



ENVIRONMENTAL IMPACT STUDY



**350 WELLINGTON ROAD 7,
ELORA**

Prepared for:

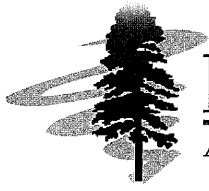
Elora 7 OP Inc.

October 2022



Michalski Nielsen
ASSOCIATES LIMITED

ENVIRONMENTAL PLANNING BIOPHYSICAL ANALYSIS
LAKE CAPACITY ASSESSMENT RESOURCE MANAGEMENT



Michalski Nielsen

ASSOCIATES LIMITED

October 25, 2022

Bob Forrest
Elora 7 OP Inc.
44 Upjohn Road
Toronto, Ontario M3B 2W1

Re: 350 Wellington Road 7, Elora; Our File 0322

Dear Bob:

Enclosed please find our report entitled **ENVIRONMENTAL IMPACT STUDY – 350 WELLINGTON ROAD 7, ELORA** (October 2022).

Should you have any questions, or if further clarification is required, do not hesitate to call.

Yours truly,

MICHALSKI NIELSEN ASSOCIATES LIMITED

Per:

Gord Nielsen
President
Ecologist

GN/be

Enc.

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1 INTRODUCTION

1.1 Site Overview

In February, 2022 Michalski Nielsen Associates Limited was retained by Elora 7 OP Inc. to prepare a scoped Environmental Impact Study (EIS) in support of a residential community on a property located at 350 Wellington Road 7 in the Town of Elora, Township of Centre Wellington (**Figure 1**). The subject property is an approximately 4.46 ha parcel of land which has long been in agricultural use. It is row cropped, and has most recently been planted in winter wheat. The portion of the subject property fronting Wellington Road contains broad roadside ditches, which have some cultural meadow attributes. Three small, unevaluated wetlands are located approximately 65 m to the west, northwest and north of the subject lands, with the regulated area boundary of the largest of these wetlands (what is referred to through this report as Wetland A) extending into the subject property. The property has gentle grades, with a large portion of it grading west/southwest, as sheet flow, towards Wetland A. Smaller portions of the site grade by sheet flow to what is referred to in this report as Wetland B, and towards the ditching along Wellington Road.

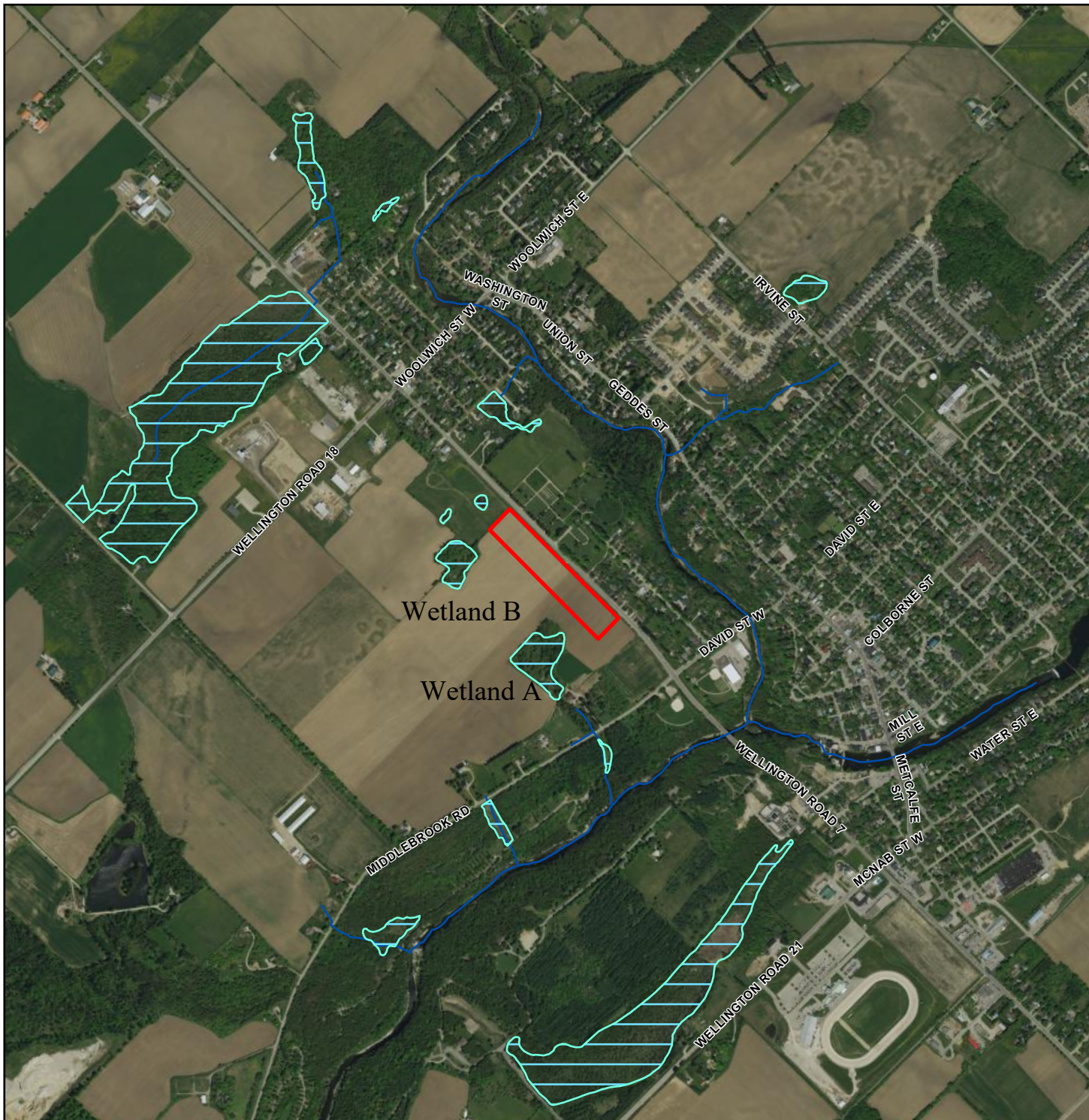
1.2 Proposed Community

A 273 unit town home community is proposed, which is to include 34 town home blocks complete with common drive aisles, surface parking and amenity areas. It is expected to be developed in two phases, from south to north. The proposed community is to be on full municipal services.




The current Official Plan designation of the subject property is Highway Commercial. The current zoning of the site is Highway Commercial Zone, C2. An Official Plan Amendment and Zoning By-Law Amendment are required to create a site-specific OP policy and a site specific zoning provision to allow the proposed town home community.

1.3 Scoping of Environmental Impact Study

The subject property does not contain any natural features, in fact not even a single mature tree. The only naturalized portion of the property is the broad area of roadside ditching along Wellington Road 7, which contains cultural meadow. Although there are no concerns with any natural features on the subject property which will be negatively impacted by the proposed development, our due diligence work did identify three small wetlands on adjacent lands, with a substantial portion of the site grading as sheet flow to the west/southwest towards the largest of these wetlands (Wetland A), and a smaller portion of such



LEGEND

-  Watercourse ¹
-  Wetland - Not Evaluated ¹
-  Subject Property (4.5 ha)

1 - Land Information Ontario (LIO)


Key Map

METRE SCALE

North American Datum 1983 Universal Transverse
 Mercator Projection Zone 17 Scale: 1:18,000
 Page Size: Letter (8.5 x 11 inches)
 Drawn: SM
 Checked: KT
 Date: Aug 16, 2022

Project north

Source Notes:
 Base imagery (2015) provided by Southwestern Ontario Orthophotography Project.

CLIENT	MNAL
PROJECT	350 Wellington Road 7 (Elora) (MNAL File 0322)
TITLE	Site Location
	REF. NO. 16033110-1-1
	Figure 1

sheet drainage being towards the second largest wetland (Wetland B). Given that current site drainage contributes to the water balance of these two wetlands, we believe that it is important that this remain the case under post-development conditions, and so have worked with the project's civil engineer, MTE consultants Inc. (MTE), to ensure that is the case.

Notwithstanding the habitat limitations associated with the subject property, it remained appropriate that a series of site inspections be completed by ecologists to confirm that there were no sensitive ecological values associated with the subject property itself, and to better understand its relationship to adjacent lands and any natural heritage features associated with those areas. This environmental work was able to be scoped. In this regard, site visits were completed by ecologists during the early spring (March 20, 2022) and early summer (June 27 and July 8, 2022) to assess seasonal drainage conditions, vegetation conditions, breeding bird activity, incidental wildlife observations, Species at Risk habitat potential and Significant Wildlife Habitat potential. Although the adjacent wetlands were considered as part of this assessment, the direct inspection of these wetlands was limited by these being on adjacent lands, not owned by the applicant.

1.4 Acknowledgements

Michalski Nielsen Associates Limited has been assisted on this project by Palmer, who were responsible for the collection of field information on terrestrial resources.

2 BACKGROUND REVIEW AND METHODS

2.1 Overview of Work Completed

Relevant background material was reviewed to provide a context for field investigations and identify any environmental designations and policy requirements. The review included the following sources of information:

- Natural Heritage Information Centre (NHIC) Make-a-Map application, which includes the NHIC's species records database and Land Information Ontario (LIO) features;
- Significant Wildlife Habitat Technical Guide (MNRF, 2000);
- *Natural Heritage Information Centre Species Lists* (MNRF, 2020); and
- Aerial photography and topographic mapping.

A site visit was first completed on March 20, 2022, just after the spring freshet. That visit provided an opportunity to review site drainage conditions at a very wet time of the year and to confirm that all drainage off of the property is via sheet flow. This visit additionally provided an opportunity to scope the other components of our EIS.

