

**AGRICULTURAL IMPACT ASSESSMENT  
FOR  
33684 SIDER ROAD, TOWNSHIP OF WAINFLEET**

**PREPARED FOR:**



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## **1. INTRODUCTION**

### **1.1 Retainer**

Colville Consulting Inc. was retained by Kaitlynn Green of Sweet Creek Family Farm to prepare an Agricultural Impact Assessment (AIA) for a proposed *development* located at 33684 Sider Road, Township of Wainfleet, Regional Municipality of Niagara. These lands, herein referred to as the Subject Lands, are located within the Greater Golden Horseshoe (GGH) and form part of the area's agricultural land base. The lands are designated "Prime Agricultural Area" in the Niagara Official Plan (2022) and "Agricultural Area" in the Township of Wainfleet Official Plan (2016).

### **1.2 Description of Proposed Development**

#### **1.2.1 Existing Operation**

Sweet Creek Flower Farm currently houses chickens, goats, and guineafowls. The chickens are used for the production of eggs for personal consumption and to assist in compost production as part of the farm's Integrated Pest Management process. The goats are also used to assist in compost production, as well as assisting in weed management.

Sweet Creek Flower Farm currently grows annual flowers and fall decorative plants (pumpkins, gourds, dry flowers, and grasses) in a portion of the southernmost paddock located on the Subject Lands. Currently, the flowers and decorative plants are sold roadside and at the local Wainfleet Market.

The field located south of the East Kelly Drain is currently tenant-farmed for the production of *cash crops* and will continue unaltered following construction of the proposed *development*.

#### **1.2.2 Proposed Uses**

Sweet Creek Flower Farm is proposing to add a wedding venue and a roadside stand that will generate additional farm gate sales from their agricultural operation. Niagara Planning Group's (NPG) Preliminary Site Plan Concept indicates the wedding venue will be located in the northern, two-storey barn and will include an outdoor event space, a septic system, 51 parking spaces, and an associated driveway. The upper level of this barn will be used for storage for the wedding venue and flower farm, and the lower level will be used as an event space with washrooms.

Sweet Creek Flower Farm plans to increase its area under cultivation by increasing annual flower production in the southernmost paddock and by introducing cultivation of perennial flowers and Christmas trees to the field adjacent the existing barns. Introducing cultivation of perennial flowers and Christmas trees will allow for extended seasonal income generated by the farm. A portion of the southernmost paddock will be used for compost, which will then, in turn, be used as part of the regenerative farming operation.

A new roadside stand will be erected, and the ground floor of the southern barn will be converted for the cut flower business. The ground floor of this barn will be used for processing flowers (stripping stems, wrapping bunches, hydrating, cooling, and drying) and in the fall/winter, this area will be used to start seeds and store tools and supplies. Flower sales will be strictly roadside, and customers will have the opportunity to place orders ahead of time to be picked up at the roadside stand. Christmas trees grown in

the field adjacent to the existing barns will be sold roadside or through wholesale orders as live or cut trees. The two-storey portion of the southern barn is to be converted to a two-storey accessory *dwelling* to allow for a multi-generational farming operation.

A copy of the Preliminary Site Plan Concept can be found in Appendix A.

The conversion of the farm infrastructure for flower processing is an *agricultural use*. The proposed roadside stand is an *agriculture-related use*. The wedding venue would qualify as an *on-farm diversified use*. However, the Township of Wainfleet considers the wedding venue to be an “agri-tourism use unrelated to agriculture” and therefore requires a Zoning By-law Amendment to permit agri-tourism uses unrelated to agriculture.

### **1.3 Professional Qualifications**

Colville Consulting Inc. was established in 2003 and provides agricultural and environmental consulting services to both private and public sector clients throughout Ontario. Colville Consulting Inc. has extensive experience working in and around the Niagara Region on a number of agriculture-related projects including the preparation of AIAs for *agriculture-related uses* in agricultural areas.

This study was led by Sean Colville, who has over 30 years of experience preparing Agricultural Impact Assessments in Ontario and assisted with the preparation of the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) draft Agricultural Impact Assessment Guidance Document (2018). John Liotta was the Project Manager and author of the AIA. John has over 5 years of formal education in Environmental and Agricultural Planning and has assisted in preparing a number of AIAs with Colville Consulting Inc. The CVs of Sean Colville and John Liotta can be found in Appendix B.

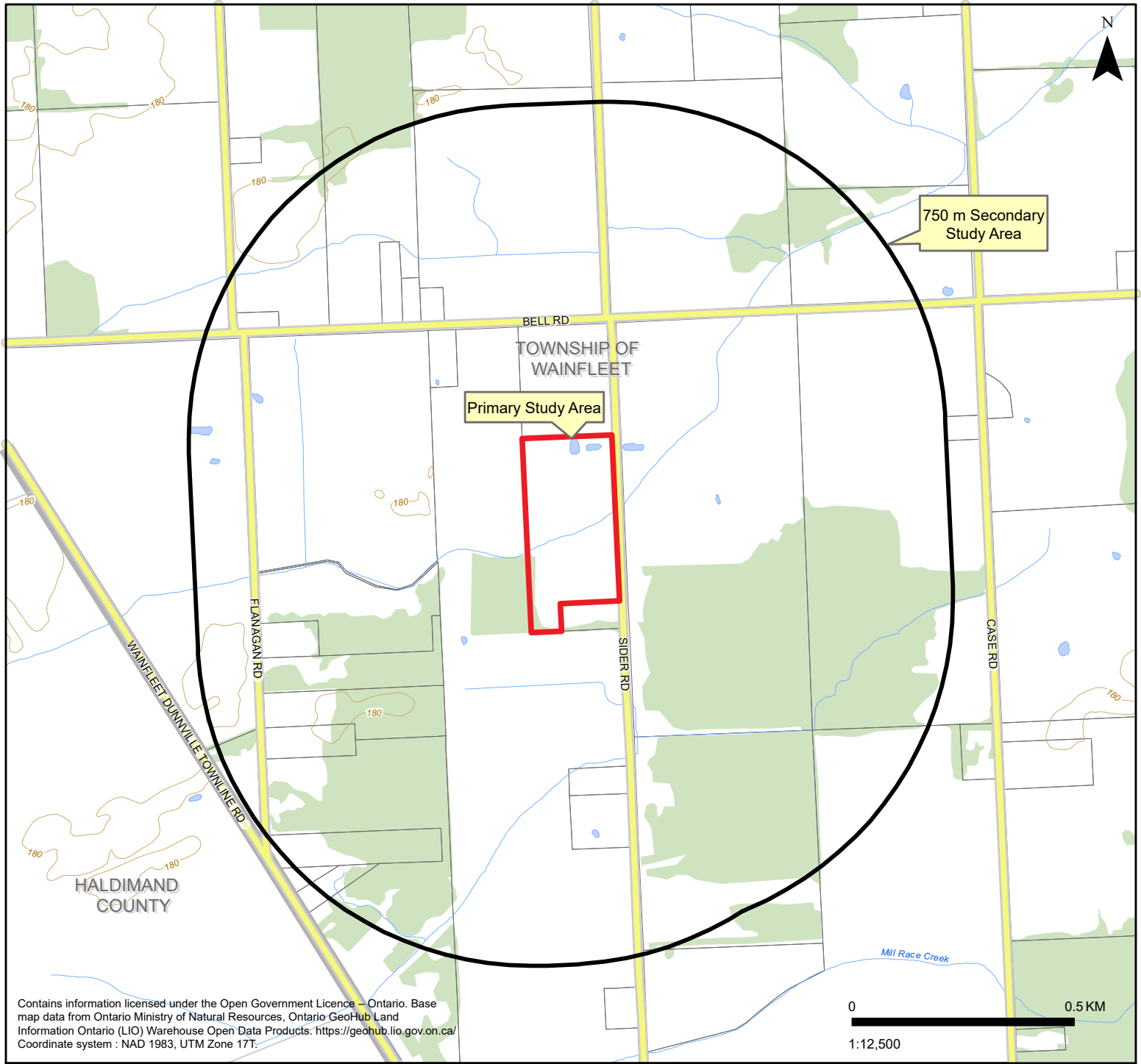
### **1.4 Purpose of Study**

The Subject Lands are designated as “Agricultural Area” in the Township of Wainfleet Official Plan, which is considered its *prime agricultural area*. In its *prime agricultural areas*, the Township of Wainfleet requires a Zoning By-law Amendment (ZBA) to permit the proposed wedding venue. An Agricultural Impact Assessment is one of many studies required to complete the ZBA application. This AIA has been prepared in accordance with the Ontario Ministry of Agriculture, Food and Rural Affairs’ (OMAFRA) draft Agricultural Impact Assessment Guidance Document (March 2018).

The purpose of the AIA is to assess and evaluate the potential impacts of the proposed *development* on the *Agricultural System* and assess its conformity with surrounding agricultural operations. The AIA will determine whether the proposed *development* is consistent with provincial agricultural policies, as well as those of the Niagara Region and the Township of Wainfleet.

### **1.5 Study Area**

To be consistent with the draft Agricultural Impact Assessment Guidance Document (2018), the AIA must identify a *Primary Study Area* and a *Secondary Study Area*. For this AIA, the Primary Study Area (PSA) includes the Subject Lands, while all lands within approximately 750 meters of the PSA comprise the Secondary Study Area (SSA). Figure 1 shows the Study Area, which includes the Primary and Secondary Study Areas.



Contains information licensed under the Open Government Licence – Ontario. Base map data from Ontario Ministry of Natural Resources, Ontario GeoHub Land Information Ontario (LIO) Warehouse Open Data Products. <https://geohub.lio.gov.on.ca/> Coordinate system : NAD 1983, UTM Zone 17T.

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1:12,500



**Figure 1**  
**Location of Primary & Secondary Study Areas**

Agricultural Impact Assessment  
33684 Sider Road, Township of Wainfleet

Prepared for: **Sweet Creek Family Farm**

Prepared by: **COLVILLE CONSULTING INC.**

DATE: July 2024

FILE: C23039



### **1.5.1 Primary Study Area**

The Subject Lands are an irregularly shaped parcel approximately 7.95ha (19.64 acres) in size located north of Concession Road 2, west of Sider Road, south of Bell Road, and east of Flanagan Road. The lands are primarily used for agricultural purposes. There are two barns, a chicken coop, five paddocks, and a small, enclosed shelter for goats. A small portion of the Subject Lands are used by Sweet Creek Flower Farm for the production of annual flowers and fall decorative plants. The majority of the Subject Lands are cultivated by a tenant farmer for the production of *cash crops*.

### **1.5.2 Secondary Study Area**

The Secondary Study Area, herein referred to as the Study Area, includes all lands within 750 m of the PSA (i.e., the Subject Lands) boundaries. The SSA is generally bounded to the north by Highway 3, to the west by Wainfleet Dunnville Townline Road, to the south by Concession Road 2, and to the east by Case Road. Land uses within the SSA are primarily agricultural, but also include a mix of residential and commercial uses.

## 2. SCOPE OF STUDY

This AIA will follow a scoped methodology, similar to the methodology recommended in the draft Agricultural Impact Assessment Guidance Document (2018). It includes:

- ♦ a review of applicable agricultural policies and other background information and land use information for lands within the surrounding area (e.g., aerial photography);
- ♦ a review of data sources such as AgMaps and the Agricultural Systems Portal and OMAFRA's digital soil resource database (for soil and CLI information, parcel fabric and land fragmentation, artificial drainage, agri-food components, etc.);
- ♦ a land use survey of all lands within seven hundred and fifty meters (750 m) of the Subject Lands and a characterization of the area;
- ♦ an assessment of the *Minimum Distance Separation (MDS)* requirements for the proposed *development* using the 2017 *MDS I* formula;
- ♦ an assessment of the level of fragmentation of agricultural lands in the Study Area;
- ♦ an assessment of whether the proposed *development* qualifies as agriculture-related and on-farm diversified uses in accordance with OMAFRA's Guidelines on Permitted Uses in Ontario's Prime Agricultural Areas document;
- ♦ an assessment of the agricultural capability of the Subject Lands relative to the surrounding Study Area;
- ♦ an assessment of the need to address alternative locations for the proposed *development*;
- ♦ an assessment of the potential impacts of the *development* on the *Agricultural System*, agricultural resources, farm operations, and the broader *agri-food network*;
- ♦ mitigation measures and recommendations that can be implemented to avoid or minimize potential impacts and an assessment of net impacts following the implementation of recommendations;
- ♦ an assessment of the proposed development's consistency with the agricultural policies of the *Provincial Policy Statement (PPS)*, the Growth Plan, Niagara Official Plan, and Township of Wainfleet Official Plan; and
- ♦ the preparation of a report summarizing our findings.

### 3. METHODOLOGY

The study methodology for the AIA was prepared in accordance with OMAFRA's AIA Guidance Document. It includes a review of relevant provincial, regional, and local agricultural policies, other agricultural-related sources of information and the completion of field inventories. Upon compilation and assessment of the data, the potential impacts of the proposed *development* will be considered and recommendations to avoid and/or minimize potential impacts will be made. The AIA also assesses the development's conformity with provincial, regional, and local agricultural policies.

#### 3.1 Background Data Collection

Information sources reviewed for this study included:

- ♦ Niagara Official Plan and Land Use Schedules (2022);
- ♦ Township of Wainfleet Official Plan and Land Use Schedules (2016);
- ♦ Provincial Policy Statement (2020);
- ♦ A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020);
- ♦ The Soils of the Regional Municipality of Niagara – Report No. 60 of the Ontario Institute of Pedology (1989);
- ♦ OMAFRA's The Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks. Publication 853 (2016);
- ♦ OMAFRA's digital Soil Resource Database to obtain soil series and CLI agricultural capability mapping and data;
- ♦ OMAFRA's Artificial Drainage Systems mapping;
- ♦ OMAFRA's AgriSuite, AgMaps and Agri-Systems databases;
- ♦ OMAFRA's Classifying Prime and Marginal Agricultural Soils and Landscapes: Guideline for Application of the Canada Land Inventory in Ontario (2016)
- ♦ OMAFRA's Draft Agricultural Impact Assessment (AIA) Guidance Document (2018); and
- ♦ OMAFRA's Guidelines on Permitted Uses in Ontario's Prime Agricultural Areas – Publication 851 (2016);
- ♦ Ortho-rectified, digital aerial photography viewed using Google Earth™.

Aerial photography covering the entire Study Area was examined to identify the presence of potential agricultural uses, agriculture-related uses, on-farm diversified uses and *non-agricultural land uses*. A review of the aerial photography will provide a general impression of agricultural activity, the level of investment in agriculture and the mix of land uses in the area. The AIA also relied on information provided by Kaitlynn Green of Sweet Creek Family Farm regarding the existing and proposed land uses for the property.

## 3.2 Field Inventories

Field inventories were completed on May 31, 2023. Field inventories included a reconnaissance level land use survey of the surrounding area to identify agricultural operations, relative level of investment in agriculture, the cropping pattern observed, and the mix of land uses within the Subject Lands and Study Area. Information required to calculate the *MDS I* setback requirements was also collected during the land use survey.

### 3.2.1 Land Use Survey

The reconnaissance land use survey of the Study Area was completed on May 31, 2023. The land use survey identified the number and type of agricultural operations (both existing and retired), agricultural-related uses, *on-farm diversified uses*, and the extent and type of *non-agricultural land uses* in the area. Field crops observed were identified and mapped. Visual evidence of agricultural land improvements was recorded where identified.

### 3.2.2 MDS Calculation

The MDS is a land use planning tool developed by OMAFRA to minimize land use conflicts and nuisance complaints arising from odours generated by *livestock operations*. The MDS calculates a recommended separation distance between a *livestock* or *manure storage* and other land use(s). The most recent version of the MDS guidelines, The Minimum Distance Separation (MDS) Document, Publication 853 (2016), came into effect on March 1<sup>st</sup>, 2017. The *MDS formulae* only apply to lands designated *prime agricultural area* or rural. The MDS does not apply to lands in *non-agricultural land use* designations.

The MDS uses two separate formulae: MDS I and MDS II. The *MDS I formula* is used when a proposed new *non-agricultural development* is proposed in proximity to *livestock facilities*. The *MDS II formula* is used when a new, enlarged, or remodeled *livestock facility* or *manure storage* system is proposed in proximity to existing or approved *development*.

Typically, the *Minimum Distance Separation (MDS) formulae* are not required for *on-farm diversified uses* and *agriculture-related uses* unless specifically required within a municipal comprehensive zoning by-law. However, the Township of Wainfleet requires a zoning by-law amendment to permit “agri-tourism uses unrelated to agriculture”. Guideline #10 in the *Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks – Publication 853 (OMAFRA)* states that “An MDS I setback is required for all proposed amendments to rezone or redesignate land to permit *development in prime agricultural areas* and *rural lands* presently zoned or designated for *agricultural use*.” Therefore, MDS I setbacks will need to be calculated for the proposed *development*.

To determine the MDS requirements, we used OMAFRA’s Agricultural Planning Tools Suite (AgriSuite). It provides the most up to date software developed by OMAFRA to calculate the MDS I requirements for active *livestock facilities* and *empty livestock facilities* that are structurally sound and capable of housing *livestock*. To determine the MDS I setback requirements, specific information regarding each *livestock facility* is required. This includes:

- ♦ the type of *livestock* housed in the facility;
- ♦ the maximum capacity of the barn housing *livestock*;

- ♦ the type of *manure storage* facility; and
- ♦ the size of the property upon which the *livestock facility* is located.

This information was collected for all *livestock facilities*; both active and empty.

Guideline #35 states that *on-farm diversified uses* and *agriculture-related uses* “shall be considered as Type A land uses.” Therefore, the proposed *development* is considered to be a Type A land use. Type A (less sensitive) land uses create an MDS I setback that is half that of a Type B (more sensitive) land use and requires an investigation distance (Secondary Study Area) of 750 m from the Subject Lands.

The information required to complete an MDS I calculation was obtained through a combination of sources. As per the MDS Guidelines, we attempted to gather information directly from the landowner/tenant. Where landowners could not be contacted or were not available, self-addressed envelopes were left in mailboxes of potential *livestock operations*. In cases where we were not able to collect information directly from the landowner, we used visual observations of the *livestock facility* and determined the most likely type of *livestock* housed and the type of *manure storage* system used. These observations were supplemented with aerial photography and web mapping tools such as Google Earth. Barn capacity and lot size were determined using these on-line mapping tools.

### **3.3 Evaluation of the Agricultural System**

An *Agricultural System* includes a continuous and productive land base, comprised of *prime agricultural areas*, including *specialty crop areas*, and *rural lands*, as well as a complementary *agri-food network* that together enable the agri-food sector to thrive. The evaluation of the *Agricultural System* within the Study Area included the information collected during the reconnaissance level land use survey and was supplemented by the review of aerial photographic imagery and data available on the Agricultural Systems Portal.

### **3.4 Evaluation of Agricultural Capability**

OMAFRA’s *Guidelines on Permitted Uses in Ontario’s Prime Agricultural Areas* document states that “If an agriculture-related or on-farm diversified use is to be located in a *prime agricultural area*, a best practice is to place the use on lower-capability agricultural lands.” Agricultural capability is primarily determined through the Canada Land Inventory (CLI) classification of the soils. The CLI system “evaluates three general qualities of mineral soils:

1. Their productivity relative to all mineral soils in Ontario and Canada;
2. Their flexibility, or the range of common field crops they are capable of producing; and
3. Their management needs with respect to necessary improvements and conservation practices for field crop production.”

*Prime agricultural lands* include *specialty crop areas*, and CLI Class 1, 2 & 3 lands. The AIA will assess the agricultural capability of the Subject Lands and evaluate the impact on of locating the proposed *development* on the Subject Lands.

### 3.5 Evaluation of Alternative Locations

Where *prime agricultural lands* cannot be avoided, policy directs *non-agricultural development* to lower priority agricultural lands. Provincial policy (Policy 2.3.6.1) requires proposed *non-agricultural development* within an agricultural area to consider alternative locations that avoid *prime agricultural areas*. For *non-agricultural development*, an AIA must demonstrate that there are no reasonable alternative locations which avoid *prime agricultural areas* and there are no reasonable alternative locations in *prime agricultural areas* with lower priority agricultural lands. However, *non-agricultural uses* in this context do not include agricultural, agriculture-related and *on-farm diversified uses*. Therefore, as per policy, we have not included an assessment of alternative locations.

### 3.6 Identification of Potential Impacts and Mitigation Measures

Potential impacts of the proposed *development* were identified following an assessment of the agricultural resources and agricultural operations on and adjacent to the Subject Lands. The direct impacts evaluated include an assessment the loss of *prime agricultural land*, agricultural infrastructure, land improvements, and cropland. Indirect impacts that may result from the proposed *development* were also evaluated and include an assessment of impacts related to changes to surficial drainage and hydrogeological conditions, disruption to farm operations, non-farm traffic, restricted farm access, MDS conflicts, trespass, and vandalism. Mitigation measures that avoid or minimize potential impacts on the *Agricultural System* were then developed.

