

**AGRICULTURAL IMPACT ASSESSMENT
FOR
ELFRIDA SECONDARY PLAN AREA**

PREPARED FOR:

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1. INTRODUCTION

1.1 Background

Colville Consulting Inc. was retained by Elfrida Community Builders Group Inc. to complete an Agricultural Impact Assessment for the proposed Official Plan Amendment (OPA) to the Urban Hamilton Official Plan to establish a Secondary Plan for the Elfrida lands, herein referred to as the Subject Lands. The Subject Lands are generally located south of Mud Street East, north of Golf Club Road, east of Trinity Church Road, and west of 2nd Road East. The Subject Lands are comprised of several irregularly shaped parcels, totalling approximately 1,226 ha (3,030 acres) of land. The Elfrida Community Builders Group Inc. controls the majority of lands within the Subject Lands.

1.1.1 Planning Landscape

The City of Hamilton Council approved a Municipal Comprehensive Review (MCR) (OPA 167) for the municipality, alongside an updated long term growth strategy in June 2022. OPA 167 implemented a growth strategy in the City's Official Plan with no expansions to the City's existing urban boundary. This decision was forwarded to the Province for approval.

In November 2022, the Province issued a decision on OPA 167, which made multiple changes to the City's Official Plan. Modifications included changes to the City's urban boundary, which expanded the Urban Boundary to include additional lands, which were identified by the Province as "Urban Expansion Areas." Six areas of land totaling approximately 2,200 hectares were added to the City of Hamilton's urban area through the Provincial decision, which included the Subject Lands.

On December 6, 2023, Bill 150 received royal assent, which, reversed Provincial modifications made to Official Plans and Official Plan Amendments that were approved by various municipalities between 2022 and 2023. This includes the Provincial changes made to the Urban Hamilton Official Plan Amendment 167 and Rural Hamilton Official Plan Amendment 34, which aimed, among other things, to expand Hamilton's urban boundary.

This effectively nullified all but three of the provincial modifications to the City of Hamilton's Official Plan Amendments and effectively restored the 'no urban expansion' strategy approved by the City Council in June 2022.

In 2022, the Province initiated a review on approaches for leveraging the housing supportive policies of the *Provincial Policy Statement* and *A Place to Grow: Growth Plan for the Greater Golden Horseshoe* (Growth Plan), removing barriers and continuing to protect the environment through a streamlined province-wide land use planning policy framework. The feedback from this review contributed to the development of the *Provincial Planning Statement (PPS)*. The *Provincial Planning Statement (2024)* was issued under Section 3 of the Planning Act and came into effect on October 20, 2024. The PPS replaces the policies of the *Provincial Policy Statement* and the Growth Plan.

Among other changes, the PPS modified the *settlement area* boundary expansion (SABE) policies of the *Provincial Policy Statement* and the Growth Plan by permitting SABE outside of a municipal comprehensive review (MCR). Through this new planning framework, Elfrida Community Builders Group Inc. submitted

to the City an application for urban boundary expansion (November 20, 2024). The application seeks to include the Subject Lands within the City of Hamilton's urban boundary. The urban boundary expansion application was deemed complete by the City on March 18, 2025. However, the application was denied by Hamilton City Council at the Statutory Public Meeting held on June 25, 2025. The Council decision was appealed by Elfrida Community Builders Group Inc. to the Ontario Land Tribunal (OLT) on July 22, 2025.

While awaiting a decision at the OLT, Elfrida Community Builders Group Inc. is continuing the *development* application process and will be submitting an OPA application to the Rural Hamilton and Urban Hamilton Official Plans to establish a Secondary Plan for the Subject Lands.

1.2 Development in Ontario

1.2.1 Planning Framework

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."

1.2.2 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.

1.2.3 Guidance Documents

This AIA refers to several provincial guidance documents, materials, and technical criteria that are frequently considered when preparing an AIA. The Province has prepared these guidance documents 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 by 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

The Ontario Ministry of Agriculture, Food and Agribusiness (OMAF) prepared the Agricultural Impact Assessment (AIA) Guidance Document and published it in 2026. This document provides guidance on how to prepare an AIA, and the qualifications practitioners should have in order to prepare an AIA. The AIA

guidance document states that professionals involved in the development of an AIA should have “knowledge, training, and experience in:

- ♦ Ontario agri-business, agricultural supply chains, rural/agricultural economic development;
- ♦ Rural and agricultural land use planning;
- ♦ Canada Land Inventory (CLI) classification system for assessing agricultural land, and where necessary, soil science and soil mapping procedures;
- ♦ Minimum distance separation and biosecurity practices and protocols;
- ♦ Reviewing technical information from non-agricultural disciplines (e.g., hydrology, hydrogeology, geotechnical and transportation reports) assessing their relevance and utility in identifying potential agricultural impacts;
- ♦ Identifying, assessing, and evaluating the potential measures to avoid, minimize and mitigate impacts to the agricultural system; and
- ♦ Providing expert testimony in Ontario.”

The guidance document goes on to say that “A university or college degree(s) in one of the following is usually needed: land use planning, agriculture, soil science, geoscience, landscape architecture, resource management and related disciplines, environmental related disciplines, or agricultural engineering.”

The guidance document states that “professionals contributing to an AIA should have a relevant academic base, experience in Ontario’s land use planning system and provincial policies, and preferable 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 (OIA) and registered professional agrologists (P.Ag.).

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 *development* related to *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 Subject Lands are currently primarily in agricultural production of common field crops and contain a variety of *agricultural* and *non-agricultural land uses*. The Subject Lands immediately about the existing

settlement area boundary of the City of Hamilton, which has impacted the rural character of the lands through the increased presence of *non-agricultural land uses*.

