

Environmental Impact Study

2086 McCrackens Landing Road Lakefield, Ontario

D.M. Wills Project Number 7420



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Peterborough

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Submissions Summary

Submission No.	Submission Title	Date of Release	Submissions Summary
1	Draft Environmental Impact Study	November 17, 2020	Draft Submission to Client
2	Final Environmental Impact Study	June 4, 2021	Final Submission to Client
		1	

This report has been formatted considering the requirements of the Accessibility for Ontarians with Disabilities Act.



Table of Contents

1.0	In	ntroduction	. 1
	1.1	Subject Property	. 1
2.0	É	xisting Conditions	.4
	2.1	Background Review	. 4
	2.	.1.1 Surrounding Land Use	. 4
	2.	.1.2 Designated Areas	. 4
	2.	.1.3 Hydrology	.5
	2.	.1.4 Soils	.5
	2.2	Field Investigations	. 5
	2.	2.1 Ecological Land Classification	. 6
	2.	.2.2 Wetland Delineation	.8
	2.	.2.3 Incidental Wildlife Observations	.8
3.0	R	egulatory Context	.8
	3.1	Provincial Policy Context	.8
	3.2	Growth Plan for the Greater Golden Horseshoe	.9
	3.3	Local Planning Context	10
	3.	.3.1 County of Peterborough Official Plan	10
	3.4	Endangered Species Act, 2007	11
4.0	S	pecies at Risk1	12
5.0	l Ir	mpact Assessment and Mitigation1	16
	5.1	General Recommendations	16
	5.2	Valued Ecosystem Components	16
	5.3	Species at Risk	17
	5.4	Wildlife	17
6.0	C	Conclusions1	19
7.0	R	eferences	20



List of Figures	
Figure 1 – Site Location Figure 2 – Subject Property Figure 3 – ELC Communities Figure 4 – Primary Constraints Map	
List of Tables	
Table 1 – Species at Risk Screening Assessment	13

List of Appendices

Appendix A - Statement of Limitations

Appendix B - NHIC Map

Appendix C - Records of Correspondence Appendix D - Site Photographs



Executive Summary

D.M. Wills Associates Limited (Wills) was retained by Donna and Steve Kelly (Client) to undertake an Environmental Impact Study (EIS) to address potential impacts associated with two (2) proposed property severances (Project) at 2086 McCrackens Landing Road in Lakefield, Ontario (Subject Property).

Due to a background review, indicating the presence of natural heritage features (woodlands and wetlands) located on and adjacent to the Subject Property, an EIS is required for submission to the Otonabee Region Conservation Authority (ORCA).

Potential impacts of the proposed severances on existing natural heritage features and associated wildlife, including Species at Risk (SAR), were evaluated based on a review of publicly available resources, agency consultation, (Ministry of Natural Resources and Forestry (MNRF), Ministry of the Environment Conservation and Parks (MECP)) as well as on-site field investigations.

Field investigations consisted of wetland delineations, SAR habitat evaluation, and Ecological Land Classification (ELC) mapping.

Three (3) wetlands were delineated during field investigations. The Subject Property was found to contain deciduous forest and mixed forest, and is suitable habitat for a variety of wildlife, likely including some SAR. However, impacts to the ecological function of these ecosystems can be avoided.

Should future development occur, a number of mitigation measures including a vegetation removal timing window (**April 15**th **to August 31**st) and wetland buffer areas of 30 m are proposed to ensure adjacent significant natural heritage features are not impacted by development.

In summary, Wills does not anticipate any significant negative environmental impacts associated with the Project given the environmental mitigation measures described in this EIS report are implemented effectively throughout the construction period.



1.0 Introduction

D.M. Wills Associates Limited (Wills) was retained by Donna and Steve Kelly (Client) to undertake an Environmental Impact Study (EIS) to address potential impacts associated with two (2) proposed property severances (Project) at 2086 McCrackens Landing Road in Lakefield, Ontario (Subject Property). Specifically, the Subject Property encompasses approximately 13.2 ha (32.5 acres) of land with site access from McCrackens Landing Road. See **Appendix A** for Statement of Limitation details.

A Preliminary Severance Review by the County Peterborough's Planning Department identified some nonconformities with the Growth Plan for the Greater Golden Horseshoe (Growth Plan), 2019, Peterborough County Official Plan, and Township of Douro-Dummer Official Plan policies. The non-conformities include proximity to a closed waste disposal site and proximity to key hydrologic features that require the completion of a Hydrogeological Study and Environmental Impact Study before the possibility of severances can be reassessed.

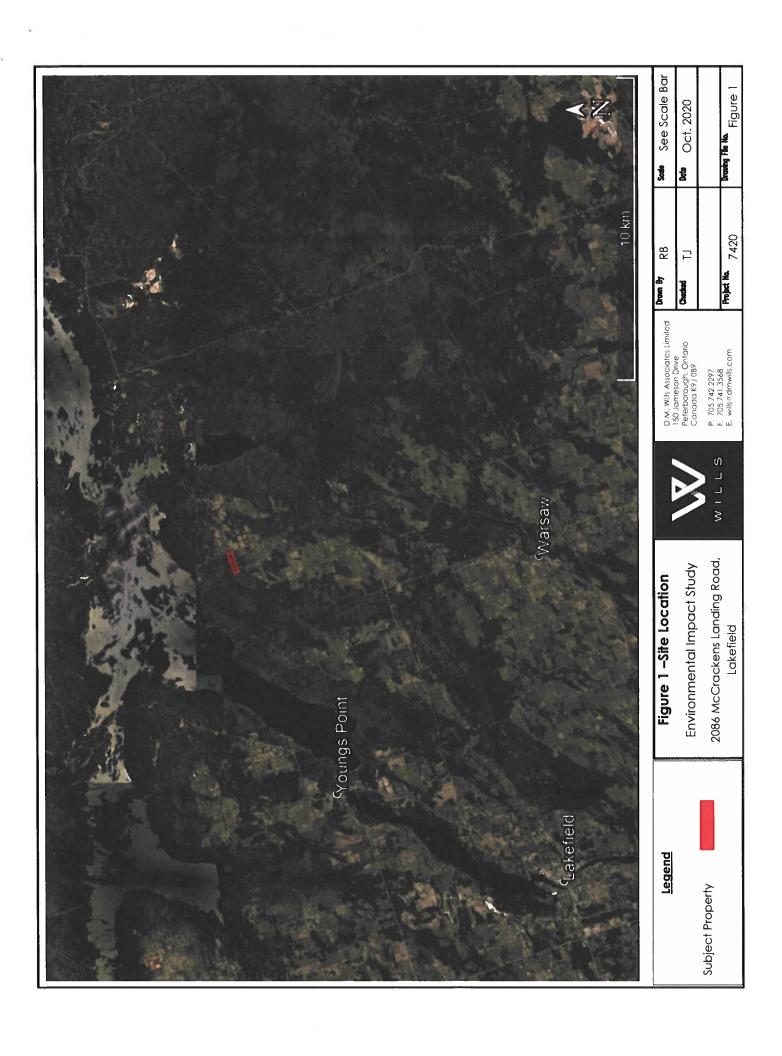
The EIS must demonstrate that there will be no negative ecological or hydrological impacts on the natural heritage system, connectivity, and linkages associated with the site and surrounding area. It should identify environmental constraints, develop appropriate setbacks, consult with regulatory agencies, and identify the activities required to address project compliance with Provincial and Federal statutes and policies including, but not limited to: the *Planning Act* (R.S.O. 1995), the *Conservation Authorities Act* (R.S.O. 1990), the *Endangered Species Act* (R.O. 2007), the *Provincial Policy Statement* (2020), and the *Migratory Birds Convention Act* (1994).