Two additional site visits were conducted on June 27 and July 8, 2022 for the purposes of assessing terrestrial conditions. Investigations were conducted in accordance with the methods described in Sections 2.2 and 2.3.

2.2 Vegetation and Flora

Terrestrial ecologists completed field investigations to document existing vegetation communities, natural features, and general site conditions. Vegetation communities were mapped and described based on their best fit to community classification within standard systems provided in the Ecological Land Classification (ELC) for Southern Ontario (Lee et al. 1998). The identification of vegetation communities assisted in the assessment of wildlife habitat opportunities.

A botanical survey was completed by traversing the site and recording species observed in the representative vegetation communities. Provincial plant status was based on the Natural Heritage Information Centre for Ecoregion 6E (NHIC, 2021).

2.3 Wildlife

2.3.1 Breeding Birds

Two breeding bird surveys were conducted at the property on June 27 and July 8, 2022 to document the presence of bird species and their breeding on the subject property. The surveys were carried out between 05:30 and 10:00 h to coincide with the dawn chorus. Surveys were conducted under suitable weather conditions when wind speeds were less than 20 km/h and with no precipitation. The surveys were conducted in general accordance with Breeding Bird Atlas protocols (Bird Studies Canada, 2001).

2.3.2 Incidental Wildlife Observations

Incidental observations of wildlife were recorded during the visit of the subject property through both direct and indirect evidence. Direct evidence included visual or auditory observations of species. Evidence considered “indirect” includes observation of tracks, scat, browse, or other signs.

2.3.3 Species at Risk

Prior to fieldwork, existing Species at Risk (SAR) records were investigated on the NHIC Make-a-Map online application. Additional species to those identified in nearby NHIC squares were analyzed in this review due to the knowledge of their occurrence within the general study area. General screening for potential SAR habitat opportunities was completed for the subject property during the field investigation. Habitat opportunities for SAR on the site were then assessed by comparing habitat preferences of species deemed to have potential to occur against current site conditions.

2.3.4 Significant Wildlife Habitat

The **Significant Wildlife Habitat Criteria for ecoregion 6E** (MNRF 2015) was compared with the habitat attributes of the subject lands to determine the potential for any candidate or confirmed Significant Wildlife Habitat (SWH).

3 EXISTING CONDITIONS

3.1 Physical Setting

The entire subject property consists of agricultural fields with gentle grades. Elevations range from a high of approximately 407 metres above sea level (masl) at the northern corner of the property to a low of 400 masl at the southern corner. Our site inspections under seasonally wet early spring conditions (at the end of the spring freshet) indicated that all drainage from the site occurs via sheet flow, with no evidence of any channelized flows. Further, although soil conditions were saturated under early spring conditions, the site did not contain any standing water.

Appendix A includes mapping produced by MTE as part of its analysis of site drainage conditions. Catchment area 101, which drains towards Wetland A, comprises 2.98 ha. Catchment area 102, with a drainage area of 0.34 ha, flows to the southwest, but not towards any wetlands. Catchment area 103, with a drainage area of 0.32 ha, flows towards Wellington Road 7. Catchment area 104, with a drainage area of 0.81 ha, grades to the northwest, towards Wetland B.

3.2 Vegetation Communities and Flora

Field investigations identified a total of five vegetation communities comprising the subject property and surrounding lands. These communities and their approximate boundaries are illustrated on **Figure 2**, with vegetation community descriptions provided below. **Appendix B** includes a list of plant species recorded during the field surveys.

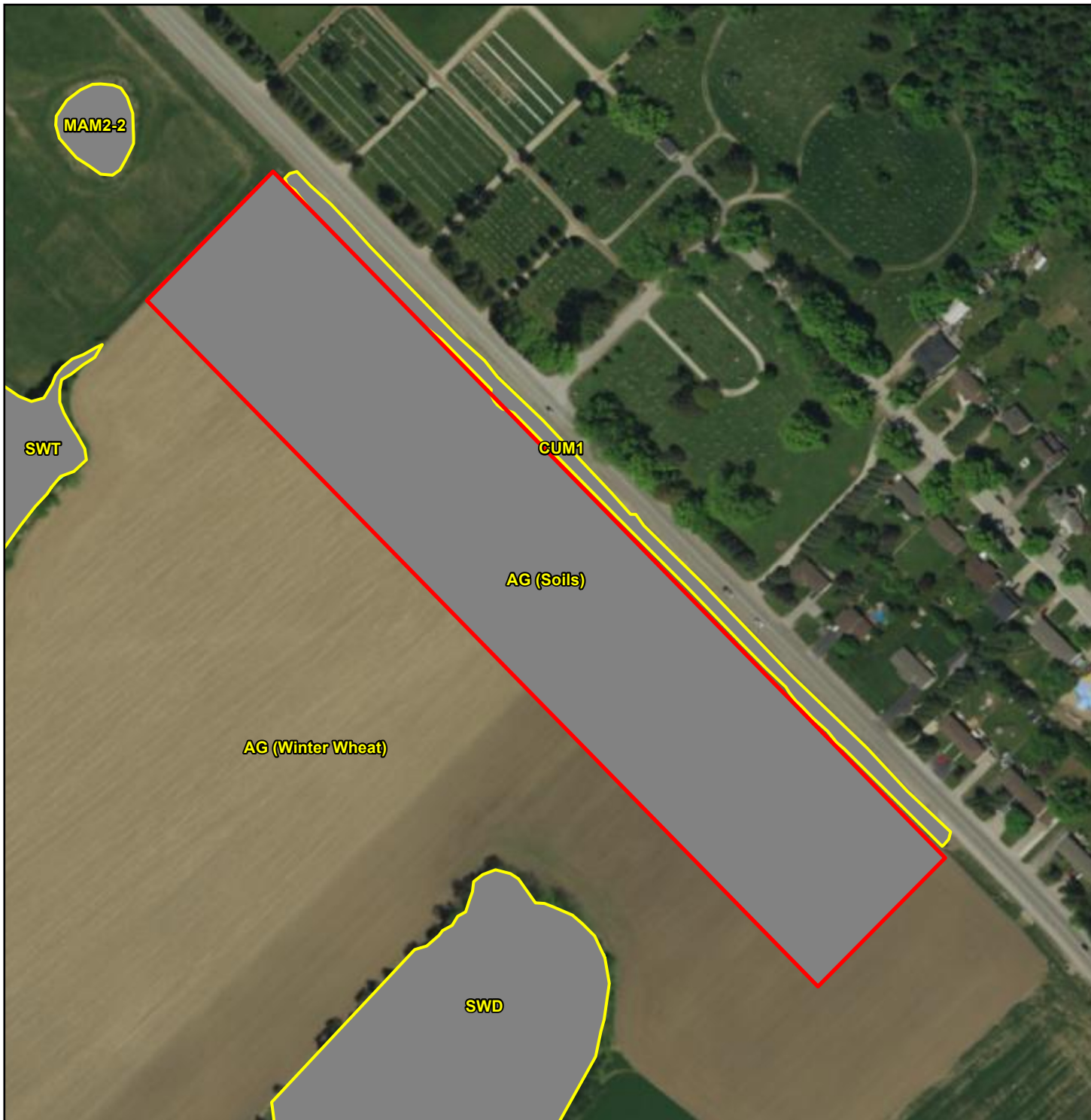
Cultural System

Agricultural (AGR)

The agricultural field on the subject property was stripped of crops at the time of the early summer surveys (**Photograph 1**), but was earlier planted in winter wheat.

Cultural Mineral Meadow (CUM1)

A Cultural Mineral Meadow community occurs between the northern subject property boundary and Wellington Road 7, partially comprising the roadside drainage ditch. The community is dominated by White Bedstraw (*Galium mollugo*) and Smooth Brome (*Bromus inermis*). Common Milkweed (*Asclepias syriaca*), Canada Goldenrod (*Solidago canadensis*), Wild Carrot (*Daucus carota*), Common Ragweed (*Ambrosia artemisiifolia*), Orchard Grass (*Dactylis glomerata*), Riverbank Grape (*Vitis riparia*), Annual



LEGEND

- Watercourse ¹
- Wetland - Not Evaluated ¹
- ELC Community
- Subject Property (4.5 ha)

ELC LEGEND

MAM2-2: Reed Canary Grass Mineral Meadow Marsh
 CUM1: Mineral Cultural Meadow
 SWT: Mineral Thicket Swamp
 SWD: Mineral Deciduous Swamp

¹ - Land Information Ontario (LIO)

Key Map

METRE SCALE

North American Datum: 1983 Universal Transverse
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Project north

Source Notes:
 Base imagery (2015) provided by Southwestern Ontario Orthophotography Project.

CLIENT	MNAL
PROJECT	350 Wellington Road 7 (Elora) (MNAL File 0322)
TITLE	Existing Environmental Conditions
	REF. NO. 16033110-2-1
	Figure 2



Photograph 1. The agricultural field (AG) comprising much of the subject property (June 27, 2022).



Photograph 2. The Mineral Deciduous Swamp community to the west of the subject property (Wetland A) (June 27, 2022).

Fleabane (*Erigeron annuus*), St. John's Wort (*Hypericum perforatum*), Field Sowthistle (*Sonchus arvensis*), Virginia Creeper (*Parthenocissus quinquefolia*), Oxeye Daisy (*Leucanthemum vulgare*), Common Burdock (*Arctium minus*), Cow Vetch (*Vicia cracca*), Avens (*Geum* sp.), Garlic Mustard (*Alliaria petiolata*), Allegheny Blackberry (*Rubus allegheniensis*), Black Walnut saplings (*Juglan nigra*), and immature Green Ash (*Fraxinus pennsylvanica*) are also present within the community. Occasional dead Ash species (*Fraxinus* sp.) are also present.

Wetland

The following communities comprise the three unevaluated wetland units located approximately 65 metres to the west, northwest, and north of the subject property.