### 3.7 Assessment of Conformity with Agricultural Policies

All planning decisions must be consistent with the PPS and comply with applicable provincial land use plans. Municipalities also have their own agricultural policies that the proposed *development* must observe. A background review of all applicable provincial, regional, and local policies related to agriculture was undertaken. Policies applicable to the proposed *development* were identified and assessed for conformance as part of this AIA.

### 3.8 Consultations

Colville Consulting Inc. reviewed the Township of Wainfleet's Agricultural Impact Assessment Terms of Reference and the proposed development's Record of Pre-Consultation, which was held on February 9, 2023. During the land use survey conducted on May 31, 2023, farmers within the Study Area were interviewed to obtain information about their agricultural operations. Municipal planners and local agricultural groups were not consulted prior to the preparation of this AIA. Should consultations be necessary to address any concerns related to the AIA conclusions, they will be addressed through an addendum to this AIA.

## **4. AGRICULTURAL POLICIES**

### **4.1 Provincial Policy Statement**

Land Use Policy and *development* in Ontario is directed by the *Provincial Policy Statement*. The PPS was issued under the authority of Section 3 of the Planning Act and the latest version came into effect on May 1, 2020. Section 3 of the Planning Act states that decisions affecting planning matters “shall be consistent with” policy statements issued under the Act.

#### **4.1.1 Prime Agricultural Areas**

Section 2.3 of the PPS specifically deals with agricultural policy. Section 2.3.1 states that “Prime agricultural areas shall be protected for long-term use for agriculture”. The PPS defines *prime agricultural areas* as areas where *prime agricultural lands* predominate. *Prime agricultural lands* include *specialty crop areas* and Canada Land Inventory (CLI) Classes 1, 2 and 3 soils, in this order of priority for protection.

#### **4.1.2 Permitted Uses in Prime Agricultural Areas**

Section 2.3.3 of the PPS outlines permitted uses within *prime agricultural areas*. Section 2.3.3.1 states:

*In prime agricultural areas, permitted uses and activities are: agricultural uses, agriculture-related uses and on-farm diversified uses.*

*Proposed agriculture-related uses and on-farm diversified uses shall be compatible with, and shall not hinder, surrounding agricultural operations. Criteria for these uses may be based on guidelines developed by the Province or municipal approaches, as set out in municipal planning documents, which achieve the same objectives.*

Section 2.3.3.3 outlines the application of the *minimum distance separation formulae* for *development* within *prime agricultural areas* and states:

*New land uses in prime agricultural areas, including the creation of lots and new or expanding livestock facilities, shall comply with the minimum distance separation formulae.*

The proposed *development* includes both agriculture-related and *on-farm diversified uses*. As such, the proposed *development* is permitted within a prime agricultural area if it can be shown that the *development* is compatible with surrounding agricultural operations and can meet calculated MDS setbacks. This AIA will assess the proposed development’s consistency with Section 2.3. of the PPS.

## **4.2 Growth Plan for the Greater Golden Horseshoe**

### **4.2.1 Agricultural System**

In May 2019, the updated Growth Plan came into effect and was most recently updated in August 2020. The objective of the plan is to provide a long-term plan that works to manage growth, build complete communities, curb urban sprawl, and protect the natural environment.

The province has identified an *Agricultural System* for the GGH which is discussed in Section 4.2.6 of the Growth Plan. Section 4.2.6.3 states:

*Where agricultural uses and non-agricultural uses interface outside of settlement areas, land use compatibility will be achieved by avoiding or where avoidance is not possible, minimizing and mitigating adverse impacts on the Agricultural System. Where mitigation is required, measures should be incorporated as part of the non-agricultural uses, as appropriate, within the area being developed. Where appropriate, this should be based on an agricultural impact assessment.*

A definition of an Agricultural Impact Assessment (AIA) is provided in the GPGGH.

*A study that evaluates the potential impacts of non-agricultural development on agricultural operations and the Agricultural System and recommends ways to avoid or, if avoidance is not possible, minimize and mitigate adverse impacts. (Greenbelt Plan)*

The *Agricultural System* includes a continuous and productive land base, comprised of *prime agricultural areas*, including *specialty crop areas*, and *rural lands*, as well as a complementary *agri-food network* that together enable the agri-food sector to thrive. The *agri-food network* includes many agricultural related features such as regional infrastructure and transportation networks, on-farm buildings and infrastructure, agricultural services, farm markets, distributors and primary processing, as well as small towns and hamlets that are supportive of agriculture and are important to the viability of the agri-food sector. To ensure the long-term viability of a healthy *Agricultural System*, land use planners must ensure that there are opportunities within the agricultural land base for key infrastructure, services and assets which support the agricultural industry. This includes *agri-food network* includes features such as cold storage facilities, abattoirs, food processors, grain dryers, distribution centres, and food hubs/co-ops.

The document *Implementation Procedures for the Agricultural System for the Greater Golden Horseshoe* (Publication 856, March 2020) was prepared by OMAFRA to assist municipalities in identifying *prime agricultural areas* and implement policies for the *Agricultural System*. OMAFRA's Agricultural System Portal shows that the Subject Lands are part of the GGH's Agricultural Land Base.

#### **4.2.2 Permitted Uses**

Section 2.2.9 of the Growth Plan deals with policies involving *rural areas*.

Section 2.2.9.3 states that "Subject to the policies in Section 4, *development* outside of *settlement areas* may be permitted on *rural lands* for:

- a) the management or use of resources;
- b) resource-based recreational uses; and
- c) other rural land uses that are not appropriate in settlement areas provided they:
  - i. are compatible with the rural landscape and surrounding local land uses;
  - ii. will be sustained by rural service levels; and
  - iii. will not adversely affect the protection of *agricultural uses* and other resource-based uses such as mineral aggregate operations."

This AIA will fulfill the requirements set forth in Section 4.2.6 and will address the policy in Section 2.2.9 of the Growth Plan.



### 4.3 Niagara Official Plan

The Regional Municipality of Niagara's planning policy is issued through the Niagara Official Plan (2022). Section 4.1 of the Niagara Official Plan defines the *Agricultural System* as "a structure for the agricultural land base and the *agri-food network* that enables the agri-food sector to thrive." The agricultural land base is comprised of *prime agricultural areas*, including *specialty crop areas*, and *rural lands*. The Niagara Official Plan designates the Subject Lands as "Prime Agricultural Area" within the *Agricultural System*.

Section 4.1.2.3 of the Niagara Official Plan states that, "In *specialty crop areas* and *prime agricultural areas*, all types, sizes and intensities of *agricultural uses* and *normal farm practices* shall be promoted and protected and a full range of *agricultural uses*, *agriculture-related uses* and *on-farm diversified uses* are permitted."

As stated previously, the proposed *development* is for *agriculture-related* and *on-farm diversified uses*.

Section 4.1.3.6 of the Niagara Official Plan states, "New land uses in *specialty crop areas* and *prime agricultural areas*, including the creation of lots, and new or expanding *livestock facilities*, shall comply with the *minimum distance separation formulae*."

Further, Section 4.1.3.7 states that "Where *agricultural uses* and *non-agricultural uses* interface, land use compatibility shall be achieved by avoiding or, where avoidance is not possible, minimizing and mitigating adverse impacts on the *Agricultural System*, by incorporating measures as part of new or expanding *non-agricultural uses*, as appropriate, within the area being developed."

This AIA will address the applicable policies of Section 4.1 of the Niagara Official Plan through the calculation of MDS setbacks and by providing mitigation measures for the identified potential impacts to the *Agricultural System*.

### 4.4 Township of Wainfleet Official Plan

The Subject Lands are part of the "Agricultural Area" designation as shown in Schedule B of the Township of Wainfleet Official Plan (2016). Section 3.1 of the Official Plan outlines land use policies for lands designated as Rural and Agricultural Areas. Section 3.1.1.1 states that "New land uses on existing lots, the creation of lots and new or expanding *livestock facilities* shall comply with the *minimum distance separation formulae*."

Section 3.1.3 of the Official Plan outlines policy for lands designated as Agricultural Area. Section 3.1.3.1 states that "The following uses may be permitted within the Agricultural Area designation, delineated on Schedule B:

- a) Agricultural uses;
- b) Accessory value retention agriculture uses including equipment maintenance and activities required to produce market ready communities including washing, sorting, drying, packing, packaging of agricultural products;
- c) One single detached dwelling or secondary suite;
- d) Group Homes in existing dwellings or in a new residential dwelling on existing lots of record;

- e) Secondary uses including:
  - i) Home occupation;
  - ii) Home industry;
  - iii) Bed and breakfasts;
  - iv) Help-house;
  - v) Garden suites;
  - vi) Agri-tourism uses related to agriculture;
  - vii) Value added marketing uses;
- f) Conservation uses, but not camping uses;
- g) Public trail systems;
- h) Agri-tourism uses unrelated to agriculture, subject to Policy 3.1.3.7;
- i) Value added production uses, subject to Policy 3.1.3.7;
- j) Value added support uses, subject to Policy 3.1.3.7;
- k) Linear infrastructure; and
- l) Wells for natural gas extraction subject to Section 3.8"

Although considered to be an On-farm Diversified Use, the Township of Wainfleet considers the proposed wedding venue an "agri-tourism use unrelated to agriculture". Section 3.1.1.5 of the Official Plan states that "Agri-tourism uses unrelated to agriculture but which benefit from a farm location shall be subject to a Zoning By-law amendment".

Further, Section 3.1.3.7 states that "3.1.3.7 Agri-tourism uses unrelated to agriculture, value added production uses and value added support uses shall only be permitted in the Agricultural Area designation, through a rezoning, when it is clearly demonstrated that:

- a) The use is small scale, and directly related to, and in close proximity to the agricultural operation it is servicing;
- b) The use cannot reasonably function in a nearby Hamlet; or there are no suitable locations within a nearby Hamlet; or the use cannot be reasonably located in a nearby designated commercial or industrial area;
- c) The proposed water supply and sewage disposal systems are feasible;
- d) The use is compatible with and supportive of the agricultural community;
- e) The use is compatible with and does not hinder surrounding agriculture operations;
- f) The use is in compliance with the minimum distance separation formulae; and
- g) The use is located on a major road."

The Township of Wainfleet considers the proposed cut flower business an "agriculture-related use/value added marketing use". Section 3.1.1.7 of the Official Plan states in part that "Value added marketing uses are intended to primarily serve the agricultural operation and surrounding local farming operations, and

shall remain secondary to the principal farming operations, both in relation to the scale of the operation and its footprint. Value added marketing uses shall be subject to the following guidelines:

- a) Roadside stands and “pick your own” facilities should be seasonal in nature with the majority of retail floor space devoted to the sale of domestic produce and related value added products. The maximum permitted floor area shall be set out by the Zoning By-law;”

This AIA will address the policies of Section 3.1 in the Township of Wainfleet Official Plan.

## 5. STUDY FINDINGS

### 5.1 Physiography

The Subject Lands are located within the Haldimand Clay Plain Physiographic Region (Chapman and Putnam, 1984). This physiographic region lies between the Niagara Escarpment and Lake Erie, occupying the entirety of the Niagara Peninsula south of the escarpment. In the Haldimand Clay Plain, the underlying bedrock consists of a succession of Paleozoic beds dipping slightly southward under Lake Erie. The vertical cliffs along the brow of the Niagara Escarpment are formed of dolostone of the Lockport Formation. Overlying these hard dolostones to the southwest is a series of softer bedrock, which includes shale members. Small areas of bare rock appear along the crest of the Niagara Escarpment; otherwise, the change in bedrock makes little difference in the clay plain.

Closer to the Subject Lands, the Haldimand Clay Plain is characterized by relatively level topography and poor drainage. Surface drainage features generally flow northwards and eastward. Large, undrained areas remain and cover several square kilometers in which the Wainfleet and Humber-stone peat bogs have formed.

The soils of the Haldimand Clay Plain are typically heavy textured and have poor drainage. With drainage improvements these soils are considered to be CLI Class 3. Where these heavy textured soils are artificially drained, they are generally more productive.

### 5.2 Climate

Climate data is available through Environment Canada's National Climate Data and Information Archive's online database. Climate Normals and Extremes for Ridgeville Station (1981-2010) were obtained from the online database (Appendix C).

Environment Canada's Ridgeville Station is located approximately 17.3 km from the Subject Lands. Records show that this area receives an average of 946.2 mm of precipitation annually: 828.7 mm of rainfall and 115.3 cm of snowfall. The daily average temperature ranges from a high of 21.7°C to a low of -4.4°C.

The Ministry of Agriculture and Food Factsheets provide data on crop production and growing seasons across Ontario. The rate of development of crops from planting to maturity is mainly dependent upon temperature. Areas within the Niagara Region begin to experience average temperatures greater than 10°C starting May 3<sup>rd</sup> before reaching temperatures greater than 12.8°C for 3 consecutive days around May 17<sup>th</sup>. During this time and up until the season's average ending date, October 10<sup>th</sup>, the area accumulates an average of 3190 crop heat units (CHU).

On average, the last spring frost in the Niagara area occurs on April 25<sup>th</sup>. The first fall frost is expected on October 20<sup>th</sup>. This provides the surrounding area with a frost-free period of approximately 170-190 days. The climate in the Niagara area provides a good overall growing period that can support a wide range of crops, including specialty crops. However, the Subject Lands are not located in an area that benefits from the microclimatic conditions that are present along and to the north of the Niagara Escarpment. As such they are not considered to be located within a *specialty crop area*.

### 5.3 Agricultural Crop Statistics

Agricultural crop statistics are available from OMAFRA and Statistics Canada's Agriculture and Food Statistics Census of Agriculture. The Subject Lands are located within the Census South Ontario Region, Niagara Region. Agricultural crop statistics were obtained from the online database and are included in Appendix D. This data provides a general overview of agriculture and agri-food operations in the area but is unlikely to be inclusive of all operations present at the time of this report.

The County and Township Agricultural Profile for Niagara includes data from 2011, 2016, and 2021 census periods. The total number of farms in the Township of Wainfleet decreased from 167 in 2016 to 148 in 2021. Total cropland also decreased from 35,080 acres in 2016 to 31,886 acres in 2021.

Field crops grown in the Township of Wainfleet include winter wheat, oats for grain, mixed grains, corn for grain, corn for silage, hay, and soybeans. Field crop production between 2016-2021 increased for winter wheat, oats for grain, mixed grains, and corn for silage, whereas corn for grain, hay, and soybean production all decreased.

Fruit crops grown in Wainfleet include apples, grapes, and raspberries. Fruit crop acreage decreased from 110 acres in 2016 to 33 acres in 2021. Vegetable crops grown in Wainfleet include sweet corn, tomatoes, and green or wax beans. Vegetable crop acreage decreased from 75 acres in 2016 to 64 acres in 2021. Census data from 2021 shows that only 0.14% of fruit crop acreage and 10.1% of vegetable crop acreage in the Niagara Region is located within the Township of Wainfleet.

### 5.4 Specialty Crop Areas

The PPS defines a *specialty crop area* as: "areas designated using guidelines developed by the Province, as amended from time to time. In these areas, specialty crops are predominantly grown such as *tender fruits* (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops, and crops from agriculturally developed organic soil, usually resulting from:

- a) soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;
- b) farmers skilled in the production of specialty crops; and
- c) a long-term investment of capital in areas such as crops, drainage, infrastructure and related facilities and services to produce, store, or process specialty crops."

There are two *specialty crop areas* recognized by the Province: the Niagara Fruit Belt and the Holland Marsh. The Subject Lands are not located within either of these *specialty crop areas*. Although the soils and climate do allow for the production of some specialty crops, this area is not part of a *specialty crop area* and specialty crops are not predominantly grown in this area.

### 5.5 Regional Soils

#### 5.5.1 Soil Series

The *Soils of the Regional Municipality of Niagara – Report No. 60 of the Ontario Institute of Pedology* (Kingsman, M.S., and Presant, E.W., 1989) includes a soil map that shows the distribution of the various

soil series mapped in the Region. The digital Provincial Soil Resource database is compiled and administered by OMAFRA and includes most of the soil surveys completed in Ontario. Much of this information is accessible from the Province's Agricultural Information Atlas.

The *Soils of the Regional Municipality of Niagara* mapping shows that the soils within the Subject Lands are comprised of Toledo – Loamy Phase (27.39%), Tavistock (11.74%), Wauseon (39.88%), and Walsingham (21.00%) soils. Regional scale soil mapping is shown in Figure 2. Descriptions of each soil series found on the Subject Lands can be found in Appendix E.

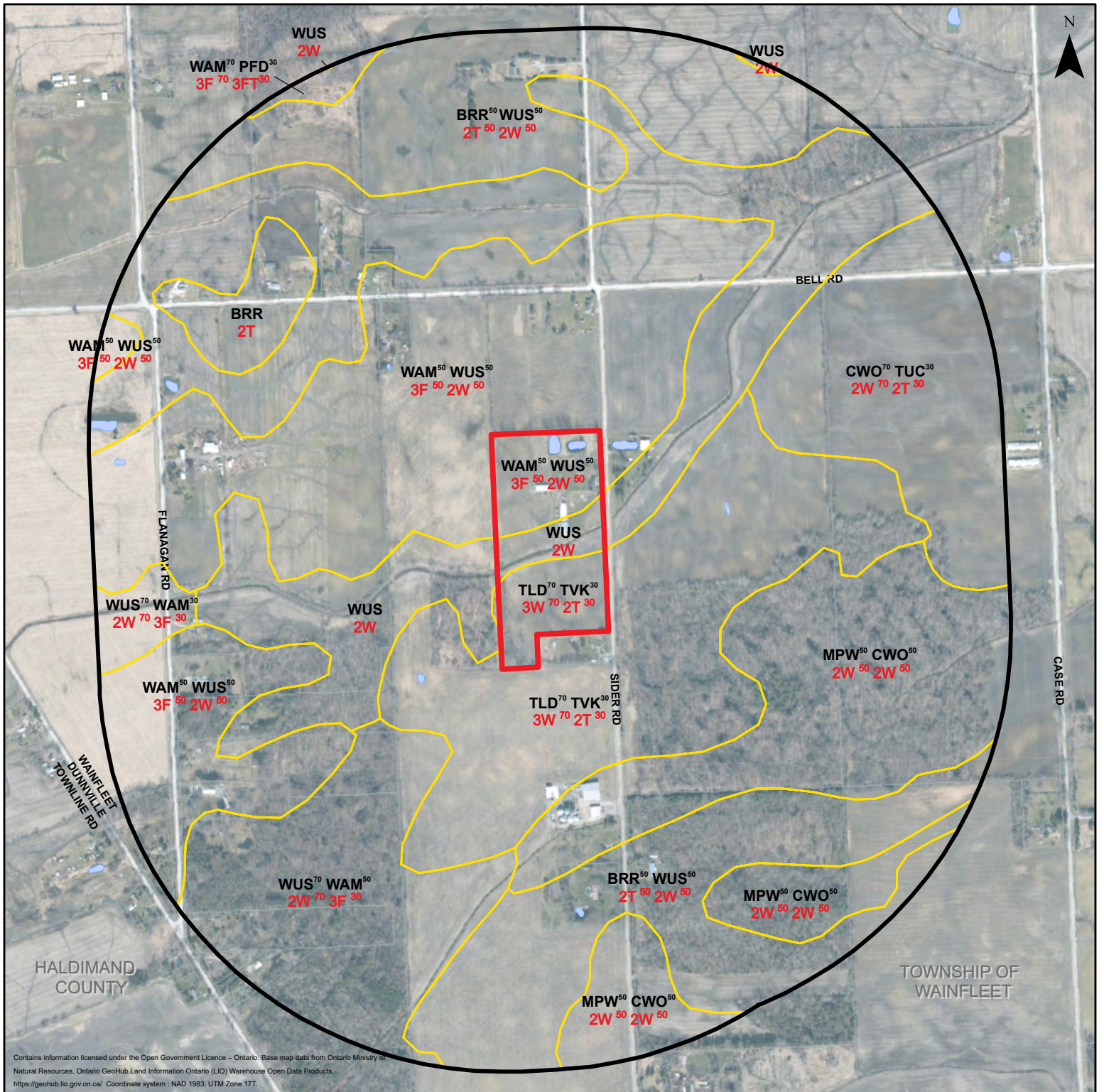
### 5.5.2 CLI Agricultural Land Classification

The Canada Land Inventory (CLI) is an interpretative system for assessing the effects of climate and soil characteristics on the limitations of land for growing common field crops. The CLI system has seven soil classes that descend in quality from Class 1, which has no significant limitations, to Class 7 soils which have no agricultural capability for common field crops. Class 2 through 7 soils have one or more significant limitations, and each of these are denoted by a capability subclass. There are thirteen subclasses described in CLI Report No. 2 (1971). Eleven of these subclasses have been adapted to Ontario soils. More information regarding the CLI Classification system is provided in Appendix F.

