

**AGRICULTURAL IMPACT ASSESSMENT  
FOR  
514504 2<sup>ND</sup> LINE, TOWNSHIP OF AMARANTH**

**PREPARED FOR:**

**THE CELLULAR CONNECTION LTD.**

78 FARNHAM AVENUE  
TORONTO, ON  
M4V 1H4

**PREPARED BY:**



432 NIAGARA STREET, UNIT 2  
ST. CATHARINES, ONTARIO L2M 4W3

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## **1. INTRODUCTION**

### **1.1 Retainer**

Colville Consulting Inc. was retained by The Cellular Connection Ltd. to complete an Agricultural Impact Assessment (AIA) for the lands located at 514504 2<sup>nd</sup> Line, Amaranth, in support of County and Local Official Plan Amendments (OPAs), Zoning By-law Amendment, and Draft Plan of Subdivision applications to permit the subdivision of the property for residential *development*. These lands, herein referred to as the Subject Lands, are approximately 32.96 ha (81.45 acres) in size, and are located south of 20 Sideroad, west of 2<sup>nd</sup> Line, north of Side Road 15, and east of Dufferin County Road 11. The Subject Lands are designated Rural and Environmental Protection in the Town of Amaranth Official Plan and Prime Agricultural Area in the Dufferin County Official Plan.

### **1.2 Development in Ontario**

The *Provincial Planning Statement, 2024 (PPS)* provides the framework for land use planning and *development* in Ontario. It provides policy direction on matters of provincial interest related to land use planning and *development*. The intent of the planning statement is to ensure “Ontario’s vibrant agricultural sector and sensitive areas will continue to form part of the province’s economic prosperity and overall identity. Growth and development will be prioritized within urban and rural settlements that will, in turn, support and protect the long-term viability of rural areas, local food production, and the agri-food network. In addition, resources, including natural areas, water, aggregates and agricultural lands will be protected.”

#### **1.2.1 Defined Terms and Meanings**

Italicized terms throughout this AIA are often consistent with terms and definitions contained in the *Provincial Planning Statement* and provincial guidance documents. The definitions of these italicized terms are provided in the Glossary of Terms section of this report.

#### **1.2.2 Guidance Documents**

This AIA refers to several provincial guidance documents, materials, and technical criteria that are frequently considered when preparing an AIA. These guidance documents are meant to inform and assist planning authorities and decision-makers when implementing the policies of the *Provincial Planning Statement*. The guidance documents also provide practitioners with direction on what the Province considers important and how studies such as an AIA are to be undertaken. As stated in the *PPS*, “Information, technical criteria and approaches outlined in provincial guidance are meant to support implementation but not add to or detract from the policies of this Provincial Planning Statement”.

Throughout this AIA, there are several references to documents and data sources prepared the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA). However, in June of 2024, the ministry was re-organized and two separate ministries were formed: the Ministry of Agriculture, Food and Agribusiness (OMAF) and the Ministry of Rural Affairs (MRA). For the purposes of this report, references to OMAFA and OMAFRA are often used interchangeably.

## 1.3 Qualified Professionals

### 1.3.1 Provincial Guidance Requirements

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) prepared the draft Agricultural Impact Assessment Guidance Document and published it in 2018. This document provides guidance on how to prepare an AIA and the qualifications practitioners must have in order to prepare an AIA. It states that qualified persons should have knowledge in:

- ♦ Agri-businesses, agricultural supply chain linkages, rural/agricultural economic development in Ontario, and within the GGH, the *agri-food network*, where relevant
- ♦ Rural and agricultural land use planning
- ♦ Canada Land Inventory (CLI) classifications of capability for agriculture assessment and, where relevant a practical understanding of soil science, including the ability to review technical information from non-agricultural disciplines and assess its relevance and utility in identifying potential agricultural impacts and
- ♦ Assessment and evaluation of the potential effectiveness of agricultural impact mitigation measures to reduce impacts.

The guidance document goes on to say that Qualified Persons (QPs) “should have demonstrable experience evaluating and assessing agricultural impacts and university or college degree(s) in one or more of the following: agriculture, soil science, geoscience, landscape architecture, resource management-related disciplines, environmental-related disciplines, agricultural engineering, or land use planning.”

The guidance document states that the authors of the AIA, and those contributing to it, should have a “relevant academic base, Ontario experience, and preferably membership in a professional organization with a code of ethics and ongoing professional development requirements”. As an example of such a professional organization, it specifically refers to the Ontario Institute of Agrologists (OAI) and registered professional agrologists (P.Ag.). All QPs should have demonstrated experience providing objective, professional judgment, advice, and testimony as an expert witness.

### 1.3.2 Colville Consulting Expertise

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 preparing Agricultural Impact Assessments for proposed *developments* related to new *settlement areas* and *settlement area* boundary expansion applications across the province of Ontario.

This study was led by Sean Colville, B.Sc., P.Ag., who has over 35 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, B.Sc., P.Ag., was responsible for completing the field investigations and preparation of the AIA. John has over seven combined years of formal education in Environmental and Agricultural Planning and work experience preparing Agricultural Impact Assessments with Colville Consulting Inc.

Colville Consulting Inc. staff meet the guidance documents qualifications for QPs. The curriculum vitae (CV) of Sean Colville and John Liotta can be found in Appendix A.

#### **1.4 Description of Proposed Development**

The Cellular Connection Ltd. is pursuing County and Local Official Plan Amendments to redesignate the Subject Lands from Prime Agricultural Area to a new Community Settlement Area in the Dufferin County Official Plan, and from Rural to Estate Residential in the Township of Amaranth Official Plan. A Zoning By-law Amendment and Draft Plan of Subdivision are also being pursued to permit the subdivision *development* of the Subject Lands for 19 residential units. The residential units are proposed to be single detached rural residential units built around the natural features present on the Subject Lands. The residential lots will be serviced by individual private wells and septic tanks. Access to the subdivision is proposed at two locations along 2<sup>nd</sup> Line, which connect within the Subject Lands to provide access to the proposed residential uses. A copy of the Draft Plan of Subdivision can be found in Appendix B.

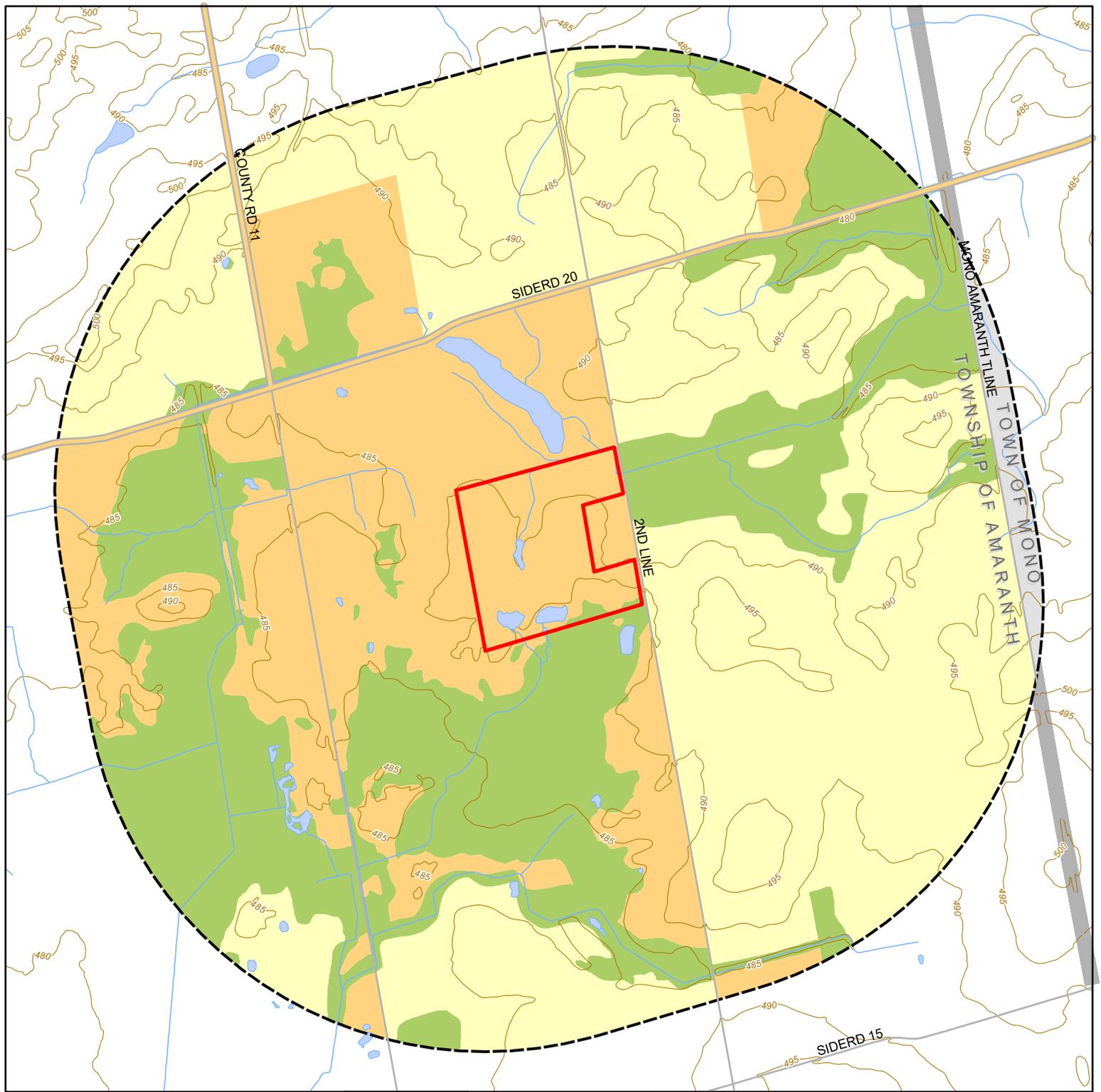
#### **1.5 Purpose of Study**

The Subject Lands are designated Prime Agricultural Area in the Dufferin County Official Plan. In order to permit the proposed *development*, the Subject Lands must be removed from the *prime agricultural area* of Dufferin County and redesignated for urban land uses. Policy 4.3.4 of the *Provincial Planning Statement (PPS)* states that “Planning authorities may only exclude land from prime agricultural areas for expansions of or identification of settlement areas in accordance with policy 2.3.2.” Policy 2.3.2 of the *PPS* requires planning authorities to consider, in part, “whether impacts on the agricultural system are avoided, or where avoidance is not possible, minimized and mitigated to the extent feasible as determined through an agricultural impact assessment or equivalent analysis.” As such, an AIA is required to facilitate the redesignation of the Subject Lands from Prime Agricultural Area to Community Settlement Area in the Dufferin County Official Plan.

This AIA has been prepared in accordance with OMAFRA’s Draft Agricultural Impact Assessment (AIA) Guidance Document (2018). The AIA assesses and evaluates the potential impacts of the proposed OPA on agricultural operations, the farming community, and the broader *Agricultural System*. In cases where impacts cannot be avoided, the AIA recommends ways to mitigate adverse impacts. The AIA also assesses whether the proposed new *settlement area* is consistent with provincial and municipal agricultural policies.

#### **1.6 Study Area**

In order 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 1.5 km (1,500 m) of the Subject Lands’ boundaries comprise the Secondary Study Area (SSA). Figure 1 shows the *Study Area*, which includes the Primary and Secondary Study Areas.



**LEGEND**

- Subject Lands
- Study Area (1500 m)
- Ohn Waterbody
- Ohn Watercourse
- Contour
- Land Use (Amaranth Twp OP Sch-A)**
- Agricultural
- Environmental Protection
- Mono Township
- Rural

**LOCATION MAP**



**Figure 1**  
**Location of Subject Lands**

Agricultural Impact Assessment  
514504 2nd Line, Amaranth ON

Prepared for: **The Cellular Connection Ltd.**

Prepared by: **COLVILLE CONSULTING INC.**

0 0.5 KM  
1:20,000



FILE:  
C25059

### **1.6.1 Primary Study Area – Subject Lands**

The Subject Lands are located west of 2<sup>nd</sup> Line, south of Sideroad 20, east of Dufferin County Road 11, and north of Sideroad 15. The Subject Lands are comprised of an irregularly shaped parcel approximately 32.96 ha (81.45 ac) in size. There is an existing rural residential dwelling and a hydro-electric facility (infrastructure) on site. The Subject Lands are not cultivated for agricultural production and a substantial portion of the Subject Lands are comprised of natural heritage features.

### **1.6.2 Secondary Study Area – Study Area**

The Secondary Study Area, herein referred to as the *Study Area*, includes all lands within 1.5 km (1,500 m) of the Subject Lands' boundaries. The *Study Area* is generally bounded by Blind Line to the east, Sideroad 15 to the south, 4 Line to the west, and 25 Sideroad to the north. The *Study Area* is primarily in agricultural production, and contains several large areas of natural heritage features. Within the *Study Area* there are lands designated:

- ♦ Agricultural, Rural, and Environmental Protection in the Township of Amaranth Official Plan;
- ♦ Prime Agriculture, Rural, and Environmental Protection in the Town of Mono Official Plan; and
- ♦ Prime Agricultural Area and Rural Area in the Dufferin County Official Plan.

## 2. SCOPE OF STUDY

The scope of the AIA follows the methodology recommended in the Draft Agricultural Impact Assessment Guidance Document (2018). It includes:

- ♦ a review of applicable agricultural policies, land use information, and other background information for lands within the surrounding area (e.g., aerial photography);
- ♦ a review of data sources such as AgMaps, 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 one and a half kilometres (1.5 km) of the Subject Lands and a characterization of the area;
- ♦ an assessment of the *Minimum Distance Separation (MDS)* requirements for the proposed OPA using the 2017 *MDS I formula*;
- ♦ the identification of agricultural resources and investments in agricultural land improvements;
- ♦ the identification of *agricultural uses, agriculture-related uses, on-farm diversified uses, and non-agricultural uses*;
- ♦ an assessment of the level of fragmentation of agricultural lands in the *Study Area*;
- ♦ an assessment of alternative locations;
- ♦ an assessment of the relative agricultural priority of the lands;
- ♦ an assessment of the potential impacts of the proposed new *settlement area* on the *Agricultural System*, agricultural resources, farm operations and the broader *agri-food network*;
- ♦ the recommendation of potential mitigation measures that can be implemented to avoid or minimize potential impacts to the extent feasible;
- ♦ an assessment of net impacts following the implementation of recommended mitigation measures; and,
- ♦ an assessment of the proposed new *settlement area's* consistency with agricultural policies in the *Provincial Planning Statement*, the Dufferin County Official Plan, and the Township of Amaranth Official Plan.

The findings of this study have been summarized in this report.

### 3. METHODOLOGY

The study methodology for the AIA was prepared in accordance with the OMAFRA Draft Agricultural Impact Assessment Guidance Document (2018). 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 new *settlement area* were evaluated, and recommendations provided to avoid and/or minimize potential impacts. The AIA also assessed the consistency of the proposed new *settlement area* with the provincial, regional, and local agricultural policies.

#### 3.1 Background Data Collection

Information sources reviewed for this study included:

- ♦ *Provincial Planning Statement (2024)*;
- ♦ Dufferin County Official Plan and Land Use Schedules (2017);
- ♦ Township of Amaranth Official Plan (2018);
- ♦ Soil Survey of Dufferin County – Report No. 38 of the Ontario Soil Survey (1964);
- ♦ W.E. Oughtred & Associates Inc.’s Planning Justification Report (January 2025);
- ♦ urban Metric’s Estate Residential Subdivision Market and Socio-Economic Study (October 2024);
- ♦ Watson & Associates Economists Ltd.’s 2024 Development Charge Background Study (June 2024);
- ♦ OMAFA’s digital soil Resource Database to obtain soil series and CLI agricultural capability mapping and data;
- ♦ British Columbia Ministry of Agriculture’s Guide to Edge Planning: Promoting Compatibility Along Agricultural-Urban Edges (2006);
- ♦ MHBC’s Edge Planning Report – The Region of Peel & The Town of Caledon LEAR Study and MDS Review (2015);
- ♦ OMAFRA’s The Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks. Publication 853 (2016);
- ♦ OMAFA’s Artificial Drainage Systems mapping;
- ♦ OMAFA’s AgriSuite, AgMaps and Agri-Systems databases;
- ♦ OMAFRA’s Draft Agricultural Impact Assessment (AIA) Guidance Document (2018);
- ♦ Ortho-rectified, digital aerial photography viewed using Google Earth™; and,
- ♦ Relevant reports produced by other.

Aerial photography covering the *Study Area* and the parcel fabric were examined to assess the presence of *non-agricultural land uses, agricultural uses, agriculture-related uses, on-farm diversified uses*, and the level of fragmentation based on the lot fabric. This review will provide a general impression of the agricultural activity and level of agricultural investments in the area surrounding the Subject Lands.

## 3.2 Field Inventories

### 3.2.1 Land Use Survey

A reconnaissance level land use survey was completed on July 24, 2025, which identified the number and type of agricultural operations (both active and *retired*), *agriculture-related uses*, *on-farm diversified uses*, and the extent and type of *non-agricultural 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 Calculations

The *MDS* is a land use planning tool developed by OMAFA to minimize land use conflicts and nuisance complaints arising from odours generated by *livestock facilities*. The *MDS* calculates a recommended separation distance between a *livestock facility* 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* uses two separate formulae depending on the type of land use proposed: the *MDS I formula* and the *MDS II formula*. The *MDS I formula* is used when a new non-agricultural *development* is proposed in proximity to existing *livestock facilities*. The *MDS II formula* is used to calculate the distance from proposed new, enlarged, or remodeled *livestock facilities* and existing or approved non-agricultural *development*.

The *MDS I formula* is required for the proposed new *settlement area*. The information required to complete an *MDS I* calculation was obtained through a combination of sources. As per the *MDS Guidelines*, attempts were made to gather information directly from the landowner/tenant. Where landowners could not be contacted or were not available, self-addressed envelopes requesting the required information were left in mailboxes of potential *livestock facilities*.

OMAFA's Agricultural Planning Tool (AgriSuite) was used to determine the *MDS* requirements. It provides the most up to date software developed by OMAFA to calculate the *MDS I* requirements for active *livestock facilities* and *unoccupied 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* (active and *unoccupied*). In cases where landowners could not be contacted, visual observations of the *livestock facility* were used to determine 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 AgMaps and Google Earth™. Barn capacity and lot size were determined using these online 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. An evaluation of the *Agricultural System* and associated features within the *Study Area* was completed through a reconnaissance level land use survey on July 24, 2025, and online review to assist in identifying agricultural related features.

Potential features identified include regional infrastructure and transportation networks, on-farm buildings and infrastructure, agricultural services, as well as small towns and hamlets that are supportive of agriculture and are important to the viability of the agri-food sector. The evaluation of the *Agricultural System* within the *Study Area* is used to identify the features and provide insight into the significance of those features on the overall *Agricultural System* within the County.

### 3.4 Evaluation of Alternative Locations

The *PPS* directs new *settlement areas* to avoid *prime agricultural areas*, where possible. Where *prime agricultural areas* cannot be avoided, policy directs *development* to lower priority agricultural lands. The 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. This AIA reviewed the land use schedules of the Township of Amaranth and Dufferin County Official Plans to determine whether the proposed *development* can avoid *prime agricultural areas*.

### 3.5 Evaluation of Agricultural Priority

When determining agricultural capability, the *PPS* directs new *settlement areas* to “lower priority agricultural lands”. Although neither the *PPS*, nor other provincial planning documents, specifically define in policy “lower priority agricultural lands”, there are a number of considerations used by OMAFA to determine the ‘agricultural priority’ of an area. These considerations include criteria such as the quality of soils (based on Canada Land Inventory mapping), current land use, amount of capital investment in agricultural infrastructure, amount of land under active cultivation, existing degree of lot fragmentation to the surrounding agricultural land base, and proximity to incompatible land uses such as urban and rural *settlement areas*. This AIA considers these criteria to assess the agricultural priority of the Subject Lands.

### 3.6 Identification of Potential Impacts and Mitigation Measures

Potential impacts of the proposed new *settlement area* were identified following an assessment of the agricultural resources on and adjacent to the Subject Lands. Direct impacts are those that directly impact the Subject Lands and include:

1. Interim or permanent loss of agricultural land, including the quality and quantity of farmland lost;
2. The type of *agricultural, agriculture-related, or on-farm diversified uses*, being lost and the significance this has for supporting other agricultural production in the area;
3. The loss of existing and future farming opportunities;
4. The loss of infrastructure, services, or assets, important to the surrounding agricultural community and agri-food sector;
5. The loss of agricultural investments in structures and land improvements (e.g. artificial drainage);

6. The disruption or loss of function to artificial drainage and irrigation installations; and,
7. Changes to the soil drainage regime.

Indirect impacts can negatively affect adjacent lands, farm operations, and farm practices. These include:

1. Fragmentation of agricultural lands within the *Study Area* and operations;
2. *Minimum Distance Separation* changes (where applicable) that will constrain future farm operations;
3. Changes to surface drainage features which could have an effect on adjacent lands;
4. Changes to landforms, elevations, and slope, that could alter microclimatic conditions (e.g. modification to slopes that may reduce or improve cold air drainage opportunities and changes to elevation that may have an impact on diurnal temperatures);
5. Changes to hydrogeological conditions that could affect neighbouring municipal or private wells, sources of irrigation water, and sources of water for *livestock*;
6. Disruption to surrounding farm operations, activities, and management (e.g. temporary loss of productive agricultural lands, cultivation, seeding, spraying, harvesting, field access, use of road network);
7. The potential effects of noise, vibration, dust, traffic, vandalism, and trespassing, on agricultural operations, lands, activities, and investments;
8. Potential compatibility concerns between agricultural operations employing *normal farm practices* and new non-farm *development* (e.g. nuisance complaints); and,
9. The inability or challenges to move farm vehicles and equipment along roads due to increased traffic caused by haul routes, and changes in road design.

Mitigation measures have been developed for both direct and indirect impacts identified to avoid or minimize potential impacts on the *Agricultural System*.

### **3.7 Assessment of Consistency 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 new *settlement area* must adhere to. A background review of all applicable provincial and municipal policies relating to agriculture was undertaken. Policies applicable to the proposed *development* were identified and assessed for consistency as part of this AIA.

## 4. AGRICULTURAL POLICIES

### 4.1 Provincial Planning Statement (2024)

Land Use Policy and *development* in Ontario are directed by the *Provincial Planning Statement*. The *PPS* was issued under the authority of Section 3 of the Planning Act, and came into effect on October 20, 2024. 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 4.3 of the *Provincial Planning Statement* specifically deals with agricultural policy. Section 4.3.1.2 states that “As part of the agricultural land base, prime agricultural areas, including specialty crop areas, shall be designated and protected for long-term use for agriculture”. The *Provincial Planning Statement* 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 Policies for New Settlement Areas

Policy 2.3.2 of the *PPS* deals specifically with the expansion of and identification of new *settlement areas*. Policy 2.3.2.1 states that “In identifying a new settlement area or allowing a settlement area boundary expansion, planning authorities shall consider the following:

- a) the need to designate and plan for additional land to accommodate an appropriate range and mix of land uses;
- b) if there is sufficient capacity in existing or planned infrastructure and public service facilities;
- c) whether the applicable lands comprise specialty crop areas;
- d) the evaluation of alternative locations which avoid prime agricultural areas and, where avoidance is not possible, consider reasonable alternatives on lower priority agricultural lands in prime agricultural areas;
- e) whether the new or expanded settlement area complies with the minimum distance separation formulae;
- f) whether impacts on the agricultural system are avoided, or where avoidance is not possible, minimized and mitigated to the extent feasible as determined through an agricultural impact assessment or equivalent analysis, based on provincial guidance; and
- g) the new or expanded settlement area provides for the phased progression of urban development.”

