

# **Agricultural Impact Study**

**Lot A, Indian Road  
Upper Nine Mile River  
East Hants  
Nova Scotia**



**HILLSIDE CONSULTING LTD.**



# **Agricultural Impact Study**

## **Subject Property**

Lot A, Indian Road, Upper Nine Mile River,  
East Hants, Nova Scotia  
PID 45189206

## **Owned By**

Edward William Hunter

## **Prepared For**

Edward William Hunter  
Municipality of East Hants

## **Effective Date**

8<sup>th</sup> June 2024

## **Prepared By**

James C. Stephens  
AACI, MRICS, P.App., P.Ag.  
Hillside Consulting Ltd.  
Baddeck, Nova Scotia

# Table of Contents

Table of Contents.....	3
Letter of Transmittal.....	4
1.0 Introduction.....	5
1.1 Effective Date of Analysis.....	5
1.2 Municipal Requirements.....	5
1.3 Property Identification and Inspection.....	5
1.4 Project Description.....	5
1.5 Data Research.....	5
1.6 Technical Investigations.....	6
1.7 Verification of Third-Party Information.....	6
1.8 Neighbourhood Description.....	6
1.9 Subject Property Ownership.....	6
1.10 Neighbouring Property Ownership.....	6
1.11 Site Dimensions and Area.....	6
1.12 Encumbrances.....	6
1.13 Land Use Controls.....	7
1.14 Buildings and Site Improvements.....	7
1.15 Environmental Contamination.....	7
1.16 Vegetation Cover.....	8
1.17 Site Topography and Drainage.....	8
2.0 Canada Land Inventory Soil Rating.....	8
Site Plan.....	9
3.0 Impact Description.....	10
3.1 Loss of Agricultural Production and Fragmentation.....	10
3.2 Consideration of Adjacent Farms and Regional Development.....	10
3.3 Future Use.....	10
4.0 Conclusion.....	11
5.0 Declaration.....	11
Addenda A: Subject Property Site Plan.....	13
Addenda B: Municipal Planning Strategy Appendix A.....	14
Addenda C: Canada Land Inventory Class Descriptions.....	16

12<sup>th</sup> June 2024

File No. 2400068

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Mr. Ted Hunter  
PO Box 567  
Dawson City YK Y0B 1G0

Dear Mr. Hunter:

**RE: Lot A, Indian Road, Upper Nine Mile River, East Hants, Nova Scotia, PID 45189206**

In accordance with your request on the 15<sup>th</sup> April 2024 an Agricultural Impact Study has been conducted for a proposed re-zoning of the abovementioned property (the “Subject Property”) as it pertains to requirements set forth in Appendix A - Agricultural Impact Study, within Section E of the Municipal Planning Strategy: East Hants Official Community Plan By-Law P-400. The conclusions reported herein are preliminary in nature: this report is not to be construed as a full agricultural production land assessment, which would require a more rigorous investigation into the Subject Property’s physical and chemical soil composition and site hydrology.

Based on a review of the CLI soil rating for the Subject Property, which found to adhere to the definition of Class 4 Subclass W, and a review of adjacent and nearby land use patterns, the rezoning of the Subject Property to allow for construction of a residential dwelling will have a negligible impact on the supply and connectivity of agricultural land in East Hants. The use of the Subject Property for a residential dwelling is not anticipated to be negatively impacted by continued agricultural use on adjacent lands.

It is recommended that rezoning of the Subject Property proceed to allow for development of a non-farm single family residential dwelling.

Respectfully submitted,



James C. Stephens, AACI, MRICS, P.App., P.Ag.  
President | Hillside Consulting Ltd.  
NSIA Membership #20378

## 1.0 Introduction

### 1.1 Effective Date of Analysis

The opinions in this report are effective as of the date of inspection, 8<sup>th</sup> June 2024. Any alteration to the physical or legal characteristics of the Subject Property may alter the opinions contained herein.

### 1.2 Municipal Requirements

The opinions expressed in this report are intended to fulfill requirements of Section E, Appendix A Agricultural Impact Study of the Municipality Planning Strategy, East Hants Official Community Plan By-Law P-400, current as of 8<sup>th</sup> June, 2024. A copy of Appendix A of the Municipal Planning Strategy is included in **Addenda B**.

This report follows classification methodology as set forth by Agriculture and Agri-Food Canada for the determination of land capability for agriculture<sup>1</sup>. Class and Subclass definitions are included in **Addenda C**.