To meet the requirements of the EIS, Wills' Biologists undertook field investigations to collect information on existing conditions. This document provides an existing conditions background review, a summary of the observations made during site visits, describes the potential impacts of the proposed severance, and recommends measures to mitigate impacts of the Project.

1.1 Subject Property

The Subject Property encompasses approximately 13.2 ha (32.5 acres) of land in Lakefield, Ontario. The property is located in the Township of Douro-Dummer in the County of Peterborough. The property land use is currently designated as rural. Undeveloped forested areas make up the majority of the Subject Property with a residential building on the southeastern portion of the property fronting McCrackens Landing Road. McCrackens Landing Road borders the Subject Property to the east; the Subject Property is surrounded by private property on all other sides.

Wills understands that the proposed development will include severing two (2) lots (approximately 0.6 ha and 12 ha) and retaining one (1) lot (approximately 0.6 ha) on the Subject Property. See **Figure 1** for the Site Location and **Figure 2** for the Subject Property.







2.0 Existing Conditions

2.1 Background Review

2.1.1 Surrounding Land Use

Properties adjacent to the north and south have residential buildings on a portion of them with large areas of undeveloped forest and possible wetland features. To the west of the Subject Property is a large, undisturbed woodland that also appears to contain wetland habitat. There is a closed waste disposal site approximately 150 m northeast of the Subject Property.

2.1.2 Designated Areas

A review of the Ministry of Natural Resources and Forestry (MNRF) natural heritage/resources data obtained through the MNRF Natural Heritage Information Centre (NHIC) database was completed to identify the presence or absence of any Valued Ecosystem Components (VECs) such as local, provincial, and federally Designated Areas (DAs). DAs include lands covered under the Provincial Policy Statement (2020), as well as, other natural heritage features of local or federal interest including Federal Parks, Environmental Sensitive Landscapes or Areas (ESAs, ESLs), such as significant woodlands, locally significant wetlands or otherwise natural heritage feature identified for conservation. A copy of the NHIC data map is located in **Appendix B**.

A summary of the results of the database searches is outlined below with reference to DAs.

Areas of Natural and Scientific Interest

No Areas of Natural and Scientific Interest (ANSI) were identified on or adjacent to the Subject Property.

Significant Wildlife Habitat

No Significant Wildlife Habitat (SWH) records were identified through background review.

Provincially Significant Wetlands

No Provincially Significant Wetlands (PSW) were identified on or within 120 m of the Subject Property based on background review. The nearest PSW (Whetung Road Wetland Complex) is located approximately 3.3 km northeast of the Subject Property.

Other Wetlands

NHIC mapping indicates three unevaluated wetlands on the Subject Property. Aerial imagery suggests a fourth unevaluated wetland exists, prompting the need for a



wetland delineation. Field investigations confirmed the presence of three (3) wetland areas.

Woodlands

NHIC mapping indicated that unevaluated woodlands are present on the Subject Property.

2.1.3 Hydrology

The Subject Property is located approximately 1.4 km south of Stoney Lake. It is anticipated that surface water flows from east to west follow the topography of the landscape, which peaks at 275 metres above sea level (masl) at the southeastern corner and gradually slopes to 269 masl at the southwestern corner.

Several small wetlands are present on the Property. Mapping from the NHIC indicated three (3) separate wetlands; delineation by Wills Biologists determined there were three (3). All wetlands are located within one of the proposed severances, and west of the other proposed severance and retained lot.

These wetlands appear to be part of a greater drainage system of wetlands eventually inputting flows into Stoney Lake. Though they are not listed as PSW, they collectively make up a large area to the west of the Subject Property. It is expected that runoff from the Subject Property contributes to this hydrological system.

2.1.4 Soils

The Subject Property falls within Ecoregion 6E (Lake Simcoe, Rideau), a region underlain by carbonate rich Paleozoic bedrock, and dominated by a wide variety of deep glacial deposits (Ecological Stratification Working Group, 1996). Soil sampling as part of determination of ELC communities indicated brown sandy loam soils with trace gravel in the woodland community. Soil depths of 50 cm were reached consistently without rock refusals.

2.2 Field Investigations

The scope of work for the field investigation was outlined by ORCA (see **Appendix C** for correspondence records). Field investigations took place on September 28, and October 22, 2020 to evaluate existing ecological conditions within the Subject Property. The field investigations included the following surveys:

- Wetland delineations were completed on September 28 and October 22, 2020.
- Ecological Land Classification was assessed on September 28, 2020.
- Incidental wildlife and wildlife habitat observations were completed (auditory, visual, tracks, scat, burrows, nests, etc.) throughout the Subject Property during both site visits with particular attention to any species of conservation concern noted to be present within the area.
- Evaluation of potential SWH within the Subject Property was considered during both site visits.



A photographic record to support field investigations is located in **Appendix D**.

2.2.1 Ecological Land Classification

Ecological Land Classification (ELC) assigns ecosystems into grouped classifications based on their biotic (plant communities) and abiotic (soil and water features) components. ELC mapping of the Subject Property was completed using the Ecological Land Classification for Southern Ontario (Lee, 1998).

The Subject Property was found to contain four (4) ELC communities:

1. Fresh Sugar Maple Deciduous Forest Ecosite (FOD5)

The canopy is dominated by sugar maple (Acer saccharum) with American elm (Ulmus americana) and occasional white pine (Pinus strobus). The understorey contains sugar maple (Acer saccharum) and American elm (Ulmus americana). As site investigations were completed in the fall, the ground layer vegetation were not representative.

