



James Glover,
320 Carlow Road
Port Stanley, ON (by email)

January 27, 2015

Dear James Glover:

Re: Issues Scoping Report - Glover - 37719 Lake Line & 320 Carlow Road, Port Stanley, Ontario

Introduction

BioLogic was retained to conduct an Issues Scoping Report (ISR) for a retirement community on properties located at 37719 Lake Line and 320 Carlow Road, in the town of Port Stanley, Municipality of Central Elgin, Ontario [Figure 1]. Site investigations were conducted based on an initial subject lands boundary provided by the proponent, however additional lands were added at a later date. The entire area proposed for development will be referred to as the subject lands for the purposes of this report [Figure 1].

This ISR is an assessment of existing information on natural heritage features or functions on or near the site, including a preliminary site investigation. This letter provides a summary of potential concerns related to natural heritage and recommended future studies that are needed to adequately evaluate potential direct and indirect (adjacent) impacts of site alteration or development.

Legal Parcel

General Background

The subject lands are approximately 24 ha and consist of an agricultural field surrounded by a vegetated slope and disturbed anthropogenic areas in the north portion and nine holes of an eighteen hole golf course with associated ponds and hedgerows in the south portion. The property is bounded by Lake Line to the north and west and Carlow Road to the east. Lands surrounding the property consist of wooded areas to the west, the remaining nine golf course holes to the south and a community centre facility and residential properties to the east [Figure 1].

Site specific topography is nearly level with a moderate to steep wooded slope along the north and northwest portions of the property (Shut, 1992). 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 (Shut, 1992).

Land Use

The majority of the subject lands are designated Residential by the Municipality while small portions along the north, northeast and northwest boundaries are designated Natural Heritage and identified as Natural Hazard Overlays [Figure 2] (Municipality of Central Elgin, 2012).

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Additionally, a Wooded Area is identified along the north slope [Figure 3] which reflects the Natural Heritage designation and Natural Hazard Overlay in Figure 2 (Municipality of Central Elgin, 2012).

The entire subject lands are zoned Open Space, with three separate provisions [Figure 4]. The wooded slope is zoned OS2-30 where the only permitted uses are for conservation purposes and drainage control. The remaining land north of the golf course is zoned OS2-29 where permitted uses include campgrounds and accessory uses while the golf course is zoned OS3-15 where permitted uses relate to golf course operations and accessory uses. A zoning by-law amendment is required from Open Space to Residential.

The entire subject lands are regulated under Ontario Regulation 181/06 for erosion and/or flood hazards [Figure 5].

Natural Heritage Features and Functions

Provincially Significant Areas

The only provincially significant area identified within 1km of the subject lands is the adjacent Port Stanley Till earth science Area of Natural and Scientific Interest (ANSI) located north of the subject lands across Lake Line (LIO, 2014).

The closest significant wetland is over 2 km to the east of the subject lands (MNRF, 2014). There are no other unevaluated wetlands between the Hawk Cliff PSW and subject lands although there are two evaluated wetlands approximately 1 km to the north and north east with each considered locally significant (Moore Water Gardens and Port Stanley Poison Sumac Swamp).

Vegetation Communities

A preliminary evaluation of vegetation within the subject lands was conducted by Dylan Morse, on May 23, 2014 and, as a result of an expanded study area, updated and confirmed in the field by Will Huys, ELC certified, on July 29, 2014 and the results are summarized below [Appendix A].

The subject lands consist of anthropogenic, cultural and natural successional vegetation communities [Figure 6]. The majority of the property consists of a golf course with two dug ponds (OA Open Aquatic) and an agricultural field with associated anthropogenic disturbed areas near the driveway entrance, along the field edge and surrounding the abandoned house, barn and outbuildings. Additionally, surrounding the field to the north is a mid-age FOD5-2 Dry-Fresh Sugar Maple-Beech Deciduous Forest and a SWT2 Mineral Thicket Swamp is located at the toe of slope, between the field edge and woodland. The wetland boundary was determined using the Ontario Wetland Evaluation System (OWES) 50/50 rule regarding wetland and upland plants, however an OWES scoring evaluation was not conducted. Within the deciduous woodland is a CUT1 Cultural Thicket inclusion (1a) near the existing driveway entrance for the north property with a man-made spoil pile below the toe of the wooded slope, and a CUW1 Cultural Woodland inclusion (1b) along the west property boundary.

On adjacent lands, the woodland abutting the northwest boundary is an FOD5 Dry-Fresh Sugar Maple Deciduous Forest and a CUP3 Coniferous Plantation is located on adjacent land to the southwest. Adjacent lands were surveyed from the property boundary only and detailed data sheets were not completed. All of the communities within the subject lands are common and secure within Southern Ontario (NHIC, 2014).

Wildlife Habitat

Candidate significant wildlife habitat is identified by evaluating vegetation communities using the habitat criteria outlined in the Significant Wildlife Habitat Technical Guide (MNR, 2000) and the supporting Criteria Schedules (MNR, 2012). Within the subject lands there is candidate significant wildlife habitat for the following [Appendix B]:

- Turtle Wintering Areas
- Landbird Migratory Stopover
- Waterfowl Nesting Area
- Amphibian Breeding - Woodland
- Special Concern and Rare Wildlife Species

Candidate significant wildlife habitat must meet wildlife use thresholds (i.e., target species, population numbers, etc.) to be considered confirmed significant wildlife habitat. To date detailed floral and faunal surveys have not been completed to confirm the candidate significant wildlife habitat present within the subject lands.

Aquatic

A review of the NHIC database, MNRF correspondence and DFO Species at Risk mapping did not identify any aquatic species at risk or critical habitat within or adjacent to the subject lands (NHIC, 2014 & DFO, 2013).

Additionally, there are no watercourses within or adjacent to the property and consequently no suitable habitat for fish or mussel species of interest.

Flora

Based on a review of the NHIC database and MNRF correspondence, three Endangered (Eastern Prickly Pear Cactus, Butternut, American Chestnut), one Threatened (False-rue Anemone) and two Special Concern (Green Dragon, Broad Beech Fern) floral species were identified as potential within 1km of the subject lands [Appendix C]. Additionally, nine species of provincial interest (i.e., S1 to S3 ranked) were identified [Appendix C].

Based on preferred habitats, there is suitable habitat for Butternut and American Chestnut in all communities on site, Broad Beech Fern along the woodland-wetland interface, Striped Cream Violet in the swamp, Stiff Goldenrod and Erect Knotweed in the disturbed anthropogenic areas and golf course hedgerows; Stiff Gentian in the woodlands and Caughuawaga Hawthorn, False Rue Anemone, Scarlet Beebalm in the cultural thicket, along the woodland edge and golf course hedgerows. There are no sand spits suitable for Eastern Prickly Pear Cactus and no damp deciduous forests along streams suitable for Green Dragon within the subject lands.

During site investigation for ELC, no American Chestnut were observed, however five Butternut [END] trees were found [Appendix D]. Four Butternuts are located in the deciduous woodland within the subject lands while one tree was found in an adjacent wooded area to the west. These trees were assessed following the Butternut Health Assessment protocols by Will Huys, Certified Butternut Health Assessor and all trees are determined to be non-retainable. A formal Butternut Health Assessment has been submitted to MNRF as per the protocol.