Reed Canary Grass Mineral Meadow Marsh (MAM2-2)

A very small Reed Canary Grass-dominated (*Phalaris arundinacea*) community occurs to the north of the subject property. Occasional Willow (*Salix* sp.), St. John's Wort, and Goldenrod (*Solidago* sp.) are also present within the community.

Mineral Deciduous Swamp (SWD)

There is a small wetland community to the west of the subject property (**Photograph 2**), referenced in this report as Wetland A (**Figure 1**). It is dominated by Trembling Aspen (*Populus tremuloides*), with occasional Black Walnut (*Juglans nigra*) and Manitoba Maple (*Acer negundo*). The understory is dense and dominated by both Riverbank Grape and Allegheny Blackberry. Additional understory vegetation include Manitoba Maple, Black Walnut, White Poplar (*Populus alba*), Trembling Aspen, Tatarian Honeysuckle (*Lonicera tatarica*), Black Cherry (*Prunus serotina*), Cucumber Vine (*Cucumis sativus*) and Red Baneberry (*Actaea rubra*). Groundcover is populated with Dame's Rocket (*Hesperis matronalis*), Horsetail (*Equisetum* sp.), Annual Fleabane, Common Burdock, Wormseed Wallflower (*Erysimum cheiranthoides*), Jewelweed (*Impatiens* sp.), Broad-leaved Plantain (*Plantago major*), Common Yellow Woodsorrel (*Oxalis stricta*) and Maple Leaf Viburnum (*Viburnum acerifolium*).

Ash Thicket Swamp (SWT)

Another smaller wetland community occurs to the northwest of the subject property (**Photography 3**), referenced in this report as Wetland B (**Figure 1**). The tree canopy of this community is dominated by



Photograph 3. The Ash Thicket Swamp community to the northwest of the subject property (Wetland B) (June 27, 2022).

dead Ash, with frequent Trembling Aspen. Tree canopy cover is generally sparse because of tree death. The understory is populated by young Black Cherry, Basswood (*Tilia americana*), European Buckthorn (*Rhamnus cathartica*), Eastern White Cedar (*Thuja occidentalis*), and Mountain Ash (*Sorbus* sp.). Groundcover was very dense and dominated by Reed Canary Grass, Ostrich Fern (*Matteuccia struthiopteris*), and Riverbank Grape. Other vegetation recorded included Garlic Mustard, Cow Vetch, Stinging Nettle (*Urtica dioica*), Jewelweed, Tall Buttercup (*Ranunculus acris*), Annual Fleabane, Black Raspberry (*Rubus occidentalis*), Dame's Rocket, Common Yellow Woodsorrel, New England Aster (*Symphyotrichum novae-angliae*), Herb Robert (*Geranium robertianum*) and sedge (*Carex* sp.).

Flora

Based on the botanical survey conducted for the subject property and surrounding lands, a total of 46 vascular plant species are present. Out of those plants identified to species, the flora records indicate 23 species (64%) are native and 13 species (36%) are non-native to Ontario.

All native species have S-Ranks of S5 or S4, indicating they are common and secure, or apparently secure, in the province. It is noted species listed as S3 are vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation; no such species were identified. There were also no plant species considered regionally rare on the subject property.

3.3 Wildlife

3.3.1 Breeding Birds

A total of only three bird species, Killdeer (*Charadrius vociferus*), American Crow (*Corvus brachyrhynchos*) and Common Grackle (*Quiscalus quiscula*), were documented on the subject property during the two breeding bird surveys. All these species are considered common, widespread, and abundant in the province of Ontario, and often occur in anthropogenically influenced habitats. The breeding bird list and statuses of each bird can be found in **Appendix C**.

Bird species recorded in adjacent lands include other common and abundant species such as Song Sparrow (*Melospiza melodia*), American Goldfinch (*Spinus tristis*), Red-winged Blackbird (*Agelaius*

phoeniceus), and Indigo Bunting (*Passerina cyanea*). Two Savannah Sparrow (*Passerculus sandwichensis*) an area-sensitive species, were heard within the row crops in adjacent lands, however the subject property does not contain habitat for this species.

No Species at Risk or other area-sensitive bird species were recorded within or adjacent to the subject property. No species with a provincial SRANK of S1 (Critically Imperiled), S2 (Imperiled), or S3 (Vulnerable) were recorded on or adjacent to the subject property.

3.3.2 Incidental Wildlife Observations

No incidental observations of wildlife species were made during the 2022 field investigations due to the plowed agricultural field comprising much of the property.

Given site conditions, it is expected that common species typical to the landscape may utilize the subject property. Such species include White-tailed Deer (*Odocoileus virginianus*), Raccoon (*Procyon lotor*) and Coyote (*Canis latrans*).

Although the site visits were not specifically timed to document amphibian breeding (as no such habitat occurs within the subject property), the early morning visits for breeding birds provided an opportunity to listen for mid-to late-season breeding amphibians in adjacent wetlands. While no such calling was heard, it is possible that Wetlands A and B support sufficient standing water through the spring to allow for successful early amphibian breeding.

3.4 Species at Risk

The *Endangered Species Act (ESA)* provides protection for species and their habitats which are listed as Endangered or Threatened in Ontario. The Species at Risk in Ontario (SARO) List also identifies species of Special Concern, some of which could potentially become Threatened or Endangered in the future. Species of Special Concern and their habitats are not protected under the *ESA*, although such habitat can qualify as SWH.

A number of Species at Risk (SAR) are known to the broader geographic area. Through vegetation community classification and field investigations for potentially suitable habitat and related features, a habitat screening and assessment of on-site habitat suitability was completed for each of these identified species. This assessment can be found in **Appendix D**, providing a detailed description of each species’

habitat as well as a discussion of habitat suitability within the vicinity of the subject property and recommendations for mitigation where applicable. The following 5 SAR have been identified as having potential to occur within the vicinity of the subject property.

- Bobolink (*Dolichonyx oryzivorus*) – Threatened
- Eastern Meadowlark (*Sturnella magna*) – Threatened
- Gypsy Cuckoo BumbleBee (*Bombus bohemicus*) – Endangered
- Snapping Turtle (*Chelydra serpentina*) – Endangered
- Black Redhorse (*Moxostoma duquesnei*) – Threatened

There is no suitable habitat for any of these species on the property, with the breeding bird surveys also having confirmed that Bobolink and Eastern Meadowlark were not present on these lands. Nor does the subject property contain any maternity roosting habitat for the four bat species listed as Endangered in Ontario. As such, there are no requirements to mitigate against impacts of land use change on SAR.

3.5 Significant Wildlife Habitat

Significant Wildlife Habitat (SWH) can be difficult to appropriately determine at the site-specific level, as the assessment must incorporate information from a wide geographic area and consider other factors such as regional resource patterns and landscape effects. To help with site level assessments, the MNRF has developed the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E-1* (MNRF, 2015). The planning authorities have the responsibility to identify Significant Wildlife Habitat.

The Natural Heritage Policies of the Provincial Policy Statement [Subsection 2.1.4 d)] identify four principal components of SWH as described in the *Significant Wildlife Habitat Technical Guide* (MNRF, 2000), including:

- a) Seasonal Concentration Areas of Animals;
- b) Rare Vegetation Communities or Specialized Habitat for Wildlife;
- c) Animal Movement Corridors; and

d) Habitats for Species of Conservation Concern.

Criteria for the identification of these features are provided in the *Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E* (MNRF, 2015) and were used to screen wildlife habitat on the subject property for potential SWH. The results of that assessment are detailed in **Appendix E**. There were no identified candidate or confirmed SWH on the subject property, and therefore no requirement to mitigate against impacts of land use change on SWH.

4 ENVIRONMENTAL POLICY CONTEXT

4.1 Overview

Decisions on land use planning within this property, as it relates to the protection of the natural environment, are governed by Ontario's Provincial Policy Statement (PPS), Ontario Regulation 150/06 and related policies of the Grand River Conservation Authority (GRCA), the Township of Centre Wellington's Official Plan and the County of Wellington's Official Plan (1999; Office Consolidation of June 2022). A planning analysis of the proposed community has been prepared under separate cover by MHBC, and it is not the intent of the present document to duplicate that information. Accordingly, our discussion of municipal planning direction is very brief. However it is important that this report addresses the natural heritage policy guidance of the PPS. Further, it is important that the requirements of the *ESA* be spoken to. Our policy discussion is therefore primarily focused on these two items, followed by brief discussion of Conservation Authority and municipal environmental planning direction.

4.2 Provincial Policy Statement

Section 2.1 of the Provincial Policy Statement speaks to the protection of natural heritage features. It reads as follows:

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 & 7E, 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 7E; 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 7E;

-
- b) *significant woodlands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);
 - c) *significant valleylands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);
 - 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*.

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.

There are no identified Provincially Significant wetlands or Coastal Wetlands within the property or on adjacent lands. Three small unevaluated wetlands are located a minimum of 65 m from the boundaries of the property, as illustrated in **Figure 2**; unevaluated wetlands are not subject to the policies of the PPS, however the regulatory limits of one of these wetlands overlaps with the subject property, therefore the policies of GRCA are applicable.

There are no woodlands or valleyland features within the subject lands. Although portions of the adjacent wetlands are treed, these wooded areas are small in size and would not qualify as significant woodlands. These wetlands, which are outside of the municipal limits of Elora, are however designated as Core Greenlands within Schedule A1, Centre Wellington, to the County of Wellington Official Plan. The valleyland of the Grand River, located a minimum of 200 m to the east of the subject property, would constitute a significant valleyland but is sufficiently removed from the subject property so as not to be of concern.

