forests with a coniferous edge along a moving creek, tributary or river system.

Cerulean Warbler (*Setophaga cerulea*) is listed as "Threatened" by SARO and is protected under the ESA. They spend their summers (breeding seasons) in mature, deciduous forests with large, tall trees and an open under storey. In late summer, they begin their long migration to wintering grounds in the Andes Mountains in South America. The Cerulean Warbler feeds mainly on insects during the breeding season and on nectar during the non-breeding season. Young birds are fed primarily butterfly larvae. The Cerulean Warbler feeds mainly on insects during the breeding season and on nectar during the non-breeding season.

Chimney Swift (*Chaetura pelagica*) is listed as "Threatened" by SARO and is protected under the ESA. The Chimney Swift is a somewhat generalist species. It will utilize empty cavity nests found in dead trees within fencerows or may utilize unused chimneys as suggested by its common name. This species is most active in early morning and early evening (i.e., dawn and dusk). It will venture outside of the nesting area and feast on insects during those times. It then flies back to the nesting site, entering the nest one after another in an orderly funnel-shaped sequence.

Common Nighthawk (*Chordeiles minor*) is listed as "Special Concern" by SARO, and is not protected under the ESA. The Common Nighthawk is part of the Nightjar family which prefers forest openings, bogs and sometimes open field/meadow areas. Nesting is on bare ground where both adults feed the young. Feeding can take place during day or night, while the species constantly forages for all types of insects.

Eastern Meadowlark (*Sturnella magna*) is listed as "Threatened" by SARO and is protected under the ESA. The Eastern Meadowlark is similar to Bobolink, as this species also prefers large tracts of agricultural fields or tallgrass prairies to nest within. Eastern Meadowlark is a ground nester, thus requires the tall grass to conceal its nest and eggs. Feeding includes beetles, crickets and spiders.

Eastern Whip-poor-will (*Anthrostomus vociferus*) is listed as "Threatened" by SARO and is protected under the ESA. The Whip-poor-will prefers a combination of large natural tracts of secondary succession forest, watercourses and edge habitat consisting of meadow areas, with open deciduous and pine woodlands. The Whip-poor-will does not construct a nest, but rather uses the soft leaf litter on the ground to form a nest and lay the eggs directly on the ground. The Whip-poor-will is a nighttime hunter, calling its own name while searching for large flying insects, beetles, moths, mosquitos and sometimes grasshoppers. The Whip-poor-will often choose pine species adjacent to waterways to call from.

Eastern Wood-Pewee (*Contopus virens*) is listed as "Special Concern" by SARO and is not protected under the ESA. This species prefers mixed deciduous and coniferous woodlands which are open or considered edge habitat. Nesting occurs on a tree branch as the species catches insects from a perch.

Evening Grosbeak (*Coccothraustes vespertinus*) is listed as "Special Concern" by SARO and is not protected under the ESA. During the breeding season, Evening Grosbeak is generally found in open, mature mixed-wood forests dominated by fir species, White Spruce and/or Trembling Aspen. Its abundance is strongly linked to the cycle of its primary prey, the Spruce Budworm. Outside the breeding season, the species depends mostly on seed crops.

Grasshopper Sparrow (*Ammodramus savannarum*) is listed as "Special Concern" by SARO and is not protected under the ESA. The Grasshopper Sparrow prefers large (greater than 5 ha) grassland habitats where it breeds. Grassland habitats include pastures, hayfields, natural prairies, alvars. Nests are typically hidden within the grassland and its preferred diet in the summer is large insects (i.e., Grasshoppers).

Horned Grebe (*Podiceps auritus*) is listed as "Special Concern" by SARO and is not protected under the ESA. The Horned Grebe usually nests in small ponds, marshes and shallow bays that contain areas of open water. It occupies natural habitat more often than man-made reservoirs and artificial ponds. This species is a rare breeder in Ontario. Following the breeding season, most individuals migrate from inland freshwater nesting sites to coastal marine sites, although some individuals overwinter on large bodies of freshwater. Most of its North American breeding range is located in Canada, extending from northwestern Ontario to British Columbia and north to Alaska (Western population).

Least Bittern (*Ixobrychus exilis*) is listed as "Threatened" by SARO and is protected under the ESA. The Least Bittern inhabits freshwater marshes where tall, impenetrable stands of emergent vegetation are utilized for coverage. The Least Bittern may build up a hunting platform in search of small fish, insects, and amphibians.

Lesser Yellowlegs (*Tringa flavipes*) is listed as "Threatened" by SARO and is protected under the ESA. A small greyish shorebird, the Lesser Yellowlegs has a long neck and prominent yellow legs. Their bills are the same length as their head, and their wings are dark with dark-light striping along the feather. Lesser Yellowlegs have a distinct white eye ring, and their tail and rump are mostly white. They typically nest on dry ground near wetlands, particularly peatlands and marshes. During migration, they will use coastal marshes, estuaries, ponds, lakes, freshwater wetlands and anthropogenic wetlands.

Red-necked Phalarope (*Phalaropus lobatus*) is listed as "Special Concern" by SARO. The Red-necked Phalarope is a small shorebird with a blue-grey body. They have a red-orange neck, long thin beak and dark head. Red-necked Phalaropes prefer coastal and inland marshes, with shallow ponds and grassy edges.

Rusty Blackbird (*Euphagus carolinus*) is listed as "Special Concern" by SARO and is not protected under the ESA. It breeds in habitats that are dominated by coniferous forest with wetlands nearby including bogs, marshes and beaver ponds. During the winter, it is found in wet woodlands, swamps and pond edges and often forages in agricultural lands.

Wood Thrush (*Hylocichia mustelina*) is listed as "Special Concern" by SARO and is not protected under the ESA. The Wood Thrush enjoys relatively undisturbed,

mature woodlands. Nesting occurs low in the fork of a tree as this species forages for berries and insects at ground level. Similar to the Eastern Wood-Pewee, this species prefers large tracts of woodland.

Amphibians & Reptiles

Blanding's Turtle (*Emydoidea blandingii*) is listed as "Threatened" by SARO and is protected under the ESA. It tends to inhabit shallow waters within large wetlands or shallow lakes that have lots of aquatic plants. However, they have been known to travel hundreds of metres from a main body of water for nesting or mating. This species is most easily identified by its bright yellow throat and chin.

Eastern Milksnake (*Lampropeltis triangulum*) is listed as "Not at Risk" by SARO however, it is listed as "Special Concern" under COSEWIC. Gray or tan in colour, with alternating reddish brown patches that have a black outline, the Eastern Milksnake commonly has a distinct Y shape on the top of the head. They prefer open areas for their habitat such as rocky areas, forest and field edges.

Eastern Musk Turtle (*Sternotherus odoratus*) is listed as "Special Concern" by SARO and is not protected under the ESA. Eastern Musk Turtles are found in ponds, lakes, marshes and rivers that are generally slow-moving have abundant emergent vegetation and muddy bottoms that they burrow into for winter hibernation.

Nesting habitat is variable, but it must be close to the water and exposed to direct sunlight. Nesting females dig shallow excavations in soil, decaying vegetation and rotting wood or lay eggs in muskrat lodges, on the open ground or in rock crevices.

Midland Painted Turtle (*Chrysemys picta marginata*) is listed as "Special Concern" by COSEWIC and is currently under review by COSSARO. Midland Painted Turtles spend the majority of their lives in water. They prefer shallow water with aquatic vegetation, soft mud, and leaf litter at the bottom. Typically found basking on logs, rocks, and shorelines in sunlight. Midland Painted Turtles nest between mid-spring and early summer. They tend to choose gravely, sandy and loam soils for nesting.

Northern Map Turtle (*Graptemys geographica*) is listed as "Special Concern" by SARO, and is not protected under the ESA. This species inhabits rivers and lakeshores where it basks on emergent rocks and fallen trees throughout the spring and summer. In winter, the turtles hibernate on the bottom of deep, slow-moving sections of river. They require high-quality water that supports the female's mollusc prey. Their habitat must contain suitable basking sites, such as rocks and deadheads, with an unobstructed view from which a turtle can drop immediately

into the water if startled.

Snapping Turtle (*Chelydra serpentina*) is listed as "Special Concern" by SARO and is not protected under the ESA. Snapping Turtles spend most of their lives in water. They prefer shallow waters so they can hide under the soft mud and leaf litter, with only their noses exposed to the surface to breathe. During the nesting season, from early to mid summer, females travel overland in search of a suitable nesting site, usually gravelly or sandy areas along streams. Snapping Turtles often take advantage of man-made structures for nest sites, including roads (especially gravel shoulders), dam and aggregate pits.

Western Chorus Frog - Great Lakes - St. Lawrence - Canadian Shield population (*Pseudacris maculata pop. 1*) is listed as "Not at Risk" by SARO, however is listed as "Threatened" by SARA and COSEWIC. The Western Chorus Frog is a small frog which is brown to olive gray in colour. It has three dark lines on its back, a wider line on each side, and broad line across the eyes. Its call is a "cre-ee-ee-eek" sound similar to a fingernail being dragged across a comb. The Western Chorus prefers lowland habitats with open or discontinuous canopy. Also preferring areas which can become vernal pools in the spring. Vegetation to typical to find Western Chorus Frogs are: sedges (*Carex spp.*), cattails (*Typha spp.*), Reed Canary Grass (*Phalaris arundinacea*), Red Osier Dogwood (*Cornus stolonifera*), willows (*Salix spp.*), Speckled Alder (*Alnus incana ssp. rugosa*), Black Ash (*Fraxinus nigra*), and Red Maple (*Acer rubrum*).