2. Dry-Fresh White Pine – Sugar Maple Mixed Forest (FOM2)

The canopy is dominated equally by mature white pine (*Pinus strobus*) and sugar maple (*Acer saccarum*). The understory contained both white pine (*Pinus strobus*) and sugar maple (*Acer saccharum*) with American elm (*Ulmus americana*), white spruce (*Picea glauca*) and white birch (*Betula papyrifera*) to a lesser extent. As site investigations were completed in the fall, the ground layer vegetation were not representative.

3. Poplar – Conifer Mixed Swamp (SWM3)

The canopy is composed primarily of trembling aspen (*Populus* tremuloides) and eastern white cedar (*Thuja* occidentalis). The understory contains mainly eastern white cedar (*Thuja* occidentalis), with white spruce (*Picea glauca*) and eastern hemlock (*Tsuga canadensis*) present. As site investigations were completed in the fall, the ground layer vegetation were not representative.

4. Cultural Meadow (CUM)

This community classification applies to the eastern side of the property where the residential dwelling exists and there is an expanse of manicured/mowed lawn.

Figure 3 shows ELC communities on the Subject Property.





2.2.2 Wetland Delineation

Wetland delineation determines boundaries of wetlands that are more accurate than aerial imagery. NHIC mapping indicated the presence of three (3) different unevaluated wetlands on the Subject Property. On September 28, 2020, Wills Biologists attempted to delineate these wetlands in order to create a constraints map restricting development within these areas. However, after the delineation of one wetland immediately west of the smaller proposed severance, the field investigation was halted due to health and safety concerns in the field at that time. A subsequent field investigation was completed on October 22, 2020 at which time the remaining wetlands were delineated. One (1) was found not to be wetland, resulting in a total of three (3) wetlands on the Subject Property.

2.2.3 Incidental Wildlife Observations

The following wildlife species were observed during field investigations:

- Red Squirrel (Tamiasciurus hudsonicus)
- Ruffed Grouse (Bonansa umbellis)

3.0 Regulatory Context

According to the County of Peterborough Public GIS tool, the Subject Property is designated as rural land use under the *Douro-Dummer Official Plan*.

3.1 Provincial Policy Context

The Provincial Policy Statement 2020 (PPS) is a consolidated statement of the government's policies on land use planning. The PPS was issued under Section 3 of the Planning Act and came into effect May 1, 2020. It replaces the PPS issued April 30, 2014.

The PPS states:

Section 2.1.5: Development and site alteration shall not be permitted in:

a) significant woodlands in Ecoregions 6E and 7E unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.

Areas of unevaluated woodlands are located on and adjacent to the Subject Property.

The PPS also states:

Section 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, 2.1.6 and 2.1.7, 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 the ecological functions.



The Ontario Natural Heritage Reference Manual for the Provincial Policy Statement defines adjacent lands as:

- 120 m from PSW.
- 50 m from significant woodlands; significant valley lands; significant wildlife habitat; significant portions of habitat for threatened or endangered species, significant ANSIs.
- 30 m from fish habitat.

The assessment to meet regulatory requirements is provided in Sections 5.0.

3.2 Growth Plan for the Greater Golden Horseshoe

A Place to Grow: Growth Plan for the Greater Golden Horseshoe' (May 2019) was developed to ensure for growth and development within the Golden Horseshoe of Ontario, in a way that supports economic prosperity, protects the environment, and helps communities achieve a high quality of life.

Relative to the Subject Property, the following is applicable:

Section 4.2.2

- A Natural Heritage System for the Growth Plan has been mapped by the Province to support a comprehensive, integrated, and long-term approach to planning for the protection of the region's natural heritage and biodiversity. The Natural Heritage System for the Growth Plan excludes lands within settlement area boundaries that were approved and in effect as of July 1, 2017.
- 4. Provincial mapping of the Natural Heritage System for the Growth Plan does not apply until it has been implemented in the applicable upper-or single-tier official plan. Until that time, the policies in this Plan that refer the Natural Heritage System for the Growth Plan will apply outside settlement areas to the natural heritage systems identified in official plans that were approved and in effect as of July 1, 2017.
- 6. Beyond the Natural Heritage System for the Growth Plan, including within settlement areas, the municipality:
 - a) will continue to protect any other natural heritage features and areas in a manner that is consistent with the PPS; and,
 - b) may continue to protect any other natural heritage system or identify new systems in a manner that is consistent with the PPS.

Section 4.2.3

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, except for:

a) forest, fish, and wildlife management;



- b) conservation and flood or erosion control projects, but only if they have been demonstrated to be necessary in the public interest and after all alternatives have been considered;
- c) activities that create or maintain infrastructure authorized under an environmental assessment process; and,
- d) mineral aggregate operations and wayside pits and quarries.

Section 4.2.4

Outside settlement areas, a proposal for new development or site alteration within 120 metres of a key natural heritage feature within the Natural Heritage System for the Growth Plan or a key hydrologic feature will require a natural heritage evaluation or hydrologic evaluation that identifies a vegetation protection zone, which:

- a) is of sufficient width to protect the key natural heritage feature or key hydrologic feature and its functions from the impacts of the proposed change;
- b) is established to achieve and be maintained as natural self-sustaining vegetation; and,
- c) for key hydrologic features, fish habitat, and significant woodlands, is no less than 30 metres measured from the outside boundary of the key natural heritage feature or key hydrologic feature.

Natural heritage system mapping has not yet been implemented in the local Official Plan. Therefore, policies that refer to the key natural heritage features (KNHF) within Natural Heritage System do not yet apply. However, policies are applicable to key hydrologic features (KHF). An evaluation has therefore been provided in Section 5.0 to address the Growth Plan policies as they pertain to KHF.

3.3 Local Planning Context

3.3.1 County of Peterborough Official Plan

As outlined in the County of Peterborough Official Plan, the following policies apply to the Subject Property:

Section 4.1.3.4 – Natural Heritage Features

Local plans will prohibit development and site alterations within the following types of significant natural heritage features:

- Significant wetlands;
- Significant portions of the habitat of endangered and threatened species;

Local plans may permit development and site alteration in:

- Significant woodlands south and east of the Canadian Shield;
- Significant valleylands south and east of the Canadian Shield;
- Significant wildlife habitat; and,



Significant areas of natural and scientific interest.

Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas listed above unless the ecological function of the adjacent lands has been evaluated in accordance with an environmental impact assessment as described in Section 4.1.3.1 and it has been determined that there will be no new negative impacts on the natural features or on their ecological functions.

An impact assessment has been completed in Section 5.0 to address this policy.