Policy 2.3.2.2 states that “Notwithstanding 2.3.2.1.b), planning authorities may identify a new settlement area only where it has been demonstrated that the infrastructure and public service facilities to support development are planned or available.”

The Subject Lands are currently designated Prime Agricultural Area in the Dufferin County Official Plan. As a result, this AIA will address Section 2.3.2.1 of the *Provincial Planning Statement*. It is understood that Policy 2.3.2.2 will be addressed by W.E. Oughtred and Associates Inc.

## 4.2 Dufferin County Official Plan

Schedule C of the Dufferin County Official Plan designates the Subject Lands Prime Agricultural Area. Section 4.2.3 states that “any changes to the designation of *prime agricultural areas* will require an amendment to this Plan, and an amendment to the local municipal official plan”. Section 3.5.1.1 of the Dufferin County Official Plan states in part that “A County Official Plan Amendment, for the purposes of a settlement area expansion, shall consider the following:

- d) The feasibility of the proposed expansion will be determined and the most appropriate location for the proposed expansion will be identified based on the application of all the policies of this Plan, including the following:
  - vi. Prime agricultural areas shall be avoided where possible. To support the Agricultural System, alternative locations across the upper- or single-tier municipality will be evaluated, prioritized and determined based on avoiding, minimizing and mitigating the impact on the Agricultural System and in accordance with the following:
    - a. Whether the expansion includes land in speciality crop areas;
    - b. Reasonable alternatives that avoid prime agricultural areas are evaluated; and,
    - c. Where prime agricultural areas cannot be avoided, lower priority agricultural lands are used.
  - vii. The settlement area to be expanded is in compliance with the minimum distance separation formulae;
  - viii. Any adverse impacts on the agricultural system, including agricultural operations, from expanding settlement areas would be avoided, or if avoidance is not possible, minimized and mitigated as determined through an agricultural impact assessment;
- h) Where the expansion is considered on Agricultural Areas, the lands do not comprise specialty crop areas, alternative locations have been evaluated and there are no reasonable alternatives which avoid the Agricultural Areas, and, there are no reasonable alternatives on lower priority agricultural lands in prime agricultural areas;
- i) The expanding settlement area is in compliance with the Province’s Minimum Distance Separation Formulae;
- o) Impacts from expanding settlement area on agricultural operations which are adjacent or close to settlement area are mitigated to the extent feasible.”

The proposed new *settlement area* will require a County and Local OPA. This AIA will assess the proposal for consistency with Policy 3.5.1.1 of the Dufferin County Official Plan.

## 4.3 Township of Amaranth Official Plan

Schedule A of the Township of Amaranth Official Plan designates the Subject Lands as Rural. Section 3.2.3 lists permitted uses in the Rural designation, including “b) Single-detached residential dwellings”. Section 3.4.5 of the Township of Amaranth Official Plan outlines policies for lands within the Community designation. Section 3.4.5 states in part that “Expansions to the boundary of these settlement areas are subject to a countywide municipal comprehensive review exercise pursuant to Section 2.2.8 of the Growth Plan.”

The Township of Amaranth Official Plan was implanted prior to the implementation of the *PPS*, which now permits settlement area boundary expansion outside of municipal comprehensive reviews. As such, an OPA to the Township of Amaranth Official Plan will be required to facilitate the proposed new *settlement area*.

## **5. STUDY FINDINGS**

### **5.1 Physiography**

The Subject Lands are located within the Dundalk Till Plain physiographic region (Chapman and Putnam, 1984). This physiographic region lies west and south of the Niagara Escarpment and the Horseshoe Moraines physiographic regions, east of the Teeswater Drumlin Field physiographic regions, and north of the Stratford Till Plains and Hillsburgh Sandhills physiographic regions. The Dundalk Till Plain is characterized in the Township of Amaranth by occasional morainic ridges and many swamps, bogs, and poorly drained depressions. The area is also known to have a surficial deposit of silt, and small drumlins. The Dundalk Till Plain is an important watershed divide, giving rise to the headwaters of the Grand, Maitland, Saugeen, and Nottawasaga Rivers.

The bedrock geology of the Dundalk Till Plain at the Subject Lands is comprised of the Amabel Formation, which is a Silurian deposition of sandstone, shale, dolostone, and siltstone. The fractured nature of the formation readily permits groundwater infiltration and causes the region to have significant aquifers. The soils in this area are mostly loams and silt loams formed from glacial till with a thin layer of windblown silt on top. Many soils, like the Brookston and Parkhill series, have poor drainage and stay wet in spring, while better-drained Honeywood soils are 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 the Orangeville Station (1981-2010) were obtained from the online database (Appendix C).

Environment and Climate Change Canada's Orangeville Station is located approximately 12.2 km from the Subject Lands. Records show that this area receives an average of 901.5 mm of precipitation annually; 750.1 mm of rainfall and 151.5 cm of snowfall. The daily average temperatures in this area ranges from a high of 19.4°C during summer and a low of -7.5°C during winter.

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 in Dufferin County typically begin to experience average temperatures greater than 10°C starting May 12 before reaching temperatures greater than 12.8°C for 3 consecutive days around May 24. During this time and up until the season's average ending date, September 23, the area accumulates an average of 2,380 crop heat units (CHU).

On average, the last spring frost in the Orangeville area occurs on May 20. The first fall frost is expected on September 30. This provides the surrounding area with a frost-free period of approximately 132 days. The climate in the Orangeville area provides a good overall growing period that can support a wide range of crops.

### **5.3 Agricultural Crop Statistics**

Agricultural crop statistics are available from OMAFA and Statistics Canada's Agriculture and Food Statistics Census of Agriculture. The Subject Lands are located within the Census West Ontario Region,

Dufferin County. 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.

### 5.3.1 Dufferin County

The total number of farms in Dufferin County increased from 690 in 2016 to 695 in 2021, with total cropland increasing from 117,272 acres in 2016 to 122,320 acres in 2021.

Field crops grown in Dufferin County include winter wheat, oats for grain, barley for grain, mixed grains, corn for grain, corn for silage, hay, soybeans, and potatoes. According to census data, field crop production between 2016 and 2021 increased for winter wheat, oats for grain, corn for grain, hay, soybeans, and potatoes, whereas all other major field crop production in Dufferin County decreased.

Fruit crops grown in Dufferin County include apples, sour cherries, strawberries, and raspberries. Fruit crop acreage increased from 41 acres in 2016 to 72 acres in 2021. Vegetable crops grown in Dufferin include sweet corn, tomatoes, green peas, and green or wax beans. Vegetable crop acreage increased from 646 acres in 2016 to 768 acres in 2021.

### 5.3.2 Township of Amaranth

The total number of farms in the Township of Amaranth decreased from 149 in 2016 to 134 in 2021, with the total cropland area decreasing from 19,896 acres in 2016 to 19,424 acres in 2021.

Field crops grown in Amaranth include winter wheat, oats for grain, barley for grain, mixed grains, corn for grain, corn for silage, hay, and soybeans. According to census data, field crop production between 2016 and 2021 increased for winter wheat, oats for grain, and hay, while all other major field crops decreased in production.

Fruit crops grown in Amaranth include apples, sour cherries, and strawberries. Fruit crop acreage in the Township for the 2016 census was not available, however, there were 15 acres of fruit crops grown in the Township in 2021. Vegetable crops grown in the Township of Amaranth include sweet corn, tomatoes, green peas, and green or wax beans. Vegetable crop acreage in the Township for the 2016 census was not available, however, there were 16 acres of vegetable crops grown in the Township in 2021.

The Agricultural Systems Portal shows that there were a total of 134 farms reporting within the Township of Amaranth in 2021. These are summarized in Table 1 below. Of the 134 farms reporting in the Township of Amaranth in 2021, 68 farms reporting had *livestock*, of which cattle ranching and other animal production (e.g. horse and equine, apiculture, etc.) were the most common types of operations.

<b>Table 1. Reporting Farms in the Township of Amaranth – 2021 Census</b>	
<b>Farm Type</b>	<b>Number Reported</b>
Total Number of Farms	134
Cattle Ranching and Farming	41
Hog and Pig Farming	3
Poultry and Egg Production	4
Sheep and Goat Farming	6

<b>Table 1. Reporting Farms in the Township of Amaranth – 2021 Census</b>	
Other Animal Production	14
Oil Seed and Grain Farming	36
Vegetable and Melon Farming	0
Fruit Tree and Nut Farming	3
Greenhouse, Nursery, and Floriculture Production	4
Other Crop Farming	23

## 5.4 Specialty Crop Areas

The PPS defines *specialty crop areas* 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.”

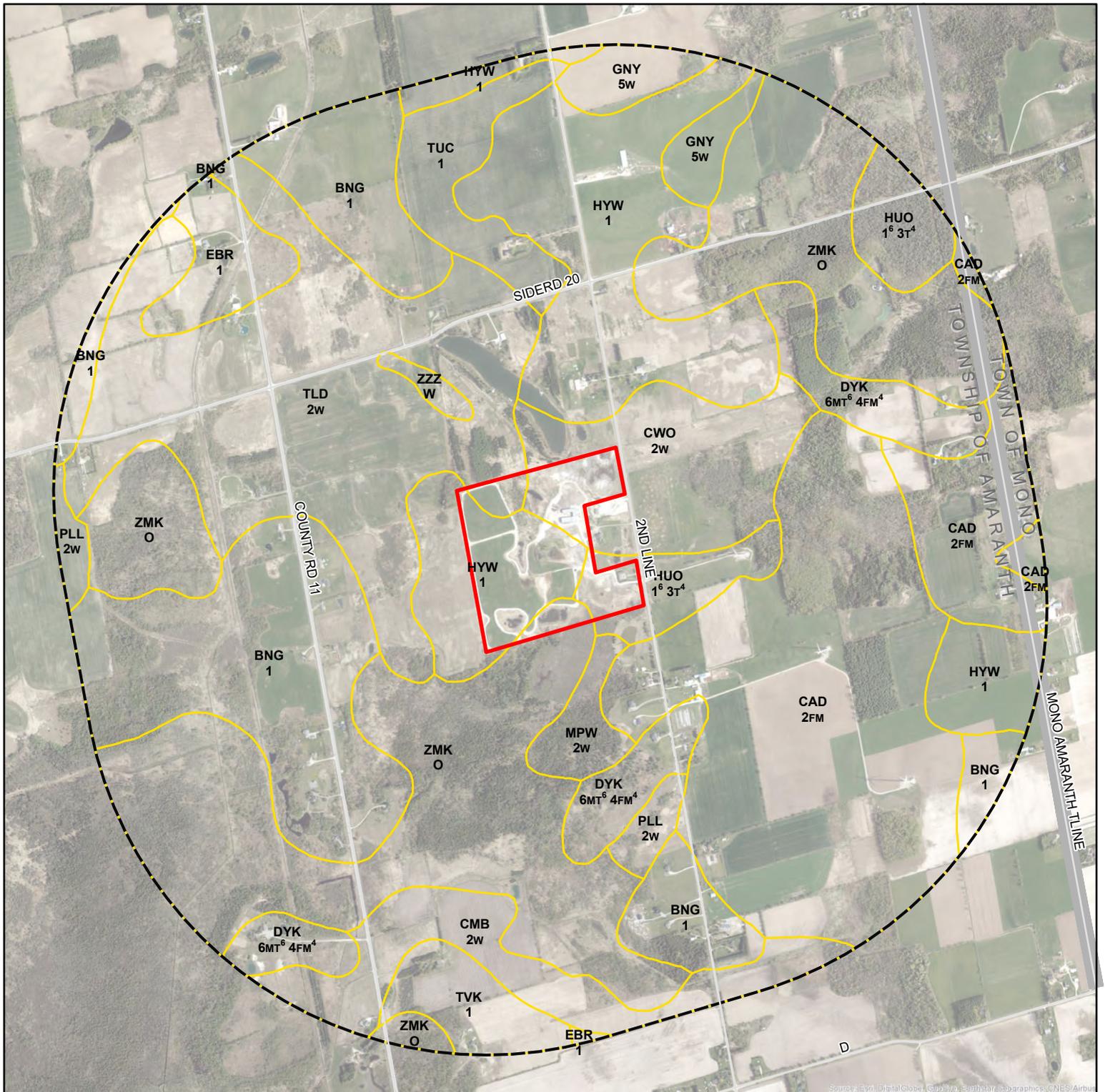
There are two *specialty crop areas* recognized by the Province through the Greenbelt Plan: the Niagara Peninsula Tender Fruit and Grape Area and the Holland Marsh. The province also recognizes *specialty crop areas* identified by municipalities which have included *specialty crop areas* in their land use schedules. Neither the Subject Lands, nor any portion of the *Study Area*, are located within the Niagara Peninsula Tender Fruit and Grape Area, the Holland Marsh, nor in other municipally designated *specialty crop areas*. Additionally, no specialty crops were observed within the Subject Lands or *Study Area* during the land use survey.

## 5.5 Regional Soils

### 5.5.1 Soil Series

The *Soil Survey of Dufferin County - No. 38* of the Ontario Soil Survey (Hoffman, D.W. & Matthews, B.C., 1964) includes a soil map that shows the distribution of the various soil series in Dufferin County. The digital Provincial Soil Resource database is compiled and administered by OMAFA and includes most of the soil surveys completed in Ontario. Much of this information is accessible from the Province’s Agricultural Information Atlas.

The *Soil Survey of Dufferin County* mapping shows that the soils within the Subject Lands are comprised primarily of Honeywood Silt Loam (49.35%) soils, with smaller areas of Colwood Fine Sandy Loam (23.52%), Toledo Clay Loam (7.51%), Huron Loam (12.46%), and Muck (7.16%) soils. Regional scale soil mapping is shown in Figure 2.



- LEGEND**
- Subject Lands
  - Study Area (1500 m)
  - Soil (OMAFRA)



- SOIL SERIES**
- |                         |                        |                        |
|-------------------------|------------------------|------------------------|
| <b>BNG</b> - Bennington | <b>GNY</b> - Granby    | <b>TUC</b> - Tuscola   |
| <b>CAD</b> - Caledon    | <b>HUO</b> - Huron     | <b>TVK</b> - Tavistock |
| <b>CMB</b> - Crombie    | <b>HYW</b> - Honeywood | <b>ZMK</b> - Muck      |
| <b>CWO</b> - Colwood    | <b>MPW</b> - Maplewood | <b>ZZZ</b> - Water     |
| <b>DYK</b> - Donnybrook | <b>PLL</b> - Parkhill  |                        |
| <b>EBR</b> - Embro      | <b>TLD</b> - Toledo    |                        |

- CLI AGRICULTURAL CAPABILITY SUBCLASSES**
- F** Low Fertility - limitations due to low natural soil fertility.
  - M** Moisture Limitations - limitations due to low water-holding capacity of soils.
  - T** Topography - limitations due to sloping landscape.
  - W** Excess Water - limitations due to water, from inadequate soil drainage, high water table, runoff, etc.

- CLI AGRICULTURAL CAPABILITY CLASSES**
- Class 1** - No significant limitations for use or choice of crops.
  - Class 2** - Moderate limitations that restrict the choice of crops, or require moderate conservation practices.
  - Class 3** - Moderately severe limitations that restrict the choice of crops, or require special conservation practices.
  - Class 4** - Severe limitations that restrict the choice of crops, or require special conservation practices and very careful management, or both.
  - Class 5** - Very severe limitations that restrict their capability to producing perennial forage crops, while improvement practices are feasible.
  - Class 6** - Only capable of producing perennial forage crops, and improvement practices are not feasible. Some grazing capability.
  - Class O** - Organic soils, not assigned a capability class.

**Figure 2**  
Soil & CLI

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### **Honeywood Series**

Honeywood Silt Loam soils are the well drained member of the Honeywood *catena* and have developed in wind-deposited silt loam or fine sandy loam materials which are underlain by calcareous loam till. These soils occur over gently rolling topography and have moderate internal and external drainage. These soils are among the best agricultural soils in Southern Ontario and are well suited for the cultivation of *common field crops*, such as corn, soybeans, cereal grains, and perennial crops such as hay and pasture.

### **Colwood Series**

Colwood Fine Sandy Loam soils are the poorly drained member of the Brant *catena* and occur in the depressions between hills and drumlins in morainic areas. These depressional areas act as catch basins for excess runoff water and as reservoirs for eroded surface soils from adjacent slopes. These soils are glaciolacustrine in origin and are formed from alluvial fine sandy loam and silt loam. These soils are poor agricultural soils and can only be successfully cultivated if drainage improvements can be made.

### **Toledo Series**

Toledo Clay Loam soils are the poorly drained member of the Brantford *catena* occur in level and depressional areas. These soils are lacustrine in origin and are formed from silty clay loam to clay loam textures, with high levels of organic matter in the surface soil. These soils are poor agricultural soils and are commonly forested or cleared for pasture.

### **Huron Series**

Huron Loam soils are the well drained soils of the Huron *catena* and occur on gently rolling topography or steep slopes along larger creeks and rivers. These soils developed from calcareous clay or silty clay loam parent materials. These soils are good agricultural soils and are well suited for the production of *common field crops*. well suited for agricultural production, and in the County are used primarily for hay, pasture, and cereal grains. Crop yields are primarily limited by erosion as a result of adverse topography. As such, crop yields decline where the loamy topsoil has eroded and the clayey subsoil has been exposed.

### **Muck**

Muck soils consist of poorly drained or undrained organic deposits that accumulate in undrained depressions, shallow lakes, and ponds. These are not mineral soils but instead are derived from well decomposed plant material. These soils do not have profile development, but there are visible layers that can be differentiated by the degree of decomposition. Muck soils must be cleared, drained, and fertilized prior to agricultural production. Dufferin County does not have extensive agricultural development or agricultural investments on muck soils.

## **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 have 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 E.

According to the provincial database, the majority of the Subject Lands are mapped as CLI Class 1 lands (56.83%), with smaller areas mapped as CLI Class 2 (31.03%), CLI Class 3 (4.98%), and CLI Class O (7.16%), as shown in Figure 2. CLI Class 1 soils have no or very minor limitations for *common field crop* production. CLI Class 2W soils have moderate limitations for *common field crop* production due to excess water. CLI Class 3T soils have moderately severe limitations on the production of *common field crops* due to adverse topography. CLI Class O soils consist of organic soils and are not assigned a capability class. The composition of soils mapped within the Subject Lands and their associated CLI Class are summarized in Table 2 below.

<b>Table 2. Regional Soil Series for Subject Lands</b>			
<b>Soil Series</b>	<b>CLI Class</b>	<b>Area (Ha)</b>	<b>% of Subject Lands</b>
Honeywood Silt Loam	<b>1</b>	16.27	49.35%
Colwood Fine Sandy Loam	<b>2W</b>	7.75	23.52%
Huron Loam	<b>1</b>	2.46	7.48%
	<b>3T</b>	1.64	4.98%
Toledo Clay Loam	<b>2W</b>	2.47	7.51%
Muck	<b>O</b>	2.36	7.16%
<b>Totals</b>		<b>32.96</b>	<b>100.00%</b>

## 5.6 Land Use

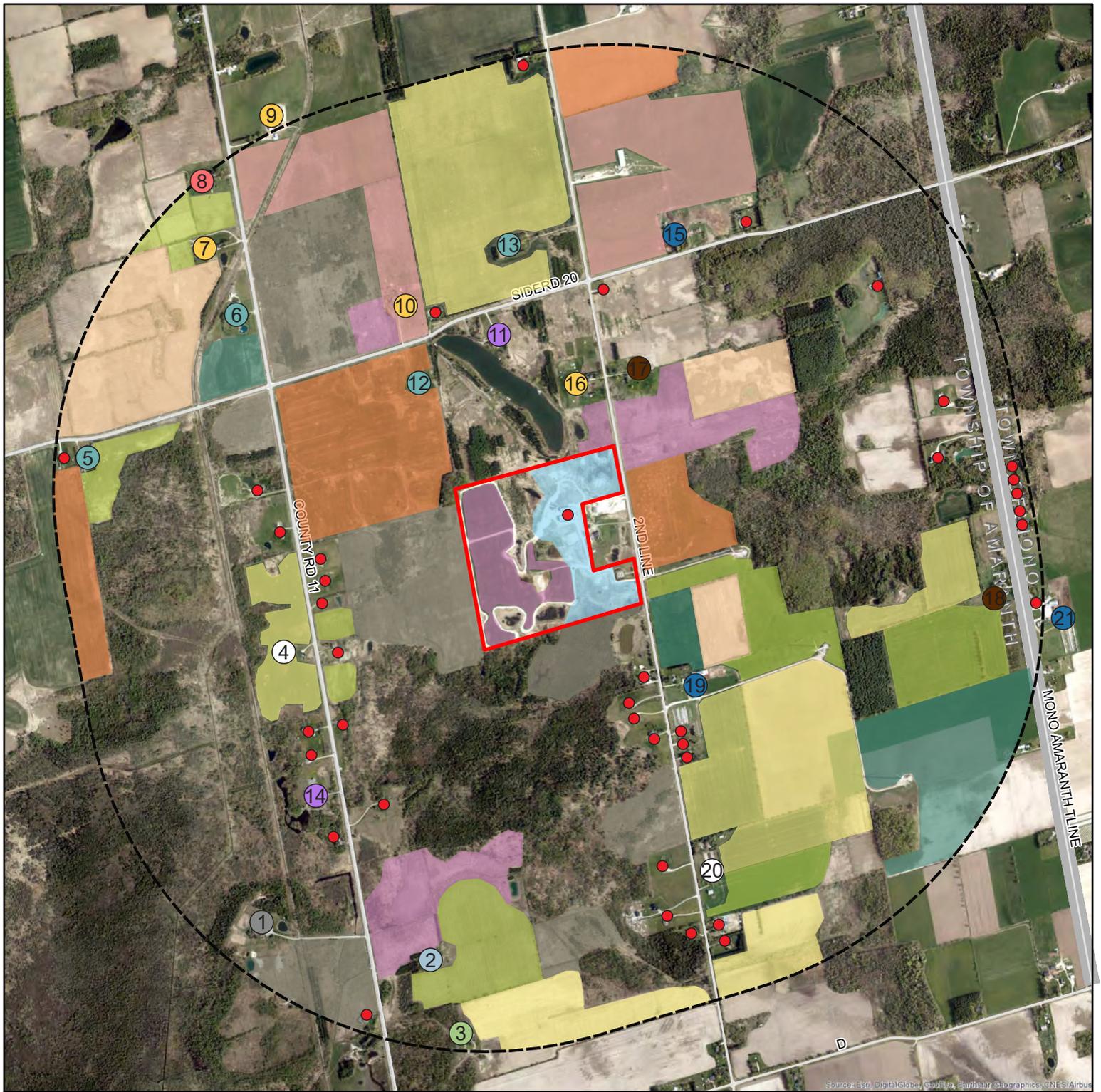
A reconnaissance level land use survey was completed on July 24, 2025. The land use survey identified the number and type of agricultural operations (both active and *retired*), *agriculture-related uses*, *on-farm diversified uses*, and the extent and type of *non-agricultural uses* within the *Study 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* in the Subject Lands and *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 F. All observed land uses are numbered, and short descriptions of these operations are included in the land use survey notes in Appendix G.

Eighteen *agricultural uses* were identified during the land use survey. These uses include four *cash crop* operations, four equestrian operations, three *beef operations*, two *hobby farms*, one *specialty crop* operation, two *remnant farms*, one *unoccupied livestock facility*, and one *retired cash crop* operation.

No *agriculture-related uses* were identified during the land use survey. One *on-farm diversified use* was identified during the land use survey, which is a barn event venue.

In addition to the approximately 39 *non-farm residences* observed, two *non-agricultural uses* were identified within the *Study Area*. These uses include two commercial uses.