Figure 2 shows that the Subject Lands are comprised of CLI Class 2 (51.62%) soils and CLI Class 3 (48.38%) soils. The composition of soils mapped within the Subject Lands and their associated CLI Class are summarized in Table 1 below.

Soil Series	CLI Class	Area (Ha)	% of Subject Lands
Wauseon	<b>2W</b>	3.17	39.88
Tavistock	<b>2T</b>	0.93	11.74
Toledo – Loamy Phase	<b>3W</b>	2.18	27.39
Walsingham	<b>3F</b>	1.67	21.00
<b>Totals</b>		<b>7.95</b>	<b>100.00%</b>

CLI Class 2T and 2W soils have moderate limitations for common field crop production due to adverse topography and excess water, respectively. CLI Class 3F and 3W soils have moderately severe limitations for common field crop production due to low natural fertility and excess water, respectively.



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**Legend**

- Primary Study Area
- Secondary Study Area
- Regional Soils (OMAFRA)

**Soil Series Name** → **BRR<sup>50</sup> CWO<sup>50</sup>** → **Percentage of Area**

**CLI Class** → **2F<sup>50</sup> 3W<sup>50</sup>** → **CLI Subclass**

**CLI AGRICULTURAL CAPABILITY CLASSES**

**Class 2** - Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices.

**Class 3** - Moderately severe limitations that reduce the choice of crops, or require special conservation practices.

**SOIL SERIES**

<b>BRR</b> - Berrien	<b>CWO</b> - Colwood
<b>MPW</b> - Maplewood	<b>PFD</b> - Plainfield (Dune Phase)
<b>TLD</b> - Toldeo (Loamy Phase)	<b>TUC</b> - Tuscola
<b>TVK</b> - Takistock	<b>WAM</b> - Walsingham
<b>WUS</b> - Wauseon	

**CLI AGRICULTURAL CAPABILITY SUBCLASSES**

<b>F</b> Fertility – low natural fertility
<b>W</b> Excess Water – presence of excess soil moisture
<b>T</b> Topography – subclass where topography is a limitation

**Figure 2**  
**Regional Soils and CLI**

Agricultural Impact Assessment  
33684 Sider Road, Township of Wainfleet

Prepared for: **Sweet Creek Family Farm**

Prepared by: **COLVILLE CONSULTING INC.**

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## 5.6 Land Use

A reconnaissance level land use survey was completed on May 31, 2023. The land use survey identified the number and type of agricultural operations (both active and inactive), agricultural-related uses, *on-farm diversified uses*, and *non-agricultural uses* within the Study Area. The crop types observed within the Study Area were recorded and mapped.

The purpose of the land use survey is to document the mix of agricultural and *non-agricultural uses* within the Study Area; identify agricultural operations that may be sensitive to the introduction of new land uses; and identify *livestock facilities* to calculate the MDS setback requirements. Figure 3 shows the land uses and crop types observed. Photographs from the land use survey can be found in Appendix G. All observed land uses are numbered, and short descriptions of these operations are included in the land use survey notes in Appendix H.

Ten *agricultural uses* were identified during the land use survey. The *agricultural uses* include four *hobby farms*, one equestrian operation, three *remnant farms*, and two *empty livestock operations*. *Remnant farms* have no infrastructure that is suitable for housing *livestock*, whereas the infrastructure for an *empty livestock facility* is still in a condition that could permit the keeping of *livestock* with minimal investment.

One *agriculture-related use* was identified within the Study Area, which was a grain elevator. No *on-farm diversified uses* were identified during the land use survey or desktop review.

In addition to the approximately 18 *non-farm residences* observed, two *non-agricultural uses* were identified within the Study Area. Both *non-agricultural uses* identified are commercial uses.

### 5.6.1 Agricultural Uses

The PPS definition of *agricultural uses*: “means the growing of crops, including nursery, biomass and horticultural crops; raising of *livestock*; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including, but not limited to *livestock facilities*, *manure storages*, value-retaining facilities and accommodation for full-time farm labour when the size and nature of the operation requires additional employment.”

Farm types were noted and identified as either active or inactive operations (e.g., *empty livestock operations*), *cash crop* operations, or *hobby farms*. Inactive operations were evaluated to determine whether they should be considered an *empty livestock operation* or a *remnant farm*.

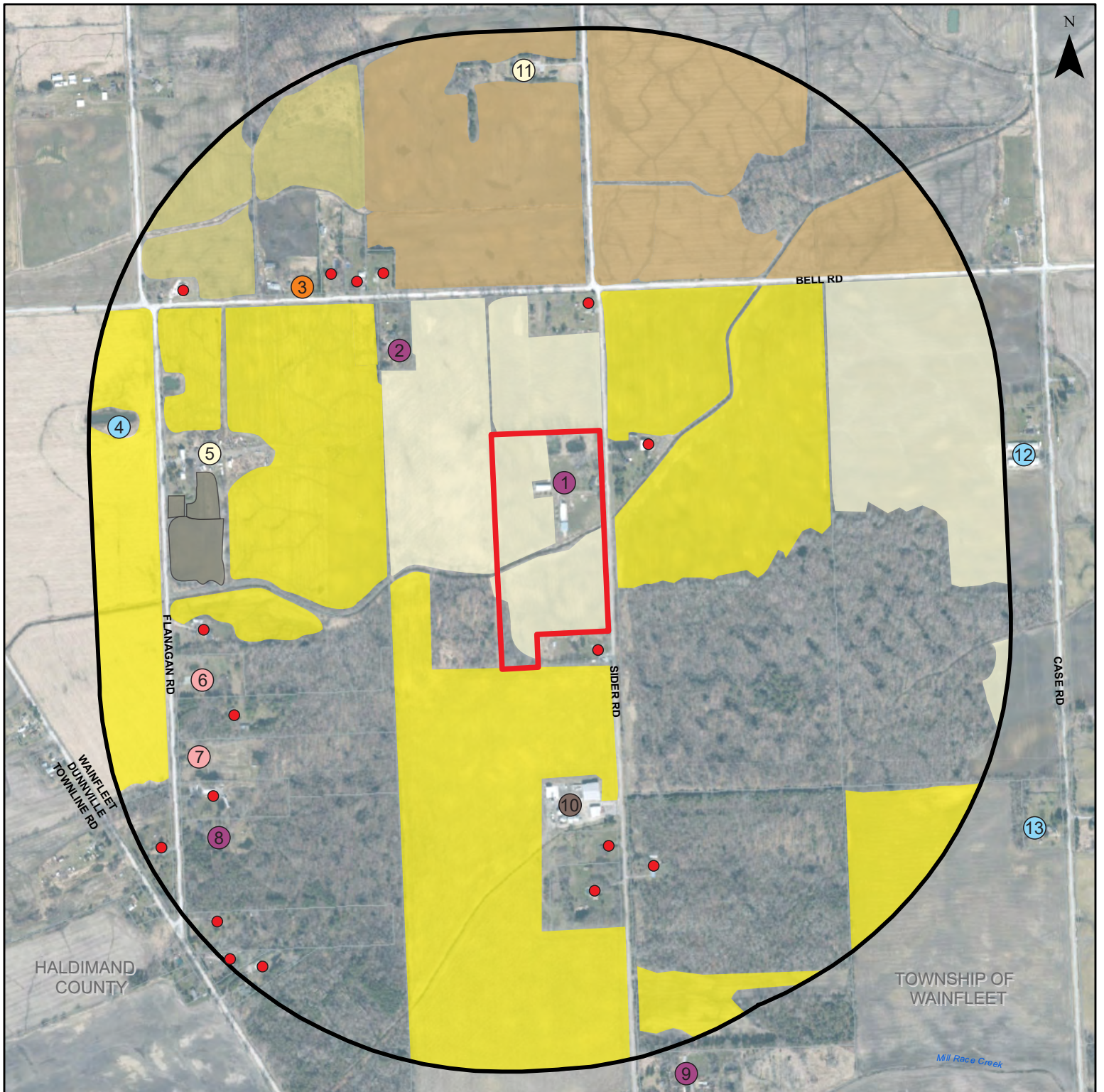
#### Subject Lands

Within the Subject Lands, one *agricultural use* was identified. The *agricultural use* observed includes a *hobby farm* (#1), which produces and processes annual flowers and fall decorative plants. This operation also houses chickens, goats, and guineafowls. Eggs produced by the chickens are used for personal consumptions, and the chickens and goats assist in the production of compost.

#### Study Area

Within the Study Area, nine *agricultural uses* were identified. These include three *hobby farms* (#2, #8 & #9), one equestrian operation (#3), two *empty livestock operations* (#5 & #11), and three *remnant farms* (#4, #12, & #13).





**Legend**

- Primary Study Area
- Secondary Study Area

**Agricultural Uses**

- Hobby Farm
- Equestrian Operation
- Empty Livestock Operation
- Remnant Farm

**Agriculture-Related Uses**

- Grain Elevator
- Non-Agricultural Uses**
- Commercial
- Non-Farm Residence

**MDS I Setbacks**

- Livestock Facility
- Manure Storage

### Figure 3 Land Use Mapping

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33684 Sider Road, Township of Wainfleet

Prepared for: **Sweet Creek Family Farm**

Prepared by: **COLVILLE CONSULTING INC.**

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### 5.6.2 Agriculture-Related Uses

*Agriculture-related uses* are farm-related commercial and industrial uses. As defined in the PPS, these are uses “that are directly related to farm operations in the area, support agriculture, benefit from being in close proximity to farm operations, and provide direct products and/or services to farm operations as a primary activity”. These uses may include uses such as:

- ♦ retailing of agriculture-related products (e.g., farm supply co-ops, farmers’ markets, and retailers of value-added products like wine or cider made from produce grown in the area);
- ♦ livestock assembly yards;
- ♦ farm equipment repair shops;
- ♦ industrial operations that process farm commodities from the area such as abattoirs, feed mills, grain dryers, cold/dry storage facilities and fertilizer storage facilities, which service agricultural area;
- ♦ distribution facilities;
- ♦ food and beverage processors (e.g., wineries and cheese factories); and
- ♦ agricultural biomass pelletizers.

One *agriculture-related use* was identified within the Study Area, with none located within the Subject Lands. The identified *agriculture-related use* is a grain elevator (#10).

### 5.6.3 On-Farm Diversified Uses

The PPS defines *on-farm diversified uses* as “uses that are secondary to the principal *agricultural use* of the property and are limited in area. *On-farm diversified uses* include, but are not limited to, home occupations, home industries, agri-tourism uses, and uses that produce value-added agricultural products.”

No *on-farm diversified uses* were identified within the Study Area.

### 5.6.4 Non-Agricultural Uses

*Non-agricultural land uses* include *non-farm residences*, residential clusters, hamlets and *settlement areas*, municipal utilities, commercial and industrial operations, recreational uses, and institutional uses.

Approximately 18 *non-farm residences* were observed within the Study Area. In addition to the *non-farm residences* observed, two *non-agricultural uses* were identified within the Study Area. Both identified *non-agricultural uses* are commercial uses (#6 & #7).

### 5.6.5 Land Use Summary

Table 2 below summarizes the types of land uses observed within the Study Area.

Table 2: Summary of Observed Land Uses			
	Total Number	Active	Retired or Remnant
Agricultural	10	3 – Hobby Farm 1 – Equestrian Operation 1 – Equestrian Operation / Hobby Farm 1 – Cash Crop / Retired Livestock Operation	1 – Remnant Farm 2 – Retired Livestock Operation 1 – Retired Hobby Farm
Agriculture-Related	1	1 – Grain Elevator	0
On-farm Diversified	0	0	0
	Total Number	Type	
Non-Agricultural	20	2 – Commercial 18 – Non-Farm Residence	

### 5.6.6 Cropping Pattern

The land use survey conducted on May 31, 2023, identified crops based on observations of crop stubble and/or other identifying features. As shown in Figure 3, the crops grown within the Study Area are predominantly a mix of common field crops such as soybeans, spring wheat, and cover crops. *Cultivated* lands were mapped where land is being used for agricultural crops, but specific crops being grown could not be observed or were unrecognizable. There are also large, *wooded* areas and some small areas of *idle agricultural land* observed.

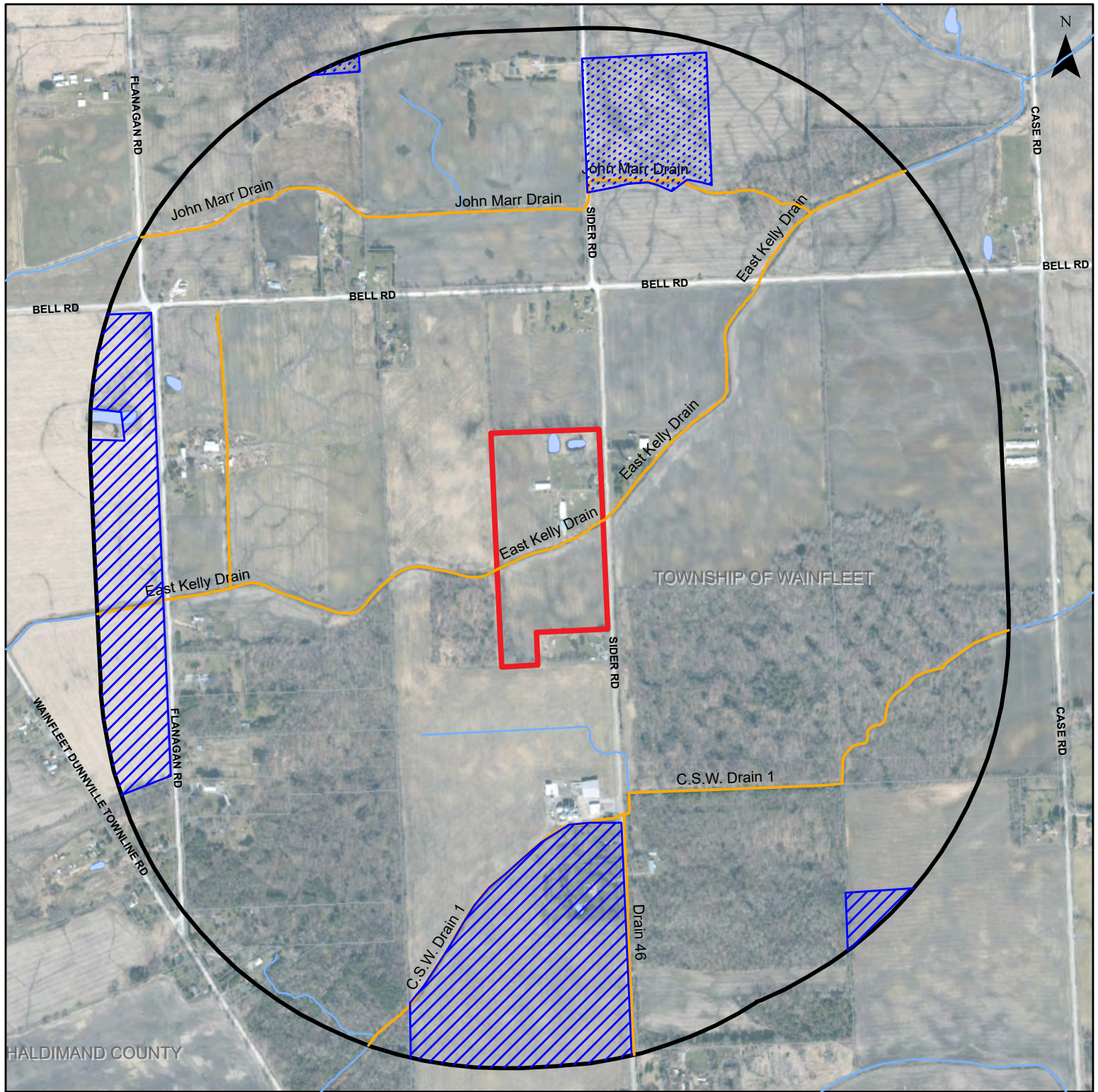
## 5.7 Land Improvements

OMAFRA's Agricultural Information Atlas (AgMaps) provides artificial drainage mapping for the province. This online tool was accessed to obtain drainage mapping for the Study Area. Figure 4 below shows the locations of drainage improvements within the Study Area.

### 5.7.1 Drainage Improvements in Subject Lands

According to AgMaps, the East Kelly Drain traverses the Subject Lands. The East Kelly Drain is a constructed drain and runs in a northeastern direction through the central portion of the Subject Lands. The East Kelly Drain connects to the Crow Road Drain, located southeast of the Study Area, and continues to flow northeast until it connects to the Big Forks Drain, beyond the limits of the Study Area.

No portion of the Subject Lands have been systematically or randomly tile drained, according to AgMaps information.



- Legend**
- Primary Study Area
  - Secondary Study Area
  - Constructed Drain
  - Tile Drainage - Random
  - Tile Drainage - Systematic
  - Waterbody (MNRF)
  - Watercourse (MNRF)

**Figure 4  
Drainage Mapping**

Agricultural Impact Assessment  
33684 Sider Road, Township of Wainfleet

Prepared for: **Sweet Creek Family Farm**

Prepared by: **COLVILLE CONSULTING INC.**

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### 5.7.2 Drainage Improvements in Study Area

Small amounts of both random and systematic tile drainage are located within other portions of the Study Area. Systematic tile drainage is located west and south of the Subject Lands, whereas the random tile drainage is located northeast and northwest of the Subject Lands. The systematic tile drainage to the west of the Subject Lands was installed in 1998. Installation dates of the remaining tile drainage was unavailable through the AgMaps Portal.

In addition to the tile drainage, there are four constructed drains located within the Study Area. As mentioned above, the East Kelly Drain traverses the central portion of Study Area in a northeastern direction. The John Marr Drain is located in the northern portion of the Study Area, flowing eastward from the northwestern portion of the Study Area before connecting to the East Kelly Drain. The C.S.W. Drain 1 traverses the Study Area from the southwestern portion to the eastern portion of the Study Area and discharges into a wetland beyond the Study Area boundaries. Drain 46 is located in the southern portion of the Study Area, running parallel to Sider Road, and flowing northward before connecting to the C.S.W. Drain 1.

### 5.7.3 Other Land Improvements

The AgMaps Portal and land use survey did not identify any other investments in land improvement within the Study Area.

## 5.8 Fragmentation of Agricultural Lands

Fragmentation of agricultural lands can have a negative impact on the viability of agricultural lands and its long-term preservation for agricultural purposes. Fragmentation of farmlands can diminish the economic viability of the agricultural area by reducing farming efficiency and increasing operating costs for farmers who must manage multiple small, separated parcels. Larger farm parcels can accommodate a wider range of agricultural activities and ensure long term viability of the property. In contrast, smaller farm parcels cannot offer the same flexibility and may not be viable as standalone parcels. Generally, smaller farm parcels cannot sustain a family farm without a secondary source of income (off farm) to maintain the agricultural operation.

Additionally, agricultural areas which have been fragmented often have a higher occurrence of *non-agricultural land uses*, which in turn can result in more frequent occurrences of conflict arising between agricultural and *non-agricultural land uses*. Agricultural areas with lower levels of fragmentation are considered to be more viable economically for *agricultural uses* and generally have fewer sources of *non-agricultural land use* conflicts. In most cases, these areas have a higher priority for protection. High levels of fragmentation in an agricultural area lower the areas agricultural priority.

The PPS planning policies recognize the impact of fragmentation on agricultural lands and try to minimize the fragmentation of agricultural lands for *non-agricultural uses*. For example, the PPS policies do not permit lot creation in *prime agricultural areas* for residential purposes. New permitted *development* in *prime agricultural areas* should avoid further fragmentation of the agricultural land base whenever possible.

Based on our review of the lot fabric in the Study Area using AgMaps and direct observation, there is a mix of parcel sizes ranging from single residential (< 1 ha) to large agricultural parcels (>50 ha). It should be noted that a number of parcels within the Study Area are not suitably sized for a variety of *agricultural uses*. While some fragmentation is evident within the Study Area, it is not considered to be a highly fragmented area, as there are also a considerable number of parcels that are suitably sized for a variety of *agricultural uses*. The level of fragmentation in the Study Area is shown in Figure 5 below.

The proposed *development* will not require the creation of a new lot. The proposed accessory *dwelling* will be located on the existing lot. The proposed *development* will not result in the fragmentation of the agricultural land base.