### 1.3 Property Identification and Inspection

The Subject Property boundaries were identified using provincial property boundary data and the Nova Scotia Online Land Registry. The property was inspected in person by the author on 8<sup>th</sup> June 2024. A visual inspection was conducted of the Subject Property and surrounding lands; taking notes on topography, vegetation cover, access, and land use patterns. Subject Property details including owner, abutting owners, zoning, and Site Plan, are available herein.

### 1.4 Project Description

The owner of the Subject Property indicates that they plan to build a 2 to 3-bedroom single family dwelling on the site. No building or project plans exist, though the owner would like to position any development in a manner most conducive to continued agricultural use over the remainder of the site. In this case, focusing development on the northern portion of the site would best allow for continued use of the remaining land for agricultural use.

### 1.5 Data Research

Sources of data include municipal land use and planning documents from the Municipality of East Hants; property boundary data from Service Nova Scotia and Internal Services; the Nova Scotia Land Registry; Canada Land Inventory (CLI) Level 1 Digital Data: Soil Capability for Agriculture available from the Canada Centre for Remote Sensing, Natural Resources Canada; and a Soil Survey of Hants County provided by the Nova Scotia Department of Agriculture.

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<sup>1</sup> Government of Canada: Overview of Classification Methodology for Determining Land Capability for Agriculture <https://sis.agr.gc.ca/cansis/nsdb/cli/classdesc.html>

## 1.6 Technical Investigations

No technical investigations were completed into the load-bearing quality of the soils, hydrologic surveys, or a site survey.

## 1.7 Verification of Third-Party Information

The analysis set out in this report relied on written and verbal information obtained from a variety of sources considered reliable. Unless otherwise stated herein, client-supplied information was not verified and was believed to be correct. The mandate for the assignment did not require a report prepared to the standard appropriate for court purposes or for arbitration, so primary data sources were not fully documented confirmed within this report.

## 1.8 Neighbourhood Description

The Subject Property is located in the central portion of the Municipality of East Hants in a neighbourhood characterised by a mix of residential, agricultural, forestry, and rural commercial uses. The neighbourhood is linear in nature, following Ess Road from NS Hwy. 14 in the south to Indian Road in the north.

Agricultural use is clustered along local roadways and interspersed with residential dwellings on large rural lots. Residential use is particularly notable on the southern end of Ess Road towards Upper Nine Mile River.

## 1.9 Subject Property Ownership

The Subject Property is owned by Edward William Hunter.

## 1.10 Neighbouring Property Ownership

The Subject Property is bordered to the east and south by parcel PID 45119211 owned by Matthew MacDonald of 800 Ess Road, Upper Nine Mile River, Nova Scotia. PID 45119221 is unimproved and comprised of a mix of woodland (35.86 acres) and cleared fields ( $\pm 3.3$  acres).

The Subject Property is bordered to the west by Ess Road and to the north by Indian Road.

## 1.11 Site Dimensions and Area

The Subject Property consists of an irregular-shaped parcel shown outlined in yellow on the **Site Plan (Page 9)**. The site includes 441.69 ft. (134.63 m.) frontage to Ess Road and 165.08 ft. (50.32 m.) frontage to Indian Road. The parcel has a total area of 3.47 acres (1.40 hectares).

The dimensions and area of the Subject Property have been taken from the Nova Scotia Online Land Registry and a Site Plan titled "Plan Showing Lot "A" Owned by Edith Clark, Indian Road, Hants Co., N.S." dated September 2<sup>nd</sup>, 1965. A copy of the Site Plan is available in **Addenda A**.

## 1.12 Encumbrances

No easements, rights of way, or other encumbrances were found registered to the Subject Property.



### **1.13 Land Use Controls**

The Subject Property is located within the jurisdiction of the East Hants Official Community Plan Bylaw P-500: Land Use Bylaw. Under the Land Use Bylaw the property is zoned for Agricultural Reserve (AR) use. This zoning permits the following uses as-of-right:

- Accessory Dwelling Unit
- Accommodations, Bed & Breakfast
- Agriculture, Non-Intensive
- Agriculture Related Uses
- Agriculture Uses and Structures, Intensive
- Agri-tourism uses (Conditionally Permitted)
- Agrivoltaics (Site Plan Approval Required)
- Animal Hospitals & Veterinary Offices
- Biogas Facilities where 50% or more of the biogas substrate comes from on-farm sources
- Dog Daycare and Dog Daycare with more than ten (10) dogs
- Dwelling, Farm
- Dwelling, Farm Secondary
- Dwelling, Tiny Home on Wheels
- Fabrication and Repair of Farm and Forestry Equipment
- Forestry Uses & Structures
- Greenhouses
- Home-Based Business Uses up to 140 m<sup>2</sup> of commercial floor area
- Horse Stables, Boarding, and Training Facilities (including race horses)
- Kennel, Boarding and Breeding
- Large Scale Special Events
- Wind Farms (Site Plan Approval Required)
- Wind Turbines, Large Scale (Site Plan Approval Required)
- Wind Turbines, Micro
- Wind Turbines, Small Scale
- Open Space (OS) Zone Uses

Uses Requiring Development Plan Approval

- Biogas Facilities where 50% or more of the biogas substrate comes from off-farm sources
- Dwelling, Non-Farm Single Unit
- Home-based business uses above 140 m<sup>2</sup> of commercial floor area

### **1.14 Buildings and Site Improvements**

There are no buildings located on the site. Access is provided via small gravel driveway over a culvert from Ess Road. Electrical services are available from Ess Road and Indian Road.

### **1.15 Environmental Contamination**

To the best the author's knowledge, the Subject Property is not contaminated with hazardous materials and there are no environmental concerns for the site or adjacent lands.

### 1.16 Vegetation Cover

The Subject Property consists of a field covered in a mix of low-lying herbaceous species, grasses, and woody shrubs. Portions of the site include sedges and grasses associated with wet landscapes. The site appears to have been used in the past hay production, though this has not occurred in recent years.

### 1.17 Site Topography, Soil, and Drainage

The site is level and sits at an elevation of  $\pm 110$  metres above mean sea level. A ditch runs along the western and northern boundary of the site which is passed via access point with culvert on Ess Road. A small watercourse runs to the north, east, and south of the site and is partially diverted via ditching and roadside culverts.

The Subject Property consists entirely of Queens Series soils: a reddish-brown clay loam till derived primarily from red shales and mudstone. These soils range from improperly drained to poorly drained, as water moves over and through these soils very slowly and will stand for some time in level areas.

In the case of the Subject Property, the entirety of the site is level with some low-lying areas. Drainage throughout the site appears to be imperfect to poor.

## 2.0 Canada Land Inventory Soil Rating

According to the federal Canada Land Inventory (CLI) data for Soil Capability for Agriculture, the Subject Property consists entirely of Class 3, Subclass S lands. However, this classification is derived from mapping data at a large scale, which fails to recognise small-scale use restrictions at a property level. In this case, the Subject Property has an apparent history of hay production with no indication of a wider range of crop production. Due to the site's apparent imperfect to poor drainage, it is most likely that a Class 4, Subclass W would be appropriate for the whole of the Subject Property.

The primary reason for classification of the Subject Property as Class 4 lands is due to excess water (Subclass W) seriously affecting the timing and ease of tillage, and choice of crops resulting in low to fair productivity for a fair range of crops (specifically hay and grasses). The bar for Class 3 land is set higher, requiring fair to moderately high productivity for a fair range of crops, under good management. It is the author's opinion that the Subject Property's historic use and site limitations support justification for a Class 4 designation throughout the entirety of the site.

The CLI uses Classes and Subclasses as detailed in **Addenda C**.





## Site Plan



### **3.0 Impact Description**

The owner of the Subject Property indicates that they plan to build a 2 to 3-bedroom single family dwelling on the site. No building or project plans exist, though the owner would like to position any development in a manner most conducive to continued agricultural use over the remainder of the site. In this case, focusing development on the northern portion of the site would best allow for continued use of the remaining land for hay production.

#### **3.1 Loss of Agricultural Production and Fragmentation**

Rezoning the Subject Property from Agricultural Reserve will result in 3.47 acres (1.40 hectares) of hayfields becoming available for non-farm dwelling use. In this case, the current owner of the Subject Property is willing to mitigate agricultural loss through positioning of any development that will minimize fragmentation of the fields. It is also apparent that the lands have not been in active agricultural production for some time, as small trees and shrubs have begun to grow in the field.

The site is located at the intersection of two roadways and fully bordered to the east by woodland. Removal of the site from agricultural production will not result in fragmentation of a contiguous agricultural site, though it will reduce the size of a hayfield which extends beyond the boundary of the Subject Property.

#### **3.2 Consideration of Adjacent Farms and Regional Development**

The Subject Property has previously been harvested by a party unknown to the current owner, though this has reportedly not occurred in the past several years. Removal of the Subject Property from agricultural zoning may result in hay field loss to the unknown party, though it appears that this hay harvest activity has already ceased.

