



INSIGHT  
ENVIRONMENTAL  
SOLUTIONS INC.

# Environmental Impact Study

263071 Wilder Lake Road, Southgate



**Prepared For:**

Tim and Sharon Roberts

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**Date:**

September 2021

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## 1.0 INTRODUCTION

Insight Environmental Solutions Inc., (IES) was retained by Tim and Sharon Roberts to undertake an Environmental Impact Study (EIS) for the proposed residential severances of the property identified as 263071 Wilder Lake Road, Southgate, Ontario (hereafter described as the 'Subject Property').

This EIS is designed to satisfy the requirements under Section 6.0: Natural Environmental Area of the Township of Southgate Official Plan. The property contains Significant Woodland, Unevaluated Wetlands, Fish Habitat and Significant Wildlife Habitat as defined by the Provincial Policy Statement (2014). Additionally, the property is within a regulated area under Ontario Regulation 169/06 administered by the Saugeen Valley Conservation Authority (SVCA).

The purpose of this EIS is to identify natural heritage features and functions on or adjacent to the Subject Property, assess impacts of the proposed severance, and recommend mitigation measures to ensure that the significant natural features are not adversely affected. This EIS will demonstrate that the proposed consent complies with applicable environmental legislation, policies, and regulations at the provincial, regional and local levels.

### 1.1 STUDY AREA

The Subject Property is located at 263071 Wilder Lake Road, in the Township of Southgate, Grey County, Ontario. The Subject Property is approximately 200m long (north- south) and 475m wide (east-west) with an area of approximately 9.3 hectares. The Subject Property currently consists of a single residential home and associated servicing. Biological surveys were conducted on the western half of the Subject Property with detailed focus in the southwest corner. **Figure 1** shows the location of the Subject Property in a region context.

### 1.2 ADJACENT LAND USE

The property is bordered by woodland and residential development to the north, east, south and west. The southern border of the property abuts Wilder Lake Road.

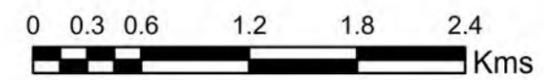
### 1.3 DEVELOPMENT PROPOSAL

The project proposes to sever the southwest corner of the legal parcel to create three adjacent lots measuring 41.1m X 61m with areas of 2507.1m<sup>2</sup>. Lots 1, 2 and 3 will be used for future residential development. The severance areas can be seen in **Figure 2**.



# Key Plan

263071 Wilder Lake Road,  
Southgate



## Legend

— Legal Parcel

Figure No.: 1  
 Project No.: IES21-36  
 Date: September 2, 2021  
 Scale: 1:40,000  
 Creator: Nicole Wajmer

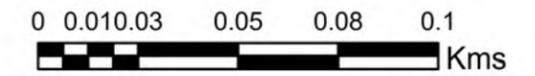


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Province of Ontario, Esri, Canada, Esri, HERE, Garmin, METI/NASA, USGS, EPA, NPS, USDA, NRCAN, Parks Canada

# Severance Areas

263071 Wilder Lake Road,  
Southgate



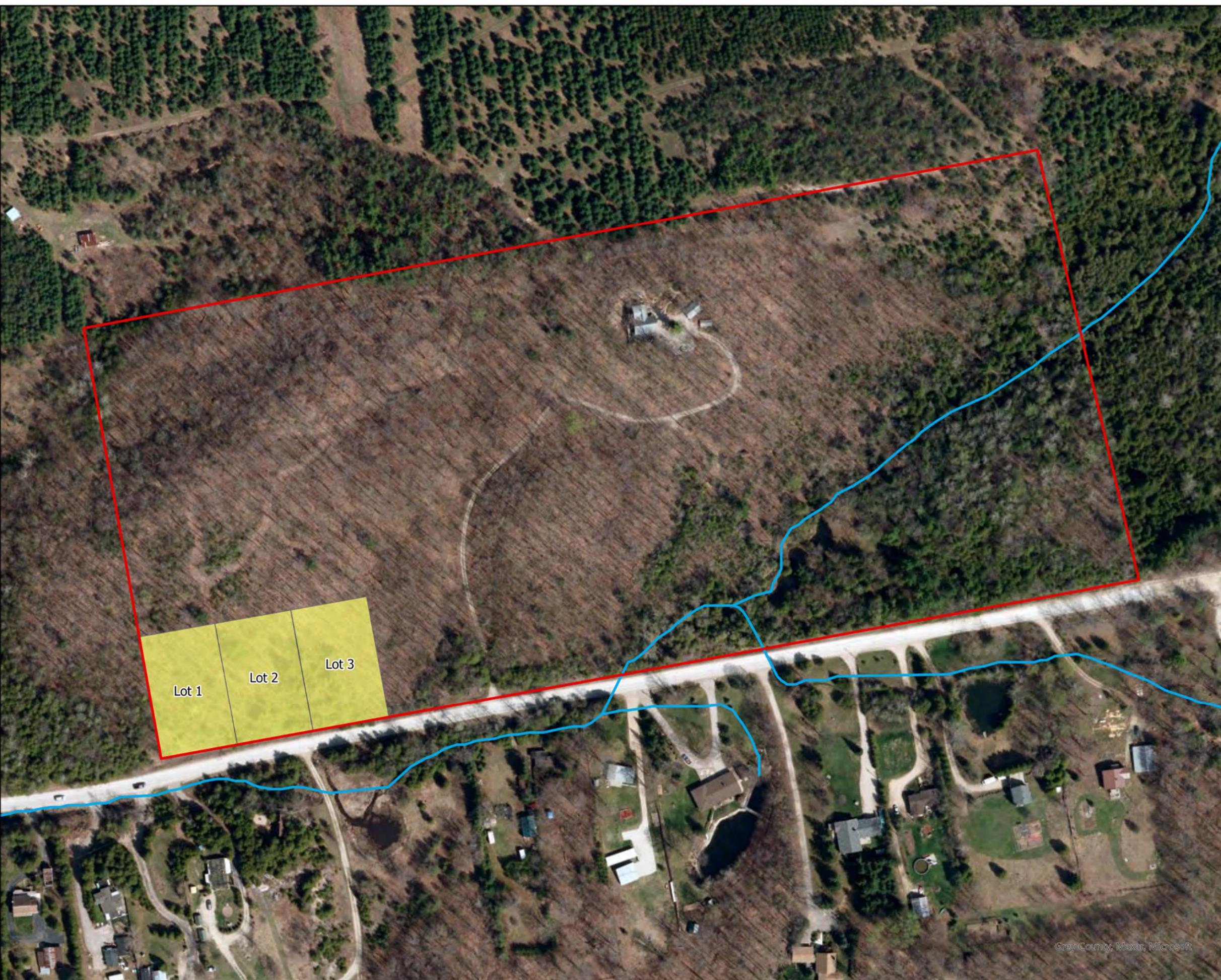
## Legend

-  Legal Parcel
-  Severance Areas (0.25ha / 0.62acre per Lot)
-  Camp Creek

Figure No.: 2  
Project No.: IES21-36  
Date: September 2, 2021  
Scale: 1:1,800  
Creator: Nicole Wajmer



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## 2.0 METHODOLOGIES

### 2.1 BACKGROUND REVIEW

Background documents and supporting technical documents containing information relevant to the biophysical features of the Subject Property were gathered and reviewed. This included the following sources:

1. Township of Southgate Official Plan
2. Grey County Official Plan
3. Provincial Policy Statement (2014)
4. Endangered Species Act (2007)
5. Ministry of Natural Resources and Forestry. Make A Map: Natural Heritage Areas. Interactive Map (2021)
6. Ministry of Natural Resources and Forestry Natural Heritage Reference Manual (2010)
7. Ministry of Agriculture, Food and Rural Affairs – AgMaps Interactive Map (2021)
8. Ontario Reptile and Amphibian Atlas (ORAA)
9. Ontario Breeding Bird Atlas (OBBA)
10. Ebird
11. Google Earth Imagery

### 2.2 PROTOCOL FOR VEGETATION COMMUNITY AND STRUCTURE ANALYSIS

Vegetation communities were mapped and described according to the Ecological Land Classification (ELC) system for Southern Ontario (Lee et al., 2008), which involved delineating vegetation communities on an aerial photograph of the property and recording pertinent information concerning the structure and composition of the vegetation in each community. At the same time as vegetation community mapping was undertaken, a plotless floral inventory occurred, which consisted of a compilation of a list of plants observed on the property, as well as the height and cover of each layer and the dominant species in each layer.

### 2.3 FLORISTIC QUALITY ASSESSMENT

According to Swink and Wilhelm (1994) Floristic Quality Assessment (FQA) is a method to assess the floristic integrity of vegetation communities. FQA is used to determine the significance and amount of restoration required for individual vegetation communities. This assessment provides a dependable and repeatable method for evaluating the relative significance of vegetation communities in terms of their native floristic composition. This assessment is not intended for use as a stand-alone method, but instead can be applied to complement and support other methods of evaluating the natural quality of a site.

### 2.3.1 Floristic Quality Index

FQA is applied by calculating a mean Coefficient of Conservatism (CC) value and a Floristic Quality Index (FQI) value from a comprehensive list of plant species obtained from a particular site (Swink and Wilhelm 1994; Wilhelm and Masters 1995). FQI determines the quality of a vegetation community based on its plant species composition and relative abundance.