Elfrida Community Builders Group Inc. is seeking to establish a Secondary Plan for the Subject Lands. A Draft Secondary Plan Schedule has been developed, which includes low, medium, and high density residential areas, medium and high density mixed-use areas, twelve elementary schools, two secondary schools, and community and neighbourhood parks. The Secondary Plan also shows the intended infrastructure including the road network, stormwater management ponds, general and natural open space areas, the Elfrida Gateway Station, and a hydro corridor/pipeline. A copy of the Draft Secondary Plan Schedule can be found in Appendix B.

1.5 Purpose of Study

As stated above, an urban boundary expansion application for the Subject Lands was submitted on November 20, 2024. Colville Consulting Inc. was retained to complete an Agricultural Impact Assessment as part of the urban boundary expansion application. The application was denied by Council and has been appealed to the OLT. Pending the OLT decision, Elfrida Community Builders Group Inc. is continuing the *development* process under the assumption that the Subject Lands will ultimately be included within the City of Hamilton's urban boundary. As such, an OPA to establish a Secondary Plan for the Subject Lands is currently being pursued.

Through formal consultation with the City of Hamilton, an Agricultural Impact Assessment has been identified as one of the requirements of a complete Secondary Plan application. Given that the current application is for a Secondary Plan, this AIA has assumed that the Subject Lands have been brought into the City of Hamilton's urban boundary and no longer form part of the City's *prime agricultural area* or *rural lands*. Following the OLT decision regarding the urban boundary expansion application, should any portion of the Subject Lands be modified/excluded from the City of Hamilton's urban boundary, an addendum to this AIA will be submitted to reflect such decisions.

This AIA will identify the potential indirect impacts of the proposed *development* of the Subject Lands on the surrounding agricultural operations. The assessment of these impacts will be used to provide input regarding the phasing of *development* within the Subject Lands.

This AIA has been prepared in accordance with OMAFA's Agricultural Impact Assessment (AIA) Guidance Document (2026). The AIA assesses and evaluates the potential impacts of the proposed *development* on agricultural operations, the farming community, and the broader *Agricultural System*. In cases where impacts cannot be avoided, the AIA recommends ways to minimize and mitigate adverse impacts. The AIA also assesses whether the proposed *development* is consistent with provincial, regional, and municipal agricultural policies.

1.6 Study Area

To be consistent with the Agricultural Impact Assessment Guidance Document (2026), 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 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.

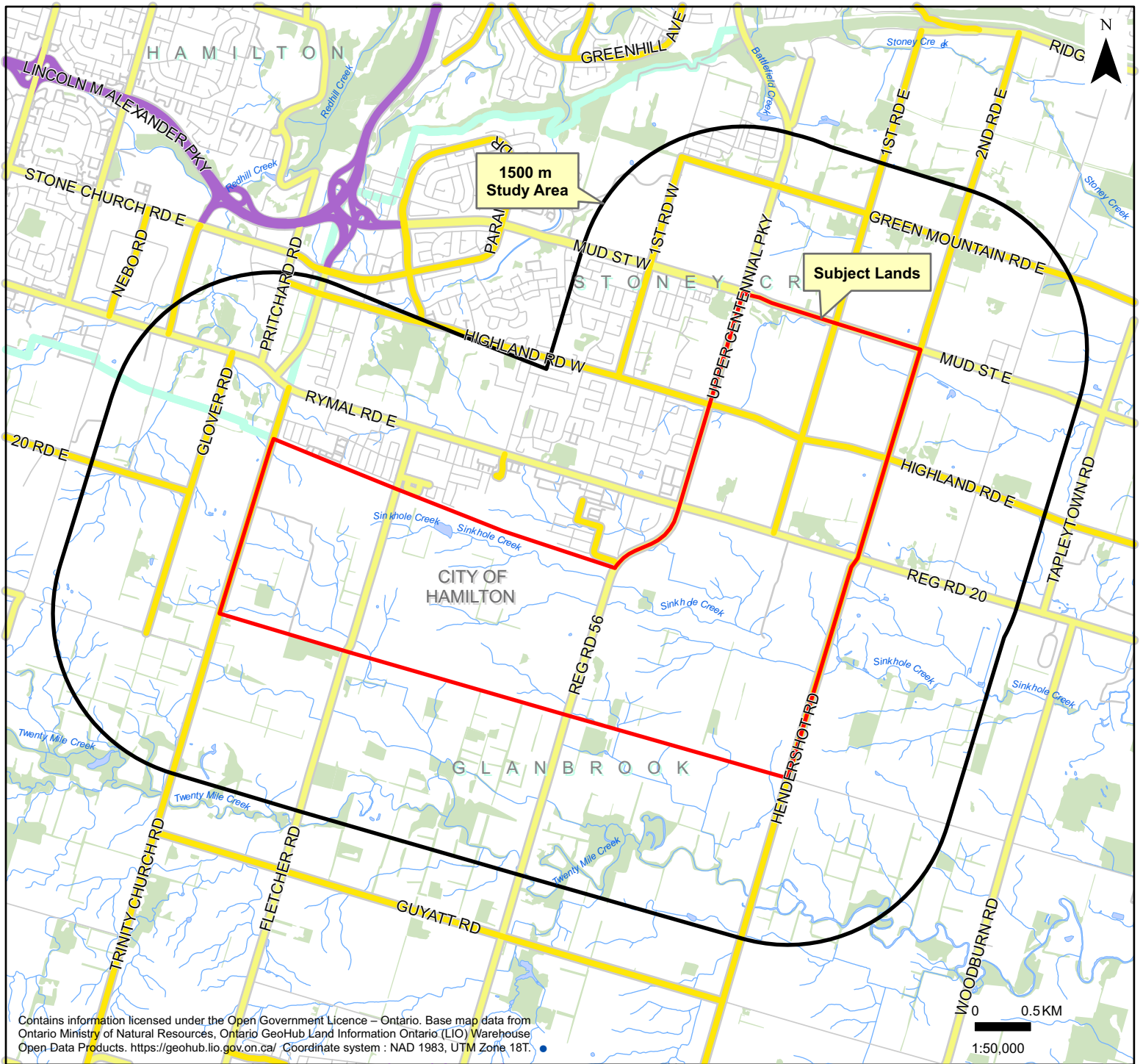
1.6.1 Primary Study Area – Subject Lands

