## **Environmental Impact Study (EIS) Report**

Project Location: 37719 Lake Line Road, Port Stanley, ON

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October 22, 2021 MTE File No.: 48957-100



Engineers, Scientists, Surveyors.

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## 1.0 Introduction

MTE has been retained by Below-Me Developments (the Proponent) to complete an Environmental Impact Study (EIS) for the Kettle Creek Subdivision at 37719 Lake Line, Port Stanley in the Municipality of Central Elgin and Elgin County (the Subject Lands; Figure 1) in support of a Draft Plan of the Subdivision and Zoning By-Law amendment. An Issues Scoping Report (ISR) was previously submitted for the Subject Lands and adjacent land (BioLogic, 2015) which included a recommendation for a scoped EIS. During a pre-consultation meeting held with the Proponent, the Township of Central Elgin and Kettle Creek Conservation Authority on April 7, 2021, it was confirmed that an EIS was required as part of the Draft Plan application.

The 12.8 ha Subject Lands consist of an active sod farm and former farmstead as well as forested slopes, which are part of the Elgin County natural heritage system [Figure 1]. A municipal drain, Marr Drain, is located along the southern boundary of the Subject Lands. A 120m study area of Adjacent Lands has been applied to the Subject Lands for the purpose of evaluating contiguous or nearby natural features. The Adjacent Lands include the Lake Line Right-of-way (R.O.W.) to the north, Kettle Creek Golf and County Club and a Public school to the south, and the River Road R.O.W. to the west. Per the Official Plan of Central Elgin, the Subject Lands have a land use designation of residential in the farmed portion and natural heritage/significant woodland on the forest slopes (Schedule G) and are zoned OS2-29 and OS2-30 (Open Space). The entire Subject Lands are within the area regulated by Kettle Creek Conservation Authority under Ontario Regulation 181/06: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses.

The proposal is to establish 93 single detached dwellings with associated future municipal streets on the Subject Lands, with servicing (water) from a combined sewer in the Carlow Road R.O.W., that is directed to an existing pumping station that ultimately pumps the flows up Lake Line and discharged into the treatment facility on Scotch Line. The proposed Development Area is confined to the existing agricultural portions of the Subject Lands.

Following the pre-consultation meeting held on April 7, 2021, a Terms of Reference was submitted to Central Elgin and Elgin County on August 25, 2021, to confirm the scope of natural heritage field investigations as well as the contents of the EIS report for the Subject Lands. Comments provided by Kevin McClure (Planner, Central Elgin) and Nancy Pasato (Manager of Planning, Elgin County) on August 26, 2021 were incorporated into a revised Terms of Reference which was approved on September 17, 2021 [Appendix A]. This EIS has been prepared with reference to the Municipality of Central Elgin Official Plan policies in Section 3.1.2 and 3.4.2, and Elgin County Official Plan Policies in Section D1.2, specifically, Policy D1.2.8.1 and Appendix B. The EIS will build on the ISR (BioLogic, 2015) and incorporate life science inventories from 2015 and 2021 to document existing natural heritage features and functions on the Subject Property and adjacent lands, evaluate potential impacts, and recommend appropriate avoidance (e.g. setbacks), mitigation and enhancement measures to protect the natural heritage features.

# 2.0 Natural Heritage Policy Overview

The following provincial and municipal legislation and policies were reviewed to inform the evaluation of significant natural heritage features and assessment of potential impacts.

## 2.1 Planning Act

The Provincial Policy Statement (PPS; MMAH, 2020) was issued under the *Planning Act, 1990* to provide direction to regional and local municipalities regarding planning policy, ensuring that decisions made by planning authorities were consistent with provincial policy. With respect to natural heritage features and resources, the PPS defines seven natural heritage features:

- Significant wetlands and significant coastal wetlands
- Significant woodlands
- Significant valleylands
- Significant wildlife habitat (SWH)
- Significant areas of natural and scientific interest (ANSI's)
- Fish habitat, and,
- Habitat of endangered and threatened species

These features are described in the Natural Heritage Reference Manual (MNR, 2010), a technical document intended to support the PPS which also provides guidance to help assess these natural heritage features. Section 2.1.4 of the PPS states that development and site alteration are not permitted in significant wetlands or significant coastal wetlands in Ecoregion 7E, where the Subject Lands are located. Section 2.1.5 states that development and site alteration shall not be permitted in significant woodlands, significant valleylands, SWH or ANSI's unless it has been demonstrated through an EIS that there will be no negative impacts on the features or their ecological functions. Development and site alteration are not permitted in fish habitat or habitat of endangered or threatened species, except in accordance with provincial and federal legislation.

## 2.2 Municipality of Central Elgin Official Plan (2013)

The Official Plan of the Municipality of Central Elgin includes policies that guide growth, economic development and the protection of natural heritage features across the municipality. With respect to Natural Heritage (Section 3.1.1), new permitted uses, or expansions/ enlargements to existing uses, buildings or structures within a Natural Heritage designation that require a Planning Act approval may be permitted only if they can be demonstrated through an Environmental Impact Study (EIS) that will demonstrate that there will be no negative impacts to the natural heritage features and/or their ecological functions.

The Subject Lands are designated as Residential in the farmed portions and Natural Heritage/ Significant Woodland on the forest slopes by the Central Elgin Official Plan (Schedule G, 2013). The Adjacent Lands to the south and to the east are also designated as Residential and Natural Heritage (Schedule G, 2013).

## 2.3 Municipality of Central Elgin, Zoning By-Law (2018)

The Subject Lands are currently designated as OS2-29 and OS2-30 (Open Space) by the Municipality of Central Elgin. This provision applies to lands used or proposed to be used for parks and outdoor recreational purposes and cemeteries where structures are limited. The Adjacent Lands are zoned as Residential (R1).

## 2.4 County of Elgin Official Plan (2015)

The purpose of the Official Plan of the County of Elgin (Final consolidation, November 2015) is to provide direction and a framework for managing growth and land use decisions within the County through the establishment of a broad, upper tier policy framework that provides guidance to local municipalities, by implementation of the PPS at the County level, and by facilitating coordination and coordination amongst local municipalities and the County on planning and development issues.

Section A4.2 describes the County's strategic objective to protect natural heritage features and areas, and their associated ecological functions. Part D of the Official Plan provides more specific policies to achieve this objective, such as criteria for defining natural heritage significance (e.g. significant woodlands) and identifying how natural heritage features should be considered in the context of development and site alteration. Development and site alteration is not permitted in significant habitat of endangered or threatened species, significant wetlands and significant coastal wetlands (D.1.2.6a)). Development and site alteration is not permitted in significant valleylands, SWH and ANSIs or Adjacent Lands unless it has been demonstrated through an EIS that there will be no negative impacts on the natural features or their ecological functions. Appendix B of the Official Plan provides the County's requirements for an EIS.

Woodlands on the Subject Property are mapped as part of the County's Natural Heritage System on Map Appendix '1' of the Official Plan.

#### 2.5 Kettle Creek Conservation Authority

The Kettle Creek Conservation Authority (KCCA) regulates lands within its watershed under Ontario Regulation 181/06, pursuant to Section 28 of the *Conservation Authorities Act*. The KCCA has jurisdiction over riverine flooding and erosion hazards, wetlands and the surrounding area, and requires that landowners obtain written approval from the Authority prior to undertaking any site alteration or development within the regulation limit.

The entire Subject Lands are within the regulation limit of the Kettle Creek Conservation Authority (KCCA). This regulation limit is associated with the Hazard Area (slope) on the north portion of the Subject Lands.

## 2.6 Endangered Species Act

The *Endangered Species Act, 2007* protects species listed as threatened, endangered or extirpated in Ontario from killing, harm, harassment or possession, and also protects their habitats from damage or destruction. All species are provided with general habitat protection for areas the species depend on to carry out their life processes, such as reproduction, rearing, hibernation, migration or feeding. Activities that may impact a protected species or its habitat require prior authorization from the Ministry of Environment, Conservation and Parks (MECP), unless the activities are exempt under Ontario Regulation 242/08. The provincial status of species in Ontario is determined by the Committee on the Status of Species at Risk in Ontario (COSSARO) and documented in the Species at Risk in Ontario List (SARO List).

## 3.0 Natural Heritage Features and Functions

Natural heritage field studies and vegetation community classification completed in 2014, 2015 and 2021 have been used to assess the Subject Lands and the Adjacent Lands for natural heritage significance with respect to the proposed future construction. The following resources were also reviewed for relevant information respecting natural heritage features on or adjacent to the Subject Lands:

- Issues Scoping Report Glover 37719 Lake Line & 320 Carlow Road, Port Stanley, Ontario (BioLogic, 2015)
- Central Elgin Official Plan (2013)
- The Official Plan of the County of Elgin (Consolidated 2015)
- Kettle Creek Conservation Authority Wetland Management Policies
- Land Information Ontario (LIO) mapping (MNRF, 2021a)
- Natural Heritage Information Centre (NHIC) online database (MNRF, 2021b)
- Atlas of the Breeding Birds of Ontario (Cadman et al., 2007)
- Ontario Reptile and Amphibian Atlas (ORAA; Ontario Nature, 2021)
- iNaturalist citizen science database
- eBird citizen science database

## 3.1 Physiography and Topography

The topography of the Subject Lands is nearly level with a moderate to steep wooded slope along the north and northwest portions of the property (BioLogic, 2015). Soils throughout are associated with modern alluvium consisting of undifferentiated material (gravel, sand, silt, clay, muck) composing side walls and terraces or flood plains of valleys associated with Kettle Creek to the east (BioLogic, 2015). The wooded slope at the north end of the Subject Lands is 27.8m with a gradient range of 0.6H:1V - 1.3H:1V, which is below the factor of safety range, excluding the reinforcement provided by vegetation (EXP, 2017). Previous geotechnical investigations have found evidence of groundwater seepage within TP2 to TP5 below depths ranging between about 1.4m and 2.7m (Trow Associates, 2007).

## 3.2 Designated Natural Features

The provincially-significant Port Stanley Till Earth Science Area of Natural and Scientific Interest (ANSI) is located directly north of the Subject Lands across Lake Line (LIO, 2014). The closest significant wetland, Hawk Cliff PSW, is over 2 km to the east of the subject lands (MNRF, 2014). Two locally-significant wetlands are located approximately 1 km to the north and north east (Moore Water Gardens and Port Stanley Poison Sumac Swamp). Woodlands on the Subject Property are mapped as part of Central Elgin and Elgin County's Natural Heritage System.

No other designated natural features were identified within 1km of the Subject Lands.

## 3.3 Species at Risk Records

Previous corresepondence with the Ministry of Natural Resources and Forestry (MNRF) took place to investigate potential Species at Risk within the area of the Subject Lands with records received on June 27, 2014. This background data review was updated in 2021. Data sources used for this updated review included the Species at Risk in Ontario (SARO) List, NHIC, ORAA, and citizen science online databases such as eBird and iNaturalist. Many of these sources display data for a broad area (e.g. by upper-tier municipality, per 10km atlas square) and therefore provide only a general potential for species presence on or near the Subject Lands.

Threatened or Endangered species and their habitats with the potential to be present within 10km of the Subject Lands are listed in Table 1. These species and their habitats are protected under the Endangered Species Act. Habitat for species listed as Special Concern is considered Significant Wildlife Habitat, and is therefore discussed in Section 3.5. The potential for these species or their habitats to be present on the Subject Lands was assessed as part of this EIS using data gathered during field investigations as well as desktop analysis.

Common Name	Scientific Name	ESA (SARO List)	S-rank (NHIC)
Bank Swallow	Riparia riparia	THR	S4B
Barn Swallow	Hirundo rustica	THR	S5B
Bobolink	Dolichonyx oryzivorus	THR	S4B
Chimney Swift	Chaetura pelagica	THR	S4B
Eastern False Rue-anenome	Enemion biternatum	THR	S2
Eastern Meadowlark	Sturnella magna	THR	S4B
Louisiana Waterthrush	Parkesia motacilla	THR	S3B
Red-headed Woodpecker	Melanerpes erythrocephalus	END	S4B
Acadian Flycatcher	Empidonax virescens	END	S2
Eastern Prickly-pear Cactus	Opuntia cespitosa	END	S3
Butternut	Juglans cinerea	END	S2?
Spiny Softshell	Apalone spinifera	END	S2
Little Brown Myotis	Myotis lucifugus	END	S3
Northern Myotis	Myotis septentrionalis	END	S3
Eastern Small-footed Myotis	Myotis leibii	END	S2S3
Tri-coloured Myotis	Perimyotis subflavus	END	S3?

## Table 1: Species at Risk Potentially Present within 10km of the Subject Lands

## 3.4 Field Investigations

Field investigations were previously completed as part of the ISR (BioLogic, 2015) in 2014 and 2015. Additional surveys targeting the Subject Lands were undertaken between May and October, 2021 to update vegetation community classification, inventory plant species present within, document bird species breeding on or adjacent to the Subject Lands, identify potential habitat for Species at Risk [from Table 1], and record incidental observations of wildlife on the Subject Lands. These investigations were completed to support the assessment of potential impacts to natural heritage features and species at risk in the context of provincial and municipal policy. A summary of field investigations undertaken as part of the ISR (BioLogic, 2105) and current EIS is provided in Table 2.

Several field investigations were excluded from the 2021 field program based on the findings of the ISR (BioLogic, 2015) and additional unpublished data gathered for the Subject Lands. Amphibian surveys were completed on the Subject Lands in 2015 (BioLogic, unpublished data). Habitat suitable for amphibian breeding (i.e. shallow standing water) was not observed within the wetland community on the Subject Lands, therefore these surveys were not proposed for 2021. Habitat features that would concentrate snake species (e.g. candidate hibernaculum) were not documented in the ISR and there are no records of snake Species at Risk in the vicinity of the Subject Lands, therefore reptile surveys were not proposed. Migratory bird surveys were also not proposed as the development has been designed to avoid direct impacts to the woodland and stopover habitat for migratory waterfowl or shorebirds is not present on the site based ELC and the findings of the ISR. The Significant Wildlife Habitat Mitigation Support Tool (MNR, 2015) recommends avoidance of woodlands but no setback as the key mitigation measure for migratory landbirds, therefore targeted surveys would not inform the assessment of impacts.

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Field Investigation	Date	Personnel (BioLogic/MTE)
Ecological Land Classification (preliminary)	May 23, 2014	Dylan Morse
Ecological Land Classification (update)	July 24, 2014	Will Huys, certified to complete ELC
Butternut Health Assessment	July 27, 2014	Will Huys, BHA #222
Butternut Health Assessment	October 1, 2015	Will Huys, BHA #222
Auditory Amphibian Breeding Survey	May 8, 2015	Will Huys
Auditory Amphibian Breeding Survey	July 5, 2015	Will Huys
Spring Botanical Inventory	June 15, 2015	Will Huys
Summer Botanical Inventory	August 17, 2015	Will Huys
Fall Botanical Inventory	October 15, 2015	Will Huys
Breeding Bird Survey	June 15, 2015	Will Huys
Breeding Bird Survey	June 29, 2015	Will Huys
Spring Botanical Inventory	June 3, 2021	Will Huys
Summer Botanical Inventory	August 17, 2021	Elise Roth
Breeding Bird Survey	June 3, 2021	Will Huys
Breeding Bird Survey	June 22, 2021	Will Huys
Fall Botanical Inventory	October 14, 2021	Will Huys

#### Table 2: Summary of field investigations undertaken on the Subject Lands

## 3.4.1 Vegetation Communities

Ecological Lands Classification (ELC) surveys were conducted in 2014 and updated in 2021. A preliminary evaluation of vegetation within the Subject Lands was conducted by Dylan Morse, on May 23, 2014 and updated and confirmed by Will Huys on July 29, 2014. Surveys were updated in 2021 on June 3 and October 14, 2021 by Will Huys, certified to complete ELC in Ontario, using protocols outlined in the Ecological Land Classification System for Southern Ontario (Lee et al., 1998). The surveys were conducted within the area of the Subject Lands. Adjacent vegetation communities were not investigated in detail.

The vegetation surrounding the Subject Lands is predominantly forested area to the west of the Subject Lands, with residential land uses to the north and east and a golf course to the south. The golf course is also owned by the Proponent and were previously investigated in 2014 & 2015 as part of the ISR (BioLogic, 2015). These additional lands are not currently proposed for development, therefore they were not investigated in detail in 2021.

The Subject Lands are comprised of two primary natural vegetation communities with cultural inclusions, as well as an Agricultural and an Anthropogenic Disturbed Area (former farmstead) (Figure 2):

Community 1 is classified as a Dry-Fresh Sugar Maple-Beech Deciduous Forest (FOD5-2). Sugar Maple
is the dominant canopy species in this forest, along with Beech. The understorey consists of Dogwood,
Sumac and Multiflora Rose. The ground layer consists of species such as Horsetail, Garlic Mustard and
Skunk Cabbage. There are also two inclusions associated with Community 1. Inclusion 1a is a Mineral
Cultural Thicket Ecosite (CUT1) which has a dominant canopy species consisting of Ash and Black
Walnut and a sub-canopy consisting of Buckthorn, Hawthorn, Sumac and Dogwood. The understorey

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consists of Buckthorn, Hawthorn, Multiflora Rose and Honeysuckle. The ground layer consists of Horsetail, Goldenrod, Garlic Mustard and Mayapple. Inclusion 1b is also a Mineral Cultural Thicket Ecosite (CUT1).

 Community 2 is classified as an Organic Thicket Swamp (SWT3). White Ash and White Willow are the dominant canopy species in this seepage-fed thicket swamp. The understorey consists of Common Buckthorn, Dotted Hawthorn, Multiflora Rose and Common Elderberry. The ground layer consists of Skunk Cabbage, Spotted Joe-pye-weed and Common Boneset.

The agricultural portion of the Subject Lands is currently used for sod production. The former farmstead buildings in polygon A1 (Figure 2) were removed in 2017 due to poor or hazardous condition following the partial collapse of the barn into the silo.

#### 3.4.2 Flora Inventory

Seasonal floristic surveys were undertaken in 2015 as well as on June 3, 2021 by Will Huys, August 17, 2021 by Elise Roth, and October 14, 2021 by Will Huys. The status of all plant species is based on the provincial NHIC database (MNRF, 2020) and the list of vascular plants for the Carolinian Zone (Oldham, 2017).

A total of 121 vascular plant species were recorded on the Subject Lands, of which 70 or 57.85% are native to Ontario and 51 or 42.15% are introduced (Appendix B-1). Five Butternut trees were located on the upper portion of the wooded slope, approximately 65m north of the Development Area. All trees were assessed as Category 1, non-retainable, in 2015 following the provincial Butternut Health Assessment protocol with results submitted to MNRF. Two locally-rare plant species, Swamp Agrimony and Purple Joe Pye Weed, were observed within the SWT3 community. No other plant Species at Risk and no rare plants were observed on the Subject Lands during site investigations.

#### 3.4.3 Breeding Bird Surveys

Breeding bird surveys were conducted by Will Huys on the Subject Lands on June 15<sup>th</sup> and 29<sup>th</sup>, 2015, and June 3<sup>rd</sup> and 22<sup>nd</sup>, 2021. Surveys in 2021 consisted of 10-minute point counts at 2 stations along the edge of Communities 1 and 2 accompanied by an area search along the perimeter of the Development Area. The highest level of breeding evidence was recorded for each species using codes from the Ontario Breeding Bird Atlas (Cadman et al. 2007). Surveys began within half an hour of sunrise and were completed by 10am.

A total of 15 species were observed within the Subject Lands during breeding bird surveys. All species observed were secure (S5) or apparently secure (S4) breeding species in Ontario. A complete list of bird species observed is provided in Appendix B-2.

No Protected Species were detected during the 2021 breeding bird surveys. However, field investigations in 2015 identified 40-45 active Barn Swallow [THR] nests within the barn located in polygon A1 on the westerly portion of the Subject Lands. In 2017, three corners of the barn collapsed causing the barn to lean onto the silo, and compromising the integrity of both structures. Consequently, it is estimated that approximately 75% of the suitable nesting habitat for Barn Swallow was lost due to this unintended event. The remainder of the barn and adjacent structures within the farmstead were demolished to remove the hazard. Compensation for the removal of a portion (25%) of the original Barn Swallow [THR] habitat will be implemented in accordance with Ontario Regulation 242.08 Section 23.5 of the ESA.

## 3.4.4 Mammal Habitat

The Subject Lands contain a mature deciduous woodland which is assumed to provide suitable maternity roosting habitat for bats. Targeted surveys were not undertaken as the development has been designed to avoid direct impacts to the woodland.

No dens of fur-bearing mammals were observed on the Subject Lands.

### 3.4.5 Incidental Wildlife Observations

Four mammals and five invertebrates were observed incidentally on the Subject Lands during other targeted field investigations. These species were: Gray Squirrel, Raccoon, White-tailed Deer, Striped Skunk, Black Saddlebags, Common White-tail, Little Bluet, Cabbage White and Monarch. Monarch is listed as Special Concern on the SARO List, and Endangered on Schedule 1 of the federal Species at Risk Act.

## 3.5 Significant Wildlife Habitat

MNRF Significant Wildlife Habitat (SWH) Criteria Schedules for Ecoregion 7E (January 2015) use ELC ecosite codes and habitat criteria (eg. Size of ELC polygon, location of ELC polygon) to identify candidate significant wildlife habitat. A complete assessment of candidate SWH is provided in Appendix B-3. Where SWH has been confirmed through results of targeted field investigations (e.g. confirmed habitat use) this has been noted below.

## 3.5.1 Subject Lands

Candidate SWH was identified within the Subject Lands, associated with the woodland and swamp thicket (Communities 1 and 2), as follows:

Seasonal Concentration of Animals

- Bat Maternity Colonies (candidate) in woodland community FOD6
- Migratory Butterfly Stopover Areas (candidate) in cultural communities CUT1 and along the edge of woodland community FOD6
- Land Bird Migratory Stopover Areas (candidate) in woodland community FOD6

Specialized Habitats of Wildlife

• Seeps and springs (candidate) in swamp thicket SWT3

#### 3.5.2 Adjacent Lands (within 120m of the Subject Lands)

Candidate SWH was identified within the Adjacent Lands, associated with the golf course area and the surrounding woodlands as follows:

Seasonal Concentration of Animals

- Bat Maternity Colonies (candidate) in woodland community FOD6
- Migratory Butterfly Stopover Areas (candidate) in cultural communities and along the edge of woodland community FOD6
- Land Bird Migratory Stopover Areas (candidate) in woodland community FOD6

Habitats for Species of Conservation Concern

 Special Concern and Rare Wildlife Species: Eastern Wood-pewee (candidate), Wood Thrush (candidate) and Broad Beech Fern (candidate) in adjacent woodlands

## 3.6 Habitat for Threatened and Endangered Species

Habitat potential for Protected Species on the Subject Lands was evaluated using a combination of desktop review, satellite photo interpretation and results of field investigations.

Suitable habitat is present within the Subject Lands for the following Threatened or Endangered Species:

Butternut [THR]: There were five confirmed Butternut [THR] trees identified within woodland community FOD6 on the north and northwest sides of the Subject Lands, all of which were assessed as non-retainable and are greater than 25m from the Development Area.

Little Brown Myotis, Northern Myotis, and Tri-coloured Bat [END]: Potential tree roosting habitat for Endangered bats is assumed to be present in woodland community FOD6 on the Subject Lands outside of the Development Area.

Barn Swallow [THR]: Forty Barn Swallow nests were observed in 2015 within the barn in community A1 on the Subject Lands. Due to the age and disrepair of the structure, three-quarters of the nest sites are assumed to have been removed when three corners of the building collapsed in 2017. Compensation for the removal of the remaining suitable nesting habitat (25% or 10 nests) will be implemented in accordance with Ontario Regulation 242.08 Section 23.5 of the ESA.

The remaining Threatened or Endangered species listed in Table 1 are considered absent from the Subject Lands due to lack of suitable habitat or an absence of species' observations during targeted surveys (e.g. breeding bird surveys, botanical inventory).

# 4.0 Natural Heritage Features Summary

A summary of significant features and functions identified on the Subject Lands and Adjacent Lands, in accordance with provincial and municipal policy, is provided in Table 3, below.

Policy Category	Policy-protected Natural	Description of Feature on the Subject Lands and
Folicy Category	Heritage Feature	Adjacent Lands (120m)
	Significant Wetlands or Significant Coastal Wetlands	<ul> <li>No provincially-significant wetlands or coastal wetlands are located within 1km of the Subject Lands</li> </ul>
	Significant Woodlands	<ul> <li>Significant Woodland is present within the north and northwest area of the Subject Lands</li> </ul>
Provincial Policy Statement, Elgin County Official Plan and	Significant Valleyland	<ul> <li>Significant Valleyland has not been identified on the Subject Lands or Adjacent Lands. No watercourse or valley is present on the Subject Lands or Adjacent Lands.</li> </ul>
Municipality of Central Elgin Official Plan	Significant Wildlife Habitat (SWH)	<ul> <li>Candidate SWH is present on the Subject Lands for:         <ul> <li>Bat Maternity Colonies (candidate) in woodland community FOD6</li> <li>Migratory Butterfly Stopover Areas (candidate) in cultural communities CUT1 and along the edge of woodland community FOD6</li> <li>Land Bird Migratory Stopover Areas (candidate) in woodland community FOD6</li> <li>Seeps and springs (candidate) in swamp thicket SWT3</li> </ul> </li> <li>Additional candidate SWH is present on the Adjacent Lands for:         <ul> <li>Special Concern species Eastern Wood- Pewee, Wood Thrush and Broad Beech Fern in woodlands beyond the Subject Lands</li> </ul> </li> </ul>

Table 3: Natural Heritage Features or Functions of the Subject Lands

	Areas of Natural and Scientific Interest	<ul> <li>The Port Stanley Till earth science ANSI is present on Adjacent Lands, north of the property limit and across Lake Line</li> </ul>
	Fish Habitat	<ul> <li>Fish habitat is absent from the Subject Lands and Adjacent Lands</li> </ul>
	Habitat of Threatened and Endangered Species	<ul> <li>5 Butternut trees [THR] confirmed within the Subject Lands, however these are assessed as non-retainable and are located &gt; 25m from the Development Area.</li> <li>Barn Swallow (THR) nests confirmed in a barn within the Subject Lands in 2015.</li> <li>Potential habitat for three Endangered bat species is assumed to be present within woodlands on the Subject Lands and Adjacent Lands outside of the Development Area</li> </ul>
KCCA Regulations	Wetlands	<ul> <li>The SWT3 community on the Subject Lands does not meet the definition of a regulated wetland per the <i>Conservation Authorities Act</i>, 1990 as it lacks a connection with a surface watercourse.</li> <li>Lands periodically soaked and used for agricultural purposes and no longer exhibit wetland characteristics are also excluded from the definition of a wetland per the <i>Conservation Authorities Act</i>, 1990</li> </ul>

Hazard Lands	The slope in the north of the Subject Lands may be regulated as a hazard feature. The slope stability analysis (EXP, 2021) provides recommendations for hazard mitigation.
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## 5.0 Project Description

The proposal is to establish 93 single detached dwellings with associated future municipal streets on the Subject Lands. Sanitary discharge will be directed to an upgraded sewer pipe connecting to a combined sewer in the Carlow Road R.O.W. that conveys flows to an existing pumping station. The pumping station has been confirmed by the Municipality to have sufficient capacity for additional flows, which are pumped up Lake Line and ultimately discharged into a treatment facility on Scotch Line. Water servicing will be obtained from an existing watermain in the Lake Line R.O.W., through a new 150 mm diameter connection.