To date no other site specific detailed floral inventories have been completed.

Wildlife

Based on a review of the NHIC database and MNRF correspondence, five faunal species of provincial interest (i.e., Endangered, Threatened, Special Concern, or S1 to S3 ranked) were identified as potential in the general area of the subject lands [Appendix C]. Of these species, three are ranked Endangered (Northern Bobwhite, Yellow-breasted Chat, American Badger), one ranked Threatened (Spiny Softshell) and one ranked S2S3 (Swamp Darner).

There are no watercourses or large waterbodies suitable to support Spiny Softshell; the only remaining native population of Northern Bobwhite is on Walpole Island (Cadman et. al. 2005); the cultural thicket on site is too small to support Yellow-breasted Chat and the ponds on site are not sufficiently vegetated/shaded to support Swamp Darner. Potentially suitable habitat exists for American Badger in the woodland, cultural thicket and along the field and woodland edges.

During initial site investigation for ELC, no animal burrows were observed.

In addition to the above list provided by MNRF, several Barn Swallows (THR) and nests were identified in the barn in the disturbed anthropogenic community. American Badger and Barn Swallow are discussed further under the Summary and Environmental Management Strategy sections.

To date no other site specific faunal inventories have been completed.

Summary

Provincial Policy Review

2.1.4 a) b) Significant Wetlands/Coastal Wetlands

No significant wetlands have been identified within or adjacent to the subject lands (MNRF, 2014). There are no unevaluated wetlands noted within 750m of the site.

2.1.5 b) Significant Woodland

The woodland feature is discussed further under municipal policy.

2.1.5 c) Significant Valleylands

The subject lands consist predominately of an agricultural field and golf course and between the site and Kettle Creek is existing community and residential development to the watercourse edge. Therefore, the site does not function as a Significant Valleyland.

2.1.5 d) Significant Wildlife Habitat

Within the subject and adjacent lands there is candidate significant wildlife habitat [Figure 7] for the following:

- Turtle Wintering Areas - golf course ponds
- Landbird Migratory Stopover - woodland
- Waterfowl Nesting Area - woodland, thicket swamp, cultural thicket, cultural woodland
- Amphibian Breeding - woodland, thicket swamp, cultural thicket, cultural woodland
- Stiff Gentian - deciduous woodland
- Caughuawaga Hawthorn, Scarlet Beebalm - cultural thicket, cultural woodland
- Striped Cream Violet - thicket swamp
- Broad Beech Fern - thicket swamp, deciduous woodland

- Stiff Goldenrod, Erect Knotweed - community A1, golf course hedgerows

Candidate significant wildlife habitat must meet wildlife use thresholds (i.e., target species, population numbers, etc.) to be considered confirmed significant wildlife habitat. This habitat and recommended supporting studies are discussed further in the Environmental Management Strategy/Conclusion section.

2.1.5 e) Areas of Natural and Scientific Interest

The Port Stanley Till earth science ANSI is identified across Lake Line, north of the property limit and across the road on adjacent land. There is a wooded slope, roadway and residential properties between the proposed development and adjacent ANSI and subsequently no impacts are expected.

2.1.6 Fish Habitat

There is no fish habitat within the subject lands.

2.1.7 Habitat of Endangered and Threatened Species

Under the provincial *Endangered Species Act* (ESA), species listed as Endangered (END) or Threatened (THR) and/or their habitat is protected and must be addressed through the ESA.

There is potential habitat for False Rue Anemone (THR) and American Badger (END) in the deciduous woodland and cultural inclusions on site. This habitat is discussed further under the Environmental Management Strategy/Conclusion section.

All Butternut (END) found within subject lands and adjacent area (25m beyond the subject lands boundary) were considered non-retainable in a Butternut Health Assessment. This assessment has been submitted to MNRF as outline in the ESA protocol for Butternut.

Several Barn Swallows (THR) and nests were noted in a barn in the disturbed anthropogenic community. If the barn/nests are to be removed, the MNRF ONE-key project registration process must be followed.

Municipal Policy Review

Woodlands

The wooded area identified on Official Plan schedules consists of a deciduous woodland and thicket swamp with cultural thicket and cultural woodland inclusions. This feature is discussed further in the following section Environmental Management Strategy/Conclusion.

Environmental Management Strategy/Conclusion

The proponent is seeking approval to construct a retirement community in two phases on properties located at 37719 Lake Line and 302 Carlow Road, Port Stanley, Ontario [Figure 1]. The application requires a zoning by-law amendment from Open Space (OS2 & OS3) to Residential zoning.

Based on site specific field investigations conducted to date and a policy review, it is our opinion, the principle natural heritage features that warrant consideration are:

- wooded slope (thicket swamp/deciduous woodland and inclusions)
- candidate significant wildlife habitat
- potential provincially significant floral species

- potential habitat of endangered and threatened species

The majority of the subject lands, south and east of the wooded slope, consist of a golf course, agricultural field, abandoned house, barns, outbuildings and anthropogenic areas that have been cleared and disturbed.

Indirect Impacts

A 10m building setback [Figure 7] from the tree dripline is recommended along the wooded slope and adjacent woodland in lieu of life science inventories. The 10m setback will consist of a trail system for residents and be landscaped with native species to enhance the woodland edge. This would effectively protect the vegetation, potential habitat for False Rue Anenome and candidate SWH in the deciduous woodland (Community 1), thicket swamp (Community 2) and cultural woodland inclusion (Community 1b) from indirect construction related impacts. Since previous agricultural activity and plough depths would have impacted any root masses beyond the tree dripline, lotting can be planned to the hedgerow dripline along the southeast and southwest boundaries of the agricultural field [Figure 7].

Along the southwest boundary, an approximate 20-30m buffer exists between the adjacent coniferous plantation and subject lands boundary and development within the subject lands would not be an issue for this adjacent feature.

For further protection from indirect construction related impacts a tree protection plan to retain specimen trees where possible and erosion control plan would need to be reviewed in a Scoped EIS letter. Additional post construction mitigation measures would also be needed to guide future residents and develop a landscape plan for the commonly owned development.

Potential Direct Impacts

Although highly disturbed, a plant inventory is required in the anthropogenic disturbed area (Community A1) to evaluate candidate SWH and assess potential direct impacts [Figure 7 - Circle A]. In addition, a Barn Swallow investigation is required in Community A1 to collect information for completion of the MNRF ONE-key project registration process [Figure 7 - Circle A]. If secondary access is planned in the northeast corner of the site, confirmation breeding bird, amphibian and floral inventories would be required to evaluate candidate SWH and assess potential direct impacts in this community [Figure 7 - Circle B]. However, due to the size and disturbed nature of this community, confirmed SWH is not anticipated.

Future Phase

A future phase of development is planned on the golf course lands. A plant inventory and turtle habitat survey are recommended to evaluate candidate SWH and assess potential direct impacts throughout the golf course (Community A2) [Figure 7]. In addition, a burrow survey is recommended in Community A2 to determine the presence/absence of American Badger within the golf course lands. For further protection from indirect construction related impacts a tree protection plan to retain specimen trees where possible and erosion control plan would need to be reviewed in a Scoped EIS letter.