The Subject Lands are generally located south of Mud Street East, north of Golf Club Road, east of Trinity Church Road, and west of 2nd Road East in the City of Hamilton. The Subject Lands are made up of multiple irregularly shaped parcels and combined, are approximately 1,226 ha (3,030 acres) in size. The Subject Lands are primarily in agricultural production and contain a variety of agricultural and *non-agricultural land uses*. As stated above, for the purposes of this AIA in support of the proposed Secondary Plan, it has been assumed that the entirety of the Subject Lands have been included within the City of Hamilton's urban boundary and no longer form part of the City of Hamilton's *prime agricultural area* or *rural lands*.

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 to the east by Tapleytown Road, to the south by Guyatt Road, to the west by Nebo Road, and to the north by Green Mountain Road. The Study Area, excluding lands within the City of Hamilton *settlement area*, are primarily in agricultural production and contain large natural heritage areas.

The Study Area is primarily designated Agriculture in the Rural Hamilton Official Plan, with smaller portions designated Rural, Open Space, Specialty Crop, and Rural Settlement Area (Tapleytown). The northern portion of the Study Area is located within the Greenbelt Plan Area and is designated Protected Countryside – Specialty Crop Area. The portion of the Subject Lands which is within the Greenbelt Plan area is part of a *specialty crop area*, while the remaining lands within the Study Area are part of a *prime agricultural area*.



Contains information licensed under the Open Government Licence – Ontario. Base map data from Ontario Ministry of Natural Resources, Ontario GeoHub Land Information Ontario (LIO) Warehouse Open-Data Products. <https://geohub.lio.gov.on.ca/> Coordinate system : NAD 1983, UTM Zone 18T.



Figure 1
Location of Subject Lands

Agricultural Impact Assessment
Elfrida Secondary Plan Area

Prepared for: **Elfrida Community Builders Group Inc.**

Prepared by: **COLVILLE CONSULTING INC.**

DATE: April 2026

FILE: C23089

2. SCOPE OF STUDY

To be consistent with the Agricultural Impact Assessment Guidance Document (2026), the study scope includes:

- ♦ a review of applicable agricultural policies and other background information and land use information for lands within the surrounding area (e.g., aerial photography);
- ♦ a review of data sources such as AgMaps and the Agricultural Systems Portal and OMAFA'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 *development* 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 the potential impacts of the *development* 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;
- ♦ as assessment of net impacts following the implementation of recommended mitigation measures; and,
- ♦ an assessment of the proposed *development's* consistency with agricultural policies in the *Provincial Planning Statement* and the Rural Hamilton Official Plan.

The findings of this study have been summarized in this report. Given that this AIA has been written under the assumption that the Subject Lands have been removed from the City of Hamilton's *prime agricultural area* and included within the City of Hamilton's urban boundary, this AIA does not assess alternative locations for the proposed *development*.

3. METHODOLOGY

The study methodology for the AIA was prepared in accordance with the OMAFA Agricultural Impact Assessment Guidance Document (2026). It includes a review of relevant provincial, regional, and local agricultural policies, provincial guidance documents and other agricultural-related sources of information. The information gathered was supplemented with data obtained during field inventories. Following the collection and assessment of the data, the potential impacts of the proposed *development* will be considered and recommendations to avoid and/or minimize potential impacts will be made. The AIA also assesses the proposed *development's* consistency with the provincial, regional, and local agricultural policies.

3.1 Background Data Collection

Information sources reviewed for this study included:

- ♦ *Provincial Planning Statement* (2024);
- ♦ Rural Hamilton Official Plan and Land Use Schedules (February 2021);
- ♦ Urban Hamilton Official Plan (September 2025);
- ♦ Soils of Wentworth County – Report No. 32 of the Ontario Soil Survey (1962);
- ♦ British Columbia Ministry of Agriculture’s Guide to Edge Planning: Promoting Compatibility Along Agricultural-Urban Edges (2015);
- ♦ MHBC’s Edge Planning Report – The Region of Peel & The Town of Caledon LEAR Study and MDS Review (2015);
- ♦ OMAFA’s digital soil Resource Database to obtain soil series and CLI agricultural capability mapping and data;
- ♦ 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;
- ♦ OMAFA’s Agricultural Impact Assessment (AIA) Guidance Document (2026); and
- ♦ Ortho-rectified, digital aerial photography viewed using Google Earth™.

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. The review of aerial photographic imagery provides a general impression of the recent and historical agricultural activity and an indication of the level of agricultural investments within the Subject Lands and surrounding Study Area.

3.2 Field Inventories

3.2.1 Land Use Survey

Reconnaissance level land use surveys were completed on December 14, 2023, and February 25, 2026, 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 were also identified and mapped where visible. It should be noted that due to the time of year, it was not possible to identify the type of specific crop that was *cultivated* in most cases. Visual evidence of agricultural land improvements was also 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* operations. 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 1st, 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 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*.

Guideline #36 of the Minimum Distance Separation (MDS) Guidance Document states in part that “MDS I setbacks are not required for proposed land use changes within approved settlement areas, as it is generally understood that the long-term use of the land is intended to be for non-agricultural purposes.” As previously stated, for the purposes of this AIA, it has been assumed that the Subject Lands no longer form part of the City of Hamilton’s *prime agricultural area* or *rural lands* and have been included in the City’s urban boundary. As a result, the *MDS I formula* does not apply to the proposed *development*. However, the *MDS I formula* has been applied to identify areas which may be more sensitive to the introduction of *non-agricultural uses*, and to inform the future phasing of *development*.