Insects

American Bumble Bee (*Bombus pensylvanicus*) is listed as "Special Concern" by COSEWIC and not SARO. It is not protected under the ESA. The American Bumble Bee is a medium sized bee with dark wings and the yellow and black striping of typical bumble bees. The head and tongue are longer than most bees in Canada. They prefer farmlands, meadows and grasslands. American Bumble Bees nest above ground in grass mats, or abandoned rodent/bird nests. Queens overwinter underground in decomposing organic material.

Monarch (*Danaus plexippus*) is listed as "Special Concern" by SARO and is not protected under the ESA. Throughout their life cycle, Monarchs use two different types of habitat in Ontario. Only the caterpillars feed on milkweed (*Asclepias* spp.) plants and are confined to meadows and open areas where milkweed grows. Adult butterflies can be found in more diverse habitats where they feed on nectar from a variety of wildflowers. Monarchs spend the winter in central Mexico.

Yellow-banded Bumble Bee (*Bombus terricola*) is listed as "Special Concern" by SARO and is not protected under the ESA. This species is a forage and habitat

generalist, able to use a variety of nectaring plants and environmental conditions. It can be found in mixed woodlands, particularly for nesting and overwintering, as well as a variety of open habitat such as native grasslands, farmlands and urban areas. Nest sites are often underground in abandoned rodent burrows or decomposing logs.

Plants

Black Ash (*Fraxinus nigra*): is listed as "Endangered" by SARO and will be protected under the ESA with an exemption for areas without Emerald ash borer (*Agrilus planipennis*). Black Ash is a shade tolerant species that prefers moist alkaline soil. Black Ash occurs in and around swamp type environments, areas which have seasonal flooding, and moist upland forests.

Appendix D

NHIC Database

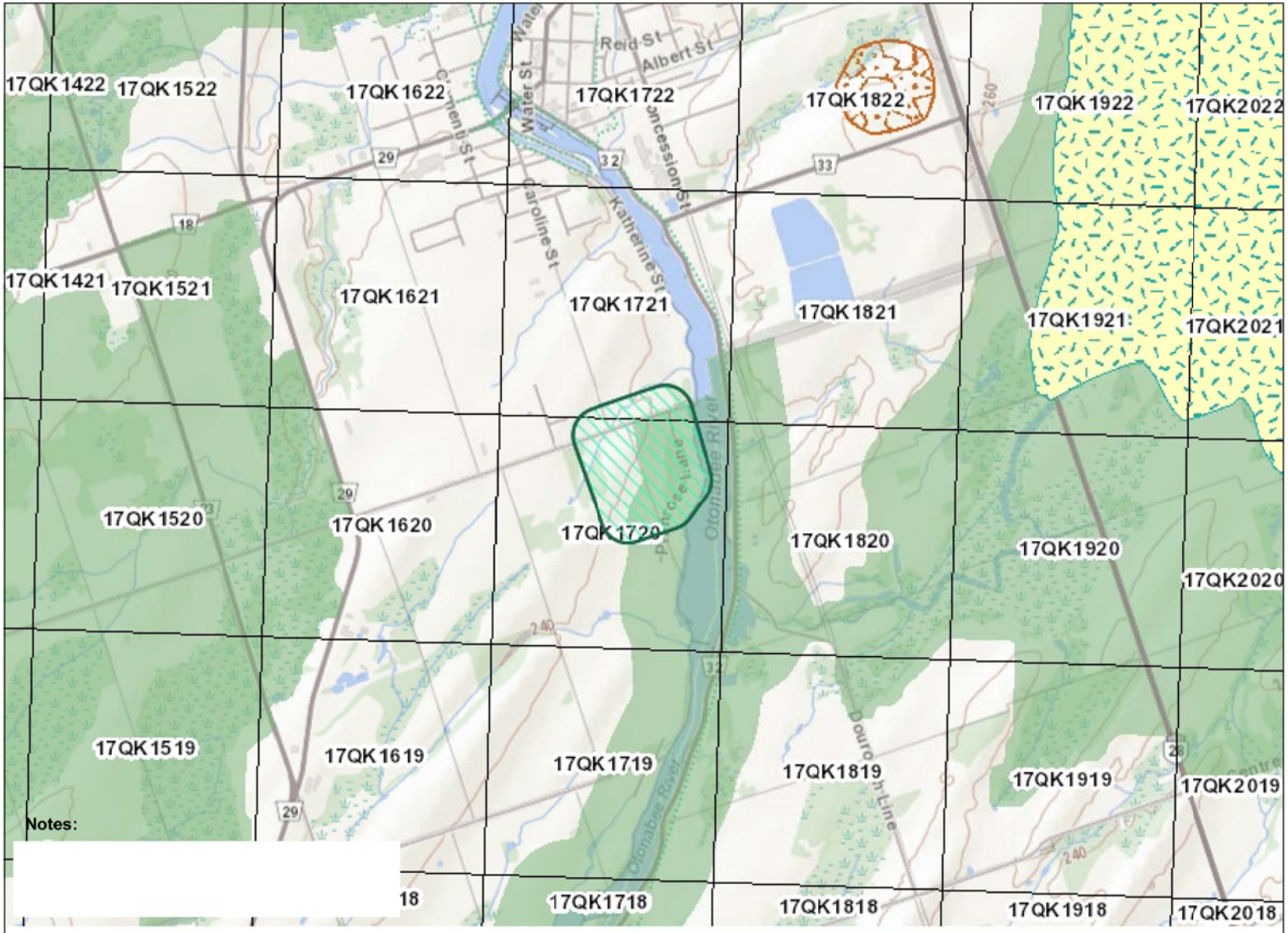
Ontario

Ministry of Natural Resources and Forestry

Make-a-Map: Natural Heritage Areas

NHIC Map

Map created:4/4/2024



Legend

- NHIC 1 Km Grd
- ANSI
- Earth Science Provincially Significant/sciences de la terre d'importance provinciale
- Earth Science Regionally Significant/sciences de la terre d'importance régionale
- Life Science Provincially Significant/sciences de la vie d'importance provinciale
- Life Science Regionally Significant/sciences de la vie d'importance régionale
- Conservation Reserve
- Provincial Park
- Natural Heritage System

1.3 0 0.66 1.3 Kilometres

Absence of a feature in the map does not mean they do not exist in this area.

NHIC Data

To work further with this data select the content and copy it into your own word or excel documents.

OGF ID	Element Type	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
1059104	SPECIES	Blue-winged Teal	Spatula discors	S3B,S4M			17QK1720	
1059104	SPECIES	Midland Painted Turtle	Chrysemys picta marginata	S4		SC	17QK1720	
1059104	SPECIES	Wood Thrush	Hylocichla mustelina	S4B	SC	THR	17QK1720	
1059104	SPECIES	Eastern Wood-pewee	Contopus virens	S4B	SC	SC	17QK1720	
1059104	SPECIES	Snapping Turtle	Chelydra serpentina	S4	SC	SC	17QK1720	
1059104	SPECIES	Northern Map Turtle	Graptemys geographica	S3	SC	SC	17QK1720	
1059104	SPECIES	Eastern Musk Turtle	Sternotherus odoratus	S3	SC	SC	17QK1720	
1059104	SPECIES	Eastern Meadowlark	Sturnella magna	S4B,S3N	THR	THR	17QK1720	
1059104	SPECIES	Bobolink	Dolichonyx oryzivorus	S4B	THR	THR	17QK1720	
1059105	SPECIES	Common Gallinule	Gallinula galeata	S3B			17QK1721	
1059105	SPECIES	Upland Sandpiper	Bartramia longicauda	S2B			17QK1721	
1059105	SPECIES	American Coot	Fulica americana	S3B,S4N	NAR	NAR	17QK1721	
1059105	SPECIES	Blue-winged Teal	Spatula discors	S3B,S4M			17QK1721	
1059105	SPECIES	Wood Thrush	Hylocichla mustelina	S4B	SC	THR	17QK1721	
1059105	SPECIES	Eastern Wood-pewee	Contopus virens	S4B	SC	SC	17QK1721	
1059105	SPECIES	Western Chorus Frog - Great Lakes - St. Lawrence - Canadian Shield population	Pseudacris maculata pop. 1	S4	NAR	THR	17QK1721	
1059105	SPECIES	Canada Warbler	Cardellina canadensis	S5B	SC	SC	17QK1721	
1059105	SPECIES	Snapping Turtle	Chelydra serpentina	S4	SC	SC	17QK1721	
1059105	SPECIES	Eastern Milksnake	Lampropeltis triangulum	S4	NAR	SC	17QK1721	
1059105	SPECIES	Bald Eagle	Haliaeetus leucocephalus	S4	SC	NAR	17QK1721	