Summary - Terms of Reference for Scoped EIS

Due to the lack of natural successional vegetation communities in the phase one development footprint the following community specific studies would be a recommended Terms of Reference for a scoped EIS:

- three season plant inventory (Communities 1a, A1, A2)

- two visit breeding bird study (Community 1a)
- early spring amphibian study (Community 1a)
- Barn Swallow nest investigation (Community A1)
- burrow survey (Communities 1a, A1, A2)
- tree protection plan to retain specimen trees, where possible
- confirmation of tree dripline placed on development proposal
- establish a 10m lot building setback from the tree dripline
- sediment and erosion control measures in place
- mitigation measures to protect adjacent slope vegetation through the site plan agreement for the retirement community
- develop landscape plan for commonly owned lands as part of Site Plan approval

Additionally, the following studies are recommended as a Terms of Reference for a scoped EIS for the future phase of development on the golf course lands:

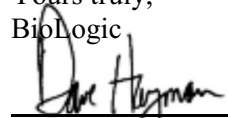
- three season plant inventory
- burrow survey
- turtle habitat survey (pond depth, substrate, summer basking)
- sediment and erosion control measures in place
- tree protection plan to retain specimen trees, where possible

If the barn/Barn Swallow nests are to be removed, to ensure no contravention of the ESA (2007), the MNRF ONE-key project registration process must be followed.

A permit from KCCA is required for any development proposed within regulated areas.

This report provides the necessary framework to establish a Terms of Reference for the EIS which will guide the protection of natural heritage features and functions. BioLogic seeks comments from the County of Elgin, Municipality of Central Elgin and KCCA with respect to the contents of this ISR. Formal comments can be submitted in writing to BioLogic on behalf of the client. Any questions or need for additional information as part of the review can be directed to the undersigned.

Yours truly,
BioLogic



Dave Hayman, M.Sc.

Glover - Port Stanley ISRFinal.wpd

Attachments

- Figure 1: Site Location
- Figure 2: Land Use
- Figure 3: Natural Heritage Features
- Figure 4: Zoning
- Figure 5: KCCA Regulations
- Figure 6: Vegetation Communities
- Figure 7: Environmental Management Strategy

- Appendix A - ELC Information
- Appendix B - Preliminary Significant Wildlife Habitat Evaluation
- Appendix C - MNR SAR Information

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Figure 1: Site Location
(2013 Google Earth Air Photo)



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

Print on 11X17, Landscape Orientation
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Scale 1:3000
January 2015



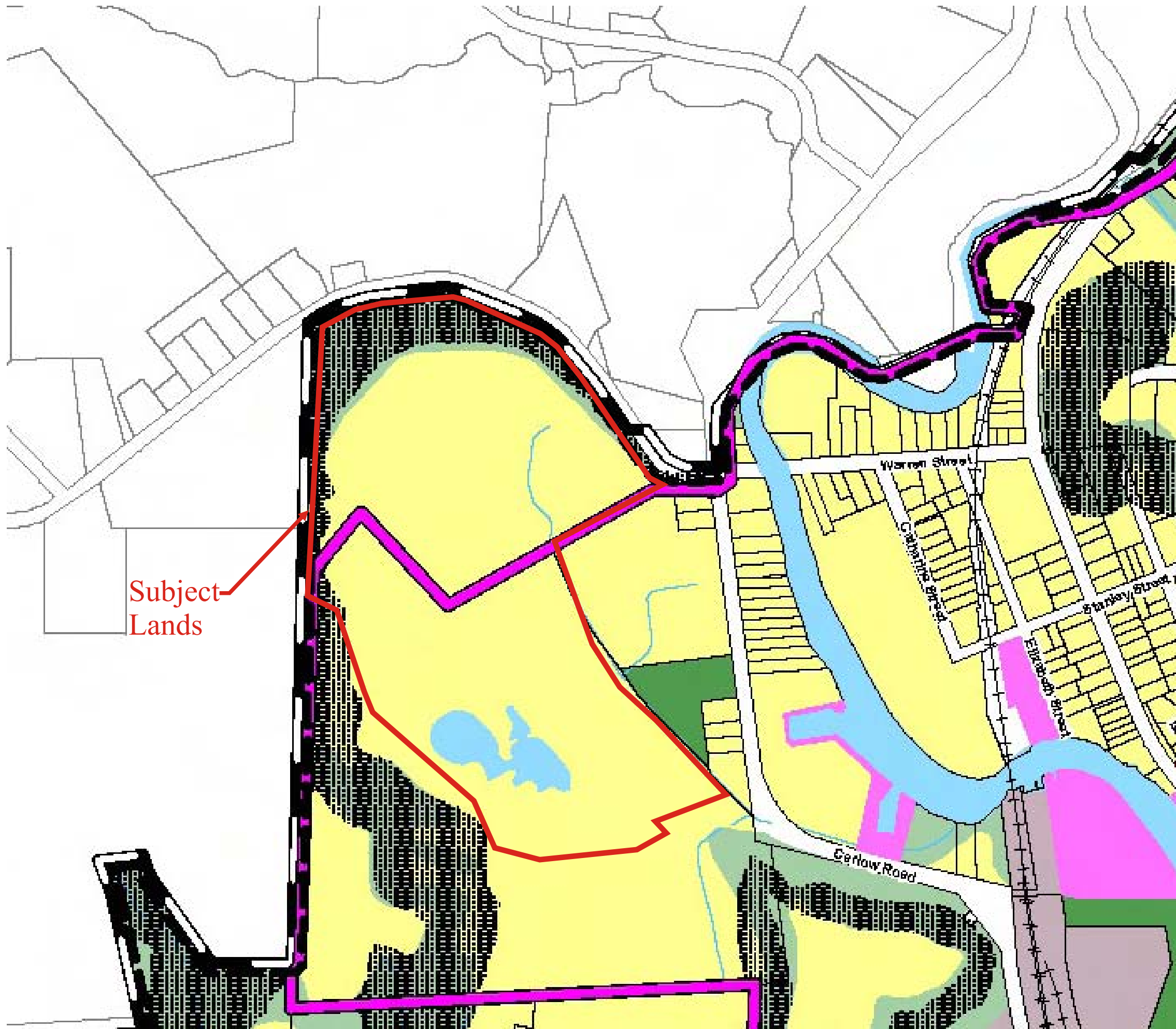
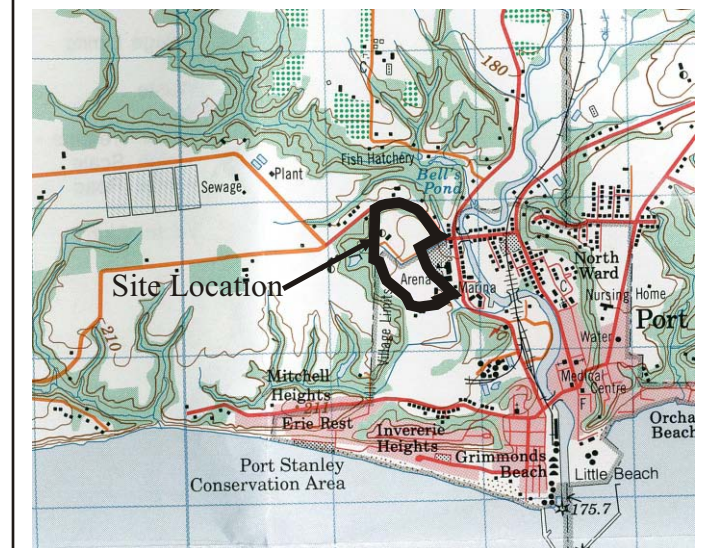