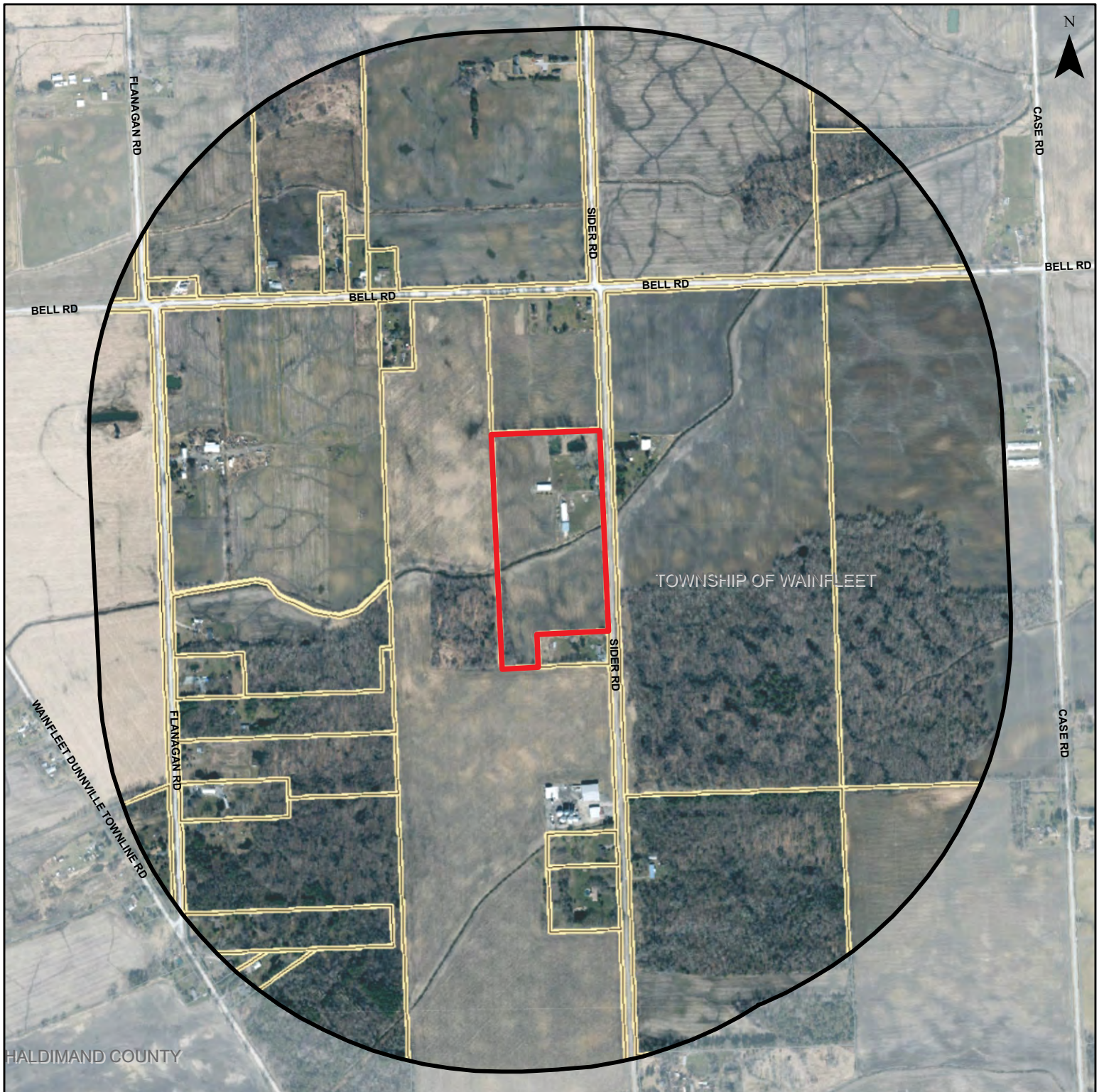
## 5.9 Minimum Distance Separation

Typically, the *Minimum Distance Separation (MDS) formulae* are not required for *on-farm diversified uses* and *agriculture-related uses* unless specifically required within a municipal comprehensive zoning by-law. However, the Township of Wainfleet considers the wedding venue to be an “agri-tourism use unrelated to agriculture” and requires a zoning by-law amendment to permit such *development*. Guideline #10 in the *Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks – Publication 853 (OMAFRA)* states that “An MDS I setback is required for all proposed amendments to rezone or redesignate land to permit *development* in *prime agricultural areas* and *rural lands* presently zoned or designated for *agricultural use*.” Therefore, the *MDS I formula* has been applied for the proposed development.

The *MDS I formula* was applied to six *livestock facilities* in the Study Area. The factors used to determine the MDS I setback requirements for these facilities include: the type of *livestock*; the maximum capacity of the barn for *livestock*; the type of *manure storage* system; and the type of land use (Type A or Type B). The proposed *development* is considered to be both agriculture-related and *on-farm diversified uses*. According to Guideline #35 of OMAFRA’s MDS Document, *agriculture-related uses* and *on-farm diversified uses* are to be considered Type A (less sensitive) land uses.

To obtain the other factors, we relied on the field observations recorded during the land use survey, aerial photographic interpretation, and site-specific information provided by landowners, where possible. When a landowner could not be contacted, self-addressed envelopes and forms were left requesting information that would enable us to calculate the MDS setback requirements at *livestock operations* that had the potential to create MDS constraints for the Subject Lands.

The lot sizes were determined using the AgMaps measuring tool. In most cases, the building capacity was estimated based on the building dimensions, as measured using either the AgMaps or Google Earth® measuring tools.



**Legend**

- Primary Study Area
- Secondary Study Area
- Lot Fabric (OMAFRA)

## Figure 5 Land Fragmentation

Agricultural Impact Assessment  
33684 Sider Road, Township of Wainfleet

Prepared for: **Sweet Creek Family Farm**

Prepared by: **COLVILLE CONSULTING INC.**

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Table 3 summarizes the level of encroachment the proposed *development* has on the *livestock operations* and the achievable level of compliance with the MDS setback requirements. Figure 6 shows the results of the MDS I calculations. The AgriSuite MDS reports for these operations are provided in Appendix I.

<b>Table 3: MDS Setback Requirements for Proposed Use</b>				
Site Number	MDS I Setback Requirement – Livestock Facility	MDS I Setback Requirement – Manure Storage	Nearest Distance to Subject Lands	Complies with MDS I Setback?
2	88 m	88 m	212 m	Yes
3	98 m	98 m	506 m	Yes
5	145 m	N/A	570 m	Yes
8	116 m	116 m	565 m	Yes
9	130 m	130 m	824 m	Yes
11	173 m	N/A	662 m	Yes

The *MDS formula* was not applied to farm operations with barns that did not appear to be structurally sound and capable housing *livestock* (e.g., #4, #12, and #13).

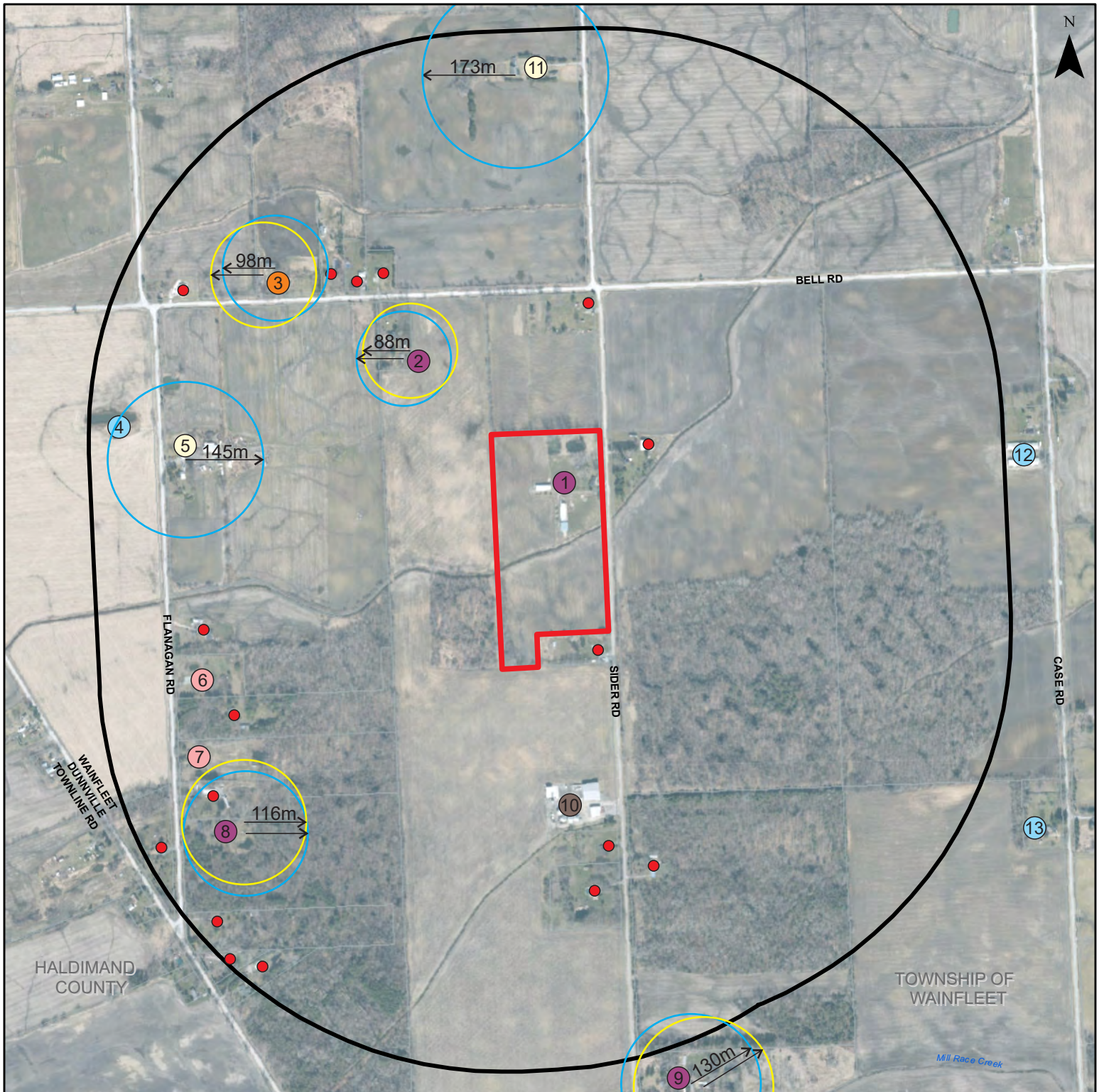
The proposed *development* will comply with the MDS I setback requirements.

## 5.10 Economic and Community Benefits of Agriculture

Identifying the economic and community benefits associated with agriculture in the Study Area is an important consideration and informs the impacts associated with the proposed *development*. The agriculture and agri-food sector is one of the largest primary goods producing sectors and plays a key role in the Township of Wainfleet and Niagara Region's economies. According to Census of Agriculture data, the total number of farms in the Niagara Region decreased from 2,014 in 2011, to 1,827 in 2016, to 1,651 farms in 2021. The Township of Wainfleet observed a similar trend of decreasing farm numbers, with data showing 178 farms in 2011, 167 farms in 2016, and 148 farms in 2021. These farms employ residents from the Niagara Region and the Township of Wainfleet, contributing economically to the area and supporting the *agri-food network*.

As of 2021, the agriculture, forestry, fishing and hunting industry employed approximately 5,105 individuals within the Niagara Region, which is a decrease from the 5,165 individuals employed in 2016. The Township of Wainfleet observed a similar decrease in individuals employed by the agriculture, forestry, fishing and hunting industry, with data showing the industry employed 365 individuals in 2016 and 275 individuals in 2021. Within the Niagara Region, there were approximately 3,750 agri-food businesses in 2021, with 228 of these businesses located within the Township of Wainfleet. While the Niagara Region has experienced a slight decrease in agri-food businesses since 2016, the Township of Wainfleet has seen agri-food business counts increase by 125 businesses from 2016 to 2021.





**Legend**

- Primary Study Area
- Secondary Study Area

**Agricultural Uses**

- Hobby Farm
- Equestrian Operation
- Empty Livestock Operation
- Remnant Farm

**Agriculture-Related Uses**

- Grain Elevator
- Non-Agricultural Uses**
- Commercial
- Non-Farm Residence

**MDS I Setbacks**

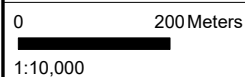
- Livestock Facility
- Manure Storage

**Figure 6**  
**MDS I Setbacks**

Agricultural Impact Assessment  
33684 Sider Road, Township of Wainfleet

Prepared for: **Sweet Creek Family Farm**

Prepared by: **COLVILLE CONSULTING INC.**



DATE:  
July 2024

FILE:  
C23039

As of 2021, of the 148 total farms within the Township of Wainfleet, eight farms were valued under \$200,000, five farms were valued between \$200,000 and \$499,999, 33 farms were valued between \$500,000 and \$999,999, and 102 farms were valued \$1,000,000 and over. Over the past three census periods, the number of farms valued at \$1,000,000 and over has increased substantially, with the number of farms valued under \$1,000,000 decreasing each year.

The proposed *development* will not reduce the number of farms within the Township of Wainfleet, as the agricultural operation on the Subject Lands will continue. The proposed *development* will also not remove any cultivatable land, therefore, changes in agricultural production will not be caused by the *development*. The wedding venue and cut flower business offer an additional opportunity to contribute to the regional and local economies through increased revenue and potential job creation.

## 6. ASSESSMENT OF PROPOSED LAND USE

OMAFRA's *Guidelines on Permitted Uses in Ontario's Prime Agricultural Areas* (Permitted Uses) document (2016) was created to help municipalities, decision makers, farmers, and others interpret uses that are permitted through the PPS in *prime agricultural areas*. This document contains a list of criteria that new land uses must meet to be considered either an *agriculture-related use* or an on-farm diversified use. The Niagara Region and the Township of Wainfleet have considered the proposed *development* to be both agriculture-related and *on-farm diversified uses*. To verify this, the proposed uses have been evaluated for their conformity with the criteria outlined in the Permitted Uses document.

### 6.1 Agriculture-Related Uses

The Township and the Region consider the *development* associated with the proposed cut flower business to be an *agriculture-related use*. The Permitted Uses document outlines six criteria that a land use must satisfy to be considered an *agriculture-related use*, which include:

1. Farm-related commercial or farm-related industrial uses;
2. Shall be compatible with and shall not hinder surrounding agricultural operations;
3. Directly related to farm operations in the area;
4. Supports agriculture;
5. Provides direct products and/or services to farm operations as a primary activity; and
6. Benefits from being in close proximity to farm operations.

The proposed cut flower business satisfies all six criteria of an *agriculture-related use*. Additionally, Table 2 of the Permitted Uses document provides a non-exhaustive list of land uses that are considered to be agricultural, agriculture-related, or *on-farm diversified uses*. Within this table, a cut-flower business would be considered part of the "Pick-your-own operation (with associated uses)" category. Pick-your-own operations, which "could include retailing of farm products grown in the area (e.g., farm stand)", are considered permitted *agriculture-related uses* within *prime agricultural areas*. Therefore, the *development* associated with the cut flower business is considered an *agriculture-related use* and is permitted within the land use designation.

### 6.2 On-Farm Diversified Uses

The Township and the Region consider the *development* associated with the wedding venue to be an on-farm diversified use. The Permitted Uses document outlines five criteria that a land use must satisfy to be considered an on-farm diversified use, which include:

1. Located on a farm;
2. Secondary to the principal agricultural use of the property;
3. Limited in area;
4. Includes, but is not limited to, home occupations, home industries, agri-tourism uses and use that produce value-added agricultural products; and
5. Shall be compatible with, and shall not hinder, surrounding agricultural operations.

Through discussions with Kaitlynn Green of Sweet Creek Family Farm, the proposed wedding venue will operate seasonally from approximately late May to October. The Preliminary Site Plan Concept indicates

an appropriate development footprint for an on-farm diversified use and will be able to host events of an appropriate scale. The proposed *development* will be located on a farm and the existing agricultural operations on the property will remain unaltered, and actually expanded, post-development. The wedding venue is considered an agri-tourism use and qualifies as an on-farm diversified use. It is a permitted use within the *prime agricultural area* designation.

The wedding venue is expected to be compatible with neighbouring farm operations and, as discussed in Section 9 of this report, negative impacts are expected to be negligible. The proposed *development* is not expected to hinder surrounding agricultural operations following the implementation of mitigation recommendations.

## 7. ASSESSMENT OF AGRICULTURAL CAPABILITY

OMAFRA's *Guidelines on Permitted Uses in Ontario's Prime Agricultural Areas* document states that "If an agriculture-related or on-farm diversified use is to be located in a *prime agricultural area*, a best practice is to place the use on lower-capability agricultural lands." Agricultural capability is primarily determined through the Canada Land Inventory (CLI) capability class assigned to the soils. The CLI is an interpretive system for assessing the limitations of growing common field crops based of the effects of climate and soil characteristics.

*Prime agricultural lands* include *specialty crop areas* and CLI Classes 1, 2 and 3 soils, in this order of priority for protection. New permitted *development* should try to avoid locating on *prime agricultural lands* whenever possible. As discussed in Section 5.5 of this report, the Subject Lands are comprised of imperfectly and poorly drained soils, rated CLI Class 2 and CLI Class 3, respectively. The only new facility proposed is the roadside stand. Other *development* will be restricted to the existing facilities. Opportunities to locate the new accessory *dwelling* on non-*prime agricultural lands* are not present. However, the extent of the impact on *prime agricultural land* will be negligible.

## 8. ASSESSMENT OF ALTERNATIVE LOCATIONS

Section 2.3 of the PPS specifically deals with agricultural policy, and Section 2.3.3 outlines the permitted uses within *prime agricultural areas*. Section 2.3.3.1 states:

*In prime agricultural areas, permitted uses and activities are: agricultural uses, agriculture-related uses and on-farm diversified uses.*

*Proposed agriculture-related uses and on-farm diversified uses shall be compatible with, and shall not hinder, surrounding agricultural operations. Criteria for these uses may be based on guidelines developed by the Province or municipal approaches, as set out in municipal planning documents, which achieve the same objectives.*

Section 2.3.6 of the PPS requires that an assessment of alternative locations be completed for *non-agricultural development* in *prime agricultural areas* to demonstrate that there are no other reasonable; locations that avoid *prime agricultural lands* or lower priority agricultural lands. Section 2.3.6 pertains to uses that are not permitted uses in *prime agricultural areas*. It does not apply to the permitted uses such as the proposed *development*. Therefore, an evaluation of alternative locations is not required.

The Permitted Uses document does state that “If an agriculture-related or on-farm diversified use is to be located in a *prime agricultural area*, a best practice is to place the use on lower-capability agricultural lands.”

The proposed uses represent a logical extension of an existing use. With the exception of the very poorly drained areas such as the Wainfleet Bog, *prime agricultural lands* are prevalent throughout the Township of Wainfleet. Opportunities to relocate the operation to another location on lower capability lands is unlikely and would not be reasonable.

## 9. ASSESSMENT OF IMPACTS TO AGRICULTURE

Farm operations can be adversely impacted by new *development* on adjacent lands. *Non-agricultural development* adjacent to agricultural lands can cause disruptions to existing farm practices as a result of an increase in non-farm traffic, incidence of trespass and vandalism, and construction activity resulting in higher levels of noise, dust, and light. Farmers may also experience an increase in nuisance complaints from residents and/or patrons of non-agricultural facilities. These complaints are often related to issues such as odour, light, dust, and noise generated through *normal farm practices*.

The AIA has assessed the potential for direct and indirect impacts as a result of the proposed *development*.

### 9.1 Direct Impacts

#### 9.1.1 Prime Agricultural Lands

The Subject Lands are approximately 7.95 ha in size and located in a *prime agricultural area*. The Subject Lands are comprised entirely of *prime agricultural lands* (CLI Class 2 and 3). The proposed *development* will be renovating existing structures for the proposed agricultural-related and *on-farm diversified uses*. New components of the proposed *development* include a roadside stand, an outdoor event space, a deck with stairs, a porch, an event driveway and parking spaces, and a new septic system. Based on the dimensions listed in the Preliminary Site Plan Concept, new construction on the Subject Lands will result in the loss of approximately 0.17 ha on *prime agricultural land*. The loss of approximately 0.17 ha of *prime agricultural land* will have a negligible impact on the Subject Lands and the *Agricultural System* in the Township of Wainfleet.