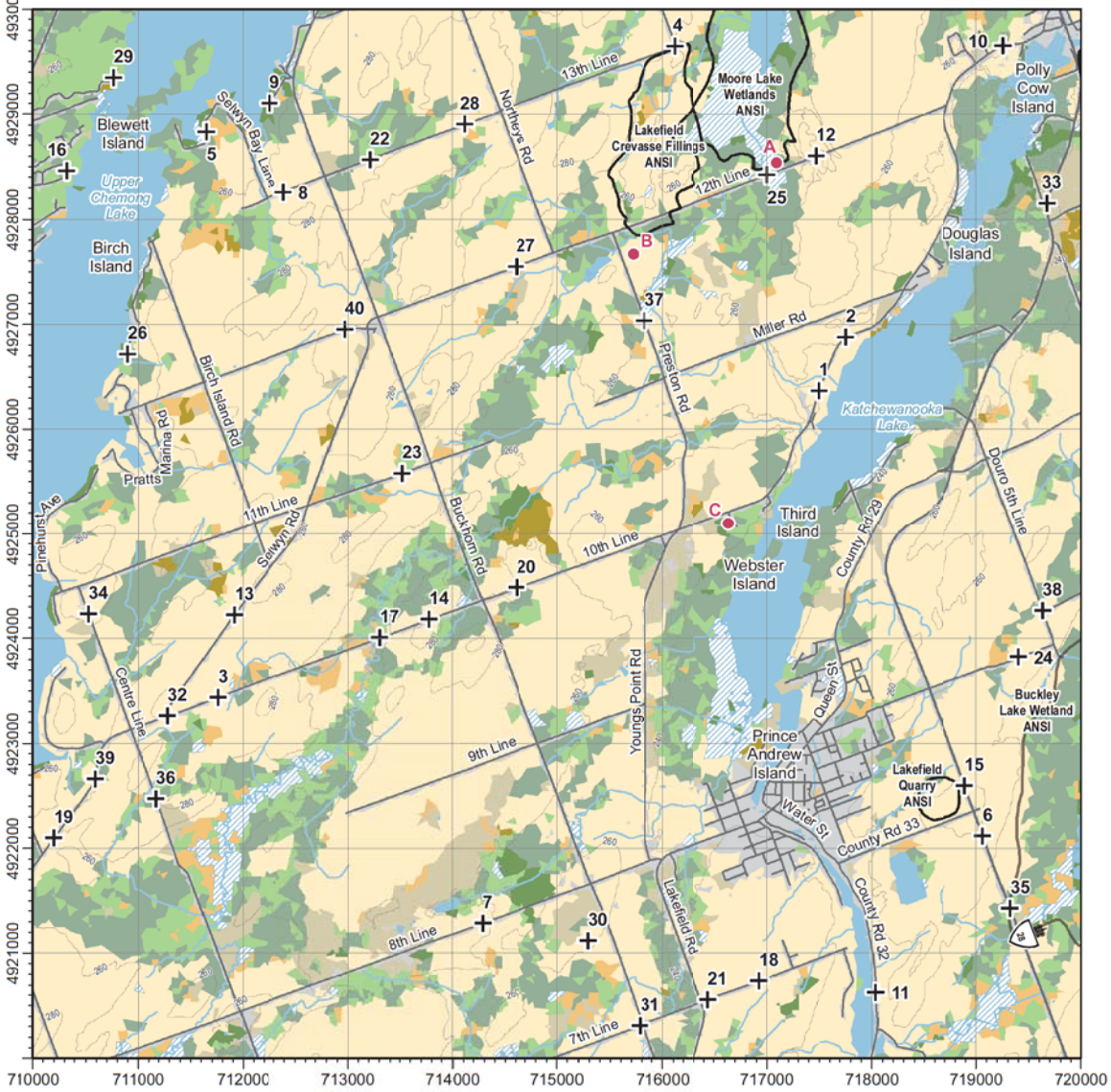
OGF ID	Element Type	Common Name	Scientific Name	SRank	SARO Status	COSEWIC Status	ATLAS NAD83 IDENT	COMMENTS
1059105	SPECIES	Eastern Meadowlark	Sturnella magna	S4B,S3N	THR	THR	17QK1721	
1059105	SPECIES	Bobolink	Dolichonyx oryzivorus	S4B	THR	THR	17QK1721	
1059105	SPECIES	Least Bittern	Ixobrychus exilis	S4B	THR	THR	17QK1721	

Appendix E

OBBA Database

Region / Région: 16

Square / Parcelle: 17TQK12



Predefined point count coordinates
Coordonnées des points d'écoute prédéterminés

POINT +	EASTING UTM Est	NORTHING UTM Nord
1	717494	4926369
2	717755	4926878
3	711759	4923439
4	716122	4929650
5	711647	4928836
6	719063	4922118
7	714283	4921287
8	712390	4928261
9	712258	4929107
10	719257	4929653
11	718039	4920627
12	717470	4928603
13	711914	4924227
14	713779	4924185
15	718889	4922597
16	710324	4928462
17	713303	4924008
18	716927	4920739
19	710200	4922098
20	714612	4924485
21	716439	4920559
22	713211	4928567
23	713521	4925581
24	719402	4923823
25	716997	4928423
26	710899	4926720
27	714608	4927550
28	714115	4928906
29	710764	4929351
30	715287	4921119
31	715786	4920310
32	711280	4923262
33	719670	4928153
34	710526	4924236
35	719324	4921427
36	711171	4922473
37	715828	4927037
38	719632	4924267
39	710589	4922661
40	712974	4926952

Number of off-road point counts
Nombre de points d'écoute hors route

Broadleaf forest:	1	Grassland:	0
Coniferous forest:	0	Wetland:	1
Mixed forest:	3	Shrubland:	0

Predefined / Prédéterminés: 20
Off-road / Hors route: 5

Atlas-2 off-road point ● **Point hors route Atlas-2**

0 1 km

Atlas des oiseaux nicheurs Ontario Breeding Bird Atlas

Legend	Légende
Expressway or highway	Autoroute ou route nationale (asphaltée)
Regional or local road	Route régionale ou locale (asphaltée ou non)
Resource / Recreation	Ressource / route récréative
Rail line	Chemin de fer
Utility corridor	Ligne de transport d'énergie
Watercurse	Rivière ou ruisseau
Protected or conserved area	Zone protégée ou conservée
Fire disturbance since 2000	Incendie perturbé depuis 2000
Broadleaf forest 8	Forêt de feuillus
Coniferous forest 1	Forêt de conifères
Mixed forest 15	Forêt mixte
Shrubland 2	Milieu arbustif
Grassland	Prairie
Barren 3	Dénudé
Wetland 2	Milieu humide
Agriculture 53	Milieu agricole
Water 9	Eau
Developed area 7	Zone développée
Unclassified	Non classifié

The approximate percent coverage of each habitat type is indicated by the numbered box in the legend.

La couverture approximative est indiquée en pourcentage dans le rectangle coloré de la légende.

Cartographic production by Birds Canada
Production cartographique par oiseaux Canada

Note: The project partners are in no way responsible for any inaccuracies, mistakes or omissions in the information that appears on this map.

Avis : Les responsables du projet d'atlas ne peuvent être tenus responsables de toute inexactitude, erreur ou omission concernant les informations apparaissant sur cette carte.

6° Universal Transverse Mercator (UTM) Projection; Zone 17, Central Meridian -81°; North American Datum 1983 (NAD 83)

Projection universelle transverse de Mercator (UTM) 6° Zone 17, méridien central -81°; Système de référence géodésique nord-américain 1983 (NAD 83)

BIRDS CANADA OISEAUX CANADA

March 2021 / mars 2021

https://www.birdsontario.org/

17TQK12

Peterborough

Region / Région: 16

BIRDS CANADA
OISEAUX CANADA

Square Summary (17TQK12) [change]

	#species				#hours		#pc done	
	poss	prob	conf	total	total	peak	road	offrd
Curr.	36	38	40	114	93.4	34.6	30	2
Prev.	25	30	68	123	75.8	—	51	

Region summary (#16: Peterborough, ON)

#squares	#sq with data	#species	#squares (pc)	
			target	compl.
60	60	170	60	29
60	60	185	0	60

Target number of point counts in this square: 25 in total: 20 road side, 5 off road (Broadleaf Forest in 1, Mixed Forest in 3, Wetland in 1). Please try to ensure that each off-road station is located such that the entire 100m radius circle is within the prescribed habitat.**Predef. completed:** [01, 02, 03, 04, 05, 06, 08, 10, 11, 12, 13, 14, 15, 17, 19, 20, 22, 23, 24, 25, 28, 32, 33, 34, 35, 36, 37, 38, B]