Significant Wildlife Habitat is one aspect of the PPS which is less straightforward to define. In this regard, the Province has provided technical guidance on what might constitute SWH, but has left decisions on the designation of such habitat to the discretion of individual municipalities. However, as has been detailed in Section 3.5 of this report, no candidate SWH has been identified on the subject lands. While there is some possibility that such habitat occurs in relation to what has been identified as adjacent Wetlands A and B in this report, the minimum 65 m distance between these wetlands and the subject property is sufficient to ensure these features are well buffered from the proposed community. There are also opportunities to ensure the water balance of Wetlands A and B are not negatively impacted by this proposed community, as is addressed in the recommendations of Section 5 of this report.

4.3 *Endangered Species Act*

The *Endangered Species Act (ESA)* came into effect in Ontario in 2007, and provided for immediate protection of all species on the Species at Risk in Ontario (SARO) list. This protection is afforded under Section 9(1) of the *Act*, which reads:

Prohibition on killing, etc.

- 9.(1) No person shall,
- a) kill, harm, harass, capture or take a living member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species;
 - b) possess, transport, collect, buy, sell, lease, trade or offer to buy, sell, lease or trade,
 - (i) a living or dead member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species;
 - (ii) any part of a living or dead member of a species as referred to in subclause (i),
 - (iii) anything derived from a living or dead member of a species referred to in subclause (i); or
 - c) sell, lease, trade or offer to sell, lease or trade anything that the person represents to be a thing described in subclause (b)(i), (ii) or (iii). 2007, c.6, s.9(1).

The *ESA* additionally affords habitat protection to species on the SARO list. The relevant portions of the *Act* are found under Sections 10(1) through 10(3) and are repeated as follows:

Prohibition on damage to habitat, etc.

- 10(1) No person shall damage or destroy the habitat of,
- (a) a species that is listed on the Species at Risk in Ontario List as an endangered or threatened species; or
 - (b) a species that is listed on the Species at Risk in Ontario List as an extirpated species, if the species is prescribed by the regulations for the purpose of this clause. 2007, c.6, s. 10(1).

Specified geographic area

- 10(2) If the Species at Risk in Ontario List specifies a geographic area that a classification of a species applies to, subsection (1) only applies to that species in that area. 2007, c. 6, s. 10 (2).

Exception, suspension of protections

- 10(3) If a species is listed on the Species at Risk in Ontario List as an endangered or threatened species for the first time, the application of the prohibition in clause (1) (a) with respect to the habitat of the species is subject to any order made under section 8.1. 2019, c. 9, Sched. 5, s. 9.

Also important to this discussion is the definition of habitat under the *ESA*, which is described under Section 2(1) as follows:

- “Habitat” means,
 - (a) With respect to a species of animal, plant or other organism for which a regulation made under clause 55 (1) (a) is in force, the area prescribed by that regulation as the habitat of the species, or
 - (b) With respect to any other species of animal, plant or other organism, an area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding, and includes places in the area described in clause (a) or (b), whichever is applicable, that are used by members of the species as dens, nests, hibernacula or other residence;
(habitat)
- Definition of “habitat”, cl. (b)

(2) For greater certainty, clause (b) of the definition of “habitat” in subsection (1) does not include an area where the species formerly occurred or has the potential to be reintroduced unless existing members of the species depend on that area to carry on their life processes. 2007, c. 6, s. 2 (2).

The MNRF has prepared a document entitled *Categorizing and Protecting Habitat under the ESA* that outlines the overall approach and considerations that the MNRF used in determining whether a proposed activity is likely to damage or destroy habitat protected under subsection 10(1) of the *ESA*. Although the responsibility for administering the *ESA* has since been transferred by the Province from MNRF to the Ministry of Environment, Conservation and Parks (MECP), the guidance provided in that document remains useful. For clarity, the following is provided directly from that document:

Not every activity that occurs within or near habitat will damage or destroy that habitat. Determining whether a proposed activity is likely to damage or destroy the habitat of an endangered or threatened species requires the consideration of the activity details, which parts of habitat are likely to be altered by the activity, and how the alteration may affect the species’ ability to carry out its life processes.

3.1.1 Damaging Habitat

An activity that damages the habitat of a species is one that alters the habitat in ways that impair the function (usefulness) of the habitat for supporting one or more of the species’ life processes.

3.1.2 Destroying Habitat

An activity that destroys the habitat of a species is one that alters the habitat in ways that eliminate the function (usefulness) of the habitat for supporting one or more of the species’ life processes.

*In some cases, the anticipated alteration that a proposed activity will have on habitat may be so minor that the function of the habitat for supporting the species’ life processes will not become impaired or eliminated. In such cases the activity would not contravene subsection 10(1) of the *ESA* and would not require authorization under the Act with respect to this provision. In other cases, the alteration may be more significant such that the function of the habitat for supporting one or more of the species’ life processes may become impaired or eliminated. Such activities would contravene subsection 10(1) of the *ESA* and would require authorization under the Act prior to proceeding.*

Ensuring compliance with the *ESA* is a proponent’s responsibility. On a project of this scale, it requires an understanding of what species are known to the broader area, then an assessment of their potential to use the lands to be developed, based on habitat attributes. For some species, this analysis may benefit from targeted field surveys to determine whether a species is using habitat that may be suitable for it; however, as endangered and threatened species are generally difficult to find, and as the mobility of

wildlife means that their absence on any given occasion does not discount their potential use, the assessment of habitat potential is always key.

The Province has a permitting process which allows activities which would otherwise be prohibited under Section 9 or 10 of the *Endangered Species Act*, which is described under Section 17 of the *Act*.

As described in Section 3.4 of this report, an assessment of Species at Risk potential has been completed for the subject property and adjacent lands. There is no potential for any SAR or their habitat within the subject property. While there may be limited potential for SAR bats within the wooded portions of adjacent wetlands, there are no concerns that the proposed community could negatively impact such habitat.

4.4 Grand River Conservation Authority Policies

As has been earlier noted, the adjacent unevaluated wetlands are regulated under **Ontario Regulation 150/06: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses**. The regulated area limits of these wetlands are shown in **Appendix A**, with the regulated area limits of one wetland, referenced in this report as Wetland A, extending into the subject property. Under that regulation, a permit is required from that Conservation Authority for any site grading, fill placement, fill removal or construction within the regulated area.

GRCA has prepared a policy document entitled “Policies for the Administration of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation, Ontario Regulation 150/06” (October 2015). Policy 7.1.2 indicates that development, interference or alteration within a Regulated Area may be permitted where it can be demonstrated that a number of issues/risks can be addressed/mitigated. That includes that there are no negative or adverse hydrologic impacts on wetlands and that pollution, sedimentation and erosion during construction and post-construction is minimized using best management practices; both of these matters are addressed through the proposed servicing strategy for the subject property, as further discussed in Section 5 of this report. Policy 8.4 addresses wetlands, with our summary comments on that section provided as follows:

- GRCA defines the areas surrounding wetlands where development could interfere with the hydrologic function of the wetland, which it describes as “areas of interference”, as being only 30 m from smaller (<2 ha) wetlands which are not identified as being part of a Provincially Significant Wetland. Two of the three wetlands adjacent to the subject property, both of which

are a minimum 65 m from it, meet that criterion. Notwithstanding that, we believe there are warrants for addressing the maintenance of the water balance of the larger one of these (Wetland B per this report), with the subject property making a reasonable contribution to the catchment area of that wetland;

- while the wetland identified as Wetland A in this report, located a minimum 65 m to the south of the subject property, is not provincially significant, it appears to be just over the 2 ha size criterion used by GRCA to define small wetlands under its policies. As such, the area of interference around that wetland is defined by GRCA as being 120 m, with that regulatory limit therefore extending into the subject property;
- policy 8.4.10 speaks to development within an area of interference that is between 30 m and 120 m from a wetland. It notes that such development may be permitted even where it is the opinion of GRCA that this may result in a hydrologic impact, providing that an EIS demonstrates that policies in Section 7.1.2 and 7.1.3 are met: the relevance of Policy 7.1.2 was discussed above, with policy 7.1.3 simply noting that development in a Regulated Area may be permitted subject to the supplementary policies or stand-alone policies specified in Sections 8 and 9. The policies of section 9 speak to works on an existing channel, so are not relevant to this application.

Based on our review of these policies, and in recognition that a substantial portion of the subject property grades towards Wetland A, there is a need to demonstrate through this application that the hydrology of that wetland will not be negatively impacted, with it also being our belief that there should also be consideration in the application for maintaining the hydrology of Wetland B. Further, the impacts of development activities, and post-development drainage, on the water quality of all adjacent wetlands, must be addressed through the use of appropriate best management practices. These matters are all addressed in Section 5 of this report.

4.5 County of Wellington Official Plan

As conformity of the proposed community with the policies of the County of Wellington Official Plan are addressed under separate cover by MHBC, the present discussion is focused on the Plan's most relevant natural heritage policies only.

Section 4.6.3 of the Wellington County Official Plan describes the components than an EIS, if required, "may include." The EIS which has been prepared addresses all of these suggested components, save and

except for those relating to potential impacts on groundwater resources, which are addressed under separate cover in the Hydrogeological Assessment prepared in support of this proposed community by Grounded Engineering Inc.

While the Town of Elora, which the subject property is located within, is subject to the Official Plan policies of the Township of Centre Wellington, lands outside of the Town's boundaries are also subject to the policies of the County Official Plan; this includes the lands which surround the subject property, including the adjacent wetlands. Those wetlands are identified as part of the Core Greenlands in that plan. Section 5.4.1 of the plan indicates that wetlands which are not provincially significant "will be protected in large measure and development that will seriously impair their future ecological functions will not be permitted", however there is additional policy direction in that Plan which limits the range of permitted uses within such areas and which require demonstration that there are no negative impacts on significant features and functions. Policy 5.6.2 notes that where development is proposed on adjacent lands, that an EIS shall be required to ensure the requirements of the Official Plan are met, with Policy 5.6.3 identifying adjacent lands to features such as the three adjacent lands as being those within 30 m. As there is no development being proposed within 30 m of any wetlands, the policies relating to Core Greenlands and Greenlands with this Official Plan would not appear applicable to this application; regardless, this EIS has properly considered the protection of adjacent wetlands.