3.4 Endangered Species Act, 2007

The Endangered Species Act, 2007 (ESA) was implemented to protect SAR in Ontario. An independent body, the Committee on the Status of Species at Risk in Ontario (COSSARO), was developed to classify native plants or animals into one (1) of four (4) categories of at risk status:

- 1. Extirpated: lives somewhere in the world, and at one (1) time lived in the wild in Ontario, but no longer lives in the wild in Ontario.
- 2. Endangered: lives in the wild in Ontario but is facing imminent extinction or extirpation.
- 3. Threatened: lives in the wild in Ontario, is not endangered, but is likely to become endangered if steps are not taken to address factors threatening it.
- 4. Special Concern: lives in the wild in Ontario, is not endangered or threatened, but may become threatened or endangered due to a combination of biological characteristics and identified threats.

Species at Risk in Ontario (SARO) are provided by MECP, who administer the ESA regulations for SAR in Ontario. The ESA applies to native species that have been proven to be in danger of becoming extinct or extirpated from Ontario. The ESA provides protection of both the species and their habitat, as well as provides a recovery strategy and stewardship program for those SAR.

Section 9(1) of the ESA prohibits a person from killing, harming, harassing, capturing, or taking a member of a species listed as endangered, threatened or extirpated on the SARO list. In addition, Section 10(1) of the ESA prohibits the damage or destruction of habitat of a species listed as threatened, endangered or extirpated on the SARO list.

A permit from MECP is required under Section 17(2)(c) of the ESA for any proposed work to be completed within the habitat of one (1), or more, species listed as threatened or endangered.

A review of site investigations and background information identifying known SAR occurrences within close range of the Subject Property was concluded. Subsequently, a SAR Screening Assessment was completed (Table 1) to determine the likelihood of SAR on the Subject Property.



4.0 Species at Risk

Information from the following sources was reviewed for all species of conservation concern to determine whether the Project will come into conflict with the ESA, 2007.

- 1. 2020 field investigations;
- 2. Land Information Ontario Natural Heritage Areas database (formerly operated under the Natural Heritage Information Centre); and,
- 3. Other SAR species identified through other data sources (e.g. OBBA, ORAA, relevant scientific reports).

A SAR Screening Assessment was completed comparing known occurrences within the area against specific local habitat features identified in the Subject Property; see **Table 1** for details.



Table 1 – Species at Risk Screening Assessment

			.⊑		0 5			
Site Area Sultability/Observations	Habitat requirements are not present. The Subject Property is too far away from a large water body to support nesting habitat. It is possible Bald Eagles may rest or feed on the Subject Property.	Habilat requirements are not present on the Subject Property.	Aqualic habitat requirements may be present in surrounding wetlands but none are present on the Subject Property.	Habitat requirements are not present.	Forest communities on the Subject Property are appropriate, however, there is no dense shrub layer present. Therefore, habitat is not ideal to support nesting and there is a low probability of Canada Warblers utilizing the Subject Property.	Habital requirements are not present.	Habitat requirements are not present.	
Likelihood of Occurrence	low	Negligible	low	Negligible	Non	Negligible	Negligible	
Source	0884	OBBA	ORAA	OBBA	OBBA	OBBA	OBBA	
Habitat Requirements	Bald Eagles nest in a variety of habitals and forest types, almost always near a major lake or river where they do most of their hunting. While fish are their main source of food. Bald Eagles can easily catch prey up to the size of ducks, and frequently feed on dead animals, including White-tailed Deer. They usually nest in large trees such as pine and poplar. During the winter, Bald Eagles sometimes congregate near open water such as the St. Lawrence River, or in places with a high deer population where carcasses might be found (MNRF, 2019).			Bobolink prefers tall grass prairies, but is also known to nest in forage crops (e.g. hayfields and pastures dominated by a variety of species such as clover, Timothy, Kentucky Bluegrass, and broadleaved plants).	The Canada Warbler breeds in a range of deciduous and coniferous, usually wet forest types, all with a well-developed, dense shrub layer. Dense shrub and understory vegetation help conceal Canada Warbler nests that are usually located on or near the ground on mossy logs or roots, along stream banks or on hummocks. It winters in South America.	Before European settlement, Chimney Swifts mainly nested on cave walls and in hollow trees or free covilies in old growth forests. Today, they are more likely to be found in and around urban settlements where they nest and roost (rest or sleep) in chimneys and other manmade structures. They also lend to stay close to water as this is where the flying insects they eat congregate.	Iraditional Common Nighthawk habitat consists of open areas with little to no ground vegetation, such as logged or burned-over areas, forest cleanings, rock barnens, peat bogs, lakeshores, and mine tailings. Although the species also nests in cultivated fields, orchards, urban parks, mine tailings and along gravel roads and railways, they tend to occupy natural sites (MNRF, 2018).	Native grasslands, pastures and savannahs. Eastern meadowlark also uses a wide variety of other anthropogenic grassland habitats, including hayfields, weedy
Federal SARA Status	Not at Risk	Threatened	Threatened	Threatened	Threatened	Threatened	Threatened	
COSEWIC	Not at Risk	Threatened	Endangered	Threatened	Threatened	Threatened	Special Concern	
Provincial ESA Status	Special	Threatened	Threatened	Threatened	Special Concern	Threatened	Special	
Species	Bald Eagle (Hallaeetus leucocephalus)	Barn Swallow {Hirundo rustica}	Blanding's Turtle (Emydoidea blandingii)	Bobolink (Dolichonyx oryzivorus)	Canada Warbler Cardellina canadensis	Chimney Swift [Chaetura pelagica]	Common Nighthawk (Chordeiles minor)	Factors Mondowlark