With respect to broader development patterns, use of the Subject Property for non-agricultural purposes would be consistent with adjacent land use on Ess Road and Indian Road. The southern portion of Ess Road in particular has demonstrated value as a rural residential neighbourhood. Most large agricultural land uses are clustered to the east and west of the Subject Property in areas with superior drainage.

#### **3.3 Future Use**

The past use of the Subject Property for hay production, and adjacent hay fields, are a low-impact agricultural use which does not require major inputs that may be incompatible with residential use (e.g. fertiliser, herbicides, pesticides). The future use of the Subject Property for residential use would be compatible with continued hay production both on the remainder of the Subject Property and adjacent lands.



## 4.0 Conclusion

Based on a review of the CLI soil rating for the Subject Property, which found to adhere to the definition of Class 4 Subclass W, and a review of adjacent and nearby land use patterns, the rezoning of the Subject Property to allow for construction of a residential dwelling will have a negligible impact on the supply and connectivity of agricultural land in East Hants. The use of the Subject Property for a residential dwelling is not anticipated to be negatively impacted by continued agricultural use on adjacent lands. It is recommended that rezoning of the Subject Property proceed to allow for development of a non-farm single family residential dwelling.

## 5.0 Declaration

I certify that, to the best of my knowledge and belief, that:

the statements of fact contained in this report are true and correct;

the reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions and are my impartial and unbiased professional analyses, opinions and conclusions;

I have no past, present or prospective interest in the property that is the subject of this report and no personal and/or professional interest or conflict with respect to the parties involved with this assignment, other than previous work performed for the client;

I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment;

my engagement in and compensation is not contingent upon developing or reporting predetermined results, the amount of value estimate, a conclusion favouring the client, or the occurrence of a subsequent event;

I have the knowledge and experience to complete this assignment competently;

except as herein disclosed, no one has provided significant professional assistance to the person signing this report;

I conducted an on-site inspection of the property that is the subject of this report;

the undersigned is a member in good standing of the Appraisal Institute of Canada and the Nova Scotia Institute of Agrologists;

I, the report author, warrant that neither myself, my employees, partners, nor other members of Hillside Consulting Ltd. have any past, present, or prospective interest in the subject lands; and I warrant that there are no business, personal or social relationships between myself, my employees, partners, or other members of the firm and the property owner;



based on a review of the CLI soil rating for the Subject Property, which found to adhere to the definition of Class 4 Subclass W, and a review of adjacent and nearby land use patterns, the rezoning of the Subject Property to allow for construction of a residential dwelling will have a negligible impact on the supply and connectivity of agricultural land in East Hants;

the use of the Subject Property for a residential dwelling is not anticipated to be negatively impacted by continued agricultural use on adjacent lands;

as of the study date, 8<sup>th</sup> June 2024, it is recommended that rezoning of the Subject Property proceed to allow for development of a non-farm single family residential dwelling.

12<sup>th</sup> June 2024

Date Submitted

JAMES C. STEPHENS, AAIC, MRICS, P.APP, P.AG  
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## Addenda B: Municipal Planning Strategy Appendix A

PART E - APPENDICES

### APPENDIX A

# AGRICULTURAL IMPACT STUDY

## Study Format

### 1.0 Introduction

**Identification:** property owner and abutting owners; zoning; site plan illustrating the area studied, all watercourses, and any relevant site features; subdivision plan if available; location of project on plan.

**Project Description:** sketch to scale; total land area of proponent's existing land holdings; description of any agricultural or forestry uses on the property; distance to adjacent farm operations; location, size and number of proposed lots (if applicable); and current use of land.

### 2.0 CLI Soil Rating

Sketch showing proposed lots with respective Canada Land Inventory (CLI) soil classification. In addition, show the methodology used to derive ratings and list factors that affected the rating. Each proposed lot must have at least 90% CLI Class 4 soil or lower capability for agriculture. Study should identify any major site features or characteristics which influence or determine soil capability including but not limited to slope, soil texture, stoniness, wetness, salinity, permeability and depth of soils.

### 3.0 Impact Description

1. Indicate the implications of letting the parcel go out of agricultural production or indicate the implications of fragmenting the land. Show the remaining farm holding after subdivision proposed lots (if applicable), provide reasoning that the remaining farm size or operation is viable as a modern

agricultural operation.