Figure 2: Land Use
(Schedule G - Municipality of Central Elgin Official Plan)



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Scale 1:50,000
Key Plan

- Land Use Designation**
- Agricultural
 - Residential
 - Commercial
 - Local Commercial
 - Commercial - Industrial
 - Marina
 - Harbour Lands
 - Adjacent Harbour Lands
 - Community Facility
 - Natural Heritage
 - Dynamic Beach
- Land Use Overlay**
- Natural Hazard
 - 100 Year Lake Erie Erosion Setback
 - Former Waste Sites
- Map Legend**
- Urban Settlement Area
 - Built Area Limits
 - Municipal Boundary
 - Railway
 - Watercourses
 - Waterbodies
 - Sewage Lagoons

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January 2015



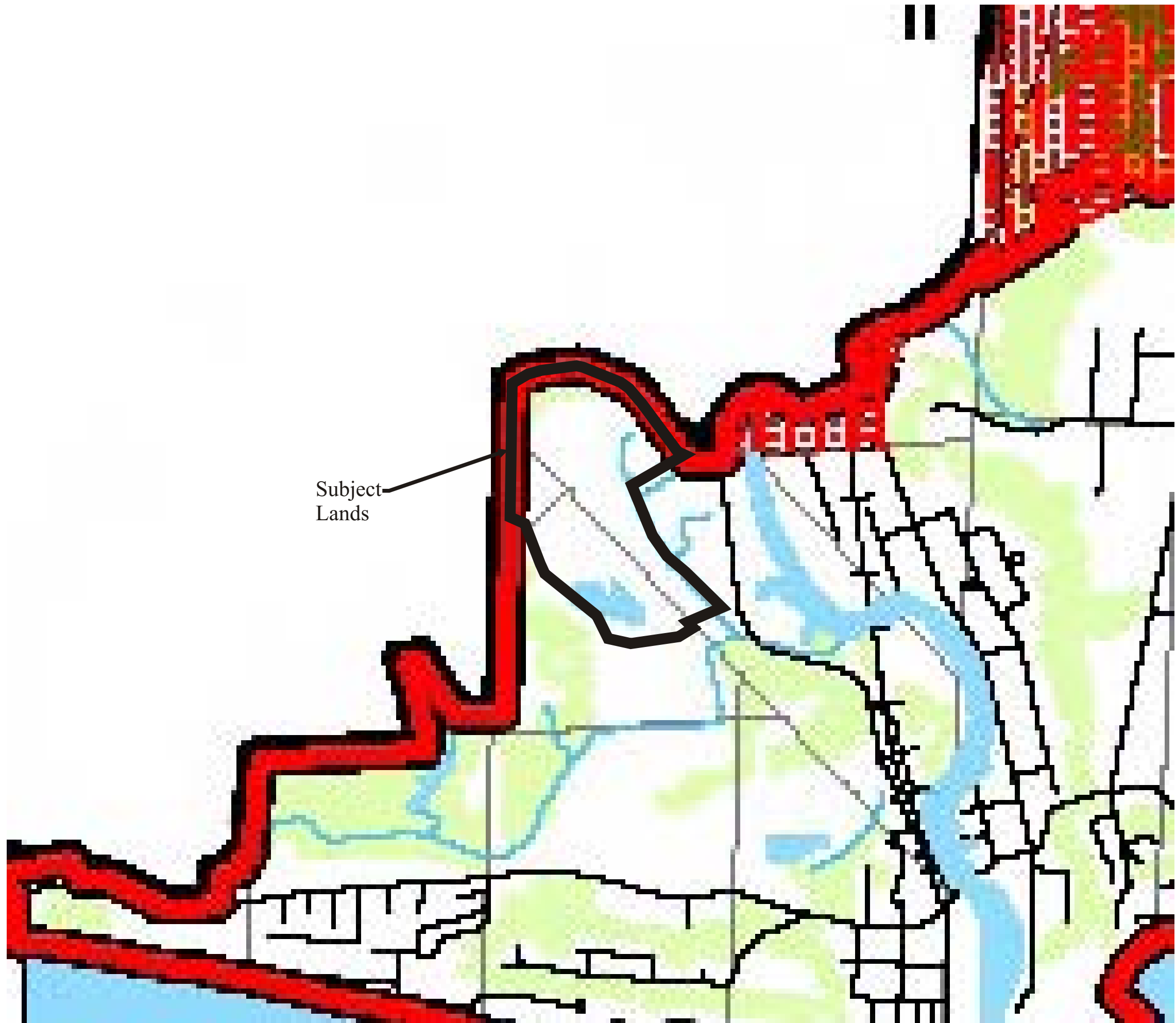


Figure 3: Environmental Features
(Schedule A2 - Municipality of Central Elgin Official Plan)



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Key Plan

Environmental Features

- ESA
- ANSI Earth Science
- ANSI Life Science
- Wetland Provincially Significant
- Wetland Locally Significant
- Wooded Area
- Former Waste Site
- Urban Settlement Area
- Rural Settlement Area
- Rural Development Area
- Employment Areas