#### 9.1.2 Agricultural Infrastructure

Currently, there are two barns, a chicken coop, five paddocks, and a small, enclosed shelter for goats located within the Subject Lands. The proposed *development* will remove one paddock, repurpose one paddock for the production of annual flowers, repurpose the existing barns, and the remaining agricultural infrastructure will remain unchanged. The northern barn will be renovated to include an event space on the second floor, with washrooms, a storage area, and a processing/wash area for flowers on the ground floor. The southern barn includes a 406.9 m<sup>2</sup> one-storey area connected to a 186.8 m<sup>2</sup> two-storey area. The one-storey portion of the barn will be used for processing flowers (stripping stems, wrapping bunches, hydrating, cooling, and drying), and will be used to start seeds and store tools and supplies in the fall/winter. The two-storey portion of this barn will be renovated into an accessory *dwelling*.

The two barns within the Subject Lands are not used to house *livestock* and four of the five paddocks will remain. The impacts on the *Agricultural System* from the loss of agricultural infrastructure will be negligible.

#### 9.1.3 Agricultural Land Improvements

No agricultural land improvements such as tile drainage have been identified within the Subject Lands. Therefore, there will be no direct impact to agricultural land improvements.

#### **9.1.4 Loss of Crop Land**

Approximately 5.5 ha of the Subject Lands are currently cultivated for the growing of annuals and *cash crops*. The lands south of the East Kelly Drain are tenant farmed and the remaining cultivatable lands will be used for the growing of flowers and Christmas trees. The proposed *development* will not remove any lands that are being cultivated for crops. There will be no loss of crop land as a result of the proposed *development*.

### **9.2 Indirect Impacts**

Potential impacts to adjacent farm operations and farm practices are considered to be indirect impacts. These would include changes to the surface drainage that could impact adjacent lands, disruption to farm traffic and access to adjacent agricultural fields, instances of trespass and vandalism, and conflicts arising from nuisance complaints often received by farmers in close proximity to *non-agricultural land uses*.

#### **9.2.1 Disruption to Surficial Drainage**

Changes in surface runoff have the potential to negatively impact adjacent agricultural lands. The footprint of the proposed *development* is small and is unlikely to cause any significant change to surficial drainage. Although surface water related impacts are unlikely in this case, a Stormwater Management Plan could be completed to avoid potential impacts to agricultural operations. However, a Stormwater Management Plan for the proposed *development* was not required during the pre-consultation meeting, and it does not appear to be necessary based on the scale of the *development*. Negative impacts on surface drainage are not expected to occur as a result of the proposed *development*.

#### **9.2.2 Disruption to Farm Operations**

Most active farm operations in the area are well removed from the Subject Lands and are unlikely to experience any form of disruption to their operations. The potential for the proposed *development* to restrict access to farm fields and farm operations is negligible. It is unlikely that there will be a negative impact on farm operations adjacent to the proposed *development*.

The proposed *development* will have no effect on the flexibility of surrounding lands to accommodate changes in types of farming. The adjacent lands will not be affected and will maintain their ability to cultivate common field crops and other agricultural products without limitation.

New non-farm *development* may have an affect on the existing farm wells, irrigation ponds, and ponds or other waterbodies used to provide *livestock* with sources of water in the surrounding area. The proposed *development* is not likely to have a measurable impact on the groundwater table or any surface water features upon which neighbouring farm operations rely. It is our understanding that a Hydrogeological Study/Private Servicing Plan is to be completed as part of the Zoning By-law Amendment application. The proposed *development* should adhere to the recommendations made in this study to mitigate or avoid potential impacts to surrounding agricultural operations.

Noise, dust, and light can have a negative impact on some farm operations. Construction may temporarily generate greater levels of noise, dust, and lighting. No sensitive farm operations were identified within the Study Area that are likely to be impacted by noise, dust, or lighting. However, it is recommended that these elements be controlled to comply with Ministry of Environment, Conservation



and Parks (MECP) guidelines. It is expected that the proposed *development* will not be a significant source of noise, dust, or light. No negative indirect impacts are anticipated.

### **9.2.3 Trespass and Vandalism**

The proposed *development* is anticipated to have patrons of the wedding venue on the property for limited hours of the day and will operate seasonally from mid-May to October. The anticipated time patrons spend at the Subject Lands will reduce the likelihood of incidences of trespass and vandalism. Through discussion with Kaitlynn Green of Sweet Creek Flower Farm, additional hedgerows will be put in place and the existing windbreak separating neighbouring fields will remain. The hedgerows and windbreak will assist in defining the area in which patrons are permitted to be.

Christmas trees and flowers will be sold roadside or wholesale, which will also reduce opportunities for trespass and vandalism. If there are noted occurrences of trespass and vandalism on adjacent agricultural properties, the placement of signage to remind patrons that trespass onto adjacent agricultural lands is not permitted may aid in reducing these types of impacts.

Pets, from time to time, may wander away and stray onto neighboring farm properties and chase or bother *livestock*. This potential impact involving pets is not expected to occur at a wedding venue or roadside stand and therefore, is unlikely to be an issue for agricultural operations in the area.

### **9.2.4 Minimum Distance Separation**

Although MDS I setbacks typically do not apply to on-farm diversified or *agriculture-related uses*, the Township of Wainfleet requires a Zoning By-law Amendment to permit the wedding venue, which requires the application of the *MDS formulae* for the proposed *development*. Therefore, MDS I setbacks were calculated for a Type A land use in accordance with Guideline #10 and #35 of the MDS Document. MDS I setback requirements were calculated for all active/*empty livestock facilities* and *manure storage* systems within the Study Area. The proposed *development* will not be constrained by the calculated MDS I setbacks.

### **9.2.5 Transportation Impacts**

Traffic levels are not expected to increase significantly from the proposed *development*, given that it will be hosting occasional and seasonal events. Although it is not expected that additional traffic to the proposed *development* will have an impact on surrounding agricultural operations, mitigation measures recommended through a Transportation Impact Study would provide further certainty that surrounding agricultural operations would not be negatively impacted. However, a Traffic Impact Study was deemed unnecessary during the pre-consultation meeting and the results of such study would likely conclude that negative impacts associated with increased traffic are unlikely.

### **9.2.6 Economic and Community Impacts**

Local and regional agricultural economies and communities can be adversely impacted by the introduction of new non-farm *development* on agricultural lands as a result of the loss of farmland, fragmentation, removal of agricultural investments, commodities, services, and impacts to other farming operations.

The proposed *development* will not remove any cultivatable land, lead to further fragmentation of agricultural lands, or adversely effect surrounding agricultural operations. In fact, the proposed land use will augment the existing operation. The proposed *development* will offer products/services that will add to the local and regional economies. Therefore, no negative impacts to the agricultural economies or communities are anticipated.

### **9.3 Summary of Impacts**

The potential direct and indirect impacts identified are summarized in Table 4 along with the potential degree of impact, mitigation measures to avoid or minimize the potential impact, and the resulting anticipated impact. The direct impacts will be minimal, and it is unlikely that the proposed *development* will have significant, long-term negative effects on the surrounding agricultural lands and community.

<b>Table 4: Summary of Impacts</b>			
<b>Potential Impact</b>	<b>Potential Degree of Impact</b>	<b>Mitigation Measure</b>	<b>Anticipated Net Impact</b>
<b>Direct Impacts</b>			
Loss of prime agricultural land	Low	♦ None required	Loss of approximately 0.17 ha of prime agricultural lands
Loss of agricultural infrastructure	Low	♦ None required	Loss of one paddock and loss of functionality of one barn and a portion of second barn
Loss of agricultural land improvements	Low	♦ None required	No Impact
Loss of cropland	Low	♦ None required	No Impact
<b>Indirect Impacts</b>			
Surficial Drainage	Low	♦ Stormwater Management Plan, if necessary.	No Impact anticipated
Disruption to Farm Operations	Low	♦ Ensure that access to farm operations and farm fields is maintained at all times during construction.	No Impact
Non-farm traffic	Low	♦ Transportation Impact Study to assess potential impacts, if necessary. ♦ Implement recommendations if impact identified.	No Impact anticipated
Trespass, Vandalism, and Stray Pets	Low	♦ Installation of signage along property boundary.	No Impact
Noise, Dust & Light	Low	♦ Adhere to Ministry of the Environment and Climate Change (MOECC) guidelines.	No Impact
Conflict with MDS formula	Low	♦ No conflict. No mitigation required.	No Impact
Economic	Low	♦ None required	No Impact
Wells, Irrigation, water bodies	Low	♦ Completion of Hydrogeological Study to identify potential impacts, if necessary. ♦ Implement recommendations if impact identified.	No Impact anticipated

## **10. CONFORMITY WITH AGRICULTURAL POLICIES**

### **10.1 Provincial Policy Statement**

The Subject Lands are located within a *prime agricultural area*. Section 2.3.3 of the PPS outlines permitted uses within *prime agricultural areas*, which include *agricultural uses*, *agriculture-related uses*, and *on-farm diversified uses*. Section 2.3.3.1 states in part that “Proposed *agriculture-related uses* and *on-farm diversified uses* shall be compatible with, and shall not hinder, surrounding agricultural operations.”

Section 2.3.3.3 states that “New land uses in *prime agricultural areas*, including the creation of lots and new or expanding *livestock facilities*, shall comply with the *minimum distance separation formulae*.”

This AIA has demonstrated that the proposed *development* will be compatible with surrounding agricultural operations and is able to comply with calculated MDS I setbacks. Therefore, the proposed *development* is consistent with the agricultural policies of the PPS.

### **10.2 A Place to Grow: Growth Plan for the Greater Golden Horseshoe**

This AIA has demonstrated that the proposed *development* will be consistent with Section 4.2.6 and Section 2.2.9 of the Growth Plan. The proposed *development* will have a negligible impact on the *Agricultural System* and is compatible with the rural landscape and surrounding land uses. The proposed *development* will be in compliance with the MDS setback requirements and will be sustained by rural services. Additionally, mitigation measures have been provided to avoid or reduce the identified potential impacts to the extent possible.

### **10.3 Niagara Official Plan**

Section 4.1.2.3 of the Niagara Official Plan states that, “In *specialty crop areas* and *prime agricultural areas*, all types, sizes and intensities of *agricultural uses* and *normal farm practices* shall be promoted and protected and a full range of *agricultural uses*, *agriculture-related uses* and *on-farm diversified uses* are permitted.”

Section 4.1.3.6 of the Niagara Official Plan states, “New land uses in *specialty crop areas* and *prime agricultural areas*, including the creation of lots, and new or expanding *livestock facilities*, shall comply with the *minimum distance separation formulae*.”

As mentioned previously, the Subject Lands are located in a *prime agricultural area* and agriculture-related and *on-farm diversified uses* are permitted. This AIA has demonstrated that the proposed *development* will comply with the *MDS I formula*. The proposed *development* will be consistent with the agricultural policies of the Niagara Official Plan.

### **10.4 Township of Wainfleet Official Plan**

Section 3.1 of the Township of Wainfleet Official Plan outlines land use policies for lands designated as Rural and Agricultural Areas. Section 3.1.1.1 states that “New land uses on existing lots, the creation of lots and new or expanding *livestock facilities* shall comply with the *minimum distance separation formulae*.”

Section 3.1.3 of the Official Plan outlines permitted uses for lands designated as Agricultural Area. Section 3.1.3.1 permits, along with other uses, “agri-tourism uses unrelated to agriculture, subject to Policy 3.1.3.7”, “one single detached *dwelling* or secondary suite”, and “value-added marketing uses”. The

proposed *development* includes a wedding venue (agri-tourism use unrelated to agriculture), a secondary *dwelling*, and a roadside stand/cut flower business (value added marketing use).

Section 3.1.1.5 of the Official Plan states in part that “Agri-tourism uses unrelated to agriculture but which benefit from a farm location shall be subject to a Zoning By-law amendment”.

Further, Section 3.1.3.7 states that “3.1.3.7 Agri-tourism uses unrelated to agriculture, value added production uses and value added support uses shall only be permitted in the Agricultural Area designation, through a rezoning, when it is clearly demonstrated that:

- a) The use is small scale, and directly related to, and in close proximity to the agricultural operation it is servicing;
- b) The use cannot reasonably function in a nearby Hamlet; or there are no suitable locations within a nearby Hamlet; or the use cannot be reasonably located in a nearby designated commercial or industrial area;
- c) The proposed water supply and sewage disposal systems are feasible;
- d) The use is compatible with and supportive of the agricultural community;
- e) The use is compatible with and does not hinder surrounding agriculture operations;
- f) The use is in compliance with the minimum distance separation formulae; and
- g) The use is located on a major road.”

Section 3.1.1.7 of the Official Plan states in part that “Value added marketing uses are intended to primarily serve the agricultural operation and surrounding local farming operations, and shall remain secondary to the principal farming operations, both in relation to the scale of the operation and its footprint. Value added marketing uses shall be subject to the following guidelines:

- a) Roadside stands and “pick your own” facilities should be seasonal in nature with the majority of retail floor space devoted to the sale of domestic produce and related value added products. The maximum permitted floor area shall be set out by the Zoning By-law;”

This AIA has demonstrated that the proposed *development* is permitted in *prime agricultural areas* and will comply with the *MDS I formula*. The *development* is able to meet the criteria of an agri-tourism use unrelated to agriculture and a value-added marketing use as outlined in the Official Plan. The proposed *development* is consistent with the agricultural policies of the Township of Wainfleet Official Plan.

## 11. CONCLUSION

To be consistent with the AIA Guidelines, the AIA has assessed the proposed *development*, the planning framework, identified and described the components of the *Agricultural System* and evaluated the potential impacts. Although the impacts on the *Agricultural System* are expected to be negligible, some mitigation measures have been recommended. The proposed *development* will be compatible with, and will not hinder, agricultural operations in the Study Area.

The proposed *development* complies with the relevant provincial and municipal agricultural policies.

Respectfully submitted by:



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## 12. GLOSSARY OF TERMS

**Agricultural uses:** - means the growing of crops, including nursery and horticultural crops; raising of livestock and other animals for food, or fur, including poultry and fish; aquaculture; agro-forestry; maple syrup production; and associated on-farm buildings and structures.\*

**Agriculture-related uses:** - means those farm-related commercial and farm-related industrial uses that are small scale and directly related to the farm operation and are required in close proximity to the farm operation.\*

**Agricultural System:** - An agricultural system is comprised of two components:

- ♦ An agricultural land base consisting of prime agricultural areas, including specialty crop areas, and rural lands that together create a continuous productive land base for agriculture.
- ♦ An agri-food network that includes infrastructure, services and assets, important to the viability of the agri-food sector.

**Agri-Food Network:** - An agri-food network includes the infrastructure, services and other agri-food assets needed to sustain and enhance the prosperity of the agri-food sector.\*

**Cash Crop:** - means a crop being produced for income purposes and not to supplement a livestock operation by contributing to feed requirements.

**Cultivated:** - means lands that have recently been under active agricultural production, however, depending on the season or growth stage of the crop during the land use survey or through aerial photographic interpretation the crop type could not be determined.

**Development:** - means the creation of a new lot, a change in land use, or the construction of buildings and structures, requiring approval under the Planning Act; but does not include activities that create or maintain infrastructure authorized under an environmental assessment process; or works subject to the Drainage Act.

**Dwelling:\*** - Any permanent building that is used, or intended to be used, continuously or seasonally, as a domicile by one or more persons and usually containing cooking, eating, living, sleeping, and sanitary facilities.

**Empty Livestock Facility/Operation:** - a livestock facility that no longer contains livestock. The buildings are generally in fair to good condition and the potential for housing livestock in the building remains. The MDS formula is applied to these facilities.

**Hobby Farm:** - A residential dwelling, with or without accessory buildings, which may include some crop production for personal consumption or limited sale; and/or small numbers of livestock raised for personal consumption, pleasure or limited sale. A hobby farm normally will generate little or no income and as such may not have a Farm Business Registration Number.

**Idle Agricultural Lands:** - means lands that have not been used for agricultural production for at least five years (estimated).

**Livestock:** - includes dairy, beef, swine, poultry, horses, goats, sheep, ratites, fur-bearing animals, deer & elk, game animals, birds, and other animals.\*

**Livestock Facility:** - means one or more barns or permanent structures with livestock-occupied portions, intended for keeping or housing livestock. A livestock facility also includes all manure or material storages and anaerobic digesters.\*

**Livestock Operation:** - an agricultural operation dedicated to the raising breeding, and/or managing of livestock for the purpose of producing food, fibre, or other animal-derived products.

**Manure Storage:** - A permanent storage which is structurally sound and reasonably capable of storing manure and which typically contains liquid manure (<18% dry matter) or solid manure (≥18% dry matter), and may exist in a variety of:

- ♦ locations (under, within, nearby, or remote from barn);
- ♦ materials (concrete, earthen, steel, wood);
- ♦ coverings (open top, roof, tarp, or other materials);
- ♦ configurations (rectangle, circular); and
- ♦ elevations (above, below or partially above-grade).

**Minimum Distance Separation (MDS) formulae:** - formulae and guidelines developed by the province, as amended from time to time, to separate uses so as to reduce incompatibility concerns about odour from livestock facilities.

**Minimum Distance Separation (MDS) I Formula:** - used to determine the minimum distance separation for new development from any existing and some former livestock facilities.

**Minimum Distance Separation (MDS) II Formula:** - used to determine the minimum distance separation for new or expanding livestock facilities from existing non-farm land uses.

**Mottles:** - are spots of colour in soil horizons, caused by impeded drainage. The mottle colours are recorded as faint, distinct or prominent depending on the contrast between the mottle colour and the basic horizon colour.

**Non-agricultural Uses/Development:** - buildings designed or intended for a purpose other than an agricultural use; as well as land, vacant or otherwise not yet fully developed, which is zoned or designated such that the principal or long-term use is not intended to be an agricultural use, including, but not limited to: commercial, future urban development, industrial, institutional, open space uses, recreational uses, settlement area, urban reserve, etc. However, this does not include agriculture-related uses, on-farm diversified uses and residential uses.

**Non-farm Residential:** - means residential buildings and lots not associated with a farm operation such as farm retirement lots/severances and/or other residences in the Agricultural and Rural Area. Second farm residences for farm help would be considered a farm residence if it is on an existing farm operation.

**Normal farm practices:\*** - means a practice, as defined in the *Farming and Food Production Protection Act, 1998*, that is conducted in a manner consistent with proper and acceptable customs and standards as established and followed by similar agricultural operations under similar circumstances; or makes use of innovative technology in a manner consistent with proper advanced farm management practices. *Normal*



*farm practices* shall be consistent with the *Nutrient Management Act, 2002* and regulations made under that Act.

**On-farm Diversified Use:** - means uses that are secondary to the principal agricultural use of the property, and are limited in area. On-farm diversified uses include, but are not limited to, home occupations, home industries, agritourism uses, and uses that produce value-added agricultural products. Ground-mounted solar facilities are permitted in prime agricultural areas, including specialty crop areas, only as on-farm diversified uses.

**Prime Agricultural Areas:** - means an area where prime agricultural land predominates. Prime agricultural areas may also be identified through an alternative agricultural land evaluation system approved by the Province.\*

**Prime Agricultural Land:** - means land that includes specialty crop areas and/or Canada Land Inventory Class 1, 2 and 3 soils, in this order of priority for protection.\*

**Provincial Policy Statement:** - the Provincial Policy Statement (PPS) was issued under Section 3 of the Planning Act and came into effect in May of 1996 and subsequently updated in 1997 and again in 2005. The PPS provides policy direction on matters of provincial interest related to land use planning and development.

**Remnant:** - means a location where one or more farm buildings once stood. All or some of the buildings have fallen, are severely structurally unsound and/or been removed. No MDS would be applied to a remnant farm operation.

**Retired Livestock/Farm Operation:** - means a former farm operation whose buildings or farm related structures remain, however it has either been converted to a non-agricultural use or it is in a condition that may or may not be suitable for agricultural uses. The MDS may still apply if it is an empty livestock facility.

**Rural areas:\*** - means a system of lands within municipalities that may include *rural settlement areas, rural lands, prime agricultural areas*, natural heritage features and areas, and resource areas.

**Rural lands:\*** - means lands which are located outside *settlement areas* and which are outside *prime agricultural areas*.

**Secondary Uses:** - means uses secondary to the principal use of the property, including home occupations, home industries, and uses that produce value-added agricultural products from the farm operation on the property.\*

**Settlement Area:** - As defined in the Provincial Policy Statement, 2005, this means urban areas and rural settlement areas within municipalities (such as cities, towns, villages and hamlets) that are:

- ♦ built up areas where development is concentrated and which have a mix of land uses, and
- ♦ lands which have been designated in an official plan for development over the long term planning horizon provided for in policy 1.1.2 of the PPS. In cases where land in designated growth areas is not available, the settlement area may be no larger than the area where development is concentrated.\*

**Specialty Crop Areas:** - means areas where specialty crops are predominantly grown, usually resulting from:

- ♦ soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both; and/or
- ♦ a combination of farmers skilled in the production of specialty crops, and of capital investment in related facilities and services to produce, store or process specialty crops.
- ♦ Specialty crops include crops such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops and crops from agriculturally developed organic soil.