Coefficients of conservatism range from 0 - 10 and embody an estimated probability that a plant is likely to occur in a landscape relatively unaltered from what is believed to be pre-European settlement condition. Therefore, a coefficient of zero is given to plants that have demonstrated little fidelity to any remnant natural community, while a coefficient of ten is applied to those plants that are almost always restricted to a pre-settlement remnant.

FQI is calculated by summing the CC of an inventory of plants and dividing by the total number of plant taxa (n), yielding the mean coefficient of conservatism (Mean CC = Sum of CC /n). The Mean CC is then multiplied by the square root of the total number of plants (n) to yield the FQI (FQI = Mean CC  $\sqrt{n}$ ). The square root of n is used as a multiplier to transform the Mean CC and allow for better comparison of the FQI between large sites with a high number of species and small sites with fewer species. Other methods used to determine the significance of each vegetation community include relative abundance, size and level of anthropogenic disturbance.

Based upon the above criteria, vegetation communities were classified as follows:

- Rare and Extremely Significant if community FQI value was greater than 50;
- High Significance if community FQI value was between 37 and 49;
- Moderate to High Significance if community FQI value was between 25 and 36;
- Moderate Significance if community FQI value was between 13 and 24; or
- Low Significance if community FQI value was less than 12.

## 2.4 WETNESS INDEX

The Floristic Quality Assessment System for Southern Ontario (1995) identifies several components to assess the floristic integrity of vegetation communities. One of the components is the Wetland Index (W). The wetness index allows a mean wetness value to be calculated which is used for evaluating the predominance of upland or wetland species for a natural area or vegetation community.

The National Wetland Indicator Categories define the estimated probability for which a species occurs in wetlands (Reed 1988, Wilhelm 1989, 1992). Positive signs (+) indicating a dry tendency and negative signs (-) indicating a wet tendency are attached to the three "facultative" categories to express the tendencies for those species (Reed 1988). Coefficients of wetness values have been assigned by Wilhelm (1989, 1992) to the eleven wetland indicator categories. Plants are designated as Obligate Wetland, Facultative Wetland, Facultative, Facultative Upland, and Obligate Upland.

Coefficients of wetness (CW) of taxa recorded from a site inventory (n) can be averaged and the mean regarded as a wetness index ( $W = \sum CW / n$ ). If the wetness index is zero or below, then the site has a predominance of wetland species (Wilhelm 1989).

Wetland Category		Definition	Wetness Index	
OBL	Obligate Wetland	Occurs almost always in wetlands under natural conditions (estimated >99% probability)	OBL	-5
FACW	Facultative Wetland	Usually occurs in wetlands, but occasionally found in non-wetlands (estimated 67 -99% probability)	FACW+	-4
			FACW	-3
			FACW-	-2
FAC	Facultative	Equally likely to occur in wetlands or non-wetlands (estimated 34-66% probability)	FAC+	-1
			FAC	0
			FAC-	1
FACU	Facultative Upland	Occasionally occurs in wetlands, but usually occurs in non-wetlands (estimated 1-33% probability)	FACU+	2
			FACU	3
			FACU-	4
UPL	Upland	Occurs almost never in wetlands under natural conditions (estimated <1% probability)	UPL	5

## 2.5 WILDLIFE AND WILDLIFE HABITAT

Wildlife surveys and habitat quality assessments were completed throughout the study area. These surveys were chosen based on consultation with regulatory agencies, a thorough background review of available data and a visual assessment of potential ecological communities from photo interpretation.

### 2.5.1 Incidental Wildlife Surveys

A wildlife assessment within the study area was completed during the breeding bird window (May 26 – July 10) through incidental observations while on site. Any incidental observations of wildlife were noted, as well as other wildlife evidence such as direct observation, vocalizations, dens, tracks, browse and scat. Random searches of natural objects that provide cover (large branches, logs, rocks) were conducted to search for reptiles and amphibians. Aquatic features were scanned using binoculars to identify any basking turtle species. Special focus was placed upon searching for Species at Risk individuals (SAR), habitat and habitat features such as vernal pools, dens, burrows (small and large), snake thermoregulation areas, tree cavities and basking sites.

## 2.6 SPECIES AT RISK SURVEY (SAR) METHODS

Field surveys were carried out to determine the potential population and distribution of SAR individuals and to delineate the habitat and habitat features within the study area. The survey was carried out to provide detailed and reliable information on SAR presence or absence, suitable habitat, habitat features,

location, distance from the proposed development, population size, management concerns and to ensure that the proposed development does not contravene the Endangered Species Act, 2007.

The search efforts were focused on inspecting sites and features with a high probability of supporting SAR. When documenting each SAR specimen/population, habitat or habitat feature the following data was recorded on paper and on a Global Positioning System (GPS):

1. Species (Scientific name)
2. Habitat or habitat feature
3. Location (Universal Transverse Mercator (UTM) co-ordinates)
4. Relative abundance

Points were used to delineate the location. UTM coordinates were recorded on hand-held GPS units, downloaded to a computer and mapped on an ortho-rectified digital air photo using a Geographic Information System (GIS).

### 3.0 EXISTING CONDITIONS

#### 3.1 FIELD SURVEY DATES AND WEATHER CONDITIONS

See **Table 1** for details on the local temperatures and weather conditions at the Subject Property during field investigations.

**TABLE 1: SURVEY FIELD DATES AND WEATHER CONDITIONS**

Date	Type of Surveys	Temperature (°C)	Cloud Cover (%)	Beaufort Wind Scale <sup>1</sup>	Precipitation Code <sup>2</sup>	Surveyor Names
July 7, 2021	Incidental Wildlife Survey and SAR Survey	17	100	0	0	Nicole Wajmer
July 21, 2021	Vegetation Survey, Ecological Land Classification, SAR Survey and Incidental Wildlife Survey	23	10	2	0	Jennifer Neill

<sup>1</sup>Beaufort Wind Scale: 0 (Calm); 1 (Light Air); 2 (Light Breeze); 3 (Gentle Breeze); 4 (Moderate Breeze); 5 (Fresh Breeze); 6 (Strong Breeze).

<sup>2</sup>Precipitation Codes: 0 (Clear); 1 (Fog); 2 (Light Drizzle); 3 (Light Rain); 4 (Moderate Rain); 5 (Heavy Rain); 6 (Thunder or Lighting).

### 3.2 NATURAL HERITAGE FEATURES

The Ministry of Natural Resources and Forestry (MNRF) recommends that natural heritage features within 120m of a proposed development and/or site alteration be examined for potential impacts (Natural Heritage Reference Manual, 2010).

The MNRF - make a map: natural heritage areas internet application indicates that the Subject Property supports list woodland, unevaluated wetland and a watercourse. Additional woodland and unevaluated wetland features are found within 120m of the Subject Property. Natural heritage features can be seen on **Figure 3**. Further discussion of these natural heritage features can be seen in **Section 4.5** of this EIS.

### 3.3 PHYSIOGRAPHY AND SOILS

According to the Ontario soils survey, report no. 29 (Hoffman, Wicklund, & Richards, 1962) and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) on-line interactive 'Ag Maps' Application the soil within the proposed severances areas is composed of Donnybrook Sandy Loam (Dos). Donnybrook Sandy Loam is very stony and rapidly drained.

### 3.4 HYDROLOGY

A watercourse known as Camp Creek crosses the southeast quadrant of the Subject Property. Two small ponds are found to the south of Camp Creek. Provincial mapping has identified unevaluated wetlands on the eastern portion of the Subject Property; however, this area was not verified during field investigations.

The Subject Property is within the Regulated Area of SVCA (**Figure 4**). The proposed severance areas have been identified as being within SVCA hazard lands, which triggered the need for this EIS. See **Section 4.6** of this EIS for more information on SVCA regulations.

### 3.5 TOPOGRAPHY

The topography associated with the legal parcel is Rolling Upland. According to Lee et al. (1998): Rolling Upland is a "site on a rolling topography with a complex or repeated pattern of ridges, slopes and hollows."



### Legend

-  Assessment Parcel
-  Woodland
-  Conservation Reserve
-  Provincial Park
-  Natural Heritage System
-  Ecoregion
- Wetland**
  -  Provincially Significant Wetland Evaluated
  -  Non - Provincially Significant Wetland Evaluated
  -  Unevaluated Wetland
- Area of Natural Heritage & Scientific Interest (ANSI)**
  -  Provincially Significant Life Science ANSI
  -  Provincially Significant Earth Science ANSI
- Greenbelt Plan**
  -  Boundary
  -  Greenbelt: External Connections
- Land Use Designations**
  -  Protected Countryside
  -  Greenbelt: Towns and Villages
  -  Greenbelt: Hamlets
  -  Urban River Valley
  -  Greenbelt: Specialty Crop Area
- Niagara Escarpment Plan (NEP)**
  -  Boundary
  -  Parks and Open Space System
- Land Use Designations**
  -  Escarpment Natural Area
  -  Escarpment Protection Area
  -  Escarpment Rural Area
  -  Mineral Resource Extraction Area
  -  Escarpment Recreation Area
  -  Urban Area
  -  Minor Urban Centre
- Oak Ridges Moraine Conservation Plan (ORM)**
  -  Boundary
- Land Use Designations**
  -  Natural Core Area
  -  Natural Linkage Area
  -  Countryside Area
  -  Rural Settlement
  -  Palgrave Estates Residential Community
  -  Settlement Area



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May 13, 2021



UTM Zone 17N, NAD 83

1:5000

**Legend**

-  Watercourse
-  SVCA Hazard Lands
-  SVCA Screenig Area

Tim Roberts  
 263071 Wilder Lake Road  
 Lot 3, Con 1  
 Roll No. 420706000103100  
 Egremont Township  
 Township of Southgate



### 3.6 FLORA AND VEGETATION COMMUNITIES

#### 3.6.1 Ecological Land Classification Vegetation Communities

The western half of the Subject Property contains two natural vegetation communities. These areas are described briefly below.