There are no other environmental features on or adjacent to the subject property, including significant woodlands, significant valleylands, habitat of Endangered or Threatened Species or SWH which would appear to trigger any of the other environmental policies of this Plan.

4.6 Township of Centre Wellington Official Plan

As conformity with the policies of the Township of Centre Wellington Official Plan are addressed under separate cover by MHBC, the present discussion is focused on the Plan's most relevant natural heritage policies only.

Section E.1.3 of the Township of Centre Wellington Official Plan describes the components that an EIS, if required, "may include". The EIS which has been prepared addresses all of these suggested components.

The Centre Wellington Official Plan indicates that the Township has determined that the policies of the County Plan relating to Greenlands are appropriate for Centre Wellington, so has adopted the upper tier

municipality's policies for their protection; the relevance of those policies to the subject property was discussed in Section 4.5. Section C.3, Natural Heritage, to the Official Plan also encourages the protection of significant natural heritage features, regardless of whether they are identified as Core Greenlands; there are no natural heritage features within the subject lands, so that policy direction does not appear relevant to these lands. Nor does the subject property have any other ecological values that trigger the application of any of the other environmental policy direction of Section C.3 of that plan.

**5 COMMENTS AND RECOMMENDATIONS
ON PROPOSAL**

5.1 Site Suitability

The subject property is a small parcel within the existing boundaries of the Town of Elora, already designated in the Official Plan as Highway Commercial and zoned Highway Commercial Zone, C2. It does not contain any natural features, with adjacent features (three small wetlands) being a minimum 65 m away. The property has gentle slopes and is otherwise well suited for the 34 proposed townhome blocks. In considering a residential community on this property, it is important that there be careful attention to the maintenance of the water balance within Wetland A, to which a substantial portion of the property naturally grades, and consideration of the maintenance of the water balance in Wetland B, to which a smaller portion of the site naturally grades; both of these wetland features are partially nourished by sheet flow off of the subject property.

5.2 Stormwater Management and Wetland Water Balance

A Functional Servicing and Stormwater Management Report has been prepared in support of the proposed community by MTE. Michalski Nielsen Associates Limited has worked with that firm to ensure that its report properly responds to our recommendations to maintain the water balance of Wetland A, and also ensures consideration of the water balance of Wetland B. We have also worked with them to ensure proper attention is being paid to the protection of quantity control and the quality of runoff, including to the adjacent wetland features, both during and post-construction.

The proposed stormwater management solution developed by MTE recognizes that two of the pre-development catchment areas sheet flow to wetlands (Wetlands A and B), and is intended to mimic this in the post-development condition. A water balance has been completed to determine the quantity of surface water which is to be discharged, via sheet flow across adjacent farm fields, to achieve this; this solution is conditional on obtaining an easement to allow for the continuation of such surface drainage across these lands, although the primary legal outlet for the site is to be to Wellington Road 7. In order to achieve these objectives, runoff generated by routine storm events from the interior rooftops and landscape areas will be outlet as sheet flow through the use of such techniques as level spreaders and rock fans along the property limits. Peak flows to Wetlands A and B are increased somewhat in smaller storm events but are reduced in larger storm events, with a large portion of the major system flows to be directed to Wellington Road 7. This achieves the objective of maintaining the annual water balance within these wetlands. The runoff being directed to these wetlands will be from rooftop and landscape areas which are considered clean water sources.

Runoff from drive aisles and parking surfaces will be directed to the Wellington Road 7 outlet. Quantity control will be addressed through the use of an in-line orifice plate on the controlled catchment area. Storage volume for the orifice plate will be provided via surface ponding in the drive aisles and parking areas, along with the implementation of underground storage tanks as required. An oil-grit separator unit will provide quality treatment to an “Enhanced” level of treatment for such runoff.

During construction, erosion and sediment control measures are proposed to be implemented prior to any site grading, and are to include sediment fencing and other measures as may be appropriate. It is noted that the gentle grades of the property and adjacent lands simplify the implementation of effective erosion and sediment controls. Topsoil stockpiling is to occur in appropriate locations, which are to be encircled with sediment fencing. A mud mat is to be installed at the primary construction entrance to minimize opportunities for mud to be tracked onto the roadway. This is to be inspected and monitored by the contractor, with repairs to be completed as required.

Michalski Nielsen Associates Limited supports the above-described strategy. Further to this, we recommend that:

- **easements which allow for the right of maintaining broad sheet flow to Wetlands A and B be finalized with the neighbouring landowner and be deemed an acceptable means of outletting clean flows from routine storm events by the municipality;**
- **detailed stormwater management plans are to be prepared prior to construction, and are to ensure that the annual water balance to Wetlands A and B is being approximately maintained, and that such flows are being outlet in a manner that promotes broad sheet flow towards these wetlands, avoiding the creation of erosional rills;**
- **the effectiveness of the outlet measures is promoting broad sheet flow towards Wetlands A and B, and in avoiding the creation of erosional rills, is to be monitored after the spring freshet and storm events larger than 25 mm for two years following construction, with repairs to be made as necessary;**
- **a detailed sediment and erosion control plan is to be prepared prior to construction. The project engineer is to certify that this plan has been properly implemented by the contractor and is to complete inspections to ensure the effectiveness of these measures following rain events in excess of 25 mm, or otherwise at least once every two months through to the completion of construction. Any repair requirements identified by the project engineer are to be made immediately by the contractor.**

5.3 Other Aspects of Site Servicing

Water, sewer and other services are to be extended into the site from Wellington Road 7. Given the relative ease of extending such services from an existing roadway and the lack of natural heritage features along that road corridor, there are no environmental concerns with those aspects of site servicing.

5.4 Other Construction Management Considerations

It is ordinary for our EIS report to recommend construction windows for certain activities, such as tree removals, in order to avoid impacts on birds and bats, and to address other site specific natural environment issues. In the present instance there are no natural vegetation communities within the subject property and therefore no warrants for any such timing restrictions, nor any other site specific environmental constraints.

6 CONCLUSION

An Environmental Impact Study has been completed for the subject property. This study was able to be scoped on the basis of the specific attributes of the property and adjacent lands. The study has demonstrated that there are no natural environment constraints within the subject property. Further, the environmental constraints on the adjacent lands (three wetlands) are all sufficiently far away (a minimum 65 m from the subject property limits) and of a nature that there is little potential for negative impacts; the only potential impact is on the water balance of two of those wetlands, with measures having been incorporated into the servicing plans for the project to ensure that their water balance is maintained. As such, there are no natural environment concerns which should preclude the proposed medium density residential community. Permissions will need to be obtained from GRCA for development over a portion of these lands, however there should be no reason why that agency would not permit this properly planned community. Nor are there any reasons, from a natural heritage perspective, why such development should not be approved by the Township of Centre Wellington or Wellington County.

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APPENDIX A – SITE DRAINAGE CONDITIONS



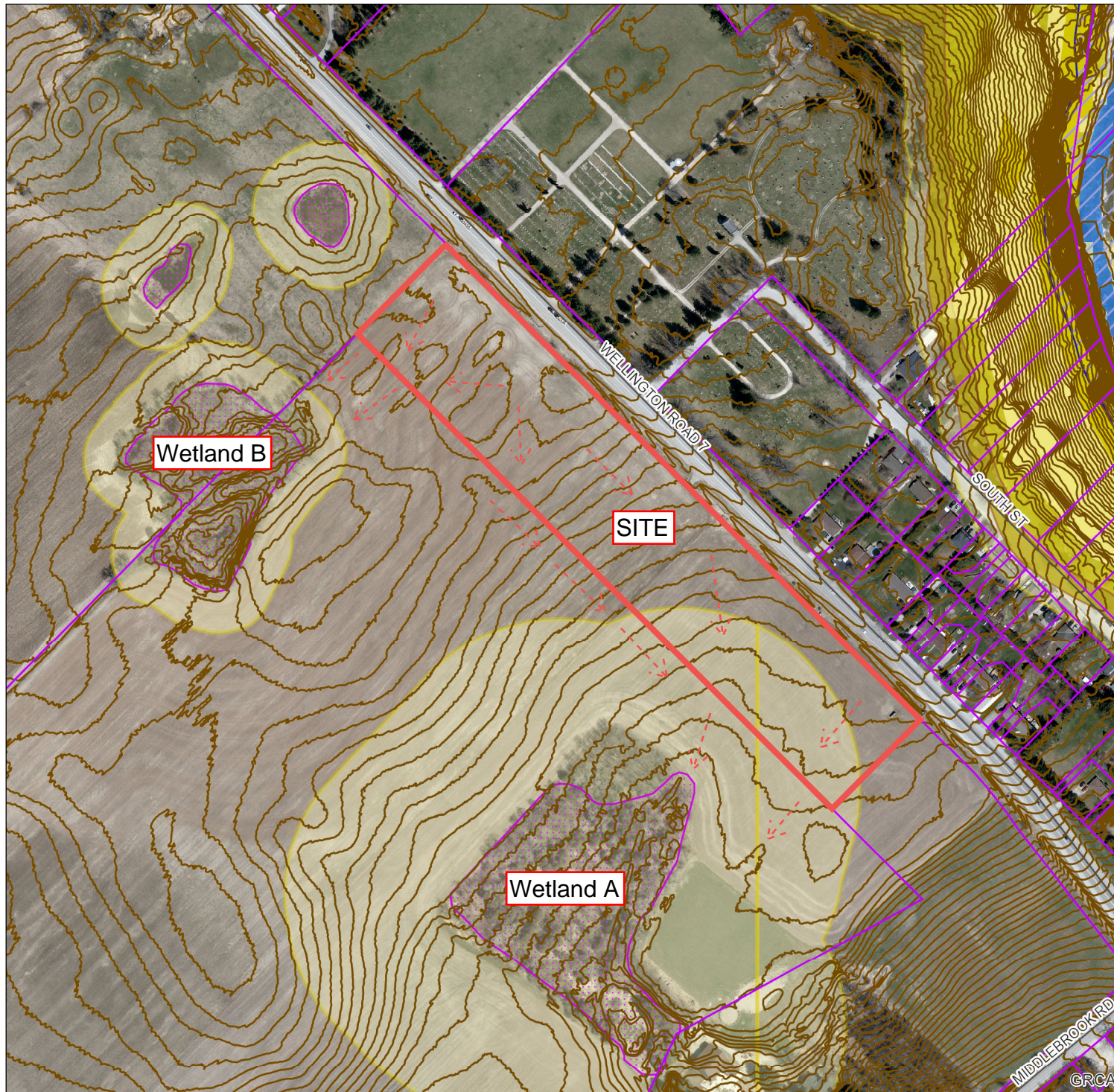
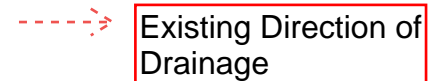
350 Wellington Road 7