The information required to complete *MDS I* calculations 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 unavailable, self-addressed envelopes were left in mailboxes of potential *livestock facilities*.

OMAFRA’s Agricultural Planning Tools Suite (AgriSuite) was used to determine the *MDS* requirements. It provides the most up to date software developed by OMAFRA 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.

Information was collected during the site visits for all *livestock facilities* (active and *unoccupied*). In cases where it was not possible to collect information directly from the landowner, 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 enables the agri-food sector to thrive. The evaluation of the *Agricultural System* was completed through reconnaissance level land use surveys on December 14, 2023, and February 25, 2026, a review of the information presented in OMAFA's Agricultural Systems Portal, and through interpretation of aerial photographic imagery. Components of the *agri-food network*, including regional infrastructure and transportation networks, on-farm buildings and infrastructure, and agricultural services, as well as small towns and hamlets that are supportive of the agricultural industry, were identified and mapped. The evaluation of the *Agricultural System* within the Study Area is intended to identify these key components and assess their significance within the broader *Agricultural System*.

3.4 Evaluation of Alternative Locations

The *PPS* directs *settlement area* boundary expansion to avoid *prime agricultural areas*, where possible. Where *prime agricultural areas* cannot be avoided, policy directs *development* to lower priority agricultural lands. As previously stated, for the purposes of this AIA, it has been assumed that the Subject Lands have been included in the City of Hamilton's urban boundary. As part of the AIA submitted in support of the previous urban boundary expansion application for the Elfrida Lands, alternative locations for SABE were evaluated. The AIA determined that *prime agricultural areas* could not be avoided and there were no reasonable lower priority agricultural lands available. Given the assumption that the Subject Lands will be included within the City of Hamilton's urban boundary and removed from the *prime agricultural area*, an assessment of alternative locations is no longer required and has therefore not been included in this AIA.

3.6 Identification of Potential Impacts and Mitigation Measures

Potential impacts of the proposed *development* 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 may include:

- a) Interim or permanent loss of agricultural land, including the quality and quantity of farmland lost;
- b) 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 surrounding area;
- c) The loss of existing and future farming opportunities;
- d) The loss of infrastructure, services, or assets important to the surrounding agricultural community and agri-food sector;

- e) The loss of agricultural investments in structures and land improvements (e.g. artificial drainage);
- f) The disruption or loss of function to artificial drainage and irrigation installations; and,
- g) Changes to the soil drainage regime.

However, as the Subject Lands have already been brought into the *settlement area* and removed from the *agricultural land base*, direct impacts to the Agricultural System have already occurred, limiting the potential to mitigate impacts.

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

- a) Fragmentation of agricultural lands and operations;
- b) *Minimum Distance Separation* changes (where applicable) that will constrain future farm operations;
- c) Changes to surface drainage features which could have an effect on adjacent lands;
- d) 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 may have an impact on diurnal temperatures);
- e) Changes to hydrogeological conditions that could affect neighboring municipal or private wells, sources of irrigation water, and sources of water for *livestock*;
- f) 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);
- g) The potential effects of noise, vibration, dust, traffic and vandalism and trespassing on agricultural operations, lands, activities and investments;
- h) Potential compatibility concerns between agricultural operations employing *normal farm practices* and new non-farm *development* (e.g. nuisance complaints); and,
- i) The inability or challenges to move farm vehicles and equipment along roads due to increased traffic caused by haul routes, changes in road design.

Mitigation measures were then developed for both direct and indirect impacts identified, which 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 other provincial land use policies. Municipalities also have their own agricultural policies that are to be consistent with the *PPS* and to which the proposed *development* must conform. A background review of all applicable provincial and municipal policies relating to agriculture was undertaken. Policies applicable to the proposed non-agricultural *development* were identified and assessed for consistency as part of this AIA.

4. AGRICULTURAL POLICIES

4.1 Provincial Planning Statement

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 Removal of Land from Prime Agricultural Areas

Policy 4.3.4.1 of the *PPS* states that “Planning authorities may only exclude land from prime agricultural areas for expansion of or identification of settlement areas in accordance with policy 2.3.2.”

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.”

Under the assumption that the Subject Lands now form part of the City of Hamilton’s urban boundary, the Subject Lands are no longer located within a *prime agricultural area*.

4.2 City of Hamilton Policy

Prior to the Subject Lands' inclusion in the City of Hamilton's urban boundary, Schedule D of the Rural Hamilton Official Plan showed that the Subject Lands were primarily designated Agriculture, with smaller portions designated Rural and Open Space. As per Sections D.2.2.1 and D.4.2.1, lands designated Agriculture and Rural, respectively, shall not be redesignated for non-agricultural uses.

4.2.1 Agriculture

The Agriculture designation represents the City of Hamilton's *prime agricultural areas*. Section D.2.1 of the RHOP outlines the permitted uses in lands designated Agriculture which includes "agricultural uses, agricultural-related commercial and agricultural-related industrial uses and on-farm secondary uses". A wide array of uses are permitted as outlined in Sections D.2.1 – D.3.3. These uses are consistent with the RHOP's intent of maintaining the area's rural character and ensuring the long-term viability of agriculture.

4.2.2 Rural

Portions of the Subject Lands were designated Rural in the Rural Hamilton Official Plan. Lands in this designation typically consist of predominantly lower capability agricultural lands, which may include small areas of *prime agricultural lands*. The uses permitted within the Rural land use designation are outlined in section D.4.1 and include uses permitted in the Agriculture designation of the RHOP, as well as other resource-based rural uses and institutional uses serving the rural community.

Under the assumption that the Subject Lands have been included within the City of Hamilton's urban boundary, the proposed non-agricultural *development* is not longer required to comply with the Rural Hamilton Official Plan policies.