SPECIES	Prev.	Code	%
Canada Goose	FY	AE	83
Mute Swan ‡	AE	FY	5
Trumpeter Swan			28
Wood Duck	FY	FY	81
Blue-winged Teal ‡	FY		10
Northern Shoveler ‡	FY	D	1
Gadwall ‡	FY		0
American Wigeon ‡			0
Mallard	FY	FY	85
American Black Duck			6
Northern Pintail ‡			0
Green-winged Teal ‡			1
Redhead †			0
Ring-necked Duck	P		26
Lesser Scaup ‡			0
Hooded Merganser	FY	FY	63
Common Merganser ‡	A		26
Ruddy Duck ‡			0
Wild Turkey	NE	D	93
Ruffed Grouse	FY	S	85
Ring-necked Pheasant ‡			0
Pied-billed Grebe		S	25
Rock Pigeon (Feral Pigeon)	AE	H	53
Mourning Dove	NE	NE	86
Yellow-billed Cuckoo		S	51
Black-billed Cuckoo	P	S	73
Coccyzus sp. ‡	T		0
Common Nighthawk §	P	H	28
Eastern Whip-poor-will §	S		43
Chimney Swift ‡	T	H	11
Ruby-throated Hummingbird	T	H	80
Virginia Rail	S	T	68
Sora	FY	T	21

SPECIES	Prev.	Code	%
Common Gallinule ‡	FY		13
American Coot ‡	H		1
Sandhill Crane ‡	FY	H	43
Killdeer §	NE	NE	55
Upland Sandpiper †			16
American Woodcock	NE	T	56
Wilson's Snipe	H	S	48
Wilson's Phalarope ‡	H		0
Spotted Sandpiper	T	FY	46
Ring-billed Gull § ‡			1
Herring Gull §			31
Caspian Tern ‡			0
Black Tern † §		H	3
Common Tern § ‡			0
Common Loon	T	H	76
Double-crested Cormorant § ‡			5
American Bittern	T	S	70
Least Bittern †	T	T	36
Green Heron §	FY	FY	48
Great Blue Heron §			66
Turkey Vulture	NY	H	88
Osprey	AE	NY	56
Northern Harrier	P	H	26
Sharp-shinned Hawk	CF		26
Cooper's Hawk	NB		21
American Goshawk ‡			0
Bald Eagle ‡	NY	NB	13
Red-shouldered Hawk	H		40
Broad-winged Hawk	P		86
Red-tailed Hawk	V	H	50
Eastern Screech-Owl	S		15
Great Horned Owl ‡	P		21
Barred Owl		S	48

SPECIES	Prev.	Code	%
Long-eared Owl ‡		H	8
Short-eared Owl †			0
Northern Saw-whet Owl			8
Belted Kingfisher	CF	CF	88
Yellow-bellied Sapsucker	D	T	98
Red-headed Woodpecker †			15
Red-bellied Woodpecker		S	38
Black-backed Woodpecker ‡			3
Downy Woodpecker	NY	FY	85
Hairy Woodpecker	NY	T	91
Pileated Woodpecker	S	T	96
Northern Flicker	FY	T	95
American Kestrel §	NY	H	51
Merlin	D	S	51
Peregrine Falcon ‡			1
Olive-sided Flycatcher ‡			11
Eastern Wood-Pewee §	FY	T	100
Yellow-bellied Flycatcher ‡			0
Alder Flycatcher	T	T	93
Willow Flycatcher	S	S	38
Least Flycatcher	S	T	91
Eastern Phoebe	NY	AE	100
Great Crested Flycatcher	FY	T	100
Eastern Kingbird	CF	FY	91
Yellow-throated Vireo			40
Blue-headed Vireo	S		80
Philadelphia Vireo ‡			0
Warbling Vireo	A	T	75
Red-eyed Vireo	NB	T	100
Loggerhead Shrike †			0
Canada Jay ‡			5
Blue Jay	T	NY	100
American Crow	FY	AE	96

SPECIES	Prev.	Code	%
Common Raven		P	93
Black-capped Chickadee	NY	CF	100
Boreal Chickadee ‡			0
Horned Lark ‡	P		8
Bank Swallow §	AE	H	16
Tree Swallow	NY	NY	83
Purple Martin ‡			6
Northern Rough-winged Swallow	H	AE	20
Barn Swallow §	NY	FY	78
Cliff Swallow §	FY		18
Ruby-crowned Kinglet ‡			0
Golden-crowned Kinglet			40
White-breasted Nuthatch	T	T	88
Red-breasted Nuthatch	FY	T	95
Brown Creeper	S	S	75
Blue-gray Gnatcatcher ‡			3
House Wren	NY	AE	81
Winter Wren		T	98
Pacific/Winter Wren ‡	S		0
Sedge Wren ‡			10
Marsh Wren	A	S	48
Carolina Wren ‡		S	5
European Starling	NY	CF	81
Gray Catbird	T	A	85
Brown Thrasher	NE	T	76
Northern Mockingbird ‡			3
Eastern Bluebird	NB	CF	56
Veery	NY	T	100
Swainson's Thrush			21
Hermit Thrush			83
Wood Thrush §	NY	T	88
American Robin	NY	CF	98
Cedar Waxwing	FY	FY	93

SPECIES	Prev.	Code	%
House Sparrow	AE	P	38
Evening Grosbeak ‡			3
House Finch	FY	AE	20
Purple Finch	P	T	98
Red Crossbill ‡			25
White-winged Crossbill ‡			5
Pine Siskin ‡			30
American Goldfinch	FY	FY	95
Grasshopper Sparrow §	NB	S	23
Chipping Sparrow	NY	AE	96
Clay-colored Sparrow ‡	T	T	18
Field Sparrow §	S	A	65
Dark-eyed Junco ‡			3
White-throated Sparrow	S	A	98
Vesper Sparrow	T	S	33
Savannah Sparrow	NE	T	58
Song Sparrow	NE	CF	100
Lincoln's Sparrow ‡			5
Swamp Sparrow	FY	CF	100
Eastern Towhee §		T	53
Bobolink §	CF	T	51
Eastern Meadowlark §	FY	FY	58
Orchard Oriole ‡			6
Baltimore Oriole	NY	NU	75
Red-winged Blackbird	NY	CF	100
Brown-headed Cowbird	NE	T	68
Common Grackle	NY	NY	100
Ovenbird	NY	M	100
Northern Waterthrush	CF	S	95
Golden-winged Warbler †			25
Blue-winged Warbler ‡			11
Golden-winged/Blue-winged Warbler ‡	S		0
Black-and-white Warbler	A	FY	96

SPECIES	Prev.	Code	%
Tennessee Warbler ‡			0
Nashville Warbler	T	S	91
Mourning Warbler	S	CF	76
Common Yellowthroat	NY	FY	100
Hooded Warbler ‡			0
American Redstart	NB	T	98
Cape May Warbler ‡			0
Cerulean Warbler †	S		3
Northern Parula ‡			28
Magnolia Warbler		S	75
Bay-breasted Warbler ‡			0
Blackburnian Warbler			73
Yellow Warbler	FY	FY	85
Chestnut-sided Warbler	S	S	96
Black-throated Blue Warbler			61
Pine Warbler	S	S	96
Yellow-rumped Warbler	S	T	86
Prairie Warbler †			1
Black-throated Green Warbler	S	S	93
Canada Warbler §	S	S	66
Scarlet Tanager		S	95
Northern Cardinal	T	FY	51
Rose-breasted Grosbeak	NE	T	100
Indigo Bunting	S	A	95

This list includes all breeding species expected in the region #16 (Peterborough). Underlined species are those that you should try to add to this square (17TQK12). They have not yet been reported in this square, but have been reported in more than 50% of the squares in this region so far. "Prev." is the code for the highest breeding evidence for that species in square 17TQK12 in the previous atlas. "Code" is the code for the highest breeding evidence for that species in square 17TQK12 over the last 5 years. The % columns give the percentage of squares in that region where that species was reported (this gives an idea of the expected chance of finding that species in region #16). Rare/Colonial Species Report Forms should be completed for species marked: § (Species of interest), ‡ (regionally rare), † (provincially rare). An up-to-date version of this sheet is available from https://naturecounts.ca//nc//atlas/squaresummaryform.jsp?squareID=17TQK12&lang=EN Data current as of **3/04/2024 18:17**.

Appendix F

eBird Database

Otonabee River--between Lock 25 and Lakefield

Peterborough County (/region/CA-ON-PB?yr=all&m=), Ontario (/region/CA-ON?yr=all&m=), CA (/region/CA?yr=all&m=)

Map(/hotspots?hs=L1862781&yr=all&m=)

Directions(https://www.google.com/maps/search/?api=1&query=44.4132687,-78.2625462)

Hotspot navigation

Overview (/hotspot/L1862781?yr=all&m=)

Illustrated Checklist (/hotspot/L1862781/media?yr=all&m=)

VIEW MY...

My eBird (/myebird/L1862781)

Life List (/lifelist/L1862781)

Target Species (/targets?r1=L1862781&bmo=1&emo=12)

Checklists (/mychecklists/L1862781)

EXPLORE...

Hotspot Map (/hotspots?hs=L1862781&yr=all&m=)

Bar Charts (/barchart?r=L1862781&yr=all&m=)

Media (https://ebird.org/media/catalog?regionCode=L1862781)

Printable Checklist (/printableList?regionCode=L1862781&yr=all&m=)

141
Species observed
(/hotspot/L1862781?yr=all&m=)

1738
Complete checklists
(/hotspot/L1862781/activity?yr=all&m=)

Sightings

Updated 11 sec ago.