The Dry – Fresh White Cedar Coniferous Forest Type (FOCM2-2) occurs on the steep slope (including portions of the top of bank), that extends across the southwestern property boundary. A small pocket of FOCM2-2 also exists on the northwest corner of the Subject Property. **Photo 1** shows an example of site conditions as they were during field investigations.

The Dry – Fresh Sugar Maple – Hardwood Deciduous Forest Type (FODM5-9) occupies the remainder of the Subject Property. **Photo 2** shows an example of site conditions as they were during field investigations.

All vegetation communities surveyed within the Subject Property are considered widespread and common in Ontario and are secure globally. No SAR, provincially significant or regionally rare plant species were encountered during field investigations. **Table 2** describes the structure and dominance within each vegetation community.



**Photo 1:** FOCM2-2 community, looking west.



Photo 2: FODM5-9 community, looking west.

TABLE 2: SUMMARY OF ECOLOGICAL LAND CLASSIFICATION

Abbreviation	Vegetation Type	Species Association	Stand Description/ Comments
<b>TERRESTRIAL SYSTEM</b>			
FOCM2-2	Dry – Fresh White Cedar Coniferous Forest Type	<p><b>Canopy:</b> The canopy is dominated by Eastern White Cedar (<i>Thuja occidentalis</i>). Occasional species include Eastern Hemlock (<i>Tsuga canadensis</i>) and Trembling Aspen (<i>Populus tremuloides</i>).</p> <p><b>Subcanopy:</b> The subcanopy is dominated by Eastern White Cedar.</p> <p><b>Understory:</b> There is no visible understory.</p> <p><b>Groundcover:</b> The groundcover is dominated by leaf litter.</p>	<ul style="list-style-type: none"> <li>• Canopy: CVR &gt;60%, with heights 10&lt;HT&lt;25m. Dominant size class of 25-50cm Diameter at Breast Height (DBH).</li> <li>• Subcanopy: 25&lt;CVR&lt;60% with heights of 2&lt;HT&lt;10m. Dominant size class of 10-24cm DBH.</li> <li>• Understorey: 0%</li> <li>• Groundcover: CVR &gt;60%, with heights &lt;0.2m.</li> </ul>
FODM5-9	Dry – Fresh Sugar Maple – Hardwood Deciduous Forest Type	<p><b>Canopy:</b> The canopy is dominated by Sugar Maple (<i>Acer saccharum</i>) with abundant White Ash (<i>Fraxinus americana</i>) and Ironwood (<i>Ostrya virginiana</i>). Occasional species</p>	<ul style="list-style-type: none"> <li>• Canopy: CVR &gt;60%, with heights 10&lt;HT&lt;25m. Dominant size class of 25-50cm DBH</li> </ul>

TABLE 2: SUMMARY OF ECOLOGICAL LAND CLASSIFICATION

Abbreviation	Vegetation Type	Species Association	Stand Description/ Comments
		<p>include Black Cherry (<i>Prunus serotina</i>), and American Beech (<i>Fagus grandifolia</i>).</p> <p><b>Subcanopy:</b> The subcanopy is dominated by White Ash and Ironwood with abundant Sugar Maple.</p> <p><b>Understory:</b> The understory is dominated by Eastern Leatherwood (<i>Dircus palustris</i>) with abundant Alternate-leaved Dogwood (<i>Cornus alternifolia</i>) and occasional Blue-beech (<i>Carpinus caroliniana</i>) and Ironwood.</p> <p><b>Groundcover:</b> The groundcover is dominated by Black-seed Ricegrass (<i>Patis racemosa</i>), Plantain-leaved Sedge (<i>Carex plantaginea</i>), Early Meadow-rue (<i>Thalictrum dioicum</i>), Blue Cohosh (<i>Caulophyllum thalictroides</i>), Large False Solomon’s Seal (<i>Maianthemum racemosum</i>), Common Self-heal (<i>Prunella vulgaris</i>), Ironwood and Alternate-leaved Dogwood. Abundant species include White Trillium (<i>Trillium grandiflorum</i>), Canada Wild-ginger (<i>Asarum canadense</i>), Bristle-leaved Sedge (<i>Carex eburnea</i>), Graceful Sedge (<i>Carex gracillima</i>) Wild Lily-of-the-valley (<i>Maianthemum canadense</i>), Spreading Dogbane (<i>Apocynum androsaemifolium</i>) and White Ash.</p>	<ul style="list-style-type: none"> <li>• Subcanopy: 25&lt;CVR&lt;60% with heights of 2&lt;HT&lt;10m. Dominant size class of 10-24cm DBH.</li> <li>• Understorey: 0&lt;CVR&lt;10% with heights of 0.5&lt;HT&lt;2m.</li> <li>• Groundcover: CVR &gt;60%, with heights &lt;0.2 HT&lt;0.5m.</li> <li>• Community has an abundance of deadfalls/logs and rocks/boulders.</li> <li>• Disturbance history includes trails and blowdown with minimal invasives.</li> </ul>

### 3.6.2 Flora

A total of 93 vascular plant taxa were recorded within the study area (Table 3). Of the 93 species identified to a species level, 72 species (77%) are considered native to Ontario while 21 species (23%) are classified as non-native. The mean Coefficient of Conservatism (CC) is 31.25, indicating sufficient floristic quality to be of remnant natural quality. The Floristic Quality Index (FQI) is 30.49, indicating a moderate to high significance from a natural quality perspective. The Mean Coefficient of Wetness (CW) is 3.16 indicating a strong predominance of upland species.

TABLE 3: OBSERVED VASCULAR PLANT LIST

Scientific Name	Common Name	Status		
		SARA (SCH. 1) STATUS <sup>1</sup>	SARO STATUS <sup>2</sup>	SRANK <sup>3</sup>
<i>Abutilon theophrasti</i>	Velvetleaf			SE5
<i>Acer saccharum</i>	Sugar Maple			S5
<i>Acer spicatum</i>	Mountain Maple			S5
<i>Achillea millefolium</i>	Common Yarrow			SE5?
<i>Actaea pachypoda</i>	White Baneberry			S5
<i>Actaea rubra</i>	Red Baneberry			S5
<i>Adiantum pedatum</i>	Northern Maidenhair Fern			S5
<i>Agrimonia gryposepala</i>	Hooked Agrimony			S5
<i>Alliaria petiolata</i>	Garlic Mustard			SE5
<i>Allium tricoccum</i>	Wild Leek			S4
<i>Ambrosia artemisiifolia</i>	Common Ragweed			S5
<i>Anemonastrum canadense</i>	Canada Anemone			S5
<i>Anemone virginiana</i>	Tall Anemone			S5
<i>Apocynum androsaemifolium</i>	Spreading Dogbane			S5
<i>Aquilegia canadensis</i>	Red Columbine			S5
<i>Aralia nudicaulis</i>	Wild Sarsaparilla			S5
<i>Aralia racemosa</i>	American Spikenard			S5
<i>Asarum canadense</i>	Canada Wild-ginger			S5
<i>Athyrium filix-femina</i>	Common Lady Fern			S5
<i>Betula alleghaniensis</i>	Yellow Birch			S5
<i>Betula papyrifera</i>	Paper Birch			S5
<i>Bromus inermis</i>	Smooth Brome			SE5
<i>Carex blanda</i>	Woodland Sedge			S5
<i>Carex eburnea</i>	Bristle-leaved Sedge			S5
<i>Carex gracillima</i>	Graceful Sedge			S5
<i>Carex plantaginea</i>	Plantain-leaved Sedge			S5
<i>Carex rosea</i>	Rosy Sedge			S5
<i>Carpinus caroliniana</i>	Blue-beech			S5
<i>Caulophyllum thalictroides</i>	Blue Cohosh			S5
<i>Circaea canadensis</i>	Broad-leaved Enchanter's Nightshade			S5
<i>Cirsium arvense</i>	Canada Thistle			SE5
<i>Cornus alternifolia</i>	Alternate-leaved Dogwood			S5
<i>Cystopteris bulbifera</i>	Bulblet Bladder Fern			S5
<i>Dirca palustris</i>	Eastern Leatherwood			S4
<i>Elymus hystrix</i>	Bottlebrush Grass			S5
<i>Epipactis helleborine</i>	Broad-leaved Helleborine			SE5