Under pre-development conditions there are no storm sewers on site. As part of the development, a storm sewer system will be installed to collect and convey minor runoff from the Subject Lands to a proposed dry stormwater management (SWM) pond located southeast of the site. Minor storm (5-year) and major storm (100-year) runoff will be conveyed to the same SWM pond by site grading. A portion of Marr Drain will be relocated to the servicing easement located behind lots 47-53. The proposed SWM pond will discharged through an oil and grit separator for quality control to the downstream, open channel portion of Marr Drain.

Basement construction is not recommended due to high groundwater levels and soil conditions. Stiffened slab-on-grade construction and foundation pre-loading are recommended as part of the design and construction of the residential homes (Trow, 2007).

A 6m development setback from the toe of the slope will be implemented in order to comply with the Erosion Hazard Limit (EXP, 2021) and provide a buffer to the Significant Woodland. Within this setback, a 2m wide walking trail with a permeable surface is proposed which will be located between the development area and the woodland.

An overlay of the proposed development on the natural heritage features of the Subject Lands is provided in Figure 5.

## 6.0 Potential Impacts and Mitigation Recommendations

Based on the completed site investigations and the assessment of significance, the Subject Lands contain Significant Woodland, have candidate Significant Wildlife Habitat and provide habitat for Butternut [END], Barn Swallow [THR] and may provided habitat for three Endangered bat species. A earth science ANSI, Port Stanley Till, is present on the Adjacent Lands to the north. In accordance with relevant municipal policy, potential direct and indirect impacts to these features must be addressed through avoidance, mitigation or compensation measures.

## 6.1 Significant Woodland

Communities 1 and 2 located on the northern edge of the Subject Lands are part of a Significant Woodland, as defined by the Municipality of Central Elgin Natural Heritage System. The following mitigation and compensation measures are recommended to avoid negative impacts to this natural heritage feature:

**Recommendation 1:** In order to protect the woodland feature and its functions, the development limit should be set back 6m from the dripline of the Significant Woodland. This 6m setback is generally coincident with the Erosion Hazard Limit (development setback for slope stability; EXP, 2021; Figure 4).

**Recommendation 2:** Flag the limits of the Significant Woodland and vegetation communities to be retained prior to construction to avoid inadvertent encroachment.

**Recommendation 3:** Incorporate naturalized plantings with native tree and shrub species in the setback area between the proposed development (e.g. walking trail) and the Significant Woodland to provide a natural buffer to the woodland.

**Recommendation 4:** Invasive plant species that are identified along the woodland edge or within the proposed naturalization area should be removed and best management practices for limiting the spread of floral invasive species should be followed during development.

**Recommendation 5:** Areas of exposed soil following construction should be stabilized with vegetation or other suitable ground cover, avoiding plant species with the potential to invade the Significant Woodland. For information on invasive, non-native plant species in southwestern Ontario refer to: <u>http://thamesriver.on.ca/wp-content/uploads/InvasiveSpecies/Invasive-plants.pdf</u>

## 6.2 Significant Wildlife Habitat

The following candidate (unconfirmed) SWH is present or assumed to be present on the Subject Lands or Adjacent Lands based on woodland size and characteristics.

- Bat Maternity Colonies (candidate) in woodland community FOD6
- Migratory Butterfly Stopover Areas (candidate) in cultural communities CUT1 and along the edge of woodland community FOD6
- Land Bird Migratory Stopover Areas (candidate) in woodland community FOD6
- Seeps and springs (candidate) in swamp thicket SWT3
- Habitat for Special Concern or Rare Wildlife Species: Eastern Wood-pewee (candidate), Wood Thrush (candidate) and Broad Beech Fern (candidate) in woodlands on the Adjacent Lands

All SWH is associated with the Significant Woodland or woodland edge located in the north of the Subject Lands, outside the Development Area. Direct impacts to SWH in the adjacent woodland will

be avoided as the Development Area on the Subject Lands will be set back 6m from the woodland edge.

Wildlife may also experience disturbance during construction when crossing roads or moving through active construction areas. Timing restrictions on vegetation removal are recommended to avoid disturbance to wildlife that may be using natural areas on the site, including breeding birds and bats. Nesting migratory birds are protected under the *Migratory Birds Convention Act* (MBCA), *1994*. No work is permitted to proceed that would result in the destruction of active nests (nests with eggs or young birds), or the wounding or killing of birds, of species protected under the Migratory Birds Convention Act, 1994 and/or Regulations under that Act. Some MBCA-protected species, such as Killdeer, may make use of un-maintained areas as they frequently make nests on the ground in construction sites and other disturbed areas.

Mitigation measures to avoid impacts to wildlife and wildlife habitat are recommended as follows:

**Recommendation 6:** Avoid vegetation clearing and site disturbance during the migratory bird breeding season (April to August 31) to ensure that no active nests will be removed or disturbed, in accordance with the Migratory Birds Convention Act and/or Regulations under that Act. If works are proposed within the breeding season, prior to any vegetation removal or ground disturbance, the area should be checked for nesting birds by a qualified professional. If there are any nesting birds, works within the nesting area should not proceed until after August 31 or the nest is confirmed inactive.

**Recommendation 7:** Where select tree removal is proposed, outside the Significant Woodland, removal of trees (> 10cm DBH) should occur outside the bat maternity roost period, which is approximately May 1 to September 31. This avoidance measure includes dead standing trees.

**Recommendation 8:** If an animal enters the work site, work at that location will stop and the animal should be permitted to leave un-harassed. If there are repeat observations of wildlife in the work area, barrier fencing (e.g. silt fence) may be used to direct wildlife away from active construction and toward natural areas.

## 6.3 Habitat of Endangered or Threatened Species

Based on the review of background data sources (Table 1) and results of field investigations, there is potentially suitable habitat for Bobolink [THR] and Eastern Meadowlark [THR] and confirmed habitat for Butternut [THR]. There is also evidence that the Subject Lands once supported Barn Swallow [THR] in the barn that was removed, partly due to natural causes. Potential habitat is also present, but unconfirmed, on the Adjacent Lands. Based on this, it is our opinion that the proposed development will avoid impacts to species protected under the ESA (2007). Mitigation measures for wildlife and wildlife habitat are recommended, as noted, with the following additions:

**Recommendation 9:** Any observation of a Protected Species should be reported to MECP. Protected Species should not be handled, harassed or moved unless they are in immediate danger.

**Recommendation 10:** Barn Swallow [THR] nests were found within the previously existing structure during general field investigations in 2015. It is recommended that the project will be registered with the MNRF and compensation will be implemented as required by Section 23.5 of Ontario Regulation 242/08. In accordance with the rules in this regulation, the Proponent will install artificial Barn Swallow habitat structures under the direction of a qualified biologist. As three-quarters of the barn collapsed due to structural instability, compensation for the removal one-quarter of the remaining nest sites (10 nests) is recommended.

The compensation structure(s) must provide suitable conditions for Barn Swallow nesting by providing horizontal ledges or rough vertical surfaces with a sheltered overhang, in a location that minimizes predation, and within an area that allows the Barn Swallows to enter and exit nests freely and is capable of providing long term habitat. The amount of habitat provided by the structure must also provide a greater amount of habitat than the amount that was lost in the original building or structure. Monitoring of use of the created habitat will be completed for at least three years, and a Barn Swallow Mitigation and Restoration Record will be kept on file by the Proponent.

## 6.4 Groundwater and Stormwater Management

The following section summarizes potential effects and recommendations related to dewatering, stormwater management and sediment and erosion control, as described in the:

- Functional Servicing Report for Kettle Creek Subdivision (SBM, 2021), and
- Preliminary Geotechnical Investigation, Proposed Residential Development, 37719 Lake Line, Port Stanley, Ontario (Trow Associates Inc., 2007)

The site has been designed to accommodate excess overland flows during minor and major storm events, using a combination of site grading, swales, rear-yard catch basins and construction of a SWM pond. Sufficient storage has been provided in the SWM pond to meet the SWM objectives for the site.

**Recommendation 11:** Homeowners will be provided a Homeowner's Information Package by SBM regarding the SWM function of swales and rear-yard catch basins to encourage regular maintenance and ensure proper function of surface water drainage systems.

**Recommendation 12:** Due to the presence of shallow groundwater and soil conditions, foundation construction for the single family homes is recommended to be pre-loaded, stiffened slab-on-grade. Localized base soil improvements may be required in wet, silty soils, such as the addition of crushed stone bedding with a geotextile.

**Recommendation 13:** Groundwater is expected in service trench excavations 2m deep or greater, but can likely be managed using conventional pumping techniques. Where the groundwater removal rate exceeds 50,000 L per day a Permit to Take Water must be obtained from the Ministry of Environment, Conservation and Parks.

## 6.5 Indirect Impacts

Natural heritage features may also experience indirect effects during construction, such as sedimentation and erosion. Additional indirect impacts on natural features will be mitigated through the implementation of standard environmental protection measures, discussed below.

**Recommendation 14:** [Derived from Functional Servicing Report for Kettle Creek Subdivision (SBM, 2021)] Sediment and erosion control measures have been developed to alleviate the off-site migration of sediments by incorporation of various best management practices and control measures. Such controls may include but are not limited to silt fencing, silt sacks for inlet grate protection (catch basins, and catch basin maintenance holes), tree preservation fencing and erosion control blanket treatment of significant fill/cut slopes. Suitable precautions should be undertaken in maintaining and monitoring these controls during the construction phase. The control measures to be implemented on site should include:

- Protect all exposed surfaces and control all runoff during construction;
- Maintain erosion control measures during construction;
- All collected sediment to be disposed of at an approved location;
- Minimize area disturbed during construction;
- All dewatering to be disposed of in an approved sedimentation basin;

MTE Consultants | 48957-100 | 37719 Lake Line Road Natural Heritage Support | October 22, 2021

- Protect all catch basins, maintenance holes and pipe ends from sediment intrusion with geotextile fabric (Terrafix 270R), silt sacks, or approved equal;
- Keep all sumps clean during construction;
- Prevent wind-blown dust;
- Straw bales to be used in localized areas as directed by the engineer during construction for works which are in or adjacent to flood lines, fill lines and hazardous slopes;
- Straw bales to be terminated by rounding bales to contain and filter runoff;
- Contractor to supply sediment erosion control measures and emergency plan (including emergency contacts) in case of SEC measures failure, extreme weather conditions, or spills. Any spills are to be reported to the MECP at 1-866-6638477 toll free;
- Sediment and Erosion Control measures shall be repaired without delay by the owner's contractor as instructed by the contract administrator/engineer at no expense to the owner
- On-site sediment and erosion control measures are to be reviewed and modified to meet the changing site;
- Sediment and Erosion Control measures are to be inspected weekly or following significant rainfall
- events;
- Obtain approval from the governing Conservation Authority prior to construction for works which are in, or adjacent to flood lines, fill lines and hazardous slopes

All of the above notes and any sediment and erosion control measures are at the minimum to be in accordance with the ministry of natural resources guidelines on sediment and erosion control for urban construction sites. Sediment and erosion control measures to be removed at completion of project (following completion of base asphalt and sod). Sediment and erosion control details and notes have been included with the Site Engineering design (Sheet 3).

**Recommendation 15:** Store hazardous materials away from sensitive natural features. Equipment refueling should occur a minimum of 30m away from natural features.

**Recommendation 16:** All disturbed areas should be re-seeded as soon as possible to maximize erosion protection and to minimize the establishment of invasive species which may spread to the adjacent Significant Woodland.

**Recommendation 17:** Sediment and erosion control fencing should not be removed until adequate re-vegetation and site stabilization has occurred. Additional re-vegetation plantings and/or more time for vegetation to establish may be required; however two growing seasons are typically sufficient to stabilize most sites.

**Recommendation 18**: Soil stockpiles should be established on the tableland in locations where natural drainage is away from the valleyland and associated wetlands. If this is not possible, and there is a possibility of any stock pile slumping and moving toward sensitive natural features, these stockpiles should be protected with robust sediment and erosion control. Access to the stockpile should be confined to the up-gradient side. The stockpile locations should be reviewed at detailed design.

**Recommendation 19:** Regular cleanup of the Subject Lands must be completed during construction and post-construction to ensure the adjacent natural heritage features are not degraded.

## 7.0 Conclusion

We have evaluated the proposal to establish 93 single detached dwellings on the Subject Lands and determined that the potential impacts to natural heritage features on Adjacent Lands have been avoided and/or mitigated with the recommendations herein and in the slope stability report (EXP, 2021). Provided the above recommendations for mitigation are followed during all stages of proposed construction, no significant impacts to the adjacent natural heritage features are expected. MTE seeks comments from the Municipality of Central Elgin, Elgin County and KCCA concerning the contents of this report. Formal comments may be submitted on behalf of the client to MTE. Should any clarification, questions, or additional materials be needed as part of the review of this report, do not hesitate to contact us.

Yours Truly,

**MTE Consultants Inc.** 

Victoria Schveighardt, M.E.S. Biologist

Biologist 519-204-6510 ext. 2230 vschveighardt@mte85.com **Reviewed by:** 

Melissa Cameron, M.Sc., OALA Senior Biologist 519-204-6510 ext. 2263 mcameron@mte85.com

## 9.0 References

- Biologic. 2015. Issues Scoping Report Glover 37719 Lake Line & 320 Carlow Road, Port Stanley, Ontario.
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- EXP. 2017. Slope Assessment, Starthroy Turf Farm Ltd. Kettle Creek Golf and Country Club Development. Project Number LON-0013222-SA.
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- Ministry of Natural Resources and Forestry (MNRF). 2017. Survey Protocol for Species at Risk within Treed Habitats: Little Brown Myotis, Northern Myotis & Tri-coloured Bat. April 2017. 12 pp.
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- Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criterial Schedule B Ecoregion 7E. 40pp. January 2015.
- Trow Associates. 2007. Preliminary Geotechnicial Investigation Proposed Residential Development 37719 Lake Line Port Stanley, Ontario

# **Figures**





## Figure 1: Site Location (Elgin County Mapping, 2015)



0 1,000 Scale 1:50,000 Key Plan

\* Locations are approximate and should be verified by survey where necessary. Print on 11X17, Landscape Orientation 0

Scale 1:8000 October 2021







## Figure 2: Vegetation Communities (Elgin County Mapping, 2015)



0 1,000 Scale 1:50,000 Key Plan

#### Legend

A - Agricultural
A1 - Anthropogenic Disturbed Area
1 FOD6 Fresh-Moist Sugar Maple Deciduous Forest (2.8ha)
1a CUT1 Mineral Cultural Thicket Ecosite (0.3ha)
2 SWT3 Organic Thicket Swamp (seepage fed) (0.5ha)

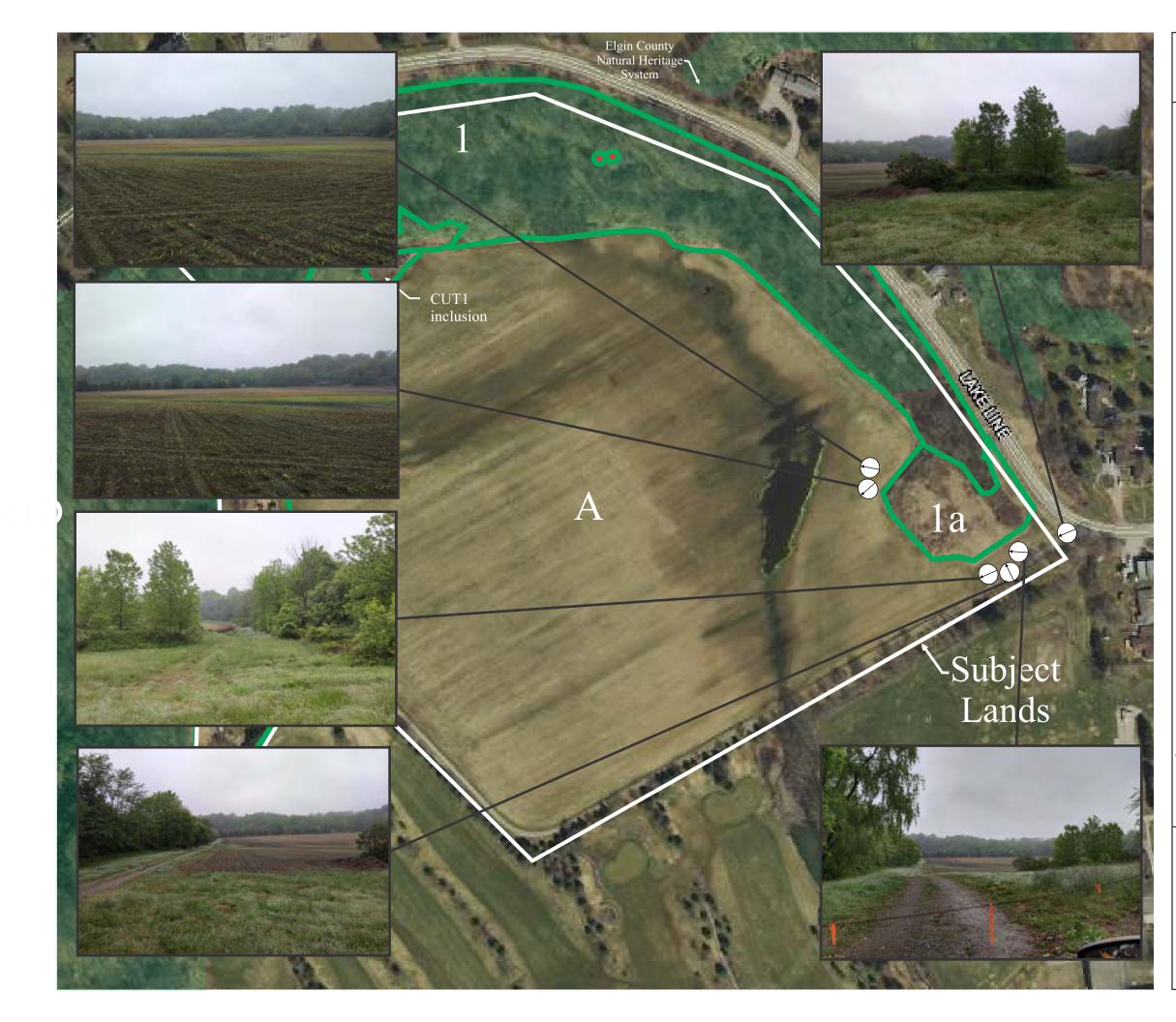
Significant WoodlandCategory 1 Butternut

\* Locations are approximate and should be verified by survey where necessary. Print on 11X17, Landscape Orientation 0 40

Scale 1:2000 October 2021







## Figure 3: Site Photos (Elgin County Mapping, 2015)



0 1,000 Scale 1:50,000 Key Plan

#### Legend

A - Agricultural
A1 - Anthropogenic Disturbed Area
1 FOD6 Fresh-Moist Sugar Maple Deciduous Forest (2.8ha)
1a CUT1 Mineral Cultural Thicket Ecosite (0.3ha)
2 SWT3 Organic Thicket Swamp (seepage fed) (0.5ha)

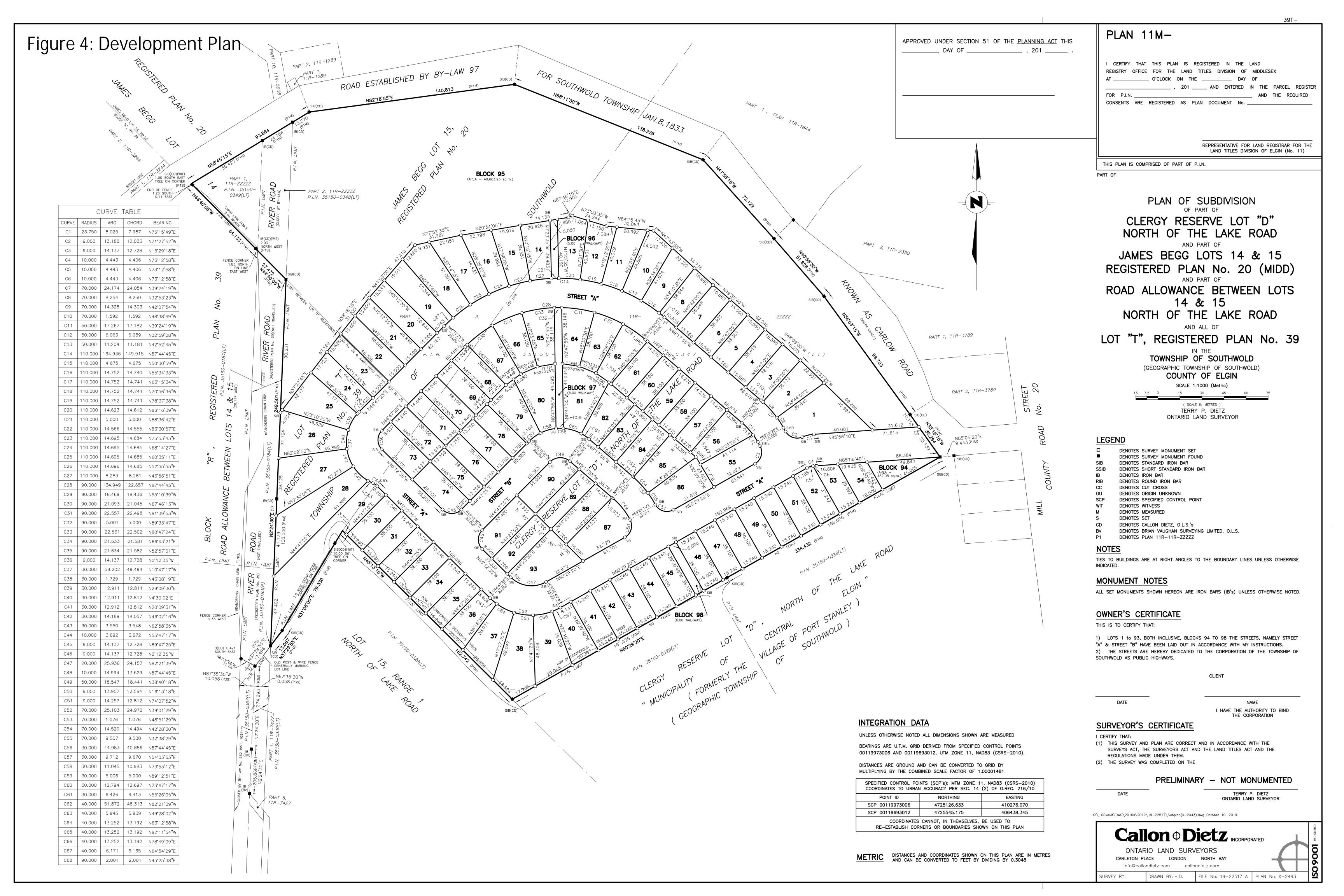
Significant WoodlandCategory 1 Butternut

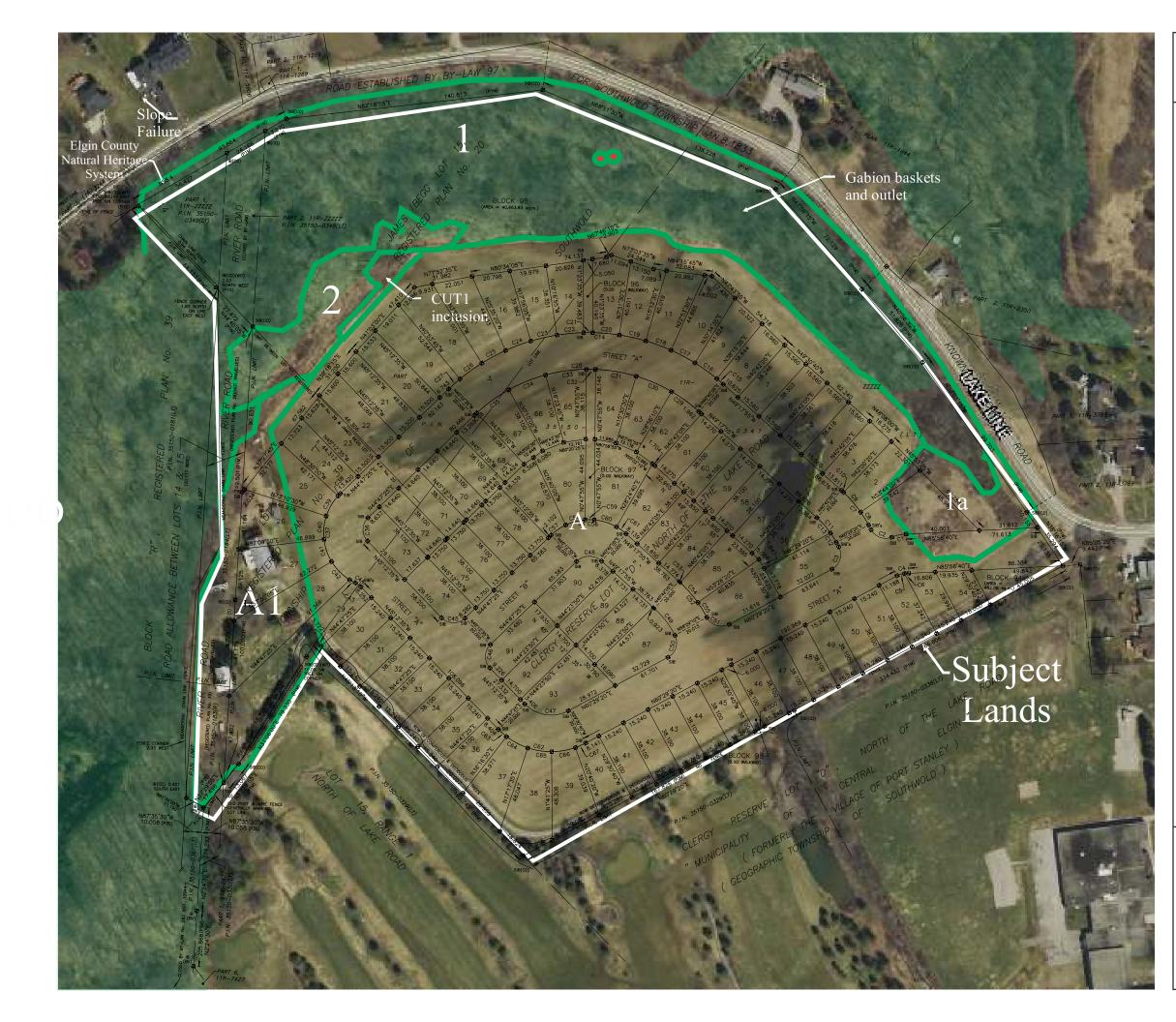
\* Locations are approximate and should be verified by survey where necessary. Print on 11X17, Landscape Orientation 0

Scale 1:2000 October 2021









## Figure 5: Development Overlay (Elgin County Mapping, 2015)



0 1,000 Scale 1:50,000 Key Plan

#### Legend

A - Agricultural
A1 - Anthropogenic Disturbed Area
1 FOD6 Fresh-Moist Sugar Maple Deciduous Forest (2.8ha)
1a CUT1 Mineral Cultural Thicket Ecosite (0.3ha)
2 SWT3 Organic Thicket Swamp (seepage fed) (0.5ha)

Significant WoodlandCategory 1 Butternut

\* Locations are approximate and should be verified by survey where necessary. Print on 11X17, Landscape Orientation 0 40

Scale 1:2000 October 2021







# **Agency Consultation**



## Melissa Cameron

Subject: Location:	FW: Consultation Meeting - 37719 Lake Line https://us02web.zoom.us/j/84062551719? pwd=U0UwdkFxblp1czhReUk3NGI1bm55QT09
Start: End: Show Time As:	Wed 4/7/2021 3:00 PM Wed 4/7/2021 4:00 PM Tentative
Recurrence:	(none)
Organizer:	Lloyd Perrin

-----Original Appointment----From: Lloyd Perrin
Sent: Monday, March 22, 2021 1:30 PM
To: Lloyd Perrin; McCoomb, Jim; james glover; Kevin Moniz; 'Joe Gordon'; Nick Dyjach; Nancy Pasato; blima@elgin.ca; Matthew Statema; Chris McDonough
Subject: FW: Consultation Meeting - 37719 Lake Line
When: Wednesday, April 7, 2021 3:00 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: https://us02web.zoom.us/j/84062551719?pwd=U0UwdkFxblp1czhReUk3NGI1bm55QT09

Good afternoon,

The following is a Zoom meeting invite to discuss a proposal at 37719 Lake Line on Wednesday April 7<sup>th</sup> from 3:00 - 4:00 PM. A previous consultation meeting was held in December 2019 to discuss the proposal and it is the intention of this meeting to allow for the individuals who are new to the file to get up to speed and ensure that the applicant is aware of all the materials that will be required as part of their complete submission. The materials that were submitted along with the consultation request form are attached. If you have any questions, please do not hesitate to ask.