Last seen (/hotspot/L1862781?yr=all&m=&rank=mrec) | **First seen (/hotspot/L1862781?yr=all&m=&rank=lrec)** | **High counts (/hotspot/L1862781?yr=all&m=&rank=hc)**

Show all details | Sort by

1.	**Canada Goose** *Branta canadensis*		2	2 Apr 2024	Kathryn Sheridan
2.	**Bufflehead** *Bucephala albeola*		17	2 Apr 2024	Kathryn Sheridan
3.	**Common Goldeneye** *Bucephala clangula*		11	2 Apr 2024	Kathryn Sheridan
4.	**Herring Gull** *Larus argentatus*		10	2 Apr 2024	Kathryn Sheridan
5.	**American Kestrel** *Falco sparverius*		2	2 Apr 2024	Kathryn Sheridan
6.	**Blue Jay** *Cyanocitta cristata*		1	2 Apr 2024	Kathryn Sheridan
7.	**American Crow** *Corvus brachyrhynchos*		5	2 Apr 2024	Kathryn Sheridan
8.	**American Robin** *Turdus migratorius*		1	2 Apr 2024	Kathryn Sheridan
9.	**Cedar Waxwing** *Bombycilla cedrorum*		1	2 Apr 2024	Kathryn Sheridan
10.	**Song Sparrow** *Melospiza melodia*		4	2 Apr 2024	Kathryn Sheridan
11.	**Red-winged Blackbird** *Agelaius phoeniceus*		1	2 Apr 2024	Kathryn Sheridan
12.	**Northern Cardinal** *Cardinalis cardinalis*		1	2 Apr 2024	Kathryn Sheridan
13.	**Hooded Merganser** *Lophodytes cucullatus*		2	31 Mar 2024	Alexander R
14.	**Ring-billed Gull** *Larus delawarensis*		8	31 Mar 2024	Alexander R
15.	**Mourning Dove** *Zenaida macroura*		3	30 Mar 2024	Alexander R
16.	**Downy Woodpecker** *Dryobates pubescens*		1	30 Mar 2024	Alexander R
17.	**Black-capped Chickadee** *Poecile atricapillus*		1	30 Mar 2024	Alexander R
18.	**Golden-crowned Kinglet** *Regulus satrapa*		1	30 Mar 2024	Alexander R
19.	**European Starling** *Sturnus vulgaris*	*	2	30 Mar 2024	Alexander R
20.	**American Goldfinch** *Spinus tristis*		1	30 Mar 2024	Alexander R
21.	**Common Grackle** *Quiscalus quiscula*		2	30 Mar 2024	Alexander R
22.	**Common Merganser** *Mergus merganser*		2	29 Mar 2024	Martin Parker
23.	**Mallard** *Anas platyrhynchos*		2	29 Mar 2024	Talon Stryker
24.	**Red-tailed Hawk** *Buteo jamaicensis*		1	29 Mar 2024	Talon Stryker
25.	**Belted Kingfisher** *Megaceryle alcyon*		1	29 Mar 2024	Talon Stryker

26.	**Common Raven** *Corvus corax*		1	29 Mar 2024	Tamara B
27.	**Dark-eyed Junco** *Junco hyemalis*		2	29 Mar 2024	Tamara B
28.	**Turkey Vulture** *Cathartes aura*		1	28 Mar 2024	C Douglas
29.	**Bohemian Waxwing** *Bombycilla garrulus*		15	28 Mar 2024	C Douglas
30.	**Tree Swallow** *Tachycineta bicolor*		24	27 Mar 2024	Angela Mattos
31.	**Killdeer** *Charadrius vociferus*		1	24 Mar 2024	Martin Parker
32.	**Lesser Scaup** *Aythya affinis*		2	23 Mar 2024	Alexander R
33.	**Trumpeter Swan** *Cygnus buccinator*		1	22 Mar 2024	Martin Parker
34.	**American Black Duck** *Anas rubripes*		1	22 Mar 2024	Donald A. Sutherland
35.	**Ring-necked Duck** *Aythya collaris*		10	22 Mar 2024	Donald A. Sutherland
36.	**American Tree Sparrow** *Spizelloides arborea*		1	22 Mar 2024	Donald A. Sutherland
37.	**Rock Pigeon** *Columba livia*	*	5	21 Mar 2024	C Douglas
38.	**Sandhill Crane** *Antigone canadensis*		2	14 Mar 2024	Laurie Healey
39.	**Pied-billed Grebe** *Podilymbus podiceps*		1	12 Mar 2024	Donald A. Sutherland
40.	**White-breasted Nuthatch** *Sitta carolinensis*		1	2 Mar 2024	Donald A. Sutherland
41.	**Cackling Goose** *Branta hutchinsii*		1	29 Feb 2024	Luke Berg
42.	**Bald Eagle** *Haliaeetus leucocephalus*		1	28 Feb 2024	Donald A. Sutherland
43.	**Wood Duck** *Aix sponsa*		1	27 Feb 2024	C Douglas
44.	**Red-breasted Merganser** *Mergus serrator*		1	27 Feb 2024	C Douglas
45.	**Northern Shrike** *Lanius borealis*		1	11 Feb 2024	Alexander R
46.	**Mute Swan** *Cygnus olor*	*	2	3 Feb 2024	Alexander R
47.	**Pileated Woodpecker** *Dryocopus pileatus*		1	3 Feb 2024	Amy Semple
48.	**House Finch** *Haemorhous mexicanus*	*	1	31 Jan 2024	Donald A. Sutherland
49.	**Northern Pintail** *Anas acuta*		1	14 Jan 2024	Chris Risley
50.	**Cooper's Hawk** *Accipiter cooperii*		1	12 Jan 2024	Angela Mattos

51.	**House Sparrow** *Passer domesticus*	*	1	5 Nov 2023	Alexander R
52.	**Double-crested Cormorant** *Nannopterum auritum*		3	31 Oct 2023	C Douglas
53.	**Snow Bunting** *Plectrophenax nivalis*		10	31 Oct 2023	C Douglas
54.	**Evening Grosbeak** *Coccothraustes vespertinus*		1	29 Oct 2023	Alexander R
55.	**Long-tailed Duck** *Clangula hyemalis*		2	27 Oct 2023	Amy Semple
56.	**Great Blue Heron** *Ardea herodias*		1	27 Oct 2023	Amy Semple
57.	**Merlin** *Falco columbarius*		1	27 Oct 2023	Laurie Healey
58.	**Ruddy Duck** *Oxyura jamaicensis*		7	18 Oct 2023	Dave Milsom
59.	**Northern Flicker** *Colaptes auratus*		1	29 Aug 2023	Kathryn Sheridan
60.	**American Redstart** *Setophaga ruticilla*		2	29 Aug 2023	Kathryn Sheridan
61.	**Gray Catbird** *Dumetella carolinensis*		1	23 Aug 2023	Kathryn Sheridan
62.	**Osprey** *Pandion haliaetus*		1	22 Aug 2023	Kathryn Sheridan
63.	**Warbling Vireo** *Vireo gilvus*		2	22 Aug 2023	Kathryn Sheridan
64.	**Eastern Kingbird** *Tyrannus tyrannus*		4	18 Aug 2023	Kathryn Sheridan
65.	**House Wren** *Troglodytes aedon*		2	18 Aug 2023	Kathryn Sheridan
66.	**Brown Thrasher** *Toxostoma rufum*		2	18 Aug 2023	Kathryn Sheridan
67.	**Caspian Tern** *Hydroprogne caspia*		1	15 Aug 2023	Leo Weiskittel
68.	**Yellow Warbler** *Setophaga petechia*		1	11 Aug 2023	Kathryn Sheridan
69.	**Green Heron** *Butorides virescens*		1	18 Jul 2023	Kathryn Sheridan
70.	**Barn Swallow** *Hirundo rustica*		1	18 Jul 2023	Kathryn Sheridan
71.	**Swamp Sparrow** *Melospiza georgiana*		1	18 Jul 2023	Kathryn Sheridan
72.	**American Bittern** *Botaurus lentiginosus*		1	13 Jul 2023	Donald A. Sutherland
73.	**Alder Flycatcher** *Empidonax alnorum*		1	2 Jun 2023	Kathryn Sheridan
74.	**Red-eyed Vireo** *Vireo olivaceus*		1	2 Jun 2023	Kathryn Sheridan
75.	**Baltimore Oriole** *Icterus galbula*		1	2 Jun 2023	Kathryn Sheridan