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January 2015



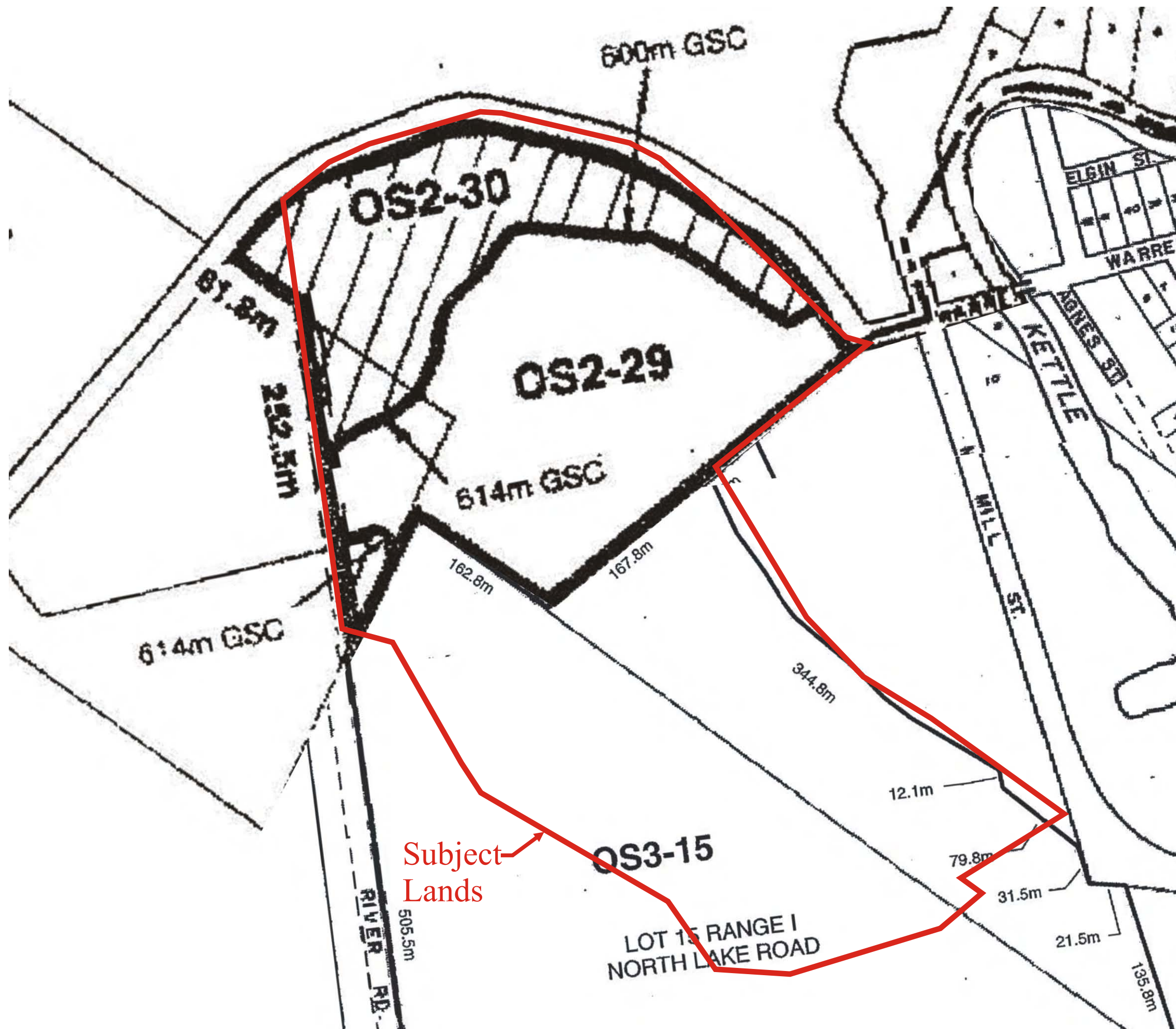


Figure 4: Zoning



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Key Plan

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January 2015





Figure 5: KCCA Regulations Mapping
(Kettle Creek Conservation Authority)



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Scale 1:50,000
Key Plan

LEGEND	
WATERSHED BOUNDARY	
REGULATION LIMIT	
WATER COURSE & WATER BODY OUTLINE	

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January 2015





Figure 6: Vegetation Communities
(2013 Google Earth Air Photo)

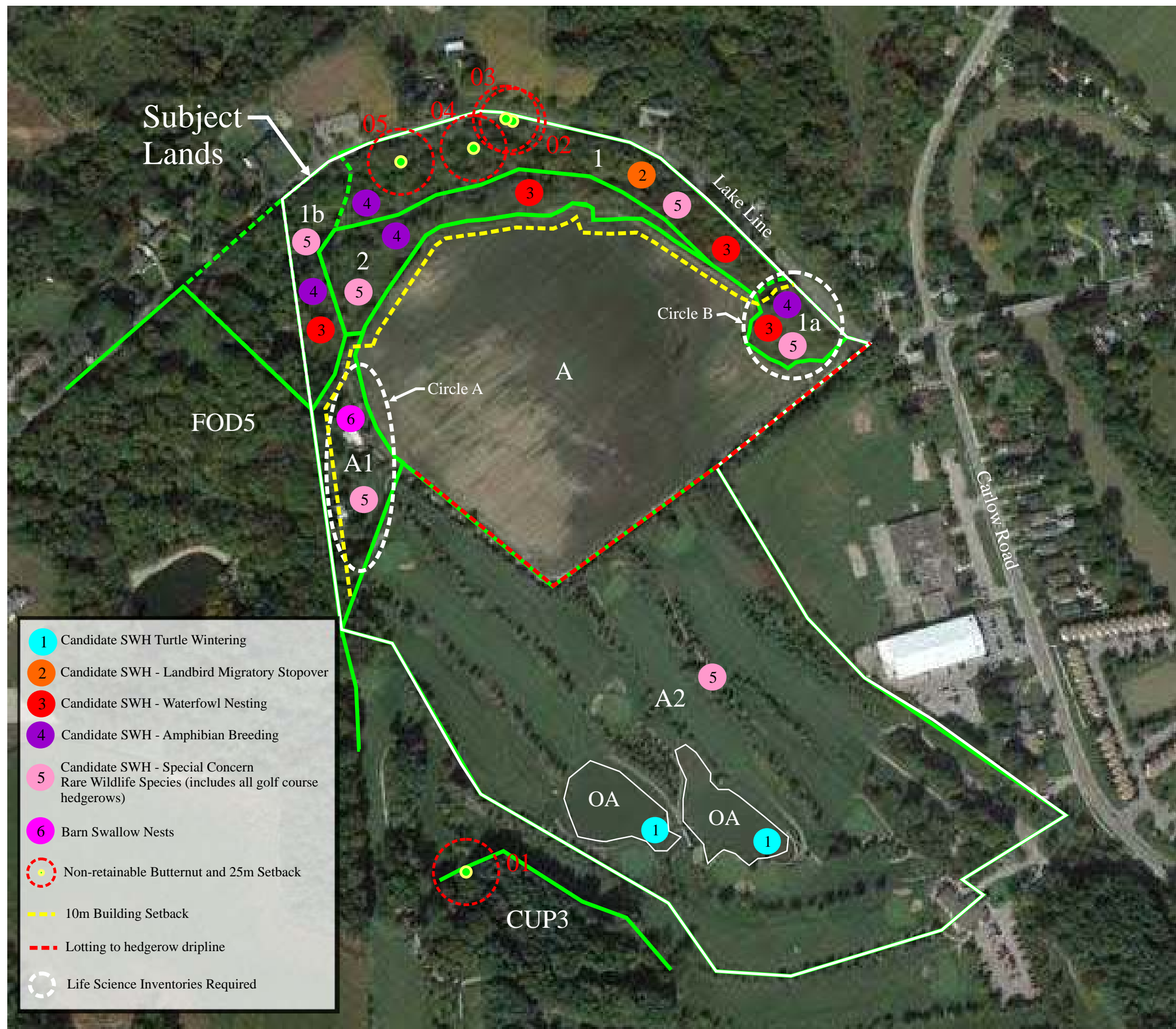


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Scale 1:50,000
Key Plan

- Legend**
- A - Agricultural
 - A1 - Anthropogenic Disturbed Area
 - A2 - Anthropogenic Golf Course
 - OA - Open Aquatic (dug ponds)
 - 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)

Print on 11X17, Landscape Orientation
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Scale 1:3000
January 2015