Species	Provincial ESA Status	COSEWIC	Federal SARA Status	Habitat Requirements	Source	Likelihood of Occurrence	Site Area Sultability/Observations
Eastern Ribbonsnake (Thamnophis sauritus)	Special Concern	Special Concern	Special	The Eastern Ribbonsnake is usually found close to water, especially in marshes, where it hunts for trogs and small fish. A good swimmer, it will dive in shallow water, especially if it is fleeing from a potential predator. At the onset of cold weather, these snakes congregate in underground burrows or rock crevices to hibernate together (MECP, 2020).	ORAA	Low	Habitat requirements are not ideal on the Subject Property. It is possible that Eastern Ribbonsnakes utilize the wetlands on the west side of the Subject Property.
Eastern Small-footed Myotis (Myotis leibii)	Endangered	Not Listed	Not Listed	In the spring and summer, eastern small-footed bats will roost in a variety of habitats, including in or under rocks, in rock outcrops, in buildings, under bridges, or in caves, mines, or hollow trees. These bats often change their roosting locations every day. At night, they hunt for insects to eat, including beetles, mosquitos, moths, and flies. In the winlet, these bats hibernate, most often in caves and abandoned mines. They seem to choose colder and direr sites than similar bats and will return to the same spot each year (MNRF, 2019).	iNaturalist	Low	Roosting and feeding habitat exists on the Subject Property. It is possible Eastern Small-footed Myotis utilize the Subject Property in the summer season.
Eastern Whip-poor-will Caprimulgus vociferus}	Threatened	Threatened	Threatened	The Eastern Whip-poor-will is usually found in areas with a mix of open and forested areas, such as sovannahs, open woodlands or openings in more mature, deciduous, conflerous and mixed forests. If forages in these open areas and uses forested areas for roosting (resting and sleeping) and nesting. Eggs are laid directly on the forest floor, where their colouring prevents detection by visual predators (ANRF, 2018).	OBBA	Negligible	Suitable habitat is not present on the Subject Property.
Eastern Wood-pewee (Contopus virens)	Special	Special	Special Concern	In Canada, the Eastern Wood-pewee is mostly associated with the mid-canopy layer of forest cleanings and edges of deciduous and mixed forests. It is most abundant in forest stands of infermediates of deciduous and mixed forests, it is most abundant in forest stands of infermediate, and in mature stands with little understory vegetation. During migration, a variety of habitats are used, including forest edges, early successional clearings, and primary and secondary lowland (and submontane) tropical forest, as well as cloud forest. In South American in the winter, the species primarily uses open forest, shrubby habitats, and edges of primary forest. It also occurs in interior forests where tree-fall gaps are present. (COSEWIC, 2012)	OBBA	Medium	Habitat requirements exist throughout the forested areas of the Subject Property, so it is reasonable to anticipate Eastern Wood-pewee may utilize the property. A finning window restriction for vegetation removal of April 15 to August 31 is suggested for any future development.
Evening Grosbeak Coccothraustes vespertinus	Special	Special Concern	Special Concern	During the breeding season, the 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 Budwarn. Outside the breeding season, the species depends mostly on seed crops from tree species in the borneal lorest such as firs and spruces. It is also attracted to ornamental trees that have seeds or fruit, and may visit bird feeders (MNRF, 2019).	OBBA	Low	Habitat requirements are not ideal on the Subject Property, but it is possible that Evening Grosbeak utilize the wooded areas of the property.
Golden-winged Warbler	Special Concern	Threatened	Threatened	Golden-winged Warblers prefer to nest in areas with young shrubs surrounded by mature forest, locations that have recently been disturbed, such as field edges, hydro or utility right-of-ways, or logged areas (MNRF, 2018).	OBBA	Negligible	Habitat requirements are not present on the Subject Property.
Grasshopper Sparrow (Ammodramus savannarum)	Special	Special	Special	If lives in open grassland areas with well-drained, sandy soil. It will also nest in hayfields and pasture, as well as alvars, prairies and occasionally grain crops such as barley. It prefers areas that are sparsely vegetated. Its nests are well-hidden in the field and woven from grasses in a small cup-like shape. The Grasshopper Sparrow is a short-distance migrant and leaves Ontario in the fall to migrate to the southeastern United States and Central America for the winter (MNRF, 2018).	OBBA	Negligible	Habitat requirements are not present on the Subject Property.
Little Brown Myotis (Myotis lucifugus)	Endangered	Endangered	Endangered	During the day Little Brown Myotis roost in trees and buildings. They often select aftics, abandoned buildings and barns for summer colonies where they can raise their young. Little brown bats hibernate from October or November to March or April, most often in caves or abandoned mines that are humid and remain above treezing (MNRF, 2019).	iNaturalist	Low	Roosting and feeding habital exists on the Subject Property. It is possible Little Brown Myotis utilize the Subject Property in the summer season.

Project Number 7420



Species	Provincial ESA Status	COSEWIC	Federal SARA Status	Habitat Requirements	Source	Likelihood of Occurrence	Site Area Suitability/Observations
Monarch (Danaus plexippus)	Special Concern	Endangered	Special Concern	Throughout their life cycle, Monarchs use three (3) different types of habitat. Only the caterpillars feed on milkweed plants and are confined to meadows and open areas where milkweed grows. Adult butterflies can be found in more diverse habitats where they feed on nectar from a variety of wildflowers (MNRF, 2019).	iNaturalist	Negligible	Habitat requirements are not present on the Subject Property.
Short-eared Owl (Asio flammeus)	Special Concern	Special Concern	Special	The Short-eared Owl lives in open areas such as grasslands, marshes and tundra where it nests on the ground and hurts for small mammals, especially voles (MNRF, 2019). Short-eared Owls nest on the ground amid grasses and low plants. They usually choose dry sites—often on small knolls, ridges, or hummocks—with enough vegetation to conceal the incubating female (Cornell University, 2019).	OBBA	Negligible	Habitat requirements are not present on the Subject Property.
Tri-colored Bat Perimyotis subflavus	Endangered	Endangered	Endangered	During the summer, the Tri-colored Bat is found in a variety of forested habitals. It forms day roosts and maternity colonies in older forest and occasionally in barns or other structures. They forage over water and along siteams in the forest. Tri-colored Bats earl tilping insects and spiders gleaned from webs. At the end of the summer they travel to a location where they swarm; it is generally near the cave or underground location where they will overwinter. They overwinter in caves where they typically roost by themselves rather than part of a group (MNRF, 2019).	iNaturalist	Medium	Summer habitat requirements are found on the Subject Property. Known hibernacula is <10 km away. It is reasonable to anticipate that Tricolored Bats utilize the Subject Property in the summer.
Wood Thrush (Hylocichla mustelina)	Special Concern	Threatened	Threatened	During the breeding season, the Wood Thrush is found in moist, deciduous hardwood or mixed stands, often previously disturbed, with a dense deciduous undergrowth and with tall trees for singing perches (Gauthier and Aubry 1995; Friesen et al. 1999; Holmes and Sherry 2001; Friesen 2007; Evans et al. 2011; Suarez-Rubio et al. 2011). It is noted that in southand, other Mood Thrush prefers second-growth over mature forests (Peck and James, 1987).	OBBA	High	Habitat requirements are found throughout the Subject Property. It is likely that Wood Thrush utilize the Subject Property.



5.0 Impact Assessment and Mitigation

Any future site development works including building erection, grading, and pavement development have the potential to incur adverse impacts on the surrounding environment including natural heritage features, sensitive species (e.g. SAR), and/or significant wildlife habitat (often described under the umbrella of Valued Ecosystem Components (VECs), particularly concerning works in undeveloped natural landscapes. Locally specific mitigation measures are implemented to prevent or mitigate impacts to the VECs identified.

To address any potential impacts to the existing natural features or any potential wildlife species of conservation concern, which may reside in the area, as shown in **Table 1**, the following mitigation measures should be implemented.