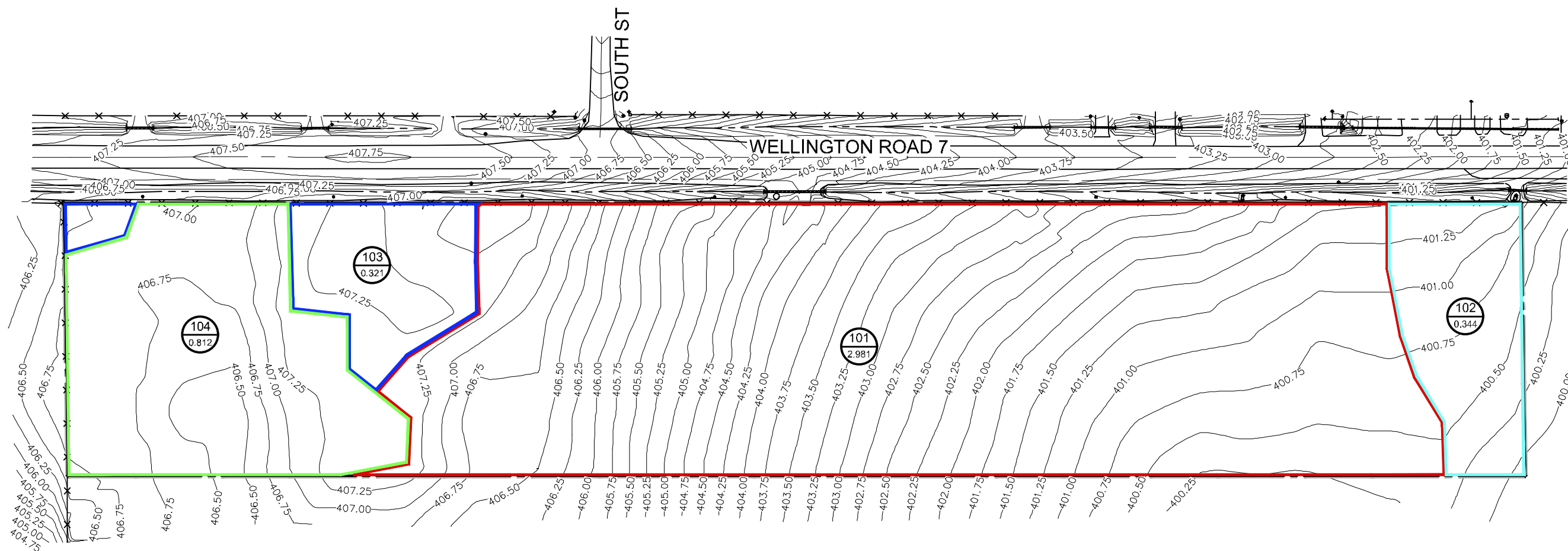
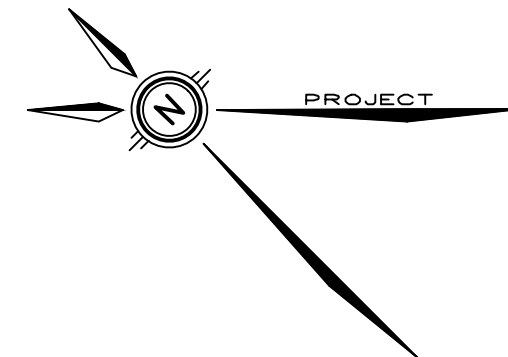
Legend

- Regulation Limit (GRCA)
- Regulated Watercourse (GRCA)
- Regulated Waterbody (GRCA)
- Wetland (GRCA)
- Floodplain (GRCA)
 - Engineered
 - Estimated
 - Approximate
 - Special Policy Area
- Slope Valley (GRCA)
 - Steep
 - Oversteep
 - Steep
- Slope Erosion (GRCA)
 - Oversteep
 - Toe
- Lake Erie Flood (GRCA)
- Lake Erie Shoreline Reach (GRCA)
- Lake Erie Dynamic Beach (GRCA)
- Lake Erie Erosion (GRCA)
- Parcel - Assessment (MPAC/MNRF)

This legend is static and may not fully reflect the layers shown on the map. The text of Ontario Regulation 150/06 supercedes the mapping as represented by these layers.

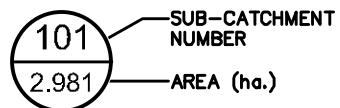


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The source for each data layer is shown in parentheses in the map legend. For a complete listing of sources and citations go to: <https://maps.grandriver.ca/Sources-and-Citations.pdf>



LEGEND

- CATCHMENT 101
- CATCHMENT 102
- CATCHMENT 103
- CATCHMENT 104



406.50 EXISTING CONTOURS

FIGURE 2.0 Date: SEPT. 06/22
Scale: 1:1500

**PRE-DEVELOPMENT
CATCHMENT AREAS**



Engineers, Scientists, Surveyors

Project No.: 51060-100

APPENDIX B – VEGETATION INVENTORY

Flora Inventory

Scientific Name	Common Name	G Rank	N Rank	Exotic Status	Coefficient of Conservatism	Coefficient of Wetness
<i>Acer negundo</i>	Manitoba Maple	G5	N5		0	0
<i>Actaea rubra</i>	Red Baneberry	G5	N5		6	3
<i>Alliaria petiolata</i>	Garlic Mustard	GNR	NNA	SE5		0
<i>Ambrosia sp.</i>	Ragweed Species					
<i>Arctium minus</i>	Common Burdock	GNR	NNA	SE5		3
<i>Asclepias syriaca</i>	Common Milkweed	G5	N5		0	5
<i>Bromus inermis</i>	Smooth Brome	G5	NNA	SE5		5
<i>Carex sp.</i>	Sedge Species					
<i>Dactylis glomerata</i>	Orchard Grass	GNR	NNA	SE5		3
<i>Daucus carota</i>	Wild Carrot	GNR	NNA	SE5		5
<i>Equisetum sp.</i>	Horsetail Species					
<i>Erigeron annuus</i>	Annual Fleabane	G5	N5		0	3
<i>Erysimum cheiranthoides</i>	Wormseed Wallflower	G5	N5			3
<i>Fraxinus pennsylvanica</i>	Red Ash	G5	N5		3	-3
<i>Fraxinus sp.</i>	Ash Species					
<i>Galium mollugo</i>	Smooth Bedstraw	GNR	NNA	SE5		5
<i>Geranium robertianum</i>	Herb-Robert	G5	N5		2	3
<i>Geum sp.</i>	Avens Species					
<i>Hypericum sp.</i>	St. John's-wort Species					
<i>Impatiens sp.</i>	Jewel-weed Species					
<i>Juglans nigra</i>	Black Walnut	G5	N4?		5	3
<i>Leucanthemum vulgare</i>	Oxeye Daisy	GNR	NNA	SE5		5
<i>Lonicera tatarica</i>	Tatarian Honeysuckle	GNR	NNA	SE5		3
<i>Matteuccia struthiopteris</i>	Ostrich Fern	G5	N5		5	0
<i>Oxalis stricta</i>	Upright Yellow Wood-sorrel	G5	N5		0	3
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	G5	N4?		6	3
<i>Phalaris arundinacea</i>	Reed Canarygrass	G5	N5		0	-3
<i>Populus alba</i>	White Poplar	G5	NNA	SE5		5
<i>Populus tremuloides</i>	Trembling Aspen	G5	N5		2	0
<i>Prunus serotina</i>	Black Cherry	G5	N5		3	3
<i>Ranunculus acris</i>	Common Buttercup	G5	NNA	SE5		0
<i>Rhamnus cathartica</i>	European Buckthorn	GNR	NNA	SE5		0
<i>Rubus allegheniensis</i>	Allegheny Blackberry	G5	N5		2	3
<i>Rubus occidentalis</i>	Black Raspberry	G5	N5		2	5
<i>Salix sp.</i>	Willow Species					
<i>Solidago canadensis</i>	Canada Goldenrod	G5	N5		1	3
<i>Solidago sp.</i>	Goldenrod Species					
<i>Sonchus arvensis</i>	Field Sow-thistle	GNR	NNA	SE5		3
<i>Sorbus sp.</i>	Mountain-ash Species					
<i>Symphotrichum novae-angliae</i>	New England Aster	G5	N5		2	-3
<i>Thuja occidentalis</i>	Eastern White Cedar	G5	N5		4	-3
<i>Tilia americana</i>	Basswood	G5	N5		4	3
<i>Urtica dioica</i>	Stinging Nettle	G5	N5		2	0
<i>Viburnum acerifolium</i>	Maple-leaved Viburnum	G5	N5		6	5
<i>Vicia cracca</i>	Tufted Vetch	GNR	NNA	SE5		5
<i>Vitis riparia</i>	Riverbank Grape	G5	N5		0	0