Appendix A

ELC Information

ELC COMMUNITY DESCRIPTION & CLASSIFICATION	SITE: <i>Glover - Port Stanley</i>		POLYGON: <i>1</i>	
	SURVEYOR(S): <i>D. Morse</i>		DATE: <i>May 23/14</i>	TIME: start <i>12:30</i> finish <i>4:00</i>
	UTMZ:	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
<input checked="" type="checkbox"/> TERRESTRIAL <input type="checkbox"/> WETLAND <input type="checkbox"/> AQUATIC	<input type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> MINERAL SOIL <input type="checkbox"/> PARENT MIN. <input type="checkbox"/> ACIDIC BEDRK. <input type="checkbox"/> BASIC BEDRK. <input type="checkbox"/> CARB. BEDRK.	<input type="checkbox"/> LACUSTRINE <input type="checkbox"/> RIVERINE <input type="checkbox"/> BOTTOMLAND <input type="checkbox"/> TERRACE <input checked="" type="checkbox"/> VALLEY SLOPE <input type="checkbox"/> TABLELAND <input type="checkbox"/> ROLL. UPLAND <input type="checkbox"/> CLIFF <input type="checkbox"/> TALUS <input type="checkbox"/> CREVICE / CAVE <input type="checkbox"/> ALVAR <input type="checkbox"/> ROCKLAND <input type="checkbox"/> BEACH / BAR <input type="checkbox"/> SAND DUNE <input type="checkbox"/> BLUFF	<input checked="" type="checkbox"/> NATURAL <input type="checkbox"/> CULTURAL	<input type="checkbox"/> PLANKTON <input type="checkbox"/> SUBMERGED <input type="checkbox"/> FLOATING-LVD. <input type="checkbox"/> GRAMINOID <input type="checkbox"/> FORB <input type="checkbox"/> LICHEN <input type="checkbox"/> BRYOPHYTE <input type="checkbox"/> DECIDUOUS <input type="checkbox"/> CONIFEROUS <input checked="" type="checkbox"/> MIXED	<input type="checkbox"/> LAKE <input type="checkbox"/> POND <input type="checkbox"/> RIVER <input type="checkbox"/> STREAM <input type="checkbox"/> MARSH <input type="checkbox"/> SWAMP <input type="checkbox"/> FEN <input type="checkbox"/> BOG <input type="checkbox"/> BARREN <input type="checkbox"/> MEADOW <input type="checkbox"/> PRAIRIE <input type="checkbox"/> THICKET <input type="checkbox"/> SAVANNAH <input type="checkbox"/> WOODLAND <input checked="" type="checkbox"/> FOREST <input type="checkbox"/> PLANTATION
SITE <input type="checkbox"/> OPEN WATER <input type="checkbox"/> SHALLOW WATER <input type="checkbox"/> SURFICIAL DEP. <input type="checkbox"/> BEDROCK		COVER <input type="checkbox"/> OPEN <input type="checkbox"/> SHRUB <input checked="" type="checkbox"/> TREED			

STAND DESCRIPTION:

LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1 CANOPY	2	4	<i>sug. maple >> horn. aspen = beech > elm > oak</i>
2 SUB-CANOPY	3	3	<i>sug. maple >> bur. thorn = hawthorn > beech > elm</i>
3 UNDERSTOREY	3	4	<i>bur. thorn > hawthorn > inf. r. > dogwood > sumac</i>
4 GRD. LAYER	6	3	<i>bur. oak > grass / wildflower > s. c. > may apple</i>

HT CODES: 1 = >25 m 2 = 10<HT≤25 m 3 = 2<HT≤10 m 4 = 1<HT≤2 m 5 = 0.5<HT≤1 m 6 = 0.2<HT≤0.5 m 7 = HT<0.2 m

CVR CODES 0 = NONE 1 = 0% < CVR ≤ 10% 2 = 10 < CVR ≤ 25% 3 = 25 < CVR ≤ 60% 4 = CVR > 60%

STAND COMPOSITION:	BA:
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SIZE CLASS ANALYSIS:	a	< 10	a	10 - 24	o	25 - 50	n	> 50
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STANDING SNAGS:	o	< 10	o	10 - 24	n	25 - 50	n	> 50
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DEADFALL / LOGS:	o	< 10	o	10 - 24	r	25 - 50	n	> 50
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ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:	PIONEER	YOUNG	X	MID-AGE	MATURE	OLD GROWTH
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SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G =
MOISTURE:	DEPTH OF ORGANICS:	(cm)	
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)	

COMMUNITY CLASSIFICATION:

COMMUNITY CLASS:	ELC CODE
Forest	F0
Deciduous Forest	F0D
ECOSITE: <i>Dry-Fresh Sugar Maple Deciduous Forest</i>	F0D-5
VEGETATION TYPE: <i>Dry-Fresh Sugar Maple-Beech Deciduous Forest</i>	F0D5-2
INCLUSION (a) <i>Mineral Cultural Thicket</i>	CULT (1a)
COMPLEX (b) <i>Mineral Cultural Woodland</i>	CULW (1b)

Notes:

ELC PLANT SPECIES LIST

SITE: Glenn - Port Stanley

POLYGON: 1

DATE: May 23, 2024

SURVEYOR(S): D. Morse

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER				COL.
	1	2	3	4	
Ash	
black walnut					
crabapple		.			
sugar maple	.	.			
cottonwood					
aspen trembling					
am. beech					
hemlock					
elm					
dogwood					
sumac			.		
red osier dogwood			.		
multi flora rose					
buckthorn		.	d		
Hawthorn			d		
S. h.					
horsetail					
garlic mustard			.		
skunk cabbage					
mayapple					
dandelion					
grasses					
nettle					
sens. fern					

SPECIES CODE	LAYER				COL.
	1	2	3	4	
<u>inclusion 1b</u>					
red oak					
white cedar					
willow					
spruce					
black locust					
birch					
cattail					
ragweed					
<u>inclusion 1a</u>					
Ach sp.					
Sumac					
buckthorn					
Hawthorn					
Dogwood sp.					
Multi-flora rose					
Honeysuckle					
Horsetail					
Golden rod sp.					
Mayapple					
Garlic Mustard					