Regards,

**KEVIN McCLURE, MCIP RPP** Planner

Central Elgin Planning Office | Planning & Building Services Dept. 9 Mondamin Street, St. Thomas, Ontario N5P 2T9 e. kmcclure@stthomas.ca t. 519-631-1680 ext: 4164 t. 519-633-2560 f. 519-633-6581



-----Original Appointment-----From: Lloyd Perrin Sent: Monday, March 22, 2021 11:53 AM To: Lloyd Perrin; McClure, Kevin Subject: Consultation Meeting - 37719 Lake Line When: Wednesday, April 7, 2021 3:00 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada). Where: https://us02web.zoom.us/j/84062551719?pwd=U0UwdkFxblp1czhReUk3NGI1bm55QT09

## **CAUTION:**

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Lloyd Perrin is inviting you to a scheduled Zoom meeting.

Join Zoom Meeting https://us02web.zoom.us/j/84062551719?pwd=U0UwdkFxblp1czhReUk3NGI1bm55QT09

Meeting ID: 840 6255 1719 Passcode: 845800 One tap mobile +16473744685,,84062551719# Canada +16475580588,,84062551719# Canada

Dial by your location +1 647 374 4685 Canada +1 647 558 0588 Canada +1 778 907 2071 Canada +1 204 272 7920 Canada +1 438 809 7799 Canada +1 587 328 1099 Canada Meeting ID: 840 6255 1719 Find your local number: <u>https://us02web.zoom.us/u/kbBrR03A1r</u>



September 9, 2021

MTE File No.: 48957-100

Kevin McClure, Planner Central Elgin Planning Office   Planning & Building Services Dept. 9 Mondamin Street, St. Thomas, ON N5P 2T9 Email: kmcclure@stthomas.ca	Jim McCoomb, Manager of Planning Services Central Elgin Planning Office   Planning & Building Services Dept. 9 Mondamin Street, St. Thomas, ON N5P 2T9 Email: jmccoomb@stthomas.ca
Lloyd Perrin, Director of Asset Management/ Development Services Municipality of Central Elgin 450 Sunset Drive, Elgin County Administration Building St. Thomas, Ontario N5R 5V1 Email: LPerrin@centralelgin.org	Nancy Pasato, Manager of Planning Elgin County 450 Sunset Drive, Elgin County Administration Building St. Thomas, Ontario N5R 5V1 Email: npasato@ELGIN.ca
Joe Gordon, Supervisor of Planning Kettle Creek Conservation Authority 44015 Ferguson Line, St. Thomas, ON, N5P 3T3 Email: joe@kettlecreekconservation.on.ca	

Dear Mr. McClure, Mr. McCoomb, Mr. Perrin, Ms. Pasato and Mr. Gordon:

MTE has been retained by Below Me Developments (James Glover) to complete an Environmental Impact Study (EIS) for the proposed Kettle Creek Subdivision at 37719 Lake Line, Port Stanley, the Municipality of Central Elgin and Elgin County (the Subject Lands) in support of a Draft Plan of the Subdivision and Zoning By-Law amendment. An Issues Scoping Report (ISR) was previously submitted for the Subject Lands and adjacent land (BioLogic, 2015) which included a recommendation for a scoped EIS. During a pre-consultation meeting held with the Township of Central Elgin and Kettle Creek Conservation Authority on April 7, 2021, it was confirmed that an EIS was required as part of the Draft Plan application. The agreed-upon scope of the EIS in that meeting was to build on the ISR (BioLogic, 2015) and incorporate life science inventories from 2015 and 2021 to document existing natural heritage features and functions on the Subject Property and adjacent lands, evaluate potential impacts, and recommend appropriate avoidance (e.g. setbacks), mitigation and enhancement measures to protect the natural heritage features.

The 12.8 ha Subject Lands consist of an active sod farm agricultural lands as well as forested slopes, which are part of the Elgin County natural heritage system [Figure 1]. The Adjacent Lands include the Lake Line Right-of-way (R.O.W.) to the north, Kettle Creek Golf and County Club and a Public school to the south, and the River Road R.O.W. to the west. Per the Official Plan of Central Elgin, the Subject Lands have a land use designation of residential in the farmed portion and natural heritage/significant woodland on the forest slopes (Schedule G) and are zoned OS2-29 and OS2-30 (Open Space). The entire Subject Lands are within the area regulated by Kettle Creek Conservation Authority under Ontario Regulation 181/06: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses.

The proposal is to establish 79 single detached lots and 9 semi-detached lots on the Subject Lands, with servicing (water) from a combined sewer in the Carlow Road R.O.W., that is directed to an existing pumping station that ultimately pumps the flows up Lake Line and discharged into the treatment facility on Scotch Line. The proposed area of development is confined to the existing agricultural portions of the Subject Lands.

This Terms of Reference is intended to confirm the scope of natural heritage field investigations as well as the contents of the EIS report for the Subject Lands as agreed upon in the pre-consultation meeting held April 7, 2021. Revisions to the first submission of the Terms of Reference (circulated August 25, 2021) are included herein to incorporate comments provided by Kevin McClure and Nancy Pasato on August 26, 2021 [Appendix A]. The Terms of Reference were prepared with reference to the Municipality of Central Elgin Official Plan policies in Section 3.1.2 and 3.4.2, and Elgin County Official Plan Policies in Section D1.2, specifically, Policy D1.2.8.1 and Appendix B.

## **Proposed Field Investigations and Reporting**

The following field investigations are proposed for 2021 to update data previously gathered on the Subject Lands as part of the ISR (BioLogic, 2015) to inform the current EIS. Field investigations have been scoped to the Subject Lands plus a 120 m Study Area with an emphasis on natural features directly adjacent the development proposal (woodland and thicket wetland) and in consideration of previously-collected data, as noted below:

- ELC to identify and delineate vegetation communities
- Two-season botanical inventory (spring & summer). A fall inventory is not proposed as the lateflowering species targeted during this survey period are typically plants of meadow or prairie habitats, which are absent from the Subject Lands. Data from a three-season inventory completed on the Subject Lands in 2015 (BioLogic, unpublished data) will be incorporated into the EIS.
- Breeding bird surveys (late May-early July)
- Identification of potential habitat for Protected Species (provincially endangered or threatened species), including bat maternity roost trees and fur-bearing mammal dens.
- Documentation of incidental wildlife observations and their habitats in relation to the site

Several field investigations have been excluded from the 2021 field program based on the findings of the ISR (BioLogic, 2015) and additional unpublished data gathered for the Subject Lands. Amphibian surveys were completed on the Subject Lands in 2015 (BioLogic, unpublished data). Habitat suitable for amphibian breeding (i.e. shallow standing water) was not observed within the wetland communities on the Subject Lands, therefore these surveys are not proposed for 2021. Habitat features that would concentrate snake species (e.g. candidate hibernaculum) were not documented in the ISR and there are no records of snake Species at Risk in the vicinity of the Subject Lands, therefore reptile surveys are not proposed. Migratory bird surveys are also not proposed as the development has been designed to avoid direct impacts to the woodland and stopover habitat for migratory waterfowl or shorebirds is not present on the site based ELC and the findings of the ISR. The Significant Wildlife Habitat Mitigation Support Tool (MNR, 2015) recommends avoidance of woodlands but no setback as the key mitigation measure for migratory landbirds, therefore targeted surveys would not inform the assessment of impacts.

The EIS report will include a description of existing natural heritage features using background sources and data gathered during field investigations, an assessment of natural heritage feature significance and sensitivity, including an assessment of Significant Wildlife Habitat and habitat for Species at Risk, a description of the proposed undertaking, an assessment of potential impacts, and recommendations for avoidance, mitigation or enhancement of natural heritage features to assist with the site design. Figures depicting key natural features and the proposed development on the Subject Lands and within 120m will be included with the report, along with appendices documenting data collection.

## Summary

This Terms of Reference for an EIS, as agreed upon in the pre-consultation meeting on April 7, 2021, has been prepared in accordance with policies of the Municipality of Central Elgin Official Plan in Sections 3.1.2 and 3.1.4, and the Elgin County Official Plan Policy D1.2.8.1 and Appendix B. We welcome your comments and look forward to confirming these Terms of Reference.

Yours Truly,

**MTE Consultants Inc.** 

Melissa Cameron Senior Biologist 519-204-6510 ext. 2263 mcameron@mte85.com



# Figure 1: Vegetation Communities (Elgin County Mapping, 2006)



0 1,000 Scale 1:50,000 Key Plan

#### Legend

A - Agricultural (7.93ha)
A1 - Anthropogenic Disturbed Area (0.55ha)
1 FOD5-2 Dry-Fresh Sugar Maple-Beech Deciduous Forest (1.9ha)
1a (CUT1 Mineral Cultural Thicket Ecosite 0.5ha)
1b (CUW1 Mineral Cultural Woodland Ecosite 0.6ha)
2 SWT2 Mineral Thicket Swamp (0.9ha)

Significant Woodland (approximate boundary)

\* Locations are approximate and should be verified by survey where necessary. Print on 11X17, Landscape Orientation 0 40

Scale 1:2000 August 2021







# Agency Comments for EIS Terms of Reference (submitted Aug 25, 2021)



#### Melissa Cameron

From:	Melissa Cameron
Sent:	Thursday, August 26, 2021 2:07 PM
То:	'Nancy Pasato'; McClure, Kevin; McCoomb, Jim; 'LPerrin@centralelgin.org'; 'Joe
	Gordon'
Cc:	'Kevin Moniz'; james glover
Subject:	RE: EIS Terms of Reference for 37719 Lake Line, Port Stanley

#### Hi Nancy,

Thank you for your comments! The EIS was scoped in a meeting on April 7<sup>th</sup>, 2021 and is based on the development proposal, the findings of the ISR (BioLogic 2015) and additional data gathered by BioLogic in 2015. These data were discussed in the scoping meeting, however I understand you may not have been present so I've incorporated that information into my responses below.

1. Plant Inventory – a three-season inventory was completed on the Subject Lands by BioLogic in 2015 (data unpublished). Our 2021 updated field investigations are scoped to the natural features adjacent the current development proposal (woodland and thicket) in which late-flowering species typical of open habitats, like meadow or prairie, are not expected.

#### 2. Wildlife Inventories

- a. Breeding bird surveys are proposed during the appropriate season (late-May/June). These have been completed.
- b. Habitat assessments for mammals (e.g. bats, fur-bearing mammals) are included in the TOR (bullets 4 & 5).
- c. Amphibian surveys were completed on the Subject Lands by BioLogic in 2015 (data unpublished). Habitat suitable for amphibian breeding (i.e. shallow standing water) was not observed within the wetland communities on the Subject Lands, therefore these surveys are excluded from the 2021 TOR and EIS.
- d. There were no features observed on the Subject Lands in the ISR that would concentrate snake species (e.g. candidate hibernaculum) and no records of snake Species at Risk in the vicinity of the Subject Lands, therefore reptile surveys are not proposed.
- e. Migratory Bird surveys are not proposed as the development has been designed to avoid direct impacts to the woodland (Candidate SWH for migratory landbird stopover) and Candidate SWH for migratory waterfowl or shorebirds is not present on the site based ELC and the on the findings of the ISR. The Significant Wildlife Habitat Mitigation Support Tool (MNR, 2015) recommends avoidance of woodlands as the key mitigation measure for migratory landbirds, and no setback beyond the feature is recommended for this particular SWH type. The potential for indirect impacts to candidate SWH will be addressed in the EIS.
- f. Significant Wildlife Habitat and habitat for Species at Risk were assessed as part of the ISR (BioLogic, 2015) and these assessments will be updated in the 2021 EIS.
- 3. For 2021, our focus for field investigations is on the natural features in communities 1 and 2 and updating the data set from 2014/2015. However, the EIS will address the entire area shown as Subject Lands (including community A1) plus a 120m Study Area.

If we can provide more information to assist in your review of the Terms of Reference please us let know. We would be happy to add the information noted above to the TOR document if it satisfies the County's concerns.

Melissa

#### Client First | Right Solution | Work Together Melissa Cameron, M.Sc., M.LA, OALA Senior Biologist

London x2263

From: Nancy Pasato <npasato@ELGIN.ca>

Sent: Thursday, August 26, 2021 9:46 AM

To: McClure, Kevin <kmcclure@stthomas.ca>; Melissa Cameron <MCameron@mte85.com>; McCoomb, Jim <jmccoomb@stthomas.ca>; 'LPerrin@centralelgin.org' <LPerrin@centralelgin.org>; 'Joe Gordon' <joe@kettlecreekconservation.on.ca>

Cc: 'Kevin Moniz' <kevin@sbmltd.ca>; james glover <jamesgluv@gmail.com>

Subject: RE: EIS Terms of Reference for 37719 Lake Line, Port Stanley

Hello Melissa – following up from Kevin's email, having reviewed the requirements of an EIS as outlined in Appendix B of the County Official Plan, it appears much of the required information is missing from your terms of reference. For instance:

- as per clause b), a three season inventory is required why does your terms of reference only outline two?
- as per clause c), no mention of a three season survey of bird, mammal and reptile and amphibian species and an
  assessment of potential wildlife species based on available habitat types, in addition to the bird survey being
  undertaken during the peak period for migratory and breeding bird activity (i.e. May and June for Breeding Bird
  Activities and May to October for peak migratory activity)
- the TofR also does not seem to indicate that you will be reviewing the southern pointed corner (labelled as A1 on the attached drawing) please confirm this

Please review Appendix B of the County OP and address the required items, in addition to the requirements for Central Elgin in your Terms of Referce and ultimately, within the EIS. Thanks.

#### Nancy Pasato, RPP

Manager of Planning



450 Sunset Drive St. Thomas, ON. N5R 5V1 (519) 631-1460 ext.126 www.elgincounty.ca

From: McClure, Kevin <<u>kmcclure@stthomas.ca</u>>

Sent: August 26, 2021 9:35 AM

To: Melissa Cameron <<u>MCameron@mte85.com</u>>; McCoomb, Jim <<u>jmccoomb@stthomas.ca</u>>; 'LPerrin@centralelgin.org' <<u>LPerrin@centralelgin.org</u>>; Nancy Pasato <<u>npasato@ELGIN.ca</u>>; 'Joe Gordon' <<u>joe@kettlecreekconservation.on.ca</u>> Cc: 'Kevin Moniz' <<u>kevin@sbmltd.ca</u>>; james glover <<u>jamesgluv@gmail.com</u>> Subject: RE: EIS Terms of Reference for 37719 Lake Line, Port Stanley

Good morning Melissa,

The Municipality of Central Elgin has specific criteria in its Official Plan that speaks to Issues Scoping Reports and Environmental Impact Statements (attached). I believe that you and your client should be satisfied that there is sufficient analysis undertaken to ensure that the information submitted satisfies the requirements in the Official Plan and that there is demonstration that the proposed development

and/or site alteration will not have any negative impacts on the natural heritage features and their ecological functions.

Regards,

#### KEVIN McCLURE, MCIP RPP Planner

Central Elgin Planning Office | Planning & Building Services Dept. 9 Mondamin Street, St. Thomas, Ontario N5P 2T9 e. kmcclure@stthomas.ca t. 519-631-1680 ext: 4164 t. 519-633-2560 f. 519-633-6581



From: Melissa Cameron Sent: Wednesday, August 25, 2021 3:14 PM To: McClure, Kevin <<u>kmcclure@stthomas.ca</u>>; McCoomb, Jim <<u>jmccoomb@stthomas.ca</u>>; 'LPerrin@centralelgin.org' <<u>LPerrin@centralelgin.org</u>>; 'Nancy Pasato' <<u>npasato@ELGIN.ca</u>>; 'Joe Gordon' <<u>joe@kettlecreekconservation.on.ca</u>> Cc: 'Kevin Moniz' <<u>kevin@sbmltd.ca</u>>; james glover <<u>jamesgluv@gmail.com</u>> Subject: EIS Terms of Reference for 37719 Lake Line, Port Stanley

#### CAUTION:

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. McClure, Mr. McCoomb, Mr. Perrin, Ms. Pasato and Mr. Gordon:

MTE has been retained by Below Me Developments (James Glover) to complete an Environmental Impact Study (EIS) for the proposed Kettle Creek Subdivision at 37719 Lake Line, Port Stanley, the Municipality of Central Elgin and Elgin County (the Subject Lands) in support of a Draft Plan of Subdivision and Zoning By-Law amendment. An Issues Scoping Report (ISR) was previously submitted for the Subject Lands and adjacent land (BioLogic, 2015) which included a recommendation for a scoped EIS. During a pre-consultation meeting held with the Township of Central Elgin and Kettle Creek Conservation Authority on April 7, 2021, it was confirmed that an EIS was required as part of the Draft Plan application. The EIS will build on the ISR (BioLogic, 2015) and incorporate life science inventories from 2021 to document existing natural heritage features and functions on the Subject Property and adjacent lands, evaluate potential impacts, and recommend appropriate avoidance (e.g. setbacks), mitigation and enhancement measures to protect the natural heritage features.

A Terms of Reference (TOR) for the EIS is attached which describes the proposed scope of natural heritage field investigations as well as the contents of the EIS report for the Subject Lands, as agreed upon in the pre-consultation meeting held April 7, 2021.

We would appreciate your confirmation of receipt of this email and look forward to confirming the TOR with you in advance of our EIS report submission.

Sincerely,

Melissa

Melissa Cameron, M.Sc., M.LA, OALA | Senior Biologist MTE Consultants Inc. T: 519-204-6510 x2263 | <u>MCameron@mte85.com</u> 123 St George St., London, Ontario N6A 3A1 www.mte85.com | <u>Twitter</u> | <u>LinkedIn</u> | <u>Instagram</u> | <u>Facebook</u>

Our structural engineering team is growing with the acquisition of Atkins + Van Groll. Visit our <u>website</u> to learn more.

**COVID-19 Update:** We remain operational and are currently available by email and phone, however, our offices are closed. Staff that are required to visit job sites or perform field work are required to follow MTE health and safety policies and procedures, as well as additional COVID-19 protocols, which can be viewed <u>here</u>.

Notice: The electronic information provided is confidential and privileged, and may not be used for purposes other than work related to the subject project. Redistribution or copies to others made without written permission from MTE Consultants Inc. is strictly prohibited. MTE assumes no liability or responsibility, and makes no guarantee or warranty with respect to the data contained, either expressed or implied.

**Notice:** A number of Elgin County services are unavailable at this time due to the evolving health situation (COVID-19). Please visit <u>www.elgincounty.ca</u> for daily updates.



## **Species Lists**



		Floral Inver	ntorv							
Scientific Name	Common Name	CW	GRank	COSEWIC	Nrank	SARO	SRank	EL	Туре	Invasive
butilon theophrasti	Velvetleaf	3.0	GNR		NNA		SE5	IC	FO	
cer saccharinum	Silver Maple	-3.0	G5		N5		S5	С	TR	
grimonia parviflora	Swamp Agrimony	-1.0	G5		N4		S4	R	FO	
grostemma githago var. githago	Common Corncockle	3.0	GNRTNR		NNA		SE3		FO	
grostis stolonifera	Creeping Bentgrass	-3.0	G5		N5		SE5	IC	GR	
lliaria petiolata	Garlic Mustard	0.0	GNR		NNA		SE5	IC	FO	Y
mbrosia artemisiifolia	Common Ragweed	3.0	G5		N5		S5	С	FO	
rctium minus	Common Burdock	3.0	GNR		NNA		SE5	IC	FO	
sclepias syriaca	Common Milkweed	5.0	G5		N5		S5	C	FO	
arbarea vulgaris	Bitter Wintercress	0.0	GNR		NNA		SE5	IC	FO	
erberis thunbergii	Japanese Barberry	3.0	GNR		NNA		SE5	IU	SH	Y
arex blanda	Woodland Sedge	0.0	G5		N5		S5	C	SE	
helone glabra	White Turtlehead	-5.0	G5		N5		S5	X	FO	
ichorium intybus	Chicory	3.0	GNR		NNA		SE5	IC	FO	
rcaea canadensis	Broad-leaved Enchanter's Nightshade	3.0	G5		N5		\$5	C	FO	
rsium arvense	Canada Thistle	3.0	G5		NNA		SE5	IC	FO	Y
rsium vulgare	Bull Thistle	3.0	GNR		NNA		SE5	IC	FO	
onvolvulus arvensis	Field Bindweed	5.0	GNR		NNA		SE5	IX	VI	
ornus alternifolia	Alternate-leaved Dogwood	3.0	G5		N5		S5	X	SH	
rnus racemosa	Gray Dogwood	0.0	G5		N5		S5	X	SH	
rnus sericea	Red-osier Dogwood	-3.0	G5		N5		S5	C	SH	
ctylis glomerata	Orchard Grass	3.0	GNR		NNA		SE5	IC	GR	
ucus carota	Wild Carrot	5.0	GNR		NNA		SE5	IC	FO	
osacus fullonum	Common Teasel	3.0	GNR		NNA		SE5	IC	FO	Y
hinochloa crus-galli	Large Barnyard Grass	-3.0	GNR		NNA		SE5	IC	GR	
eagnus umbellata	Autumn Olive	3.0	GNR		NNA		SE3	IR	SH	Y
ocharis obtusa	Blunt Spikerush	-5.0	G5		N5		S5	C	SE	
imus repens	Creeping Wildrye	3.0	GNR		NNA		SE5	IC	GR	
mus virginicus	Virginia Wildrye	-3.0	G5		N5		S5		GR	
ilobium ciliatum	Northern Willowherb	-3.0	G5		N5		S5		FO	+
nilobium parviflorum	Small-flowered Willowherb	3.0	GNR		NNA		SE4		FO	Y
ipactis helleborine	Eastern Helleborine	3.0	GNR		NNA		SE5	IU	FO	Y
uisetum arvense	Field Horsetail	0.0	G5		N5		S5	C	FE	
igeron annuus	Annual Fleabane	3.0	G5		N5		S5	C	FO	
igeron hyssopifolius	Daisy Fleabane	-3.0	G5		N5		S5	, , , , , , , , , , , , , , , , , , ,	FO	+
ipatorium perfoliatum	Common Boneset	-3.0	G5 G5		N5		S5	С	FO	
iphorbia corollata	Flowering Spurge	5.0	G5 G5		N4		S4	, , , , , , , , , , , , , , , , , , ,	FO	
thamia graminifolia	Grass-leaved Goldenrod	0.0	G5 G5		N5		S4 S5	С	FO	+
trochium maculatum	Spotted Joe Pye Weed	-5.0	G5 G5		N5		S5	, v	FO	
itrochium purpureum	Purple Joe Pye Weed	0.0	G5 G5		N4		\$4	R	FO	
agus grandifolia	American Beech	3.0	G5 G5		N5		S4	C	TR	
raxinus americana	White Ash	3.0	G5 G5		N5		54 S4	C	TR	
raxinus pennsylvanica	Green Ash	-3.0	G5 G5		N5		54 S4	C	TR	+
· · · · · · · · · · · · · · · · · · ·		0.0	G5 G5		N5	ł	S5	X	FO	