**LEGEND**

- Subject Lands
- Study Area (1500 m)

**Agricultural Land Uses**

- Specialty Crop Operation
- Equestrian Operation
- Unoccupied Livestock Operation
- Remnant Farm
- Cash Crop Operation
- Retired Cash Crop Operation
- Beef Operation
- Hobby Farm

**Non-Agricultural Land Uses**

- Commercial
- Non-Farm Residential

**On-Farm Diversified Uses**

- Barn Venue

**Crop Cover**

- Corn
- Soy
- Hay
- Cover Crop
- Cultivated
- Pasture
- Idle
- Scrubland
- Disturbed

**Figure 3  
Land Use**

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### 5.6.1 Agricultural Uses

The *PPS* defines *agricultural uses* as “the growing of crops, including nursery, biomass and horticultural crops; raising of livestock; raising of other animals for food, fur, or fibre, including poultry or 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 accommodations 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 *retired* (e.g., *unoccupied livestock facilities*) *livestock facilities*, *cash crop* operations, or *hobby farms*. *Retired* farm operations were evaluated to determine whether they should be considered an *unoccupied livestock facility* or a *remnant farm*. *Remnant* farms have no infrastructure that is suitable for housing *livestock* and the *MDS formulae* is not applied. The infrastructure for an *unoccupied livestock facility* is suitable for housing *livestock* and as such, the *MDS formulae* applies to these facilities.

Eighteen *agricultural uses* were identified during the land use survey. These include four *cash crop operations* (#5, #6, #12, and #13), four equestrian operations (#7, #9, #10, and #16), three *beef operations* (#15, #19, and #21), two *hobby farms* (#17 and #18), one *specialty crop operation* (#8), two *remnant farms* (#4 and #20), one *unoccupied livestock facility* (#3), and one *retired cash crop operation* (#2). None of these *agricultural uses* are located within the Subject Lands.

### 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.

No *agriculture-related uses* were identified within the Subject Lands *Study Area*.

### 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*, uses that produce value-added agricultural products, and electricity generation facilities and transmission systems, and energy storage systems.”

One *on-farm diversified use* was identified within the *Study Area*, which consists of a barn event venue (#1).

**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 39 *non-farm residences* were observed throughout the *Study Area*. Excluding the *non-farm residences*, two *non-agricultural uses* were identified within the *Study Area*. These include two commercial uses (#11 and #14). Land Use Summary

Table 3 below summarizes the types of land uses observed within the Subject Lands and *Study Area*.

Table 3. Summary of Observed Land Uses			
	Total Number	Active	Unoccupied or Remnant
Agricultural	18	4 – Cash Crop Operation 4 – Equestrian Operation 3 – Beef Operation 2 – Hobby Farm 1 – Specialty Crop Operation	2 – Remnant Farm 1 – Unoccupied Livestock Facility 1 – Retired Cash Crop Operation
On-farm Diversified	1	1 – Barn Event Venue	0
	Total Number	Type	
Non-Agricultural	41	2 – Commercial 39 – Non-Farm Residence	

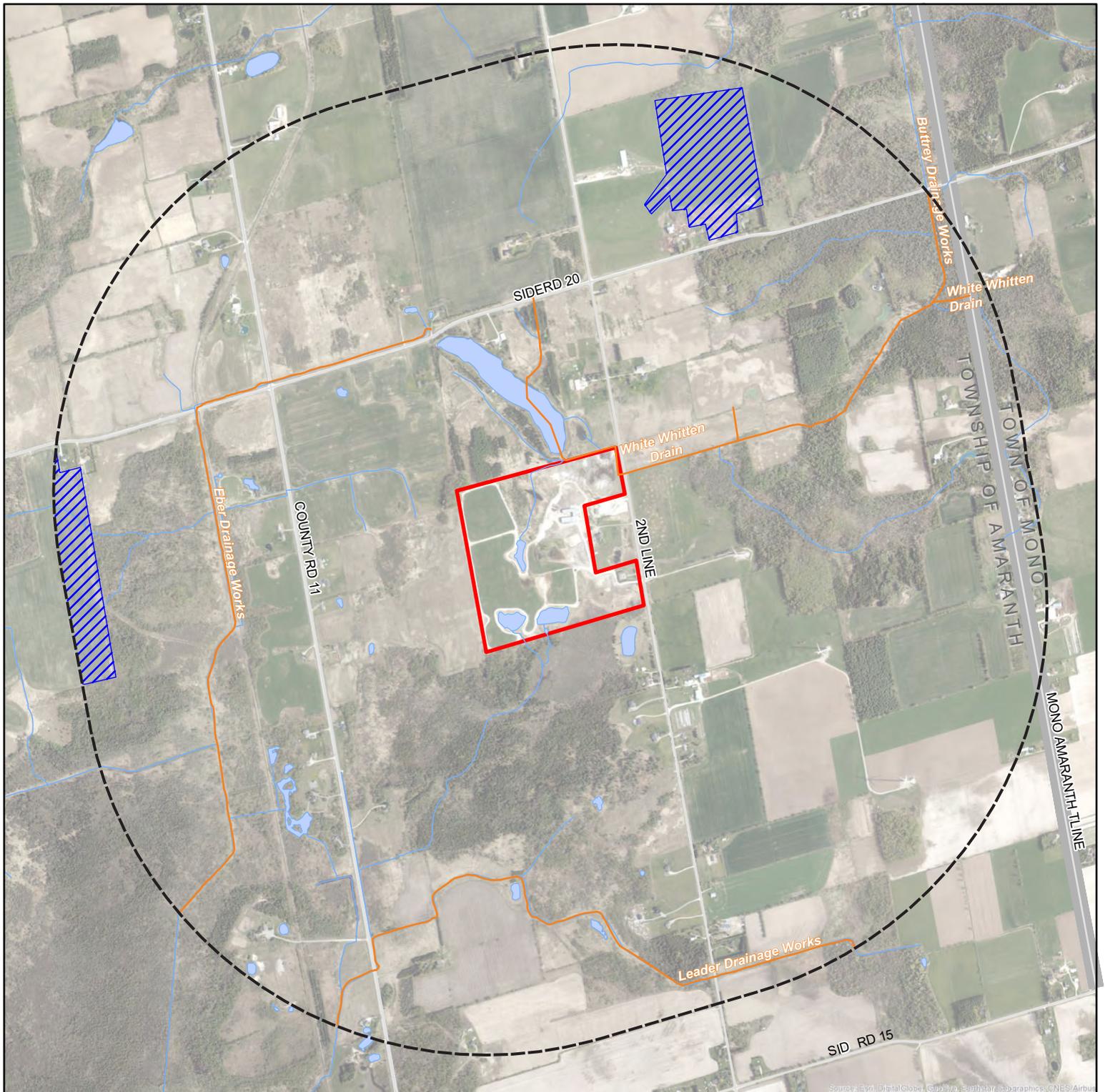
**5.6.5 Cropping Pattern**

The land use survey completed on July 24, 2025, identified crops based on observations of crop stubble and other identifying features. As shown in Figure 3, the crops grown in the *Study Area* include a mix of common field crop such as corn, soy, and hay. Where the crops could not be identified, the lands were mapped as *cultivated lands*. There are also areas of *pasture*, *scrub lands*, *idle agricultural lands*, and *disturbed lands*.

The Subject Lands were leased to a neighbouring farm operation for hay production. However, the lease has expired and there are no plans to renew the lease. Therefore, we have mapped the Subject Lands as idle.

**5.7 Land Improvements**

OMAF’s Agricultural Information Atlas (AgMaps) provides artificial drainage mapping for the province. This online tool was accessed to obtain drainage mapping for the Subject Lands and *Study Area*. Figure 4 below shows the drainage improvements within the Subject Lands and *Study Area*.



**LEGEND**

- Subject Lands
- Study Area (1500 m)
- Waterbody
- Watercourse
- Tile Drainage - Systematic
- Constructed Drain

**Figure 4**  
**Land Improvements**

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### 5.7.1 Drainage Improvements in Subject Lands

According to OMAFRA's Online Mapping tool, AgMaps, no agricultural tile drainage is present within the Subject Lands. One constructed drain traverses the Subject Lands. A portion of the White Whitten Drain runs along the northeastern boundary of the Subject Lands.

### 5.7.2 Drainage Improvements in Study Area

The *Study Area* contains systematic tile drainage, which is present in the northern and western portions of the *Study Area*. The systematic tile drainage in the north was constructed in 2014, while the western installation was constructed in 2015.

According to OMAFA's online mapping tool, AgMaps, there are three constructed drains within the *Study Area*. The Eber Drainage Works is located west of the Subject Lands, the Buttrey Drainage Works is located east of the Subject Lands, and the Leader Drainage Works is located south of the Subject Lands.

### 5.7.3 Other Land Improvements

No other investments in land improvements within the Subject Lands nor *Study Area* were identified using AgMaps Portal or observed during the land use survey.

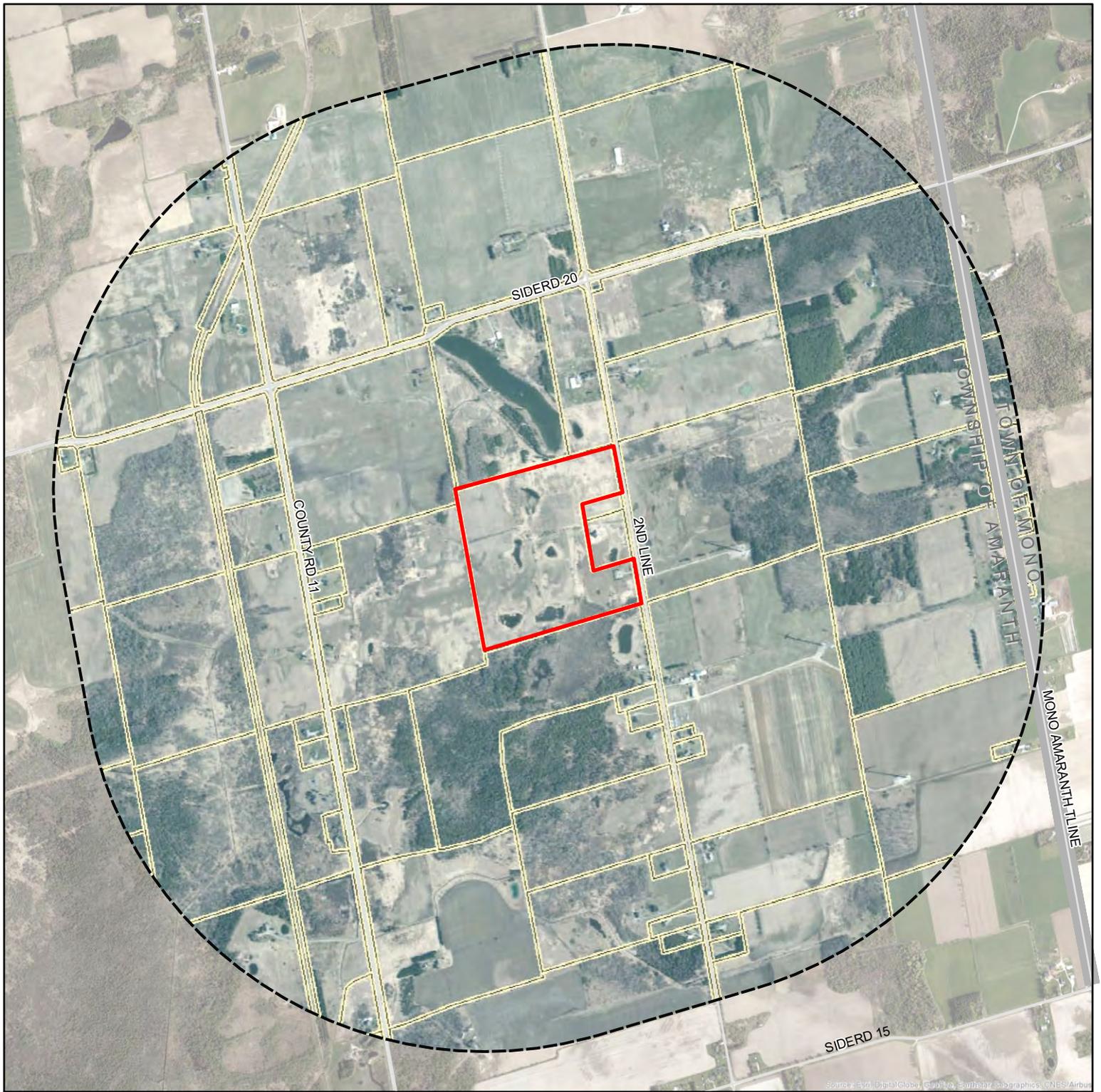
## 5.8 Fragmentation of Agricultural Lands

Fragmentation of agricultural lands can have a negative impact on their viability and 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 land uses* and *non-agricultural land uses*. Agricultural areas with lower levels of fragmentation may be 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, there is a mix of parcel sizes ranging from single residential (<1 ha) to larger agricultural parcels (>60 ha). There is some fragmentation within the *Study Area* due to lot creation for rural residential dwellings and other non-agricultural uses. While there are several larger parcels within the *Study Area*, the agricultural land base is significantly fragmented by natural heritage features such as large woodlands and wetlands as shown in Figure 5.



**LEGEND**

-  Subject Lands
-  Study Area (1500 m)
-  Fragmentation

**Figure 5  
Fragmentation**

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The extent of the natural heritage features within the *Study Area* limits the productivity of the agricultural land base.

## 5.9 Minimum Distance Separation

### 5.9.1 Requirements for MDS and New Settlement Areas

The *Minimum Distance Separation* is a tool used to minimize potential impacts and conflicts between *non-agricultural land uses* and *agricultural land uses*. In areas outside of approved *settlement areas*, new *non-agricultural uses* are required to meet the setbacks calculated using the *Minimum Distance Separation I formulae* as contained in OMAFRA’s *The Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks*, Publication 853 (2016) document. It is applied to all farm operations that have infrastructure in a condition that is capable of housing *livestock* and/or have an *anerobic digester* on-site.

The *MDS I formulae* provides the minimum separation distance between existing *livestock facilities* (including *unoccupied livestock facilities*) and new *non-agricultural land uses* proposed in a rural or agricultural land use designation. It deals specifically with odour and does not account for noise, dust, or other farm-generated products. An *unoccupied livestock facility* is one that no longer appears to house *livestock*, but appears to be capable of housing *livestock*. The *MDS* is not applied to *remnant* farms with barns that are not in a condition suitable for housing *livestock*.

Section 2.3.2.1 of the *PPS* outlines the requirements for the application of *MDS* for new *settlement areas* and states in part that “In identifying a new settlement area or allowing a settlement area boundary expansion, planning authorities shall consider the following:

- e) whether the new or expanded settlement area complies with the minimum distance separation formulae.”

### 5.9.2 MDS Guidelines

OMAFRA’s *The Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks*, Publication 853 (2016) contains a set of guidelines which outline how the *MDS I formulae* is to be applied. The following are the relevant *MDS* guidelines for the proposed new *settlement area*.

#1. Referencing MDS in Municipal Planning Documents
In accordance with the Provincial Planning Statement, 2024, this MDS Document shall apply in prime agricultural areas and on rural lands. Consequently, the appropriate parts of this MDS Document shall be referenced in municipal official plans, and detailed provisions included in municipal comprehensive zoning by-laws such that, at the very least, MDS setbacks are required in all designations and zones where livestock facilities and anaerobic digesters are permitted.

The Township of Amaranth Official Plan currently recognizes the Subject Lands as being part of a Rural designation. Section 4.2.6 of the Township of Amaranth Official Plan states that “The Provincial Minimum Distance Separation Formulae (MDS) will be used in determining appropriate minimum separation distances between new development and livestock operations and determining appropriate minimum distance separation distances for new or expanding livestock operations outside the designated settlement

areas. Separation distances between livestock operations and residential uses shall meet the Minimum Distance Separation requirements.” As such, the *MDS formulae* must be applied for the proposed OPA.

**#2. For What, and When is an MDS Setback Required?**

The MDS I setback distances shall be met prior to the approval of: proposed lot creation in accordance with Implementation Guidelines #8 and #9; rezonings or re-designations in accordance with Implementation Guideline #10; building permits on a lot which exists prior to March 1, 2017 in accordance with Implementation Guideline #7; and as directed by municipalities for local approvals for agriculture-related uses or on-farm diversified uses in accordance with Implementation Guideline #35.

The information used to carry out an MDS I calculation must reflect the circumstances at the time that the municipality deems the planning or building permit application to be complete.

The Subject Lands are located within Dufferin County’s *prime agricultural area*. The proposed *development* will require the Subject Lands to be redesignated for *non-agricultural land uses*. Therefore, the calculation of *MDS I* setback distances is required for the proposed new settlement area.

**#6. Required Investigation Distances for MDS**

A separate MDS I setback shall be required to be measured from all existing livestock facilities and anaerobic digesters on lots in the surrounding area that are reasonably expected by an approval authority to be impacted by the proposed application.

As part of municipal consideration of planning or building permit applications, all existing livestock facilities or anaerobic digesters within a 750 m distance of a proposed Type A land use and within a 1,500 m distance of a proposed Type B land use shall be investigated and MDS I setback calculations undertaken where warranted.

In circumstances where large livestock facilities (e.g., >1,200 Nutrient Units) exist beyond the 750 m or 1,500 m study area, MDS I setbacks from these facilities should also be calculated.

As discussed further below, the proposed new *settlement area* is considered to be a Type B land use. Therefore, all existing *livestock facilities* or *anaerobic digesters* within 1,500 m of the Subject Lands have been investigated and *MDS I* setback calculations completed, where warranted.

**#10. MDS I Setbacks for Zoning By-Law Amendments and Official Plan Amendments**

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. This shall include amendments to allow site-specific exceptions which add non-agricultural uses or residential uses to the list of agricultural uses already permitted on a lot, but shall exclude applications to rezone a lot for a residence surplus to a farming operation (e.g., to a rural residential zone) in accordance with Implementation Guideline #9 above.

Amendments to rezone or redesignate land already zoned or designated for a non-agricultural use, shall only need to meet the MDS I setbacks if the amendment(s) will permit a more sensitive land use than existed before. In other words, if the proposal is to change an existing Type A land use (e.g., industrial use outside of a settlement area) to a Type B land use (e.g., commercial) in accordance with Implementation Guidelines #33 and #34, then an MDS I setback shall be required.

The Subject Lands must be redesignated in the Township of Amaranth and Dufferin County Official Plans to permit the proposed *development*. Guideline #10 requires the application of the *MDS formulae* to redesignate land in a *prime agricultural area* or rural lands for *development*.

**#19. Cumulative Design Capacity of Livestock Facilities on a Lot**

MDS calculations shall be based on the combined design capacity for all livestock barns on a lot, even if they are unoccupied livestock barns or separated by a substantial distance on the lot.

Where there are no livestock barns on a lot, MDS calculations shall be based on the combined design capacity for all manure storages on a lot, even if they are unused manure storages or separated by a substantial distance on the lot.

Within the *Study Area*, there are farm operations with more than one barn located on the same property. Therefore, *MDS I* setbacks have been calculated based on the combined design capacity of all *livestock* barns on a lot, and applied to the *livestock facility* nearest to the Subject Lands.

**#34. Type B Land Uses (More Sensitive)**

For the purposes of MDS I, proposed Type B land uses are characterized by a higher density of human occupancy, habitation or activity including, but not limited to:

- ♦ new or expanded settlement area boundaries;
- ♦ an official plan amendment to permit development, excluding industrial uses, on land outside a settlement area;
- ♦ a zoning by-law amendment to permit development, excluding industrial uses or dwellings, on land outside a settlement area; and
- ♦ the creation of one or more lots for development on land outside a settlement area, that results in four or more lots for development, which are in immediate proximity to one another (e.g., sharing a common contiguous boundary, across the road from one another, etc.), regardless of whether any of the lots are vacant.

Because of the increased sensitivity of these uses, a new or expanding Type B land use will generate an MDS I setback that is twice the distance as the MDS I setback for a Type A land use. This is reflected in the value of Factor E which is 2.2 for Type B versus 1.1 for Type A.

The proposed new *settlement area* is considered to be a Type B land use. Therefore, *MDS I* setbacks have been calculated for a Type B land use, which generates an *MDS I* setback that is twice that of a Type A land use.

**#40. Measurement of MDS Setbacks for Development and Dwellings**

For proposed development, MDS I setbacks are measured as the shortest distance between the area proposed to be rezoned or redesignated to permit development and either: the surrounding livestock occupied portions of livestock barns, manure storages or anaerobic digesters. Refer to Figure 7 in Section 7 of this MDS Document. This shall include areas proposed to be rezoned or redesignated with site-specific exceptions that add non-agricultural uses or residential uses to the list of agricultural uses already permitted on a lot.

For building permit applications for proposed dwellings, where required in accordance with Implementation Guideline #7, MDS I setbacks are measured as the shortest distance between the proposed dwelling and either the surrounding manure storages, anaerobic digesters or the livestock occupied portions of the livestock barns.

*MDS I* setback distances have been applied to the shortest distance between the Subject Lands and the *manure storages* or *livestock* occupied portions of the *livestock facility*.

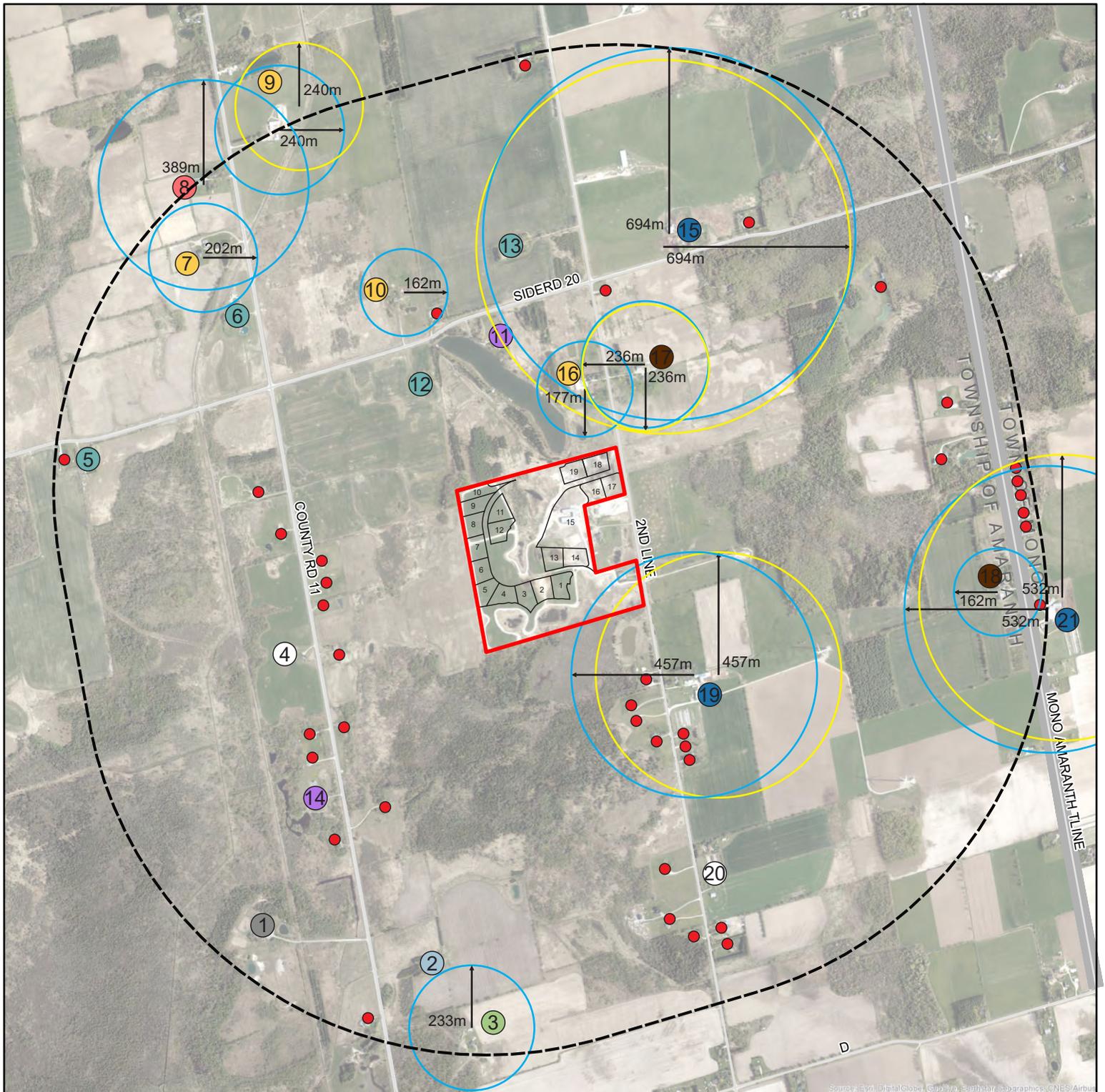
### 5.9.3 MDS Results

The *MDS I formula* was applied to eleven *livestock facilities* (Operations #3, #7, #8, #9, #10, #15, #16, #17, #18 #19, and #21) which are, or appear to be, capable of housing *livestock* within 1,500 m of the Subject Lands. The *MDS I formula* was not applied to farm operations with barns that did not appear to be structurally sound and capable of housing *livestock*, nor *livestock facilities* located outside of the 1,500 m *Study Area*. Table 4 summarizes the results of the calculations and the level of compliance with the *MDS I formula* achievable. The *MDS I* reports generated by OMAFA's AgriSuite software can be found in Appendix H. Figure 6 shows the *MDS I* setback requirements for each of the identified *livestock facilities*.