ELC MANAGEMENT / DISTURBANCE		SITE: <u>Glacier - Port Stanley</u>			
		POLYGON: <u>1</u>			
		DATE: <u>May 23, 2014</u>			
		SURVEYOR(S): <u>D. Morse</u>			
DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	<u>> 30 YRS</u>	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	0
INTENSITY OF LOGGING	<u>NONE</u>	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	0
EXTENT OF LOGGING	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	<u>NONE</u>	LIGHT	MODERATE	HEAVY	0
EXTENT OF OPERATIONS	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	<u>NONE</u>	<u>SMALL</u>	INTERMEDIATE	LARGE	1
EXTENT OF GAPS	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	<u>NONE</u>	LIGHT	MODERATE	HEAVY	0
EXTENT OF LIVESTOCK	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	<u>NONE</u>	OCCASIONAL	<u>ABUNDANT</u>	DOMINANT	4
EXTENT OF ALIEN SPECIES	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	<u>NONE</u>	OCCASIONAL	ABUNDANT	DOMINANT	0
EXTENT OF PLANTING	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	<u>NONE</u>	<u>FAINT TRAILS</u>	WELL MARKED	TRACKS OR	1
EXTENT OF TRACKS/TRAILS	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	<u>NONE</u>	<u>LIGHT</u>	MODERATE	HEAVY	1
EXTENT OF DUMPING	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	<u>NONE</u>	LIGHT	MODERATE	HEAVY	0
EXTENT OF DISPLACEMENT	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	<u>NONE</u>	<u>LIGHT</u>	MODERATE	HEAVY	0
EXTENT OF RECR. USE	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	<u>NONE</u>	<u>SLIGHT</u>	MODERATE	INTENSE	1
EXTENT OF NOISE	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	<u>NONE</u>	<u>LIGHT</u>	MODERATE	HEAVY	1
EXTENT OF DISEASE / DEATH	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	<u>NONE</u>	LIGHT	MODERATE	HEAVY	0
EXTENT OF WIND THROW	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	<u>NONE</u>	<u>LIGHT</u>	MODERATE	HEAVY	1
EXTENT OF BROWSE	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	<u>NONE</u>	LIGHT	MODERATE	HEAVY	0
EXTENT OF BEAVER	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	<u>NONE</u>	LIGHT	MODERATE	HEAVY	0
EXTENT OF FLOODING	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	<u>NONE</u>	LIGHT	MODERATE	HEAVY	0
EXTENT OF FIRE	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	<u>NONE</u>	LIGHT	MODERATE	HEAVY	0
EXTENT OF ICE DAMAGE	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	<u>NONE</u>	LIGHT	MODERATE	HEAVY	
EXTENT	<u>NONE</u>	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

POLYGON DESCRIPTION

STAND DESCRIPTION:

HT CODES: 1 = >25 m 2 = 10<HT≤25 m 3 = 2<HT≤10 m 4 = 1<HT≤2 m 5 = 0.5<HT≤1 m 6 = 0.2<HT≤0.5 m 7 = HT<0.2 m
CVR CODES 0= NONE 1= 0% < CVR ≤ 10% 2= 10 < CVR ≤ 25% 3= 25 < CVR ≤ 60% 4= CVR > 60%

SIZE CLASS ANALYSIS:	A	< 10	♂	10 - 24	♀	25 - 50	N	> 50
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ABUNDANCE CODES: **N** = NONE **R** = RARE **O** = OCCASIONAL **A** = ABUNDANT

SOIL ANALYSIS:

COMMUNITY CLASSIFICATION:

Notes:

TREE TALLY BY SPECIES:

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM

Notes:

SOIL SURVEY MAP				
LEGEND CLASS				

[illegible]

Appendix B

Preliminary SWH Evaluation

Table 1: Glover - Port Stanley: Candidate Significant Wildlife Habitat Based on ELC Communities

Table 1.1 – Seasonal Concentration Areas of Animals

Wildlife Habitat	ELC Codes that Trigger Consideration*	Additional Habitat Criteria	Candidate SWH
Waterfowl Stopover and Staging Areas (Terrestrial)	CUT1	- no flooded fields within CUT1 or fields with waste grain	No
Waterfowl Stopover and Staging Areas (Aquatic)	not present	- only small golf course ponds present	No
Shorebird Migratory Stopover Area	not present	- no shorelines of lakes, rivers, wetlands, beaches, sand bars and seasonally flooded, muddy and un-vegetated shorelines - no groynes or other forms of armour rock lakeshores	No
Raptor Wintering Area	C1 - FOD7 C1a - CUT1 C1b - CUW1	- very small (1.1ha) upland present within subject lands - entire woodland is 14ha, therefore combination of woodland and upland <20ha	No
Bat Hibernacula	not present	- none present	No
Bat Maternity Colonies	C1 - FOD5-2	- woodland is not mature and does not contain >10/ha large diameter wildlife trees	No
Bat Migratory Stopover Area	no ELC triggers	- site is not near Long Point	No
Turtle Wintering Areas	C2 - SWT2	- no permanent open water areas in C2 - permanent golf course ponds present	Yes Candidate (golf course ponds)
Snake Hibernaculum	C1 - FOD5-2 C1a - CUT1 C1b - CUW1	- no rock piles, stone fences, crumbling foundations, or rock crevices present in C1, C1a or C1b - no active animal burrows were observed and no congregations of snakes observed	No
Colonially-Nesting Bird Breeding Habitat (Bank and Cliff)	C1a - CUT1	- no steep slopes of exposed banks or cliff faces present	No
Colonially-Nesting Bird Breeding Habitat (Trees/Shrubs)	not present	- no wetlands, lakes, island or peninsulas with live or dead standing trees present	No
Colonially-Nesting Bird Breeding Habitat (Ground)	C1a - CUT1 C1b - CUM1	- no rocky islands or peninsulas present - no watercourses in open fields with scatted trees present	No
Migratory Butterfly Stopover Areas	C1 - FOD5-2 C1a - CUT1 CUP3 (adjacent)	- FOD, CUP (adjacent) and CUT present and site is within 5km of Lake Erie, however not >10ha and no undisturbed field habitat with an abundance of preferred nectar plants present	No
Land Bird Migratory Stopover Areas	C1 - FOD5-2	- woodland on site is 3.1ha however the entire woodland is 14ha and located within 5km of Lake Erie	Yes Candidate C1
Deer Winter Congregation Areas	C1 - FOD5-2 CUP3 (adjacent)	- C1 not >50ha, C4 not >50 ha and MNR did not identify deer yarding areas (Appendix C)	No

Table 1.2.1 – Rare Vegetation Communities

Wildlife Habitat	ELC Codes that Trigger Consideration*	Additional Habitat Criteria	Candidate SWH
Cliffs and Talus Slopes	not present		No
Sand Barren	not present		No
Alvar	not present		No
Old Growth Forest	C1 - FOD5-2	- C1 is mid-aged	No
Savannah	not present		No
Tallgrass Prairie	not present		No
Other Rare Vegetation Communities	not present		No

Table 1: Glover - Port Stanley: Candidate Significant Wildlife Habitat Based on ELC Communities

Table 1.2.2 – Specialized Habitat for Wildlife

Wildlife Habitat	ELC Codes that Trigger Consideration*	Additional Habitat Criteria	Candidate SWH
Waterfowl Nesting Area	C1 - FOD5-2 C2 - SWT2	- upland habitat (C1) present within 120m of a wetland (C2)	Yes Candidate C1, C1a, C1b, SWT2
Bald Eagle and Osprey Nesting, Foraging and Perching Habitat	C1 - FOD5-2	- C1is not directly adjacent to a riparian area and no large stick nests were observed	No
Woodland Raptor Nesting Habitat	C1 - FOD5-2 C1a - CUT1 C1b - CUW1 CUP3 (adjacent)	- C1, C1a, C1b and CUP3 (adjacent) are not >30ha and contain no interior habitat	No
Turtle Nesting Areas	not present	- no exposed mineral soil present	No
Springs and Seeps	C1 - FOD5-2	- site is not located within the headwaters of a river or stream system	No
Amphibian Breeding Habitat (Woodland)	C1 - FOD5-2	- wetland (C2) present within 120m of the woodland (C1) on site	Yes Candidate C1, C1b, C2
Amphibian Breeding Habitat (Wetlands)	not present	- no wetlands present >120m from woodlands	No