TABLE 3: OBSERVED VASCULAR PLANT LIST

Scientific Name	Common Name	Status		
		SARA (SCH. 1) STATUS <sup>1</sup>	SARO STATUS <sup>2</sup>	SRANK <sup>3</sup>
<i>Equisetum arvense</i>	Field Horsetail			S5
<i>Equisetum hyemale</i>	Common Scouring-rush			S5
<i>Erigeron annuus</i>	Annual Fleabane			S5
<i>Fagus grandifolia</i>	American Beech			S4
<i>Fraxinus americana</i>	White Ash			S4
<i>Galium aparine</i>	Common Bedstraw			S5
<i>Galium mollugo</i>	Smooth Bedstraw			SE5
<i>Geranium robertianum</i>	Herb-Robert			S5
<i>Hepatica acutiloba</i>	Sharp-lobed Hepatica			S5
<i>Lactuca canadensis</i>	Canada Lettuce			S5
<i>Lathyrus latifolius</i>	Everlasting Pea			SE4
<i>Leucanthemum vulgare</i>	Oxeye Daisy			SE5
<i>Lotus corniculatus</i>	Garden Bird's-foot Trefoil			SE5
<i>Maianthemum canadense</i>	Wild Lily-of-the-valley			S5
<i>Maianthemum racemosum</i>	Large False Solomon's Seal			S5
<i>Melilotus albus</i>	White Sweet-clover			SE5
<i>Oenothera biennis</i>	Common Evening-primrose			S5
<i>Osmorhiza claytonii</i>	Hairy Sweet Cicely			S5
<i>Ostrya virginiana</i>	Ironwood			S5
<i>Parthenocissus vitacea</i>	Thicket Creeper			S5
<i>Patis racemosa</i>	Black-seed Ricegrass			S4
<i>Phryma leptostachya</i>	Lopseed			S4S5
<i>Plantago major</i>	Common Plantain			SE5
<i>Poa compressa</i>	Canada Bluegrass			SE5
<i>Podophyllum peltatum</i>	May-apple			S5
<i>Populus tremuloides</i>	Trembling Aspen			S5
<i>Prunella vulgaris</i>	Common Self-heal			S5
<i>Prunus serotina</i>	Black Cherry			S5
<i>Prunus virginiana</i>	Chokecherry			S5
<i>Pteridium aquilinum</i>	Bracken Fern			S5
<i>Rhamnus cathartica</i>	European Buckthorn			SE5
<i>Ribes cynosbati</i>	Eastern Prickly Gooseberry			S5
<i>Rubus allegheniensis</i>	Allegheny Blackberry			S5
<i>Rubus idaeus</i>	Red Raspberry			S5
<i>Rudbeckia hirta</i>	Black-eyed Susan			S5
<i>Rumex crispus</i>	Curled Dock			SE5

**TABLE 3: OBSERVED VASCULAR PLANT LIST**

Scientific Name	Common Name	Status		
		SARA (SCH. 1) STATUS <sup>1</sup>	SARO STATUS <sup>2</sup>	SRANK <sup>3</sup>
<i>Sambucus racemosa</i>	Red Elderberry			S5
<i>Sanguinaria canadensis</i>	Bloodroot			S5
<i>Smilax herbacea</i>	Herbaceous Carrionflower			S4?
<i>Solanum dulcamara</i>	Bittersweet Nightshade			SE5
<i>Solidago caesia</i>	Blue-stemmed Goldenrod			S5
<i>Solidago canadensis</i>	Canada Goldenrod			S5
<i>Solidago flexicaulis</i>	Zigzag Goldenrod			S5
<i>Sonchus arvensis</i>	Field Sow-thistle			SE5
<i>Streptopus lanceolatus</i>	Rose Twisted-stalk			S5
<i>Tanacetum vulgare</i>	Common Tansy			SE5
<i>Thalictrum dioicum</i>	Early Meadow-rue			S5
<i>Thuja occidentalis</i>	Eastern White Cedar			S5
<i>Tilia americana</i>	Basswood			S5
<i>Toxicodendron radicans</i>	Poison Ivy			S5
<i>Trillium erectum</i>	Red Trillium			S5
<i>Trillium grandiflorum</i>	White Trillium			S5
<i>Tsuga canadensis</i>	Eastern Hemlock			S5
<i>Tussilago farfara</i>	Coltsfoot			SE5
<i>Veronica officinalis</i>	Common Speedwell			SE5
<i>Viola odorata</i>	English Violet			SE2
<i>Vitis riparia</i>	Riverbank Grape			S5

<sup>1</sup> Species at Risk Act (SARA) Schedule 1 Status: END (Endangered); THR (Threatened); SC (Special Concern); NAR (Not at Risk)

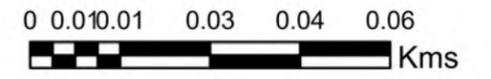
<sup>2</sup> Species at Risk in Ontario (SARO) Status: END (Endangered); THR (Threatened); SC (Special Concern); NAR (Not at Risk)

<sup>3</sup> S-Rank (Provincial): S1 (Critically Imperiled), S2 (Imperiled), S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure), S#B (Breeding), SNA (Species Not Suitable Target for Conservation Activities)



# Severance Areas

263071 Wilder Lake Road,  
Southgate



## Legend

- Legal Parcel
- Limit of Survey
- Camp Creek
- Camp Creek Buffer (30m)
- Severance Areas
- Eastern Wood-pewee
- ELC Community
- FOCM2-2: Dry - Fresh White Cedar Coniferous Forest Type
- FODM5-9: Dry - Fresh Sugar Maple - Hardwood Deciduous Forest Type

Figure No.: 5  
Project No.: IES21-36  
Date: September 2, 2021  
Scale: 1:1,200  
Creator: Nicole Wajmer



INSIGHT  
ENVIRONMENTAL  
SOLUTIONS INC.

### 3.7 FAUNA AND WILDLIFE HABITAT

A total of 16 wildlife species were identified within the study area or in the adjacent lands field investigations (**Table 4**). These species were identified either through auditory and visual observations or through evidence of occurrence. Of the 16 species identified, there were 14 bird species and two mammal species.

#### 3.7.1 Birds

A total of 14 bird species were visually observed or identified through breeding calls during field investigations (**Table 4**). Of the 14 species of birds that were observed on or adjacent to the Subject Property, 11 species are protected under the *Migratory Birds Convention Act* (MBCA), which protects and conserves migratory birds and their nests during the breeding bird season. One SAR bird, Eastern Wood-pewee, listed as Special Concern was heard calling on the Subject Property (**Figure 5**). Further discussion of SAR birds can be found in **Section 4.1.2**.

The Subject Property and adjacent lands contain extensive woodland habitat that can support the breeding of generalist forest birds and species that utilize edge habitat and residential areas. The subject property provides interior habitat for area-sensitive forest breeding birds such as Eastern Wood-pewee, Pileated Woodpecker and Ovenbird.

#### 3.7.2 Herpetofauna

##### 3.7.2.1 Amphibians

The Ontario Reptile and Amphibian Atlas (ORAA) provides records of the following amphibian species within the 10 Km X 10 Km survey square that encompasses the proposed study area (square 17NJ18):

- American Bullfrog (*Lithobates catesbeianus*)
- Gray Treefrog (*Hyla Versicolor*)
- Green Frog (*Lithobates Clamitans*)
- Northern Leopard Frog (*Lithobates Pippiens*)
- Spring Peeper (*Pseudacris Crucifer*)
- Western Chorus Frog (*Pseudacris maculata pop. 1*)
- Wood Frog (*Lithobates Sylvaticus*)
- American Toad (*Anaxyrus Americanus*)
- Red-Spotted Newt (*Notophthalmus Viridescens Viridescens*).

No amphibian species were observed during field investigations. The proposed severance areas are in an upland forest with little hydrological features. The survey area contained little evidence that vernal pools are present in the spring. As such, the proposed severance areas do not contain suitable amphibian breeding habitat. A background review of arial photography has revealed that several ponds and

watercourses are present on lands adjacent to the proposed severance areas. These areas may provide suitable breeding habitat for amphibians.

### 3.7.2.2 Reptiles

The Ontario Reptile and Amphibian Atlas (ORAA) provides records of the following amphibian species within the 10 Km X 10 Km survey square that encompasses the proposed study area (square 17NJ18):

- Midland Painted Turtle (*Chrysemys picta marginate*)
- Snapping Turtle (*Chelydra serpentina*)
- Eastern Gartersnake (*Thamnophis sirtalis sirtalis*)
- Eastern Milksnake (*Lampropeltis triangulum*)

No reptile species were detected during field investigations. The proposed severance areas do not contain any permanent hydrological features that could support the foraging or hibernation habitat of turtles. However, the Subject Property and adjacent lands contain permanent waterbodies including ponds and Camp Creek, which could be considered suitable habitat for Midland Painted Turtle and Snapping Turtle. These species may incidentally utilize the proposed severance areas while travelling between winter and summer habitats, while searching for mates or while looking for suitable egg laying sites. As such, mitigation measures for SAR turtles should be implemented during any future construction (**Section 5.3**).

Eastern Gartersnake and Eastern Milksnakes utilize a variety of habitats including forests and forest edge. The proposed severance areas contain a heavy tree canopy and provide little thermoregulation opportunities for these species. The property contains cover object such as fallen tree and forest debris.

### 3.7.3 Mammals

Two mammal species were detected during field investigations (**Table 4**). All the mammal species that were identified on the Subject Property are tolerant of anthropogenically disturbed habitats and are considered secure (S5) in the province of Ontario.