Table 4. MDS Setback Requirements for Proposed SABE				
Site Number	MDS I Setback Requirement (m) – Livestock Facility	MDS I Setback Requirement (m) – Manure Storage	Nearest Distance to Subject Lands (m)	Complies with MDS I Setback?
3	233	N/A	1,397	Yes
7	202	N/A	1,282	Yes
8	389	N/A	1,477	Yes
9	240	240	1,494	Yes
10	162	N/A	767	Yes
15	343	343	779	Yes
16	177	N/A	246	Yes
17	236	236	318	Yes
18	162	N/A	1,318	Yes
19	457	457	320	No
21	532	532	1,502	Yes

As shown in Figure 6, the *MDS I* setback of Operation #19 encroaches into the southeastern corner of the Subject Lands by approximately 2.22 ha, (6.75% of the total area of the Subject Lands). It should be noted that the landowner of Operation #19 was unable to confirm the maximum capacity of their *livestock facility*. However, it is understood that the *livestock facility* is unoccupied and *livestock* are primarily kept in pasture. Given that information could not be confirmed directly with the landowner, the maximum capacity of the *livestock facility* was estimated using barn dimensions. As a result, the calculated setback is likely larger than if the specific information regarding the maximum capacity of the *livestock operation* was known.

The Draft Plan of Subdivision was reviewed and overlaid on Figure 6 to determine whether the *MDS I* setback from Operation #19 would encroach into any of the 19 proposed residential lots. As shown in Figure 6, the *MDS I* setback requirement from Operation #19 encroaches into a lot which is proposed for infrastructure (electrical equipment). The encroachment affects approximately 2.2 ha. However, the *MDS I* setback from Operation #19 will be maintained as part of the Natural Heritage System, the existing infrastructure use, and the access road to the proposed development, which are not required to meet *MDS I* setbacks. To comply with the *MDS formulae*, no development would be permitted within the setback area. Another option would be to not include this area within the SABE.



**LEGEND**

- Subject Lands
- Study Area (1500 m)
- 1 Residential Lots

**Agricultural Land Uses**

- Specialty Crop Operation
- Equestrian Operation
- Unoccupied Livestock Operation
- Remnant Farm
- Cash Crop Operation
- Retired Cash Crop Operation
- Beef Operation
- Hobby Farm

**Non-Agricultural Land Uses**

- Commercial
- Non-Farm Residential

**On-Farm Diversified Uses**

- Barn Venue

**MDS I Setbacks**

- Livestock Facility Setback
- Manure Storage Setback

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

Agricultural Impact Assessment  
514504 2nd Line, Amaranth ON

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Prepared by: **COLVILLE CONSULTING INC.**

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Though discouraged in the MDS Guidance Document, the Township of Amaranth may choose to reduce the *MDS I* setback that encroaches into the Subject Lands through the use of a minor variance to the zoning by-law provisions, or through a site-specific policy area. Additionally, the Township may place a holding provision on *development* of the Subject Lands to prohibit development of the encroachment area until such time that the *livestock operation* has been decommissioned and is no longer capable of housing *livestock*.

The proposed SABE will comply with the *MDS I* setback requirements for all other *livestock facilities* and *manure storage* systems identified within the *Study Area*.

## **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 new settlement area. The agriculture and agri-food sector is one of the largest primary goods producing sectors and at one time played a larger role in the Township of Amaranth and Dufferin County economies. According to 2021 data from ConnectON, total farm operating revenue in Dufferin County generated \$183.95M in revenue, accounting for 2.73% of the total revenue in the County.

As of 2021, the agriculture, forestry, fishing and hunting industry employed approximately 795 individuals within the Dufferin County, which is a decrease from the 860 individuals employed in 2016. Similarly, the Township of Amaranth observed a decrease in individuals employed by the agriculture, forestry, fishing and hunting industry, with data showing the industry employed 175 individuals in 2016 and 115 individuals in 2021. Within Dufferin County, there were approximately 862 agri-food businesses in 2024, with 103 of these businesses located within the Township of Amaranth. Both Dufferin County and Amaranth Township experienced a decrease in agri-food businesses between 2016 and 2024.

In 2021 there were 134 total farms within the Township of Amaranth, one farm was valued under \$200,000, eleven farms were valued between \$200,000 and \$499,999, 20 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, while the number of farms valued under \$1,000,000 decreased.

The proposed transition of the Subject Lands to urban uses will not have a significant impact on direct and indirect agricultural-related jobs on farms, in food processing, transportation, equipment manufacturing, agribusiness, and agri-tourism. Other than the visual expression of the rural identity provided by the Subject Lands, there are no significant cultural benefits provided. Inclusion of these lands within the new Community Settlement Area will not have a significant impact on the agricultural economy and the limited community benefits provided by the Subject Lands.

## 6. ASSESSMENT OF ALTERNATIVE LOCATIONS

### 6.1 Provincial Planning Statement

Section 2.3.2.1 of the *PPS* states in part that “In identifying a new settlement area or allowing a settlement area boundary expansion, planning authorities shall consider the following:

- d) the evaluation of alternative locations which avoid prime agricultural areas and, where avoidance is not possible, consider reasonable alternative on lower priority agricultural lands in prime agricultural areas”

The Subject Lands are located within the *prime agricultural area* of Dufferin County. Therefore, an assessment of alternative locations for identifying a new *settlement area* is required for the proposed *development*.

### 6.2 Evaluation of Alternative Locations

The 2024 Development Charge Background Study prepared by Watson & Associates Economists Ltd. for the Township determined that the Township of Amaranth requires 360 additional units of single and semi-detached houses between 2024 and 2034 to meet demand as a result of projected population growth. The proposed *development* seeks to develop 19 single detached units to partially satisfy this need. Given that the proposed new *settlement area* is located in a *prime agricultural area*, alternative locations have been evaluated in an attempt to identify potential areas which avoid *prime agricultural areas*, or lower priority agricultural lands in the *prime agricultural area* if *prime agricultural areas* cannot be avoided. The evaluation was limited to lands within the *Study Area*.

The Dufferin County Official Plan designates the majority of the lands outside of existing *settlement areas* and natural heritage areas in the Township of Amaranth as *prime agricultural area*. Small areas designated Rural are located in the southeast corner of the Township, consisting of an existing rural residential development, the Murray Wesley Kit Field private airport, and lands designated Protected Countryside in the Greenbelt Plan. As a result, these lands do not represent reasonable alternative locations for the proposed *development*. Therefore, it is not possible for the proposed *development* to avoid *prime agricultural areas* in the Township of Amaranth, as designated by the Dufferin County Official Plan.

The Township of Amaranth Official Plan was used to guide selection of alternative locations as there are sufficient areas of Rural designated lands, allowing the proposed *development* to avoid the Township’s *prime agricultural areas*. Given that the Township of Amaranth Official Plan identifies significant areas of Rural designated lands, the assessment of alternative locations was scoped to evaluate alternative locations within the *Study Area*. It is assumed that the location of the proposed *development* was chosen due to its proximity to the *settlement areas* of Shelburne and Orangeville, which allow for ease of access to schools, grocery stores, etc. Parcels within the *Study Area* would provide similar locational benefits as the Subject Lands.

Parcels and/or combinations of parcels within the *Study Area*, that are similar in size to the proposed new *settlement area*, were identified as candidate areas for the proposed *development*. Parcels containing large ponds/lakes or multiple rural residences were not selected, as these features limit the developable area of

the parcel. Four sites were identified as potential alternative locations for the proposed *development*. These sites are identified as Alternative Options 1 through 4.

### **6.2.1 Avoidance of Prime Agricultural Areas**

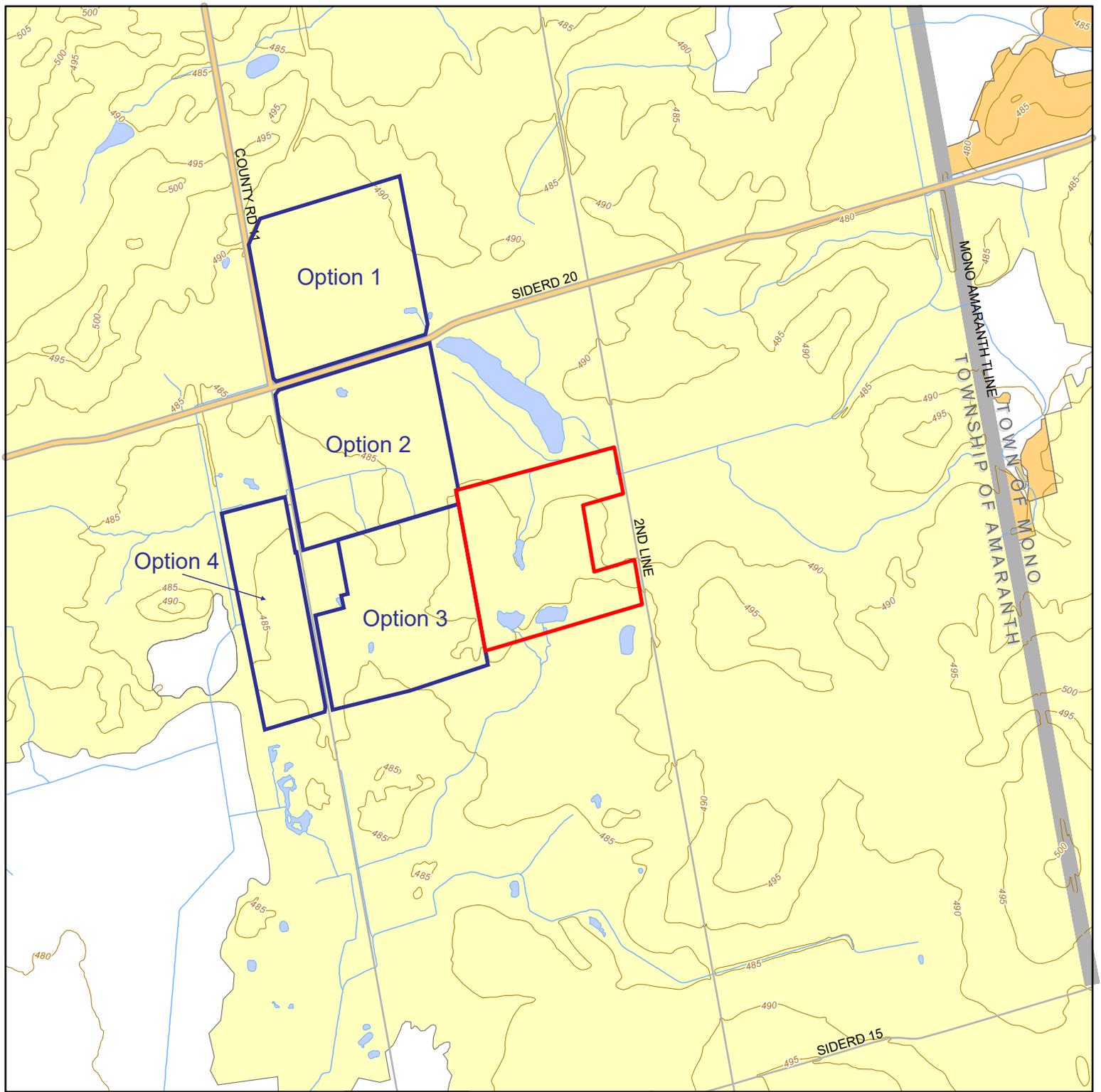
The *PPS* requires that non-agricultural *developments* avoid locating in *prime agricultural areas* wherever possible. Alternative Options 1-4 are designated *prime agricultural area* in the Dufferin County Official Plan, and predominantly designated Rural in the Township of Amaranth Official Plan, with small areas designated Environmental Protection. Alternative Options 1 through 4, along with their land use designations in the County and Township Official Plans are shown in Figures 7 and 8 below. As shown in Figure 7, it is not possible to avoid *prime agricultural areas*, as designated in the Dufferin County Official Plan. The Subject Lands and Alternative Options 1 through 4 all avoid the Township of Amaranth's *prime agricultural areas*. However, the Township of Amaranth Official Plan is required to be consistent with the Dufferin County Official Plan. The Dufferin County Official Plan came into effect more recently than the Township of Amaranth Official Plan. Therefore, the Subject Lands and Alternative Options 1 through 4 are all provincially recognized as being part of a *prime agricultural area*. Therefore, this AIA must assess whether any of the Alternative Options represent lower priority agricultural lands within the *prime agricultural area*.

### **6.2.2 Low Priority Alternative Areas**

Where it is not possible or practical to avoid *prime agricultural areas*, the *PPS* directs *development* to lands with lower agricultural priority. Although neither the *PPS* nor OMAFA specifically defines in policy "lower priority agricultural lands", there are a number of considerations used by OMAFA to determine the "agricultural priority" of an area. These considerations may include the ability of the site to comply with the requirements of *MDS I*, current land use, amount of capital investment in agricultural infrastructure, amount of land under active cultivation, existing degree of lot fragmentation to the surrounding agricultural land base, and proximity to incompatible land uses such as urban and rural *settlement areas*. However, the primary factor used by OMAFA to identify lower priority agricultural lands is the agricultural capability of the lands (i.e., CLI Classification). Regarding the protection of prime agricultural lands, Policy 4.3.1.3 of the *PPS* states that "Specialty crop areas shall be given the highest priority for protection, followed by Canada Land Inventory Class 1, 2, and 3 lands, and any associated Class 4 through 7 lands within the prime agricultural area, in this order of priority."

### **Hoffman Productivity Indices**

The Hoffman Productivity Indices (HPI) are used to relate the productivity of land to the CLI Capability (based on expected yields). Assuming the same level of management is applied to different CLI Classes, the productivity for each class will differ. Hoffman (1971) determined the average yields produced for *common field crops* on CLI Classes 1 through 4 lands. He determined that CLI Class 2 lands produce yields approximately 20% less than CLI Class 1 lands and therefore has a value of 0.80 relative to CLI Class 1 lands. The value for CLI Class 3 lands is 0.64 and, for CLI Class 4 lands, the value is 0.49. The values for CLI Classes 5, 6, & 7 were obtained through extrapolation.



**LEGEND**

- Subject Lands
- Study Area (1500 m)
- OHN Waterbody
- OHN Watercourse
- Contour
- Land Use (Dufferin County OP Sch-C)**
- Prime Agricultural Area (S.4.2)
- Rural Area
- N/A

**LOCATION MAP**



**Figure 7**

Alternative Locations County Land Use Mapping

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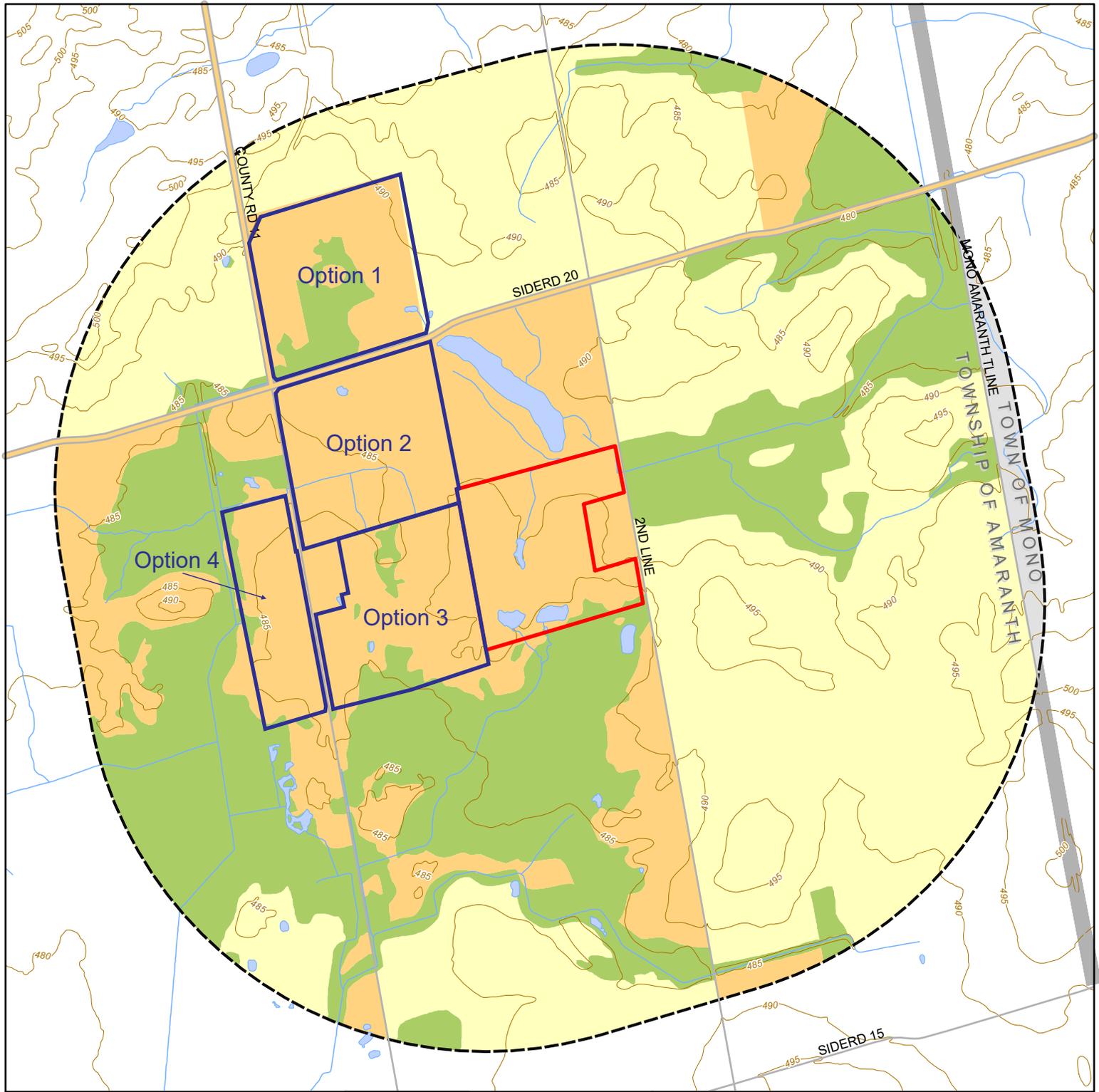
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Prepared by: **COLVILLE CONSULTING INC.**

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**LEGEND**

- Subject Lands
- Study Area (1500 m)
- Ohn Waterbody
- Ohn Watercourse
- Contour
- Land Use (Amaranth Twp OP Sch-A)**
- Agricultural
- Environmental Protection
- Mono Township
- Rural

**LOCATION MAP**



**Figure 8**

Alternative Locations Township Land Use Mapping

Agricultural Impact Assessment  
514504 2nd Line, Amaranth ON

Prepared for: **The Cellular Connection Ltd.**

Prepared by: **COLVILLE CONSULTING INC.**



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The HPI of the four candidate alternative locations, as well as the Subject Lands, were calculated to determine the average agricultural capability of the Subject Lands and Alternative Options 1 through 4. The results of the HPI calculations can be found in Appendix I. It was determined that the Subject Lands have an HPI equivalent in productivity to CLI Class 2 lands. Of the four other candidate alternative locations, one (Alternative Option 4) was determined to have an HPI equivalent in productivity to CLI Class 1 lands, and the other three (Alternative Options 1, 2, & 3) have an HPI equivalent to CLI Class 2 lands.

Option 2 has a slightly lower HPI than the Subject Lands (0.82 vs. 0.85). However, Option 2 would have a greater impact on agricultural lands as nearly all of the parcel is currently cultivated. Whereas less than half of the Subject Lands are available for agricultural production because of the presence of natural heritage features. Therefore, we prefer the Subject Lands over Option 2.

#### **Evaluation of Agricultural Priority**

As discussed above, Alternative Option 4 is comprised of land equivalent to CLI Class 1 lands, which have a higher priority for protection than Subject Lands and remaining Alternative Options, which are equivalent to CLI Class 2 lands. Therefore, the agricultural priority of the Subject Lands, relative to Alternative Options 1 through 3 was evaluated. We have determined that the Subject Lands are lower priority agricultural lands for the following reasons:

1. There are no investments in agricultural infrastructure within the Subject Lands. Alternative Options 1 and 2 contain agricultural infrastructure for an equestrian operation and cash crop operations, respectively;
2. There are no investments in agricultural tile drainage within the Subject Lands or Alternative Options 1 through 3; and
3. The Subject Lands have been disturbed through the development of a rural residential use and internal gravel pathways/roads.

The Subject Lands have lower priority agricultural lands and therefore, represent a reasonable choice of locations for the proposed *development*.

## 7. ASSESSMENT OF IMPACTS TO AGRICULTURE

Farm operations can be adversely impacted by new non-agricultural *development* on adjacent lands. Non-agricultural *development* adjacent to agricultural lands can cause disruptions to existing farm practices as a result of construction activity, an increase in non-farm traffic, incidence of trespass and vandalism, and increased levels of noise, dust, and lighting. 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 proposed *development* will have both direct and indirect impacts. It is unlikely that the proposed *development* will have significant, long-term negative effects on the surrounding agricultural lands and community.

### 7.1 Direct Impacts

#### 7.1.1 Prime Agricultural Lands

The Subject Lands are approximately 32.96 ha (81.45 acres) in size, of which approximately 30.60 ha consist of *prime agricultural lands*. The Draft Plan of Subdivision indicates the *development* of 19 residential units, an internal road, the existing infrastructure use, and areas that will remain undeveloped as part of the Natural Heritage System. The plan indicates that approximately 15.45 ha of the Subject Lands will form part of the Natural Heritage System, reducing the amount of *prime agricultural lands* lost as a result of the proposed *development*. Therefore, the proposal will result in the eventual loss of approximately 17.51 ha of *prime agricultural lands*. To mitigate this loss in the short-term, the Subject Lands should remain in agricultural production until the lands are to be developed, and the undeveloped lands should be maintained as part of the Natural Heritage System.

Where feasible, efforts to preserve the topsoil for use at other locations should be considered through consultation with the local municipalities, Conservation Authorities, and other potential end users (e.g., farmers).

#### 7.1.2 Agricultural Infrastructure

There is no agricultural infrastructure present on the Subject Lands. Therefore, no agricultural infrastructure will be lost as a result of the proposed *development*.