76.	**Common Yellowthroat** *Geothlypis trichas*	2	2 Jun 2023	Kathryn Sheridan
77.	**Common Loon** *Gavia immer*	2	17 May 2023	Glenn Desy
78.	**Great Crested Flycatcher** *Myiarchus crinitus*	1	17 May 2023	Glenn Desy
79.	**Northern Rough-winged Swallow** *Stelgidopteryx serripennis*	2	13 May 2023	Leo Weiskittel
80.	**White-throated Sparrow** *Zonotrichia albicollis*	1	9 May 2023	Matthew Purvis
81.	**Yellow-rumped Warbler** *Setophaga coronata*	2	9 May 2023	Matthew Purvis
82.	**Eastern Meadowlark** *Sturnella magna*	1	6 Apr 2023	Donald A. Sutherland
83.	**Hairy Woodpecker** *Dryobates villosus*	1	21 Mar 2023	Donald A. Sutherland
84.	**Greater Scaup** *Aythya marila*	4	17 Mar 2023	Amy Semple
85.	**Wild Turkey** *Meleagris gallopavo*	1	12 Mar 2023	Trevor MacLaurin
86.	**White-crowned Sparrow** *Zonotrichia leucophrys*	1	1 Oct 2022	Joe Pitawanakwat
87.	**Palm Warbler** *Setophaga palmarum*	1	1 Oct 2022	Joe Pitawanakwat
88.	**Rose-breasted Grosbeak** *Pheucticus ludovicianus*	1	1 Oct 2022	Joe Pitawanakwat
89.	**Ruby-throated Hummingbird** *Archilochus colubris*	1	11 Sep 2022	Luke Berg
90.	**Eastern Wood-Pewee** *Contopus virens*	1	24 May 2022	Donald A. Sutherland
91.	**Willow Flycatcher** *Empidonax traillii*	1	24 May 2022	Donald A. Sutherland
92.	**Bank Swallow** *Riparia riparia*	2	24 May 2022	Donald A. Sutherland
93.	**Chipping Sparrow** *Spizella passerina*	1	24 May 2022	Donald A. Sutherland
94.	**Black Tern** *Chlidonias niger*	1	21 May 2022	Brian Bailey
95.	**Cliff Swallow** *Petrochelidon pyrrhonota*	1	26 Apr 2022	Mike Coyne
96.	**Spotted Sandpiper** *Actitis macularius*	1	25 Apr 2022	Henrique Pacheco
97.	**Yellow-bellied Sapsucker** *Sphyrapicus varius*	1	16 Apr 2022	Luke Berg
98.	**Eastern Phoebe** *Sayornis phoebe*	1	12 Apr 2022	Donald A. Sutherland
99.	**Pine Siskin** *Spinus pinus*	1	2 Apr 2022	Andrew Brown
100.	**Northern Harrier** *Circus hudsonius*	1	23 Mar 2022	Chris Risley

101.	**Rusty Blackbird** *Euphagus carolinus*	1	22 Mar 2022	Andrew Brown
102.	**Redhead** *Aythya americana*	5	19 Mar 2022	Mike V.A. Burrell
103.	**Tundra Swan** *Cygnus columbianus*	4	14 Mar 2022	Dave Milsom
104.	**Barrow's Goldeneye** *Bucephala islandica*	1	5 Mar 2022	Warren Dunlop
105.	**Snow Goose** *Anser caerulescens*	1	19 Nov 2021	Matthew Tobey
106.	**Sharp-shinned Hawk** *Accipiter striatus*	1	11 Nov 2021	Amy Semple
107.	**Great Egret** *Ardea alba*	1	23 Sep 2021	Tim Haan
108.	**Chimney Swift** *Chaetura pelagica*	2	30 Jul 2021	Eila O'Neil
109.	**Bobolink** *Dolichonyx oryzivorus*	1	18 May 2021	Ken Abraham
110.	**Brown-headed Cowbird** *Molothrus ater*	2	18 May 2021	Ken Abraham
111.	**Brown Creeper** *Certhia americana*	1	26 Mar 2021	C Douglas
112.	**Red-bellied Woodpecker** *Melanerpes carolinus*	1	22 Mar 2021	Laurie Healey
113.	**American Wigeon** *Mareca americana*	3	11 Mar 2021	Dave Milsom
114.	**Common Redpoll** *Acanthis flammea*	2	3 Mar 2021	Donald A. Sutherland
115.	**Great Black-backed Gull** *Larus marinus*	1	28 Dec 2020	Laurie Healey
116.	**Pine Grosbeak** *Pinicola enucleator*	4	19 Dec 2020	Iain Rayner
117.	**Blue-headed Vireo** *Vireo solitarius*	1	18 Jun 2020	Dave Milsom
118.	**Ovenbird** *Seiurus aurocapilla*	1	18 Jun 2020	Dave Milsom
119.	**Glaucous Gull** *Larus hyperboreus*	1	1 Jan 2020	Patricia Schleiffer
120.	**Red-breasted Nuthatch** *Sitta canadensis*	1	14 Mar 2019	Iain Rayner
121.	**Greater Yellowlegs** *Tringa melanoleuca*	1	7 Oct 2018	Matthew Tobey
122.	**Horned Grebe** *Podiceps auritus*	1	26 Sep 2017	Luke Berg
123.	**Black-throated Green Warbler** *Setophaga virens*	1	11 May 2017	Dan Chronowic
124.	**Nashville Warbler** *Leiothlypis ruficapilla*	1	9 May 2017	Dan Chronowic
125.	**American Pipit** *Anthus rubescens*	1	30 Sep 2016	Donald A. Sutherland

126.	**Black-and-white Warbler** *Mniotilta varia*	1	30 Jun 2016	Donald A. Sutherland
127.	**Virginia Rail** *Rallus limicola*	3	25 Jun 2016	Luke Berg
128.	**Savannah Sparrow** *Passerculus sandwichensis*	1	25 Jun 2016	Luke Berg
129.	**Northern Shoveler** *Spatula clypeata*	4	21 Dec 2015	Donald A. Sutherland
130.	**Iceland Gull** *Larus glaucoides*	1	21 Mar 2015	Bill Crins
131.	**Canvasback** *Aythya valisineria*	1	17 Mar 2015	Martin Parker
132.	**Horned Lark** *Eremophila alpestris*	1	16 Mar 2015	Chris Risley
133.	**Red-necked Grebe** *Podiceps grisegena*	1	14 Feb 2015	Martin Parker
134.	**Ross's Goose** *Anser rossii*	1	10 Dec 2014	Luke Berg
135.	**Carolina Wren** *Thryothorus ludovicianus*	1	29 Sep 2014	Donald A. Sutherland
136.	**Chestnut-sided Warbler** *Setophaga pensylvanica*	1	8 Jun 2014	Donald A. Sutherland
137.	**White-winged Scoter** *Melanitta deglandi*	1	24 Jan 2014	Iain Rayner
138.	**Gadwall** *Mareca strepera*	1	20 Nov 2013	Luke Berg
139.	**Green-winged Teal** *Anas crecca*	1	22 Jun 2013	Donald A. Sutherland
140.	**Greater White-fronted Goose** *Anser albifrons*	6	6 Apr 1997	Jarmo Jalava
141.	**Brant** *Branta bernicla*	1	25 Nov 1996	Anne Anthony

Appendix G

Species List

Species List

KINGDOM	Common Name	Scientific Name	SARO	SARA
Animalia				
	American Goldfinch	Spinus tristis		
	American Kestrel	Falco sparverius		
	American Robin	Turdus migratorius		
	Belted Kingfisher	Megaceryle alcyon		
	Black-capped Chickadee	Poecile atricapillus		
	Black-throated Green Warbler	Setophaga virens		
	Blue Jay	Cyanocitta cristata		
	Cabbage White	Pieris rapae		
	Chipping Sparrow	Spizella passerina		
	Cicada Killer	Sphecius speciosus		
	Common Grackle	Quiscalus quiscula		
	Coyote	Canis latrans		
	Eastern Kingbird	Tyrannus tyrannus		
	Eastern Meadowlark	Sturnella magna	THR	Threatened/Menacée
	Eastern Phoebe	Sayornis phoebe		
	European Starling	Sturnus vulgaris		
	Eyed Brown	Lethe eurydice		
	Field Sparrow	Spizella pusilla		
	Grasshopper Sparrow	Ammodramus savannarum	SC	
	Gray Catbird	Dumetella carolinensis		
	Great Crested Flycatcher	Myiarchus crinitus		
	Hairy Woodpecker	Dryobates villosus		
	Herring Gull	Larus argentatus		
	House Wren	Troglodytes aedon		
	Juvenal's Duskywing	Erynnis juvenalis		
	Killdeer	Charadrius vociferus		

KINGDOM	Common Name	Scientific Name	SARO	SARA
	Merlin	Falco columbarius	NAR	
	Mourning Cloak	Nymphalis antiopa		
	Mourning Dove	Zenaida macroura		
	Northern Bumble Bee	Bombus polaris		
	Northern Cardinal	Cardinalis cardinalis		
	Northern Flicker	Colaptes auratus		
	Northern Leopard Frog	Lithobates pipiens	NAR	
	Northern Raccoon	Procyon lotor		
	Orange Sulphur	Colias eurytheme		
	Purple Finch	Haemorhous purpureus		
	Red Admiral	Vanessa atalanta		
	Red Squirrel	Tamiasciurus hudsonicus		
	Red-breasted Nuthatch	Sitta canadensis		
	Red-eyed Vireo	Vireo olivaceus		
	Red-tailed Hawk	Buteo jamaicensis	NAR	
	River Jewelwing	Calopteryx aequabilis		
	Rock Pigeon	Columba livia		
	Striped Skunk	Mephitis mephitis		
	Turkey Vulture	Cathartes aura		
	Veery	Catharus fuscescens		
	Warbling Vireo	Vireo gilvus		
	White-crowned Sparrow	Zonotrichia leucophrys		
	White-footed Mouse	Peromyscus leucopus		
	White-tailed Deer	Odocoileus virginianus		
	White-throated Sparrow	Zonotrichia albicollis		
	Wild Turkey	Meleagris gallopavo		
	Willow Flycatcher	Empidonax traillii		
	Wood Thrush	Hylocichla mustelina	SC	Threatened/Menacée
	Yellow Warbler	Setophaga petechia		
	Yellow-bellied Sapsucker	Sphyrapicus varius		