**Soil Horizon:** - a layer of soil, approximately parallel to the land surface, that differs from adjacent layers in properties such as texture, colour, structure, etc. As an example, the surface horizon of a mineral soil is recorded as the "A" horizon. If the surface is ploughed then the suffix p is used (i.e., Ap) if the surface has not been ploughed, as in a forest soil, a humic layer generally develops and an eluviated light coloured soil horizon often forms immediately below. These horizons are identified with the suffix h is used (i.e., Ah) and e (i.e., Ae), respectively. The weathered portion of the profile below the A horizons is identified as the "B" horizon and the unweathered, parent material is the "C" horizon.

**Soil Profile:** - a vertical section of the soil through all its horizons and extending into the soil parent material.

**Soil Texture:** - the relative portion of particle sizes in soil (i.e., sand, silt and clay) that are used to describe the soil textural class (e.g., clay, sandy clay loam, sandy loam, loam, clay loam, sand, loamy sand, etc.).

**Study Areas:** - a term used to identify the Primary Study Area and Secondary Study Area. The Primary Study Area includes the Subject Lands (e.g., the lands where development is taking place). The Secondary Study Area includes lands that will be potentially impacted by the development. The Secondary Study Area may vary in its extent, but should include, at a minimum, the lands adjacent to the Primary Study Area.

**Tender Fruit:** - a term applied to tree fruits such as peaches, apricots, and nectarines which are particularly sensitive to low winter and/or spring temperatures.

**Wooded:** - Forested areas of various age composition and size.

*\* Indicates that the definition is essentially derived from OMAFRA publications.*

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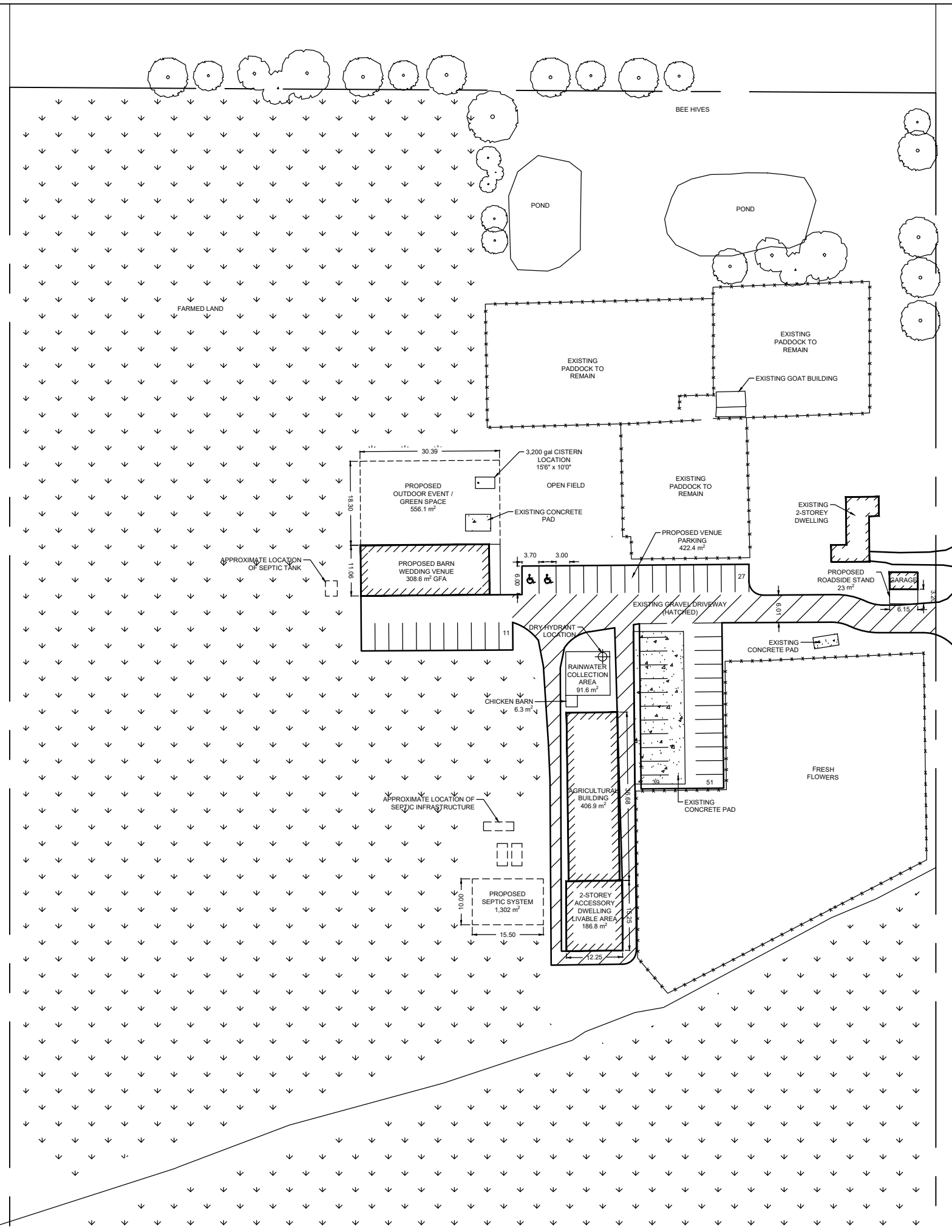
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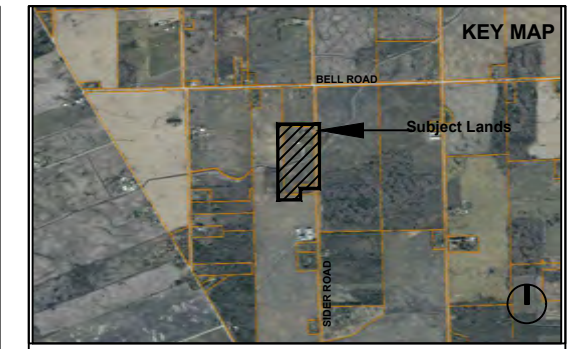
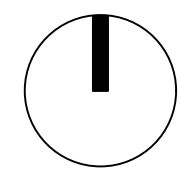
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**APPENDIX A**

Preliminary Site Plan Concept



SIDER ROAD



SITE STATISTICS		
Lot Area	8 hectares	
Current Zoning	Agricultural and Rural Zone (A2)	
Proposed Zoning	Site-Specific Agricultural and Rural Zone (A2-XX)	
Proposed Parking	51 spaces (2 accessible, 49 standard)	
NON-AGRICULTURAL USES		
USES	% OF TOTAL LOT AREA	FOOTPRINT
Existing 2-Storey Dwelling	0.10%	92.2 m <sup>2</sup>
Existing Detached Garage	0.02%	23.0 m <sup>2</sup>
2-Storey Accessory Dwelling	0.23%	93.4 m <sup>2</sup>
AGRICULTURAL USES		
USES	% OF TOTAL LOT AREA	FOOTPRINT
Existing Goat Building	0.02%	21.5 m <sup>2</sup>
Proposed Building for Agricultural Uses	0.51%	406.9 m <sup>2</sup>
Existing Chicken Barn	0.01%	6.3 m <sup>2</sup>
Driveway	1.70%	1,348 m <sup>2</sup>
AGRICULTURE-RELATED USES		
USES	% OF TOTAL LOT AREA	AREA
Barn - Ground Floor Cut Flower Business	TBD	TBD
Roadside Stand	0.03%	23 m <sup>2</sup>
ON-FARM DIVERSIFIED USES		
USES	% OF TOTAL LOT AREA	AREA
Barn Wedding Venue	(0.38%) (0.19%)	(308.6m <sup>2</sup> ) (50% of Existing = 154.3m <sup>2</sup> )
Outdoor Hospitality Space	0.70%	556.1 m <sup>2</sup>
Venue Parking and Driveway	0.96%	766.5 m <sup>2</sup>
Wedding Venue Septic	0.14%	108.9 m <sup>2</sup>
NOTE: 60% of septic capacity attributed to venue based on septic design.		
<b>TOTAL</b>	<b>2.0%</b>	<b>1,586 m<sup>2</sup></b>

REVISIONS			
NO.	DATE	REVISION	BY
1	2023-01-03	Concept for pre-consultation	LL
2	2023-10-19	ZBA Application	RS

**PRELIMINARY SITE PLAN CONCEPT**  
 ZONING BY-LAW AMENDMENT APPLICATION  
 33684 Sider Road, Wainfleet  
 For: Kaitlynn Green Scale: 1:1000  
 Drawing No.: 221006.02 Date: 03-01-2023

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## **APPENDIX B**

Curriculum Vitae



## **SEAN M. COLVILLE, B.Sc., P.Ag.**

432 Niagara St., Unit 2, St. Catharines, ON L2M 4W3  
Tel: (905) 935-2161 | Email: sean@colvilleconsultinginc.com

### **EDUCATION**

B.Sc. Geology, Acadia University, 1986  
Soil Science, University of Guelph, 1984

### **PROFESSIONAL AFFILIATIONS**

Ontario Institute of Agrology  
Agricultural Institute of Canada

### **POSITIONS HELD**

2003 – Present **President** - Colville Consulting Inc., St. Catharines, Ontario  
2001 – 2003 **Senior Project Manager** - ESG International Inc., St. Catharines, Ontario  
1998 – 2001 **Senior Project Manager** - ESG International Inc., Guelph, Ontario  
1988 – 1998 **Project Manager** - ESG International Inc., Guelph, Ontario  
1984 – 1988 **Soil Scientist** – MacLaren Plansearch Ltd., Halifax, Nova Scotia  
1982 – 1983 **Assistant Soil Scientist** – Nova Scotia Department of Agriculture and Marketing

### **EXPERIENCE**

Colville Consulting Inc. (CCI) was established in June of 2003 by Sean Colville. CCI offers agricultural and environmental consulting services to clients across Ontario, catering to both public and private sectors. Sean has over 35 years of agricultural consulting experience, which includes agricultural resource evaluation studies, soil surveys, interpretations of agricultural capability, agricultural impact assessments, alternative site assessments, and soil and microclimatic rehabilitation/restoration projects. Sean has extensive experience interpreting agricultural land use policies for a wide variety of development applications.

Sean is a Professional Agrologist (P.Ag.), and a member of both the Ontario Institute of Agrology and the Agricultural Institute of Canada. Sean has been recognized by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) as an expert in the identification of Prime Agricultural Areas and in the interpretation of the Minimum Distance Separation requirements for livestock operations.

Sean has presented expert testimony before the Ontario Land Tribunal (formerly OMB, LPAT), Consolidated Joint Board, Assessment Review Board, Ontario Superior Court, and the Normal Farm Practices Protection Board. Sean's testimonies have involved land use planning matters as they relate to agriculture, impact assessments, resource evaluations, soil science, and normal farm practices.

### **Agricultural Impact Assessments and Alternative Site Studies**

Colville Consulting Inc. specializes in agricultural impact assessment and alternative site studies for development applications in Prime Agricultural Areas. Sean has prepared over 200 agricultural impact assessments for a wide variety of development projects, including settlement area boundary expansions, linear facilities (Class EAs), new and expanding aggregate operations, and residential, commercial, recreational, industrial, and institutional developments. The majority of these projects required the interpretation of agricultural land use policies, an inventory and assessment of the agricultural resources,



land use, land tenure, an assessment of conflict potential including determination of minimum distance separation requirements, interpretation of the agricultural priority, and development of mitigation measures to avoid or minimize potential impacts. Justification of the location for development proposals in agricultural areas is required by the Provincial Policy Statement and can often be addressed by an alternative site study.

Recent examples of Sean Colville's agricultural work include:

- Agricultural Impact Assessment for Stubbes New Durham Precast Plant (2021)
- Agricultural Impact Assessment for New Tecumseth Community Builders Inc., County of Simcoe (2021)
- Agricultural Impact Assessment for Caledon Costco (2021)
- Agricultural Impact Assessment for Walker Industries' Redford Pit Expansion, West Grey (2022)
- Agricultural Impact Assessment for Milton Business Park (2022)
- Minimum Distance Separation for Mono Hills Corporation (2022)
- Land Evaluation and Area Review for Norfolk County (2022)

### **Publications**

Rees, H.W.; Duff, J.P.; Colville, S.; Soley, T and Chow T.L. 1995. Soils of selected agricultural areas of Moncton Parish, Westmoreland County, New Brunswick. New Brunswick. Soil Survey Report No. 15. CLBRR Contribution No. 95-13, Research Branch, Agriculture AND Agri-Food Canada, Ottawa, Ontario

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## **JOHN LIOTTA, B.Sc. (Env.), EMA, EPT**

432 Niagara St., Unit 2, St. Catharines, ON L2M 4W3  
Tel: (905) 935-2161 | Email: john@colvilleconsultinginc.ca

### **EDUCATION**

Bachelor of Science in Environmental Sciences, University of Guelph, 2018  
Environmental Management and Assessment Graduate Certificate, Niagara College, 2022

### **PROFESSIONAL AFFILIATIONS**

Eco Canada – Environmental Professional in Training

### **POSITIONS HELD**

2022 – Present Colville Consulting Inc., St. Catharines, Agrologist/Ecologist

### **EXPERIENCE**

John Liotta, Agrologist and Ecologist at Colville Consulting Inc., has over 5 years of formal educational training and experience in Environmental and Agricultural Planning. John has completed Agricultural Impact Assessments, Minimum Distance Separation (MDS) Requirements, and Agricultural Characterization Reports in his role as at Colville.

Through his education at the University of Guelph and Niagara College, John has gained a broad base knowledge of Environmental and Agricultural Planning and Management, which has taken him to work with Colville Consulting. His work at Colville includes the interpretation of provincial, regional and local land use policies, creation and interpretation of land use maps, regional soils mapping, and agricultural protection policies. He has participated in the completion of Agricultural Impact Assessments, Minimum Distance Separation Assessments, and Agricultural Characterization Reports. His field work activities include land use surveys and post-construction avian and bat mortality monitoring for wind turbines in the County of Haldimand, Ontario.

A selection of projects John has been involved with at Colville Consulting Inc. include:

- ♦ Post-Construction Avian and Bat Mortality Monitoring for Pattern Energy, Korea Electric Power Corporation, and Samsung Renewable Energy Inc., Grand Renewable Energy Park, County of Haldimand, Ontario
- ♦ Agricultural Impact Assessment for landowner group, City of Pickering
- ♦ Agricultural Impact Assessment for landowner, Township of North Dumfries, Ontario
- ♦ Agricultural Characterization Report for landowner, Township of Beckwith, Ontario
- ♦ Agricultural Characterization Report for landowner, Town of Carleton Place, Ontario
- ♦ Minimum Distance Separation Report for landowner, Town of Caledon, Ontario
- ♦ Agricultural and Rural Lands Discussion Paper for municipality, Town of Blue Mountain, Ontario
- ♦ Agricultural Impact Assessment for Wildfield Village, Town of Caledon
- ♦ Agricultural Impact Assessment for Redford Pit Expansion, West Grey

### **ADDITIONAL TRAINING AND WORKSHOPS**

Standard First Aid, CPR C, AED – St. John's Ambulance (2023)

Windmill Safety Training – Stantec Inc (2022)

Workplace Hazardous Materials Information System

Natural Gas Pipeline Safety Training – TC Energy (2022)

Excavation Safety Training – TC Energy (2022)

Supervisor (Level 2) Ground Disturbance Training (2022)

## **APPENDIX C**

### Climate Normals Data



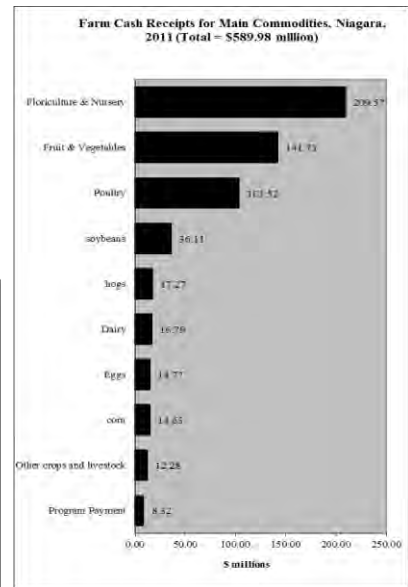
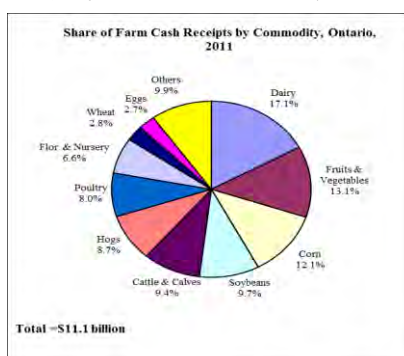
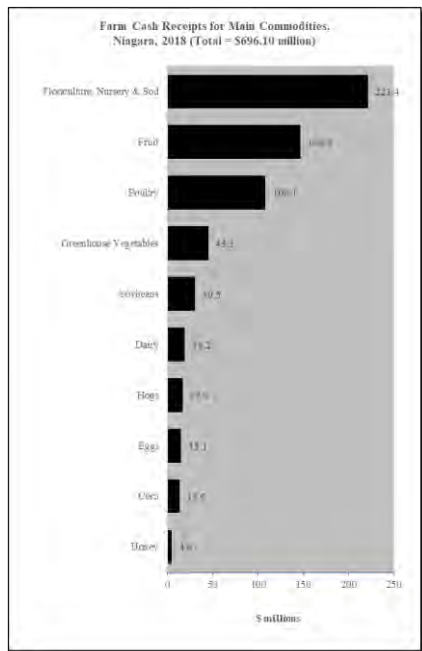
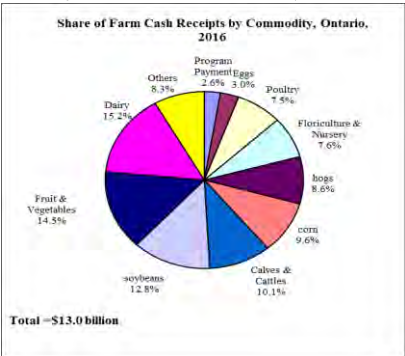
## **APPENDIX D**