#### 7.1.3 Agricultural Land Improvements

The Subject Lands do not contain any agricultural tile drainage. However, a constructed drain, the White Whitten Drain, flows along the northeastern property boundary. The proposed development plan contains a road which crosses this drain. It is recommended that function of this drain is maintained during construction and following the proposed *development* of the Subject Lands.

#### 7.1.4 Loss of Crop Land

The Subject Lands are not cultivated for agricultural crop production and consist primarily of *idle* and *disturbed* lands. Of the Subject Lands' 32.96 ha, approximately 9.01 ha are cultivatable. The proposed *development* will result in the eventual loss of these cultivatable lands, primarily due to residential development, with a smaller portion removed through their inclusion within the Natural Heritage System.

To mitigate this loss, those lands should remain available for agricultural production until they are to be developed.

## **7.2 Indirect Impacts**

Potential impacts to adjacent farm operations and farm practices are considered to be indirect impacts. These would include changes to 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 farm odour and other nuisance complaints often received by farmers in close proximity to *non-agricultural uses*.

### **7.2.1 Disruption to Surficial Drainage**

The *development* of the Subject Lands has the potential to cause changes in surface runoff, which can have a potential negative impact on adjacent agricultural lands. To ensure potential impacts are avoided, a Grading Plan and Stormwater Management Plan should be prepared. Implementation of the recommendations provided in these studies will minimize or eliminate the potential impacts, which are expected to be negligible.

### **7.2.2 Disruption to Farm Operations**

*Development* of the Subject Lands and subsequent removal of farmland may have an impact on the flexibility on some of the surrounding farm operations if they relied on the Subject Lands as an additional source of farmland to supplement their home operation. However, the adjacent lands will not be directly affected, and current farm operations will still be able to cultivate *common field crops* and other agricultural products without limitation.

New non-agricultural *development* may have an impact on the existing farm wells, irrigation ponds, and ponds or other waterbodies used to provide *livestock* with sources of water in the surrounding area. It is understood that a Hydrogeological Study has been prepared in support of the proposal. The proposed *development* should adhere to the recommendations provided in the Hydrogeological Study to ensure water sources used in agricultural operations are not impacted.

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 that would be impacted by noise, dust, and lighting. However, it is recommended that these elements be controlled and in compliance with Ministry of Environment, Conservation and Parks (MECP) guidelines. No negative indirect impacts are anticipated from construction activity.

### **7.2.3 Trespass and Vandalism**

Within the *Study Area*, trespass and vandalism is likely uncommon, as there are *limited non-agricultural uses* in the surrounding area and there are no *settlement areas* within five kilometres. Examples of trespass and vandalism include people walking their pets in farmer's fields, crossing and damaging fences, and rutting fields with dirt bikes and all-terrain vehicles. Establishing a new *settlement area* will result in an increase in urban population, which has the potential to increase instances of trespass and vandalism. The increase in urban population, along with construction activities, may also result in debris (litter) in farmer's fields. Establishing buffers, fencing, and other edge planning techniques along the new agricultural-urban

interface should be considered to minimize impacts. Edge planning techniques are discussed in further detail in Section 8.3 of this report.

#### **7.2.4 Minimum Distance Separation**

The *MDS I* setback requirements have been calculated for all *livestock facilities* capable of housing *livestock* in the *Study Area*. There is one operation (#19) that creates an *MDS I* setback which encroaches approximately 2.22 ha into the southeastern portion of the Subject Lands. The *MDS I* setback associated with Operation #19 does not encroach into any portion of the lots which are proposed for residential *development*.

Though discouraged in the MDS Guidance Document, the Township of Amaranth may choose to reduce the *MDS I* setback that encroaches into the Subject Lands through the use of a minor variance to the zoning by-law provisions, or through a site-specific policy area. Alternatively, a holding provision may be placed on this portion of the Subject Lands to prohibit *development* until such time that Operation #19 has been decommissioned, re-zoned, re-purposed or no longer structurally suitable of housing *livestock*. Given that all lots proposed for residential uses comply with the *MDS formulae*, no odour-related nuisance complaints are anticipated.

#### **7.2.5 Transportation Impacts**

It is anticipated that the proposed *development* will introduce slightly more non-farm traffic to roads surrounding the Subject Lands. The proposed *development* seeks to create 19 residential uses, which is likely to have a negligible impact on the surrounding agricultural operations.

It is understood that a Transportation Impact Study has prepared for the proposed *development*, which determined that the anticipated increase in traffic from the proposed *development* will have a negligible impact on local roads. Therefore, no traffic-related impacts are anticipated as a result of the proposed *development*.

#### **7.2.6 Economic and Community Impacts**

Local and regional economies and agricultural communities can be adversely impacted by the introduction of new *settlement areas* 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 Subject Lands do not contribute significantly to the agricultural economies in the Township of Amaranth or Dufferin County. Additionally, the Subject Lands have limited benefit to the surrounding agricultural communities. Therefore, economic and community impacts as a result of the proposed *development* are expected to be negligible.

### **7.3 Implementation of Edge Planning Techniques**

The agricultural-urban interface (AUI) is typically the area where farm operations are negatively impacted the most. When the establishment of a new *settlement area* is proposed, some consideration should be given to minimizing the length of the AUI. The proposed *development* will create a new agricultural-urban interface that should be given special consideration.

The Guide to Edge Planning: Promoting Compatibility Along Agriculture-Urban Edges (2015) developed by the British Columbia Ministry of Agriculture and Lands provides a basis for achieving compatibility where agricultural and urban uses interface. Edge Planning: Strategies for Rural and Urban Interface (2015) developed by MHBC for the Peel Agricultural Advisory Working Group provides a review of case study examples and provides methods and recommendation for addressing the mitigation of conflict where *settlement areas* and *prime agricultural areas* interface.

These guides recognize and address the potential negative impacts that *agricultural uses* and *non-agricultural uses* can have on one another and presents options to prevent such impacts. Edge planning techniques to reduce potential impacts on farmers and non-farmers are discussed below. It should be noted that not all of the edge planning techniques discussed below may be feasibly implemented for the proposed *development* and there is no requirement for the edge planning techniques to be implemented. Rather, they are best practices that can be implemented when a new AUI is created.

### **7.3.1 Subdivision Design: Density, Road, and Lot Patterns**

The proposed *development* layout should be designed to maximize, to the extent possible, a setback distance from the *non-agricultural uses* and farm operations. Creating a vegetated buffer between farming operations and the *non-agricultural uses* will further enhance the effectiveness of the setback. In addition to this, the consideration of lot dimensions and density, along with road and service design can help reduce impacts to adjacent farming activities and help to reduce impacts to urban land uses. Overall, the design of the proposed *development* should be directing vehicular and pedestrian traffic away from the AUI as much as possible.

### **7.3.2 Building Design and Layout**

Building setbacks from the AUI can help create separation between agricultural and urban land uses. The urban-side of the AUI should consider a setback distance, rear-yard for housing, and green spaces to provide physical separation from the farmlands. Setbacks could include space for a wide, vegetated buffer. There is a range of recommended building setback distances from the AUI depending on the type of land use. The recommended setback distance from the AUI 30 metres for residential land uses.

### **7.3.3 Open Space and Landscape Design**

Any open space and landscape design should retain existing tree cover (where possible) in natural state in designated buffer areas. When selecting plant species for open space areas and landscape design, species which will not negatively affect adjacent farmland and provide greater benefit to residents should be given priority (i.e., use native, non-invasive species, low maintenance/drought tolerant plants, tree/shrub species that will filter dust and spray drift from agricultural area (e.g., conifers), tree/shrub species that will not carry insects/disease, etc.).

### **7.3.4 Urban-side Buffer Design**

As part of the building setback, the urban-side buffer design should include a continuous vegetative buffer within the building setback. Buffers can provide a visual screen of farmlands and activities, provide a deterrent to trespass onto farms, as well as capture dust, spray drift, and litter. A buffer design with a minimum separation distance of 30 metres (including vegetative buffer) between housing and the AUI is recommended and found to be effective in reducing nuisance complaints.

The Guide to Edge Planning: Promoting Compatibility Along Agriculture-Urban Edges recommends a minimum vegetative buffer width of 15 metres for residential. Crown density of the buffer should be 50-75% to provide optimal screening and air circulation. Furthermore, the vegetative buffer should include both deciduous and coniferous plantings to ensure four-season screening is provided. If there is excess soil generated as a result of *development*, the construction of topsoil berms can also be considered to provide some visual screening and potentially increase the height of the vegetative screen.

The height of the vegetative buffer should exceed 6 metres at plant maturity to create an effective vegetative screen and capture more dust and spray drift between agricultural and urban land uses. Within 2 metres of the lot boundary the vegetative buffer should be comprised of low-growing vegetation to provide space for improved functioning on the agricultural side of the AUI. A good vegetative buffer will also reduce the intensity of winds, which will minimize the extent of obnoxious odours originating from *livestock facilities*. It can also minimize sound and lighting generated by farm operations.

### **7.3.5 Trail System**

The creation of a trail system through the Subject Lands may provide opportunities to improve vegetated buffers, separating agricultural areas from urban land uses. The trail system should be situated along the urban edge of the vegetative buffer and must not reduce the effectiveness of the vegetative buffer. Where possible, the trail width should be limited to a maximum of one-third of the total landscape buffer width. Special attention should be given to trail areas to prevent trespass onto agricultural lands (e.g., fencing).

The Subject Lands contained a trail network in the past. However, the Nottawasaga Valley Conservation Authority requested that the trails be removed, and it is understood that there are no longer trails within the Subject Lands. As such, establishing a trail system within the Subject Lands may not represent a feasible option for promoting land use compatibility.

## **7.4 Summary of Impacts**

The potential direct and indirect impacts identified are summarized in Table 5 along with the potential degree of impact, mitigation measures to avoid or minimize the potential impact and the resulting anticipated net impact.

**Table 5. Summary of Impacts**

Potential Impact	Potential Degree of Impact	Mitigation Measure	Anticipated Net Impact
<b>Direct Impacts</b>			
Loss of <i>prime agricultural land</i>	High on-site	<ul style="list-style-type: none"> <li>♦ Allow for continued cultivation until lands are required for <i>development</i></li> <li>♦ Where feasible, preserve topsoil for use at other locations</li> </ul>	Eventual loss of 17.51 ha of <i>prime agricultural lands</i>
Loss of agricultural infrastructure	Low	<ul style="list-style-type: none"> <li>♦ None required</li> <li>♦ No agricultural infrastructure on Subject Lands</li> </ul>	No impact
Loss of agricultural land improvements	Low	<ul style="list-style-type: none"> <li>♦ Maintain function of adjacent constructed drain during and following construction</li> </ul>	No impact anticipated
Loss of cropland	Low	<ul style="list-style-type: none"> <li>♦ Subject Lands not currently <i>cultivated</i></li> <li>♦ Lands to remain available for agricultural production until they are to be developed.</li> </ul>	Eventual loss of approximately 9.01 ha of cultivatable land
<b>Indirect Impacts</b>			
Surficial Drainage	Low	<ul style="list-style-type: none"> <li>♦ Prepare a Grading Plan and Stormwater Management Plan</li> <li>♦ Implement recommendations of Grading Plan and Stormwater Management Plan if impact identified</li> </ul>	No impact anticipated
Disruption to Farm Operations	Low	<ul style="list-style-type: none"> <li>♦ Ensure that access to farm operations and farm fields is maintained at all times throughout construction</li> </ul>	No impact anticipated
Non-farm traffic	Low	<ul style="list-style-type: none"> <li>♦ Adhere to recommendations of Traffic Impact Study</li> </ul>	No significant impact anticipated
Trespass, Vandalism, and Stray Pets	Low	<ul style="list-style-type: none"> <li>♦ Consider the use of edge planning techniques along the agricultural-urban interface.</li> </ul>	No significant impact anticipated
Noise, Dust & Light	Low	<ul style="list-style-type: none"> <li>♦ Adhere to MECP guidelines</li> </ul>	No impact anticipated
Land Use Compatibility	Low	<ul style="list-style-type: none"> <li>♦ Consider the use of edge planning techniques along the agricultural-urban interface</li> </ul>	No significant impact anticipated

**Table 5. Summary of Impacts**

Potential Impact	Potential Degree of Impact	Mitigation Measure	Anticipated Net Impact
Changes to Microclimatic Conditions	Low	<ul style="list-style-type: none"> <li>None required, no changes to microclimatic conditions</li> </ul>	No impact
Conflict with MDS formula	Low	<ul style="list-style-type: none"> <li>Prohibit development within encroachment area until MDS I setback requirements can be met, or</li> <li>Consider not including the proposed infrastructure within the SABE to ensure compliance with <i>MDS formulae</i></li> </ul>	No impact anticipated
Economic	Low	<ul style="list-style-type: none"> <li>None required</li> </ul>	No significant impact
Wells, Irrigation, water bodies	Low	<ul style="list-style-type: none"> <li>Adhere to recommendations of Hydrogeological Study</li> </ul>	No impact anticipated

## 8. CONSISTENCY WITH AGRICULTURAL POLICIES

### 8.1 Provincial Planning Statement

Section 2.3.2.1 of the *PPS* states in part that “In identifying a new settlement area or allowing a settlement area boundary expansion, planning authorities shall consider the following:

- c) whether the applicable lands comprise specialty crop areas;
- d) the evaluation of alternative locations which avoid prime agricultural areas and, where avoidance is not possible, consider reasonable alternatives on lower priority agricultural lands in prime agricultural areas;
- e) whether the new or expanded settlement area complies with the minimum distance separation formulae;
- f) whether impacts on the agricultural system are avoided, or where avoidance is not possible, minimized and mitigated to the extent feasible as determined through an agricultural impact assessment or equivalent analysis, based on provincial guidance.”

The Subject Lands are not part of a *specialty crop area*. Alternative locations for the proposed *development* have been evaluated, and no reasonable alternative locations which avoid *prime agricultural areas* were identified within the *Study Area*. Relative to other lands within the *Study Area*, the Subject Lands are considered lower priority agricultural lands and represent a reasonable location for the proposed *development*, from an agricultural perspective.

The AIA assessed the potential impacts on the *Agricultural System* associated with the proposed *development* and provided recommendations to avoid or minimize potential impacts, to the extent feasible. *MDS I* setbacks have been calculated for all *livestock facilities* within 1.5 km of the proposed *development*. There is one *livestock facility* that generates an *MDS I* setback which encroaches into the southeastern corner of the Subject Lands and occupies approximately 2.22 ha. This area of encroachment extends into a portion of one of the lots that is proposed for an infrastructure use and does not extend into any portion of the lots proposed for residential uses. The proposed new Community Settlement Area meets the intent of OMAFRA’s *MDS Document*. However, the proposed new Community Settlement Area does not comply with the *MDS formulae*.

The proposed new Community Settlement Area is consistent with the agricultural-related policies of the *PPS*, with the exception of compliance with the *MDS formulae*. If the infrastructure use was not included within the proposed settlement area boundary, the new Community Settlement Area would comply with the *MDS formulae*.

### 8.2 Dufferin County Official Plan

Schedule C of the Dufferin County Official Plan designates the Subject Lands Prime Agricultural Area. Section 4.2.3 states that “any changes to the designation of *prime agricultural areas* will require an amendment to this Plan, and an amendment to the local municipal official plan”. Section 3.5.1.1 of the Dufferin County Official Plan outlines the policies for *settlement area* boundary expansion, which requires the evaluation of alternative locations, compliance with the *MDS formulae*, the identification of impacts on the Agricultural System, and the development of mitigation measures for the identified impacts.

This AIA has determined that the proposed new Community Settlement Area cannot avoid *prime agricultural areas*, and there are no lower priority agricultural lands available within the *Study Area*. The potential impacts of the proposal were identified, and recommendations have been provided which will avoid, minimize, and mitigate the identified impacts, to the extent feasible. The proposed *development* does not fully comply with the *MDS formulae*, and the proposed new Community Settlement Area will require an OPA to the Dufferin County Official Plan.

### **8.3 Township of Amaranth Official Plan**

Section 3.4.5 of the Township of Amaranth Official Plan outlines policies for lands within the Community designation. Section 3.4.5 states in part that “Expansions to the boundary of these settlement areas are subject to a countywide municipal comprehensive review exercise pursuant to Section 2.2.8 of the Growth Plan.”

The Township of Amaranth Official Plan was implanted prior to the implementation of the *PPS*, which now permits *settlement area* boundary expansion and the identification of new *settlement areas*, outside of municipal comprehensive reviews. As such, an OPA to the Township of Amaranth Official Plan will be required to facilitate the proposed new Community Settlement Area.

## 9. CONCLUSION

This AIA has identified and described the agricultural resources and farm operations within the Subject Lands and *Study Area*. The potential impacts associated of the proposed OPA and future *development* have been assessed and we have determined the following:

1. The Subject Lands are not part of a *specialty crop area*;
2. The Subject Lands are located within a provincially recognized and municipally designated *prime agricultural area*;
3. There are no reasonable alternative locations for the proposed *development* in the Township of Amaranth which avoid *prime agricultural areas* as designated in the Dufferin County Official Plan;
4. There are no reasonable alternative locations for the proposed *development* within the *Study Area* which utilize lower priority agricultural lands in the *prime agricultural area*. Therefore, the proposed *development* represents a reasonable choice of locations for the proposed new Community Settlement Area;
5. Potential impacts associated with the proposed *development* are primarily limited to the loss of *prime agricultural lands* and cultivatable land. Recommendations have been provided that will ensure potential impacts will be avoided or mitigated to the extent possible. The net indirect impacts will be negligible with the implementation of the recommended mitigation measures; and
6. The proposed *development* does not fully comply with the *MDS formulae*. However, the proposed new Community Settlement Area meets the intent of the MDS Document and would comply with the *MDS formulae* if the encroachment area were not included within the new *settlement area*. The proposed *development* is consistent with all other relevant provincial agricultural policies and will require an Official Plan Amendment to the Dufferin County and Township of Amaranth Official Plans.

Respectfully submitted by:



Sean Colville, B.Sc., P.Ag.  
Colville Consulting Inc.



John Liotta, B.Sc.Env, P.Ag.,  
Colville Consulting Inc.

## 10. GLOSSARY OF TERMS

**Agricultural uses:**\* - 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 housing for farm workers, when the size and nature of the operation requires additional employment.

**Agriculture-related uses:**\* - those farm-related commercial and farm-related industrial 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.

**Agricultural system:** - means a system comprised of a group of inter-connected elements that collectively create a viable, thriving agri-food sector. It has two components:

- An agricultural land base comprised of *prime agricultural areas*, including *specialty crop* areas. It may also include *rural lands* that help to create a continuous productive land base for agriculture.
- An *agri-food network* which includes agricultural operations, *infrastructure*, services, and assets important to the viability of the agri-food sector.

**Agri-food network:**\* - a network within the *agricultural system* that includes elements important to the viability of the agri-food sector such as regional *infrastructure* and transportation networks; agricultural operations including on-farm buildings and primary processing; infrastructure; agricultural services, farm markets, and distributors; and vibrant, agriculture-supportive communities.

**Agri-tourism uses:**\* - means those farm-related tourism uses, including limited accommodation such as a bed and breakfast, that promote the enjoyment, education or activities related to the farm operation.

**Anaerobic digester:**\* - A permanent structure designed for the decomposition of organic matter by bacteria in an oxygen-limiting environment.

**Beef operation:** a farm operation whose predominant livestock is beef cattle, including cow-calf operations.

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

**Common Field Crops:** - Common field crops in Ontario include corn; soybeans; small grains and perennial forages (e.g., hay & pasture).

**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.

**Forage/Pasture:** - means a crop that consists of either pastureland, including rough grazing, or hay crops including silage and haylage.

**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.

**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.

**Manure Storage\*:** - A permanent storage which is structurally sound and reasonable 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 formulae:** - used to determine the minimum distance separation for new development from any existing and some former livestock facilities.

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

**Non-agricultural uses:\*** - 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.

**Non-farm residential (NFR):** - 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.

**Prime agricultural area:**\* - 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 lands* and/or Canada Land Inventory Class 1, 2 and 3 soils, in this order of priority for protection.

**Provincial Planning Statement, 2024:** - the Provincial Planning Statement (PPS), 2024 is a streamlined province-wide land use planning policy framework that replaces both the *Provincial Policy Statement, 2020* and *A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019* while building upon housing-supportive policies from both documents. The PPS 2024 provides municipalities with the tools and flexibility they need to build more homes. It enables municipalities to:

- plan for support development, and increase the housing supply across the province;
- align development with infrastructure to build a strong and competitive economy that is investment-ready;
- foster the long-term viability of rural areas; and
- protect agricultural lands, the environment, public health and safety.

**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 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; would require significant upgrades and investment to modernize; or it is in poor condition and not suitable for agricultural uses. The MDS may still apply if it is a former 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*.

**Scrub land:** - means lands that are no longer farmed and woody species (young trees and shrubs) have begun regenerating and/or sparsely treed areas.

**Settlement areas:**\* - means urban areas and rural settlement areas within municipalities (such as cities, towns, villages, and hamlets). Ontario's *settlement areas* vary significantly in terms of size, density, population, economic activity, diversity and intensity of land uses, service levels, and types of infrastructure available. Settlement areas are:

- a) built up areas where development is concentrated, and which have a mix of land uses; and
- b) lands which have been designated in an official plan for development over the long term.

**Soil horizon:** - a layer of soil, approximately parallel to the land surface, which 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.).

**Specialty crop area:**\* - means areas within the agricultural land base designated based on provincial guidance. 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.

**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.

**Unoccupied livestock facility:** - A livestock facility that does not currently house any livestock, but that housed livestock in the past and continues to be structurally sound and reasonably capable of housing livestock. The MDS formula is applied to these facilities.

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

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

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**APPENDIX A**

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

Rees, H.W.; Duff, J.P.; Colville, S.; Soley, T and Chow T.L. 1996. Soils of selected agricultural areas of Shediac and Botsford Parishes, Westmoreland County, New Brunswick. New Brunswick. Soil Survey Report No. 16. CLBRR Contribution No. 95-13, Research Branch, Agriculture and Agri-Food Canada, Ottawa, Ontario. 127 pp. with maps.



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

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  
Ontario Institute of Agrologists – Professional Agrologist

### **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 Consulting Inc.

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 he has applied in his current role at Colville Consulting Inc. His work at Colville Consulting Inc. 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)  
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 B**

Draft Plan of Subdivision

METRIC: DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

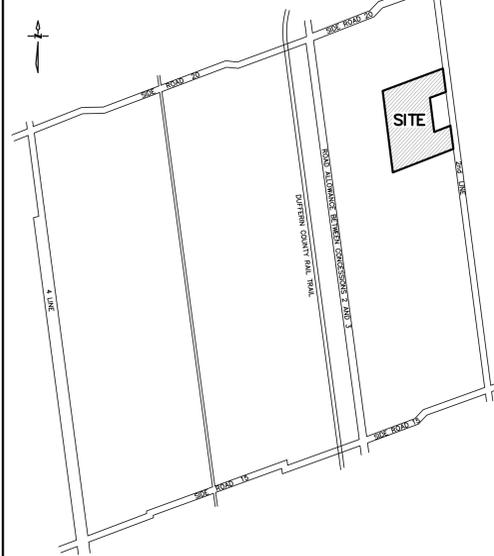
RESIDENTIAL/FARM



DRAFT PLAN OF SUBDIVISION OF

PART OF LOT 19  
CONCESSION 2  
(GEOGRAPHIC TOWNSHIP OF AMARANTH)  
TOWNSHIP OF AMARANTH  
COUNTY OF DUFFERIN  
OCTOBER 6, 2025

KEY PLAN  
NOT TO SCALE



ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51 (17) OF THE PLANNING ACT, R.S.O., 1990

- (a) AS SHOWN ON DRAFT PLAN
- (b) AS SHOWN ON DRAFT PLAN AND KEY PLANS
- (c) AS SHOWN ON DRAFT PLAN
- (d) THE LAND IS TO BE USED ACCORDING TO THE SCHEDULE OF LAND USE
- (e) AS SHOWN ON DRAFT PLAN AND KEY PLANS
- (f) AS SHOWN ON DRAFT PLAN
- (g) AS SHOWN ON DRAFT PLAN AND KEY PLANS
- (h) MUNICIPAL WATER SUPPLY TO BE MADE AVAILABLE
- (i) SOIL IS CLAYEY SILT AND SILTY CLAY TO CLAY
- (j) AS SHOWN ON DRAFT PLAN
- (k) FULL MUNICIPAL SERVICES TO BE MADE AVAILABLE
- (l) SUBJECT TO EASEMENTS AS SHOWN ON THE DRAFT PLAN

SCHEDULE OF LAND USE

LAND USE	LOTS / BLOCKS	(ha)	AREA (ac)	(m <sup>2</sup> )
SINGLE DETACHED RESIDENTIAL	LOTS 1 TO 19	14.0525	34.72	140525.0
NATURAL HERITAGE SYSTEM	BLOCK 20	1.4916	3.69	14915.8
HYDRO EQUIPMENT	BLOCK 21	0.7599	1.88	7599.4
NATURAL HERITAGE SYSTEM	BLOCK 22	5.6596	13.98	56596.5
NATURAL HERITAGE SYSTEM	BLOCK 23	8.2971	20.50	82970.9
PUBLIC STREET		2.7562	6.81	27561.7
TOTAL	UNITS 19	33.0169	81.58	330169.3

SCALE 1:1000  
(30X36)

OWNER'S AUTHORIZATION

I AUTHORIZE W.E. OUGHTRED AND ASSOCIATES INC. TO PREPARE AND SUBMIT THIS DRAFT PLAN OF SUBDIVISION TO THE COUNTY OF DUFFERIN FOR APPROVAL.