Glechoma hederacea	Ground Ivy	3.0	GNR	NNA	SE5	IX	FO	
Hackelia virginiana	Virginia Stickseed	3.0	G5	N5	S5	X	FO	
Hesperis matronalis	Dame's Rocket	3.0	G4G5	NNA	SE5	IC	FO	Y
Hypericum perforatum	Common St. John's-wort	5.0	GNR	NNA	SE5	IC	FO	Y
Impatiens capensis	Spotted Jewelweed	-3.0	G5	N5	S5	C	FO	
Juglans nigra	Black Walnut	3.0	G5	N4	\$4?	C	TR	
Juncus tenuis	Path Rush	0.0	G5	N5	S5	C	RU	
Juniperus virginiana	Eastern Red Cedar	3.0	G5	N5	S5	Ŭ	TR	
Leontodon hispidus	Common Hawkbit	0.0	GNR	NNA	SEH		FO	
Leucanthemum vulgare	Oxeye Daisy	5.0	GNR	NNA	SE5	IC	FO	
Ligustrum vulgare	European Privet	3.0	GNR	NNA	SE5	IR	SH	Y
Lindera benzoin	Spicebush	-3.0	G5	N5	S4	C	SH	
Liriodendron tulipifera	Tulip Tree	3.0	G5	N4	S4	C	TR	
Lobelia siphilitica	Great Blue Lobelia	-3.0	G5	NNR	S5	X	FO	
Lolium arundinaceum	Tall Fescue	3.0	GNR	NNA	SE5	IC	GR	
Lonicera japonica	Japanese Honeysuckle	3.0	GNR	NNA	SE2	IR	VW	Y
Lonicera tatarica	Tartarian Honeysuckle	3.0	GNR	NNA	SE5		SH	Y
Lythrum salicaria	Purple Loosestrife	-5.0	G5	NNA	SE5	IC	FO	Y
Malus prunifolia	Pear-leaved Crabapple	5.0	GNR	NNA	SE1	IR	SH	
Melilotus albus	White Sweet-clover	3.0	G5	NNA	SE5	IC	FO	Y
Mimulus ringens	Square-stemmed Monkeyflower	-5.0	G5	N5	S5	х	FO	
Monarda fistulosa	Wild Bergamot	3.0	G5	N5	S5		FO	
Morus alba	White Mulberry	0.0	GNR	NNA	SE5	IU	TR	Y
Muhlenbergia mexicana	Mexican Muhly	-3.0	G5	N5	S5	С	GR	
Nepeta cataria	Catnip	3.0	GNR	NNA	SE5	IC	FO	
Oenothera biennis	Common Evening Primrose	3.0	G5	N5	S5	Х	FO	
Ostrya virginiana	Eastern Hop-hornbeam	3.0	G5	N5	S5	С	TR	
Oxalis stricta	Upright Yellow Wood-sorrel	3.0	G5	N5	S5	Х	FO	
Parthenocissus vitacea	Thicket Creeper	3.0	G5	N5	S5	С	VW	
Persicaria careyi	Carey's Smartweed	-3.0	G4	N4	S4		FO	
Petroselinum crispum	Garden Parsley	5.0	GNR	NNA	SE1	IR	FO	
Phalaris arundinacea	Reed Canary Grass	-3.0	G5	N5	S5	С	GR	Y
Phragmites australis	Common Reed	-3.0	G5	N5	S4?		GR	Y
Physocarpus opulifolius	Eastern Ninebark	-3.0	G5	N5	S5	Х	SH	
Poa pratensis	Kentucky Bluegrass	3.0	G5	N5	S5		GR	
Podophyllum peltatum	May-apple	3.0	G5	N5	S5	С	FO	
Populus deltoides	Eastern Cottonwood	0.0	G5	N5	S5		TR	
Prunus serotina	Black Cherry	3.0	G5	N5	S5	С	TR	
Rhamnus cathartica	Common Buckthorn	0.0	GNR	NNA	SE5	IC	SH	Y
Rhus typhina	Staghorn Sumac	3.0	G5	N5	S5	С	SH	
Robinia pseudoacacia	Black Locust	3.0	G5	NNA	SE5	IC	TR	Y
Rosa multiflora	Multiflora Rose	3.0	GNR	NNA	SE5	IX	SH	Y
Rosa palustris	Swamp Rose	-5.0	G5	NNR	S5	Х	SH	
Rubus idaeus ssp. idaeus	Common Red Raspberry	3.0	G5T5	NNR	SE1		SH	
Rubus occidentalis	Black Raspberry	5.0	G5	N5	S5	Х	SH	
Rudbeckia hirta	Black-eyed Susan	3.0	G5	N5	S5	С	FO	

Rumex crispus	Curly Dock	0.0	GNR		NNA	SE5	IC	FO	
Rumex obtusifolius	Bitter Dock	-3.0	GNR GNR		NNA	SE5 SE5	IX	FO	
Salix bebbiana	Bebb's Willow	-3.0	GNR G5		NNA N5	SED S5	X	SH	
Salix x fragilis	(Salix alba X Salix euxina)	-3.0			NNA	SD SNA		TR	
Scirpus atrovirens	Dark-green Bulrush	-5.0	GNA G5				hyb C	SE	
Senecio vulgaris	Common Ragwort				N5	S5 SE5	-	FO	
Setaria faberi	Giant Foxtail	5.0	GNR		NNA		IX	GR	
		3.0	GNR		NNA	SE4	IC		
Setaria pumila	Yellow Foxtail	0.0	GNR		NNA	SE5	IC	GR	
Solanum dulcamara	Bittersweet Nightshade	0.0	GNR		NNA	SE5	IC	VW FO	Y
Solidago canadensis	Canada Goldenrod	3.0	G5		N5	S5		FO FO	
Solidago gigantea	Giant Goldenrod	-3.0	G5		N5	S5	Х		
Solidago patula	Round-leaved Goldenrod	-5.0	G5		N5	S4	Х	FO	
Sonchus arvensis	Field Sow-thistle	3.0	GNR		NNA	SE5	IX	FO	
Symphyotrichum lanceolatum var. interior	Interior White Aster	-3.0	G5T5		NNR	S4S5		FO	
Symphyotrichum novae-angliae	New England Aster	-3.0	G5		N5	S5	С	FO	
Symphyotrichum puniceum	Swamp Aster	-5.0	G5		N5	S5	Х	FO	
Symphyotrichum urophyllum	Arrow-leaved Aster	5.0	G4G5		N4	S4	Х	FO	
Symplocarpus foetidus	Skunk Cabbage	-5.0	G5		N5	S5	С	FO	
Taraxacum officinale	Common Dandelion	3.0	G5		N5	SE5	IC	FO	
Thelypteris palustris	Marsh Fern	-3.0	G5		N5	S5	С	FE	
Thuja occidentalis	Eastern White Cedar	-3.0	G5		N5	S5	С	TR	
Trifolium repens	White Clover	3.0	GNR		NNA	SE5	IX	FO	
Tussilago farfara	Colt's-foot	3.0	GNR		NNA	SE5	IC	FO	Y
Typha angustifolia	Narrow-leaved Cattail	-5.0	G5		N5	SE5	IC	FO	Y
Typha latifolia	Broad-leaved Cattail	-5.0	G5		N5	S5	С	FO	
Urtica dioica	Stinging Nettle	0.0	G5		N5	S5		FO	
Verbascum thapsus	Common Mullein	5.0	GNR		NNA	SE5	IC	FO	
Verbena hastata	Blue Vervain	-3.0	G5		NNR	S5	С	FO	
Verbena urticifolia	White Vervain	0.0	G5		N5	S5	Х	FO	
Viburnum opulus	Cranberry Viburnum	-3.0	G5		N5	S5		SH	
Vitis riparia	Riverbank Grape	0.0	G5		N5	S5	С	VW	
		1							<u> </u>
	1								



## AVIFAUNAL SURVEY INFORMATION SUMMARY SHEET

**Project:** <u>48957-</u>100 **Collector(s):** W. Huys

	Date	Start	Finish	Weather
Visit 1	3-Jun-21	8:00am	8:30am	overcast
Visit 2	22-Jun-21	8:00am	8:30am	cool, overcast

<b>Species</b>	Species		Comm.	. 1			ESA	PIF	
Abbr.	Name	Visit 1		Vis	sit 2	S Rank		Status	Notes
		Code	No.	Code	No.		Status	Status	
KILL	Killdeer	Р	2	OB	1	S5			In field
GCFL	Great Crested Flycatcher	SH	1			S4	-		
WAVI	Warbling Vireo	SM	1	SM	1	S5			
BCCH	Black-capped Chickadee	SM	1			S5	-		
HOWR	House Wren	SM	1			S5			
AMRO	American Robin	Р	4	FY	3	S5			
YWAR	Yellow Warbler	P/T	2	Т	2	S5			
AMRE	American Redstart	SM	1	SM	1	S5			
EATO	Eastern Towhee			VO	1	S4		RC	
SOSP	Song Sparrow	Р	2	SM	1	S5			
NOCA	Northern Cardinal	SH	2	OB	3	S5			
INBU	Indigo Bunting			SM	1	S4			
RWBL	Red-winged Blackbird	Р	5			S4			
BHCO	Brown-headed Cowbird	SH	2	SH	2	S4			
BAOR	Baltimore Oriole	Р	2	Р	2	S4		RC,RS	Along lane

**Evidence Codes:** 

**Breeding Bird - Possible** 

SH=Suitable Habitat SM=Singing Male

**Breeding Bird - Probable** 

T=Territory A=Anxiety Behaviour D=Display N=Nest Building P=Pair V=Visiting Nest

**Breeding Bird - Confirmed** 

DD=Distraction NE=Eggs AE=Nest Entry NU=Nest Used NY=Nest Young FY=Fledged Young FS=Food/Faecal Sack Other Wildlife Evidence

OB=Observed DP=Distinctive Parts TK=Tracks VO=Vocalization HO=House/Den FE=Feeding Evidence CA=Carcass Fy=Eggs or Young SC=Scat SI=Other Signs (specify)

FL=Flyover FO=Foraging



### **AVIFAUNAL SURVEY INFORMATION SUMMARY SHEET**

W. Huys

_	Date	Start	Finish	Weather	
Visit 1	15-Jun-15	6:45 AM	7:15 AM	24C, wind 1, 10% cloud, 0 precipita	ation
Visit 2	29-Jun-15	7:30 AM	8:00 AM	15C, wind 1, 0% cloud, 0 precipitati	ion

<b>Species</b>	Species		Comm.	1	Со	mm. 2			s	ESA	PIF	
Abbr.	Name		Visit 1	Visit 2	Visit 1		Vis	it 2	-	Status	Status	Notes
		Code	No.	No.	Code	No.	Code	No.	капк	Status	Status	
WAVI	Warbling Vireo	SM	1	SM	1				S5			
AMRO	American Robin	FY	10						S5			
YWAR	Yellow Warbler	NE	4	NE	2				S5			
SOSP	Song Sparrow	Ρ	2	Р	2				S5			
NOCA	Northern Cardinal	Р	5	Р	2				S5			
RWBL	Red-winged Blackbird	FY	8						S4			
AMGO	American Goldfinch			Р	3				S5			

#### Evidence Codes:

#### **Breeding Bird - Possible**

SH=Suitable Habitat SM=Singing Male

#### Breeding Bird - Probable

T=Territory A=Anxiety Behaviour D=Display N=Nest Building P=Pair V=Visiting Nest

#### Breeding Bird - Confirmed

DD=Distraction NE=Eggs AE=Nest Entry NU=Nest Used NY=Nest Young FY=Fledged Young FS=Food/Faecal Sack

#### Other Wildlife Evidence

OB=Observed DP=Distinctive Parts TK=Tracks VO=Vocalization HO=House/Den FE=Feeding Evidence CA=Carcass Fy=Eggs or Young SC=Scat SI=Other Signs (specify)

#### Appendix C – Candidate Significant Wildlife Habitat Assessment Table

Subject Lands ELCs: FOD6, SWT3, CUT1, Adjacent Lands ELC's: FOD6, CUP3

#### Seasonal Concentration of Animals

Wildlife Habitat	ELC Codes Triggers	Additional Habitat Criteria	Subject Lands Candidate SWH	Adjacent Lands Candidate SWH
Waterfowl Stopover and Staging Areas (Terrestrial)	CUT1, A	- Fields with spring sheet water are present within the Agricultural portion of the Subject Lands, however these do not contain waste grains which would concentrate staging waterfowl.	No	No
Waterfowl Stopover and Staging Areas (Aquatic)	None Present	- Marsh wetlands large enough to support significant concentration of waterfowl are absent from the Subject Lands and Adjacent Lands.	No	No
Shorebird Migratory Stopover Area	None Present	- Beach areas, bars, seasonally flooded, muddy and un-vegetated shoreline habitat are absent from the Subject Lands and Adjacent Lands	No	No
Raptor Wintering Area	FOD6 CUT1	<ul> <li>Habitat &gt;20ha with a combination of forest and open uplands is absent from the Subject Lands and Adjacent Lands</li> </ul>	No	No
Bat Hibernacula	None Present	- No caves, mine shafts, underground foundations present	No	No
Bat Maternity Colonies	FOD6	<ul> <li>Woodlands on and Adjacent to the Subject Lands are assumed to provide suitable roosting habitat for bats</li> </ul>	Candidate	Candidate
Turtle Wintering Areas	None present	<ul> <li>Deep (&gt;2m) permanent waterbodies are greater than 120m from the Subject Lands</li> </ul>	No	No
Reptile Hibernaculum	None Present	<ul> <li>No burrows, rock piles, rock crevices, or mammal burrows were observed on the Subject Lands</li> </ul>	No	No

Colonially-Nesting Bird Breeding Habitat (Bank / Cliff)	CUT1	- No exposed cliffs or banks	No	No
Colonially-Nesting Bird Breeding Habitat (Trees/Shrubs)	None Present	<ul> <li>Mixed and deciduous treed wetland is absent from the Subject Lands. The small swamp thicket community is of insufficient size to support a concentration of colonial-nesting birds. No nesting colonies were observed in this community during field investigations.</li> </ul>	No	No
Colonially-Nesting Bird Breeding Habitat (Ground)	CUTI	<ul> <li>Islands or peninsulas associated with open water or in the marshy areas are absent from the Subject Lands</li> </ul>	No	No
Migratory Butterfly Stopover Areas	FOD6 CUT1	<ul> <li>The Subject Lands are located within 5km of Lake Erie or Lake Ontario, however limited nectar producing and egg-laying plants were observed along the forest edges and in cultural communities.</li> <li>Monarch was observed on the Subject Lands during field investigations.</li> </ul>	Candidate	Candidate
Land Bird Migratory Stopover Areas	FOD6	<ul> <li>The Subject Lands are located within 5kn of Lake Erie or Lake Ontario.</li> <li>Woodlands on the Subject Lands and Adjacent Lands are assumed to provide stopover habitat for migrating landbirds.</li> </ul>	Candidate	Candidate
Deer Winter Congregation Areas	FOD6	- Deer winter congregation areas are typically mapped by MNRF. No deer winter congregation areas are mapped within the Subject Lands or Adjacent Lands	No	No

Rare Vegetation Communities

Wildlife Habitat	ELC Codes Triggers	Additional Habitat Criteria	Subject Lands Candidate SWH	Adjacent Lands Candidate SWH
Cliffs and Talus Slopes	None Present	- No vertical cliffs with bedrock >3m in height	No	No
Sand Barren	None Present	- No sand barren areas >0.5ha	No	No
Alvar	CUT1 CUW1	- No alvars >0.5ha	No	No
Old Growth Forest	FOD5	- Woodland area not >0.5ha, dominant tree species not >140 years old	No	No
Savannah	None Present	- No savannah habitat with 25-60% tree cover	No	No
Tallgrass Prairie	None Present	- No ground cover dominated by prairie grasses	No	No
Other Rare Vegetation	None Present	- No Provincially Rare vegetation communities	No	No

Specialized Habitats of Wildlife considered SWH

Wildlife Habitat	ELC Codes Triggers	Additional Habitat Criteria	Subject Lands Candidate SWH	Adjacent Lands Candidate SWH
Waterfowl Nesting Area	SWT3	<ul> <li>No wetland &gt;0.5ha or cluster of smaller wetlands are present on the Subject Lands. The swamp thicket on the Subject Property is too small and lacking in standing water to support a concentration of nesting waterfowl.</li> </ul>	No	No
Bald Eagle and Osprey Nesting, Foraging, Perching	FOD6	<ul> <li>Nests of Bald Eagle or Osprey were not observed within the Subject Lands.</li> <li>No super-canopy trees providing ideal perches are present on the Subject Lands or Adjacent Lands</li> </ul>	No	No
Woodland Raptor Nesting Habitat	None Present	<ul> <li>Natural or conifer plantation woodlands/ forest stands &gt;30ha with &gt;4ha of interior habitat are absent from the Subject Lands.</li> <li>No raptor nests were observed within the study area</li> </ul>	No	No
Turtle Nesting Areas	None Present	- No exposed mineral soil adjacent to wetland	No	No
Springs and Seeps	None Present	<ul> <li>Seepage from the base of the woodland slope is present on the Subject Lands</li> </ul>	Candidate	No
Amphibian Breeding Habitat (Woodland)	FOD6 SWT3	- The thicket swamp at the base of the woodland slope does not retain sufficient water in spring to support concentrations of breeding amphibians	No	No
Amphibian Breeding Habitat (Wetlands)	None Present	<ul> <li>No wetlands &gt;500m<sup>2</sup> and &gt;120m from woodland ecosites are present on the Subject Lands or Adjacent Lands</li> </ul>	No	No
Woodland Area-Sensitive Bird Breeding Habitat	None Present	<ul> <li>Large mature (&gt;60 years old) forest stand or woodlots &gt;30ha with interior habitat are absent from the Subject Lands and Adjacent Lands</li> </ul>	No	No

Wildlife Habitat	ELC Codes Triggers	Additional Habitat Criteria	Subject Lands Candidate SWH	Adjacent Lands Candidate SWH
Marsh Breeding Bird Habitat	None Present	<ul> <li>There is no marsh habitat present within the Subject Lands or Adjacent Lands to support nesting by marsh birds</li> </ul>	No	No
Open Country Bird Breeding Habitat	None Present	<ul> <li>Natural and cultural fields &gt;30ha are absent from the Subject Lands and Adjacent Lands</li> </ul>	No	No
Shrub/Early Successional Bird Breeding Habitat	CUT1	<ul> <li>Large fields succeeding to shrub and thicket habitats &gt;10ha in size are absent from the Subject Lands and Adjacent Lands</li> </ul>	No	No
Terrestrial Crayfish	SWT3	<ul> <li>Seepage wetland habitat present with forest edge habitat, however no crayfish chimneys were observed</li> </ul>	No	No
Special Concern and Rare Wildlife Species (NHIC and MNRF pre-consultation)		NHIC identified several species are potentially on or adjacent	to the Subject Lands	
Broad Beech Fern (SC)		<ul> <li>Broad Beech Fern was not observed during targeted plant surveys on the Subject Lands in 2015 and 2021</li> <li>Suitable deciduous forest habitat for Broad Beech Fern is assumed to be present on the Adjacent Lands</li> </ul>	No	Candidate
Bald Eagle (SC)		<ul> <li>Suitable habitat for Bald Eagle (forest near major lake) may be present within the woodland of the Subject Lands as well as the Adjacent Lands, however no nests and no suitable perching trees (super-canopy trees) were observed.</li> <li>Bald Eagle may be unlikely to use habitat in close proximity to existing roads and residences</li> </ul>	No	No
Eastern Ribbonsnake (SC)		- Suitable marsh habitat is absent from the Subject Lands	No	No
Eastern Wood-pewee (SC)		<ul> <li>Suitable deciduous forest is present within the Subject Lands and the Adjacent Lands</li> <li>Eastern Wood-pewee was not detected on the Subject Lands during breeding bird surveys in 2015 or 2021</li> </ul>	No	Candidate
Peregrine Falcon (SC)		<ul> <li>Suitable steep cliff ledges close to large bodies of water are absent from the Subject Lands and Adjacent Lands</li> </ul>	No	No

Snapping Turtle (SC)	<ul> <li>Suitable pond habitat may be present within the nearby golf course, however these ponds are &gt; 120m from the Subject Lands</li> </ul>	No	No
Wood Thrush (SC)	<ul> <li>Suitable mature deciduous forest is present within the Subject Lands and the Adjacent Lands</li> <li>Wood Thrush was not detected on the Subject Lands during breeding bird surveys in 2015 or 2021</li> </ul>	No	Candidate

#### Animal Movement Corridors

Wildlife Habitat	ELC Codes Triggers*	Additional Habitat Criteria	Subject Lands Candidate SWH	Adjacent Lands Candidate SWH
Amphibian Movement Corridors	None Present	<ul> <li>Amphibian movement corridors are identified once breeding habitat is confirmed. There are no suitable movement corridors present for amphibians within the Subject Lands</li> </ul>	No	No



# **Field Data Sheets**



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buckthorn	$\left  - \right $	Ļ	હં			┢	Hauthern	┢			$\square$	
Howthorn			e <sup>1</sup>		<u> </u>	┝		┢──		┝	┢	<u> </u>
5.8. h.						┝	Dogwood Sp.	-	┝	-		
	┟╌┥					┝		┝─		┝	┢	<u> </u>
······							Multi-Alara rose	┣		<u> </u>		┣
						ļ	Honey Shekle	Ļ		<u> </u>	<b> </b>	
						ļ		┞	<u> </u>	<u> </u>	┣-	┣
					L	L	Havie land	<b> </b>	<b> </b>	L	<b> </b>	
horse lost							Colden rolling	L		ļ		ļ
garlic mestand							Mayapple					<u> </u>
skunt cubbage						[	Civilie Mashard				<u> </u>	<u> </u>
noyapple						ſ						
dand chian						Ē			1			

Page ..... of .....