4.2.3 Secondary Plans

Section A2.4.1 of the Urban Hamilton Official Plan states that "While the City's strategy for accommodating growth to 2051 is based on a No Urban Boundary Expansion approach which includes intensification and redevelopment within the built-up area, and development within greenfield areas. Provincial legislation, plans and policies allow for the submission of privately initiated applications for urban boundary expansions. If an urban expansion area is established by a privately initiated application, a coordinated approach to planning for the new Urban Expansion Area, shall be taken to ensure residential intensification targets for development within the built-up area are prioritized in accordance with this plan."

Section F1.2.7 of the Urban Hamilton Official Plan states that "In addition to Policies F.1.2.1 to F.1.2.6 and Section A.2.4 – Growth Management - Hamilton, secondary planning shall be completed for urban expansion areas established by a privately initiated application. An application for plan of subdivision, zoning by-law amendment or consent shall not be approved for lands within urban expansion areas until a secondary plan is in effect."

Section F1.2.8 continues by stating in part that "The following requirements shall apply to the preparation of secondary plans for urban expansion areas established by a privately initiated application:

- g) the following studies, amongst others, may be required to support the preparation of secondary plans for urban expansion areas:
 - i. Agricultural Impact Assessment."

5. STUDY FINDINGS

5.1 Physiography

The Subject Lands are located in the northwestern portion of the Haldimand Clay Plain physiographic region (Chapman and Putnam, 1984). This physiographic region lies between the Niagara Escarpment and Lake Erie, and extends from Fort Erie to the east, to Hamilton, Brant and Port Dover to the west. It occupies an area of approximately 3,495 square kilometers. During the last glacial retreat, 12,000 years ago, a proglacial lake, Lake Warren, further modified the area's physiography. This once persistent lake deposited layers of silt and clay to form a glaciolacustrine plain. The underlying rocks consist of a succession of Paleozoic beds dipping slightly southward under Lake Erie.

The vertical cliffs along the brow of the Niagara Escarpment are formed of dolostone of the Lockport Formation. Overlying these hard dolostones to the southwest is a series of softer bedrock, which includes shale members. Small areas of bare rock appear along the crest of the Niagara Escarpment; otherwise, the change in bedrock makes little difference in the clay plain.

The northern portion of the Haldimand Clay Plain has greater relief than the nearly level lake plains in the south. Closer to the Subject Lands, drainage is controlled by the ridges, draining eastward in several parallel streams. The soils of the Haldimand Clay Plain are typically heavy textured and have poor drainage. With drainage improvements these soils are generally more productive.

5.2 Climate

Climate data is available through Environment Canada's National Climate Data and Information Archive's online database. Climate Normals and Extremes for the Hamilton Station (1991-2020) were obtained from the online database (Appendix C).

Environment Canada's Hamilton Station is located approximately 7.9 km from the Subject Lands. Records show that this area receives an average of 902.3 mm of precipitation annually; 764.6 mm of rainfall and 137.7 cm of snowfall. The daily average temperature in this area ranges from a high of 20.9°C to a low of -5.3°C.

The Ministry of Agriculture and Food Factsheets provide data on crop production and growing seasons across Ontario. The rate of development of crops from planting to maturity is mainly dependent upon temperature. The Hamilton area begins to experience average temperatures greater than 10°C starting April 29th before reaching temperatures greater than 12.8°C for 3 consecutive days around May 15th. During this time and up until the season's average ending date, October 12th, the area accumulates an average of 3210 crop heat units (CHU).

On average, the last spring frost in the Hamilton area occurs on May 1st, with the first fall frost expected on October 12th. This provides the surrounding area with a growing period of approximately 164 days. The climate in the Hamilton 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 South Ontario Region, Hamilton Division. Agricultural crop statistics were obtained from the online database and are included in Appendix D. This data provides a general overview of agriculture and agri-food operations in the area but is unlikely to be inclusive of all operations present at the time of this report.

The Agricultural Profile for Hamilton includes data from 2011, 2016, and 2021 census periods. The total number of farms in the City of Hamilton decreased from 810 in 2016 to 679 in 2021. Total cropland also decreased from 104,136 acres in 2016 to 100,089 acres in 2021.

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

Fruit crops grown in Hamilton include apples, sour cherries, peaches, grapes, strawberries, and raspberries. Fruit crop acreage for 2016 was not provided in the census data, but total fruit major fruit crop production in 2021 was 609 acres. Vegetable crops grown in Hamilton include sweet corn, tomatoes, green peas, and green or wax beans. Vegetable crop acreage for 2016 was not provided in the census data, but total fruit major fruit crop production in 2021 was 2,229 acres. The census identified a general overall decline in the total acreage of fruit and vegetable production in the City of Hamilton between 2016 and 2021.

The Agricultural Systems Portal shows that there are 679 farms reporting within the Hamilton Division in the 2021 Census. These are summarized in Table 1 below. Of the 679 farms reporting in 2021, 222 farms had *livestock*; of which, cattle ranching and other animal production (i.e., horse and equine, apiculture, etc.) were the most common types of operations. Most farms reporting in Hamilton are engaged in crop production, with oil seed and grain farming being the most common type of operation.

Table 1. Reporting Farms in the City of Hamilton – 2021 Census

Farm Type	Number Reported
Total Number of Farms	679
Cattle Ranching and Farming	65
Hog and Pig Farming	3
Poultry and Egg Production	35
Sheep and Goat Farming	11
Other Animal Production	108
Oil Seed and Grain Farming	217
Vegetable and Melon Farming	43
Fruit Tree and Nut Farming	33
Greenhouse, Nursery, and Floriculture Production	104
Other Crop Farming	60

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.