OCTOBER 6, 2025  
DATE

STUART TURK  
THE CELLULAR CONNECTION LTD.

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LAND TO BE SUBDIVIDED AS SHOWN ON THIS PLAN AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

OCTOBER 6, 2025  
DATE

DAN DZALDOV  
ONTARIO LAND SURVEYOR

**SCHAEFFER DZALDOV PURCELL LTD.**  
ONTARIO LAND SURVEYORS  
64 JARDIN DRIVE CONCORD, ONTARIO L4K 3P3 TEL.(416)987-0101  
DRAWN ACAD/SL/W CHECKED LEGAL R/MCK SCALE 1:1000 JOB NO. 23-313-01H  
PLOT SIZE: 30X36 OCTOBER 6, 2025

## APPENDIX C

### Climate Normal Data

Climate Normals 1981-2010 Station Data

Metadata including Station Name, Province or Territory, Latitude, Longitude, Elevation, Climate ID, WMO ID, TC ID

STATION_NAME	PROVINCE	LATITUDE	LONGITUDE	ELEVATION	CLIMATE_ID	WMO_ID	TC_ID
ORANGEVILLE MOE	ON	43°55'06.066" N	80°05'11.064" W	411.5 m	6155790		

Legend

A = WMO "3 and 5 rule" (i.e. no more than 3 consecutive and no more than 5 total missing for either temperature or precipitation)

B = At least 25 years

C = At least 20 years

D = At least 15 years

1981 to 2010 Canadian Climate Normals station data	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Code
Temperature														
Daily Average (°C)	-7.5	-6.5	-2.1	5.3	11.7	16.9	19.4	18.4	14.3	7.8	2	-4.1	6.3	C
Standard Deviation	3	2.5	1.9	1.6	2.1	1.4	1.3	1.3	1.3	1.2	1.6	2.8	0.9	C
Daily Maximum (°C)	-3.4	-2.1	2.8	10.6	17.6	22.8	25.2	24.2	19.9	12.7	5.6	-0.6	11.3	C
Daily Minimum (°C)	-11.6	-10.9	-7	0	5.7	10.9	13.5	12.6	8.7	3	-1.7	-7.5	1.3	C
Extreme Maximum (°C)	14.5	13	22.5	28.5	32	34	35	35.5	33	28.3	22.8	18		
Date (yyyy/dd)	2005/13	2000/27	1998/30	1990/28	2006/29	1994/16	Jun-88	Mar-88	Aug-02	Feb-71	Mar-61	Mar-82		
Extreme Minimum (°C)	-36	-36.5	-34.4	-20	-6.1	-2.2	0.6	-1.1	-5.6	-10.6	-18	-33		
Date (yyyy/dd)	1999/14	1979/18	Feb-62	Jul-72	Oct-62	May-64	1968/30	1965/30	1965/27	1976/27	1995/29	1980/25		
Precipitation														
Rainfall (mm)	25.7	22.7	38.2	63.5	86.6	81.3	80.8	88.2	87	74.3	72.4	29.4	750.1	C
Snowfall (cm)	38.5	31.8	22.7	6.6	0	0	0	0	0	2.3	14.7	34.9	151.5	C
Precipitation (mm)	64.3	54.5	60.9	70.1	86.6	81.3	80.8	88.2	87	76.6	87.1	64.2	901.5	C
Extreme Daily Rainfall (mm)	31.8	33	39.1	37	59.1	59.7	66	83.8	65	45	56.6	31.2		
Date (yyyy/dd)	1974/20	Sep-65	Jan-72	1992/16	Dec-00	1967/21	2005/16	1968/22	Jul-96	May-95	Dec-92	Dec-72		
Extreme Daily Snowfall (cm)	25.4	27	18	22	15.5	0	0	0	0	18	17	30		
Date (yyyy/dd)	1966/22	Jul-86	1996/19	Feb-05	Dec-66	Jan-61	Jan-61	Jan-61	Jan-61	1981/22	2005/24	Oct-92		
Extreme Daily Precipitation (mm)	35.3	38.6	41.7	37	59.1	59.7	66	83.8	65	45	56.6	37.3		
Date (yyyy/dd)	1974/20	1976/21	Jan-72	1992/16	Dec-00	1967/21	2005/16	1968/22	Jul-96	May-95	Dec-92	Dec-72		
Extreme Snow Depth (cm)	37	48	60	22	0	0	0	0	0	14	23	41		
Date (yyyy/dd)	Nov-99	1993/28	1993/14	Apr-05	Jan-83	Jan-83	Jan-83	Jan-83	Jan-83	1997/27	Apr-99	Dec-92		
Days with Maximum Temperature														
<= 0 °C	22.8	18.2	11.4	1.4	0	0	0	0	0	0.12	5.4	17.6	76.8	C
> 0 °C	8.2	10.1	19.7	28.6	31	30	31	31	30	30.9	24.6	13.4	288.4	C
> 10 °C	0.28	0.31	4.1	14.7	27.9	29.9	31	31	29.3	19.7	6.2	0.84	195.2	C
> 20 °C	0	0	0.38	2.2	10	21.1	28.4	26.6	14.1	2.3	0	0	105.2	C
> 30 °C	0	0	0	0	0.17	1.4	2.5	1.2	0.21	0	0	0	5.6	C
> 35 °C	0	0	0	0	0	0	0	0.04	0	0	0	0	0.04	C
Days with Minimum Temperature														
> 0 °C	0.72	1.2	3.1	12.3	25.8	29.9	31	31	28.8	20.5	8.8	1.5	194.6	C
<= 2 °C	30.8	27.7	29.3	21.4	9.2	0.42	0	0.08	3.7	15.4	24.3	30.3	192.6	C
<= 0 °C	30.3	27	27.9	17.7	5.3	0.08	0	0	1.2	10.5	21.2	29.5	170.6	C
< -2 °C	27.5	24.5	22.6	10	0.88	0	0	0	0.08	3.4	12.5	23.5	125	C

< -10 °C	16.2	14.6	8.4	0.4	0	0	0	0	0	0	1.2	9.5	50.4	C
< -20 °C	4.2	2.9	0.92	0	0	0	0	0	0	0	0	0.84	8.9	C
< -30 °C	0.16	0	0	0	0	0	0	0	0	0	0	0	0.16	C
Days with Rainfall														
>= 0.2 mm	3.6	3.3	5.6	10.7	12.9	11.9	10.5	11.9	12.2	14	10.8	4.5	112	C
>= 5 mm	1.9	1.6	2.6	4.1	5.4	4.9	4.4	4.8	4.7	5.2	4.7	2.2	46.4	C
>= 10 mm	0.92	0.85	1.5	2	2.9	2.9	2.8	3.2	2.9	2.4	2.4	1.1	25.9	C
>= 25 mm	0.12	0.04	0.12	0.23	0.69	0.46	0.69	0.58	0.73	0.23	0.42	0.09	4.4	C
Days With Snowfall														
>= 0.2 cm	11.3	8.1	6.2	1.9	0.04	0	0	0	0	0.84	4.5	10	42.8	C
>= 5 cm	2.5	2.2	1.6	0.58	0	0	0	0	0	0.08	1.1	2.4	10.5	C
>= 10 cm	0.88	0.69	0.5	0.15	0	0	0	0	0	0.08	0.23	0.74	3.3	C
>= 25 cm	0.04	0.04	0	0	0	0	0	0	0	0	0	0.04	0.12	C
Days with Precipitation														
>= 0.2 mm	14.3	10.9	11.3	12.2	12.9	11.9	10.5	11.9	12.2	14.3	14.6	14.1	151	C
>= 5 mm	4.5	3.7	4.4	4.7	5.4	4.9	4.4	4.8	4.7	5.3	5.7	4.6	57	C
>= 10 mm	1.8	1.5	2.2	2.2	2.9	2.9	2.8	3.2	2.9	2.5	2.6	1.9	29.4	C
>= 25 mm	0.16	0.12	0.12	0.23	0.69	0.46	0.69	0.58	0.73	0.24	0.42	0.18	4.6	C
Degree Days														
Above 24 °C	0	0	0	0	0.2	1.1	3.7	2.6	0.2	0	0	0	7.7	C
Above 18 °C	0	0	0	1.1	8.6	32	65.4	47.9	13.5	0.7	0	0	169.2	C
Above 15 °C	0	0	0.1	3.7	24.1	78.1	139.3	112.2	42.4	3.6	0	0	403.5	C
Above 10 °C	0	0	2.8	18.1	86.1	205.5	291.6	260.5	139.6	29	2.4	0.3	1035.8	C
Above 5 °C	0.5	0.8	13.1	64.3	207.4	353.9	446.6	415.2	280	106.4	23.8	2.5	1914.6	C
Above 0 °C	7.1	10	48.6	168.7	360.4	503.9	601.6	570.2	429.8	243.8	88.9	17.9	3050.7	C
Below 0 °C	237.9	194	111.6	10.5	0	0	0	0	0	0.4	30.7	143.4	728.5	C
Below 5 °C	386.3	326.1	231.1	56.1	2.1	0	0	0	0.2	18	115.6	283	1418.5	C
Below 10 °C	540.8	466.5	375.8	159.8	35.7	1.6	0	0.3	9.8	95.6	244.2	435.8	2365.9	C
Below 15 °C	695.8	607.7	528.1	295.5	128.7	24.2	2.8	7	62.6	225.2	391.8	590.5	3559.9	C
Below 18 °C	788.8	692.4	621	382.9	206.2	68.1	21.9	35.7	123.7	315.3	481.8	683.5	4421.3	C

1981 to 2010 Canadian Climate Normals station data (Frost-Free)

	Frost-Free: Code
Average Date of Last Spring Frost	20-May D
Average Date of First Fall Frost	30-Sep D
Average Length of Frost-Free Period	132 Days D
Probability of last temperature in spring <= 0°C, on or after indicated date (10%)	09-Jun
Probability of last temperature in spring <= 0°C, on or after indicated date (25%)	31-May
Probability of last temperature in spring <= 0°C, on or after indicated date (33%)	28-May
Probability of last temperature in spring <= 0°C, on or after indicated date (50%)	22-May
Probability of last temperature in spring <= 0°C, on or after indicated date (66%)	17-May
Probability of last temperature in spring <= 0°C, on or after indicated date (75%)	14-May
Probability of last temperature in spring <= 0°C, on or after indicated date (90%)	09-May
Probability of first temperature in fall <= 0°C, on or before indicated date (10%)	10-Sep
Probability of first temperature in fall <= 0°C, on or before indicated date (25%)	19-Sep
Probability of first temperature in fall <= 0°C, on or before indicated date (33%)	21-Sep
Probability of first temperature in fall <= 0°C, on or before indicated date (50%)	26-Sep

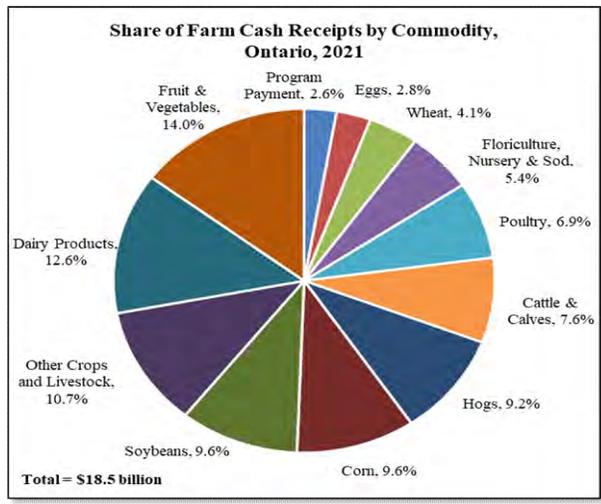
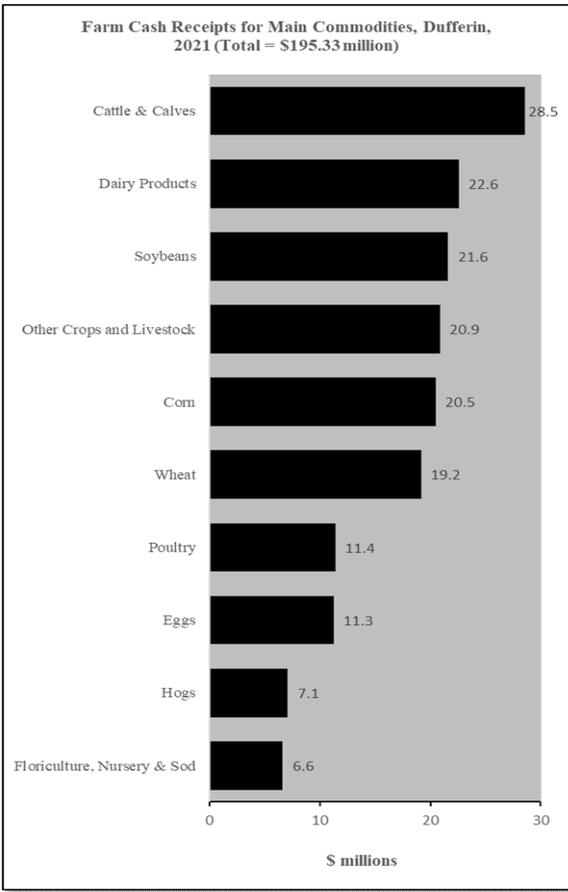
Probability of first temperature in fall $\leq 0^{\circ}\text{C}$ , on or before indicated date (66%)	02-Oct
Probability of first temperature in fall $\leq 0^{\circ}\text{C}$ , on or before indicated date (75%)	04-Oct
Probability of first temperature in fall $\leq 0^{\circ}\text{C}$ , on or before indicated date (90%)	10-Oct
Probability of frost-free period equal to or less than indicated period (Days) (10%)	100
Probability of frost-free period equal to or less than indicated period (Days) (25%)	117
Probability of frost-free period equal to or less than indicated period (Days) (33%)	121
Probability of frost-free period equal to or less than indicated period (Days) (50%)	126
Probability of frost-free period equal to or less than indicated period (Days) (66%)	133
Probability of frost-free period equal to or less than indicated period (Days) (75%)	134
Probability of frost-free period equal to or less than indicated period (Days) (90%)	142

## **APPENDIX D**

### *Agricultural Crop Statistics*

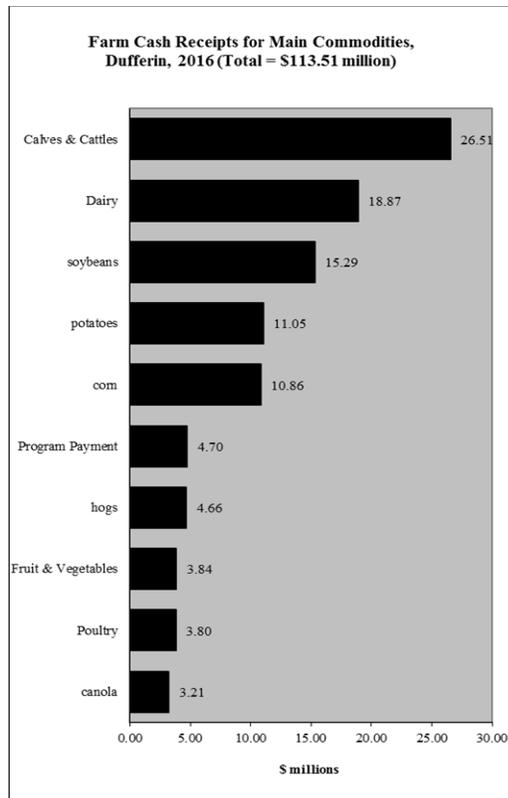
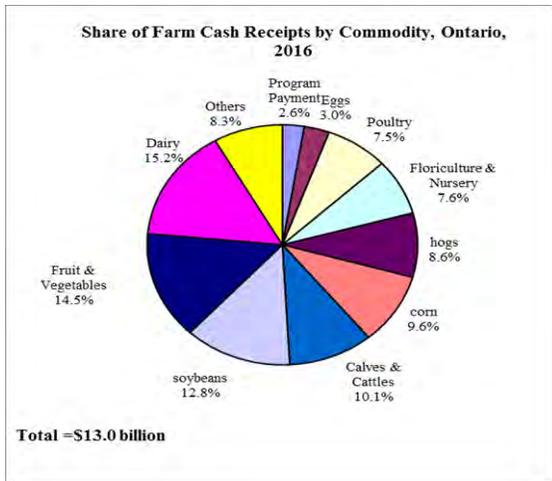
## Dufferin County at a Glance - 2021

Item	Dufferin	Province	Percent of province	Percent from 2016	Item	Dufferin	Province	Percent of province	Percent from 2016
<b>Farms, 2021 Census (number)</b>					<b>Major Field Crops, 2021 Census (acres)</b>				
Total .....	695	48,346	1.44%	0.72%	Winter wheat .....	18,969	1,144,406	1.66%	15.84%
Under 10 acres .....	32	3,217	0.99%	18.52%	Oats for grain .....	2,231	84,320	2.65%	87.64%
10 to 69 acres .....	209	12,686	1.65%	8.85%	Barley for grain.....	3,778	68,756	5.49%	-39.40%
70 to 129 acres .....	201	10,924	1.84%	4.15%	Mixed grains .....	900	59,961	1.50%	-53.96%
130 to 179 acres .....	51	4,422	1.15%	13.33%	Corn for grain .....	17,677	2,202,465	0.80%	15.88%
180 to 239 acres .....	47	3,981	1.18%	-31.88%	Corn for silage .....	3,215	289,678	1.11%	-12.71%
240 to 399 acres .....	69	5,396	1.28%	1.47%	Hay .....	33,633	1,704,017	1.97%	3.62%
400 to 559 acres .....	29	2,865	1.01%	-14.71%	Soybeans .....	27,880	2,806,255	0.99%	5.51%
560 to 759 acres .....	12	1,698	0.71%	-50.00%	Potatoes .....	6,705	39,193	17.11%	104.55%
760 to 1,119 acres .....	20	1,600	1.25%	33.33%	<b>Major Fruit Crops, 2021 Census (acres)</b>				
1,120 to 1,599 acres .....	8	720	1.11%	-20.00%	Total fruit crops .....	72	48,661	0.15%	75.61%
1,600 to 2,239 acres .....	10	451	2.22%	42.86%	Apples .....	19	16,008	0.12%	171.43%
2,240 to 2,879 acres .....	3	173	1.73%	50.00%	Sour Cherries.....	1	1,383	0.07%	-
2,880 to 3,519 acres .....	2	95	2.11%	-33.33%	Peaches .....	0	4,608	0.00%	-
3,520 acres and over .....	2	118	1.69%	100.00%	Grapes .....	0	18,432	0.00%	-
<b>Land Use, 2021 Census (acres)</b>					<b>Major Vegetable Crops, 2021 Census (acres)</b>				
Land in crops.....	122,320	9,051,011	1.35%	4.30%	Total vegetables .....	768	127,893	0.60%	18.89%
Summerfallow land.....	387	13,964	2.77%	-3.73%	Sweet corn .....	48	20,518	0.23%	20.00%
Tame or seeded pasture.....	9,476	400,480	2.37%	-6.68%	Tomatoes .....	15	14,614	0.10%	50.00%
Natural land for pasture.....	6,711	626,366	1.07%	-14.84%	Green peas .....	60	14,044	0.43%	-
Christmas trees, woodland & wetland.....	12,191	1,269,535	0.96%	-11.62%	Green or wax beans .....	7	8,709	0.08%	-
All other land.....	6,303	404,714	1.56%	-11.11%	<b>Livestock Inventories, 2021 Census (number)</b>				
Total area of farms.....	157,389	11,766,071	1.34%	0.51%	Total cattle and calves .....	21,449	1,604,810	1.34%	-9.51%
<b>Greenhouse Area, 2021 Census (square feet)</b>					<b>Poultry Inventories, 2021 Census (number)</b>				
Total area in use.....	32,556	201,055,888	0.02%	-72.02%	Total hens and chickens .....	682,588	53,802,772	1.27%	174.41%
<b>Farm Capital Value, 2021 Census (farms reporting)</b>					<b>Total turkeys .....</b>				
Under \$200,000.....	15	1,212	1.24%	-21.05%		36,149	2,453,126	1.47%	514.47%
\$200,000 to \$499,999.....	33	3,223	1.02%	-37.74%	<b>Farms by Industry Group, 2021 Census (number of farms)</b>				
\$500,000 to \$999,999.....	100	8,699	1.15%	-51.22%	Beef cattle ranching and farming.....	166	7,986	2.08%	32.80%
\$1,000,000 and over.....	547	35,212	1.55%	32.45%	Dairy cattle and milk production.....	27	3,188	0.85%	-6.90%
<b>Total Gross Farm Receipts, 2021 Census (farms reporting)</b>					Hog and pig farming.....	14	1,189	1.18%	-6.67%
Under \$10,000.....	110	7,277	1.51%	-21.99%	Poultry and egg production.....	23	2,061	1.12%	43.75%
\$10,000 to \$24,999.....	119	7,429	1.60%	-12.50%	Sheep and goat farming.....	31	1,309	2.37%	-6.06%
\$25,000 to \$49,999.....	99	6,263	1.58%	-6.60%	Other animal production.....	111	4,556	2.44%	-25.50%
\$50,000 to \$99,999.....	100	6,093	1.64%	6.38%	Oilseed and grain farming.....	165	18,194	0.91%	13.01%
\$100,000 to \$249,999.....	88	6,817	1.29%	-5.38%	Vegetable and melon farming.....	21	1,562	1.34%	-4.55%
\$250,000 to \$499,999.....	43	4,448	0.97%	-15.69%	Fruit and tree nut farming.....	13	1,211	1.07%	333.33%
\$500,000 to \$999,999.....	37	3,954	0.94%	0.00%	Greenhouse, nursery and floriculture.....	17	1,672	1.02%	-52.78%
\$1,000,000 to \$1,999,999.....	32	2,452	1.31%	52.38%	Other crop farming.....	107	5,418	1.97%	-7.76%
\$2,000,000 and over.....	13	1,696	0.77%	18.18%					