5.1 General Recommendations

The following general recommendations should be applied to any future development:

- A response plan should be developed that will be implemented immediately in the event of a sediment release or spill of a deleterious substance.
- An emergency spill response kit, including the appropriate absorbency materials, will be on site at all times. Proper containment, clean up and reporting, in accordance with provincial requirements, is required.
- All necessary precautions must be taken to prevent the accumulation of litter
 and construction debris within any natural areas outside of the construction
 limits. Daily inspections and clean-up must take place. A log is to be
 maintained.
- Upon project completion, all construction materials must be removed off-site.

5.2 Valued Ecosystem Components

The location of the proposed severances would not negatively impact any linkages, nor create any fragmentation of wetland or woodland habitat. The location of the proposed severances is at the northeastern side of the property, fronting McCrackens Landing Road, with agricultural lands directly opposite. Due to the impacted nature of the adjacent properties, and the presence of McCrackens Landing Road, no connection to valuable habitat would be lost as a result of the proposed severances.

The woodlands contain common, native species that have not experienced major reductions in their representation on the landscape in Ontario. Development within or adjacent to this community type would have negligible impact to overall woodland diversity and richness in this planning area.

However, the potential for minor impacts to the woodland feature exist with development and as such, the following measures should be implemented:



- Vegetation removal within the woodlands should be limited to the area of construction, and the disturbed area (buildings/structures) should not exceed 25% of the total developable area;
- Any future development should limit the amount of impermeable surfaces to 10% of the total developable area; and,
- It is recommended that construction activities aim to retain as much native vegetative cover as possible. Following any development, native tree species that are representative of the overall woodland community should be planted in as much of the disturbed area as possible.

As three (3) wetlands have been confirmed on the Subject Property, no development should occur within 30 m of any wetland boundary, to provide a sufficient buffer between development and the wetland (**Figure 4**). The buffer for the easternmost wetland extends into the smaller proposed severance, and the larger proposed severance. Any future development plans must consider these buffers.

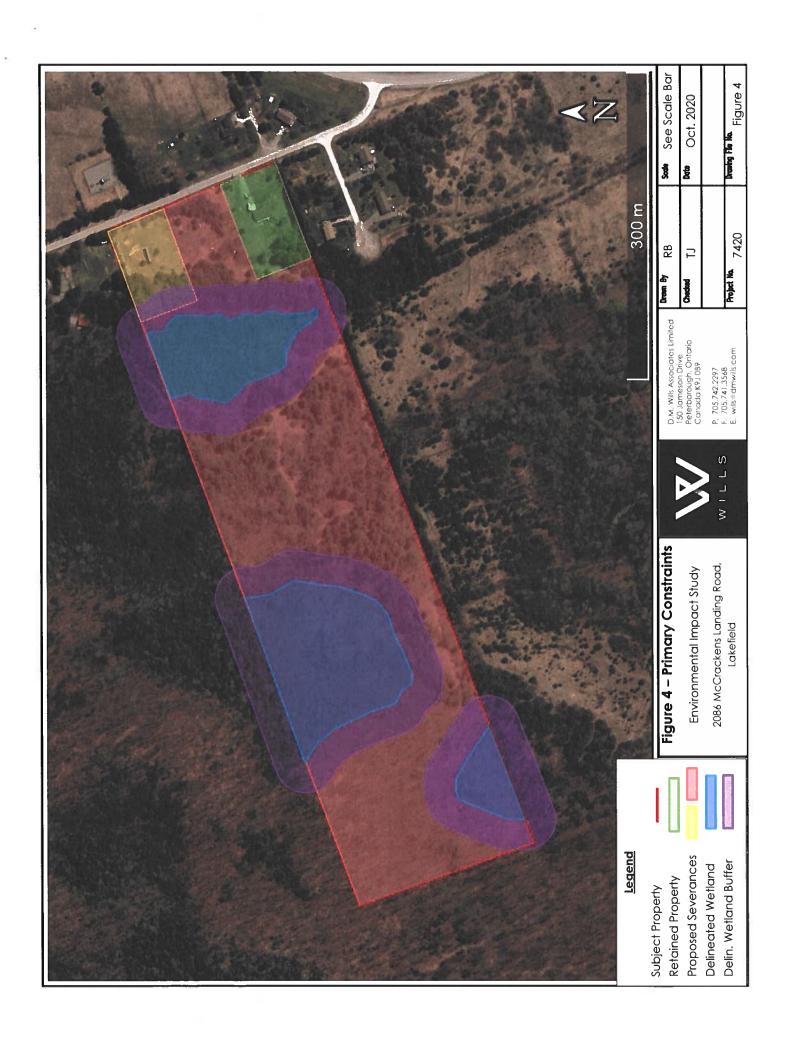
5.3 Species at Risk

Background review determined 20 species of conservation concern had recent or historically confirmed presence in the area surrounding the Subject Property. The SAR Screening Assessment (**Table 1**), identified suitable habitat on the Subject Property for ten (10) of those species.

All suitable SAR habitat was found to occur in the woodland and wetlands covering the western area of the Subject Property; the area proposed for the retained lot and the smaller proposed severance are not suitable SAR habitat, nor is the area between those two (2) proposed parcels. Therefore, it is of the opinion of Wills that development of residential buildings in areas east of the easternmost wetland on the Subject Property would not impact existing SAR habitat.

5.4 Wildlife

- Any vegetation clearing must occur outside of the breeding bird season of April 15th to August 31st. If this time period is unavoidable, alternatively, a nest sweep must be conducted by a qualified biologist, prior to any clearing of vegetation on-site.
- If, during a nest sweep, any breeding birds and/or nests are encountered, all
 construction activities should cease and a buffer should be placed around the
 nest until after August 31st, or as soon as the young have permanently left the
 nest. The size of the buffer will be dependent on the species and should be
 consulted with the MNRF and/or MECP.
- The MECP and/or MNRF must be contacted in the case that any rare or SAR species are identified during pre-construction or throughout the construction phases.





6.0 Conclusions

Given the results of background review and on-site investigations, long-term adverse impacts to natural heritage features, associated habitat, and local wildlife populations are not anticipated to be resultant from the proposed severances and eventual development, provided that the environmental protection/mitigation measures outlined herein are implemented. Appropriate implementation of the mitigation measures outlined herein will ensure that proposed activities do not conflict with the natural heritage policies set out by the County of Peterborough, the Province of Ontario (Provincial Policy Statement, 2020), or other relevant environmental legislation.

If you have any further questions, please do not hesitate to contact the undersigned.

Tyler Jones, B.Sc. Dipl. FWT

Senior Biologist

Shawn Filteau, B.Sc.