2. Adjacent farms, the farm community in general and the East Hants agricultural land base. Identify reasons why the use would be compatible with or not adversely affect area farms. Documentation should include any of the following applicable reasons including: site and locational constraints, infilling between existing non-farm development, logical extension of existing non-farm development, special use requires special locational requirements, current pattern of development, parcel size and shape, surrounding land uses, context the parcel fits into the farming area, viability of the parcel and remnant for farming, and existing and past and future use of the parcel and remnant.
3. Future residents of the proposed lots (if applicable). Residential development and some farming operations are not compatible land uses due to odour, noise, and dust generated by the farming operation. What impacts can be expected on any future residents of the proposed lots.

### 4.0 Conclusion

The minimum farm size after subdivision and CLI soil rating are adhered to and other impacts as outlined above are negligible and the project should therefore proceed, or the projects will mean that the minimum farm size is not complied with or the proposed lots are not on 90% CLI Class 4 soils or lower or other impacts are deemed to be significant and the project should therefore not proceed.



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## MUNICIPAL PLANNING STRATEGY - OFFICIAL COMMUNITY PLAN

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### 5.0 Declaration

When the study was conducted. Signage of property owner(s). Signature and qualifications of study author. Date study submitted. Address and phone numbers to be reached.

### 6.0 Attached Supporting Information

Any additional information, descriptions, impacts and control measures.

Submit 3 copies of the study to the East Hants Development Officer.

Policy	Amendment Date	Description

## Addenda C: Canada Land Inventory Class Descriptions

- Class 1** Soils in this class have no significant limitations in use for crops. The soils are deep, are well to imperfectly drained, hold moisture well, and in the virgin state were well supplied with plant nutrients. They can be managed and cropped without difficulty. Under good management they are moderately high to high in productivity for a wide range of field crops.
- Class 2** Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices. The soils are deep and hold moisture well. The limitations are moderate and the soils can be managed and cropped with little difficulty. Under good management they are moderately high to high in productivity for a fairly wide range of crops.
- Class 3** Soils in this class have moderately severe limitations that restrict the range of crops or require special conservation practices. The limitations are more severe than for Class 2 soils. They affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. Under good management they are fair to moderately high in productivity for a fair range of crops.
- Class 4** Soils in this class have severe limitations that restrict the range of crops or require special conservation practices, or both. The limitations seriously affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. The soils are low to fair in productivity for a fair range of crops but may have high productivity for a specially adapted crop.
- Class 5** Soils in this class have very severe limitations that restrict their capability to producing perennial forage crops, and improvement practices are feasible. The limitations are so severe that the soils are not capable of use for sustained production of annual field crops. The soils are capable of producing native or tame species of perennial forage plants, and may be improved by use of farm machinery. The improvement practices may include clearing of bush, cultivation, seeding, fertilising, or water control.
- Class 6** Soils in this class are capable only of producing perennial forage crops, and improvement practices are not feasible. The soils provide some sustained grazing for farm animals; but the limitations are so severe that improvement by use of farm machinery is impractical. The terrain may be unsuitable for use of farm machinery, or the soils may not respond to improvement, or the grazing season may be very short.



- Class 7      Soils in this class have no capability for arable culture or permanent pasture. This class also includes rockland, other non-soil areas, and bodies of water too small to show on the maps.
- Class 0      Organic soils (Not placed in capability classes).
- SUBCLASS C:    adverse climate — The main limitation is low temperature or low or poor distribution of rainfall during the cropping season, or a combination of these.
- SUBCLASS E:    erosion damage — Past damage from erosion limits agricultural use of the land.
- SUBCLASS I:    inundation — Flooding by streams or lakes limits agricultural use.
- SUBCLASS P:    stoniness — Stones interfere with tillage, planting, and harvesting.
- SUBCLASS R:    shallowness to solid bedrock — Solid bedrock is less than three feet from the surface.
- SUBCLASS S:    soil limitations — Limitations include one or more of the following: undesirable structure, low permeability, a restricted rooting zone because of soil characteristics, low natural fertility, low moisture-holding capacity, salinity.
- SUBCLASS T:    adverse topography — Either steepness or the pattern of slopes limits agricultural use.
- SUBCLASS W:    excess water — Excess water other than from flooding limits use for agriculture. The excess water may be due to poor drainage, a high water table, seepage or runoff from surrounding areas.
- SUBCLASS X:    Soils having a moderate limitation caused by the cumulative effect of two or more adverse characteristics which singly are not serious enough to affect the class rating.