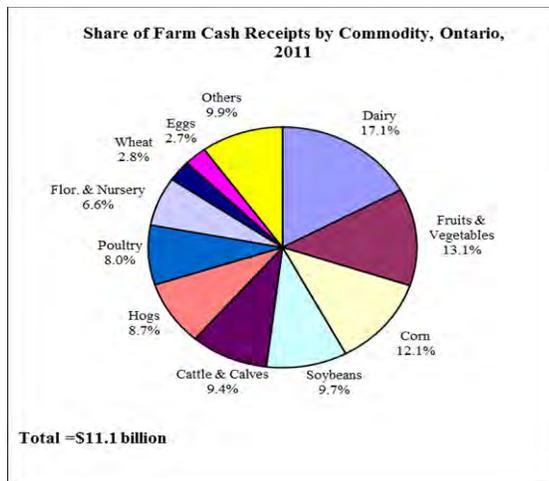
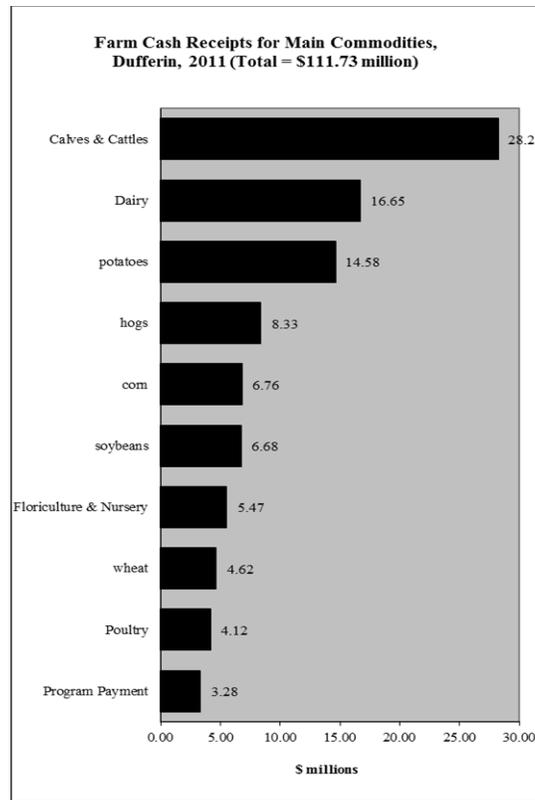
## Dufferin County at a Glance - 2016

Item	Dufferin	Province	Percent of province	Percent from 2011	Item	Dufferin	Province	Percent of province	Percent from 2011
<b>Farms, 2016 Census (number)</b>					<b>Major Field Crops, 2016 Census (acres)</b>				
Total	690	49,600	1.39	-13.21	Winter wheat	16,375	1,080,378	1.52	35.08
Under 10 acres	27	3,051	0.88	-3.57	Oats for grain	1,189	82,206	1.45	59.17
10 to 69 acres	192	12,625	1.52	-9.86	Barley for grain	6,234	103,717	6.01	-37.69
70 to 129 acres	193	10,742	1.80	-16.09	Mixed grains	1,955	92,837	2.11	-38.03
130 to 179 acres	45	4,592	0.98	-25.00	Corn for grain	15,254	2,162,004	0.71	29.18
180 to 239 acres	69	4,282	1.61	-12.66	Corn for silage	3,683	295,660	1.25	18.27
240 to 399 acres	68	6,008	1.13	-16.05	Hay	32,459	1,721,214	1.89	-26.55
400 to 559 acres	34	3,093	1.10	-29.17	Soybeans	26,424	2,783,443	0.95	64.66
560 to 759 acres	24	1,990	1.21	0.00	Potatoes	3,278	34,685	9.45	-47.40
760 to 1,119 acres	15	1,593	0.94	25.00	<b>Major Fruit Crops, 2016 Census (acres)</b>				
1,120 to 1,599 acres	10	801	1.25	42.86	Total fruit crops	41	51,192	0.08	-29.31
1,600 to 2,239 acres	7	457	1.53	-30.00	Apples	7	15,893	0.04	-81.08
2,240 to 2,879 acres	2	168	1.19	100.00	Sour Cherries	x	2,121	-	-
2,880 to 3,519 acres	3	88	3.41	-	Peaches	0	5,232	0.00	-
3,520 acres and over	1	110	0.91	-50.00	Grapes	0	18,718	0.00	-
<b>Land Use, 2016 Census (acres)</b>					<b>Major Vegetable Crops, 2016 Census (acres)</b>				
Land in crops	117,272	9,021,298	1.30	-3.05	Total vegetables	646	135,420	0.48	16.40
Summerfallow land	402	15,885	2.53	-16.60	Sweet corn	40	22,910	0.17	-66.10
Tame or seeded pasture	10,154	514,168	1.97	-17.40	Tomatoes	10	15,744	0.06	150.00
Natural land for pasture	7,880	783,566	1.01	-37.86	Green peas	x	16,268	-	-
Christmas trees, woodland & wetland	13,794	1,542,637	0.89	-28.00	Green or wax beans	x	9,732	-	-
All other land	7,091	470,909	1.51	4.68	<b>Livestock Inventories, 2016 Census (number)</b>				
Total area of farms	156,593	12,348,463	1.27	-9.14	Total cattle and calves	23,704	1,623,710	1.46	-28.15
<b>Greenhouse Area, 2016 Census (square feet)</b>					<b>Poultry Inventories, 2016 Census (number)</b>				
Total area in use	116,344	158,511,328	0.07	97.76	Total hens and chickens	248,750	50,759,994	0.49	-34.95
<b>Farm Capital Value, 2016 Census (farms reporting)</b>					<b>Total Gross Farm Receipts, 2016 Census (farms reporting)</b>				
Under \$200,000	19	2,142	0.89	5.56	Under \$10,000	141	9,536	1.48	-39.48
\$200,000 to \$499,999	53	7,433	0.71	-65.58	\$10,000 to \$24,999	136	8,376	1.62	-17.58
\$500,000 to \$999,999	205	12,500	1.64	-36.92	\$25,000 to \$49,999	106	6,755	1.57	-10.17
\$1,000,000 and over	413	27,525	1.50	38.59	\$50,000 to \$99,999	94	6,263	1.50	6.82
					\$100,000 to \$249,999	93	7,022	1.32	25.68
					\$250,000 to \$499,999	51	4,707	1.08	-7.27
					\$500,000 to \$999,999	37	3,689	1.00	2.78
					\$1,000,000 to \$1,999,999	21	2,019	1.04	16.67
					\$2,000,000 and over	11	1,233	0.89	37.50
<b>Farms by Industry Group, 2016 Census (number of farms)</b>					<b>Farm Cash Receipts for Main Commodities, Dufferin, 2016 (Total = \$113.51 million)</b>				
Beef cattle ranching and farming	125	6,786	1.84	-24.24	Calves & Cattles	26.51			
Dairy cattle and milk production	29	3,439	0.84	-23.68	Dairy	18.87			
Hog and pig farming	15	1,229	1.22	15.38	soybeans	15.29			
Poultry and egg production	16	1,816	0.88	60.00	potatoes	11.05			
Sheep and goat farming	33	1,097	3.01	-21.43	corn	10.86			
Other animal production	149	5,902	2.52	-21.58	Program Payment	4.70			
Oilseed and grain farming	146	16,876	0.87	25.86	hogs	4.66			
Vegetable and melon farming	22	1,856	1.19	4.76	Fruit & Vegetables	3.84			
Fruit and tree nut farming	3	1,362	0.22	-50.00	Poultry	3.80			
Greenhouse, nursery and floriculture	36	2,050	1.76	16.13	canola	3.21			
Other crop farming	116	7,187	1.61	-28.83					



# Dufferin County at a Glance - 2011

Item	Dufferin	Province	Percent of province	Item	Dufferin	Province	Percent of province
<b>Farms, 2011 Census (number)</b>				<b>Major Field Crops, 2011 Census (acres)</b>			
Total	795	51,950	1.53	Winter wheat	12,122	1,100,003	1.10
Under 10 acres	28	2,741	1.02	Oats for grain	747	71,040	1.05
10 to 69 acres	213	12,681	1.68	Barley for grain	10,005	126,881	7.89
70 to 129 acres	230	11,779	1.95	Mixed grains	3,155	106,162	2.97
130 to 179 acres	60	4,969	1.21	Corn for grain	11,808	2,032,356	0.58
180 to 239 acres	79	4,801	1.65	Corn for silage	3,114	271,701	1.15
240 to 399 acres	81	6,460	1.25	Hay	44,189	2,077,911	2.13
400 to 559 acres	48	3,359	1.43	Soybeans	16,048	2,464,870	0.65
560 to 759 acres	24	2,026	1.18	Potatoes	6,232	37,384	16.67
760 to 1,119 acres	12	1,587	0.76	<b>Major Fruit Crops, 2011 Census (acres)</b>			
1,120 to 1,599 acres	7	788	0.89	Total fruit crops	58	52,740	0.11
1,600 to 2,239 acres	10	436	2.29	Apples	37	15,830	0.23
2,240 to 2,879 acres	1	152	0.66	Sour Cherries	x	2,342	-
2,880 to 3,519 acres	0	79	0.00	Peaches	x	6,455	-
3,520 acres and over	2	92	2.17	Grapes	0	18,383	0.00
<b>Land Use, 2011 Census (acres)</b>				<b>Major Vegetable Crops, 2011 Census (acres)</b>			
Land in crops	120,956	8,929,947	1.35	Total vegetables	555	129,595	0.43
Summerfallow land	482	23,450	2.06	Sweet corn	118	25,540	0.46
Tame or seeded pasture	12,293	648,758	1.89	Tomatoes	4	16,558	0.02
Natural land for pasture	12,681	984,809	1.29	Green peas	x	15,121	-
Christmas trees, woodland & wetland	19,158	1,612,444	1.44	Green or wax beans	9	9,186	0.10
All other land	6,774	468,828	1.36	<b>Livestock Inventories, 2011 Census (number)</b>			
Total area of farms	172,344	12,668,236	0.04	Total cattle and calves	32,989	1,741,381	1.89
<b>Greenhouse Area, 2011 Census (square feet)</b>				<b>Farm Capital Value, 2011 Census (farms reporting)</b>			
Total area in use	58,830	133,520,541	0.04	Under \$200,000	18	2,562	0.70
<b>Total Gross Farm Receipts, 2011 Census (farms reporting)</b>				<b>Poultry Inventories, 2011 Census (number)</b>			
Under \$10,000	233	12,263	1.90	Total hens and chickens	382,377	46,902,316	0.82
\$10,000 to \$24,999	165	9,098	1.81	Total turkeys	5,144	3,483,828	0.15
\$25,000 to \$49,999	118	6,720	1.76	<b>Farms by Industry Group, 2016 Census (number of farms)</b>			
\$50,000 to \$99,999	88	6,189	1.42	Beef cattle ranching and farming	165	7,105	2.32
\$100,000 to \$249,999	74	6,985	1.06	Dairy cattle and milk production	38	4,036	0.94
\$250,000 to \$499,999	55	5,086	1.08	Hog and pig farming	13	1,235	1.05
\$500,000 to \$999,999	36	3,248	1.11	Poultry and egg production	10	1,619	0.62
\$1,000,000 to \$1,999,999	18	1,558	1.16	Sheep and goat farming	42	1,446	2.90
\$2,000,000 and over	8	803	1.00	Other animal production	190	6,966	2.73
<b>Farms by Industry Group, 2016 Census (number of farms)</b>				<b>Share of Farm Cash Receipts by Commodity, Ontario, 2011</b>			
Oilseed and grain farming	116	15,818	0.73	Total = \$11.1 billion			
Vegetable and melon farming	21	1,531	1.37				
Fruit and tree nut farming	6	1,548	0.39				
Greenhouse, nursery and floriculture	31	2,372	1.31				
Other crop farming	163	8,274	1.97				



# Amaranth Township at a Glance - 2021

Item	Amaranth	Province	Percent of province	Percent from 2016	Item	Amaranth	Province	Percent of province	Percent from 2016
<b>Farms, 2021 Census (number)</b>					<b>Major Field Crops, 2021 Census (acres)</b>				
Total .....	134	48,346	0.28%	-10.07%	Winter wheat .....	1,630	1,144,406	0.14%	-14.61%
Under 10 acres .....	4	3,217	0.12%	100.00%	Oats for grain .....	621	84,320	0.74%	86.49%
10 to 69 acres .....	44	12,686	0.35%	18.92%	Barley for grain.....	1,127	68,756	1.64%	-20.63%
70 to 129 acres .....	40	10,924	0.37%	-27.27%	Mixed grains .....	135	59,961	0.23%	-53.61%
130 to 179 acres .....	10	4,422	0.23%	-9.09%	Corn for grain .....	2,942	2,202,465	0.13%	13.59%
180 to 239 acres .....	7	3,981	0.18%	-53.33%	Corn for silage .....	817	289,678	0.28%	29.89%
240 to 399 acres .....	16	5,396	0.30%	23.08%	Hay .....	7,105	1,704,017	0.42%	-2.19%
400 to 559 acres .....	2	2,865	0.07%	-60.00%	Soybeans .....	3,370	2,806,255	0.12%	0.45%
560 to 759 acres .....	2	1,698	0.12%	-60.00%	Potatoes .....	4	39,193	0.01%	-
760 to 1,119 acres .....	8	1,600	0.50%	300.00%	<b>Major Fruit Crops, 2021 Census (acres)</b>				
1,120 to 1,599 acres .....	0	720	0.00%	-100.00%	Total fruit crops .....	15	48,661	0.03%	-
1,600 to 2,239 acres .....	1	451	0.22%	-	Apples .....	3	16,008	0.02%	-
2,240 to 2,879 acres .....	0	173	0.00%	-	Sour Cherries.....	1	1,383	0.07%	-
2,880 to 3,519 acres .....	0	95	0.00%	-	Peaches .....	0	4,608	0.00%	-
3,520 acres and over .....	0	118	0.00%	-	Grapes .....	0	18,432	0.00%	-
<b>Land Use, 2021 Census (acres)</b>					<b>Major Vegetable Crops, 2021 Census (acres)</b>				
Land in crops.....	19,424	9,051,011	0.21%	-2.37%	Total vegetables .....	16	127,893	0.01%	-
Summerfallow land.....	214	13,964	1.53%	-	Sweet corn .....	1	20,518	0.00%	-
Tame or seeded pasture.....	917	400,480	0.23%	-48.48%	Sour Cherries.....	1	14,614	0.01%	-87.50%
Natural land for pasture.....	1,155	626,366	0.18%	-7.45%	Tomatoes .....	0	14,044	0.00%	-100.00%
Christmas trees, woodland & wetland.....	1,527	1,269,535	0.12%	-47.92%	Green or wax beans .....	0	8,709	0.00%	-100.00%
All other land.....	1,836	404,714	0.45%	-	<b>Livestock Inventories, 2021 Census (number)</b>				
Total area of farms.....	25,074	11,766,071	0.21%	-9.37%	Total cattle and calves .....	3,803	1,604,810	0.24%	-20.66%
<b>Greenhouse Area, 2021 Census (square feet)</b>					<b>Poultry Inventories, 2021 Census (number)</b>				
Total area in use.....	800	201,055,888	0.00%	-	Total hens and chickens .....	86,465	53,802,772	0.16%	-
<b>Farm Capital Value, 2021 Census (farms reporting)</b>					<b>Total turkeys .....</b>				
Under \$200,000.....	1	1,212	0.08%	-83.33%		10,063	2,453,126	0.41%	-
\$200,000 to \$499,999.....	11	3,223	0.34%	-38.89%	<b>Farms by Industry Group, 2021 Census (number of farms)</b>				
\$500,000 to \$999,999.....	20	8,699	0.23%	-51.22%	Beef cattle ranching and farming.....	36	7,986	0.45%	5.88%
\$1,000,000 and over.....	102	35,212	0.29%	21.43%	Dairy cattle and milk production.....	5	3,188	0.16%	-16.67%
<b>Total Gross Farm Receipts, 2021 Census (farms reporting)</b>					Hog and pig farming.....	3	1,189	0.25%	-40.00%
Under \$10,000.....	16	7,277	0.22%	-58.97%	Poultry and egg production.....	4	2,061	0.19%	-20.00%
\$10,000 to \$24,999.....	32	7,429	0.43%	10.34%	Sheep and goat farming.....	6	1,309	0.46%	-14.29%
\$25,000 to \$49,999.....	19	6,263	0.30%	18.75%	Other animal production.....	14	4,556	0.31%	-41.67%
\$50,000 to \$99,999.....	22	6,093	0.36%	29.41%	Oilseed and grain farming.....	36	18,194	0.20%	28.57%
\$100,000 to \$249,999.....	14	6,817	0.21%	-26.32%	Vegetable and melon farming.....	0	1,562	0.00%	-100.00%
\$250,000 to \$499,999.....	9	4,448	0.20%	-35.71%	Fruit and tree nut farming.....	3	1,211	0.25%	200.00%
\$500,000 to \$999,999.....	12	3,954	0.30%	71.43%	Greenhouse, nursery and floriculture.....	4	1,672	0.24%	-63.64%
\$1,000,000 to \$1,999,999.....	4	2,452	0.16%	-33.33%	Other crop farming.....	23	5,418	0.42%	-11.54%
\$2,000,000 and over.....	1	1,696	0.06%	-50.00%					

# Amaranth Township at a Glance - 2016

Item	Amaranth	Province	Percent of province	Percent from 2011	Item	Amaranth	Province	Percent of province	Percent from 2011
<b>Farms, 2016 Census (number)</b>					<b>Major Field Crops, 2016 Census (acres)</b>				
Total .....	149	49,600	0.30	5.67	Winter wheat .....	1,909	1,080,378	0.18	-4.26
Under 10 acres .....	2	3,051	0.07	-33.33	Oats for grain .....	333	82,206	0.41	24.72
10 to 69 acres .....	37	12,625	0.29	19.35	Barley for grain.....	1,420	103,717	1.37	-1.59
70 to 129 acres .....	55	10,742	0.51	3.77	Mixed grains .....	291	92,837	0.31	-64.21
130 to 179 acres .....	11	4,592	0.24	-15.38	Corn for grain .....	2,590	2,162,004	0.12	99.23
180 to 239 acres .....	15	4,282	0.35	50.00	Corn for silage .....	629	295,660	0.21	102.25
240 to 399 acres .....	13	6,008	0.22	-13.33	Hay .....	7,264	1,721,214	0.42	-14.51
400 to 559 acres .....	5	3,093	0.16	-16.67	Soybeans .....	3,355	2,783,443	0.12	15.33
560 to 759 acres .....	5	1,990	0.25	25.00	Potatoes .....	0	34,685	0.00	-
760 to 1,119 acres .....	2	1,593	0.13	-33.33					
1,120 to 1,599 acres .....	4	801	0.50	100.00	<b>Major Fruit Crops, 2016 Census (acres)</b>				
1,600 to 2,239 acres .....	0	457	0.00	-100.00	Total fruit crops .....	x	51,192	-	-
2,240 to 2,879 acres .....	0	168	0.00	-	Apples .....	x	15,893	-	-
2,880 to 3,519 acres .....	0	88	0.00	-	Sour Cherries.....	x	2,121	-	-
3,520 acres and over .....	0	110	0.00	-	Peaches .....	0	5,232	0.00	-
					Grapes .....	0	18,718	0.00	-
<b>Land Use, 2016 Census (acres)</b>					Strawberries .....	x	2,915	-	-
Land in crops.....	19,896	9,021,298	0.22	-0.61	Raspberries.....	x	680	-	-
Summerfallow land.....	x	15,885	-	-					
Tame or seeded pasture.....	1,780	514,168	0.35	-4.66	<b>Major Vegetable Crops, 2016 Census (acres)</b>				
Natural land for pasture.....	1,248	783,566	0.16	-30.78	Total vegetables .....	x	135,420	-	-
Christmas trees, woodland & wetland.....	2,932	1,542,637	0.19	3.39	Sweet corn .....	x	22,910	-	-
All other land.....	x	470,909	-	-	Tomatoes .....	8	15,744	0.05	-
Total area of farms.....	27,667	12,348,463	0.22	0.51	Green peas .....	3	16,268	0.02	-
					Green or wax beans .....	2	9,732	0.02	100.00
<b>Greenhouse Area, 2016 Census (square feet)</b>					<b>Livestock Inventories, 2016 Census (number)</b>				
Total area in use.....	x	158,511,328	-	-	Total cattle and calves .....	4,793	1,623,710	0.30	8.46
					Steers .....	1,142	305,514	0.37	-9.58
<b>Farm Capital Value, 2016 Census (farms reporting)</b>					Beef cows .....	858	236,253	0.36	-19.96
Under \$200,000.....	6	2,142	0.28	50.00	Dairy cows .....	573	311,960	0.18	39.08
\$200,000 to \$499,999.....	18	7,433	0.24	-37.93	Total pigs .....	8,289	3,534,104	0.23	44.43
\$500,000 to \$999,999.....	41	12,500	0.33	-26.79	Total sheep and lambs .....	1,791	321,495	0.56	10.56
\$1,000,000 and over.....	84	27,525	0.31	61.54					
<b>Total Gross Farm Receipts, 2016 Census (farms reporting)</b>					<b>Poultry Inventories, 2016 Census (number)</b>				
Under \$10,000.....	39	9,536	0.41	-13.33	Total hens and chickens .....	x	50,759,994	-	-
\$10,000 to \$24,999.....	29	8,376	0.35	-3.33	Total turkeys .....	x	3,772,146	-	-
\$25,000 to \$49,999.....	16	6,755	0.24	-30.43					
\$50,000 to \$99,999.....	17	6,263	0.27	13.33					
\$100,000 to \$249,999.....	19	7,022	0.27	72.73					
\$250,000 to \$499,999.....	14	4,707	0.30	75.00					
\$500,000 to \$999,999.....	7	3,689	0.19	16.67					
\$1,000,000 to \$1,999,999.....	6	2,019	0.30	100.00					
\$2,000,000 and over.....	2	1,233	0.16	-					
<b>Farms by Industry Group, 2016 Census (number of farms)</b>									
Beef cattle ranching and farming.....	34	6,786	0.50	30.77					
Dairy cattle and milk production.....	6	3,439	0.17	100.00					
Hog and pig farming.....	5	1,229	0.41	66.67					
Poultry and egg production.....	5	1,816	0.28	400.00					
Sheep and goat farming.....	7	1,097	0.64	16.67					
Other animal production.....	24	5,902	0.41	-20.00					
Oilseed and grain farming.....	28	16,876	0.17	16.67					
Vegetable and melon farming.....	2	1,856	0.11	-50.00					
Fruit and tree nut farming.....	1	1,362	0.07	-					
Greenhouse, nursery and floriculture.....	11	2,050	0.54	57.14					
Other crop farming.....	26	7,187	0.36	-29.73					

# Amaranth Township at a Glance - 2011

Item	Amaranth	Province	Percent of province	Item	Amaranth	Province	Percent of province
<b>Farms, 2011 Census (number)</b>				<b>Major Field Crops, 2011 Census (acres)</b>			
Total .....	141	51,950	0.27	Winter wheat .....	1,994	1,100,003	0.18
Under 10 acres .....	3	2,741	0.11	Oats for grain .....	267	71,040	0.38
10 to 69 acres .....	31	12,681	0.24	Barley for grain .....	1,443	126,881	1.14
70 to 129 acres .....	53	11,779	0.45	Mixed grains .....	813	106,162	0.77
130 to 179 acres .....	13	4,969	0.26	Corn for grain .....	1,300	2,032,356	0.06
180 to 239 acres .....	10	4,801	0.21	Corn for silage .....	311	271,701	0.11
240 to 399 acres .....	15	6,460	0.23	Hay .....	8,497	2,077,911	0.41
400 to 559 acres .....	6	3,359	0.18	Soybeans .....	2,909	2,464,870	0.12
560 to 759 acres .....	4	2,026	0.20	Potatoes .....	0	37,384	0.00
760 to 1,119 acres .....	3	1,587	0.19	<b>Major Fruit Crops, 2011 Census (acres)</b>			
1,120 to 1,599 acres .....	2	788	0.25	Total fruit crops .....	3	52,740	0.01
1,600 to 2,239 acres .....	1	436	0.23	Apples .....	x	15,830	-
2,240 to 2,879 acres .....	0	152	0.00	Sour Cherries .....	0	2,342	0.00
2,880 to 3,519 acres .....	0	79	0.00	Peaches .....	0	6,455	0.00
3,520 acres and over .....	0	92	0.00	Grapes .....	0	18,383	0.00
<b>Land Use, 2011 Census (acres)</b>				<b>Major Vegetable Crops, 2011 Census (acres)</b>			
Land in crops .....	20,019	8,929,947	0.22	Total vegetables .....	121	129,595	0.09
Summerfallow land .....	x	23,450	-	Sweet corn .....	x	25,540	-
Tame or seeded pasture .....	1,867	648,758	0.29	Tomatoes .....	x	16,558	-
Natural land for pasture .....	1,803	984,809	0.18	Green peas .....	x	15,121	-
Christmas trees, woodland & wetland .....	2,836	1,612,444	0.18	Green or wax beans .....	1	9,186	0.01
All other land .....	x	468,828	-	<b>Livestock Inventories, 2011 Census (number)</b>			
Total area of farms .....	27,526	12,668,236	0.22	Total cattle and calves .....	4,419	1,741,381	0.25
<b>Greenhouse Area, 2011 Census (square feet)</b>				<b>Poultry Inventories, 2011 Census (number)</b>			
Total area in use .....	x	133,520,541	-	Total hens and chickens .....	x	46,902,316	-
<b>Farm Capital Value, 2011 Census (farms reporting)</b>				<b>Farms by Industry Group, 2011 Census (number of farms)</b>			
Under \$200,000 .....	4	2,562	0.16	Beef cattle ranching and farming .....	26	7,105	0.37
\$200,000 to \$499,999 .....	29	12,994	0.22	Dairy cattle and milk production .....	3	4,036	0.07
\$500,000 to \$999,999 .....	56	15,276	0.37	Hog and pig farming .....	3	1,235	0.24
\$1,000,000 and over .....	52	21,118	0.25	Poultry and egg production .....	1	1,619	0.06
<b>Total Gross Farm Receipts, 2011 Census (farms reporting)</b>				<b>Total turkeys .....</b>			
Under \$10,000 .....	45	12,263	0.37	Total turkeys .....	57	3,483,828	-
\$10,000 to \$24,999 .....	30	9,098	0.33				
\$25,000 to \$49,999 .....	23	6,720	0.34				
\$50,000 to \$99,999 .....	15	6,189	0.24				
\$100,000 to \$249,999 .....	11	6,985	0.16				
\$250,000 to \$499,999 .....	8	5,086	0.16				
\$500,000 to \$999,999 .....	6	3,248	0.18				
\$1,000,000 to \$1,999,999 .....	3	1,558	0.19				
\$2,000,000 and over .....	0	803	0.00				

## **APPENDIX E**

### 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 F**

Site Photographs

# East Elevation

☉ 271°W (T) ● 44°1'5"N, 80°10'2"W ±5m ▲ 486m



#15

C25059

24 Jul 2025, 17:10:57

Photo 1: Operation #15 – Outdoor manure storage, associated with beef operation.