Natural Science Group Leader

RB/TJ/SF/bam



7.0 References

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Appendix A

Statement of Limitations



Statement of Limitations

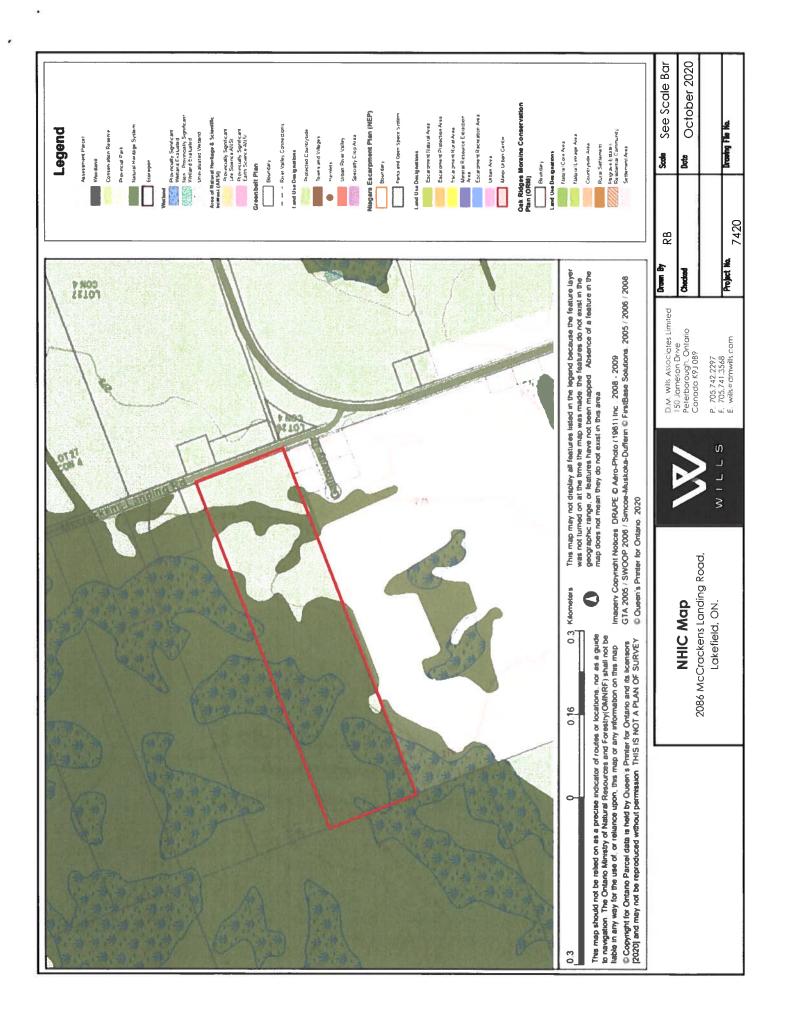
This report is provided solely for the benefit of Donna and Steve Kelly and not for the benefit of any other party. No other party shall be entitled to rely on this report or any information, documents, records, data, interpretations, advice or opinions or other materials given to Donna and Steve Kelly by D.M. Wills Associates Limited (Wills). The report relates solely to the specific project for which Wills has been retained and shall not be used or relied upon by any third party for any variation or extension of this project or any other purpose. Any unpermitted use by any third party shall be at such party's own risk.

The conclusions and recommendations outlined in the Environmental Impact Study are based on the results and findings associated with the scope of field investigations as outlined in **Section 5.0** of this report, as they relate to the Project, as described in **Section 1.0**.

Appendix B

NHIC Map





Appendix C

Records of Correspondence



From:

Ben Radford

To:

"Species at Risk (MECP)"

Subject:

2086 MacCracken"s Landing Road SAR Information Request

Date:

September 28, 2020 11:24:00 AM

Attachments:

image001.ipg

Good morning,

My name is Ben Radford from D.M. Wills Associates Limited in Peterborough. We have been contracted to complete a SAR evaluation for a property located at 2086 MacCracken's Landing Road in MacCracken's Landing near Stoney Lake.

Through preliminary background research, the following SAR have the potential to be present on the Subject Property:

- Short-eared Owl (Special Concern)
- Common Nighthawk (Special Concern)
- Eastern Whip-poor-will (Threatened)
- Eastern Wood-pewee (Special Concern)
- Barn Swallow (Threatened)
- Wood Thrush (Special Concern)
- Golden-winged Warbler (Special Concern)
- Canada Warbler (Special Concern)
- Grasshopper Sparrow (Special Concern)
- Bobolink (Threatened)
- Eastern Meadowlark (Threatened)
- Evening Grosbeak (Special Concern)
- Bald Eagle (Special Concern)
- Chimney Swift (Threatened)
- Northern Map Turtle (Special Concern)
- Common Five-lined Skink (Southern Shield Population, Special Concern)

If you could please confirm and/or add to this list, as well as provide the breeding bird timing window and the turtle nesting season, that would be greatly appreciated.

Thanks, Ben

Ben Radford, B.Sc. · Project Biologist

D.M. Wills Associates Limited

150 Jameson Drive · Peterborough, ON · K9J 0B9 Cell: 705-768-4296 · Fax: (705) 748-9944

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From:

Mike Brown

To: Jeffrey Van Egmond

Subject: Date: Re: Preliminary Severance Review (PSR) - Kelly February 6, 2020 6:35:51 AM

Date: Attachments:

image001.jpg image003.png

Thanks Jeff.

Keep me in the loop of your discussions with Donna. I'm working from home today but available to discuss.

Thanks again,

Mike

Get Outlook for iOS

From: Jeffrey Van Egmond < jvanegmond@dmwills.com>

Sent: Wednesday, February 5, 2020 4:45 PM

To: Donna Kelly

Subject: RE: Preliminary Severance Review (PSR) - Kelly

Good afternoon Donna.

I would be happy to assist you with your needs to get your severance application through the Township's review.

Based on my review, it appears that you would require a Environmental Impact Assessment, and a Hydrogeological Study on the basis of the County's Official Plan, and the Township's Policy Statement. Our firm is very well suited to assist you with this work. We also have an in-house land use planning department, who could also assist with the navigation of the severance review process.

We could provide you with a quotation to complete this work. It would be great to connect to go over some details on your needs, timelines, and any additional documentation/correspondences you may have in this regard.

I am available by cell phone only tomorrow (705) 768-3914, but will have access to email.

We are happy to help you out with all of the "pieces" you need to get this through.

Cheers,

Jeff

Wills_Logo

?

Jeffrey

?

Van Egmond, H.B.Sc.(Agr.) Senior Environmental Project Manager

D.M. Wills Associates Limited 150 Jameson Drive · Peterborough, ON · K9J 089 Tel: (705) 742-2297 ext. 243 · Fax: (705) 748-9944

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retransmission, conversion to hard copy, copying, circulation or other use of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

From: Donna Kelly <kellysofhg@hotmail.com>

Sent: January 31, 2020 2:30 PM

Subject: Fw: Preliminary Severance Review (PSR) - Kelly

Hi

We are looking for an estimate of what it will cost us to move forward with this severance. Can you please let us know how much it would cost to have the required studies etc done and which requirements you will be able to fulfill so we know if we have to look elsewhere for other requirements to be met.