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grass-s nettle

sens. form

MANAGEMENT         DATE:         May 33, J of 4           DISTURBANCE         SURVEYOR(8):         0, flor1,         2         3         8C           DISTURBANCE / EXTENT         0         1         2         3         8C           INSTURBANCE / EXTENT         0         1         2         3         8C           INTENSITY OF LOGGING         20016         FUEL WOOD         SELECTIVE         0.4141274         1           SUGAR BUSH OPERATIONS         NONE         LOCAL         WIDESPREAD         EXTENT OF LOGGING         20016         CACAL         WIDESPREAD         EXTENT OF OPERATIONS         NONE         LOCAL         WIDESPREAD         EXTENSIVE         CACAL         MARCE         EXTENSIVE         CACAL         WIDESPREAD         EXTENSIVE         CACAL         WIDESPREAD         EXTENSIVE         CACAL         MARCE         CACAL         MORE         CACAL         WIDESPREAD         EXTENSIVE         CACAL         CACAL <th></th> <th></th> <th>tanley</th> <th>win - Aurt S</th> <th></th> <th>ELC</th>			tanley	win - Aurt S		ELC
INTRUMUNCLENT     SURVEYORIG:     0.1 / 1     2     3     SC       DISTURBANCE / EXTENT     ()     1     2     3     SC       TIME SINCE LOGGING     MONE     FUEL WOOD     SELECTIE     0.4 YEARS       EXTENT OF LOGGING     MONE     LOŻAL     WIDESPRAD     EXTENSIVE       SUGAR BUSH OPERATIONS     MONE     LOŻAL     WIDESPRAD     EXTENSIVE       SUGAR BUSH OPERATIONS     MONE     LOŻAL     WIDESPRAD     EXTENSIVE       SUGAR BUSH OPERATIONS     MONE     LOŻAL     WIDESPRAD     EXTENSIVE       GAPS IN FOREST CANOPY     NONE     LOŻAL     WIDESPREAD     EXTENSIVE       ALIEN SPECIES     NONE     LOŻAL     WIDESPREAD     EXTENSIVE       LIVESTOCK     JODE     LOŻAL     WIDESPREAD     EXTENSIVE       PLANTING (PLANTATION)     NONE     LOŻAL     WIDESPREAD     EXTENSIVE       PLANTING (PLANTATION)     NONE     LOŻAL     WIDESPREAD     EXTENSIVE       PLANTING (PLANTATION)     NONE     LOŻAL     WIDESPREAD     EXTENSIVE       EXTENT OF PLANTING     MONE     LOŻAL     WIDESPREAD     EXTENSIVE       PLANTING (RLANTATION)     NONE     LOŻAL     WIDESPREAD     EXTENSIVE       DUMPING (RUBBISH)     NONE     LOŻAL				<u> </u>		
DISTURBANCE / EXTENT ( 0 1 2 3 9 CONTROL 1997 CONTROL 2 3 9 CONTROL 1997 CONTROL 19			이녁			
Distributionsance/ Extent     10     15.30 YRE     15.30 YRE     0.5 YREARS       TIME SINCE LOGGING     NOME     FUEL WOOD     SELECTIVE     0.AMETERLIKINT       EXTENT OF LOGGING     NOME     LIGHT     MODERATE     HEAVY       EXTENT OF OPERATIONS     NOME     LIGHT     MODERATE     HEAVY       EXTENT OF GAPS     NOME     LIGHT     MODERATE     HEAVY       EXTENT OF GAPS     NOME     LIGHT     MODERATE     HEAVY       EXTENT OF ALIEN SPECIES     NOME     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF ALIEN SPECIES     NOME     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF PLANTING     NOME     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF PLANTING     NOME     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF TRACKS/TRALS     NOME     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF TRACKS/TRALS     NOME     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF TRACKS/TRALS     NOME     LOCAL <td< th=""><th>SCORE †</th><th>3</th><th></th><th></th><th></th><th></th></td<>	SCORE †	3				
THILE SINCE LOGGING       NONE       FUEL WOOD       SELECTIVE       DIAMETER LINIT         EXTENT OF LOGGING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF LOGGING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF OPERATIONS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         GAPS IN FOREST CANOPY       NONE       SMALL       INTERMEDATE       LARGE         EXTENT OF GAPS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         LIVESTOCK (GRAZING)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF LAIEN SPECIES       NONE       LOCAL       WIDESPREAD       EXTENSIVE         PLANTING (FLANTATION)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         PLANTING (FLANTATION)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         PLANTING (RUBBISH)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         DUMPING (RUBBISH)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         DUMPING (RUBBISH)       NONE       LOCAL       WIDESPREAD       EXTENSIVE	0			· · · · · · · · · · · · · · · · · · ·		
INTERNTOF LOGGING       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF LOGGING       LIGHT       MODERATE       HEAVY         EXTENT OF OPERATIONS       NORE       LIGHT       MODERATE       HEAVY         GAPS IN FOREST CANOPY       NONE       SMALL       INTERMEDIATE       LARGE         EXTENT OF QAPS       NONE       LIQAL       WIDESPREAD       EXTENSIVE         LIVESTOCK (GRAZING)       NONE       LIQAL       WIDESPREAD       EXTENSIVE         LIVESTOCK (GRAZING)       NONE       LIQAL       WIDESPREAD       EXTENSIVE         LIVESTOCK (GRAZING)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         ALIEN SPECIES       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF ALIEN SPECIES       NONE       LOCAL       WIDESPREAD       EXTENSIVE         PLANTING (PLANTATION)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF PLANTING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF TRACKSTRALS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF TRACKSTRALS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF TRACKSTRALS		DIAMETER LIMIT				
ENTERT OF LOUGHCO       DOME         SUGAR BUSH OPERATIONS       NOME       LIGHT       MODERATE       HEAVY         EXTENT OF OPERATIONS       NOME       LIGHT       MODERATE       LARGE         EXTENT OF OPERATIONS       NOME       SMALL       INTERMEDIATE       LARGE         EXTENT OF GAPS       NOME       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF GAPS       NOME       LOCAL       WIDESPREAD       EXTENSIVE         LIVESTOCK (GRAZING)       NOME       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF LIVESTOCK       MOME       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF ALIEN SPECIES       NOME       LOCAL       WIDESPREAD       EXTENSIVE         PLANTING (PLANTATION)       NOME       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF PLANTING       NOME       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF TACKS/TRAILS       NOME       LOCAL       WIDESPREAD       EXTENSIVE         DUMPING (RUBBISH)       NOME       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NOME       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NOME       LOCAL <td>0</td> <td>EXTENSIVE</td> <td></td> <td></td> <td></td> <td></td>	0	EXTENSIVE				
SUGATIONS         LIGHT         WIDESPREAD         EXTENSIVE           EXTENT OF OPERATIONS         NONE         SMALL         INTERMEDIATE         LARGE           GAPS IN FOREST CANOPY         NONE         LICAL         WIDESPREAD         EXTENSIVE           LIVESTOCK (GRAZING)         NONE         LIGHT         MODERATE         HEAVY           EXTENT OF LIVESTOCK         JONE         LOCAL         WIDESPREAD         EXTENSIVE           ALLEN SPECIES         NONE         LOCAL         WIDESPREAD         EXTENSIVE           ALLEN SPECIES         NONE         LOCAL         WIDESPREAD         EXTENSIVE           PLANTING (PLANTATION)         NONE         LOCAL         WIDESPREAD         EXTENSIVE           PLANTING (PLANTATION)         NONE         LOCAL         WIDESPREAD         EXTENSIVE           EXTENT OF PLANTING         NONE         LOCAL         WIDESPREAD         EXTENSIVE           EXTENT OF TRACKSTRAILS         NONE         LOCAL         WIDESPREAD         EXTENSIVE           EXTENT OF DUMPING         NONE         LOCAL         WIDESPREAD         EXTENSIVE           EXTENT OF DUMPING         NONE         LOCAL         WIDESPREAD         EXTENSIVE           EXTENT OF DUMPING         NONE <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td>					1	
GAPS IN FOREST CANOPY       NONE       SMALL       INTERMEDIATE       LARGE         EXTENT OF GAPS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         LIVESTOCK (GRAZING)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF LIVESTOCK       JIONE       LIGHT       MODERATE       HEAVY         EXTENT OF LIVESTOCK       JIONE       LOCAL       WIDESPREAD       EXTENSIVE         ALIEN SPECIES       NONE       LOCAL       WIDESPREAD       EXTENSIVE         PLANTING (PLANTATION)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF PLANTING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF PLANTING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF TRACKS/TRAILS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DISPLACEMENT       -NONE       LIGHT       MODERATE       HEAVY	0	EXTENSIVE				
CALLENT OF GAPS     NONE     LQCAL     WIDESPREAD     EXTENSIVE       LIVESTOCK (GRAZING)     MONE     LIGHT     MODERATE     HEAVY       EXTENT OF LIVESTOCK     MONE     LIGHT     MODERATE     HEAVY       EXTENT OF LIVESTOCK     MONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF ALIEN SPECIES     NONE     LOCAL     WIDESPREAD     EXTENSIVE       PLANTING (PLANTATION)     JONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF PLANTING     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF PLANTING     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF TRACKS/TRAILS     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF DUMPING     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF DUMPING     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF DISPLACEMENT     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF DISPLACEMENT     JONE     LIGHT     MODERATE     HEAVY       EXTENT OF DISPLACEMENT     JONE     LIGHT     MODERATE     HEAVY       EXTENT OF DISPLACEMENT     JONE     LOCAL     WIDESPREAD     EXTENSIVE       NONE     LOCAL     WIDESPREAD	1					
EXTENT OF GRUSS     NONE     LIGHT     MODERATE     HEAVY       LIVESTOCK (GRAZING)     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF LIVESTOCK     JAONE     LOCAL     WIDESPREAD     EXTENSIVE       ALIEN SPECIES     NONE     LOCAL     WIDESPREAD     EXTENSIVE       PLANTING (PLANTATION)     NONE     LOCAL     WIDESPREAD     EXTENSIVE       PLANTING (PLANTATION)     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF PLANTING     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF PLANTING     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF TRACKS AND TRAILS     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF TRACKS/TRAILS     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF DUMPING     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF DISPLACEMENT     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF RECR. USE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF RECR. USE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       NOISE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       NOISE     NONE     LOCAL     WIDESPREAD <td>1</td> <td>EXTENSIVE</td> <td></td> <td></td> <td></td> <td></td>	1	EXTENSIVE				
EXTENT OF LIVESTOCK       JONE       LOCAL       WIDESPREAD       EXTENSIVE         ALIEN SPECIES       NONE       OCCASIONAL       ABUNDANT       DOMINANT         EXTENT OF ALIEN SPECIES       NONE       LOCAL       WIDESPREAD       EXTENSIVE         PLANTING (PLANTATION)       NONE       OCCASIONAL       ABUNDANT       DOMINANT         EXTENT OF PLANTING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF PLANTING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF PLANTING       NONE       LIGHT       MODESPREAD       EXTENSIVE         EXTENT OF TRACKS/TRAILS       NONE       LIGHT       MODESPREAD       EXTENSIVE         EXTENT OF DUMPING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DUMPING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISPLACEMENT       MONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISPLACEMENT       MONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISPLACEMENT       MONE       LIGHT       MODERATE       HEAVY         EXTENT OF RECR. USE       NONE       LIGHT       MODERATE       HEAVY         <						
EXTENT OF DYDERY       DAME       CCCASIONAL       ABUINDANT       I         ALIEN SPECIES       NONE       LOCAL       WIDESPREAD       EXTENSIVE         PLANTING (PLANTATION)       NONE       LOCASIONAL       ABUINDANT       DOMINANT         EXTENT OF ALIEN SPECIES       NONE       LOCAL       WIDESPREAD       EXTENSIVE         PLANTING (PLANTATION)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF PLANTING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         DUMPING (RUBBISH)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF TRACKS/TRAILS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DISPLACEMENT       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DISPLACEMENT       NONE       LOCAL       WIDESPREAD       EXTENSIVE         NOSE       NONE       SLIGHT       MODERATE       HEAVY	0					
ALLEN GFEDES     NONE     LOGALMANNE     INDERED       EXTENT OF ALIEN SPECIES     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF ALIEN SPECIES     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF PLANTING     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF PLANTING     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF PLANTING     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF TRACKS/TRAILS     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF TRACKS/TRAILS     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF DUMPING     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF DUMPING     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF DISPLACEMENT     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF RECR. USE     NONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF NOISE     NONE     LOGAL     WIDESPREAD     EXTENSIVE       INSEASE/DEATH OF TREES     NONE     LOGAL     WIDESPREAD     EXTENSIVE       INSEASE/DEATH OF TREES     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF NOISE     NONE     LIGAL     WID						
EXTENT OF ALLEL OF EQUED       NOME       COCASIONAL       ABUNDANT       DOMINANT         PLANTING (PLANTATION)       NOME       OCCASIONAL       ABUNDANT       DOMINANT         EXTENT OF PLANTING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         ITRACKS AND TRAILS       NONE       FAINT TRAILS       WELL MARKED       TRACKS OR         EXTENT OF TRACKS/TRAILS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         DUMPING (RUBBISH)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DIMPING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DISPLACEMENT       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DISPLACEMENT       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DISPLACEMENT       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF RECR, USE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         NOSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF NOISE       NONE       LOCAL       WIDESPREAD       EXTENSIVE<	Ч					
EXTENT OF PLANTING       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF PLANTING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF TRACKS/TRAILS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF TRACKS/TRAILS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF TRACKS/TRAILS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         DUMPING (RUBBISH)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DUMPING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISPLACEMENT       JONE       LIGHT       MODERATE       HEAVY         EXTENT OF RECR. USE       JONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF RECR. USE       JONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF RECR. USE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE /						
EXTENT OF TEXTING       INDRE       FAINT TRAILS       WELL MARKED       TRACKS OR         EXTENT OF TRACKS/TRAILS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         DUMPING (RUBBISH)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF TRACKS/TRAILS       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DUMPING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EARTH DISPLACEMENT       _NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISPLACEMENT       _NONE       LIGHT       MODERATE       HEAVY         EXTENT OF RECR. USE       _NONE       _LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF RECR. USE       _NONE       _LOCAL       WIDESPREAD       EXTENSIVE         NOISE       _NONE       _LOCAL       WIDESPREAD       EXTENSIVE         NOISE       _NONE       _LOCAL       WIDESPREAD       EXTENSIVE         NOISE       _NONE       _LOCAL       WIDESPREAD       EXTENSIVE         DISEASE/DEATH OF TREES       NONE       _LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DISEASE / DEATH       NONE       LOCAL       WIDESPREAD       EXTENSIVE         SR	D					
TRACKS AND TRACES       NONE       LEAD FLAGE       WIDESPREAD       EXTENSIVE         EXTENT OF TRACKS/TRAILS       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF TRACKS/TRAILS       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DUMPING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DUMPING       NONE       LIGHT       MODERATE       HEAVY         EARTH DISPLACEMENT       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISPLACEMENT       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF RECR. USE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF NOISE       NONE       JUGAL       WIDESPREAD       EXTENSIVE         INCISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         SROWSE (e.g. DEER)       NONE<						
EXTENT OF TRACKOLITORIES       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DUMPING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DUMPING       NONE       LIGHT       MODERATE       HEAVY         EARTH DISPLACEMENT       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISPLACEMENT       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISPLACEMENT       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF RECR. USE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF RECR. USE       NONE       SLIGHT       MODERATE       HEAVY         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE	1					
DUMPING (RUBBISH)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DUMPING       NONE       LIGHT       MODERATE       HEAVY         EARTH DISPLACEMENT       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF RECR. USE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF BROWSE	<u> </u>					
EARTH DISPLACEMENT       NONE       LIGHT       MODERATE       HEAVY         EARTH DISPLACEMENT       NONE       LIGHT       MODERATE       HEAVY         RECREATIONAL USE       NONE       LIGHT       MODERATE       HEAVY         RECREATIONAL USE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF RECR. USE       NONE       LIGHT       MODERATE       HEAVY         NOISE       NONE       SLIGHT       MODERATE       HEAVY         EXTENT OF NOISE       NONE       LIGAL       WIDESPREAD       EXTENSIVE         DISEASE/DEATH OF TREES       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LIGHT <td< td=""><td>ļ</td><td></td><td></td><td></td><td>NONE</td><td>DUMPING (RUBBISH)</td></td<>	ļ				NONE	DUMPING (RUBBISH)
EARTH DISPLACEMENT     JONE     LOGAL     WIDESPREAD     EXTENSIVE       EXTENT OF DISPLACEMENT     JONE     LIGHT     MODERATE     HEAVY       RECREATIONAL USE     NONE     LUGHT     MODERATE     HEAVY       EXTENT OF RECR. USE     NONE     LUGHT     MODERATE     HEAVY       NOISE     NONE     SLIGHT     MODERATE     INTENSE       EXTENT OF NOISE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       DISEASE/DEATH OF TREES     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF DISEASE / DEATH     NONE     LOCAL     WIDESPREAD     EXTENSIVE       WIND THROW (BLOW DOWN)     NONE     LOCAL     WIDESPREAD     EXTENSIVE       BROWSE (e.g. DEER)     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF BROWSE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF BROWSE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF BROWSE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FLOODING     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FLOODING     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FLOODING     NONE     LIGHT     MODERATE     HEAVY       EXTENT				LOCAL	NONE	EXTENT OF DUMPING
EXTENT OF DISPLAGEMENT     HOLL     SUME       RECREATIONAL USE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF RECR. USE     NONE     LUGAL     WIDESPREAD     EXTENSIVE       NOISE     NONE     SLIGHT     MODERATE     INTENSE       EXTENT OF NOISE     NONE     LOGAL     WIDESPREAD     EXTENSIVE       DISEASE/DEATH OF TREES     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF DISEASE / DEATH     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF DISEASE / DEATH     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF DISEASE / DEATH     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF DISEASE / DEATH     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF WIND THROW     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF BROWSE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF BROWSE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FLOODING     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF BROWSE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       FLOODING (pools & puddling)     NONE     LIGHT     MODERATE     HEAVY       FIRE     NONE <td>0</td> <td></td> <td></td> <td>LIGHT</td> <td>NONE</td> <td>EARTH DISPLACEMENT</td>	0			LIGHT	NONE	EARTH DISPLACEMENT
RECREATIONAL USE       LIGHT       MODESPREAD       EXTENSIVE         EXTENT OF RECR. USE       NONE       SLIGHT       MODERATE       INTENSE         NOISE       NONE       SLIGHT       MODERATE       INTENSE         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LOGAL       WIDESPREAD       EXTENSIVE         WIND THROW (BLOW DOWN)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       JUNE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         BROWSE (e.g. DEER)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FLOODING (pools & puddling)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE <td< td=""><td></td><td></td><td></td><td></td><td>NONE</td><td>EXTENT OF DISPLACEMENT</td></td<>					NONE	EXTENT OF DISPLACEMENT
EXTENT OF REDK. GSE       INDUE       JUDE       DESCRIPTION         NOISE       NONE       JUGHT       MODERATE       INTENSE         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF BEAVER       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FLOODING (paols & puddling)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF FLOODING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE	0		MODERATE	LIGHT	NONE	RECREATIONAL USE
NORE       NORE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         DISEASE/DEATH OF TREES       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LOCAL       WIDESPREAD       EXTENSIVE         EXTENT OF DISEASE / DEATH       NONE       LOCAL       WIDESPREAD       EXTENSIVE         MIND THROW (BLOW DOWN)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       NONE       LOCAL       WIDESPREAD       EXTENSIVE         BROWSE (e.g. DEER)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         BEAVER ACTIVITY       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BEAVER       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FLOODING (paols & puddling)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING <t< td=""><td></td><td>EXTENSIVE</td><td>WIDESPREAD</td><td>LOCAL</td><td><u>NONE</u></td><td>EXTENT OF RECR. USE</td></t<>		EXTENSIVE	WIDESPREAD	LOCAL	<u>NONE</u>	EXTENT OF RECR. USE
EXTENT OF NOISE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         BEAVER ACTIVITY       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BEAVER       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FLOODING (pools & puddling)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         CE DAMAGE       NONE	١	INTENSE	MODERATE	SLIGHT	NONE	NOISE
DISEASE/DEATH OF TREES       NONE       LIGHT       MIDESPREAD       EXTENSIVE         EXTENT OF DISEASE / DEATH       NONE       LIGHT       MODERATE       HEAVY         WIND THROW (BLOW DOWN)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       NONE       LIGHT       MODERATE       HEAVY         BROWSE (e.g. DEER)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         BRAVER ACTIVITY       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FLOODING (pools & puddling)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LI		EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF NOISE
WIND THROW (BLOW DOWN)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF WIND THROW       NONE       LOCAL       WIDESPREAD       EXTENSIVE         BROWSE (e.g. DEER)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         BROWSE (e.g. DEER)       NONE       LOCAL       WIDESPREAD       EXTENSIVE         BEAVER ACTIVITY       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BEAVER       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FLOODING (pools & puddling)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         GE DAMAGE       NONE       LI	1	HEAVY	MODERATE	LIGHT	NONE	DISEASE/DEATH OF TREES
EXTENT OF WIND THROW       NONE       LIGHT       MODERATE       HEAVY         BROWSE (e.g. DEER)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         BEAVER ACTIVITY       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BEAVER       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FLOODING (pools & puddling)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF ICE DAMAGE       NONE       LIGHT <t< td=""><td></td><td>EXTENSIVE</td><td>WIDESPREAD</td><td>LOCAL</td><td>NONE</td><td>EXTENT OF DISEASE / DEATH</td></t<>		EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF DISEASE / DEATH
EXTENT OF WIND THROW       MODE       LIGHT       MODERATE       HEAVY         BROWSE (e.g. DEER)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BROWSE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         BEAVER ACTIVITY       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BEAVER       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FLOODING (paols & puddling)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF ICE DAMAGE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF ICE DAMAGE       NONE       LIGHT       MODERATE       HEAVY	Ó	HEAVY	MODERATE	LIGHT	NONE	WIND THROW (BLOW DOWN)
BROWSE (e.g. DEER)     NONE     LOCAL     WIDESPREAD     EXTENSIVE       EXTENT OF BROWSE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF BEAVER     NONE     LOCAL     WIDESPREAD     EXTENSIVE       FLOODING (pools & puddling)     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FLOODING     NONE     LIGHT     MODERATE     HEAVY       FIRE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       FIRE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FLOODING     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FIRE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FIRE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       ICE DAMAGE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF ICE DAMAGE     NONE     LIGHT     MODERATE     HEAVY		EXTENSIVE	WIDESPREAD	LOCAL	NONE.	EXTENT OF WIND THROW
EXTENT OF BROWSE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF BEAVER       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FLOODING (pools & puddling)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         ICE DAMAGE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF ICE DAMAGE       NONE       LIGHT       MODERATE       HEAVY	ł	HEAVY	MODERATE	LIGHT	NONE	BROWSE (e.g. DEER)
BEAVER ACTIVITY     LIGHT     WIDESPREAD     EXTENSIVE       FLOODING (paols & puddling)     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FLOODING     NONE     LOCAL     WIDESPREAD     EXTENSIVE       FIRE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FLOODING     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FIRE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FIRE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       ICE DAMAGE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF ICE DAMAGE     NONE     LIGHT     MODERATE     HEAVY	, 	EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF BROWSE
FLOODING (paols & puddling)       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FLOODING       NONE       LOCAL       WIDESPREAD       EXTENSIVE         FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF FIRE       NONE       LOCAL       WIDESPREAD       EXTENSIVE         ICE DAMAGE       NONE       LIGHT       MODERATE       HEAVY         EXTENT OF ICE DAMAGE       NONE       LIGHT       MODERATE       HEAVY	0	HEAVY	MODERATE	LIGHT	NONE	BEAVER ACTIVITY
EXTENT OF FLOODING     NONE     LOCAL     WIDESPREAD     EXTENSIVE       FIRE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FIRE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       ICE DAMAGE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF ICE DAMAGE     NONE     LIGHT     MODERATE     HEAVY		EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF BEAVER
EXTENT OF PLOODING     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FIRE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       ICE DAMAGE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF ICE DAMAGE     NONE     LOCAL     WIDESPREAD     EXTENSIVE	0	HEAVY	MODERATE	LIGHT	NONE	FLOODING (pools & puddiing)
FIRE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF FIRE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       CE DAMAGE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF ICE DAMAGE     NONE     LOCAL     WIDESPREAD     EXTENSIVE		EXTENSIVE	WIDESPREAD	LOCAL	NONE	
EXTENT OF FIRE     NONE     LOCAL     WIDESPREAD     EXTENSIVE       CE DAMAGE     NONE     LIGHT     MODERATE     HEAVY       EXTENT OF ICE DAMAGE     NONE     LOCAL     WIDESPREAD     EXTENSIVE	0	HEAVY	MODERATE	LIGHT	NONE	
CE DAMAGE         NONE         LIGHT         MODERATE         HEAVY           EXTENT OF ICE DAMAGE         NONE         LOCAL         WIDESPREAD         EXTENSIVE		EXTENSIVE	WIDESPREAD	LOCAL	NONE	
EXTENT OF ICE DAMAGE NONE LOCAL WIDESPREAD EXTENSIVE	υ	HEAVY	MODERATE	LIGHT	NONE	
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EXTENT NONE LOCAL WIDESPREAD EXTENSIVE		EXTENSIVE		LOCAL		

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	] terrestrial ] wetland } aquatic	🗆 par	GANIC IERAL SOIL RENT MIN. DIC BEDRK IC BEDRK.	. 🖵	LACUSTRINE RIVERINE BOTTOMLAND TERRACE VALLEY SLOPE TABLELAND ROLL. UPLAND CLIFF		atural Ultural		PLANKTON SUBMERGED FLOATING-LVD. GRAMINOID FORB LICHEN BRYOPHYTE DECIDUOUS		LAKE POND RIVER STREAM MARSH SWAMP FEN BOG
	SITE		rb. Bedrk.	믿	TALUS CREVICE / CAVE ALVAR		COVER		CONIFEROUS		BARREN MEADOW PRAIRIE
	OPEN WATER SHALLOW WATER SURFICIAL DEP. BEDROCK				ROCKLAND BEACH / BAR SAND DUNE BLUFF	⊡or DSIS⊧ ⊡TF	IRUB				THICKET SAVANNAH WOODLAND FOREST PLANTATION
S	TAND DESCR		W.								
<u>v</u>	LAYER	НТ	CVR	(>>	SPECIES IN OF MUCH GREATE	DER R TH	OF DECREAS AN; > GREAT	ING FER	DOMINANCE ( THAN; = ABO	lup t UT E	o 4 sp) EQUAL TO)
1	CANOPY	2	2	-	22 Black Wal			_	·		· · ·
2	SUB-CANOPY	3	4		kthern = Hawil		Sumac >	Oca	wood		
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4	GRD. LAYER	7	3		the 1 = Colden R						
	R CODES AND COMPOSITIC				10% <b>2=</b> 10 < CVF	~ /					
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۶IZ	E CLASS ANA	LYSIS:		٩	< 10	Ċ	10 - 24	٢	25-50	BA ^	: > 50
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ΪŤ,	ANDING SNAG	S: S:	= NONE	n	< 10 < 10	<u>n</u>	10 - 24 10 - 24	~ ^	25 - 50	<u>^</u>	> 50
E BI	ANDING SNAG ADFALL / LOG	S: S: S: N =	= NONE PIONEER	n r R=	< 10 < 10	n n DCCA	10 - 24 10 - 24	~ ^	25 - 50 25 - 50	 	> 50 > 50 > 50 > 50
IT BI	ANDING SNAG: ADFALL / LOG JNDANCE CODES MM. AGE :	S: S: 3: N :		n r R=	< 10 < 10 RARE 0 = 0	n n DCCA	10 - 24 10 - 24 SIONAL	~ ^	25 - 50 25 - 50 ABUNDANT	 	> 50 > 50 > 50
	ANDING SNAG ADFALL / LOG JNDANCE CODES MM. AGE : ILANALYSIS (TURE:	S: S: 3: N :		R =	< 10 < 10 RARE <b>0</b> = 0 YOUNG PTH TO MOTT		10 - 24 10 - 24 SIONAL MID-AGE / GLEY	~ ^	25 - 50 25 - 50 ABUNDANT	 	> 50 > 50 > 50 > 50 OLD GROWTH
	ANDING SNAG ADFALL / LOG JNDANCE CODES MM. AGE : MM. AGE : IL ANALYSIS KTURE: ISTURE:	S: S: S: N =	PIONEER	R = X DE	< 10 < 10 RARE 0 = 0 YOUNG PTH TO MOTT PTH OF ORGA		10 - 24 10 - 24 SIONAL MID-AGE / GLEY S:	 A = A	25 - 50 25 - 50 ABUNDANT	^ ^ ^	> 50 > 50 > 50 > 50 OLD GROWTH
	ANDING SNAG ADFALL / LOG JNDANCE CODES MM. AGE : ML_ANALYSIS (TURE:	S: S: S: N =	PIONEER	R = X DE	< 10 < 10 RARE <b>0</b> = 0 YOUNG PTH TO MOTT		10 - 24 10 - 24 SIONAL MID-AGE / GLEY S:	 A = A	25 - 50 25 - 50 ABUNDANT	^ ^ ^	> 50 > 50 > 50 OLD GROWTH (cm)
	ANDING SNAG ADFALL / LOG JNDANCE CODES MM. AGE : MM. AGE : IL ANALYSIS KTURE: ISTURE:	S: S: S: / VARI	PIONEER	R = X DE DE DE	< 10 < 10 RARE 0 = 0 YOUNG PTH TO MOTT PTH OF ORG/ PTH TO BEDR		10 - 24 10 - 24 SIONAL MID-AGE / GLEY S:	 A = A	25 - 50 25 - 50 ABUNDANT MATURE	6=	> 50 > 50 > 50 > 50 OLD GROWTH
	ANDING SNAG ADFALL / LOG JNDANCE CODES MM. AGE : MM. AGE : MM. AGE : MM. AGE : ISTURE: MOGENEOUS	S: S: S: I S: / VARI LASSI	ABLE	R = X DE DE DE	< 10 < 10 RARE 0 = 0 YOUNG PTH TO MOTT PTH OF ORG/ PTH TO BEDR		10 - 24 10 - 24 SIONAL MID-AGE / GLEY S:	 A = A	25 - 50 25 - 50 ABUNDANT MATURE	G=	> 50 > 50 > 50 OLD GROWTH (cm)
	ANDING SNAG ADFALL / LOG JNDANCE CODES MM. AGE : IL ANALYSIS (TURE: ISTURE: MOGENEOUS MMUNITY C	S: S: N = S: / VARI LASSI	ABLE FICATI	R = X DE DE DE	< 10 < 10 RARE 0 = 0 YOUNG PTH TO MOTT PTH OF ORG/ PTH TO BEDR		10 - 24 10 - 24 SIONAL MID-AGE / GLEY S:	 A = A	25 - 50 25 - 50 MBUNDANT MATURE ELC	G=	> 50 > 50 > 50 OLD GROWTH (cm)
	ANDING SNAG ADFALL / LOG JNDANCE CODES MM. AGE : MM. AGE : ISTURE: MOGENEOUS MMUNITY C COMMUNITY C COMMUNITY SE	S: S: N = S: / VARI LASSI	ABLE FICATI	R = X DE DE DE	< 10 < 10 RARE 0 = ( YOUNG PTH TO MOTT PTH OF ORG/ PTH TO BEDF		10 - 24 10 - 24 SIONAL MID-AGE / GLEY S:	 A = A	25 - 50 25 - 50 BUNDANT MATURE ELC	G=	> 50 > 50 > 50 OLD GROWTH (cm)
	ANDING SNAG ADFALL / LOG JNDANCE CODES MM. AGE : MM. AGE : ISTURE: MOGENEOUS MMUNITY C COMMUNITY C COMMUNITY SE	S: S: N : S: / VARI LASSI :LASS: ERIES: OSITE:	ABLE FICATI	R = X DE DE DE	< 10 < 10 RARE 0 = ( YOUNG PTH TO MOTT PTH OF ORG/ PTH TO BEDF		10 - 24 10 - 24 SIONAL MID-AGE / GLEY S: ::	 A = A	25 - 50 25 - 50 BUNDANT MATURE ELC	G=	> 50 > 50 > 50 OLD GROWTH (cm)
	ANDING SNAG ADFALL / LOG JNDANCE CODES MM. AGE : IL ANALYSIS (TURE: ISTURE: MOGENEOUS MMUNITY C COMMUNITY C COMMUNITY SE ECC	S: S: N = S: / VARI LASSI ERIES: DSITE: TYPE:	PIONEER ABLE FICATI (س	R = X	< 10 < 10 RARE 0 = ( YOUNG PTH TO MOTT PTH OF ORG/ PTH TO BEDF		10 - 24 10 - 24 SIONAL MID-AGE / GLEY S: ::	<u>n</u> <u>n</u> <u>a</u> = <i>f</i>	25 - 50 25 - 50 BUNDANT MATURE ELC		> 50 > 50 > 50 OLD GROWTH (cm)