TABLE 4: OBSERVED WILDLIFE SPECIES

Scientific Name	Common Name	Status	Protection				Location
		S-RANK <sup>1</sup>	COSEWIC STATUS <sup>2</sup>	SARA SCHEDULE <sup>3</sup> STATUS	SARO STATUS <sup>4</sup>	MBCA <sup>5</sup>	Outside Of Subject Property
<b>BIRDS</b>							
<i>Cathartes aura</i>	Turkey Vulture	S5B					
<i>Zenaidura macroura</i>	Mourning Dove	S5				^	
<i>Dryocopus pileatus</i>	Pileated Woodpecker	S5				^	
<i>Contopus virens</i>	Eastern Wood-pewee	S4B	SC	SC	SC	^	
<i>Cyanocitta cristata</i>	Blue Jay	S5					
<i>Corvus brachyrhynchos</i>	American Crow	S5B					
<i>Poecile atricapillus</i>	Black-capped Chickadee	S5				^	
<i>Troglodytes aedon</i>	House Wren	S5B				^	
<i>Turdus migratorius</i>	American Robin	S5B				^	
<i>Vireo olivaceus</i>	Red-eyed Vireo	S5B				^	
<i>Seiurus aurocapilla</i>	Ovenbird	S4B				^	
<i>Geothlypis trichas</i>	Common Yellowthroat	S5B				^	
<i>Spizella passerina</i>	Chipping Sparrow	S5B				^	
<i>Melospiza melodia</i>	Song Sparrow	S5B				^	
<b>MAMMALS</b>							
<i>Sciurus carolinensis</i>	Eastern Gray Squirrel	S5					
<i>Procyon lotor</i>	Northern Raccoon	S5					

<sup>1</sup> S-Rank (Provincial): S1 (Critically Imperiled), S2 (Imperiled), S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure), S#B (Breeding), SNA (Species Not Suitable Target for Conservation Activities)

<sup>2</sup> Committee on the Status of Endangered Wildlife in Canada (COSEWIC): EXP (Extirpated), END (Endangered); THR (Threatened); SC (Special Concern); NAR (Not at Risk); NA (Not Active); DD (Data Deficient)

<sup>3</sup> Species at Risk Act (SARA) Schedule 1 Status: END (Endangered); THR (Threatened); SC (Special Concern); NAR (Not at Risk)

<sup>4</sup> Species at Risk in Ontario (SARO) Status: END (Endangered); THR (Threatened); SC (Special Concern); NAR (Not at Risk)

<sup>5</sup> Migratory Birds Convention Act

## 4.0 IMPACTS, POLICY & ENVIRONMENTAL DESIGNATIONS

### 4.1 ENDANGERED SPECIES ACT (2007)

Ontario’s *Endangered Species Act*, 2007 (ESA) came into effect on June 30, 2008 and replaced the former 1971 Act. Under the ESA, species in Ontario are identified as Extirpated, Endangered, Threatened, or of Special Concern and each species is afforded different levels of protection. The ESA protects species listed as Threatened or Endangered by the Committee on the Status of Species at Risk in Ontario (COSSARO).

Section 9 of the ESA generally prohibits the killing or harming of a Threatened or Endangered species, as well as the destruction of its habitat. Section 10 of the ESA prohibits the damage or destruction of the habitat of all Endangered and Threatened species. A permit from the Ministry of the Environmental Conservation and Parks (MECP) is required under Section 17(2) (c) of the ESA for any works proposed within habitat of a Threatened or Endangered species.

#### 4.1.1 NHIC Species At Risk Records

The NHIC Make-a-Map online application was investigated to search for records of SAR and species of Conservation Concern within 1 km of the legal parcel (**Table 5**).

**TABLE 5: SPECIES AT RISK NOTED BY NHIC**

Scientific Name	Common Name	S-Rank <sup>1</sup>	COSEWIC STATUS <sup>2</sup>	SARO STATUS <sup>3</sup>	Suitable Habitat or Feature in Severance Areas	Key Habitats Used by Species <sup>4</sup>	Observed During 2021 Field Survey
<b>NHIC 1 Km Search Species</b>							
<i>Chelydra serpentina</i>	Snapping Turtle	S3	SC	SC	No	Slow-moving water with a soft mud or sand bottom and abundant vegetation (MNR, 2014). ESA Protection: N/A.	No

<sup>1</sup> S-Rank (Provincial): S1 (Critically Imperiled), S2 (Imperiled), S3 (Vulnerable), S4 (Apparently Secure), S5 (Secure), S#B (Breeding), SNA (Species Not Suitable Target for Conservation Activities)

<sup>2</sup> Committee on the Status of Endangered Wildlife in Canada (COSEWIC): EXP (Extirpated), END (Endangered); THR (Threatened); SC (Special Concern); NAR (Not at Risk); NA (Not Active); DD (Data Deficient)

<sup>3</sup> Species at Risk in Ontario (SARO) Status: END (Endangered); THR (Threatened); SC (Special Concern); NAR (Not at Risk)

<sup>4</sup> Habitat as outlined within MNR’s Species at Risk Website, SARA Registry, or referenced species specific COSEWIC Reports.

### 4.1.2 Species Concern Species

A total of one Special Concern species were detected during field investigations. Species listed as Special Concern are not allotted any provincial protection under the *ESA* or federal Species at Risk Act (*SARA*). Special Concern species are discussed below.

#### 4.1.2.1 Eastern Wood-pewee

A single Eastern Wood-pewee was detected approximately 65m to the north of Lot 2 (**Figure 5**). Eastern Wood-Pewee prefer the mid-canopy layer of forest clearings and edges in mature mixed or deciduous forests with little understory vegetation. The subject property and adjacent lands provide suitable habitat for Eastern Wood-pewee as the landscape consists of mature forests with edge habitat as a result of agricultural fragmentation and residential development. Refer to **Section 6.0** of this EIS for mitigation measures to protect Eastern Wood-pewee.

## 4.2 GREY COUNTY OFFICIAL PLAN

### Schedule A: Land Use Types

The proposed severance areas are zoned as “*Secondary Settlement Area*” and “*Hazard Lands.*” Secondary Settlement Areas are settlements areas that have lower density targets and have a limited range of uses and amenities compared to Primary Settlement Areas and have partial or private services. These areas accommodate limited residential growth as well as new community facilities and employment uses. Permitted uses in the areas designated as Secondary Settlement Areas are residential uses, bed and breakfast establishments, home/rural occupations, commercial and dry industrial uses, public, recreational, and institutional uses intended to support the surrounding agricultural community.

Hazard Lands include floodplains, steep or erosion prone slopes, organic or unstable soils, poorly drained areas, and lands along the Georgian Bay shoreline. These lands can be impacted by flooding, erosion, and/or dynamic beach hazards or have poor drainage, or any other physical condition that is severe enough to pose a risk for the occupant, property damage, or social disruption if developed. While these lands are intended to be regulated to avoid natural hazards, they also contribute to the natural environment within the County. In the Hazard Lands land use type buildings and structures are generally not permitted. Land Use Types as designated by Grey County Official Plan can be seen in **Figure 6**.

### 4.3 TOWNSHIP OF SOUTHGATE OFFICIAL PLAN

#### Schedule A: Varney Land Use Designations

The Subject Property is designated “*Village Community*” and “*Hazard Lands*.” A limited amount of growth in the Township is to be directed toward the village communities. The growth potential of these settlement areas is based upon the type of land use, the density, transportation, servicing potential, drainage, as well as development and implementation guidelines. With limited severance potential within the rural areas, growth within the village communities is expected.

The Hazard Lands designation identifies lands having inherent environmental hazards including: floodplains, steep slopes, organic or unstable soils, poorly drained areas, poorly drained areas with seasonal or permanent high groundwater table, evaluated non-provincially significant wetlands and any other physical conditions which are severe enough to pose a risk to property or potential loss of life if the lands were to be developed. While these lands are intended to be regulated in order to avoid natural hazards, these lands may contribute to the natural environment or natural feature. Permitted uses include i. Forestry; ii. Uses connected with the conservation of water, soil, wildlife and other natural resources; iii. Non-intensive agriculture; iv. Passive public parks; v. Public utilities; vi. Passive resource based recreational uses; and, vii. Flood and erosion/sediment control systems.

#### Schedule C: Environmental Constraints

The Subject Property does not contain any Environmental Constraints.