If you need to contact one of us during the day please call Donna at work 705-652-8392 ext. 202

Thank you and have a nice weekend.

Donna & Steve Kelly

From: Tonello, Zachary < ZTonello@ptbocounty.ca

Sent: Tuesday, January 28, 2020 1:58 PM

To: Donna Kelly < DonnaK@dourodummer.on.ca>

Cc: Holden, Keziah < KHolden@ptbocounty.ca >; Robinson, Caitlin < CRobinson@ptbocounty.ca >; Crystal McMillan

<crystal@dourodummer.on.ca>; Matt Wilkinson <mwilkinson@otonabeeconservation.com>

Subject: Preliminary Severance Review (PSR) - Kelly

Good afternoon.

The County Planning Department has had the opportunity to complete a Preliminary Severance Reviews for the above noted lands. The severance proposal does not conform to the Provincial Growth Plan, County Official Plan and Township Official Plan. The proposed severed parcels are located within 120 meters of key hydrologic features (i.e. wetlands). In accordance with Section 4.2.4.1 of the Growth Plan, an Environmental Impact Study (EIS) will be required in support of the proposed severances. Please refer to comments from ORCA regarding the EIS. Furthermore, the severed parcels are located within 500 metres of a closed waste disposal site and is subject to further study and approval in accordance with the policies in Section 6.2.18.3 (c) of the Township Official Plan. Lastly, severed parcel #2 exceeds 1 hectares in area, contrary to Section 6.2.2.5(d)(ii) of the Township Official Plan. Staff suggest severed parcel #2 and the retained parcel be "switched" as the retained parcel conforms to the lot area requirements.

Please read through the attached review carefully and feel free to contact me if you have any questions.

By copy of this email I am making the Township and Conservation Authority aware of your proposal.

Best, Zachary Tonello Planning Technician 705-743-0380 x2405 From: To: Cc: Subject: Matt Wilkinson
Tonello, Zachary
Jasmine Gibson
FW: PSR- Kelly

Date: Attachments: January 27, 2020 9:37:37 AM

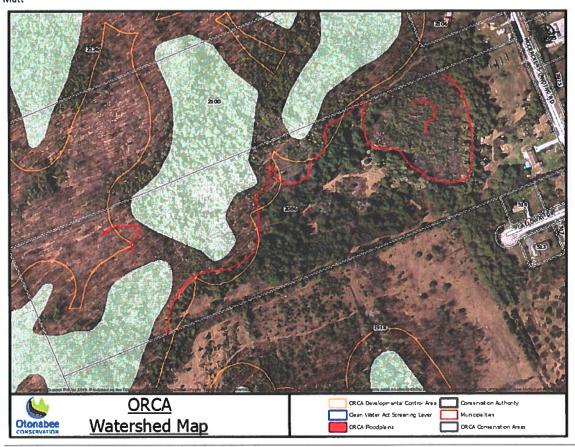
Re: two severances and a retained at 2086 Mc Crackens Landing Roll 150602000410800

Hi Zach,

Here's what I'm thinking:

- A wetland boundary assessment on the majority of the property. There is an area on the imagery I am suggesting be
 mapped as possible wetland that should be assessed and assigned a 30 metre buffer.
- Proposed Severed Lot #1 is showing to be within 120 metres of the non-evaluated wetland and will require an EIS in support.
- Proposed Severed Lot #2 should have an EIS to establish a suitable building envelope; which may be associated with a site
 visit and
- · Species at Risk screening.

Best, Matt



From: Tonello, Zachary (ZTonello@ptbocounty.ca) [mailto:ZTonello@ptbocounty.ca]

Sent: Wednesday, January 22, 2020 2:22 PM

To: Matt Wilkinson < mwilkinson@otonabeeconservation.com>

Subject: RE: PSR- Kelly

Forgot to attach the maps.....

Best, Zachary Tonello Planning Technician 705-743-0380 x2405

From: Tonello, Zachary

Sent: January 22, 2020 2:21 PM

To: Matt Wilkinson < mwilkinson@otonabeeconservation.com>

Subject: PSR- Kelly

Hey Matt,

This PSR is proposing two severances but severance #2 is proposed to take over the existing lot lines. There are non-evaluated wetlands just within severance #2. I am unsure if this would be plausible from a conservation standpoint hence why I am seeking your comments.

Hope your week is going well.

Best, Zachary Tonello Planning Technician 705-743-0380 x2405

Appendix D

Site Photographs







Client Name: Donna and Steve Kelly

Site Location: 2086 McCrackens Landing

Road, Lakefield, Ontario

Photo Number: 1

Date:

September 28, 2020

Direction Photo Taken:

West

Description: SWM wetland community. Easternmost wetland on Subject Property.



Photo Number: 2

Date:

September 28, 2020

Direction Photo Taken:

East

Description:

FOM forest community located centrally on the Subject Property.





Photo Number: 3

Date:

October 22, 2020

Direction Photo Taken: South

Description: Central SWM wetland. This area was dominated by mature Eastern White Cedar.



Photo Number: 4

Date:

October 22, 2020

Direction Photo Taken:

Southwest

Description: View of FOD forest community on the west end of the Subject Property.

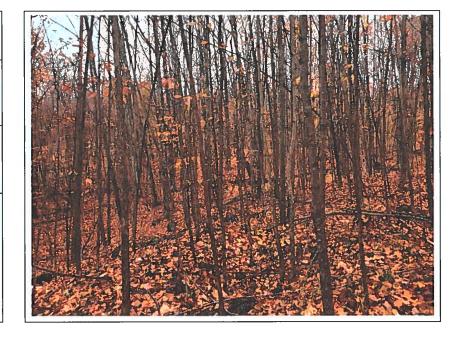






Photo Number: 5

Date:

October 22, 2020

Direction Photo Taken:

West

Description:

Boundary of SWM wetland (left) and FOD forest (right) located at the southwest area of the Subject Property.



Photo Number: 6

Date:

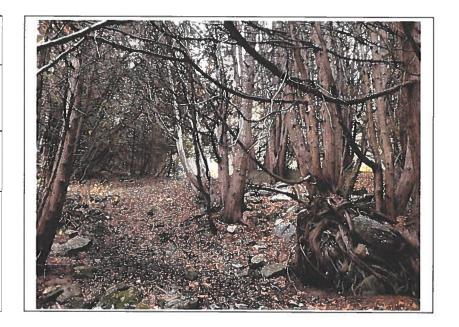
September 28, 2020

Direction Photo Taken:

Southwest

Description:

Mature Eastern White Cedars line a trail on the eastern side of the Subject Property.



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