Notes:

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PLANT SPECIES		D/	ATE:		May 23	, 201	4					
LIST		SI	JRVE	YOR	k(S):	D. Mor	ie					
							RSTOREY 4 = GROUND (GI	RD.) U	YER			
ABUNDANCE CODES: R =	RARE			CASIO	NAL A=/	ABUND/	NT D = DOMINANT	<b>—</b>				-
SPECIES CODE		LA	YER		COL.		SPECIES CODE		LA	YER		COL
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ر : ا	No State	AND TEREFSTREAL CONSTRUCTION PLAT	8 N E <b>8 S</b>	Time started: <u>215</u>	Time fin MNR EO	ished: <u>3 ,<sub>00   </sub> </u> Co 's	5mb	ined collect not provide	ors' hou ed to col	irs: <u><b>1</b></u> ,7 llector	5
		ER CONDITIONS		· · · · ·	· · · ·	WIN	D-S(				— – – –
	Temp.	Wind:	σ	Cloud Cover (%)	Precipitatio			Calm			
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		Birds 12	X	ELC's		ripline		Wind raises		d paper	
		Mammals		Floral VS_A_		quatic - Physical		Small trees			
		Amphibians 1_2_3_		Wetland		quatic - Biological aunal Habitat		Large brand Lots of resis			cina into
		Reptiles Inverterbrates		Butternut other SAR				Limbs break			ing nito
	FEATUS	RES (with GPS co-ordin	nates w			· · · · ·	<u> </u>	Mapped	Foll	ow-up R	eg'd
		de Structures:			N	one observed	_		Yes	No	Who
		Barns/Footings/Wells/	other(list	t)				yes		<u>×</u>	
		Rock Piles		· · · · · · · · · · · · · · · · · · ·			_	- <i>0</i>			N.
		Garbage									
	Natural	Vegetation:			N	one observed	-				
		Fallen Logs outside wo	oods (#'s	s)	-						<u> </u>
		Brush Piles									
		Snags (raptor perch) Tree Cavities (nesting)	<u></u>								
		Sentinel Trees	)		· · ·						
		Mast Trees (6E)		Berry Shrubs (6E)							
	Wildlife	Features:			N	one observed					
		Waterfowl nesting (larg	ge #'s, #	of species)							
		Exposed Banks (nestin	ng swall	ows)							
1.7		Stick Nests					_				
		Animal Burrows (>10c	m)					· · · · · · · · · · · · · · · · · · ·	•	<u> </u>	
		Heronry								<u> </u>	
		Crayfish mounds									<u> </u>
		Sand/gravel on site Marsh/open country/sh	hrub			· · · · · · · · · · · · · · · · · · ·					· ·
		Winter Deer yards	1100						<i></i>		
		Corridor from pond to	woods (	ampibian movement)	· · · · ·						
		Bat corridor (shoreline				·····					
		Bat hibernacula (cave	s, mines	, crevices, etc.)					-	<u> </u>	<b></b>
	Aquatic	Features:									
		Perm. pond in woodlar		emergents/submergen		temp.					d
		Perm. pond in open Water in woodland		emergents/submergen		temp.				<u> </u>	
		Waterways flow	pools	dry pools	<u>y</u>					-	
	╏└───┘┌	natural stream			· · · ·	·					
		∃swale	$\overline{\Box}$			lone observed			· · · · · · · · · · · · · · · · · · ·		
		Jopen drain							_		
		Seeps/Springs									
	Incident	tal Observations:									4
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	;	,,						<u> </u>	t —		<u> </u>
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		<u> </u>									
				<u></u>							
	\										
8. A	Graphic	Attached or Nam	ne			Checked by Project I	Man	ager 🛛 Da	ate:	·=	

							Notes:
						×	COMPLEX
						NO	INCLUSION
Notes:						N TYPE:	VEGETATION TYPE
T		12	SWT	the swam p	MINERAL THICKET		
ΓΓ			SWT	SWAMP			COMMUNITY SERIES:
1 1			SW		SEARD		COMMUNITY CLASS:
Т		CODE	ELC		ION:	CLASSIFICAT	COMMUNITY CLASSIFICATION:
I		(cm)	٩	ROCK: 11	DEPTH TO BEDROCK:	/ VARIABLE	HOMOGENEOUS / VARIABLE
Π		(cm)	v	_	DEPTH OF ORGANICS:	đ	MOISTURE:
Τ		G≡ ()	d I	TLES / GLEY 9	DEPTH TO MOTTLES / GLEY	V.	
TT						Ņ	SOIL ANALYSI
Т		OLD	MATURE	MID-AGE		PIONEER	COMM. AGE :
TI			= ABUNDANT	OCCASIONAL A =	R=RARE O=	S: N = NONE	ABUNDANCE CODES:
		v	23		٨	ÿ	DEADFALL / LOGS:
		<b>₽</b> > 50	A 25 - 50	10 - 24	کر 10	ŝ	STANDING SNAGS:
		N > 50	<b>O</b> 25 - 50	a 10-24	A < 10	LYSIS:	SIZE CLASS ANALYSIS:
STAND COMP		BA:				ON:	STAND COMPOSITION:
			50% 4= CVR > 60%	R ≤ 25% 3= 25 < CVR ≤ 60%	1= 0% < CVR 5 10% 2= 10 < CVR 5 25%	I N I I	CVR CODES
BASAL AR		).5 m 7	-T⊴1 m   6=0.2 <ht⊴0.5 m<="" th=""><th></th><th>T≤25 m 3 = 2<ht≤10 m<="" th=""><th>1 = &gt;25 m 2 = 10<ht≤25 m<="" th=""><th>HT CODES:</th></ht≤25></th></ht≤10></th></ht⊴0.5>		T≤25 m 3 = 2 <ht≤10 m<="" th=""><th>1 = &gt;25 m 2 = 10<ht≤25 m<="" th=""><th>HT CODES:</th></ht≤25></th></ht≤10>	1 = >25 m 2 = 10 <ht≤25 m<="" th=""><th>HT CODES:</th></ht≤25>	HT CODES:
ŝ		<u>ک</u>	Screendinge		Ð		4 GRD. LAYER
		SAM cana	>Robmulto		RUAcathy	2 2	3 UNDERSTOREY
				÷		.	2 SUB-CANOPY
			ba	v SALai	FRASmer	2 32	1 CANOPY
		IT EQUAL TO)	R THAN; = ABOU	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL	SPECIES IN O	HT CVR	LAYER
						RIPTION:	STAND DESCRIPTION:
							BEDROCK
		WOODLAND			BEACH / BAR		OPEN WATER SHALLOW WATER
			MIXED	COVER	ALVAR	CARB, BEDRK,	SITE
			DECIDUOUS				
		MARSH SWAMP	GRAMINOID FORB LICHEN		VALLEY SLOPE	ACIDIC BEDRK.	
SPECIES					BOTTOMLAND	回 ORGANIC 國 MINERAL SOIL	TERRESTRIAL
PRISM		COMMUNITY	PLANT FORM	HISTORY	TOPOGRAPHIC FEATURE	SUBSTRATE	SYSTEM
TREE TALLY B						DESCRIPTION	POLYGON DE
CHARAC		જ	N: 472484		UTME: 451311	UTMZ: () U	CLASSIFICATION
		2,00	TIME: start finish	DATE: July 29 1014		SURVEYOR(S)	
<b>T</b>	)		Polygon: 🐊	STANLEY P	1212 - PCARS	ILE: GLOU	E C

			SPECIES TALLY 1 TALLY 2 TALLY 3 TALLY 4 TALLY 5 TOTAL. A	PRISM FACTOR	REE TALLY BY SPECIES:	CHARACTERISTICS SURVEYOR(S):	STAND DATE:	POLYGON:	
			L REL. AVG						

TOTAL REA (BA) DEAD 10

DOSITION:

**PROFILE DIAGRAM** 

			V SINVED	)	1	SITE:		~
				Z.		POLYGON:		
		N 19 1014			SPECIES	DATE:		
SULS UN ARIO	SURVEYO	どひ		_		URVEYOR(S):		
ר			UTM	-	ב מ	O = OCCASIONAL A	3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER = ABUNDANT D = DOMINANT	D.) LAYER
1 A 2 6 4	264 4	11512 - 201100	84842LH		SPECIES CODE		SPECIES CODE	LAYER
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4 U								
сл .								
SOIL	1	3	4 5					
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A TEXTURE	€S							
COURSE FRAGMENTS	999							
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COURSE FRAGMENTS	٩٦٩			<u>.</u>				
	999							
† ·	999							
Т				•				
1								
	0							
GLEY	Ŏ			L				
BEDROCK	999			1				
WATER TABLE	0							
CARBONATES	999							
DEPTH OF ORGANICS	16		3					
PORE SIZE DISC #1	999			<b>4</b> ,				
PORE SIZE DISC #2	1999 1991							
MOISTURE REGIME	6							
SOIL SURVEY MAP			-	<b>I</b>				
LEGEND CLASS								Page of

						Notes:
					EX	COMPLEX
					ON	INCLUSION
Notes:		cup 3-2	constrano	PLANTATION		VEGETATION TYPE
		cup3	PLANTATION			E
T		cup	PLANTATION			COMMUNITY SERIES:
11		Cu		CULTURAL		COMMUNITY CLASS:
T		ELC CODE		TION:	CLASSIFICA	COMMUNITY CLASSIFICATION:
Π		(cm)	ROCK: 999	DEPTH TO BEDROCK:	3 / YARIABLE	HOMOGENEOUS / YARIABLE
1		(cm)	£	DEPTH OF ORGANICS	2	MOISTURE:
		70 G= 0	TLES / GLEY g =	DEPTH TO MOTTLES / GLEY	N N N	SOIL ANALYSIS:
TT		MATURE OLD GROWTH	🔆 MID-AGE	ER YOUNG	PIONEER	COMM. AGE :
		ABUNDANT	OCCASIONAL A =	E R=RARE O=	ES: N = NONE	ABUNDANCE CODES:
		25-50 🔏 >50	K 10-24 K	A < 10	3S:	DEADFALL / LOGS:
		. 25-50 × 50	0 10-24 R	<b>♦</b> <10	GS:	STANDING SNAGS:
4		25-50 /2 > 50	A 10-24 A	R <10	ALYSIS:	SIZE CLASS ANALYSIS:
STAND		BA: 18		PRUse	15tra 87	PINstre
		4= CVR > 80%	R ₂ 25% 3= 25 < CVR ₅ 60%	1=0% < CVR 5 10% 2= 10 < CVR 5 25%	NONE	CVR CODES
BA		m 6=0.2 <ht₅0.5 7="HT&lt;0.2" m="" m<="" th=""><th>HT∡2 m 5=0.5&lt;ł</th><th>2 = 10<ht_25 3="2&lt;HT_10" m="" m<="" th=""><th>1 =&gt;25 m 2 = 10+</th><th>HT CODES:</th></ht_25></th></ht₅0.5>	HT∡2 m 5=0.5<ł	2 = 10 <ht_25 3="2&lt;HT_10" m="" m<="" th=""><th>1 =&gt;25 m 2 = 10+</th><th>HT CODES:</th></ht_25>	1 =>25 m 2 = 10+	HT CODES:
		6	UR Inter	ALL peti	4	4 GRD. LAYER
Τ		AMCANA	Ratess	PRUSENO>C	ω ω	<b>3</b> UNDERSTOREY
Τ					1	2 SUB-CANOPY
		SPOPAlba	>> PRUSENOS	PINStro	4	1 CANOPY
		DOMINANCE (up to 4 sp) HAN; = ABOUT EQUAL TO)	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL	SPECIES IN O	HT CVR	LAYER
					RIPTION:	STAND DESCRIPTION:
			BU TREED			BEDROCK
		SAVANNAH WOODLAND		BEACH / BAR		
		MIXED BARREN		יחחר	CARB. BEDRK	SITE
F						
					ACIDIC REDRK	
ţ		PLANKTON LAKE SUBMERGED POND FLOATING-LVD. RIVER			MINERAL SOIL	WETLAND
]		PLANT FORM COMMUNITY	HISTORY PL	E TOPOGRAPHIC FEATURE	SUBSTRATE	SYSTEM
TREE					DESCRIPTION	POLYGON DE
		4724335		UTME:481420	UTMZ: (7	CLASSIFICATION
	2	TIME: start 1.2:15			SURVEYOR(S):	
	)	×	POLY	Ŕ	SITE: 6 ( JVC/	ELC

<u>-</u> >		SILE: (7)	SKON -	SITE: () (DWA- Pat Stanland	2	. /	
		POLYGON:	N.X.		L	-	
STAND		DATE: July 29	Ju 29	to 14			
CHARACTERISTICS	ICS	SURVEYOR(S):	(s): ບັ				
TREE TALLY BY SPECIES:	Es:						
PRISM FACTOR 2.	24						
SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
PINStro	8					ዳ	ବ୍ୟ
PRUS						1	11
TOTAL	À				•	q	100
BASAL AREA (BA)	6					ø	- 60
DEAD	-					$\sim$	
STAND COMPOSITION:	••						
PINSton 87	DIN	Philsen					

COMMUNITY PROFILE DIAGRAM

PLANT SPECIES LIST



## GENERAL SITE INFORMATION FIELD SHEET Project: Glover - Port Stanley

Project:	Slaver	`~	٢
Data:	1 10	ĥ	1

JUNO Collector(s):

Project Manager: <u>DM</u> Visit #: <u>1</u>

Time started: 6:45

Time started: <u>6:45</u> Time finished: <u>1:15</u> Combined collectors' hours: <u>0.5</u> NHIC List MNR EO's none not provided to collector

	ER CONDITIONS									
Temp.	Wind:	1	Cloud Cover (%)		pitation		Calm			
24	Direction:	SW	-10		y: NO		Smoke Drift			
				Yeste	erday: no	_	Wind Felt or			
DATA F						-	Leaves in co			
X	Birds 1 <u>×</u> 2		ELC's		Dripline		Wind raises		d paper	
	Mammals		Floral V_ <u>⊀</u> SA_		Aquatic - Physical		Small trees			
	Amphibians 1_ 2_ 3_		Wetland		Aquatic - Biological	6	Large branc	hes swa	у	
	Reptiles		Butternut		Faunal Habitat	7	Lots of resis	stance wl	nen walk	ing into
	Inverterbrates		other SAR			8	Limbs break			
FEATU	RES (with GPS co-ordi	nates wh	ere applicable)				Mapped	Foll	ow-up R	əq'd
	de Structures:				None observed			Yes	No	Who
	Barns/Footings/Wells/	other(list)					$\checkmark$			
	Rock Piles									
	Garbage									
Natural	Vegetation:				X None observed					
	Fallen Logs outside w	oods (#'s)								
	Brush Piles	<u> </u>	· · · · ·							
	Snags (raptor perch)				· · · · · · · · · · · · · · · · · · ·					
	Tree Cavities (nesting	<u>)</u>								
	Sentinel Trees	,		-						
	Mast Trees (6E)		Berry Shrubs (6E)							
Wildlife	Features:			I	None observed					
	Waterfowl nesting (lar	ne #'s # r	of species)	1						
	Exposed Banks (nesti									
	Stick Nests	ng swano	10)							
	Animal Burrows (>100				<u></u>					
	Heronry	лту			107100 C			<b></b>		
	Crayfish mounds									
	Sand/gravel on site									
	Marsh/open country/s	brub								
$\square$		arup								
	Winter Deer yards									
	Corridor from pond to									
	Bat corridor (shoreline									
	Bat hibernacula (cave	s, mines,	crevices, etc.)		· · · · · · · · · · · · · · · · · · ·					
Aquatio	Features:				<b>1 1 1 1 1 1</b>					
	Perm. pond in woodla		emergents/submergen							
	Perm. pond in open		mergents/submergent		temp.					
	Water in woodland	pools	flowingdr	у						
		wing	dry pools							
	natural stream	<u> </u>	<u> <u> </u></u>	- 1.7	Alena - Ia					
i [	swale			X	None observed				<u> </u>	
[[	]open drain									
	Seeps/Springs									
	tal Observations:	• 1 1	<b>k</b> .		AL C P					
	icked barn av	id She	<u>ds an commi</u>	<u>1017</u>	4 Al for Barn					
	sallow nest.	40-6	15 active nes	ts 11	<u>a large barn.</u>			ļ		
_M_	ing adults as	nd you	ing observed.	, <u> </u>	0		<b></b>	ļ		
	<u> </u>	<u> </u>	<u> </u>					I		