### **Agricultural Crop Statistics**

### Niagara Regional Municipality at a Glance - 2016

### Niagara Regional Municipality at a Glance - 2011

Niagara Regional Municipality at a Glance - 2016				Niagara Regional Municipality at a Glance - 2011			
Item	Niagara	Province	Percent of province	Item	Niagara	Province	Percent of province
<b>Farms, 2016 Census (number)</b>				<b>Farms, 2011 Census (number)</b>			
Total	1,827	49,600	3.68	Total	2,014	51,950	3.88
Under 10 acres	359	3,051	11.77	Under 10 acres	385	2,741	14.05
10 to 69 acres	858	12,825	6.80	10 to 69 acres	1,001	12,681	7.89
70 to 129 acres	228	10,472	2.12	70 to 129 acres	237	11,779	2.01
130 to 179 acres	90	4,592	1.96	130 to 179 acres	100	4,969	2.01
180 to 239 acres	79	4,282	1.84	180 to 239 acres	71	4,801	1.48
240 to 399 acres	97	6,008	1.61	240 to 399 acres	108	6,460	1.67
400 to 559 acres	46	3,093	1.49	400 to 559 acres	44	3,359	1.31
560 to 759 acres	22	1,990	1.11	560 to 759 acres	23	2,026	1.14
760 to 1,119 acres	23	1,593	1.44	760 to 1,119 acres	17	1,587	1.07
1,120 to 1,599 acres	7	801	0.87	1,120 to 1,599 acres	12	788	1.52
1,600 to 2,239 acres	9	457	1.97	1,600 to 2,239 acres	8	436	1.83
2,240 to 2,879 acres	6	168	3.57	2,240 to 2,879 acres	5	152	3.29
2,880 to 3,519 acres	0	88	0.00	2,880 to 3,519 acres	0	79	0.00
3,520 acres and over	3	110	2.73	3,520 acres and over	3	92	3.26
<b>Land Use, 2016 Census (acres)</b>				<b>Land Use, 2011 Census (acres)</b>			
Land in crops	181,507	9,021,298	2.01	Land in crops	182,081	8,929,947	2.04
Summerfallow land	1,134	15,885	7.14	Summerfallow land	1,834	23,450	7.82
Tame or seeded pasture	2,606	514,168	0.51	Tame or seeded pasture	3,695	648,758	0.57
Natural land for pasture	3,639	783,566	0.46	Natural land for pasture	3,346	984,809	0.34
Christmas trees, woodland & wetland	15,253	1,542,637	0.99	Christmas trees, woodland & wetland	16,340	1,612,444	1.01
All other land	14,112	470,909	3.00	All other land	15,615	468,828	3.33
Total area of farms	218,251	12,348,463	1.77	Total area of farms	222,911	12,668,236	1.76
<b>Greenhouse Area, 2016 Census (square feet)</b>				<b>Greenhouse Area, 2011 Census (square feet)</b>			
Total area in use	21,928,038	158,511,328	13.83	Total area in use	20,974,904	133,520,541	15.71
<b>Farm Capital Value, 2016 Census (farms reporting)</b>				<b>Farm Capital Value, 2011 Census (farms reporting)</b>			
Under \$200,000	65	2,142	3.03	Under \$200,000	87	2,562	3.40
\$200,000 to \$499,999	287	7,433	3.86	\$200,000 to \$499,999	523	12,994	4.02
\$500,000 to \$999,999	584	12,500	4.67	\$500,000 to \$999,999	655	15,276	4.29
\$1,000,000 and over	891	27,525	3.24	\$1,000,000 and over	749	21,118	3.55
<b>Total Gross Farm Receipts, 2016 Census (farms reporting)</b>				<b>Total Gross Farm Receipts, 2011 Census (farms reporting)</b>			
Under \$10,000	417	9,536	4.37	Under \$10,000	534	12,263	4.35
\$10,000 to \$24,999	296	8,376	3.53	\$10,000 to \$24,999	278	9,098	3.06
\$25,000 to \$49,999	194	6,755	2.87	\$25,000 to \$49,999	220	6,720	3.27
\$50,000 to \$99,999	179	6,263	2.86	\$50,000 to \$99,999	223	6,189	3.60
\$100,000 to \$249,999	228	7,022	3.25	\$100,000 to \$249,999	226	6,985	3.24
\$250,000 to \$499,999	168	4,707	3.57	\$250,000 to \$499,999	219	5,086	4.31
\$500,000 to \$999,999	177	3,689	4.80	\$500,000 to \$999,999	160	3,248	4.93
\$1,000,000 to \$1,999,999	90	2,019	4.46	\$1,000,000 to \$1,999,999	98	1,558	6.29
\$2,000,000 and over	78	1,233	6.33	\$2,000,000 and over	56	803	6.97
<b>Farms by Industry Group, 2016 Census (number of farms)</b>				<b>Farms by Industry Group, 2011 Census (number of farms)</b>			
Beef cattle ranching and farming	52	6,786	0.77	Beef cattle ranching and farming	53	7,105	0.75
Dairy cattle and milk production	39	3,439	1.13	Dairy cattle and milk production	51	4,036	1.26
Hog and pig farming	17	1,229	1.38	Hog and pig farming	18	1,235	1.46
Poultry and egg production	175	1,816	9.64	Poultry and egg production	164	1,619	10.13
Sheep and goat farming	24	1,097	2.19	Sheep and goat farming	38	1,446	2.63
Other animal production	178	5,902	3.02	Other animal production	231	6,966	3.32
Oilseed and grain farming	326	16,876	1.53	Oilseed and grain farming	316	15,818	2.00
Vegetable and melon farming	73	1,856	3.93	Vegetable and melon farming	64	1,531	4.18
Fruit and tree nut farming	547	1,362	40.16	Fruit and tree nut farming	637	1,548	41.15
Greenhouse, nursery and floriculture	254	2,050	12.39	Greenhouse, nursery and floriculture	283	2,372	11.93
Other crop farming	142	7,187	1.98	Other crop farming	159	8,274	1.92



## Town of Wainfleet at a Glance - 2016

Item	Wainfleet	Province	Percent of province	Percent from 2011
<b>Farms, 2016 Census (number)</b>				
Total	167	49,600	0.34	-6.18
Under 10 acres	22	3,051	0.72	-4.35
10 to 69 acres	62	12,625	0.49	-12.68
70 to 129 acres	26	10,742	0.24	-10.34
130 to 179 acres	10	4,592	0.22	-33.33
180 to 239 acres	6	4,282	0.14	0.00
240 to 399 acres	16	6,008	0.27	23.08
400 to 559 acres	9	3,093	0.29	28.57
560 to 759 acres	7	1,990	0.35	75.00
760 to 1,119 acres	3	1,593	0.19	0.00
1,120 to 1,599 acres	2	801	0.25	-50.00
1,600 to 2,239 acres	2	457	0.44	100.00
2,240 to 2,879 acres	0	168	0.00	-100.00
2,880 to 3,519 acres	0	88	0.00	-
3,520 acres and over	2	110	1.82	100.00
<b>Land Use, 2016 Census (acres)</b>				
Land in crops	35,080	9,021,298	0.39	14.14
Summerfallow land	57	15,885	0.36	-74.09
Tame or seeded pasture	222	514,168	0.04	-65.47
Natural land for pasture	508	783,566	0.06	109.92
Christmas trees, woodland & wetland	2,387	1,542,637	0.15	33.50
All other land	957	470,909	0.20	-5.15
Total area of farms	39,211	12,348,463	0.32	13.21
<b>Greenhouse Area, 2016 Census (square feet)</b>				
Total area in use	569,474	158,511,328	0.36	-29.33
<b>Farm Capital Value, 2016 Census (farms reporting)</b>				
Under \$200,000	7	2,142	0.33	-22.22
\$200,000 to \$499,999	31	7,433	0.42	-43.64
\$500,000 to \$999,999	51	12,500	0.41	-5.56
\$1,000,000 and over	78	27,525	0.28	30.00
<b>Total Gross Farm Receipts, 2016 Census (farms reporting)</b>				
Under \$10,000	31	9,536	0.33	-20.51
\$10,000 to \$24,999	29	8,376	0.35	26.09
\$25,000 to \$49,999	22	6,755	0.33	-18.52
\$50,000 to \$99,999	14	6,263	0.22	-41.67
\$100,000 to \$249,999	25	7,022	0.36	8.70
\$250,000 to \$499,999	16	4,707	0.34	-5.88
\$500,000 to \$999,999	17	3,689	0.46	30.77
\$1,000,000 to \$1,999,999	8	2,019	0.40	-11.11
\$2,000,000 and over	5	1,233	0.41	66.67
<b>Farms by Industry Group, 2016 Census (number of farms)</b>				
Beef cattle ranching and farming	6	6,786	0.09	20.00
Dairy cattle and milk production	15	3,439	0.44	25.00
Hog and pig farming	5	1,229	0.41	0.00
Poultry and egg production	13	1,816	0.72	0.00
Sheep and goat farming	2	1,097	0.18	-33.33
Other animal production	18	5,902	0.30	-33.33
Oilseed and grain farming	61	16,876	0.36	-4.69
Vegetable and melon farming	5	1,856	0.27	-37.50
Fruit and tree nut farming	5	1,362	0.37	25.00
Greenhouse, nursery and floriculture	20	2,050	0.98	-13.04
Other crop farming	17	7,187	0.24	21.43

## Town of Wainfleet at a Glance - 2011

Item	Wainfleet	Province	Percent of province	Percent from 2011
<b>Farms, 2011 Census (number)</b>				
Total	178	51,950	0.34	-100.00
Under 10 acres	23	2,741	0.84	-100.00
10 to 69 acres	71	12,681	0.56	-
70 to 129 acres	29	11,779	0.25	-
130 to 179 acres	15	4,969	0.30	-
180 to 239 acres	6	4,801	0.12	-
240 to 399 acres	13	6,460	0.20	-
400 to 559 acres	7	3,359	0.21	-
560 to 759 acres	4	2,026	0.20	-
760 to 1,119 acres	3	1,587	0.19	-
1,120 to 1,599 acres	4	788	0.51	-
1,600 to 2,239 acres	1	436	0.23	-
2,240 to 2,879 acres	1	152	0.66	-
2,880 to 3,519 acres	0	79	0.00	-
3,520 acres and over	1	92	1.09	-
<b>Land Use, 2011 Census (acres)</b>				
Land in crops	30,733	8,929,947	0.34	-
Summerfallow land	220	23,450	0.94	-
Tame or seeded pasture	643	648,758	0.10	-
Natural land for pasture	242	984,809	0.02	-
Christmas trees, woodland & wetland	1,788	1,612,444	0.11	-
All other land	1,009	468,828	0.22	-
Total area of farms	34,635	12,668,236	0.27	-
<b>Greenhouse Area, 2011 Census (square feet)</b>				
Total area in use	805,817	133,520,541	0.60	-
<b>Farm Capital Value, 2011 Census (farms reporting)</b>				
Under \$200,000	9	2,562	0.35	-
\$200,000 to \$499,999	55	12,994	0.42	-
\$500,000 to \$999,999	54	15,276	0.35	-
\$1,000,000 and over	60	21,118	0.28	-
<b>Total Gross Farm Receipts, 2011 Census (farms reporting)</b>				
Under \$10,000	39	12,263	0.32	-
\$10,000 to \$24,999	23	9,098	0.25	-
\$25,000 to \$49,999	27	6,720	0.40	-
\$50,000 to \$99,999	24	6,189	0.39	-
\$100,000 to \$249,999	23	6,985	0.33	-
\$250,000 to \$499,999	17	5,086	0.33	-
\$500,000 to \$999,999	13	3,248	0.40	-
\$1,000,000 to \$1,999,999	9	1,558	0.58	-
\$2,000,000 and over	5	803	0.37	-
<b>Farms by Industry Group, 2011 Census (number of farms)</b>				
Beef cattle ranching and farming	5	7,105	0.07	-
Dairy cattle and milk production	12	4,036	0.30	-
Hog and pig farming	5	1,235	0.40	-
Poultry and egg production	13	1,619	0.80	-
Sheep and goat farming	3	1,446	0.21	-
Other animal production	27	6,966	0.39	-
Oilseed and grain farming	64	15,818	0.40	-
Vegetable and melon farming	8	1,531	0.52	-
Fruit and tree nut farming	4	1,548	0.26	-
Greenhouse, nursery and floriculture	23	2,372	0.97	-
Other crop farming	14	8,274	0.17	-

## **APPENDIX E**

### Soil Series Descriptions



### **Walsingham**

Walsingham soils are mapped on 21.00% of the Subject Lands. These soils are imperfectly drained and rapidly permeable. The imperfect drainage is caused by fluctuating water tables within the B and C horizons, resulting in distinct or prominent yellowish-red or yellowish-brown *mottles*. Walsingham soils have low water-holding capacities, and surface runoff is slow on level areas but increases with slope. Most Walsingham soils in the Niagara Region are mapped in the Wainfleet area, where they are commonly associated with Wauseon soils in level to depressional areas.

The surface horizons of Walsingham soils average between 20 and 25 cm in thickness, with subsoil B horizons extending to a depth of 75 to 100 cm below the surface. Calcareous C horizons underlie the B horizons, with yellowish-brown *mottles* occurring throughout both the B and C horizons. Fine sand textures are most prevalent, but layers of loamy fine sand and very fine sandy loam textures may occur.

Walsingham soils are mapped as CLI Class 3F soils because of their low natural fertility and possible limitations due to droughtiness. Most Walsingham soils in the Wainfleet area are used for vegetable crop production but require artificial drainage and occasional supplemental irrigation.

### **Wauseon**

Wauseon soils are mapped on 39.88% of the Subject Lands. These soils are poorly drained and surface runoff is slow. The poor drainage is primarily attributed to the presence of groundwater levels near the soil surface for most of the year. This condition arises from the existence of impermeable clays found at depths of 40 cm or greater. Wauseon soils are rapidly permeable with low water-holding capacities in the surface sands, while the subsoil clays exhibit slow permeability and high water-holding capacities. These soils are commonly associated with poorly drained Toledo – Coarse Phase soils.

The surface horizons of Wauseon soils have an average thickness of 40 cm and consist primarily of fine sandy loam textures and occasionally very fine sandy loams textures. Subsoil B horizons can be found at depths ranging from 40 to 100 cm. In the Niagara Region, calcareous C horizons occur at an average depth of approximately 70 cm. Both the B and C horizons are predominately comprised of silty clay textures. At the interface of the sandy and clay textures, a relatively impermeable hardpan occurs. Distinct strong brown *mottles* occur in the A horizon, while prominent yellowish-brown *mottles* are present in the B and C horizons.

Wauseon soils often require artificial drainage for common field crop production. If these soils are artificially drained, they are mapped as CLI Class 2W soils due to the presence of high groundwater levels in the *soil profile* for the majority of the year. When artificially drained, Wauseon soils have fair suitability for all fruit and vegetable crops, except for *tender fruit* crops. In addition to artificial drainage, implementing subsoiling techniques in areas where hardpans are present may increase crop yields.

### **Toledo – Loamy Phase**

Several phases of Toledo soils have been mapped in the Niagara Region, including Toledo – Loamy Phase soils, which are mapped on 27.39% of the Subject Lands. Toledo soils are poorly drained and slowly permeable. Groundwater levels remain near the surface for most of the year and lower slightly during the growing season. Toledo soils have relatively high water-holding capacities and moderate to high surface runoff.

The surface Ap horizons of Toledo soils typically range from 15 to 20 cm in thickness. Subsoil Bg horizons extend to depths between 40 and 60 cm below the surface before they contact the calcareous C horizons. The surface horizons of Toledo soils typically consist of silty clay loam textures, which transition into silty clay subsoil horizons. In the case of Toledo – Loamy Phase soils, a layer of loamy textured sediments typically occurs, ranging from 15 to 40 cm in depth, overlying clayey subsoils. Throughout the B and C horizons of Toledo soils, prominent yellowish-brown *mottles* can be observed.

Toledo soils require artificial drainage in order to be productive agricultural soils for common field crops. When artificially drained, these soils are rated CLI Class 3W, reflecting the high groundwater levels that persist throughout the majority of the year. These soils have poor to fair suitability for grapes, small fruits, hardy tree fruits, and most vegetable crops.

### **Tavistock**

Tavistock soils have been mapped on 11.74% of the Subject Lands. These soils are imperfectly drained, are moderately to slowly permeable, and have relatively high water-holding capacities. Temporary groundwater occupies the upper sediments above the subsoil for most of the year. Surface runoff is moderate to high and is primarily influenced by slope. These soils are common associates and inclusions of Toledo soils, including Toledo – Loamy Phase soils.

The surface horizons of Tavistock soils typically range from 20 to 25 cm in thickness. Some of the B horizons have developed in the upper 40 to 100 cm of loamy sediments, with Bt and Ck horizons developed in the underlying clayey sediments. The loamy sediments can have loam, silt loam, or very fine sandy loam textures. The underlying clay sediments can have silty clay, silty clay loam, or clay loam textures. Distinct to prominent yellowish-brown to strong brown *mottles* occur in the B and C horizons. Furthermore, at the interface between the loamy and clayey sediments, a weak and compacted hardpan occasionally forms.

Tavistock soils are classified as CLI Class 1, indicating their suitability for a wide range of field and horticultural crops. However, artificial drainage and irrigation may be required to increase yields of fruit and vegetable crops. On steeper slopes, these soils are classified as CLI Class 2E due to the high erodibility of the surface loamy materials. It is important to note that the Tavistock soils specifically mapped on the Subject Lands are classified as CLI Class 2T, which reflects limitations associated with adverse topography. Given their susceptibility to degradation from erosion and compaction, Tavistock soils must be managed appropriately. Implementing erosion control measures and employing strategies to minimize compaction are necessary for preserving the productivity of these soils.

## **APPENDIX F**

### Canada Land Inventory Information

## **Canada Land Inventory Soil Capability Classification for Agriculture**

The Canada Land Inventory (CLI) classification system was developed to classifying soil capability for agricultural use for use across Canada. CLI is an interpretative system which assesses the effects of climate and soil characteristics on the limitations of land for growing common field crops. It classifies soils into one of seven capability classes based on the severity of their inherent limitations to field crop production. Soils descend in quality from Class 1, which is highest, to Class 7 soils which have no agricultural capability for the common field crops. Class 1 soils have no significant limitations. Class 2 through 7 soils have one or more significant limitations, and each of these are denoted by a capability subclass.

In Ontario the document, "Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario" (OMAFRA, 2008) provides a Provincial interpretation of the CLI classification system. These guidelines are based on the "Canada Land Inventory, Soil Capability Classification for Agriculture" (ARDA Report No. 2, 1965) and have been modified for use in Ontario. In Ontario, CLI Classes 1 to 4 lands are generally considered to be arable lands and Classes 1 to 3 soils and specialty crop lands are considered to be prime agricultural lands.

The following definitions were taken from Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario (2008).

### **Definitions of the Capability Classes**

*Class 1 - Soils in this class have no significant limitations in use for crops.* Soils in Class 1 are level to nearly level, deep, well to imperfectly drained and have good nutrient and water holding capacity. They can be managed and cropped without difficulty. Under good management they are moderately high to high in productivity for the full range of common field crops

*Class 2 - Soils in this class have moderate limitations that reduce the choice of crops, or require moderate conservation practices.* These soils are deep and may not hold moisture and nutrients as well as Class 1 soils. 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 wide range of common field crops.

*Class 3 - Soils in this class have moderately severe limitations that reduce the choice 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 these soils are fair to moderately high in productivity for a wide range of common field crops.

*Class 4 - Soils in this class have severe limitations that restrict the choice of crops, or require special conservation practices and very careful management, or both.* The severe 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. These soils are low to medium in productivity for a narrow to wide range of common field crops, but may have higher 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 through the use of farm machinery. Feasible improvement practices may include clearing of bush, cultivation, seeding, fertilizing or water control.

*Class 6 - Soils in this class are unsuited for cultivation, but are capable of use for unimproved permanent pasture. These soils may provide some sustained grazing for farm animals, but the limitations are so severe that improvement through the use of farm machinery is impractical. The terrain may be unsuitable for the 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 includes marsh, rockland and soil on very steep slopes.*

### **Definitions of the Prime and Non-prime Agricultural Lands**

In Ontario, CLI Classes 1, 2 and 3 and specialty crop lands are considered prime agricultural lands. Non-prime agricultural lands are comprised of CLI Class 4-7 lands.

Organic soils (Muck) are not classified under the CLI system but are mapped and identified as O in the provincial mapping.

### **Definitions of the Capability Subclasses**

Capability Subclasses indicate the kinds of limitations present for agricultural use. Thirteen Subclasses were described in CLI Report No. 2. Eleven of these Subclasses have been adapted to Ontario soils.

Subclass Definitions:

Subclass C - Adverse climate: This subclass denotes a significant adverse climate for crop production as compared to the "median" climate which is defined as one with sufficiently high growing-season temperatures to bring common field crops to maturity, and with sufficient precipitation to permit crops to be grown each year on the same land without a serious risk of partial or total crop failures. In Ontario this subclass is applied to land averaging less than 2300 Crop Heat Units.

Class	Crop Heat Units
1	>2300
2C	1900-2300
3C	1700-1900
4C	<1700

Subclass D - Undesirable soil structure and/or low permeability: This subclass is used for soils which are difficult to till, or which absorb or release water very slowly, or in which the depth of rooting zone is restricted by conditions other than a high water table or consolidated bedrock. In Ontario this subclass is based on the existence of critical clay contents in the upper soil profile.

Class	Soil Characteristics
2D	The top of a clayey horizon >15 cm thick occurs within 40 cm of the soil surface. Clayey materials in this case must have >35% clay content.
3D	The top of a very fine clayey (clay content >60%) horizon >15 cm thick occurs within 40 cm of the soil surface

Subclass E - Erosion: Loss of topsoil and subsoil by erosion has reduced productivity and may in some cases cause difficulties in farming the land e.g. land with gullies.

Class	Soil Characteristics
2E	Loss of the original plough layer, incorporation of original B horizon material into the present plough layer, and general organic matter losses have resulted in moderate losses to soil productivity.
3E	Loss of original solum (A and B horizons) has resulted in a plough layer consisting mostly of

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	Loamy or Clayey parent material. Organic matter content of the cultivated surface is less than 2%.
4E	Loss of original solum (A and B horizons) has resulted in a cultivated layer consisting mainly of Sandy parent material with an organic matter content of less than 2%; shallow gullies and occasionally deep gullies which cannot be crossed by machinery may also be present.
5E	The original solum (A and B horizons) has been removed exposing very gravelly material and/or frequent deep gullies are present which cannot be crossed by machinery.

Subclass F - Low natural fertility: This subclass is made up of soils having low fertility that is either correctable with careful management in the use of fertilizers and soil amendments or is difficult to correct in a feasible way. The limitation may be due to a lack of available plant nutrients, high acidity, low exchange capacity, or presence of toxic compounds.