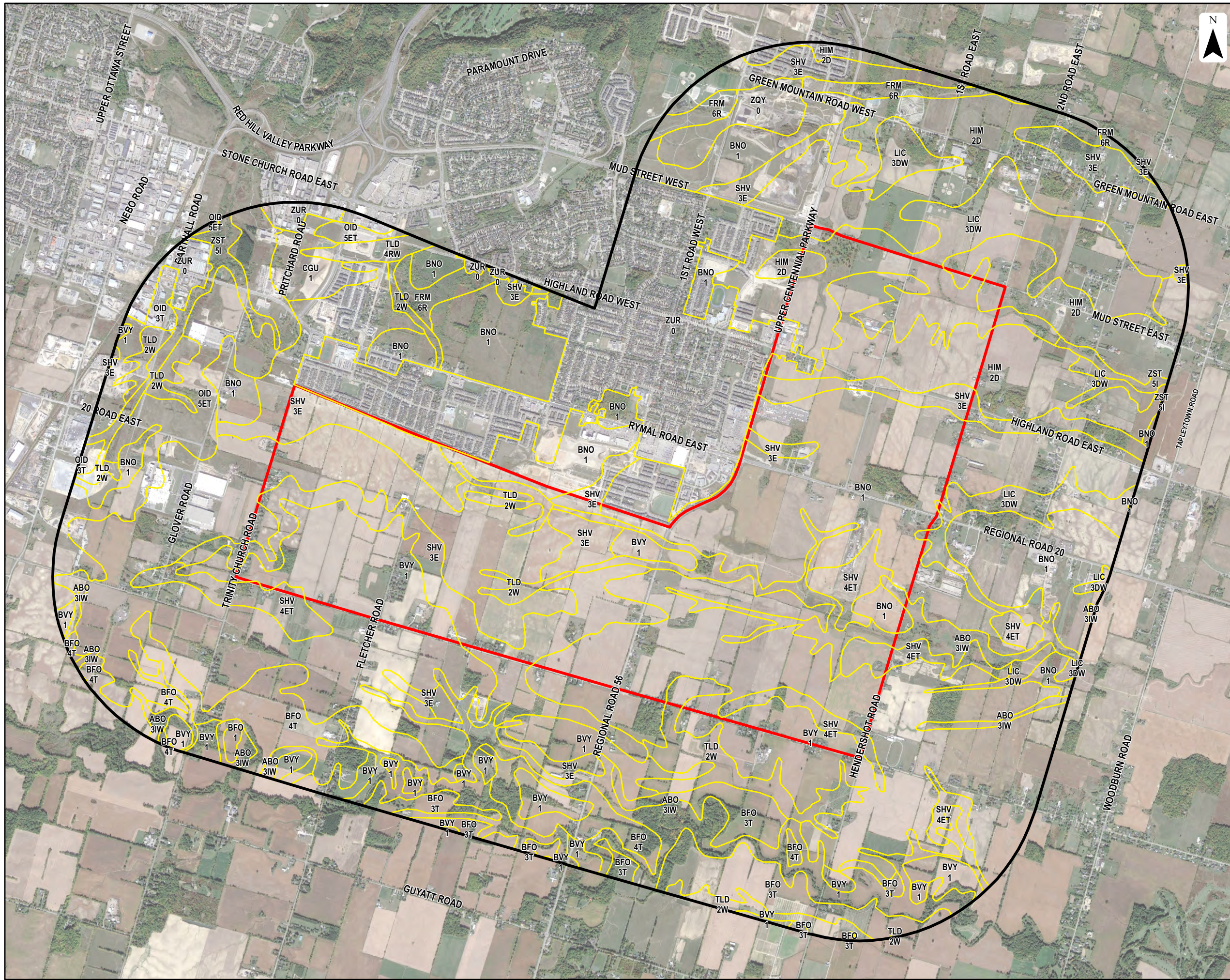
The Subject Land are not located within the Niagara Peninsula Tender Fruit and Grape Area or the Holland Marsh *specialty crop areas*, nor are the located within a *specialty crop area* identified by the City of Hamilton. Although some specialty crops were observed, the Subject Lands do not meet the *PPS* definition of a *specialty crop area*. The northern portion of the *Study Area* is located within the Niagara Peninsula Tender Fruit and Grape Area, but only small areas of specialty crops were observed within the *Study Area* during the land use survey.

5.5 Regional Soils

5.5.1 Soil Series

The *Soils of Wentworth County – Report No. 32 of the Ontario Soil Survey* (Presant, E.W., Wicklund, R.E., and Matthews, B.C., 1965) includes a soil map that shows the distribution of the various soil series in the Wentworth County (now part of the Regional Municipality of Hamilton). 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 database was accessed in March 2026.

The *Soils of Wentworth County* mapping shows that the soils within the Subject Lands are comprised primarily of Beverly Silt Loam soils (36.86%), Binbrook Silt Loam soils (22.00%), and Smithville Silt Loam soils (19.63%), with small portions mapped as Haldimand Silty Clay Loam soils (7.48%), Lincoln Silty Clay Loam soils (6.68%), Alberton Silty Clay Loam soils (4.47%), Toledo Silty Clay Loam soils (2.22%), and Urban lands (0.66%). Regional scale soil mapping is shown in Figure 2.



LEGEND

- Subject Lands
- Study Area
- Soil

Soil Series Name → **BRR**

CLI Class → **3T** ← CLI Subclass

SOIL SERIES

- ABO - Alberton Silty Clay Loam
- BFO - Brantford Silt Loam
- BNO - Binbrook Silt Loam
- BVY - Beverly Silt Loam
- CGU - Chinguacousy Silt Loam
- FRM - Farmington Loam
- HIM - Haldimand Silty Clay Loam
- LIC - Lincoln Silty Clay Loam
- OID - Oneida Silt Loam
- SHV - Smithville Silt Loam
- TLD - Toledo Silty Clay Loam
- ZQY - Quarry
- ZST - Stream Course
- ZUR - Urban

CLI AGRICULTURAL CAPABILITY CLASSES

- Class 1** - No significant limitations in use for 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.
- Class 5** - Very severe limitations that restrict their capability in producing perennial forage crops, and improvement practices are feasible.
- Class 6** - Very severe limitations that restrict soil to only producing perennial forage crops, and improvement practices are not feasible.
- Class 0** - Not placed in a capability class.