KINGDOM	Common Name	Scientific Name	SARO	SARA
Plantae				
	Alfalfa	Medicago sativa		
	Alternate-leaved Dogwood	Cornus alternifolia		
	American Beech	Fagus grandifolia		
	Balsam Fir	Abies balsamea		
	Black Cherry	Prunus serotina		
	Black Willow	Salix nigra		
	Black-eyed Susan	Rudbeckia hirta var. hirta		
	Bull Thistle	Cirsium vulgare		
	Butter-and-eggs	Linaria vulgaris		
	Calico Aster	Symphyotrichum lateriflorum		
	Canada Goldenrod	Solidago canadensis		
	Common Burdock	Arctium minus		
	Common Buttercup	Ranunculus acris		
	Common Dandelion	Taraxacum officinale		
	Common Elderberry	Sambucus canadensis		
	Common Milkweed	Asclepias syriaca		
	Common Mouse-ear Chickweed	Cerastium fontanum		
	Common Mullein	Verbascum thapsus		
	Common Self-heal	Prunella vulgaris		
	Common Speedwell	Veronica officinalis		
	Common St. John's-wort	Hypericum perforatum		
	Common Timothy	Phleum pratense		
	Common Viper's Bugloss	Echium vulgare		
	Common Yarrow	Achillea millefolium		
	Eastern Red Cedar	Juniperus virginiana		
	Eastern White Cedar	Thuja occidentalis		
	Eastern White Pine	Pinus strobus		
	English Plantain	Plantago lanceolata		
	European Reed	Phragmites australis ssp. australis		

KINGDOM	Common Name	Scientific Name	SARO	SARA
	Garden Asparagus	Asparagus officinalis		
	Garlic Mustard	Alliaria petiolata		
	Glossy Buckthorn	Frangula alnus		
	Hairy Flat-top White Aster	Doellingeria umbellata var. pubens		
	Hard Fescue	Festuca trachyphylla		
	Hedge Bindweed	Fallopia dumetorum		
	Hemp Dogbane	Apocynum cannabinum		
	Large-toothed Aspen	Populus grandidentata		
	Manitoba Maple	Acer negundo		
	Meadow Willow	Salix petiolaris		
	Multiflora Rose	Rosa multiflora		
	Narrow-leaved Calico Aster	Symphyotrichum lateriflorum var. angustifolium		
	Narrow-leaved Kentucky Bluegrass	Poa pratensis ssp. angustifolia		
	Northern Red Oak	Quercus rubra		
	Norway Maple	Acer platanoides		
	Norway Spruce	Picea abies		
	Orange Daylily	Hemerocallis fulva		
	Paper Birch	Betula papyrifera		
	Pearly Everlasting	Anaphalis margaritacea		
	Pennsylvania Sedge	Carex pensylvanica		
	Poison Ivy	Toxicodendron radicans		
	Poverty Oatgrass	Danthonia spicata		
	Purple Willow	Salix purpurea		
	Pussy Willow	Salix discolor		
	Red Maple	Acer rubrum		
	Red Raspberry	Rubus idaeus		
	Red-seeded Dandelion	Taraxacum erythrospermum		
	Riverbank Grape	Vitis riparia		
	Rock Elm	Ulmus thomasii		
	Russian Pigweed	Axyris amaranthoides		

KINGDOM	Common Name	Scientific Name	SARO	SARA
	Scots Pine	Pinus sylvestris		
	Sensitive Fern	Onoclea sensibilis		
	Smooth Brome	Bromus inermis		
	Spiny Plumeless Thistle	Carduus acanthoides		
	Spotted Joe Pye Weed	Eutrochium maculatum		
	Spreading Dogbane	Apocynum androsaemifolium		
	Staghorn Sumac	Rhus typhina		
	Sugar Maple	Acer saccharum		
	Summer Savory	Satureja hortensis		
	Tall Oatgrass	Arrhenatherum elatius		
	Tatarian Honeysuckle	Lonicera tatarica		
	Trembling Aspen	Populus tremuloides		
	Two-seeded Sedge	Carex disperma		
	Upright Brome	Bromus erectus		
	Virginia Waterleaf	Hydrophyllum virginianum		
	Western Poison Ivy	Toxicodendron radicans var. rydbergii		
	White Elm	Ulmus americana		
	White Heath Aster	Symphyotrichum ericoides		
	White Meadowsweet	Spiraea alba		
	White Spruce	Picea glauca		
	White Sweet-clover	Melilotus albus		
	White Trillium	Trillium grandiflorum		
	White Willow	Salix alba		
	Wild Carrot	Daucus carota		
	Wild Chicory	Cichorium intybus		
	Wild Lily-of-the-valley	Maianthemum canadense		
	Wild Sarsaparilla	Aralia nudicaulis		
	Wild Strawberry	Fragaria virginiana		
	Wiry Panicgrass	Panicum flexile		
	Wood Avens	Geum urbanum		

KINGDOM	Common Name	Scientific Name	SARO	SARA
	Zigzag Goldenrod	Solidago flexicaulis		

Appendix H

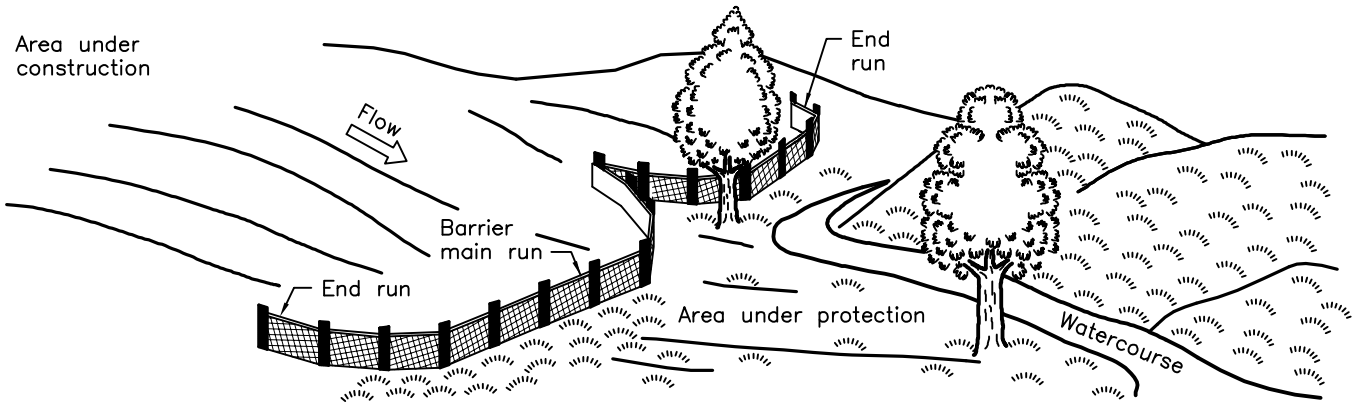
Significant Wildlife Habitat (SWH)