Table 1.3 – Habitats of Species of Conservation Concern (not END or THR species)

Wildlife Habitat	ELC Codes that Trigger Consideration*	Additional Habitat Criteria	Candidate SWH
Marsh Bird Breeding Habitat	not present	- no marshes with shallow water and emergent vegetation present - no sheltered waterbodies present	No
Woodland Area-Sensitive Bird Breeding Habitat	C1 - FOD5-2	- C1 is not mature and <30ha	No
Open Country Bird Breeding Habitat	not present	- no large grasslands >30ha present - active agriculture and pasturing not considered SWH	No
Shrub/Early Successional Bird Breeding Habitat	C1a - CUT1 C1b - CUW1	- C1a and C1b not >10ha - active agriculture and pasturing is not SWH	No
Terrestrial Crayfish	not present	- no marshes present	No
Special Concern and Rare Wildlife Species as listed by NHIC or in MNRF pre-consultation	Striped Cream Violet (S3) Stiff Gentian (S2) Caughuawaga Hawthorn (S1) Broad Beech Fern (SC) Stiff Goldenrod (S3) Erect Knotweed (SH) Scarlet Beebalm (S3)	requires fields studies to fully assess	Yes Candidate C1, C1a, C1b, C2, A1, A2

Table 1.4.1 – Animal Movement Corridors

Wildlife Habitat	ELC Codes that Trigger Consideration*	Additional Habitat Criteria	Candidate SWH
Amphibian Movement Corridors	n/a	- Significant Amphibian Breeding Habitat (wetlands) not present	No

Appendix C

MNR SAR Information

Glover - Port Stanley

NHIC EO List	MNR EO Date
May 26, 2014	June 27, 2014

Species of Provincial Interest Table

Scientific Name	Common Name	S-Rank	Ontario ESA Listing	MNR Response
Plants				
<i>Phegopteris hexagonoptera</i>	Broad Beech Fern	S3	SC	
<i>Vicia caroliniana</i>	Carolina Vetch	S2		
<i>Crataegus suborbiculata</i>	Caughuawaga Hawthorn	S1		
<i>Opuntia humifusa</i>	Eastern Prickly Pear Cactus	S1	END	
<i>Polygonum erectum</i>	Erect Knotweed	SH		
<i>Enemion biternatum</i>	False Rue-anemone	S2	THR	
<i>Arisaema dracontium</i>	Green Dragon	S3	SC	
<i>Monarda didyma</i>	Scarlet Beebalm	S3		
<i>Juncus acuminatus</i>	Sharp-fruited Rush	S3		
<i>Vulpia octoflora</i>	Slender Vulpia	S2		
<i>Gentianella quinquefolia</i>	Stiff Gentian	S2		
<i>Solidago rigida</i> ssp. <i>rigida</i>	Stiff Goldenrod	S3		
<i>Viola striata</i>	Striped Cream Violet	S3		
<i>Juglans cinerea</i>	Butternut	S3?	END	June 27, 2014
<i>Castanea dentata</i>	American Chestnut	S2	END	June 27, 2014
Birds				
<i>Colinus virginianus</i>	Northern Bobwhite	S1	END	
<i>Icteria virens</i>	Yellow-breasted Chat	S2B	END	June 27, 2014
Turtles				
<i>Apalone spinifera</i>	Spiny Softshell	S3	THR	
Butterflies and Odonate				
<i>Epiaschna heros</i>	Swamp Darner	S2S3		
Mammals				
<i>Taxidea taxus</i>	American Badger	S2	END	June 27, 2014

Dylan Morse

From: McCloskey, Amanda (MNR) [Amanda.McCloskey@ontario.ca]
Sent: Friday, June 27, 2014 3:57 PM
To: Dylan Morse
Cc: McCloskey, Amanda (MNR)
Subject: RE: Additional EO Request - 37719 Lake Line, Port Stanley
Attachments: Glover - Port Stanley - NHIC List.xls; Glover - Port Stanley - mnrc eo data request.pdf

Hi Dylan,

Thank you for your request for natural heritage information. MNR understands that a plan of subdivision is being proposed at 37719 Lake Line, Port Stanley, Central Elgin, Elgin County. The MNR would like to provide the following information in response to the attached information request.

Species at Risk (SAR)

The Species at Risk in Ontario (SARO) List is Ontario Regulation 230/08 issued under the *Endangered Species Act, 2007* (ESA 2007). The ESA 2007 came into force on June 30, 2008, and provides both species protection (section 9) and habitat protection (section 10) to species listed as endangered or threatened on the SARO List. The current SARO List can be found on e-laws (<http://www.e-laws.gov.on.ca/navigation?file=home&lang=en>).

There are no known occurrences of SAR on the property, though there are known occurrences of SAR in the general area of the property, including:

- Butternut (END with GHP)
- American Chestnut (END with GHP)
- Yellow-breasted Chat (END with GHP)
- American Badger (END with regulated habitat protection)
- False Rue-anemone (THR with GHP)

Please note that this is an initial screening for SAR and the absence of an element occurrence does not indicate the absence of species. The province has not been surveyed comprehensively for the presence or absence of SAR, and MNR data relies on observers to report sightings of SAR. Field assessments by a qualified professional may be necessary if there is a high likelihood for SAR species and/or habitat to occur within the project footprint.

It is important to note that changes may occur in both species and habitat protection which could affect whether proposed projects may have adverse effects on SAR. The Committee on the Status of Species at Risk in Ontario (COSSARO) meets regularly to evaluate new species for listing and/or re-evaluate species already on the SARO List. As a result, species designations may change, which could in turn change the level of protection they receive under the ESA 2007. Also, habitat protection provisions for a species may change if a species-specific habitat regulation comes into effect.

If an activity or project will result in adverse effects to endangered or threatened species and/or their habitat, additional action would need to be taken in order to remain in compliance with the ESA 2007. Additional action could be applying for an authorization under section 17(2)c of the ESA 2007, or completing an online registry for an ESA 2007 regulation if the project is eligible.

Please be advised that applying for an authorization does not guarantee approval and the process can take several months. Please visit MNR's website to determine whether a project may be eligible for the online registry process (http://www.mnr.gov.on.ca/en/About/2ColumnSubPage/STDPROD_104342.html).

Questions about the registry process should be directed to MNR's Registry and Approval Services Centre at 1-855-613-4256 or at mnr.rasc@ontario.ca.

I trust this information will be of assistance to you.

Thank you,

8/13/2014

Amanda

Amanda McCloskey
District Planner
Ministry of Natural Resources
519-773-4750
amanda.mccloskey@ontario.ca

From: Dylan Morse [<mailto:dmorse@biologic.ca>]
Sent: May-28-14 2:15 PM
To: McCloskey, Amanda (MNR)
Subject: Additional EO Request - 37719 Lake Line, Port Stanley

Hi Amanda,

Can you please provide any additional EO information for this property? Find attached the appropriate information.

Thank you,

Dylan Morse, BES
Assistant Biologist

BioLogic Incorporated
110 Riverside Drive, Suite 201
London, Ontario
N6H 4S5

Tel: 519-434-1516 ext. 103
Fax: 519-434-0575
email: dmorse@biologic.ca