### 4.4 THE TOWNSHIP OF SOUTHGATE ZONING BY-LAW 19-2002 AS AMENDED

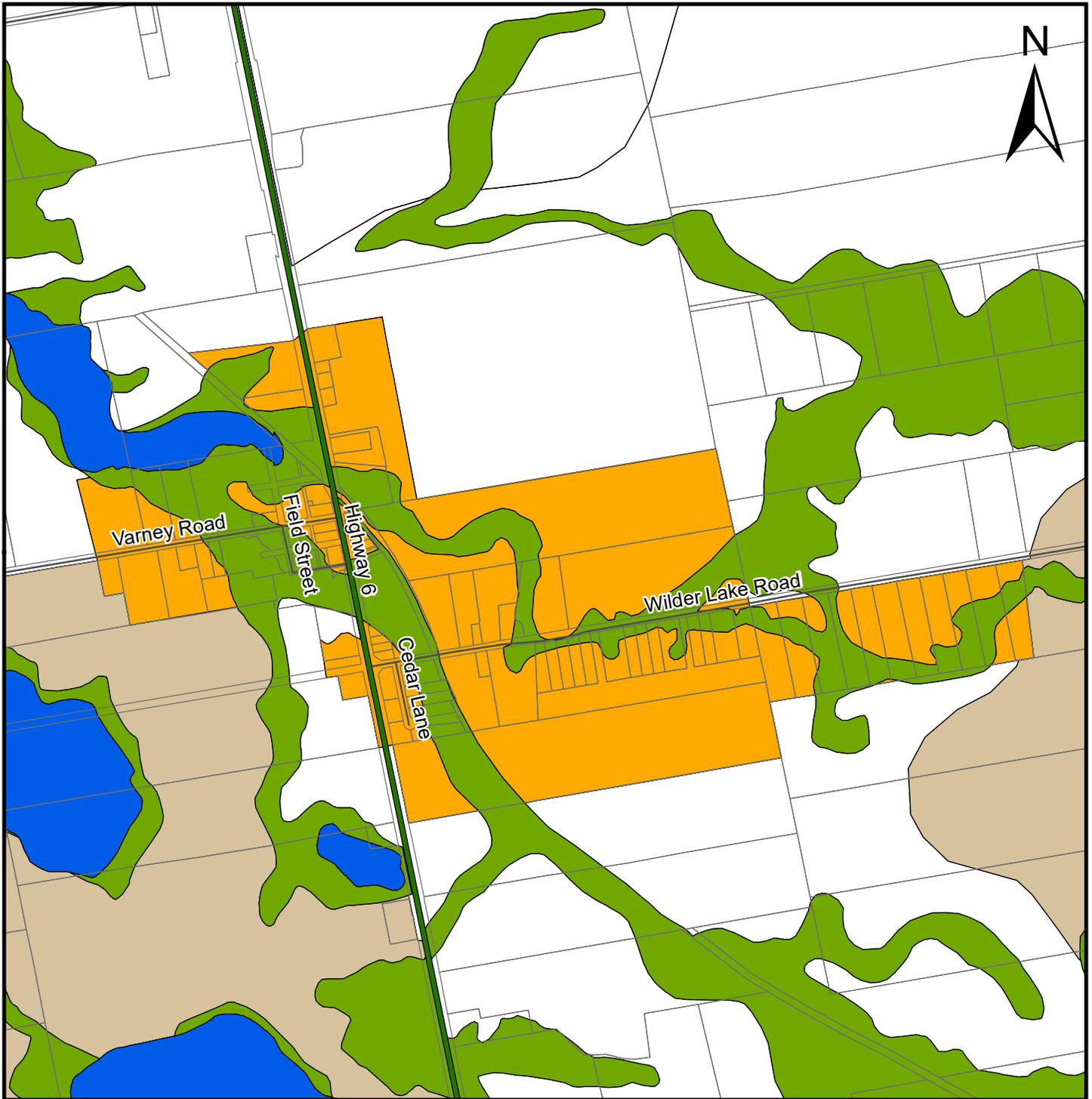
The Subject Property is designated Environmental Protection (EP) in the areas designated as Hazard Lands in the Grey County and Township of Southgate Official Plans. The remaining portions of the property are designated as Restricted Agriculture (A2).

The provisions of Section 6 - Agricultural Zone (A1) shall apply to lands designated as Restricted Agriculture (A2), except that no new livestock operations are permitted. Permitted uses in A1 include:

1. One, single-family detached dwelling on one lot
2. Uses, buildings, and structures accessory to the foregoing permitted uses
3. Home Occupation
4. Accessory Apartment

The Environmental Protection (EP) Zone boundaries identified on the schedules to this By-law are intended to generally identify the location of potentially hazardous environmental features. A technical

evaluation, approved by the Conservation Authority may be used to further delineate the limits of the Environmental Protection (EP) Zone. "Environmental Protection" are lands having inherent environmental hazards such as poor drainage, organic soils, susceptibility to flooding and/or erosion, steep slopes and other physical conditions severe enough to pose a risk of loss of life and/or property damage if developed upon. Where any lot is zoned in part in an Environmental Protection Zone (EP), no person shall erect any buildings or structures within the area zoned Environmental Protection, except as otherwise permitted in the Environmental Protection Zone. Further discussion of the Environmental Protection zone can be seen in **Section 5.2** of this EIS.



**LEGEND**

- |                           |   |
|---------------------------|---|
| Provincial Highway        | Sunset Strip Area                           |
| County Road               | Industrial Business Park                    |
| Local Road                | Space Extensive Industrial and Commercial   |
| Seasonal Road             | Niagara Escarpment Plan Boundary **         |
| Agricultural              | Niagara Escarpment Development Control Area |
| Special Agricultural      | Escarpment Natural Area                     |
| Rural                     | Escarpment Recreation Area                  |
| Primary Settlement Area   | Hazardous Lands                             |
| Secondary Settlement Area | Provincially Significant Wetlands           |
| Inland Lakes & Shoreline  |   |
| Recreational Resort Area  |   |

\*\* certain settlement areas within the Niagara Escarpment Plan Boundary may be subject to Development Control.

THE COUNTY OF GREY OFFICIAL PLAN

**SECONDARY SCHEDULE**

Land Use Types

MAP 2n

**VARNEY**

SCALE 1:15 000

INTERACTIVE MAP: [geo.grey.ca](http://geo.grey.ca)  
 DOWNLOAD PDF: [grey.ca/planning-development](http://grey.ca/planning-development)

GR\_OP\_SecSched\_Map2nVarneyX11.mxd

This map is for illustrative purposes only. Do not rely on this map as being a precise indicator of routes, location of features or surveying purposes. This map may contain cartographical errors or omissions.

## 4.5 PROVINCIAL POLICY STATEMENT (2014)

The Planning Act establishes that regional and municipal authorities, when making decisions that affect a planning matter, “shall be consistent with” the 2014 Provincial Policy Statement (PPS) issued under the Planning Act. As noted in Ontario’s Provincial Policy Statement, 2014; “to achieve long-term prosperity, environmental health and social well-being, the province must depend on protecting its various resources; natural heritage, agricultural, water, mineral, archaeological and cultural.” Section 2.1 in the PPS (2014) deals with natural heritage resources. These policies are further expanded and described in the Natural Heritage Reference Manual (Sections 5-11) (Ontario Ministry of Natural Resources, 2010).

Section 2.1.1 of the Provincial Policy Statement suggests that natural features and areas should be protected for the long term. To achieve this goal Sections 2.1.4, 2.1.5, 2.1.6, 2.1.7 and 2.1.8 indicate where development and site alteration shall not be permitted. Specifically, these include Significant Wetlands, Significant Woodlands, Significant Valleylands, Significant Wildlife Habitat, Significant Areas of Natural and Scientific Interest (ANSI), Fish Habitat and Habitats of Endangered and Threatened Species; except in accordance with provincial and federal requirements.

The PPS Defines “Significant” To Mean:

- In regard to woodlands, an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history.
- In regard to other features and areas in policy in 2.1, ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system.

Section 2.1.8 goes onto state:

*“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.”*

The following Sections discuss the protected natural features within the Subject Property and impacts presented by the development proposal.

### 4.5.1 Significant Woodland

Woodlands are defined by the PPS as treed areas, woodlots or forested areas and vary in their level of significance at the local, regional and provincial levels. The PPS does not permit development or site

alteration in *“significant woodlands south and east of the Canadian Shield; ...unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.”*

The property is located within the Upper Main Watershed, which has a forest condition grade of “Excellent” according to the Saugeen Valley Conservation Authority Watershed Report Card 2018 (SVCA, 2018). According to Conservation Ontario’s 2011 *Guide to Developing Conservation Authority Watershed Report Cards* a grade of “Excellent” equates to greater than 35% forest cover. As such, woodlands 50 ha in size or larger would be considered Significant Woodland. The Subject Property is part of a large provincially mapped woodland measuring more than 207ha. As such, the woodland would be considered under the PPS.

Additionally, the following criteria from the Natural Heritage Reference Manual (Section 7.3.1: Recommended Evaluation Criteria for Determining Significant Woodlands) would apply to the woodland that encompasses the Subject Property:

*“Woodlands should be considered significant if:*

- *Woodland cover is about 30–60% of the land cover, woodlands 50 ha in size or larger should be considered significant.*
- *The woodland contains 8 ha or more of interior habitat where woodlands cover about 30–60% of the land cover.*
- *A portion of the woodland is located within a specified distance of a significant natural feature or fish habitat likely receiving ecological benefit from the woodland and the entire woodland meets the minimum area threshold.*
- *The woodlands are located within a sensitive or threatened watershed or a specified distance (e.g., 50 m or top of valley bank if greater) of a sensitive groundwater discharge, sensitive recharge, sensitive headwater area, watercourse or fish habitat and meet minimum area thresholds.”*

The proposed severances will not impact the Significant Woodland found on the Subject Property. However, future residential development will likely remove part of the woodland to accommodate the construction of a house and driveway in each new lot. The number of trees removed will have a negligible impact on woodland due to its large size. If warranted by regulatory authorities, an Edge Management Plan and/or a Compensation Planting Plan can occur following residential development to mitigate for the loss of trees.