# North Elevation

☉ 181°S (T) ● 44°1'5"N, 80°10'2"W ±5m ▲ 486m



#15

C25059

24 Jul 2025, 17:11:19

Photo 2: Operation #15 – North barn in good condition, partially overgrown.

# North East Elevation

☉ 208°SW (T) ● 44°1'5"N, 80°10'8"W ±5m ▲ 489m



#15

C25059

24 Jul 2025, 17:13:04

Photo 3: Operation #15 – South barn in fair condition, outdoor manure storage, approximately 40 cows observed.

# East Elevation

☉ 276°W (T) ● 44°0'57"N, 80°11'19"W ±5m ▲ 487m



#6

C25059

24 Jul 2025, 17:42:21

Photo 4: Operation #6 – Implement shed in good condition.

## South Elevation

☀ 350°N (T) ● 44°1'5"N, 80°11'21"W ±5m ▲ 488m



Photo 5: Operation #9 – Large bank barn in good condition, 22 horses in pasture, large riding arena.

## East Elevation

☀ 257°W (T) ● 44°1'5"N, 80°11'25"W ±5m ▲ 490m



Photo 6: Operation #7 – Large barn in good condition.

## East Elevation

☀ 259°W (T) ● 44°1'13"N, 80°11'26"W ±10m ▲ 497m



Photo 7: Operation #8 – Large barn in good condition.

## South Elevation

☀ 15°N (T) ● 43°59'45"N, 80°10'6"W ±5m ▲ 492m



Photo 8: Operation #20 – Bank barn in poor condition, missing boards.

# South West Elevation

☉ 32°NE (T) ☉ 44°0'6"N, 80°10'11"W ±5m ▲ 492m



Photo 9: Operation #19 – Large wooden bank barn in fair condition, three grain bins, two implement sheds, machinery stored outside..

# East Elevation

☉ 261°W (T) ☉ 44°0'24"N, 80°10'15"W ±5m ▲ 490m



Photo 10: Subject Lands – Public notice at roadside.

# East Elevation

☉ 283°W (T) ● 44°0'25"N, 80°10'15"W ±5m ▲ 490m



Photo 11: Subject Lands – Existing residential development on Subject Lands.

# South Elevation

☉ 348°N (T) ● 44°0'38"N, 80°10'18"W ±5m ▲ 486m



Photo 12: Operation #17 – Field shelter, paddock fencing in good condition, 9 beef cows observed.

# South East Elevation

☼ 310°NW (T) ● 44°0'40"N, 80°10'19"W ±5m ▲ 486m



#16

C25059  
24 Jul 2025, 18:28:04

Photo 13: Operation #16 – Equestrian barn with indoor riding arena in good condition, field shelters, paddock fencing.

# South East Elevation

☼ 311°NW (T) ● 44°0'49"N, 80°10'15"W ±5m ▲ 499m



#17

C25059  
24 Jul 2025, 18:36:22

Photo 14: Operation #17 – Implement shed in good condition.

# South West Elevation

☉ 31°NE (T) ● 44°0'49"N, 80°10'15"W ±5m ▲ 499m



Photo 15: Operation #17 – Shed in fair condition.

# West Elevation

☉ 103°E (T) ● 44°0'49"N, 80°10'15"W ±5m ▲ 499m



Photo 16: Operation #17 – Small barn in good condition, fencing.

# North Elevation

☉ 192°S (T) ☉ 44°0'49"N, 80°10'17"W ±5m ▲ 497m



Photo 17: Operation #17 – Field shelter in good condition.

# South West Elevation

☉ 62°NE (T) ☉ 44°1'12"N, 80°10'26"W ±5m ▲ 487m



Photo 18: Operation #14 – Can Maple Inc..

# North Elevation

☉ 158°S (T) ● 44°0'27"N, 80°9'13"W ±5m ▲ 489m



#21

C25059  
24 Jul 2025, 18:53:25

Photo 19: Operation #21 – Large barn and implement shed in good condition, pasture fencing.

# North East Elevation

☉ 228°SW (T) ● 44°0'23"N, 80°9'12"W ±5m ▲ 492m



#22

C25059  
24 Jul 2025, 18:55:05

Photo 20: Operation #18 – Large barn in poor condition, holes in roof, gated entry.

# West Elevation

☉ 93°E (T) ☉ 44°0'20"N, 80°9'11"W ±5m ▲ 496m



Photo 21: Operation #21 – McArthur-Bessey Auction, farm equipment stored outdoors.

**APPENDIX G**

Land Use Notes

**Land Use Survey Notes – AIA for 514504 2<sup>nd</sup> Line, Amaranth**

<b>Weather</b>	Sunny	<b>Date (s)</b>	July 24, 2025
<b>Temperature</b>	30°C	<b>File</b>	C25059

<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	On-Farm Diversified	Barn Venue	No	Divine Amaranth Gardens. Large garden in rear of property, host event (e.g., weddings) in barn and tents
2	Agricultural	Retired Cash Crop Operation	No	One implement shed, in poor condition, no sign of livestock, no structures capable of housing livestock.
3	Agricultural	Unoccupied Livestock Operation	Yes	Barn in fair condition, trailer parked outside of barn, no sign of livestock, likely capable of housing livestock. No trespassing sign present.
4	Agricultural	Remnant Farm	No	Barn appears to have been demolished in 2009, no structures capable of housing livestock. Barn foundation observed on site visit.
5	Agricultural	Cash Crop Operation	No	Implement shed in good condition, possibly an NFR with large garage/shop, no sign of livestock, no structures capable of housing livestock.
6	Agricultural	Cash Crop Operation	No	Implement shed in good condition, no sign of livestock, no structures capable of housing livestock.
7	Agricultural	Equestrian Operation	Yes	Large barn in good condition, multiple paddocks, Quonset hut, small barn in good condition, unoccupied. Property for sale, no sign of livestock. Nobody at home.

8	Agricultural	Specialty Crop Operation	Yes	Jenala Farms. Growing asparagus, strawberries, sweet corn, potatoes, and pumpkins. Large barn in good condition, two paddocks. Beef cows observed, silo present. No one home during land use survey.
9	Agricultural	Equestrian Operation	Yes	Boparai Farm Shelburne. Large bank barn in good condition, 22 horses observed in pasture, large riding arena, outdoor manure storage behind barn. Gated entry, no access.
10	Agricultural	Equestrian Operation	Yes	Multiple paddocks, small barn with 4 stalls. Landowner stated over phone call that there were 4 horses present that are normally outside 24/7 unless in bad weather. No sign of livestock on field visit, could not see barn. Paddocks in front are very overgrown, potentially remnant. No manure storage.
11	Non-Agricultural	Commercial	No	Planet Bayou. Watersports park offering lessons, equipment rental, coaching, etc. Implement shed on property used for storage. No other agricultural buildings.
12	Agricultural	Cash Crop Operation	No	Implement shed in fair to poor condition, no other agricultural infrastructure, no sign of livestock.
13	Agricultural	Cash Crop Operation	No	Growth Acres, cash crop operation with an implement shed.
14	Non-Agricultural	Commercial	No	Can Maple Inc. Truck parts supplier.

15	Agricultural	Beef Operation	Yes	<p>North Barn: Hay bales along driveway, large barn in good condition, appears to be unoccupied. Barn partially overgrown. 3 trailers observed for moving grain by transport truck, one horse trailer observed. Gated entry, no house associated. Informed by another landowner (#21) that this used to be a pig barn, but is currently unoccupied. Capable of housing livestock.</p> <p>South Barn: Bank barn in fair condition, outdoor manure storage, implement shed in poor condition, grain bin. Approx. 40 cows observed. No one home, left MDS letter.</p>
16	Agricultural	Equestrian Operation	Yes	<p>Eagle Valley Equestrian. Large barn with riding arena in good condition, field shelters, multiple paddocks, outdoor manure storage, 6 horses and 2 ponies observed. Spoke with tenant, not knowledgeable about the horses, but informed that there are 10 stalls.</p>
17	Agricultural	Hobby Farm	Yes	<p>Listed on Google as Shire Hill. Large implement shed, small barn, paddock, two donkeys observed in 2011 Street View. 9 beef cows observed during land use survey, no structures appeared to be designed for housing. Nobody home.</p>

18	Agricultural	Hobby Farm	Yes	Large barn in poor condition missing a few roof pieces, outdoor manure storage, multiple paddocks, 5 alpacas observed in paddock in street view (2021). Gated entry with no livestock observed.
19	Agricultural	Beef Operation	Yes	OFA member, large bank barn in fair condition, three grain bills, two implement sheds, farm machinery observed outside, indoor/outdoor access. Spoke with landowner, they are unsure of the capacity.
20	Agricultural	Remnant Farm	No	Barn near house converted for non-agricultural use, bank barn further south on property in poor condition, no structures capable of housing livestock
21	Agricultural	Beef Operation	Yes	McArthur-Bessey Auction selling various farm equipment. Large barn and implement shed in good condition, cows observed in paddock behind and north of barn, outdoor manure storage. Max 200 cows. Owner has a cattle shipping business so number of cattle fluctuates.

	Total Number	Active	Retired or Remnant
<b>Agricultural</b>	18	4 – Cash Crop Operation 4 – Equestrian Operation 3 – Beef Operation 2 – Hobby Farm 1 – Specialty Crop Operation	2 – Remnant Farm 1 – Unoccupied Livestock Facility 1 – Retired Cash Crop Operation
<b>On-farm Diversified</b>	1	1 – Barn Event Venue	0
	<b>Total Number</b>	<b>Type</b>	
<b>Non-Agricultural</b>	41	2 – Commercial 39 – Non-Farm Residences	

## **Appendix H**

### AgriSuite MDS Reports

C25059 514504 2ndLine Amaranth

General information

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**Application date**  
Aug 13, 2025

**Municipal file number**

**Proposed application**  
New or expanding settlement area  
boundary

**Applicant contact information** 

ON

**Location of subject lands** 

County of Dufferin  
Township of Amaranth  
Roll number: 2208

## Calculations

### LU 10 - Equestrian Operation

Farm contact information 

ON

Location of existing livestock facility or  
anaerobic digester 

Total lot size  
36.2 ha

#### Notes

landowner stated there are 4 horses present that are usually outdoors

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	4	4 <u>NU</u>	93 <u>m<sup>2</sup></u>

#### Setback summary

Existing manure storage      **No storage required (manure is stored for less than 14 days)**

Design capacity      4 NU

Potential design capacity      4 NU

Factor A (odour potential)      0.7

Factor B (design capacity)      150

Factor D (manure type)      0.7

Factor E (encroaching land use)      2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn)

162 m (531 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

## LU 15 Beef Operation

Farm contact information 

ON

Location of existing livestock facility or  
anaerobic digester 

Total lot size  
39.82 ha

### Notes

Two barns on property, separated across property. North barn, informed by a separate landowner that it used to be a pig barn, but is now unoccupied; partially overgrown. South Barn approx 40 cows observed. Landowner not home during survey.

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	102	102 NU	474 m <sup>2</sup>
Solid	Swine, Feeders (27 - 136 kg), Deep Bedded	872	166.1 NU	1299 m <sup>2</sup>



#### Confirm Livestock/Manure Information (LU 15 Beef Operation)

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	268.1 NU		
Potential design capacity	268.1 NU		
Factor A (odour potential)	1.01	Factor B (design capacity)	445.91
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			694 m (2277 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			694 m (2277 ft)
Actual distance from manure storage			NA

## LU 16 Equestrian Operation

Farm contact information 

ON

Location of existing livestock facility or

anaerobic digester 

Total lot size

10.18 ha

### Notes

Eagle Valley Equestrian. informed by tenant there are 10 stalls. 8 inputted as horses, 2 as ponies.

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	8	8 NU	186 m <sup>2</sup>
Solid	Horses, Small-framed, mature; < 227 kg (including unweaned offspring)	2	1 NU	33 m <sup>2</sup>



### Confirm Livestock/Manure Information (LU 16 Equestrian Operation)

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

### Setback summary

Existing manure storage	No storage required (manure is stored for less than 14 days)		
Design capacity	9 NU		
Potential design capacity	9 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	163.33
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			177 m (581 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

## LU 17 - Hobby Farm

Farm contact information 

ON

Location of existing livestock facility or anaerobic digester 

Total lot size  
20.22 ha

### Notes

'Shire Hill', 9 beef cows observed during land use survey

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	29	29 NU	135 m <sup>2</sup>



#### Confirm Livestock/Manure Information (LU 17 - Hobby Farm)

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	29 NU		
Potential design capacity	29 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	218
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			236 m (774 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			236 m (774 ft)
Actual distance from manure storage			NA

## LU 19 - Beef Operation

Farm contact information 

ON

Location of existing livestock facility or anaerobic digester 

Total lot size  
61.19 ha

### Notes

Landowner is unsure of capacity

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	231	231 NU	1073 m <sup>2</sup>



### Confirm Livestock/Manure Information (LU 19 - Beef Operation)

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	231 NU		
Potential design capacity	231 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	423.26
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			457 m (1499 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			457 m (1499 ft)
Actual distance from manure storage			NA

## LU 21 - Beef Operation

Farm contact information 

ON

Location of existing livestock facility or  
anaerobic digester 

Total lot size  
38.47 ha

### Notes

McArthur-Bessey Auction. Sells farm equipment and cattle shipping.

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	358	358 NU	1663 m <sup>2</sup>

### Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	358 NU		
Potential design capacity	358 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	493.4
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			532 m (1745 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			532 m (1745 ft)
Actual distance from manure storage			NA

## LU 22 - Hobby Farm

Farm contact information 

ON

Location of existing livestock facility or

anaerobic digester 

Total lot size

42.05 ha

### Notes

barn in poor condition, missing roof pieces. no livestock observed during land use survey. 5 Alpacas observed in paddock on street view dated 2021

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Alpaca, Adults (includes unweaned young & replacements)	5	0.6 NU	NA



#### Confirm Livestock/Manure Information (LU 22 - Hobby Farm)

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	0.6 NU		
Potential design capacity	0.6 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	150
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			162 m (531 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

## LU 3 - Retired Cash Crop

Farm contact information 

ON

Location of existing livestock facility or

anaerobic digester 

Total lot size

36.64 ha

### Notes

no livestock observed during land use survey

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	105 m <sup>2</sup>	5.3 NU	105 m <sup>2</sup>



#### Confirm Livestock/Manure Information (LU 3 - Retired Cash Crop)

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



#### Unoccupied Barn or Unused Storage (LU 3 - Retired Cash Crop)

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	No storage required (manure is stored for less than 14 days)		
Design capacity	5.3 NU		
Potential design capacity	5.3 NU		
Factor A (odour potential)	1	Factor B (design capacity)	150.83
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			233 m (764 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

## LU 7 - Equestrian Operation

Farm contact information 

ON

Location of existing livestock facility or  
anaerobic digester 

Total lot size  
35.39 ha

### Notes

Property for sale. no livestock observed during site visit

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	16	16 NU	372 m <sup>2</sup>



#### Confirm Livestock/Manure Information (LU 7 - Equestrian Operation)

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

### Setback summary

Existing manure storage	No storage required (manure is stored for less than 14 days)		
Design capacity	16 NU		
Potential design capacity	16 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	186.66
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			202 m (663 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

## LU 8 - Specialty Crop

Farm contact information 

ON

Location of existing livestock facility or anaerobic digester 

Total lot size  
43.31 ha

### Notes

Jenala Farms. Beef cows observed during land use survey

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	146	146 NU	678 m <sup>2</sup>



### Confirm Livestock/Manure Information (LU 8 - Specialty Crop)

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

### Setback summary

Existing manure storage      **No storage required (manure is stored for less than 14 days)**

Design capacity      **146 NU**

Potential design capacity      **146 NU**

Factor A (odour potential)      **0.7**

Factor B (design capacity)      **360.47**

Factor D (manure type)      **0.7**

Factor E (encroaching land use)      **2.2**

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn)

**389 m (1276 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**

## LU 9 - Equestrian Operation

Farm contact information 

ON

Location of existing livestock facility or  
anaerobic digester 

Total lot size  
10.34 ha

### Notes

Trackside Farm. 22 horses observed in pasture during land use survey

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	31	31 NU	720 m <sup>2</sup>



#### Confirm Livestock/Manure Information (LU 9 - Equestrian Operation)

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	31 NU		
Potential design capacity	31 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	222
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			240 m (787 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			240 m (787 ft)
Actual distance from manure storage			NA

### Preparer signoff & disclaimer

Preparer contact information

ON

Signature of preparer

A handwritten signature in black ink, appearing to be 'A. W.', is written over a horizontal line.

10-22-2025

Date (mmm-dd-yyyy)

**Note to the user**

The Ontario Ministry of Agriculture, Food and Agribusiness (OMAFRA) has developed this software program for distribution and use with the Minimum Distance Separation (MDS) Formulae as a public service to assist farmers, consultants, and the general public. This version of the software distributed by OMAFA will be considered to be the official version for purposes of calculating MDS. OMAFA is not responsible for errors due to inaccurate or incorrect data or information; mistakes in calculation; errors arising out of modification of the software, or errors arising out of incorrect inputting of data. All data and calculations should be verified before acting on them.

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## **Appendix I**

### Candidate Alternative Locations HPI

## Appendix I - HPI Calculations

### SUBJECT LANDS

CLI Class	Area (ha)	Percentage	Points	HPI	Total Productivity Index Range
1	18.73	57%	1	0.57	0.90 - 1.00
2	10.23	31%	0.8	0.25	0.73 - 0.89
3	1.64	5%	0.64	0.03	0.58 - 0.72
4	0	0%	0.49	0	0.43 - 0.57
5	0	0%	0.33	0	0.28 - 0.42
6	0	0%	0.17	0	0.10 - 0.27
7, O, &NM	2.36	7%	0.02	0.00	0.00 - 0.09
<b>Total</b>	<b>32.96</b>	<b>100%</b>		<b>0.85</b>	<b>CLI Class 2</b>

### ALTERNATE OPTION 1

CLI Class	Area (ha)	Percentage	Points	HPI	Total Productivity Index Range
1	14.12	39%	1	0.39	0.90 - 1.00
2	21.67	61%	0.8	0.48	0.73 - 0.89
3	0	0%	0.64	0	0.58 - 0.72
4	0	0%	0.49	0	0.43 - 0.57
5	0	0%	0.33	0	0.28 - 0.42
6	0	0%	0.17	0	0.10 - 0.27
7, O, &NM	0	0%	0.02	0	0.00 - 0.09
<b>Total</b>	<b>35.79</b>	<b>100%</b>		<b>0.88</b>	<b>CLI Class 2</b>

### ALTERNATE OPTION 2

CLI Class	Area (ha)	Percentage	Points	HPI	Total Productivity Index Range
1	3.62	10%	1	0.10	0.90 - 1.00
2	33.14	90%	0.8	0.72	0.73 - 0.89
3	0	0%	0.64	0	0.58 - 0.72
4	0	0%	0.49	0	0.43 - 0.57
5	0	0%	0.33	0	0.28 - 0.42
6	0	0%	0.17	0	0.10 - 0.27
7, O, &NM	0	0%	0.02	0	0.00 - 0.09
<b>Total</b>	<b>36.76</b>	<b>100%</b>		<b>0.82</b>	<b>CLI Class 2</b>

### ALTERNATE OPTION 3

CLI Class	Area (ha)	Percentage	Points	HPI	Total Productivity Index Range
1	19.46	58%	1	0.58	0.90 - 1.00
2	11.63	35%	0.8	0.28	0.73 - 0.89
3	0	0%	0.64	0	0.58 - 0.72
4	0	0%	0.49	0	0.43 - 0.57
5	0	0%	0.33	0	0.28 - 0.42
6	0	0%	0.17	0	0.10 - 0.27
7, O, &NM	2.6	8%	0.02	0.00	0.00 - 0.09
<b>Total</b>	<b>33.69</b>	<b>100%</b>		<b>0.86</b>	<b>CLI Class 2</b>

ALTERNATE OPTION 4

CLI Class	Area (ha)	Percentage	Points	HPI	Total Productivity Index Range
1	17.71	89%	1	0.89	0.90 - 1.00
2	2.13	11%	0.8	0.09	0.73 - 0.89
3	0	0%	0.64	0	0.58 - 0.72
4	0	0%	0.49	0	0.43 - 0.57
5	0	0%	0.33	0	0.28 - 0.42
6	0	0%	0.17	0	0.10 - 0.27
7, O, &NM	0	0%	0.02	0	0.00 - 0.09
<b>Total</b>	<b>19.84</b>	<b>100%</b>		<b>0.98</b>	<b>CLI Class 1</b>