CLI AGRICULTURAL CAPABILITY SUBCLASSES

D	Undesirable Soil Structure/Permeability	—	limitations due to difficulty to till or slow absorption/release of water
E	Erosion	—	subclass where erosion is a limitation
I	Inundation	—	periodic flooding by streams or lakes
R	Shallowness to Bedrock	—	consolidated bedrock occurs within 100 cm of the surface
T	Topography	—	subclass where topography is a limitation
W	Excess Water	—	limited by excess soil moisture, other than brought about by inundation

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Figure 2
Soils and CLI

Agricultural Impact Assessment
Elfrida Secondary Plan Area

Prepared for: **Elfrida Community Builders Group Inc.**

Prepared by: **COLVILLE CONSULTING INC.**

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April 2026

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Beverly Series

Beverly soils are the imperfectly drained member of the Brantford soil series. These soils have developed on level to very gently sloping areas of lacustrine silty clay loam and silty clay. Mottling observed in the soil profile is an indication of imperfect drainage in this slowly permeable soil. The soil permeability is often further restricted due to the presence of a hardpan that frequently develops in annually cultivated lands.

Beverly soils are good agricultural soils which can support the cultivation of a wide range of crops. The main limitation to crop production in these soils is the presence of excess soil moisture, which can be mitigated through the installation of artificial drainage.

Toledo Series

Toledo soils have developed from deep, clayey, glaciolacustrine sediments. These soils are poorly drained and found on nearly level plains which slows surface drainage. Toledo soils typically have a relatively thick Ah horizon that is rich in organic matter. The clayey nature of these soils also inhibits internal drainage as evidenced by the gley colours and prominent mottling throughout the soil profile.

Artificial drainage installation can improve the soil conditions and average yields of common field crops are attainable. Without artificial drainage in place, these soils are best suited for *pasture* and the production of hay.

Haldimand Series

The Haldimand series includes the imperfectly drained, slowly permeable soils developed from heavy textured, calcareous, glaciolacustrine sediments. These soils typically occur on flat to very gently sloping topography often masking the underlying glacial till. These soils have good nutrient holding capacity but are susceptible to compaction.

The main limitation to crop production on these soils is the presence of excess water. The installation of artificial drainage can improve crop yields and allow for the cultivation of a wider range of common field crops. In an unimproved state, Haldimand soils are best suited for forage crops (hay and *pasture*).

Lincoln Series

The Lincoln series have developed from the same material from which the Haldimand soils are derived, with the exception that these soils are poorly drained. They also are commonly found on nearly level topography and in depressional areas in association with Haldimand soils.

Artificial drainage is required to achieve fair yields of common field crops. Without tile drainage, these soils are best suited for *pasture* or the production of hay.

Smithville Series

Smithville soils are moderately well-drained soils which occupy the majority of the well-drained areas within the Haldimand Clay Plain. These soils are grayish clay till soils which are overlain by approximately 30-50 cm of lacustrine silt loam.

Smithville soils are well suited for the production of a wide range of crops. These soils are typically found in gently sloping topography. The topography and silt loam surface textures allow excess water to drain

from the soils effectively. On level topography, these soils may experience impediments to drainage, resulting in damage to certain crops.

Binbrook Series

Binbrook soils are imperfectly drained grayish clay till soils overlain by silt loam. These soils are often found associated with Smithville soils and typically occur on level to very gently sloping topography. The *soil profile* of Binbrook soils is similar to that of Smithville soils, with the main difference being that Binbrook soils have mottling present in the B horizon. Mottling occurs when excess water is present within the soil, which is typically caused by the occurrence of a slight hardpan of clay between the A and B horizons in Binbrook soils.

With artificial drainage in place, Binbrook soils are suitable for the production of a wide range of crops. Without artificial drainage, *forage* crops and spring grains are well suited for these soils, but yields of other common field crops may be reduced due to the presence of excess soil moisture in the soil profile.

Alberton Series

Alberton soils are derived from alluvial sediments and consist primarily of silt loam and silty clay loam textures. The soil profile is poorly developed and consists of recently deposited sediments within the floodplain. These soils are most commonly imperfectly drained, but drainage varies due to the variation in thickness of alluvium and the underlying soil textures.

Most valleys in which Alberton soils occur are subject to periodic flooding, which limits their suitability for crop production. However, these soils can be fertile and often used in the production of corn in areas that are not subject to yearly flooding. In areas where flooding occurs annually, these soils are best left for permanent *pasture* to reduce the level of soil erosion.

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 (58.86%), with smaller areas mapped as CLI Class 2 lands (9.70%), CLI Class 3 lands (26.92%), CLI Class 4 lands (3.85%), and CLI Class 0 lands (0.66%), as shown in Figure 2. CLI Class 1 soils have no or very minor limitations for common field crop production. CLI Class 2W and 2D soils have moderate limitations for common field crop production due to excess soil moisture and undesirable soil structure/permeability, respectively. CLI Class 3D, 3W, 3I, and 3E soils have moderately severe limitations for common field crop production due to undesirable soil structure/permeability, excess soil moisture, flooding by rivers/streams, and erosion, respectively. CLI Class 4E and 4T soils have severe limitations for common field crop production due to erosion and adverse topography, respectively. CLI Class 0 soils are associated with the soils mapped as Urban and are

not placed in CLI capability classes. The composition of soils mapped within the Subject Lands and their associated CLI Class are summarized in Table 2 below.