Graphic 
Attached or Name

Checked by Project Manager Date:\_

Deter J. 14, 1 or       Project Manager, 10, Visit #:		in the second				INFORMATIO			IEET		
Time started:       2:50       Time finished:       9:22       Combined collector         Wind:       Ime started:       0:25       Today: two       1       Sinke britished:         7       Diraction:       Image: started:       0:26       2       Wind Fetto Tace         7       Diraction:       Image: started:       0:26       2       2       Wind Fetto Tace         8       Diraction:       Image: started:       0:26       2       2       2       2       4       3       Leaves in constant motion         4       Mind Tace       2       Garage: started:       1       3       Leaves in constant motion         4       Birds 1_2/2       Wetland       Aquatic - Biological       5       Linke breaking of the started:       7       Linke breaking of the started:       7       Linke breaking of the started:       7       Linke breaking of the started:       1       1       Started:       1       1       Started:       1       1       Started:       1       1       1       1	al as f	ANI	<b>7</b> 20	Da	te: Jn 2º	1,2015	1	Project Ma	anager:	DM	
Jime started:       Y:20       Combined collectors' hours:       0         WHAT:       Image: Started:       NR EO's       none       mot provided to collector         WWAT:       Image: Started:	A. 24		d				-				
WHATHER CONDITIONS       WIND SCALE         Temp.       Wind:       1       Cloud Cover (%)       Precipitation       0       Claim         '_       Direction:       S       O       Today:       r.o.       1       Sinoke Drits         OTAT FOCUS       ELC's       Orpline       4       Wind release subt and paper         Amphibans 1_2.3.       Wetland       Aquado.       Physical       Sinali trees sway         Amphibans 1_2.3.       Wetland       Aquado.       Physical       Sinali trees sway         Marmade Structures:       Butternut.       Flore Hand Habitat       Total y:       Sinali trees sway         Marmade Structures:       Marmade Structures:       Mapped Foling/Weils/other(list)       Mapped Foling/Weils/other(list)         Rock Piles       Sindago (release where applicable)       Mapped Foling/Weils/other(list)       Mapped Foling/Weils/other(list)         Rock Piles       Sindago (release)       Sindago (release)       Sindago (release)       Sindago (release)         Sindago (release)       Sindago (release)       Sindago (release)       Sindago (release)       Sindago (release)         Bart Fores       Sindago (release)       Sindago (release)       Sindago (release)       Sindago (release)         Sindago (release)       Sinda	ADBATIC	AND TERPESTIVAL FLOWYSTER PLAN	66 R K	Time started: T	30 Time	finished:_%; ᅍ Co	omb				
Temp:       Vind:       1       Cloud Cover (%)       Prescipitation       0. Calm         '5       Direction:       S       Vind Felder:       2. Wind Felder:       3. Leaves in constant motion         Marmals	84 - A			NHIC List		O's 🛄 none 🗌		not provid	ed to co	ollector	
Temp:       Vind:       1       Cloud Cover (%)       Prescipitation       0. Calm         '5       Direction:       S       Vind Felder:       2. Wind Felder:       3. Leaves in constant motion         Marmals	WEATH	ER CONDITIONS				WIN	DSC	CALE			
7       Direction:       S       Yesterday:       1       Snoke Drifts         DATA FOCUS       3       Leaves in constant motion       4         Mammals       X       Floral VS4_AApuate - Physical       5       Small tees sway         Amphibians 1_2_3       Wetland       Aquate - Physical       5       Small tees sway         Amphibians 1_2_3       Wetland       Aquate - Physical       6       Large branches were         Reptiles       Butternut       Faunal Habitat       7       Lots of restance when walking into         Inverterbrates       other SAR       Mapped       Yes       No       Who         BamsFootings/Wellsotherflist)       Mapped       Yes       No       Who         BamsFootings/Wellsotherflist)       Mapped       Yes       No       Who         Brash Pies       Site of restance when walking into       Site of restance when walking into         Brash Pies       Site of restance when walking into       Site of restance when walking into         Serintell Tees       Mapped       Yes       No       Who         Brash Pies       Site of restance when walking wallows)			11	Cloud Cover (%	) Precipita						
Unrector:       Yesterday:       2       Wind Field on Face         Shark FOCUS       3       Leaves in constant motion         Mammals       Floral VS4_A       Aquatic - Physical       4       Wind sizes dust and paper         Mammals       Floral VS4_A       Aquatic - Physical       5       Small trees sway         Reptiles       Buternut       Paunal Habitat       5       Large branches sway         FEATURES (with GPS co-ordinates where applicable)       Man-made Structures:       X       None observed       Limbs breaking off trees         FEATURES (with GPS co-ordinates where applicable)       Man-made Structures:       X       None observed       Limbs breaking off trees         Barns/Footings/Wells/other/list)       Rock Piles       Ves       No       Whoe         Barns/Footings/Wells/other/list)       None observed       Limbs breaking off trees         Falen Logs outside woods (#s)       Image structures:       Image structures       Image structures         Mast Trees (8c)       Berry Shrubs (8c)       Image structures       Image structures         Windiffe Features:       Image structures       Image structures       Image structures         Windiffe Features:       Image structures       Image structures       Image structures         Mast Trees (8c) <td></td> <td></td> <td>s</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>S</td> <td></td> <td></td>			s				-		S		
DATA FOCUS       3       Leves in constant motion         Mammals       K       Floral VS_A_       Apudto - Physical       5       Mail trees sway         Amphibians 1_2_3_       Welfand       Apudto - Physical       5       Large branches sway         Amphibians 1_2_3_       Welfand       Apudto - Physical       6       Large branches sway         Amphibians 1_2_3_       Welfand       Apudto - Physical       6       Large branches sway         Total for the state       Burts Philes       Sample branches sway       7       Lots of resistance when walking into         Barsh Footings/Wels/Wels/ther(list)       Barsh Footings/Wels/dels/ther(list)       Mapped       Yes       No       Who         Barsh Footings/Wels/dels/ther(list)       Sample branches       Image       <		Direction:					2	Wind Felt or	n Face		
Mammals       Yiotal VSk_A       Aquadic - Physical       6       Large branches sway         Reptiles       Butternut       Faunal Habitat       7       Lick of resistance when waking into the skan when waking into the skan when waking off trees         Manmade Structures:       Mapped       Follow-up Req'd       Water Skan when waking into the skan waking into the skan when waking into the skan waking into the skan when waking into the skan waking into the	DATA F	ocus .				/	3	Leaves in c	onstant i	notion	
Mammals       Yiotal VSk_A       Aquadic - Physical       6       Large branches sway         Reptiles       Butternut       Faunal Habitat       7       Lick of resistance when waking into the skan when waking into the skan when waking off trees         Manmade Structures:       Mapped       Follow-up Req'd       Water Skan when waking into the skan waking into the skan when waking into the skan waking into the skan when waking into the skan waking into the		Birds 1 2		ELC's		Dripline	4	Wind raises	dust an	d paper	
Amphibians 1_ 2_ 3_       Weitand       Aquadc - Biological       6 Linge branches sway         Faunal Habitat       Falural Habitat       Falural Habitat       Falural branches sway         FEATURES (with GPS co-ordinates where applicable)       Mapped       Follow-up Req'd         Man-made Structures:       Mone observed       Weis       No         Barns/Footings/Weils/other(list)       Mone observed       Yes       No         Garbage       Image Structures:       None observed       Image Structures:       Image Structures:         Brush Piles       Snags (raktor perch)       Image Structures:       Image Structures:       Image Structures:       Image Structures:         Brush Piles       Snags (raktor perch)       Image Structures:       Image Structures:       Image Structures:       Image Structures:         Waterfowinesting (large #s, # of species)       Image Structures:       Image Structures:       Image Structures:       Image Structures:       Image Structures:       Image Structures:         Waterfowinesting (large #s, # of species)       Image Structures:       I			×	Floral V Sk. A			5	Small trees	sway		
Reptiles         Butternut         Faunal Habitat         I clubs of resistance when walking off trees           FEATURES (with OPS co-ordinates where applicable)         Mapped         Follow-up Req'd           Man-made Structures:         Imbs breaking off trees         No           Rock Piles         Yes         No           Rock Piles         Imbs breaking off trees         No           Rock Piles         Imbs breaking off trees         Imbs breaking off trees           Batural Vegetation:         Imbs breaking off trees         Imbs breaking off trees           Snagk (raptor perch)         Imbs breaking off trees         Imbs breaking off trees           Sentinel Trees (05)         Berry Shrubs (65)         Imbs breaking off trees           Widtle Feetures:         Imbs breaking wallows)         Imbs breaking wallows)           Stick Nesting         Imbs breaking wallows)         Imbs breaking wallows)           Stick Nesting wallows)         Imbs breaking wallows)         Imbs breaking wallows)           Stick Nesting wallows)         Imbs breaking (raptor perch)         Imbs breaking wallows)           Stick Nesting wallows)         Imbs breaking (raptor perch)         Imbs breaking wallows)           Stick Nesting dwith researches         Imbs breaking (raptor perch)         Imbs breaking (raptor perch)           Tree Cavifi		Amphibians 1 2 3					6	Large brand	hes swa	ıy	
Inverterbrates         other SAR         B         Imbs breaking off trees           FRATURES (with CPS co-condinates where applicable)         Mapped         Follow-up Req2           Man-made Structures:         X         None observed         Yes         No           Barns/Footings/Wells/other(list)         X         None observed         Imbs breaking off trees           Gatbage         X         X         None observed         Imbs breaking off trees           Gatbage         X         X         None observed         Imbs breaking off trees           Gatbage         X         X         None observed         Imbs breaking off trees           Fallen Logs outside woods (#s)         X         None observed         Imbs breaking off trees           Startures:         Sangs (raptor perch)         Imbs breaking off trees         Imbs breaking off trees           Mast Trees (6E)         Berry Shrubs (6E)         Imbs breaking wallows)         Imbs breaking wallows)         Imbs breaking wallows)           Stick Nests         Imbs breaking wallows)         Imbs breaking wallows)         Imbs breaking wallows)         Imbs breaking wallows)           Stick Nests         Imbs breaking wallows)         Imps breaking wallows)         Imps breaking wallows)         Imps breaking wallows)           Stick Nests				Butternut			7	Lots of resis	stance w	hen wall	king into
Mar-made Structures:         X         None observed         Yes         No         Who           Bans/Footings/Wells/other(list)				other SAR			8	Limbs break	king off t	rees	-
Barns/Footings/Wells/other(list)	FEATUR	RES (with GPS co-ordin	ates wh	ere applicable)				Mapped	Foll	ow-up R	
Rock Piles	Man-ma					None observed			Yes	No	Who
Garbage       Image: Carbage (applied in the second of the s			ther(list)	I							
Natural Vegetation:       Image: None observed         Fallen Logs outside woods (#'s)       Image: None observed         Brush Piles       Image: None observed         Sentinel Trees       Image: None observed         Mast Trees (6E)       Berry Shrubs (6E)         Wildife Features:       Image: None observed         Waterfowl nesting (large #'s, # of species)       Image: None observed         Stok Nests       Image: None observed         Animal Burrows (>10cm)       Image: None observed         Heronry       Image: None observed         Crafish mounds       Image: None observed         Mastrivepen country/shrub       Image: None observed         Winter Deer yards       Image: None observed         Bat corridor (shorelines, escarpments)       Image: None observed         Bat corridor (shorelines, escarpments)       Image: None observed         Perm. pond in woodland Image: Perup.       Image: None observed         Perm. pond in open Image: Perup.       Image: None observed         Image: None observed       Image: None observed         Imatural stream       Image: None observed											
Fallen Logs outside woods (#s)											
Brush Piles	Natural				X	None observed			<b></b> .		
Snags (raptor perch)			ods (#'s	)							
Tree Cavities (nesting)											
Sentinel Trees										1	
Mast Trees (6E)       Berry Shrubs (6E)         Wildlife Features:       \[] None observed         Wildlife Features:       \[] None observed         Barts (nesting swallows)											
Wildlife Features:       None observed         Waterfowl nesting (large #'s, # of species)											
Waterfowl nesting (large #'s, # of species)				Berry Shrubs (6E)							
Exposed Banks (nesting swallows)	Wildlife				LX	None observed					
Stick Nests											
Animal Burrows (>10cm)       Herony         Herony       Image: Crayfish mounds         Crayfish mounds       Image: Crayfish mounds         Sand/gravel on site       Image: Crayfish mounds         Marsh/open country/shrub       Image: Crayfish mounds         Winter Deer yards       Image: Crayfish movement)         Corridor from pond to woods (ampibian movement)       Image: Crayfish movement)         Bat corridor (shorelines, escarpments)       Image: Crayfish movement)         Bat hibernacula (caves, mines, crevices, etc.)       Image: Crayfish movement, Submergents/logs         Perm. pond in woodlandemergents/submergents/logs       Image: Crayfish movement, Submergents/logs         Perm. pond in woodlandpoolsfitowingBry       Image: Crayfish movement, Submergents/logstemp.         Water ways flowing dry poolsfitowingBry       Image: Crayfish movement, Submergents/logstemp.         Water ways flowing dry poolsfitowingBry       Image: Crayfish movement, Submergents/logstemp.         Seeps/Springs			g swallo	WS)							
Heronry       Image: Crayfish mounds       Image: Crayfish mounds         Sand/gravel on site       Image: Crayfish mounds       Image: Crayfish mounds         Marsh/open country/shrub       Image: Crayfish mounds       Image: Crayfish mounds         Winter Deer yards       Image: Crayfish mounds       Image: Crayfish mounds         Winter Deer yards       Image: Crayfish mounds       Image: Crayfish mounds         Bat corridor from pond to woods (ampibian movement)       Image: Crayfish mounds       Image: Crayfish mounds         Bat corridor (shorelines, escarpments)       Image: Crayfish mounds       Image: Crayfish mounds       Image: Crayfish mounds         Bat hibernacula (caves, mines, crevices, etc.)       Aquatic Features:       Image: Crayfish mounds       Image: Crayfish mounds         Perm. pond in woodland       emergents/submergents/logs       Itemp.       Image: Crayfish mounds       Image: Crayfish mounds         Water in woodland       pools       filowing       Itemp.       Image: Crayfish mounds       Image: C			-								
Crayfish mounds			n)			·					
Sand/gravel on site   Marsh/open country/shrub   Winter Deer yards   Corridor from pond to woods (ampibian movement)   Bat corridor (shorelines, escarpments)   Bat hibernacula (caves, mines, crevices, etc.)   Aquatic Features:   Perm. pond in woodland   Perm. pond in open   emergents/submergents/logs   Water in woodland   pools   flowing   diry   Water in woodland   pools   flowing   diry   Mater in woodland   pools   flowing   diry   matural stream   pool   genes/Springs   matural observations:				·····					· · · · · · · · · · · · · · · · · · ·		
Marsh/open country/shrub   Winter Deer yards   Corridor from pond to woods (ampibian movement)   Bat corridor (shorelines, escarpments)   Bat hibernacula (caves, mines, crevices, etc.)   Aquatic Features:   Perm. pond in woodland   emergents/submergents/logs   temp.   Water in woodland   pools   flowing   dry   water area   atral stream   aswale   astal   beens/springs   astal   astal   beens/springs   astal   beens/springs   astal   astal   astal   astal   astal   beens/springs   astal   astal   astal   astal   beens/springs   astal   astal   astal   beens/springs   astal   astal   astal   beens/springs   astal   astal <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>				•							
Winter Deer yards		¥	rub								
Corridor from pond to woods (ampibian movement)   Bat corridor (shorelines, escarpments)   Bat hibernacula (caves, mines, crevices, etc.)   Aquatic Features:   Perm. pond in woodland   emergents/submergents/logs   temp.   Water in woodland   pools   flowing   dry   water and   swale   open drain   swale   open drain   swale   loseps/Springs   incidental Observations:											
Bat corridor (shorelines, escarpments)   Bat hibernacula (caves, mines, crevices, etc.)   Aquatic Features:   Perm. pond in woodland   emergents/submergents/logs   temp.   Water in woodland   pols   flowing   dry   Water and stream   swale   open drain   seeps/Springs     Incidental Observations:			voods (a	mpibian movement	)						
Bat hibernacula (caves, mines, crevices, etc.)   Aquatic Features:   Perm. pond in woodland   Perm. pond in open   emergents/submergents/logs   Water in woodland   pools   Waterways   flowing   dry   Mater in woodland   pools   matural stream   popen drain   popen drain <td></td> <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>					,						
Aquatic Features:											
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Perm. pond in open emergents/submergents/logs temp.   Water in woodland pools diving   Waterways flowing dry   natural stream			d 🗌 e	emergents/submerg	ents/logs	temp.					
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natural stream											
iswale		Waterways flow	ing	dry pools							
open drain	[	natural stream									
Seeps/Springs         Image: Control of the second sec					X	None observed					
Incidental Observations:			j								
Image: Sector of the sector						• · · <del>- ·</del>					
Graphic Attached or Name Checked by Project Manager Date:	Inciden	tal Observations:								ļ	ļ
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Graphic Attached or Name Checked by Project Manager Date:											
	Granhia	Attached or Nom				Checked by Project M	land	ner Do	i I		I



#### **GENERAL SITE INFORMATION FIELD SHEET** $r^{\ddagger}$ Stanley

Project:	Glover-	Po
	A 17	

Date: Auo Collector(s): мЧ Project Manager:

OM Visit #: 2

Time started: 8.15

Time started: <u>8:15</u> Time finished: <u>8:45</u> Combined collectors' hours: <u>0.5</u> NHIC List MNR EO's none not provided to collector

WEATH	ER CONDITIONS				WINI	D SC	CALE			
Temp.	Wind:		Cloud Cover (%)	Preci	pitation	0	Calm			
230		1	1 5		y: No	1	Smoke Drift	s		
<u>~</u>	Direction:				rday: No		Wind Felt or			
DATA FO			-l	110310			Leaves in o		notion	
	Birds 12		ELC's	·	Dripline		Wind raises			
		<u> </u>							ı haheı	
	Mammals	L <u>X</u>	Floral VS_XA_		Aquatic - Physical		Small trees	•		
	Amphibians 1_ 2_ 3_		Wetland		Aquatic - Biological		Large brand			
	Reptiles		Butternut		Faunal Habitat					ing into
	Inverterbrates		other SAR			8	Limbs breal	king off tr	ees	
FEATUR	ES (with GPS co-ordi	nates w	nere applicable)				Mapped		ow-up R	
Man-ma	de Structures:				None observed			Yes	No	Who
	Barns/Footings/Wells/	other(list/	)							
	Rock Piles								i	
	Garbage									
Natural V	Vegetation:			[	None observed					
	Fallen Logs outside w	oods (#'s	3)							
	Brush Piles		• •							
	Snags (raptor perch)				······					
	Tree Cavities (nesting	)					-			
	Sentinel Trees	/								
	Mast Trees (6E)		Berry Shrubs (6E)		· · · · · · · · · · · · · · · · · · ·					
Wildlife	Features:		Deny Shrubs (OE)		None observed					
windlife			- (							
	Waterfowl nesting (lar									
	Exposed Banks (nesti	ng swallo	ows)							
	Stick Nests									
	Animal Burrows (>100	cm)			-2					
	Heronry									
	Crayfish mounds									
	Sand/gravel on site									
	Marsh/open country/s	hrub						:		
	Winter Deer yards									
	Corridor from pond to	woods (a	ampibian movement)							
	Bat corridor (shoreline									
	Bat hibernacula (cave									
Aquatic	Features:	<u>-,</u>	, , <del>_ , _ , _ ,</del>							
	Perm. pond in woodla	ind 🗔	emergents/submergen	ts/loas	temp.					
	Perm. pond in open		emergents/submergen		temp.					
	Water in woodland	llooq 🗌								
		wing	dry pools	<u>y</u>						
<b> </b> └──┘ _	· · · · ·									
	<u>] natural stream</u>				None observed		}	╂━───		
	∫swale	<u> </u>			None observed					
L L	open drain							<b> </b>		
	Seeps/Springs									1
Incident	tal Observations:	-							ļ	
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Graphic	Attached or Nar	ne			Checked by Project M	lana	ager 🗆 Da	ate:		



## GENERAL SITE INFORMATION FIELD SHEET Project: <u>Glover - Port</u> Stanley

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	Date:	Oct	,	T	10	5
			•	. 1		

Project Manager: DM Visit #: ろ

WH

Time finished: 10:25 Combined collectors' hours: 1

NHIC List MNR EO's none X not provided to collector

	HER CONDITIONS									
Temp.	Wind:	31	Cloud Cover (%)	Precipitati			Calm			
<u> </u>	Direction:	N9	10	Today: ກ		the second se	Smoke Drift			
				Yesterday	: no		Wind Felt of			
DATA	FOCUS						Leaves in c			
	Birds 12		ELC's		Dripline		Wind raises		d paper	
×	Mammals	X	Floral VSA <u>×</u>		Aquatic - Physical		Small trees			
	Amphibians 1_2_3_		Wetland		Aquatic - Biological		Large brand			
	Reptiles		Butternut	F	<sup>r</sup> aunal Habitat		Lots of resis			king into
	Inverterbrates		other SAR			8	Limbs breal	king off tr	ees	
	IRES (with GPS co-ordi	inates wł	nere applicable)				Mapped		ow-up R	
Man-m	ade Structures:				None observed			Yes	No	Who
	Barns/Footings/Wells	other(list)	)							
	Rock Piles									
	Garbage									
Natura	I Vegetation:			X I	None observed					
	Fallen Logs outside w	oods (#'s	)							
	Brush Piles									
	Snags (raptor perch)									
	Tree Cavities (nesting	)								
	Sentinel Trees									
	Mast Trees (6E)		Berry Shrubs (6E)							
Wildlif	e Features:			X	None observed					
	Waterfowl nesting (la									
	Exposed Banks (nest	ing swalld	ows)							
	Stick Nests									
	Animal Burrows (>10	cm)								
	Heronry									
	Crayfish mounds									1
	Sand/gravel on site									
	Marsh/open country/s	hrub								
	Winter Deer yards									
	Corridor from pond to	woods (a	ampibian movement)							
	Bat corridor (shoreline									
	Bat hibernacula (cave									
Aquati	ic Features:									
	Perm. pond in woodla	and 🗌	emergents/submergent		temp.					
	Perm. pond in open		emergents/submergent		temp.					
	Water in woodland	pools								
	Waterways flor	wing	dry pools							
	natural stream									
	☐ swale				None observed					
	open drain									
	Seeps/Springs									
Incide	ntal Observations:	_								
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	or BHA # 22	2			<u>(F</u>	LEA	SE U	SE	BLO	СК	LET	TER	<u>(S)</u>					1		(d	id/n	nm		yy)	_	ы	1	_	
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	ed area containing butternu perties > 1 acre (0.4 hectare				cres	C	] He	ecta	res																				_
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	Butternut Data Collection FORM 2 (2010 Edition) (PLEASE USE BLOCK LETTERS) Fill when Form 1 indicates canker is well established. The information opn Form 2
1000	Shaded fields are mandatory for Butternut Health Assessments must be filled out for all trees when doing a
	Site Code(A,B,Z, AA)     Surveyor ID or BHA #     2 2 2     Date (dd/mm/yyyy)
``-	Surveyor Last Name $H_{UV}$ S $0^{-10}$ - 2015
	Tree ID Numbering: 1,2,3,Starting from 1 for each site Tree # Zone Easting Northing
	Tree #       Zone       Easting       Northing         0       1       1       4       1       1       4       7       2       4       7       7       8         Crown       9       5       Crown %       1       Below crown       Seed       #Epic-Live       #Open       #Sooty       Competing Species         Twig Dieback       1       #Stems       Butternut       Male Flowers       Female Flowers       Bark Type       -<2m       4       3       0
	Tree #       Zone       Easting       Northing         0       2       1       7       4       1       1       1       7       4       7       7       8       7<
	Tree # Zone Easting Northing
	Crown Live   Crown % Below crown   Below crown %   Below cr
	Tree # Zone Easting Northing
	1       1       Assess below live crown       Metres from badly cankered tree         Crown Class       Live Crown %       Main Stem Length(m) Below crown       Seed       #Epic-Live #Epic-Dead       #Open #Sooty         Twig Dieback Branch Dieback       #Stems       Origin Natural       Female Flowers       Female Flowers         Defoliation       DBH(cm)       Planted       Seed Set       #Callused       >2m       Image: Comparison of the second
	Tree # Zone Easting Northing
	1       Assess below live crown         Crown       Live       Main Stem Length(m)         Class       Crown %       Below crown       Seed         Twig Dieback       #Stems       Butternut       Signs         Defoliation       DBH(cm)       Planted       Seed Set         Discolouration       DBH(cm)       None
	Please enter matching page link code on forms 1 and 2 Please return forms to: 49731
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privacy policies and guidelines)

Peterborough, ON, K9J 2V4 www.fgca.net

### Table 3: Key for Field Identification of Butternut Hybrids

Trait	Description	Assign score of:
	Leaves yellow and drop early in the fall, late August to mid-September	0
Leaf Retention	Leaves yellow and drop in mid-fall, after the first frost	1
	Leaves stay green late into the fall and drop after a hard frost	2
	Terminal bud elongated and slender, conical, and tan-coloured	0
Dormant Terminal Bud	Terminal bud broadest at base, less elongated, slightly green coloured	1
	Terminal bud stout, pyramid shaped, green or yellow green in colour	2
	Dark olive green or reddish-brown, slender, sometimes with hairs below the terminal bud	0
Dormant Twigs	Tan to brownish green and stout, sometimes with patches of hairs, especially below terminal bud	1
	Tan to light green, stout, often with abundant rusty red or tan hairs	2
	Lenticels on most recent growth uniformly small, round, white, abundant, and evenly distributed; if some are elongated or dash-shaped, elongation is perpendicular to direction of the branch	0
Lenticel Shape on New Twigs	Lenticels on most recent growth mostly small, round, white, abundant, with patchy distribution; if some are elongated or dash-shaped, elongation is parallel to direction of branch	1
	Lenticels on most recent growth large, tan and corky, patchy distribution, many dash-shaped and elongated parallel to branch	2
	Very dark, chocolate brown	0
Pith Color of 1-Year	Medium brown (colour of dark maple syrup)	1
Twig	Tan to honey coloured	2
annan ann fachta da bhailte ann an Albhailte ann an Star ann an Albhailte ann an Albhailte ann an Albhailte Ann	Top edge of most leaf scars straight or slightly arched	0
Leaf Scar	Top edge of some leaf scars with small descending "V" shaped notch	1
	Top edge of most or all leaf scars with clear descending "V" shaped notch	2
	Most leaves less than 46 cm long	0
Leaf Length	Many leaves 46 cm or longer	1
	Dark grey or black	0
Color of Bark Fissures	Light grey or silvery	1
on Mature Trees	Tan or slightly pinkish	2
Green Hull	Densely hairy and very sticky	0
Characteristics	Somewhat hairy and only slightly sticky	2
	Nut cylindrical, round in cross section, with thin, sharp corrugations; the suture/seam is not easily distinguished from the longitudinal ridges	0
Nut Shape	Nut slightly asymmetrical, with noticeable valleys between longitudinal ridges	1
	Nut asymmetric, diamond shaped or flattened, with dull or sparse corrugations; the suture/seam is easily identified and forms the widest part of the body of the nut	2
Catkin Length When	Shorter than 11.5 cm	0
Fully Extended and	11.5 – 14 cm	1
Shedding Pollen	Longer than 14 cm	2

Table 4: Data Sheet for Field Identification of Butternut Hybrids

BHA name:	Will Huys		Tree ID #:					
BHA ID #:	222							
BHA Report #:	900-772		10	20				
Assessment Date(s):	Oct. 1, 2015	5	8					2
Tree location (site address):	37719 Lake Road, A. Stanky	anty						
Client name:	James Clover	1						
Traits (must evaluate at least five traits):	e at least five trait	:(s)	Score Assigned:					
Leaf Retention								
Dormant Terminal Bud	pr			-				
Dormant Twigs			1.					
Lenticel Shape on New Twigs	ew Twigs		2	2				
Pith Color of 1-Year Twig	Twig		Q					
Leaf Scar			2	1				
Leaf Length			0					
Color of Bark Fissures on Mature Trees	s on Mature Trees		.	0				
Green Hull Characteristics	ristics			~				
Nut Shape			/					
Catkin Length When Fully Extended and Shedding Pollen	Fully Extended		/			-		
How to interpret total score: 0 to 3 = Butternut; 4 or greater = Hybrid	al score:	Total:	$\otimes$	$\sim$				

				AL SITE t: 4895		NF	FIELD SH	IEET		
1	1		Date	: June	3,2621		Project M	anager:		
	-	PMTE	Collector(s)	): wH	5 20 -1	-	1 10,221	Visit #:		
			Time started: 8,00	S Time	finished: <u>8:30</u> Co	omt	pined collec	tors' ho	urs: Ó	5
			NHIC List	MNR	EO's none		not provid	ded to c	ollector	
A/E	ATH	ER CONDITIONS				1	WIND SCA	IF		C-STAR STAR
Tem		Wind:	Cloud Cover (%)	Precipit	ation	0		Dear rear		
				Today:		1	Smoke Drif	ts		
	6	Direction:	1.00	Yesterd	ay: 425	_	Wind Felt o			
DAT	A F	OCUS				-	Leaves in c			
X		Birds 1 <u>×</u> 2_Mig_	ELC's		Dripline/Tree Survey		Wind raises		d paper	
		Mammals	Floral VS_A_		Aquatic - Physical	_	Small trees			
		Amphibians 1_2_3_	Wetland		Aquatic - Biological		Large brand			dan into
		Reptiles	Butternut (BHA) other SAR		Faunal Habitat Other - see notes		Lots of resis			king into
	7115	Inverterbrates RES (with GPS co-ordinates w			Other - see notes	0	Mapped		ow-up R	ea'd
Man	-ma	de Structures:	nere applicable		None observed	-	UTM	Yes	No	Who
Yes								1000		
$\square$	X	Barns/Footings/Wells/other(lis	t)							
	X	Rock Piles	,							
	×	Garbage								
Nati	Iral	Vegetation:			None observed					
	×	Fallen Logs outside woods (#'s	5)							
	X	Brush Piles								·
	X	Snags (raptor perch)					<b> </b>	<b> </b>		
	× .	Tree Cavities (nesting)						<b> </b>		
	8	Sentinel Trees		,						
	X	Butternut Identified Mast Trees (6E)	Berry Shrubs (6E)							
Wild	llife	Features:	Delly onlubs (or)		None observed					
	K	Waterfowl nesting (large #'s, #	of species)							
H	1	Exposed Banks (nesting swall		5						
	X	Stick Nests								
	×	Animal Burrows (>10cm)								
	X	Heronry								
	×.	Crayfish mounds						,		
	X	Sand/gravel on site								l
Ц		Marsh/open country/shrub								
	×	Winter Deer yards Corridor from pond to woods (a	mailion movement)	i.						
	~	Bat corridor (shorelines, escar								
H	X	Bat hibernacula (caves, mines								
Agu	atic	Features:	, 01001000, 010.7							
	X		emergents/submerge	nts/logs	temp.					
H	X		emergents/submerge		temp.					
	A	Water in woodland Dools	flowing	dry						
	X	Waterways flowing	dry pools							
	Ľ	]natural stream								
		swale			None observed					
	Ľ	]open drain								
mal	L	al Observations/Notes:						ļļ		
nci	aem	al Observations/Notes.								
						_				
					1					
								1 /	1	1

SITE: URBE	- ~ 5.				ł	<u>ה</u> כ	SITE:				
EYOR(S)		DATE: JW3, 201	TIME: start		J		POLYGON:				
NUTMZ: UTME:	Ē.	И			1	DISTURBANCE	SURVEYOR(S):	(S):			
DESCRIPTION					H	TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	2 5 - 15 YRS	3 0 - 5 YEARS	SCORE †
		HISTORY	PLANT FORM	COMMUNITY		INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
C ORGANIC		NATURAL	PLANKTON			EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
MINERAL SOIL	<u> </u>	CULTURAL	FLOATING-LVD.			SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
PARENT MIN.	TERRACE			STREAM	1	EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ACIDIC BEDRK.	TABLELAND		D LICHEN BRYOPHYTE		J	GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
BASIC BEDRK.				BARREN	ŀ	EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
		COVER	MIXED	PRAIRIE	l	LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
	BEACH / BAR	OPEN		SAVANNAH		EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
." <u> </u>	BLUFF					ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
				_ PLANTATION		EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SCRIPTION:					1	PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
6	SPECIES IN ORI	DER OF DECREAS	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp)	1 FOUAL TO	1	EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
				·	l	TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
						EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
<					ł	DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
					ľ	EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
9 = 10 <ht< td=""><td>3 = 2<ht 10="" m<="" td=""><td>4=1<ht 2="" 5="0.5&lt;/td" m=""><td>0.5<ht 0.5="" 1="" 6="0.2&lt;HT" m="" m<="" td=""><td>0.5 m 7 = HT&lt;0.2 m</td><th>H</th><td>EARTH DISPLACEMENT</td><td>NONE</td><td>LIGHT</td><td>MODERATE</td><td>HEAVY</td><td></td></ht></td></ht></td></ht></td></ht<>	3 = 2 <ht 10="" m<="" td=""><td>4=1<ht 2="" 5="0.5&lt;/td" m=""><td>0.5<ht 0.5="" 1="" 6="0.2&lt;HT" m="" m<="" td=""><td>0.5 m 7 = HT&lt;0.2 m</td><th>H</th><td>EARTH DISPLACEMENT</td><td>NONE</td><td>LIGHT</td><td>MODERATE</td><td>HEAVY</td><td></td></ht></td></ht></td></ht>	4=1 <ht 2="" 5="0.5&lt;/td" m=""><td>0.5<ht 0.5="" 1="" 6="0.2&lt;HT" m="" m<="" td=""><td>0.5 m 7 = HT&lt;0.2 m</td><th>H</th><td>EARTH DISPLACEMENT</td><td>NONE</td><td>LIGHT</td><td>MODERATE</td><td>HEAVY</td><td></td></ht></td></ht>	0.5 <ht 0.5="" 1="" 6="0.2&lt;HT" m="" m<="" td=""><td>0.5 m 7 = HT&lt;0.2 m</td><th>H</th><td>EARTH DISPLACEMENT</td><td>NONE</td><td>LIGHT</td><td>MODERATE</td><td>HEAVY</td><td></td></ht>	0.5 m 7 = HT<0.2 m	H	EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
0% < C	10% 2= 10 < CVF	25% <b>3</b> = 25 < C	60% 4=			EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DSITION:				BA:	1	RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
					1	EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ANALYSIS:	< 10	10 - 24	25 - 50	> 50	1	NOISE	NONE	SLIGHT	MODERATE	INTENSE	
NAGS:	< 10	10 - 24	25 - 50	> 50	l	EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LOGS:	< 10	10 - 24	25 - 50	> 50	l	DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	-
N = NONE	R=RARE O=	OCCASIONAL	A = ABUNDANT		ľ	EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PIONEER	YOUNG	MID-AGE	MATURE	OLD		WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
	-			GROWTH	5	EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
YSIS:	NEBTH TO MOTTI ES / GI EV			<u>ו</u> ן זי		BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
	DEPTH OF ORGANICS:	ANICS:		(cm)		EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OUS / VARIABLE	DEPTH TO BEDROCK:	ROCK:		(cm)	1	BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
₹L	N.		ELC		ł	EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
	1 11					FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
			111			EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
	CKEL		- C4		J	FIRE	NONE	LIGHT	MODERATE	HEAVY	
	FRAL		CUL			EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ATION TYPE:					<b>1</b>	CE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
-					1	EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
USION						OTHER	NONE	LIGHT	MODERATE	HEAVY	
MPLEX					ł	EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	-
					ľ				_	† INTENSITY x EXTENT = SCORE	NT = SCORE