APPENDIX C – BREEDING BIRD SURVEY RESULTS

Breeding Birds of 350 Wellington Road 7 (Elora)

Common Name	Scientific Name	Status					Number of Pairs/ Territories
		National Species at Risk COSEWIC ^a	Species at Risk in Ontario Listing ^a	Provincial breeding season SRANK ^b	Regional Status	Area-sensitive (OMNR) ^c	
Killdeer	<i>Charadrius vociferus</i>			S5			1
American Crow	<i>Corvus brachyrhynchos</i>			S5			3
Common Grackle	<i>Quiscalus quiscula</i>			S5			1

Field Work Conducted On:	Date	Temp (°C)	Wind Speed (km/h)	Cloud Cover (%)	Start time	End time
Site visit 1	27-Jun-22	13	13	0	7:45	9:30
Site visit 2	08-Jul-22	16	6	30	6:30	7:00

Number of Species:	3
Number of (provincial and national) Species at Risk:	0
Number of S1 to S3 (provincially rare) Species:	0
Number of Regionally Rare Species:	0
Number of Area-sensitive Species:	0

KEY

a COSEWIC = Committee on the Status of Endangered Wildlife in Canada

a Species at Risk in Ontario List (as applies to ESA) as designated by COSSARO (Committee on the Status of Species at Risk in Ont
END = Endangered, THR = Threatened, SC = Special Concern

^b SRANK (from Natural Heritage Information Centre) for breeding status if:

S1 (Critically Imperiled), S2 (Imperiled), S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure)

SZB (breeding migrants or vagrants) and SR (reported as breeding, but no persuasive documentation) .

SE (exotic, i.e. non-native)

c Ontario Ministry of Natural Resources (OMNR). 2000. Significant Wildlife Habitat Technical Guide (Appendix G). 151 p plus appendi

d Toronto and Region Conservation Authority L rank:

L1 to L3 Regional species of concern from highest to lowest; L4 Urban concern; L5 Secure through region

APPENDIX D – SPECIES AT RISK SCREENING

Species at Risk Screening.

NAME	SARA STATUS	SARO	COSEWIC	SCHEDULE	S-RANK	HABITAT REQUIREMENTS	POTENTIAL HABITAT PRESENT (Y/N)	RATIONALE	POTENTIAL IMPACTS AND MITIGATION
AVIFAUNA									
Eastern Meadowlark (<i>Sturnella magna</i>)	THR	THR	THR	1	S4B	The Eastern Meadowlark is a bird that prefers pastures and hayfields, but is also found to breed in orchards, shrubby fields and human use areas such as airports and roadsides. Eastern meadowlarks can nest from early May to mid-August, in nests that are built on the ground and well-camouflaged with a roof woven from grasses. The decline in population of these species is thought to be at least partially related to habitat destruction and agricultural practices (Ministry of Natural Resources and Forestry, 2014).	N	Suitable Habitat is not present on the subject property.	None
Bobolink (<i>Dolichonyx oryzivorus</i>)	THR	THR	THR	1	S4B	The Bobolink is found in grasslands and hayfields, and feeds and nests on the ground. This species is widely distributed across most of Ontario; however, are designated at risk because of rapid population decline over the last 50 years (Ministry of Natural Resources and Forestry, 2014). The historical habitat of the bobolink was tallgrass prairie and other natural open meadow communities; however, as a result of the clearing of native prairies and the post-colonial increase in agriculture, bobolinks are now widely found in hayfields. Due to their reproductive cycle, nesting habits, and use of agricultural areas, bobolink nests and young are particularly vulnerable to loss as a result of common agricultural practices (i.e. first cut hay).	N	Suitable Habitat is not present on the subject property.	None
FISH									
Black Redhorse (<i>Moxostoma duquesnei</i>)	Not Listed	THR	THR	No Schedule	S2	In Ontario, the Black Redhorse lives in pools and riffle areas of medium-sized rivers and streams that are usually less than two metres deep. These rivers usually have few aquatic plants, a moderate to fast current, and a sandy or gravel bottom. In the spring, it migrates to breeding habitat where eggs are laid on gravel in fast water. The winter is spent in deeper pools. Adults feed on crustaceans and aquatic insects, while the young fish feed on plankton.	N	Suitable Habitat is not present on the subject property.	None
HERPTILES									
Snapping Turtle (<i>Chelydra serpentina</i>)	SC	SC	SC	1	S3	The snapping turtle is a species of special concern in Ontario due to the potential for the species to become threatened or endangered as a result of biological factors or other identified threats. While not presently protected by law, the snapping turtle has been recognized as a species of special concern by COSSARO. Snapping turtles spend the majority of their lives in water and travel slightly upland to gravel or sandy embankments or beaches to lay their eggs (Ontario Ministry of Natural Resources and Forestry, 2014).	N	Suitable Habitat is not present on the subject property.	None
INSECTS									
Gypsy Cuckoo Bumble Bee (<i>Bombus bohemicus</i>)	END	END	END	No schedule	SU	The Gypsy Cuckoo Bumble Bee is often found in montane meadows, old fields, mixed farmlands, urban areas, and open woodlands. The Gypsy Cuckoo will often utilize nests of bumble bees (<i>Bombus sensu stricto</i>) and abandoned underground rodent burrows (Plath, 1934; COSEWIC, 2014). The Gypsy Cuckoo forages in areas associated with flowering plants close to wooded areas and blueberry fields. Little is understood about overwintering habits, but it is theorized the Gypsy Cuckoo overwinters in the ground, mulch, or decomposing vegetation near nesting sites (Macfarlane, 1974; COSEWIC, 2014). The decline in population of these species is thought to be at least partially related to habitat destruction and agricultural practices.	N	Flowering plants are not abundant on the subject property with habitat potential for this species therefore not being present.	None

S#S# - Indicates insufficient information exists to assign a single rank.

S#? - Indicates some uncertainty with the classification due to insufficient data.

S#N - Nonbreeding

S#B - Breeding

**APPENDIX E – SIGNIFICANT WILDLIFE
HABITAT SCREENING**

SWH Screening - Ecoregion 6E.

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Seasonal Concentration Areas of Animals					
Waterfowl Stopover and Staging Areas (Terrestrial)	Ducks	CUM + CUT ecosites	Fields with sheet-water flooding mid-March to May	N	Although cultural meadow is present as a thin strip along Wellington Road 7, it is not of sufficient size to support SWH.
Waterfowl Stopover and Staging Area (Aquatic)	Ducks, Geese	Ponds, Lakes, Inlets, Marshes, Swamps, Shallow Water Ecosites	Sewage & SWM ponds not SWH. Reservoir managed as a large wetland or pond/lake qualifies.	N	Lack of suitable habitat.
Shorebird Migratory Stopover Area	Shorebirds	Beaches, Dunes, Meadow Marshes	Shorelines. Sewage treatment ponds and storm water ponds not SWH.	N	Lack of shoreline habitat.
Raptor Wintering Area	Eagles, Hawks, Owls	Hawks/Owls: Combination of both Forest and Cultural Ecosites Bald Eagle: Forest or swamp near open water (hunting ground)	Raptors: >20ha, with a combo of forest and upland. Meadow (>15ha) with adjacent woodlands. Eagles: open water, large trees & snags for roosting.	N	Lack of suitable habitat.
Bat Hibernacula	Big Brown Bat, Tri-coloured Bat	Caves, Crevices, mines, karsts	Buildings and active mine sites not SWH.	N	Lack of caves, mines, karsts habitat.
Bat Maternity Colonies	Big Brown Bat, Silver-haired Bat	Deciduous or mixed forests and swamps.	Mature deciduous and mixed forests with >10/ha cavity trees >25 cm DBH.	N	Suitable habitat is not present on the subject property. Habitat may be present within off-site and adjacent swamp communities.
Turtle Wintering Area	Turtles (Midland, N. Map, Snapping)	SW, MA, OA, SA, FEO, BOO (requires open waters)	Free water beneath ice. Soft mud substrate. Permanent water bodies, large wetlands, bogs, fens with adequate DO.	N	Suitable habitat may be present within adjacent lands but not on the subject property.
Reptile Hibernaculum	Snakes	Snakes: Any ecosite (esp. w/ rocky areas), other than very wet ones. Five-lined Skink: FOD and FOM, FOC1, FOC3 - with rock outcrops	Access below frost line: burrows; rock crevices, piles or slopes, stone fences or foundations. Conifer/shrubby swamps/swales, poor fens, depressions in bedrock w/ accumulations of sphagnum moss or sedge hummock ground cover.	N	Lack of hibernaculum structures and habitat.
Colonially-nesting Bird Breeding Habitat (Bank and Cliff)	Cliff Swallow, N. Rough-winged Swallow	Banks, sandy hills/piles, pits, slopes, cliff faces, bridge abutments, silos, barns.	Exposed soil banks, not a licensed/permitted aggregate area or new man-made features (2 yrs).	N	Lack of slopes, cliff faces or barns on site.