#### 4.5.2 Significant Wildlife Habitat

Wildlife habitat is defined by the PPS as areas where plants, animals and other organisms live, and find adequate amounts of food, water, shelter and space needed to sustain their populations. Specific wildlife habitats of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non-migratory species. The PPS does not permit

development or site alteration in *“Significant Wildlife Habitat; unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.”*

The Subject Property is considered Significant Wildlife Habitat for Eastern Wood-pewee as they are listed as a Special Concern under the *Endangered Species Act*. The proposed severance areas will not impact Eastern Wood-pewee or its habitat. However, the future residential development on these properties will remove a small area of woodland. As the proposed severance areas are within a large forest measuring more than 207ha, the small amount of tree clearing that will be required to facilitate single family homes will have a negligible impact on the species. Mitigation measures to protect Eastern Wood-pewee can be seen in **Section 5.1.1**.

### 4.5.3 Fish Habitat

Supporting healthy fish communities positively contributes to the social and economic interests of the province and local communities. Fish Habitat, as per PPS policy 2.1.5, is defined by the Fisheries Act (2013) and means *“spawning grounds and nursery, rearing, food supply, and migration areas on which fish depend directly or indirectly in order to carry out their life processes”*. These habitats are afforded protection, via the policies in sections 2.1.5 and 2.1.6 of the PPS, from development and site alteration except in accordance with other applicable legislations. Adjacent lands are protected from development and site alteration unless they are evaluated to avoid disruption to ecological functions.

The Subject Property contains Fish Habitat as defined by the PPS. As noted, Camp Creek is present on the eastern half of Subject Property and likely supports an aquatic biodiversity of fish species. Provincial interactive mapping from Fish ON-Line did not contain any species information for Camp Creek. The PPS recommends that a naturalized area of 30m should remain intact as a buffer to provide shade and habitat for fish, control erosion, and aid in flood attenuation (**Figure 5**). As shown on **Figure 5** the proposed severance areas encroach on the 30m buffer for fish habitat up to 15m. The 15m buffer encroachment is related to the portion of Camp Creek that is outside of the Subject Property, south of Wilder Road. The proposed severance areas themselves will not impact fish or fish habitat, however, IES recommends that any future development of residential homes (except for driveways) occur on the northern halves of the severance areas to keep the 30m buffer intact. Several driveways on adjacent lands on the southern side of Wilder Lake Road cross Camp Creek and Hazard Lands as identified by SVCA and the County and Township Official Plans. As such, precedence exists for residential development in this area ensuring proper safety surrounding the Hazard Lands and no impact to the natural heritage features.

## 4.6 CONSERVATION AUTHORITIES ACT (1990)

The Conservation Authorities Act provides the framework to prevent, eliminate and minimize risk to life and property from flood and erosion hazards and encourage the conservation and restoration of natural resources. It empowers Conservation Authorities (CA) to regulate development activities in or adjacent to watercourses and wetlands, which may interfere with their functions. The Subject Property falls under the jurisdiction of CVC and is subject to Ontario regulation 160/06.

#### 4.7 ONTARIO REGULATION 169/06: REGULATION OF DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATIONS TO SHORELINES AND WATERCOURSES

Section 2(1)(d) and (e) of o. Reg. 160/06 states that:

*“subject to section 3, no person shall undertake development or permit another person to undertake development in or on the areas within the jurisdiction of the authority that are:*

- (a) adjacent or close to the shoreline of the Great Lakes-St. Lawrence River system or to inland lakes that may be affected by flooding, erosion or dynamic beaches, including the area from the furthest offshore extent of the authority’s boundary to the furthest landward extent of the aggregate of the following distances:*
  - (i) the 100 year flood level, plus an allowance for wave uprush and other water related hazards,*
  - (ii) the predicted long term stable slope projected from the existing stable toe of the slope or from the predicted location of the toe of the slope as that location may have shifted as a result of shoreline erosion over a 100-year period,*
  - (iii) where a dynamic beach is associated with the waterfront lands, an allowance of 30 metres inland to accommodate dynamic beach movement, and*
  - (iv) an allowance of 15 metres inland;*
- (b) river or stream valleys that have depressional features associated with a river or stream, whether or not they contain a watercourse, the limits of which are determined in accordance with the following rules:*
  - (i) where the river or stream valley is apparent and has stable slopes, the valley extends from the stable top of bank, plus 15 metres, to a similar point on the opposite side,*
  - (ii) where the river or stream valley is apparent and has unstable slopes, the valley extends from the predicted long term stable slope projected from the existing stable slope or, if the toe of the slope is unstable, from the predicted location of the toe of the slope as a result of stream erosion over a projected 100 year period, plus 15 metres, to a similar point on the opposite side,*
  - (iii) where the river or stream valley is not apparent, the valley extends the greater of,*
    - (a) the distance from a point outside the edge of the maximum extent of the flood plain under the applicable flood event standard, plus 15 metres, to a similar point on the opposite side, and*
    - (b) the distance from the predicted meander belt of a watercourse, expanded as required to convey the flood flows under the applicable flood event standard, plus 15 metres, to a similar point on the opposite side;*

(c) hazardous lands;

(d) wetlands; or

(e) other areas,

(i) where development could interfere with the hydrologic function of a wetland, including areas within 120 metres of all provincially significant wetlands and wetlands greater than 2 hectares in size, and areas within 30 metres of wetlands less than 2 hectares in size, or

(ii) in river or stream valleys that are not apparent and in shoreline flood hazard lands where development could be impacted by flood levels aggravated by vehicle-generated waves, ice-jamming or other factors, in which cases the horizontal extent of the regulated area is increased by adding an allowance of 0.3 metres to the applicable flood event standard. O. Reg. 158/06, s. 2 (1); o. Reg. 55/13, s. 1 (1, 2).”

O. Reg. 169/06 defines and establishes regulated areas where development could be subject to flooding or erosion, or where interference with wetlands and alterations to shorelines and watercourses might have an adverse effect on environmental features. The Subject Property is within the regulated area of SVCA (**Figure 4**).

Under O. Reg. 169/06, any proposed development, interference or alteration to watercourses or wetlands within a regulated area requires a permit from SVCA.

#### **4.8 MIGRATORY BIRDS CONVENTION ACT (1994)**

According to the Minister of Justice (2017) the Migratory Birds Convention Act (MBCA) is intended to “implement a convention for the protection and conservation of migratory birds in Canada and the United States” ... “The purpose of this act is to implement the convention by protecting and conserving migratory birds — as populations and individual birds — and their nests” a “migratory bird means a migratory bird referred to in the convention, and includes the sperm, eggs, embryos, tissue cultures and parts of the bird.” According to the regulations in subsection 12 (1)(h): 12(1) “the governor in council may make any regulations that the governor in council considers necessary to carry out the purposes and provisions of this act and the convention, including regulations” ... “(h) for prohibiting the killing, capturing, injuring, taking, or disturbing of migratory birds or the damaging, destroying, removing or disturbing of nests” (Minister of Justice 1994, 2017). Environment And Climate Change Canada administers the requirements under the MBCA. As such, dates and protocol have been recommended below to ensure vegetation removal is undertaken outside of the breeding bird season. Refer to **Section 5.0** of this EIS for more information regarding mitigation measures to avoid impacts breeding birds.

## 5.0 MITIGATION TO AVOID IMPACTS TO NATURAL HERITAGE FEATURES

The suggested mitigation measures include construction timing, ideal site selection, contaminant and spill management, operation of machinery, protection of the hazard lands, mitigation measures to protect fish and fish habitat, SAR turtle mitigation measures and best management practices for construction. The various mitigation measures are further discussed below.

### 5.1 PROJECT PLANNING

#### 5.1.1 Timing

Future construction activities for residential development should be timed to respect windows for breeding seasons of birds, wildlife, and the spawning season for fish to protect the individual the lifecycles of animals and the organisms upon which they feed. Schedule work to avoid wet, windy and rainy periods that may increase erosion and sedimentation. The duration of construction activities should be minimized to reduce potential disturbances to local wildlife.

No tree or shrub clearing should be allowed during the breeding bird window (April 1<sup>st</sup> – August 30<sup>th</sup>) to avoid destruction of active bird nests protected by the *Migratory Birds Convention Act* (1994) or species listed as Special Concern under the *Endangered Species Act* (2007); specifically, Eastern Wood-pewee. Alternatively, a nest search can be conducted by a qualified ornithologist in the area designated for clearing. Any active nests found cannot be disturbed by work activity until the young have fledged. If no active nests are observed, vegetation clearing must take place with three days of the nest search, otherwise the nest search must be repeated.

#### 5.1.2 Site Selection

Future development envelopes for single family homes should be minimized to reduce tree and vegetation clearing when possible. The development envelopes should be placed on the northern halves of Lot 1, 2 and 3 to maintain a proper 30m buffer for fish habitat and to maintain a setback of 15m from Top of Slope. The removal of natural woody debris, rocks, sand or other materials from the Subject Property should be kept to a minimum when possible.

Clearing of vegetation should be kept to a minimum. Use existing trails throughout the properties to avoid disturbance to the vegetation and prevent soil compaction. When practicable, prune or top the vegetation instead of grubbing/uprooting.