				COMPLEX
				INCLUSION
				VEGETATION TYPE:
CUTLER		ERAL	MINERAL	ECOSITE:
CUT		KET	THICKE	COMMUNITY SERIES:
		- ULTURAL	$\sim$	COMMUNITY CLASS:
ELC CODE		Z	IFICATIO	COMMUNITY CLASSIFICATION:
	ж:	DEPTH TO BEDROCK:		HOMOGENEOUS / VARIABLE
	CS:	DEPTH OF ORGANICS:	-	MOISTURE:
II GI	S/GLEY g =	DEPTH TO MOTTLES / GLEY		TEXTURE:
<u>v</u> el				SOIL ANALYSIS:
	MID-AGE	YOUNG	PIONEER	COMM. AGE :
A = ABUNDANT	O = OCCASIONAL A =	R = RARE 0 = OCC	N = NONE F	ABUNDANCE CODES: N
25 - 50	10 - 24	< 10		DEADFALL / LOGS:
25 - 50	10 - 24	< 10		STANDING SNAGS:

S	STAND DESCRIPTION	RIPTIO	Z	
	LAYER	тн	HT CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
	CANOPY			
N	SUB-CANOPY			
ω	UNDERSTOREY			
4	GRD. LAYER			
푹 [	HT CODES:	1 = >25 m	2 = 10<	1=>25 m 2=10 <ht 0.5="" 1="" 10="" 2="" 25="" 3="2&lt;HT" 4="1&lt;HT" 5="0.5&lt;HT" 6="0.2&lt;HT" 7="HT&lt;0.2" m="" m<="" td=""></ht>
ŝ	CVR CODES	0= NONE	<b>1</b> = 0% •	0= NONE 1= 0% < CVR 10% 2= 10 < CVR 25% 3= 25 < CVR 60% 4= CVR > 60%
ST	STAND COMPOSITION:	N:		BA:

SIZE CLASS ANALYSIS:

POLYGON DESCRIPTION	SCRIPTION				
SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM COMMUNITY	COMMUNITY
TERRESTRIAL	ORGANIC		<b>NATURAL</b>	PLANKTON	
WETLAND	MINERAL SOIL	BOTTOMLAND	CULTURAL	FLOATING-LVD.	
AQUATIC	PARENT MIN.	VALLEY SLOPE			MARSH
	ACIDIC BEDRK.	TABLELAND			SWAMP
	BASIC BEDRK.				
SITE	CARB. BEDRK.	CREVICE / CAVE	COVER		
SHALLOW WATER		BEACH / BAR			SAVANNAH
BEDROCK		BLUFF			
STAND DESCRIPTION	RIPTION				

	2	ž
	ç	2

Notes:

Ruustyp	ORN	S hu	CORNser	SLALUMD	RHAM Cat	CORNIAC	RUBUIDO															KOB/pse	POPWalc 1	ACERSAC	SALIBAD	JUGLNig	1 2	SPECIES CODE	ABUNDANCE CODES: R = RARE 0 =	1 = CANOP	SPECIES DA	т- <b>т</b>
DACTolo	Soulan		N2 Micra	POA-pra	CLEC hed	LEU C vul	ASCL Syr	VERBHA																				LAYER COL. SPECIES CODE		SURVETUR(S): Y 2= SUB-CANOPY 3= UNDERSTOREY 4= GROUND (GRD.) LAYER	DATE:	POLYGON:
																											1 2 3 4	AVER		D.) LAYER		
				U			,1		1	1	,1	1	l	R	ľ	l	l		1	1	1	1	1	1	1	1	R	1			1	7
																												SPECIES CODE	ABUNDANCE CODES: R = R	LAYERS: 1=C		PLANT
																														LAYERS: 1= CANOPY 2= SUB-CANOPY 3= UNDERSTOREY	LIST SURVEYOR(S):	

CONDITIONS:	TEMP (°C): CLO		WILULIFE			<b>1</b>
	CLOUD (10th):	START TIME:	SURVEYOR(S):	DATE:	POLYGON:	SITE: 489
	WIND:					SNEEDS
	PRECIPITATION:	END TIME:				

 HIBERNACULA	VERNAL POOLS	POTENTIAL WILDLIFE HABITAT:
FALLEN LOGS	SNAGS	
FALLEN LOGS		

> HIBERNACULA VERNAL POOLS

TEMP (°C):

CLOUD (10th):

WIND:

PRECIPITATION:

WILDLIFE

SURVEYOR(S): DATE:

START TIME:

END TIME:

ELC

POLYGON: SITE:

CONDITIONS:

POTENTIAL WILDLIFE HABITAT:

SNAGS

FALLEN LOGS

SPECIES LIST:

7

SP. CODE

2

NOTES

#

₹

SP. CODE

2

NOTES

#

# SPECIES LIST:

TY SP. CODE	E EV	NOTES	#	7	SP. CODE	Ę	NOTES
BCCH	Shu	-989					
9505	P.C.	11					
KILL	d.	1× FISED					
20 X S	, P	ABONGLAN	36				
OZNA -	P	111					
I VA VV	25						
SCEL	145				-		
V ZUW A	Pr						
BHCO	54	) }					
アともに	r r	141					
AMRS	LAIS.	(					
NOCA	sb						
NOWR	200	738954					
						14	
					VINT		SC

		1000		
	FAU			
EVIDENCE CODES (EV):	FAUNAL TYPE CODES (TY): B=BIRD M = MAMMAL H= HERPETOFAUNA L=LEPIDOPTERA F=FISH O=OTHER	Γ		Γ
ň	RD			
	M M N N N N N N N N N N N N N N N N N N			
	DES			
2	(TY)			
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	HER			
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	9			

FAUNAL TYPE CODES (TY):

B = BIRD M = MAMMAL

H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

BREEDING BIRD - PROBABLE: T = TERRITORY SM = SINGING MALE

BREEDING BIRD - POSSIBLE: SH = SUITABLE HABITAT

D = DISPLAY N = NEST BUILDING P = PAIR V = VISITING NEST

BREEDING BIRD - PROBABLE: T = TERRITORY A = ANXIETY BEHAVIOUR

D = DISPLAY N = NEST BUILDING

P = PAIR V = VISITING NEST

SM = SINGING MALE

EVIDENCE CODES (EV): BREEDING BIRD - POSSIBLE: SH = SUITABLE HABITAT

**BREEDING BIRD - CONFIRMED** 

AE = NEST ENTRY DD = DISTRACTION NE = EGGS

NU = USED NEST NY = YOUNG

FY = FLEDGED YOUNG FS = FOOD/FAECAL SACK

BREEDING BIRD - CONFIRMED:

A = ANXIETY BEHAVIOUR

FY = FLEDGED YOUNG FS = FOOD/FAECAL SACK

NU = USED NEST NY = YOUNG

CA = CARCASS FY = EGGS OR YOUNG SC = SCAT

OTHER WILDLIFE EVIDENCE: OB = OBSERVED DP = DISTINCTIVE PARTS TK = TRACKS

VO = VOCALIZATION HO = HOUSE/DEN FE = FEEDING EVIDENCE

OTHER WILDLIFE EVIDENCE: OB = OBSIRVED DP = DISTINCTIVE PARTS TK = TRACKS SI = OTHER SIGNS (specify)

VO = VOCALIZATION HO = HOUSE/DEN FE = FEEDING EVIDENCE

CA = CARCASS FY = EGGS OR YOUNG SC = SCAT

Page .... of

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Page ..... of .....

SI = OTHER SIGNS (specify)

AE = NEST ENTRY DD = DISTRACTION

NE = EGGS

			GENERA	AL SI	TE INFORMATIO	NI	FIELD SI	HEET		
			Project: Date:	48	957 - 100 22, 2021 Herefinished: 8:30 Co		Project M	anador		
		2	Collector(s):	W	H LULI	-	Појессии	Visit #:		
al	BMT		Time started: 8:6	5 Tir	me finished: 8:30 Co	omb	oined colled	ctors' ho	urs: 0.5	5
1			NHIC List	MN	IR EO's D none		not provi	ded to c	ollector	
WEATH	ER CONDITIONS		Press and states of the	199			WIND SCA	LE		
Temp.	Wind:	1	Cloud Cover (%)		pitation	_	Calm			
13	Direction:	N	90		y: 0	1	Smoke Drit			
DATA F				Yeste	erday: yer	_	Wind Felt of Leaves in o		motion	
	Birds 1_2_Mig_		ELC's		Dripline/Tree Survey	-	Wind raise			
	Mammals	×	Floral V_Y_SA_		Aquatic - Physical	5	Small trees			
	Amphibians 1_2_3_		Wetland		Aquatic - Biological		Large bran			
	Reptiles		Butternut (BHA)		Faunal Habitat		Lots of resi			king into
FEATUR	Inverterbrates RES (with GPS co-ord	inatos wi	other SAR	1000	Other - see notes	8	Limbs brea		low-up R	lea'd
	de Structures:	indres wi	lere applicable)		None observed		UTM	Yes	No	Who
Yes No							Sector Plan		1.591.955	dia dia 3
	Barns/Footings/Wells/	other(list)	)							
	Rock Piles									
	Garbage Vegetation:				None observed					
	Fallen Logs outside w	oods (#'s	)	L						
K	Brush Piles		/						~	
X	Snags (raptor perch)		D ASH IN PRE	SERV	IED LONDS					
	Tree Cavities (nesting	)								
	Sentinel Trees Butternut Identified									
	Mast Trees (6E)		Berry Shrubs (6E)							
	Features:				None observed					
	Waterfowl nesting (lar	ge #'s, #	of species)							
	Exposed Banks (nesting	ng swallo	ws)							
	Stick Nests Animal Burrows (>10c									
	Heronry						· · · · · · · · · · · · · · · · · · ·			
	Crayfish mounds									
	Sand/gravel on site									
	Marsh/open country/sh	hrub			,					
	Winter Deer yards Corridor from pond to	woods (a	mpibian movement)							
	Bat corridor (shoreline									
	Bat hibernacula (caves									
-	Features:									
	Perm. pond in woodlar Perm. pond in open		emergents/submergen mergents/submergent							
	Water in woodland	e 🗌 e sloog Г	flowing dr		temp.					
	Waterways flow		dry pools	<u>y</u>						
	natural stream	П								
	swale		ПП		None observed					
	open drain Seeps/Springs					_				
	al Observations/Notes									
		-								
					2					
			· · ·			-				
			-			-				
<b></b>										

							Alternational and a second		
EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT				LEX	COMPLEX
	MODERATE	LIGHT	NONE	OTHER				SION	INCLUSION
) EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF ICE DAMAGE					
	MODERATE	LIGHT	NONE	ICE DAMAGE				ION TYPE:	VEGETATION TYPE
) EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF FIRE			NSPAL	ECUSITE: ///	
HEAVY	MODERATE	LIGHT	NONE	FIRE				-	Common
D EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF FLOODING				1	COMMINITY SERIES.
HEAVY	MODERATE	LIGHT	NONE	FLOODING (pools & puddling)		20		Y CLASS:	COMMUNITY CLASS:
D EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF BEAVER	ELC CODE		ION:	CLASSIFICATION:	COMMUNITY
HEAVY	MODERATE	LIGHT	NONE	BEAVER ACTIVITY	(cm)	ROCK:	DEPTH TO BEDROCK:	HOMOGENEOUS / VARIABLE	HOMOGENEOU
) EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF BROWSE	(cm)		DEPTH OF ORGANICS		MOISTURE:
-	MODERATE	LIGHT	NONE	BROWSE (e.g. DEER)	<b>G</b>	rLES/GLEY g =	DEPTH TO MOTTLES / GLEY	SIS	SOIL ANALYSIS
	WIDESPREAD	LOCAL	NONE	EXTENT OF WIND THROW	GRUWIH				
HEAVY	MODERATE	LIGHT	NONE	WIND THROW (BLOW DOWN)		MID-AGE MATURE	YOUNG	PIONEER	COMM. AGE :
DEXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF DISEASE / DEATH	ŀ	OCCASIONAL A = ABUNDANT	R=RARE O=0	DES: N = NONE	ABUNDANCE CODES:
	MODERATE	LIGHT	NONE	DISEASE/DEATH OF TREES	50 > 50	10 - 24 25 - 5	< 10	)GS:	DEADFALL / LOGS:
D EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF NOISE	50 > 50	10 - 24 25 - 5	< 10	\GS:	STANDING SNAGS:
	MODERATE	SLIGHT	NONE	NOISE	50 > 50	10 - 24 25 - 5	< 10	IALYSIS:	SIZE CLASS ANALYSIS:
	WIDESPREAD	LOCAL	NONE	EXTENT OF RECR. USE					
	MODERATE	LIGHT	NONE	RECREATIONAL USE	BA:			TION:	STAND COMPOSITION:
	WIDESPREAD	LOCAL	NONE	EXTENT OF DISPLACEMENT		25% 3= 25 < CVR 60% 4=	10% 2= 10 < CVF	TH I	CVR CODES
	MODERATE	LIGHT	NONE	EARTH DISPLACEMENT	<pre>HT 0.5 m 7 = HT&lt;0.2 m</pre>	1=1 <ht 1="" 2="" 5="0.5&lt;HT" 6="0.2&lt;HT&lt;/td" m=""><td>F 25 m 3 = 2<ht 10="" 4<="" m="" td=""><td>1 = &gt;25 m 2 = 10<ht< td=""><td></td></ht<></td></ht></td></ht>	F 25 m 3 = 2 <ht 10="" 4<="" m="" td=""><td>1 = &gt;25 m 2 = 10<ht< td=""><td></td></ht<></td></ht>	1 = >25 m 2 = 10 <ht< td=""><td></td></ht<>	
D EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF DUMPING					
_	MODERATE	LIGHT	NONE	DUMPING (RUBBISH)					3 INDEPSTOREY
D EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF TRACKS/TRAILS				` 	2
	WELL MARKED	FAINT TRAILS	NONE	TRACKS AND TRAILS					1 CANOPY
$\left  \right $	WIDESPREAD	LOCAL	NONE	EXTENT OF PLANTING	E (up to 4 sp) . BOUT EQUAL TO)	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL	SPECIES IN ORD	HT CVR	IAYER
	ABUNDANT	OCCASIONAL	NONE	PLANTING (PLANTATION)				RIPTION	STAND DESCRIPTION
	WIDESPREAD	LOCAL	NONE	EXTENT OF ALIEN SPECIES		LI TREED			
_	ABUNDANT	OCCASIONAL	NONE	ALIEN SPECIES		SHRUB			SURFICIAL DEP.
m	WIDESPREAD	LOCAL	NONE	EXTENT OF LIVESTOCK		OPEN			OPEN WATER
	MODERATE	LIGHT	NONE	LIVESTOCK (GRAZING)	1-1		CREVICE / CAVE		SITE
D EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF GAPS	זרור			CAPB BEDRK	
	INTERMEDIATE	SMALL	NONE				ROLL. UPLAND	ACIDIC BEDRK.	
D EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF OPERATIONS			VALLEY SLOPE	PARENT MIN.	AQUATIC
_	MODERATE	LIGHT	NONE	SUGAR BUSH OPERATIONS	)DC		AND		WETLAND
D EXTENSIVE	WIDESPREAD	LOCAL	NONE	EXTENT OF LOGGING					
DIAMETER LIMIT	SELECTIVE	FUEL WOOD	NONE	INTENSITY OF LOGGING		HISTORY PLANT FORM	TOPOGRAPHIC	SUBSTRATE	SYSTEM
0 - 5 YEARS	5 - 15 YRS	15 - 30 YRS	> 30 YRS	TIME SINCE LOGGING				DESCRIPTION	POLYGON DE
3 60086+		1		DISTURBANCE EXTENT		UTMN:	UTME:	UTMZ: UT	CLASSIFICATION
			DATE:	MANAGEMENT /				EL	DESCRIPTION &
			POLYGON:	Г Г С	Ē	DATE: 1 3 241 TIME: start		SURVEYOR(S):	ררכ
								· · · · · · · · · · · · · · · · · · ·	

			C a l	ELAS Wash		SLASENS	PHAM Cart	ORWrace	RUBUIDO																ROBLpse	PIDPM del	ACERSAC	SALI bab?	JUGLNI	1	SPECIES CODE	ABUNDANCE CODES: R = RARE	LAYERS: 1 = CANOPY	SPECIES	PLANT	
																														3 4	LAYER COL.	O = OCCASIONAL A = ABUNDANT	2 = SUB-CANOPY	1.00.1	- (	01-12
		DACTALO	oulday.	DAUCCAR	NS MI CAN			1.0	VSCL SWC	VERBHD																				<b></b>	m I			2,7672		
																														4						
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ecify)	RTS	Ϋ́.	MED:	OUR
	VO = VOCALIZATION HO = HOUSE/DEN FE = FEEDING EVIDENCE	NT = YOUNG	NU = USED NEST	D = DISPLAY N = NEST BUILDING
90 - 90AT	CA = CARCASS FY = EGGS OR YOUNG	FS = FOOD/FAECAL SACK	FY = FLEDGED YOUNG	P = PAIR V = VISITING NEST

OTHER WILDLIFE EVIDENCE: OB = OBSERVED DP = DISTINCTIVE PART TK = TRACKS BREEDING BIRD - CONFIRM DD = DISTRACTION NE = EGGS AE = NEST ENTRY A = ANXIETY BEHAVIC

BREEDING BIRD - PROBABLE: T = TERRITORY

BREEDING BIRD - POSSIBLE: SH = SUITABLE HABITAT

SM = SINGING MALE

EVIDENCE CODES (EV):

FAUNAL TYPE CODES (TY): B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

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# FAUNAL

H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER D = DISPLAY N = NEST BUILDING SM = SINGING MALE

OTHER WILDLIFE EVIDENCE: OB = OBSERVED DP = DISTINCTIVE PARTS AE = NEST ENTRY TK = TRACKS

VO = VOCALIZATION HO = HOUSE/DEN FE = FEEDING EVIDENCE

SI = OTHER SIGNS (specify)

DD = DISTRACTION NE = EGGS

**BREEDING BIRD - CONFIRMED:** 

BREEDING BIRD - PROBABLE: T = TERRITORY A = ANXIETY BEHAVIOUR

EVIDENCE CODES (EV): BREEDING BIRD - POSSIBLE: SH = SUITABLE HABITAT

M = MAMMAL

HIBERNACULA

SPECIES LIST:

WILDLIFE CLOUD (10th): START TIME: SURVEYOR(S): \/ WIND: END TIME:

DATE: POLYGON: SITE: 4895

ELC

- 00

TEMP (°C): PRECIPITATION:

POTENTIAL WILDLIFE HABITAT:

CONDITIONS: VERNAL POOLS

CONDITIONS: TEMP (°C):

6

CLOUD (10th): O WIND:

PRECIPITATION:

20

END TIME:

WILDLIFE

SURVEYOR(S): WW DATE: Jn 22, 202

START TIME:

E C

POLYGON:

SITE: 48957-100

NU = USED NEST NY = YOUNG

P = PAIR V = VISITING NEST

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SI = OTHER SIGNS (sp

CA = CARCASS FY = EGGS OR YOUNG SC = SCAT

FY = FLEDGED YOUNG FS = FOOD/FAECAL SACK

GENERAL SITE INFORMATION FIELD SHEET									
		Project: 48957-100	Project Manager: DH						
		BATE Date: August 17,2021 Collector(s): EQ Time started:):15 MND 501s		Visit #:					
		Time started: 1:15 Time finished: 2:30 Co	mb	ined collec	tors' ho	urs:			
	- and C			not provid	ded to c	ollector			
		ER CONDITIONS		WIND SCA	LE				
Tem	np.	Wind: 5km/h/ Cloud Cover (%) Precipitation		0 Calm					
125	°C	Direction: NW 60 Today: None Yesterday: None		Smoke Drif Wind Felt o					
DAT	A F	DCUS		Leaves in constant motion					
		Birds 1_2_Mig_ ELC's Dripline/Tree Survey	10000	Wind raises					
		Mammals Floral V_S_A_ Aquatic - Physical		Small trees		100			
	-	Amphibians 1_2_3     Wetland     Aquatic - Biological       Reptiles     Butternut (BHA)     Faunal Habitat	6	Large brand	ches swa	ау			
	1	Inverterbrates other SAR Other - see notes		7 Lots of resistance when walking into 8 Limbs breaking off trees					
FEA	TUR	ES (with GPS co-ordinates where applicable)		Mapped		low-up F	leg'd		
Man	-ma	de Structures: None observed		UTM	Yes	No	Who		
Yes	No	Porno/Egotingo/Malla (ather/list)							
	H	Barns/Footings/Wells/other(list) Rock Piles	_						
		Garbage	-						
Natu	Iral	Vegetation: None observed							
Ц	Ц	Fallen Logs outside woods (#'s)							
H	H	Brush Piles Snags (raptor perch)							
$\left  - \right $	H	Tree Cavities (nesting)	-						
		Sentinel Trees	+						
		Butternut Identified							
		Mast Trees (6E) Berry Shrubs (6E) Features: None observed							
VIIG	line	Features:         None observed           Waterfowl nesting (large #'s, # of species)	-						
H		Exposed Banks (nesting swallows)	+				<u> </u>		
		Stick Nests	┥						
		Animal Burrows (>10cm)							
H	Ц	Heronry Cravifich mounde							
Н	H	Crayfish mounds Sand/gravel on site	+						
		Marsh/open country/shrub	+						
		Winter Deer yards							
	Ц	Corridor from pond to woods (ampibian movement) Bat corridor (shorelines, escarpments)							
H	Н								
Aqua	atic	Bat hibernacula (caves, mines, crevices, etc.)	+						
		Perm. pond in woodland emergents/submergents/logs temp.	+						
		Perm. pond in open							
H	H.	Water in woodland pools flowing dry Waterways flowing dry pools	4						
		Waterways flowing dry pools	+						
		swale None observed	+						
		open drain	1						
Incid		Seeps/Springs							
monu	ente	Deservations notes.							
5	NN	deer - summer plants	+						
		SASU UTION PRIMINS							
5	NIC	mondirch							
_			+						
			+						
			+						

Graphic Attached or Name ENV/Biological Services/Templates/MFERER & Brend Manager Date:

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		PMT	Έ	Project: Date: Collector(s): Time started: <u>9:0</u> NHIC List	: 4895 : 025 : W7 0 Time MNR	- 1₀0 - 1 - 1₀0 - 1 - 1₀0 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	- omk	Project Ma pined collec not provid	anager: Visit #: tors' ho ded to c	urs: <u>0,</u>	2
WE.	АТН	ER CONDITIONS						WIND SCA	LE		
Геп		Wind:	0	Cloud Cover (%)	Precipi	tation	0	Calm			
	,	Direction:		5	Today:		1	Smoke Drif			
.(				5	Yester	lay: D	2	Wind Felt o			
DAT	TA F	ocus						Leaves in c			
		Birds 1_2_Mig_		ELC's		Dripline/Tree Survey		Wind raises		nd paper	
		Mammals	7	Floral VS_A		Aquatic - Physical		Small trees			
	_	Amphibians 1_2_3_		Wetland		Aquatic - Biological Faunal Habitat		Large brand Lots of resis			king into
	-	Reptiles Inverterbrates		Butternut (BHA) other SAR		Other - see notes		Limbs breat			king into
FA	TUP	RES (with GPS co-ord	inates w				10	Mapped		low-up R	eq'd
		de Structures:	matee m			None observed		UTM	Yes	No	Who
Yes	No										
		Barns/Footings/Wells	/other(list	t)							
		Rock Piles									
		Garbage				- · · · ·					
Vat	ural	Vegetation:	·			None observed				. Mart	
_	$\square$	Fallen Logs outside w	voods (#'s	5)							<b> </b>
┥	H	Brush Piles									
_	H	Snags (raptor perch) Tree Cavities (nesting	<b>a</b> )								
_	H	Sentinel Trees	])								
_	H	Butternut Identified									
_	H	Mast Trees (6E)		Berry Shrubs (6E)							
Nild	dlife	Features:		Derry Onitabs (OL)		None observed					
		Waterfowl nesting (la	rae #'s. #	of species)							<u> </u>
		Exposed Banks (nest									
		Stick Nests		/						- the	
		Animal Burrows (>10	cm)							and a second	and the
		Heronry									
		Crayfish mounds									
		Sand/gravel on site									
		Marsh/open country/s	shrub								
		Winter Deer yards									<u> </u>
		Corridor from pond to	woods (a	ampibian movement)							ļ
		Bat corridor (shoreline									
100		Bat hibernacula (cave Features:	es, mines,	, crevices, etc.)							
-qu	allC	Perm. pond in woodla	and $\Box$	emergents/submerger	nte/loco	temp.					
	-	Perm. pond in woodia		emergents/submerger		temp.					<u> </u>
$\vdash$	-	Water in woodland			drv						<u> </u>
-	-		wing	dry pools	<b>J</b>				je.		<u> </u>
	Г	natural stream									
	Г	Jswale				None observed					
	Ē	open drain	Π								
	Ē	Seeps/Springs		ПП							
nci	den	tal Observations/Note	s:								
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### **GENERAL SITE INFORMATION FIELD SHEET**

and the state