Significant Wildlife Habitat Screening				
Signficant Wildlife Habitat Type	**General Habitat Description**	**ELC Observed**	**SWH Present**	**Comments**
Wildlife Concentration Areas				
Waterfowl Stopover and Staging Areas (Terrestrial)	Fields with sheet water during the spring	YES	NO	Not Present
Waterfowl Stopover and Staging Areas (Aquatic)	Ponds, marshes, lakes, bays, coastal inlets, and watercourses used during migration	NO	NO	ELC Not Observed
Shorebird Migratory Stopover Area	Shorelines of lakes, rivers and wetlands, including beach areas, bars and seasonally flooded, muddy and un-vegetated shoreline habitats	NO	NO	ELC Not Observed
Raptor Wintering Area	The habitat provides a combination of fields and woodlands that provide roosting, foraging and resting habitats for wintering raptors	YES	NO	Not Present
Bat Hibernacula	Caves, mine shafts, underground foundations and Karsts. Hibernacula relatively poorly known	NO	NO	ELC Not Observed
Bat Maternity Colonies	Mature forests with >10 ha of large diameter (>25 cm dbh) wildlife trees, 21 snags per hectare preferred	YES	YES	SWH Present
Turtle Wintering Areas	Within core habitat, water must be deep enough not to freeze and have soft mud substrates	NO	NO	ELC Not Observed
Reptile Hibernaculum (Turtles assessed separately)	Below frost lines in burrows, rock crevices and other natural or naturalized locations. Rock crevices, talus slopes, etc.	YES	NO	Not Present
Colonial Nesting Bird Breeding Habitat (Bank and Cliff)	Eroding banks, sandy hills, borrow pits, steep slopes, sand piles, cliff faces, bridge abutments, silos, barns. Man-made structure and disturbance over 2 years old	YES	NO	Not Present
Colonial Nesting Bird Breeding Habitat (Tree/Shrubs)	Live or dead standing trees (typically 11 to 15 m tall) in wetlands, lakes, islands and peninsulas. Occasionally shrubs and emergent vegetation.	NO	NO	ELC Not Observed
Colonial Nesting Bird Breeding Habitat (Ground)	Rocky island or peninsula within a lake or river. Close proximity to watercourses in open fields or pastures with scattered trees or shrubs	YES	NO	Not Present
Migratory Butterfly Stopover Areas	At least 10 ha in size with combination of field and forest within 5 km of Lake Ontario	YES	NO	Not Present
Landbird Migratory Stopover Areas	Woodlots need to be >10 ha in size and within 5 km of Lake Ontario	YES	NO	Not Present
Deer Yarding Areas	Core (Stratum I) is located within Stratum II. Core is critical for survival of deer during winter months	YES	NO	Not Present
Deer Winter Congregation Areas	Large woodlots typically >100 ha, however smaller woodlots with densities of 0.1 - 1.5 deer/ha may also be considered	YES	NO	Not Present
Rare Vegetation Communities				
Cliffs and Talus Slopes	Cliff is vertical to near vertical >3 m tall Talus slope is rock rubble at base of a cliff made up of coarse rock debris	NO	NO	ELC Not Observed
Sand Barren	Typically >0.5 ha with exposed sand, generally sparsely vegetated and caused by lack of moisture, periodic fires and erosion	NO	NO	ELC Not Observed
Alvar	Typically >0.5 ha with level, mostly fractured calcareous bedrock	NO	NO	ELC Not Observed
Old Growth Forest	Woodland areas 30 ha or greater with at least 10 ha interior habitat assuming 100 m buffer at edge of forest	YES	NO	Not Present
Savannah	Any tallgrass prairie habitat that has tree cover between 25 - 60%	YES	NO	Not Present
Tallgrass Prairie	Dominated by prairie grasses with < 25% tree cover	YES	NO	Not Present
Other Rare Vegetation Communities	Beaches, fens, forest, marsh, barrens, dunes and swamps	NO	NO	ELC Not Observed
Specialized Habitat for Wildlife				
Waterfowl Nesting Area	Extends 120 m from a wetland (>0.5 ha) or a wetland (>0.5 ha) and any small wetlands or a cluster of 3 small wetlands where waterfowl nesting is known to occur	YES	NO	Not Present
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	Nests are associated with lakes, ponds, rivers or wetlands along forested shorelines, islands or in structures over water	YES	YES	SWH Present
Woodland Raptor Nesting Habitat	All natural or conifer plantation woodland / forest stands >30 ha with >10 ha of interior habitat	YES	NO	Not Present
Turtle Nesting Areas	Close to water with sand and gravel that turtles are able to dig in, located in open sunny areas.	NO	NO	ELC Not Observed
Seeps and Springs	Any forested area (with >25% meadow/field/pasture) within headwaters of a stream or river system	NO	NO	ELC Not Observed
Amphibian Breeding Habitat (Woodland)	Presence of a wetland, pond or woodland pool >500m^2, within or adjacent to woodland	YES	NO	Not Present
Amphibian Breeding Habitat (Wetlands)	Wetlands >500m^2 (25m diameter), supporting high species diversity	YES	NO	Not Present
Woodland Area-Sensitive Breeding Bird Habitat	Habitats where interior forest birds are breeding, typically large mature (>60 yrs old) forest stands or woodlots >30 ha	YES	YES	SWH Present
Habitat of Species of Conservation Concern (other than Threatened or Endangered)				

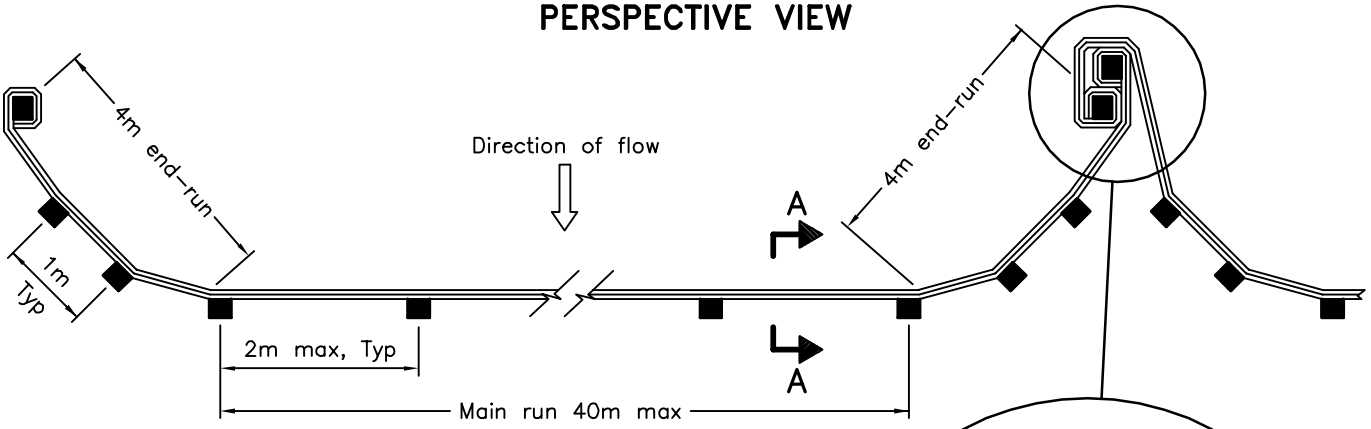
Significant Wildlife Habitat Screening				
Signficant Wildlife Habitat Type	**General Habitat Description**	**ELC Observed**	**SWH Present**	**Comments**
Marsh Breeding Bird Habitat	Nesting occurs in wetlands consisting of shallow water with emergent aquatic vegetation Green Heron: edge water habitat	YES	NO	Not Present
Open Country Bird Breeding Habitat	Large grassland areas (including natural and cultural field and meadows) >30 ha	YES	NO	Not Present
Shrub/Early Successional Bird Breeding Habitat	Large field areas succeeding to shrub thicket habitats >10 ha in size	NO	NO	ELC Not Observed
Terrestrial Crayfish	Wet meadow edges of shallow marshes Only found in SW Ontario	YES	NO	Not Present
Special Concern and Rare Wildlife Species	All Special Concern and Provincially Rare plant and animal species. May also consider Area Sensitive and Culturally Sensitive Species	YES	YES	SWH Present
Animal Movement Corridors				
Amphibian Movement Corridors	Determined as part of breeding habitat assessment	YES	NO	Not Present
Deer Movement Corridors	All proposals within Stratum II Deer Wintering Area have potential for corridors	YES	NO	Not Present
General Comments:				

Appendix I

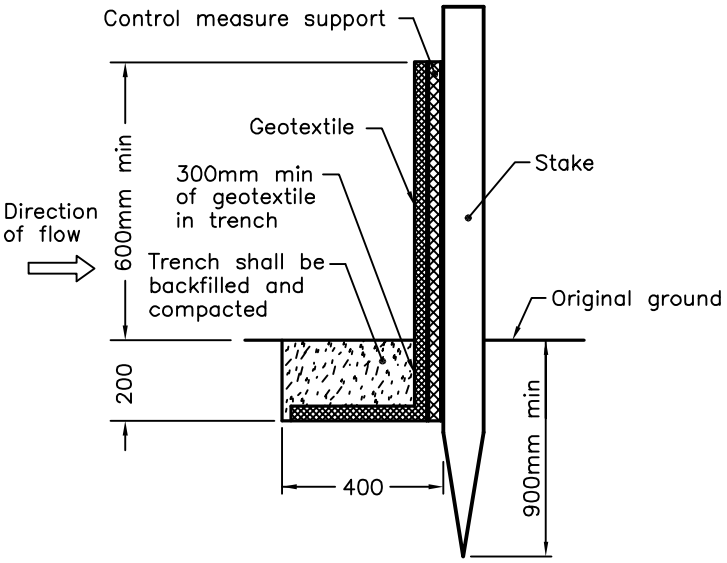
Heavy-Duty Silt Fence Schematic



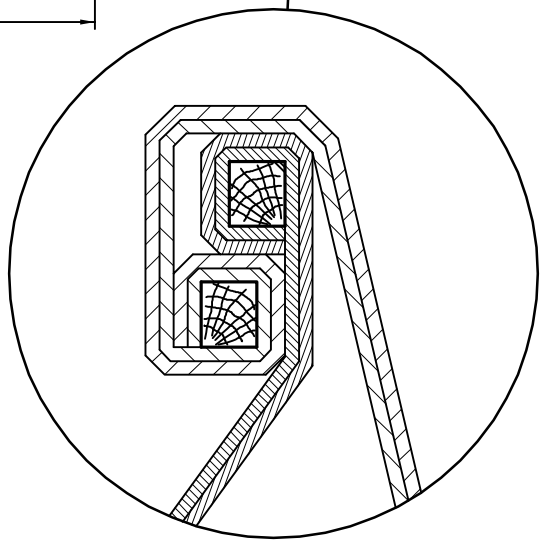
PERSPECTIVE VIEW



PLAN



SECTION A–A



JOINT DETAIL

NOTE:

A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev	2
HEAVY–DUTY SILT FENCE BARRIER			
	OPSD 219.130		