Class	Upper Texture Group (>40 and <100 cm from surface)	Lower Texture Group (remaining materials to 100 cm depth)	Drainage Class	Additional Soil Characteristics <sup>1</sup>
2F	Sandy	Sandy or very gravelly	Rapid to imperfect	Neutral or alkaline parent material with a Bt horizon within 100 cm of the surface
3F	Sandy	Sandy or very gravelly	Any drainage class	Neutral or alkaline parent material with no Bt horizon present within 100 cm of surface
3F	Sandy	Loamy or Clayey	Any drainage class	Acid parent material
3F	Loamy or clayey	Any Texture Group	Any drainage class	Acid parent material
4F	Sandy	Sandy or very gravelly	Any drainage class	Acid parent material
4F	Very gravelly	Any texture	Rapid to imperfect	Neutral to alkaline parent material
5F	Very Gravelly	Any texture	All drainage classes	Acid parent material

<sup>1</sup> "Acid" means pH<5.5; "Neutral" pH 5.5 to 7.4; "Alkaline" pH>7.4 as measured in 0.01 M CaCl<sub>2</sub> (CSCC, 1998). PH 's measured in distilled water tend to be slightly higher (up to 0.5 units).

Bt horizon should be fairly continuous and average more than 10cm thickness

Subclass I - Inundation by streams or lakes: Flooding by streams and lakes causes crop damage or restricts agricultural use.

Class	Soil Characteristics
3I	Frequent inundation with some crop damage; estimated frequency of flooding is less than once every 5 years (Floodplain); includes higher floodplain-terraces on which cultivated field crops can be grown.
5I	Very frequent inundation with some crop damage; estimated frequency of flooding is at least once every 5 years (Floodplain); includes active floodplain areas on which forage crops can be grown primarily for pasture.
7I	Land is inundated for most of the growing season; often permanently flooded (Marsh)

Subclass M – Moisture deficiency: Soils in this subclass have lower moisture holding capacities and are more prone to droughtiness.

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Class	Soil Texture Groups		Drainage	Additional Soil Characteristics
	Upper materials1	Lower materials2		
2M	15 to 40 cm of loamy or finer materials	Sandy to Very Gravelly	Well	
2M	40 to < 100 cm of sandy to very gravelly material.	Loamy to Very Fine Clayey	Well	
2M	Sandy		Rapid to well	Well developed Bt3 horizon occurs within 100 cm of surface
3M	Sandy material to > 100cm		Rapid	Bt horizon absent within 100 cm of surface
4M	Very Gravelly to > 100 cm		Rapid	Bt horizon present within 100 cm of surface
5M	Very gravelly to > 100cm		Very rapid	Bt horizon absent within 100cm

Subclass P - Stoniness: This subclass indicates soils sufficiently stony to hinder tillage, planting, and harvesting operations.

Class	Soil Characteristics
2P	Surface stones cause some interference with tillage, planting and harvesting; stones are 15-60 cm in diameter, and occur in a range of 1-20 m apart, and occupy <3% of the surface area. Some stone removal is required to bring the land into production.
3P	Surface stones are a serious handicap to tillage, planting, and harvesting; stones are 15-60 cm in diameter, occur 0.5-1m apart (20-75 stones/100 m <sup>2</sup> ), and occupy 3-15% of the surface area. The occasional boulder >60 cm in diameter may also occur. Considerable stone removal is required to bring the land into production. Some annual removal is also required.
4P	Surface stones and many boulders occupy 3-15% of the surface. Considerable stone and boulder removal is needed to bring the land into tillable production. Considerable annual removal is also required for tillage and planting to take place.
5P	Surface stones 15-60 cm in diameter and/or boulders >60 cm in diameter occupy 15-50% of the surface area (>75 stones and/or boulders/100 m <sup>2</sup> ).
6P	Surface stones 15-60 cm in diameter and/or boulders >60 cm in diameter occupy >50% of the surface area.

Subclass R - Shallowness to Consolidated Bedrock: This subclass is applied to soils where the depth of the rooting zone is restricted by consolidated bedrock. Consolidated bedrock, if it occurs within 100 cm of the surface, reduces available water holding capacity and rooting depth. Where physical soil data were available, the water retention model of McBride and Mackintosh was used to assist in developing the subclass criteria.

Class	Soil Characteristics
3R	Consolidated bedrock occurs at a depth of 50-100 cm from the surface causing moderately severe restriction of moisture holding capacity and/or rooting depth.
4R	Consolidated bedrock occurs at a depth of 20-50 cm from the surface causing severe restriction of moisture holding capacity and/or rooting depth.
5R	Consolidated bedrock occurs at a depth of 10 to 20 cm from the surface causing very severe restrictions for tillage, rooting depth and moisture holding capacity. Improvements such as tree removal, shallow tillage, and the seeding down and fertilizing of perennial forages for hay and grazing may be feasible.

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6R	Consolidated bedrock occurs at a depth of 10-20 cm from the surface but improvements as in 5R are unfeasible. Open meadows may support grazing.
7R	Consolidated bedrock occurs at < 10cm from the surface.

Subclass S - Adverse soil characteristics: This subclass denotes a combination of limitations of equal severity. In Ontario it has often been used to denote a combination of F and M when these are present with a third limitation such as T, E or P.

Subclass T - Topography

The steepness of the surface slope and the pattern or frequency of slopes in different directions are considered topographic limitations if they: 1) increase the cost of farming the land over that of level or less sloping land; 2) decrease the uniformity of growth and maturity of crops; and 3) increase the potential of water and tillage erosion.

Determination of Subclass T for Very Gravelly and Sandy Soils

Slope %	<2		2-5		5-9		9-15		15-30		30-60		>60	
Slope type	S	C	S	C	S	C	S	C	S	C	S	C	S	C
Class				2T	2T	3T	3T	4T	5T	5T	6T	6T	7T	7T

Slope %	<2		2-5		5-9		9-15		15-30		30-60		>60	
Slope type	S	C	S	C	S	C	S	C	S	C	S	C	S	C
Class				2T	3T	3T	4T	4T	5T	5T	6T	6T	7T	7T

S = Simple Slopes >50 m in length

C =Complex Slopes <50 m in length

Subclass W - Excess water:

The presence of excess soil moisture, other than that brought about by inundation, is a limitation to field crop agriculture. Excess water may result from inadequate soil drainage, a high water table, seepage or runoff from surrounding areas.

Soil Textures and Depths	Depth to Bedrock (cm)	Soil Class (Drainage in place or feasible)	Soil Class (Drainage not feasible)
Very gravelly, sandy, or loamy extending >40 cm from the surface, or, <40 cm of any other textures overlying very gravelly, sandy or loamy textures	>100	2W	4W, 5W
>40 cm depth of clayey or very fine clayey textures, or, <40 cm of any other texture overlying clayey or very fine clayey textures	>100	3W	5W
<40 cm of peaty material overlying any texture	>100	3W	5W
All textures	50-100	4W	5W
All textures	0-50	NA	5W



**APPENDIX G**

Site Photographs



Photo 1: Operation #1 – Goat building with one goat shown, located within Subject Lands.



Photo 2: Operation #1 – Small chicken coupe and agricultural building used for storage located within Subject Lands

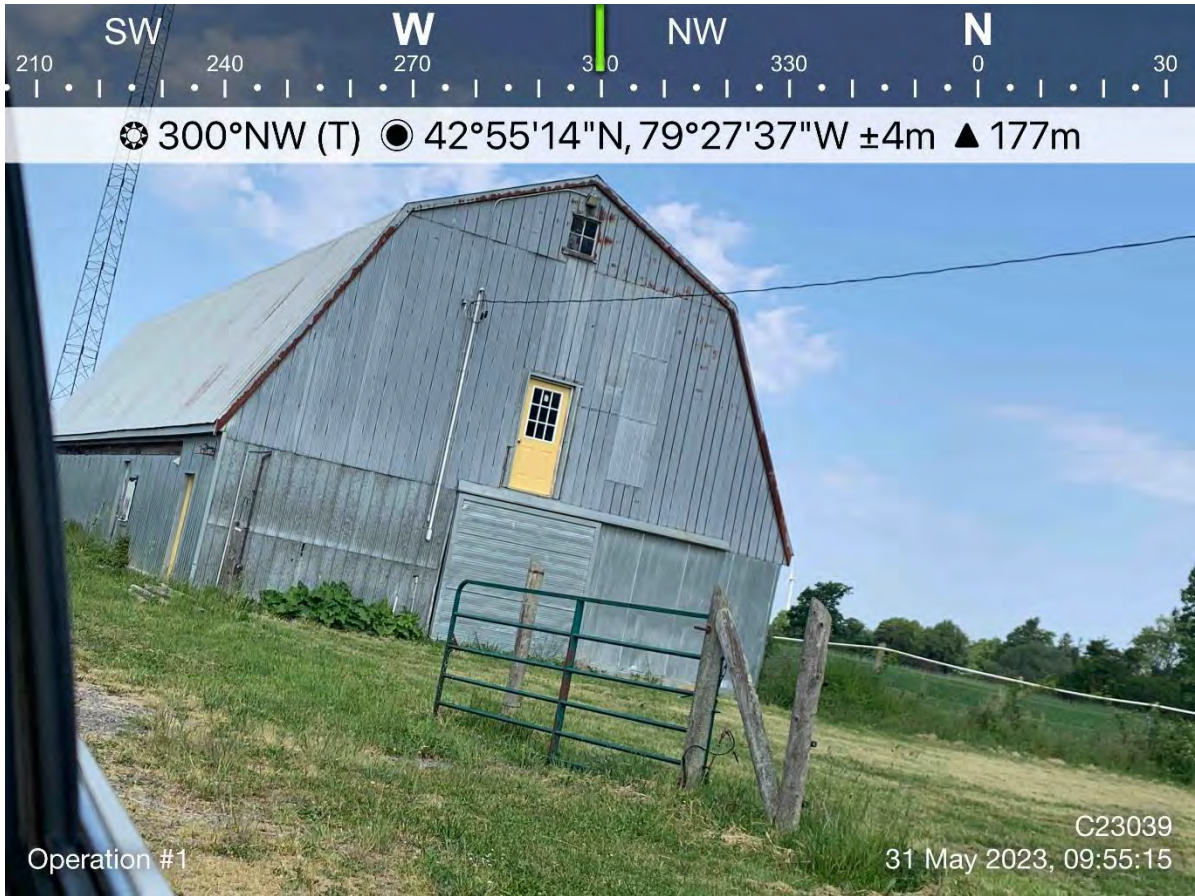


Photo 3: Operation #1 – Barn (future wedding venue and event space) located within Subject Lands



Photo 4: Operation #10 – Grain elevators and storage buildings



☀ 268°W (T) ● 42°55'41"N, 79°27'35"W ±95m ▲ 157m



Operation #15

C23039  
31 May 2023, 10:18:34

Photo 5: Operation #11 – Empty swing beam barn now used for storage of farm implements.



☀ 137°SE (T) ● 42°55'28"N, 79°28'2"W ±21m ▲ 178m



Operation #4

C23039  
31 May 2023, 10:27:16

Photo 6: Operation #3 – Equestrian operations showing outdoor manure storage and horse barn.



Photo 7: Operation #12 – Remnant farm showing storage buildings.



Photo 8: Operation #9 –Hobby farm showing horses in pasture and barn used for housing sheep.



Photo 9: Operation #4 – Remnant farm showing uncapped cement silo.



Photo 10: Operation #5 – Empty livestock operation showing old livestock barn still capable of housing livestock.

**APPENDIX H**  
Land Use Notes

**Land Use Survey Notes – AIA for 33684 Sider Road, Township of Wainfleet**

<b>Weather</b>	Sunny	<b>Date (s)</b>	May 31, 2023
<b>Temperature</b>	27°C	<b>File</b>	C23039

<b>Site No.</b>	<b>Type of Use</b>	<b>Type of Operation</b>	<b>MDS Calculation Required?</b>	<b>Description of Operation</b>
1	Agricultural	Hobby Farm	No	-Located within PSA - 2 Goats, 5 Chickens, 3 Guineafowls observed -Two barns, 5 paddocks, small chicken coupe, building for goats
2	Agricultural	Hobby Farm	Yes	-3 paddocks -1 barn -Outdoor manure storage -Some outdoor storage -3 horses observed in paddock -2 turkeys, 4 chickens, 1 Muscovy duck observed “N.R.G Farms”
3	Agricultural	Equestrian Operation	Yes	-Multiple large paddocks -Horses observed in aerial photos -Barn in good condition -Spoke with land owner and confirmed there are horses (would not disclose how many) -Outdoor manure storage -10 chickens, 1 rooster, 1 goose observed
4	Agricultural	Remnant Farm	No	-Uncapped cement silo -Barn removed, no evidence of foundation
5	Agricultural	Empty Livestock Operation	Yes	-Outdoor storage -One implement shed -One barn in good condition (capable of housing livestock) -No sign of livestock
6	Non-Agricultural	Commercial	No	-Interstate Batteries -Auto maintenance / repair



7	Non-Agricultural	Commercial	No	<p>“Country Gals Unisex Hair Salon” from 2012 street view</p> <p>-Observed on site to still be hair salon</p>
8	Agricultural	Hobby Farm	Yes	<p>-Chicken coupe and building with “GOAT” writing</p> <p>-Small paddock for dogs</p> <p>-Small personal outdoor storage area</p> <p>-7 chickens, 2 ducks, one rooster, no goats observed</p> <p>-Landowner was not home</p>
9	Agricultural	Hobby Farm	Yes	<p>- Two barns with animal access to outdoors</p> <p>-Outdoor manure storage</p> <p>-6 horses observed in pasture</p> <p>- 2 sheep, 1 lamb observed</p> <p>-horse trailer observed</p> <p>-OFA member</p> <p>-Spoke with landowner and left contact information</p> <p>-Sheep and lambs for meat, mares for breeding, used to have cows for dairy</p>
10	Agriculture-Related	Grain Elevator	No	<p>-Grain elevator</p> <p>-Three implement sheds</p> <p>-Spoke with landowner</p>
11	Agricultural	Empty Livestock Operation	Yes	<p>-Large swing beam barn in fair condition (capable of housing livestock)</p> <p>-Implement shed</p> <p>-Paddock behind barn</p> <p>-No sign of livestock</p> <p>-Spoke with landowner</p> <p>-Property currently used for cash crop, used to have pigs before current owners (over 20 years ago)</p>
12	Agricultural	Remnant Farm	No	<p>-Two long building in poor condition used for storage</p> <p>-Detached garage in the shape of a barn (not capable of housing livestock)</p> <p>-No evidence of livestock</p>

13	Agricultural	Remnant Farm	No	<ul style="list-style-type: none"> <li>-Riding ring</li> <li>-Multiple paddocks (now used for dog)</li> <li>-Spoke with landowner</li> <li>-Used to have 2 horses, kept in small shed/barn at back of property</li> <li>-Shed/barn in poor condition and not capable of housing livestock</li> <li>“Triple G Farms”</li> </ul>
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	Total Number	Active	Retired or Remnant
<b>Agricultural</b>	10	4 – Hobby Farm 1 – Equestrian Operation	3 – Remnant Farm 2 – Empty Livestock Operation
<b>Agriculture-related</b>	1	1 – Grain Elevator	0
<b>On-farm Diversified</b>	0	0	0
	<b>Total Number</b>	<b>Type</b>	
<b>Non-Agricultural</b>	2	2 – Commercial	

**APPENDIX I**

AgriSuite MDS Report



## 33684 Sider Road

## General information

<b>Application date</b> Jun 1, 2023	<b>Municipal file number</b>	<b>Proposed application</b> New or expanding agriculture-related use (if required locally)
<b>Applicant contact information</b> Kaitlynn Green Sweet Creek Family Farm 33684 Sider Road Township of Wainfleet, ON L0S1V0	<b>Location of subject lands</b> Regional Municipality of Niagara Township of Wainfleet WAINFLEET Concession 3 , Lot 36 Roll number: 2714	

## Calculations


## Operation #2

<b>Farm contact information</b> 	<b>Location of existing livestock facility or anaerobic digester</b>	<b>Total lot size</b>		
ON	Regional Municipality of Niagara Township of Wainfleet WAINFLEET Concession 3 , Lot 36 Roll number: 2714	0.78 ha		
<b>Livestock/manure summary</b>				
Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	3	3.9 NU	83 m <sup>2</sup>
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Floor Run	160	1.1 NU	15 m <sup>2</sup>
 <b>Confirm Livestock/Manure Information (Operation #2)</b> The livestock/manure information has not been confirmed with the property owner and/or farm operator.				
<b>Setback summary</b>				
Existing manure storage	V3. Solid, outside, no cover, >= 30% DM			
Design capacity	5 NU			
Potential design capacity	5 NU			
Factor A (odour potential)	0.76	Factor B (design capacity)	150	
Factor D (manure type)	0.7	Factor E (encroaching land use)	1.1	
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)				88 m (289 ft)
Actual distance from livestock barn				NA
Storage base distance 'S' (minimum distance from manure storage)				88 m (289 ft)

Actual distance from manure storage

NA

## Operation #3

Farm contact information 

ON

## Location of existing livestock facility or anaerobic digester

Regional Municipality of Niagara  
Township of Wainfleet  
WAINFLEET  
Concession 4 , Lot 37  
Roll number: 2714

Total lot size  
20.02 ha

## Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	5	7 NU	148 m <sup>2</sup>




## Confirm Livestock/Manure Information (Operation #3)

The livestock/manure information has not been confirmed with the property owner and/or farm operator.

## Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	7 NU		
Potential design capacity	14 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	180.06
Factor D (manure type)	0.7	Factor E (encroaching land use)	1.1
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			98 m (322 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			98 m (322 ft)
Actual distance from manure storage			NA

## Operation #5

Farm contact information 

ON

## Location of existing livestock facility or anaerobic digester

Regional Municipality of Niagara  
Township of Wainfleet  
WAINFLEET  
Concession 3 , Lot 37  
Roll number: 2714

Total lot size  
21.64 ha


## Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	163 m <sup>2</sup>	8.2 NU	163 m <sup>2</sup>



## Confirm Livestock/Manure Information (Operation #5)


The livestock/manure information has not been confirmed with the property owner and/or farm operator.

 **Unoccupied Barn or Unused Storage (Operation #5)**  
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

### Setback summary


Existing manure storage	- Not Specified -		
Design capacity	8.2 NU		
Potential design capacity	16.3 NU		
Factor A (odour potential)	1	Factor B (design capacity)	187.66
Factor D (manure type)	0.7	Factor E (encroaching land use)	1.1
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			145 m (476 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			No existing manure storage
Actual distance from manure storage			NA

### Operation #8

Farm contact information 	Location of existing livestock facility or anaerobic digester	Total lot size
ON	Regional Municipality of Niagara Township of Wainfleet WAINFLEET Concession 3 , Lot 37 Roll number: 2714	19.89 ha

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Floor Run	173	1.2 NU	16 m <sup>2</sup>


 **Confirm Livestock/Manure Information (Operation #8)**  
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

### Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	1.1 NU		
Potential design capacity	1.1 NU		
Factor A (odour potential)	1	Factor B (design capacity)	150
Factor D (manure type)	0.7	Factor E (encroaching land use)	1.1
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			116 m (381 ft)
Actual distance from livestock barn			NA

Storage base distance 'S' (minimum distance from manure storage)	116 m (381 ft)
Actual distance from manure storage	NA

## Operation #9

Farm contact information 

ON

Location of existing livestock facility or anaerobic digester  
Regional Municipality of Niagara  
Township of Wainfleet  
WAINFLEET  
Concession 3 , Lot 35  
Roll number: 2714

Total lot size  
6.54 ha

## Livestock/manure summary


Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	6	8 NU	170 m <sup>2</sup>
Solid	Sheep, Ewes & rams (for meat lambs; includes unweaned offspring & replacements), Outside Access	98	12.2 NU	136 m <sup>2</sup>

## Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	20.2 NU		
Potential design capacity	40.5 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	240.96
Factor D (manure type)	0.7	Factor E (encroaching land use)	1.1

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	130 m (427 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	130 m (427 ft)
Actual distance from manure storage	NA

## Operation #11

Farm contact information 


ON

Location of existing livestock facility or anaerobic digester  
Regional Municipality of Niagara  
Township of Wainfleet  
WAINFLEET  
Concession 4 , Lot 36  
Roll number: 2714

Total lot size  
20.46 ha

**Livestock/manure summary**

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	322.8 m <sup>2</sup>	16.1 NU	323 m <sup>2</sup>

 **Unoccupied Barn or Unused Storage (Operation #11)**  
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

**Setback summary**

Existing manure storage	- Not Specified -		
Design capacity	16.1 NU		
Potential design capacity	32.3 NU		
Factor A (odour potential)	1	Factor B (design capacity)	224.56
Factor D (manure type)	0.7	Factor E (encroaching land use)	1.1
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			173 m (568 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			No existing manure storage
Actual distance from manure storage			NA

**Preparer signoff & disclaimer****Preparer contact information**

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**Signature of preparer**


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 John Liotta , Agrologist/Ecologist

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 Date (mmm-dd-yyyy)
**Note to the user**

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