#### 5.1.3 Contaminant And Spill Management

Plan activities such that materials such as paint, primers, blasting abrasives, rust solvents, degreasers, grout, poured concrete or other chemicals do not leach into the ground or enter the watercourse. A “spill response plan” should be developed and implemented immediately in the event of a sediment release or

spill of a deleterious substance. An emergency spill kit should be kept onsite as well as the appropriate contingency materials to absorb or contain any petroleum products, major/minor spills, and landscaping chemicals and fertilizers that may be accidentally discharged, should be always on the site.

#### 5.1.4 Operation of Machinery

All machinery should arrive onsite in a clean condition. Wash, refuel and service machinery, and store fuel and other materials for the machinery, in such a way as to prevent any deleterious substances from leaching into the ground or entering the watercourse. Remove all construction materials from site upon project completion.

## 5.2 PROTECTION OF THE HAZARD LANDS/ENVIRONMENTAL PROTECTION ZONE

The proposed severance areas will not impact the natural heritage features or hazard zones found on the Subject Property. However, it is important to consider the future development of residential homes when land use planning and considering impacts to natural heritage features.

The PPS recommends that a 30m buffer be provided around cool water streams. This buffer encompasses the majority of lands identified as Hazard Lands by the SVCA, County and Township Official Plans. The proposed severance areas will encroach on this buffer up to 15m but will not impact any of the natural features of the landscape or remove any trees/vegetation (**Figure 5**). Maintaining vegetated buffers around watercourses is essential to provide a movement corridor through vegetated habitats and increase biodiversity. Vegetated buffers around watercourses are important to control erosion, maintain bank stabilization, to provide shade and decrease water temperatures. As such, IES advises that proper mitigation measures as stated in this EIS be implemented to protect the natural features.

IES recommends that future development envelopes be placed on the northern half of proposed Lots 1, 2 and 3 outside of the Hazard Lands. IES recognizes that driveways will have to cross the Hazard Lands to access the northern half of the proposed lots. On potentially unstable slopes, a study using accepted geotechnical principles, signed and stamped by a Qualified Engineer, may be required to determine a safe setback from the Top of Slope. Future development should also be protected from natural hazards by implementing structural and non-structural mitigation measures as recommended by a Qualified Engineer. Therefore, IES recommends that a Geotechnical Report and/or a Natural Hazard Study that identifies slope stability and the Top of Bank be conducted to ensure that safety is maintained for the creation of future driveways.

## 5.3 SPECIES AT RISK TURTLE MITIGATION

The following mitigation measures are recommended for any future development envelopes established on the severed lots:

1. All on-site personnel must be made aware of the potential presence of Species at Risk (SAR) turtles, including Midland Painted Turtle and Snapping Turtle.

2. Temporary reptile exclusion fencing should be used around the development envelopes to exclude turtles from the worksite.
3. Project activities should be scheduled to occur outside of sensitive time periods (i.e., overwintering, nesting) for turtles. Sensitive time periods for turtles occurs mid-October through to end of April.
4. Any SAR individual that is present on the property should be reported to the Ministry of Environment, Conservation and Parks (MECP) within 48 hours of the observation or the next working day, whichever comes first.
5. If a SAR turtle is incidentally encountered, the turtle must be allowed to disperse from the project site under its own ability, and project machinery and equipment must maintain a minimum operating distance of 30 meters from the individual. MECP must be contacted if this cannot be done.
6. If an injured or deceased SAR is found, the specimen must be placed in a non-airtight container maintained at an appropriate temperature and MECP staff must be contacted immediately.

#### 5.4 GOOD HOUSEKEEPING AND CONSTRUCTION PRACTICES

The most critical time for the protection of natural heritage features is during the construction phase. Best management practices should be used to minimize erosion potential before, during and after construction.

- A construction barrier fence and/or a sediment and erosion control fence must be installed before any construction activity is to occur to ensure no harm to the natural system.
- Soil stockpiles should be established in locations 30m or greater from any KNHF or KHF and within the silt fencing protecting the natural system. If the stockpiles must be within 30m of the features they should be protected with sediment fence on the down gradient side of the pile.
- An erosion and sediment control plan should be reviewed by construction crews to ensure protection of the natural heritage and hazard features during construction.
- The grading of the lot should ensure any overland flow is infiltrated to the soil and not directed toward the woodland or wetland features on the property by overland flow paths.
- The contractor should be confined to the minimum area necessary to perform the work by: (1) minimizing the width of disturbance; and (2) wherever possible; limiting equipment storage areas and vehicle turning points to the existing parking lot or gravel pad.
- The size of the disturbed area (development envelope) must be limited by minimizing non-essential grading.
- Construction should commence only when all materials required for construction are at hand to minimize the duration of work.
- All equipment maintenance and refueling should be controlled to prevent any discharge of petroleum products.

- Construction material, excess soil, construction debris, and empty containers should be stored on the existing impermeable driveway to reduce soil contamination risk.
- A “Spill Response Plan”, as well as the appropriate contingency materials to absorb or contain any petroleum products, major/minor spills, and landscaping chemicals and fertilizers that may be accidentally discharged, should be on the site at all times.
- Include emergency contacts for a Wildlife Biologist in case of conflict with wildlife during construction: Nicole Wajmer (519) 829-9463 [nicole.wajmer@insightenvironmental.ca](mailto:nicole.wajmer@insightenvironmental.ca)

## 6.0 CONCLUDING STATEMENT

Based on the results of this EIS the following conclusion and recommendations are presented:

1. The proposed project at 263071 Wilder Lake Road, in the Township of Southgate, Grey County, Ontario and proposes to sever the southwest corner of the legal parcel to create three adjacent lots measuring 41.1m X 61m with areas of 2507.1m<sup>2</sup>.
2. The property contains Significant Woodland, Unevaluated Wetlands, Fish Habitat and Significant Wildlife Habitat as defined by the Provincial Policy Statement (2014).
3. The property is within a regulated area under Ontario Regulation 169/06 administered by the Saugeen Valley Conservation Authority (SVCA).
4. One provincially listed Special Concern species (Eastern Wood-pewee) was detected during field investigations approximately 65m to the north of the proposed severance areas.
5. The severance areas are zoned Restricted Agriculture and Environmental Protection. The restricted Agriculture Zone allows for the construction of single-family detached dwellings.
6. The suggested mitigation measures include construction timing, site selection, contaminant and spill management, operation of machinery, protection of the hazard lands, mitigation measures to protect fish and fish habitat and SAR turtle mitigation.
7. It is recommended that best management practices be implemented before, during and after construction to avoid any potential erosion and sedimentation.

Based upon the current assessment of the natural system on the Subject Property, together with a review of municipal and provincial policies; it is reasonable to conclude that there should not be any adverse impacts to the natural system on or adjacent to the Subject Property. Therefore, the proposed severances should be approved.

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# APPENDICES

# **APPENDIX A: NAME AND QUALIFICATIONS OF RETAINED CONSULTANT**

*Wildlife Biologist – Nicole Wajmer, Hon. B.Sc., M.Sc.*

Nicole is a wildlife biologist, GIS technician and managing partner of Insight Environmental Solutions Inc. She completed the Wildlife Biology undergraduate and Integrative Biology graduate program at the University of Guelph. Nicole has a wide range of aquatic and terrestrial experiences from her time working in various sectors of biology including industry, government, and academia. She has strong interests in conservation biology and has been involved in recovery programs for the Endangered Northern Spotted Owl and Eastern Loggerhead Shrike. She has successfully completed certifications for First Aid and CPR, ACUC Dive Master, Ontario Benthos Biomonitoring, Backpack 2 Electrofishing, Ontario Stream Assessment Protocol, Ontario Fish Identification, the Department of Fisheries and Oceans Freshwater Mussel Identification Course, and the Ontario Reptile and Amphibian Survey Course. Nicole has contributed to a wide range of environmental and restoration projects throughout Ontario including Species at Risk (SAR) Assessments, Environmental Impact Studies (EIS), Natural Heritage Evaluations (NHE), as well as Land Management and Restoration Plans.

*Ecologist – Jennifer Neill, BFA, Dip. Env. Technician, M.Sc. Candidate*

Jennifer is a senior ecologist and managing partner of Insight Environmental Solutions Inc. She holds an honors graduate from the Environmental Technician - Sampling and Monitoring program at Seneca College, a Bachelor of Fine Arts from the Ontario College of Art and Design (OCAD U) and is currently pursuing an M.Sc. at Royal Roads University. Jennifer has managed numerous large and small-scale environmental projects throughout Ontario. Her contributions include, detailed terrestrial and aquatic botanical inventories (native, cultivated and exotic species), ecological land classification, invasive species management plans, incidental wildlife surveys, benthic macro-invertebrate identification, Ontario Species at Risk (SAR) individual identification, SAR habitat evaluation and ecological restoration. Jen is certified under the Ontario Stream Assessment Protocol, Ontario Fish Identification, the Ontario Benthos Biomonitoring Network, RX100 Low Complexity Prescribed Burn Worker, the Ontario Wetland Evaluation System and Ecological Land Classification. Jennifer has a strong interest in Botany and the native flora of Ontario. Jennifer holds a position on the Board of Directors for Tallgrass Ontario (TgO).