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Colonially-nesting Bird Breeding Habitat (Tree/Shrubs)	Great Blue Heron, Black-crowned NightHeron, Great Egret, Green Heron	SWM2, SWM3, SWM5, SWM6, SWD1 to SWD7, FET1	Nests in live or dead standing trees in wetlands, lakes, islands and peninsulas. Shrubs and emergents may be used. Nests in trees are 11 - 15 m from ground, near tree tops.	N	Lack of suitable habitat. Note that suitable habitat could be present in adjacent wetlands.
Colonially-nesting Bird Breeding Habitat (Ground)	Herring Gull, Great Black-backed Gull, Little Gull, Ring-billed Gull, Common Tern, Caspian Tern, Brewer's Blackbird	Gulls/Terns: Rocky island or peninsula in lake or river. Brewer's Blackbird: close to watercourses in open fields or pastures with scattered trees or shrubs.	Gulls/Terns: islands or peninsulas with open water or marshy areas. Brewers Blackbird colonies: on the ground in low bushes close to streams and irrigation ditches.	N	Lack of suitable habitat.
Migratory Butterfly Stopover Area	Painted Lady, Red Admiral, Special Concern: Monarch	Combination of open (CU) and forested (FO) ecosites (need one from each).	≥10 ha, located within 5 km of Lake Ontario. Undisturbed sites, with preferred nectar species.	N	> 5 km from Lake Ontario.
Landbird Migratory Stopover Areas	All migratory songbirds. All migrant raptor species.	Forest (FO) and Swamp (SW) ecosites	Woodlots >10 ha within 5 km of Lake Ontario. If multiple woodlands are along the shoreline, those <2 km from L. Ontario are more significant.	N	> 5 km from Lake Ontario.
Deer Yarding Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	None mapped by MNRF
Deer Winter Congregation Areas	White-tailed Deer	Mixed or Conifer ecosites	Determined by MNRF - no studies	N	None mapped by MNRF
Rare Vegetation Communities					
Cliffs and Talus Slopes		TAO, TAS, CLO, CLS, TAT, CLT e.g., Niagara Escarpment (contact NEC)	Cliff: near vertical bedrock >3m Talus Slope: coarse rock rubble at the base of a cliff	N	Lack of cliffs or talus slope habitat.
Sand Barren		SBO1, SBS1, SBT1	Sand Barrens >0.5 ha. Vegetation can vary from patchy and barren to tree covered, but <60%. <50% vegetation cover are exotic species.	N	Lack of sand barrens.
Alvar	<i>Carex crawei</i> , <i>Panicum philadelphicum</i> , <i>Eleocharis compressa</i> , <i>Scutellaria parvula</i> , <i>Trichostema brachiatum</i> , Loggerhead Shrike	ALO1, ALS1, ALT1, FOC1, FOC2, CUM2, CUS2, CUT2-1, CUW2	Alvar >0.5 ha. Need 4 of the 5 Alvar Indicator Spp. <50% vegetation cover are exotic species.	N	Lack of alvar habitat or alvar indicator species.
Old Growth Forest	Trees >140 yrs; heavy mortality = gaps. Multi-layer canopy, lots of snags and downed logs	FOD, FOC, FOM, SWD, SWC, SWM	Woodland areas ≥30 ha with a ≥10 ha interior habitat, assuming a 100 m buffer at edge of forest.	N	No such areas present on subject property or adjacent lands.
Savannah	Prairie Grasses w/ trees	TPS1, TPS2, TPW1, TPW2, CUS2	A Savannah is a tallgrass prairie habitat that has tree cover of 25 – 60%. <50% cover of exotic species.	N	No communities represented within subject property or adjacent lands.

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Tallgrass Prairie	Prairies Grasses dominate	TPO1, TPO2	An <u>open Tallgrass Prairie</u> habitat has < 25% tree cover. Less than 50% cover of exotic species.	N	No communities represented within subject property or adjacent lands.
Other Rare Vegetation Communities		Provincially Rare S1, S2 and S3 vegetation communities are listed in Appendix M of SWHTG.	Rare Vegetation Communities may include beaches, fens, forest, marsh, barrens, dunes and swamps.	N	No communities represented within subject property or adjacent lands.
Specialized Habitat for Wildlife					
Waterfowl Nesting Area	Ducks	Upland habitats adjacent to: MAS1 to MAS3, SAS1, SAM1, SAF1, MAM1 to MAM6, SWT1, SWT2, SWD1 to SWD4 (>0.5 ha open water wetlands, alone or collectively).	Extends 120 m from a wetland or wetland complex. Upland areas should be at least 120 m wide. Wood Ducks and Hooded Mergansers use cavity trees (>40 cm dbh).	N	Suitable habitat is not present on the subject property.
Bald Eagle & Osprey Nesting, Foraging and Perching Habitat	Osprey, Bald Eagle	FOD, FOM, FOC, SWD, SWM, SWC directly adjacent to riparian areas	Nesting areas are associated with waterbodies along forested shorelines, islands, or on structures over water.	N	Lack of sufficient suitable habitat.
Woodland Raptor Nesting Habitat	Barred Owl. Hawks: N. Goshawk, Cooper's, Sharp-shinned, Red-shouldered, Broad-winged.	Forests (FO), swamps (SW), and conifer plantations	>30 ha with > 10 ha interior habitat.	N	Size criteria for suitable habitat is not met.
Turtle Nesting Areas	Midland Painted Turtle Special Concern: Snapping Turtle, Northern Map Turtle	Exposed mineral soil (sand or gravel) areas adjacent (<100m) or within: MAS1 to MAS3, SAS1, SAM1, SAF1, BOO1	Nest sites within open sunny areas with soil suitable for digging. Sand and gravel beaches.	N	Lack of suitable habitat on the subject property.
Seeps and Springs	Wild Turkey, Ruffed Grouse, Spruce Grouse, White-tailed Deer, Salamander spp.	Seeps/Springs are areas where ground water comes to the surface.	Any forested area within the headwaters of a stream/river system. (2 or more confirms SWH type).	N	Suitable habitat is not present on the subject property or adjacent lands.
Amphibian Breeding Habitat (Woodland)	Woodland Frogs and Salamanders	FOC, FOM, FOD, SWC, SWM, SWD	Open water wetlands, pond or woodland pool of >500 m ² within or adjacent to wooded areas. Permanent ponds or holding water until mid-July preferred.	N	No suitable habitat on subject property. Note that suitable habitat may be present on adjacent lands.
Amphibian Breeding Habitat (Wetlands)	Toads, Frogs, and Salamanders	SW, MA, FE, BO, OA and SA. Typically isolated (>120m) from woodland ecosites, however larger wetlands may be adjacent to woodlands.	Open water wetland ecosites >500m ² isolated from woodland ecosites with high species diversity. Permanent water with abundant vegetation for bullfrogs.	N	No suitable habitat on subject property. Note that suitable habitat may be present on adjacent lands.

SWH Type	Associated Species	Associated ELC Ecosites	Habitat Criteria	Presence (Y/N)	Additional Notes and Species Observations
Woodland Area-Sensitive Bird Breeding Habitat	Birds (area-sensitive species)	FOC, FOM, FOD, SWC, SWM, SWD	Large mature (>60 years) forest stands/woodlots >30 ha. Interior forest habitat >200m from forest edge.	N	No habitat is available within subject property. Habitat of sufficient size is not present on adjacent lands.
Habitat of Species of Conservation Concern					
Marsh Bird Breeding Habitat	Wetland Birds	MAM1 to MAM6, SAS1, SAM1, SAF1, FEO1, BOO1 Green Heron: SW, MA and CUM1	Wetlands with shallow water and emergent vegetation. Gr. Heron @ edges of these types w/ woody cover.	N	Suitable habitat is not present on the subject property.
Open Country Bird Breeding Habitat	Upland Sandpiper, Grasshopper Sparrow, Vesper Sparrow, N. Harrier, Savannah Sparrow, Short-eared Owl (SC)	CUM1, CUM2	Grassland/meadow >30 ha. Not being actively used for farming. Habitat established for 5 years or more.	N	Lack of sufficient meadow habitat.
Shrub/Early Successional Bird Breeding Habitat	Brown Thrasher + Clay-coloured Sparrow (indicators) , Field Sparrow, Black-billed Cuckoo, E. Towhee, Willow Flycatcher, Yellow-breasted Chat, Golden-winged Warbler	CUT1, CUT2, CUS1, CUS2, CUW1, CUW2	Large field areas succeeding to shrub and thicket habitats > 10 ha. Areas not actively used for farming in the last 5 years.	N	Lack of shrub or thicket habitat.
Terrestrial Crayfish	Chimney or Digger Crayfish; Devil Crayfish or Meadow Crayfish	MAM1 to MAM6, MAS1 to MAS3, SWD, SWT, SWM. CUM1 sites with inclusions of the aforementioned.	Wet meadow and edges of shallow marshes (no minimum size) should be surveyed for terrestrial crayfish (typc. protected by wetland setbacks).	N	MAS communities present, however no chimneys observed during surveys.
Special Concern and Rare Wildlife Species	Any species of concern or rare wildlife species	Any ELC code.	Presence of species of concern or rare wildlife species.	N	No potential for species of concern or rare wildlife species on site.
Animal Movement Corridors					
Amphibians	Amphibians	all ecosites assoc. w/ water	When Breeding Habitat - wetland confirmed	N	Ecosites containing water exist on adjacent lands, however volume of standing water may be insufficient.
Deer Movement	White-tailed Deer	all forested ecosites	When Deer Wintering Habitat confirmed	N	None confirmed
Exceptions for Ecoregion 6E					
Mast Producing: 6E-14	Black Bear	Forested Ecosites	>30 ha w/ mast producing species: Cherry (berries), Oak, Beech (nuts).	N	Out of range.
Leks: 6E-17	Sharp-tailed Grouse	CUM, CUS, CUT	Grassland/meadow >15 ha adjacent to shrublands, >30 ha adjacent to woodlands. Low agricultural intensity.	N	Out of range.