Table 2. Regional Soil Series for PSA			
Soil Series	CLI Class	Area (Ha)	% of PSA
Beverly Silt Loam	1	451.90	36.86%
Toledo Silty Clay Loam	2W	27.22	2.22%
Haldimand Silty Clay Loam	2D	91.71	7.48%
Lincoln Silty Clay Loam	3DW	81.90	6.68%
Smithville Silt Loam	3E	193.46	15.78%
	4ET	47.20	3.85%
Binbrook Silt Loam	1	269.72	22.00%
Alberton Silty Clay Loam	3IW	54.80	4.47%
Urban	0	8.09	0.66%
Totals		1226.00	100.00%

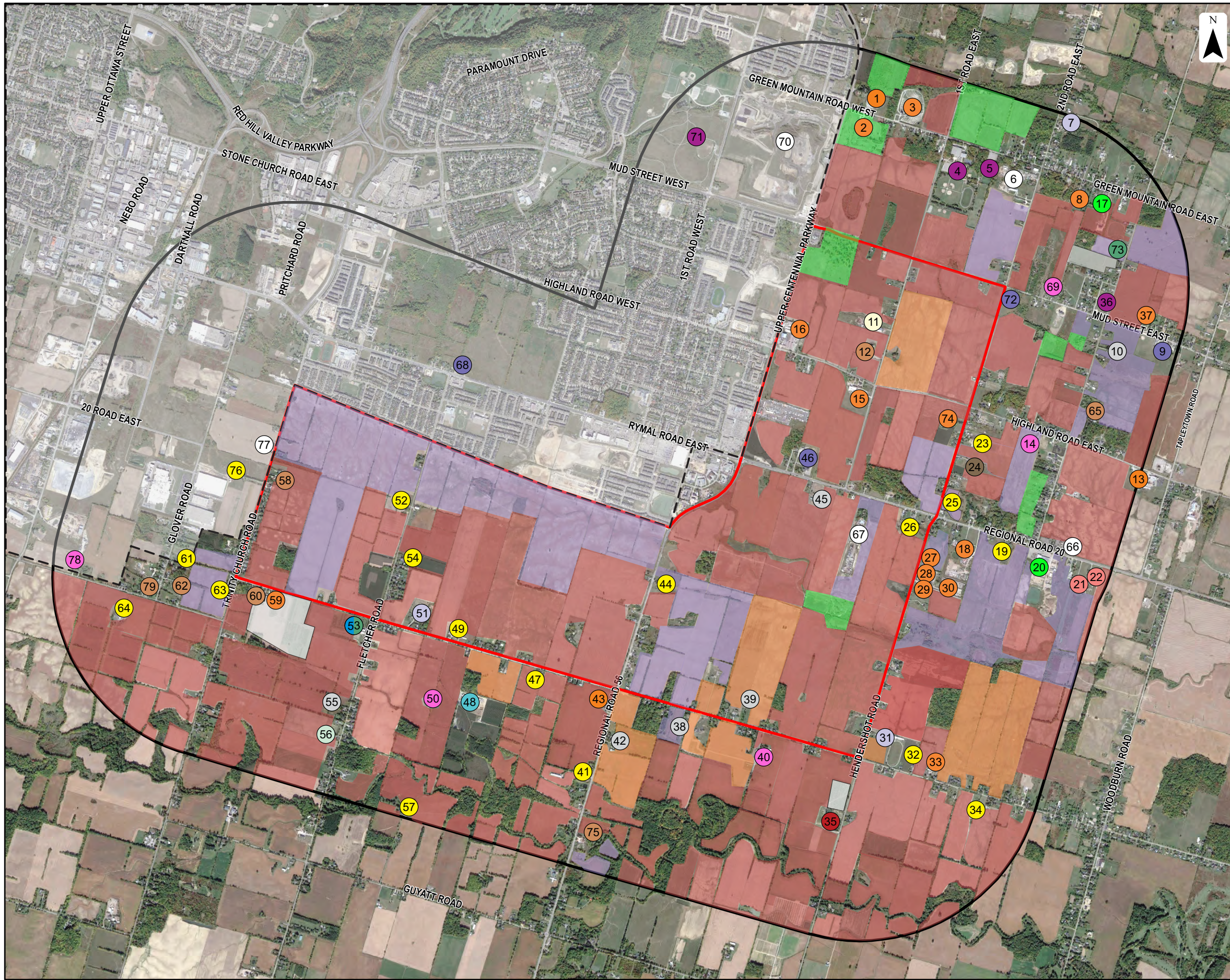
5.6 Land Use

Reconnaissance-level land use surveys were completed on December 14, 2023, and February 25, 2026. The land use surveys identified the number and type of agricultural operations (both active and inactive), *agriculture-related uses*, *on-farm diversified uses*, and the extent and type of *non-agricultural land uses* within the Study Area. Inactive *livestock operations* were evaluated to determine whether they should be considered an *unoccupied livestock facility* or if they would be more appropriately considered as a *remnant farm*. *Remnant farms* have no infrastructure that is suitable for housing *livestock*, whereas the infrastructure for an *unoccupied livestock facility* is still in a condition that could permit the keeping of *livestock* with minimal investment. The crop types observed within the Study Area were recorded and mapped.

The purpose of the land use survey is to document the mix of agricultural and *non-agricultural uses* within the 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 I* setbacks. 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.

Forty-five agricultural operations were identified during the land use surveys. The agricultural operations include seven *hobby farms*, three equestrian operations, one mushroom farm, one beef operation, one poultry operation, five *cash crop* operations, two specialty crop operations, two greenhouse operations, six *unoccupied livestock facilities*, and seventeen *remnant farms*.

Four *agriculture-related use* were identified during the land use survey. The *agriculture-related uses* include two cheese shops, one cidery, and one animal feed store. One *on-farm diversified use*, a farm stand, was identified during the land use survey and desktop review.



LEGEND

- Subject Lands
- Study Area
- Urban Area

Agricultural Uses

- Cash Crop Operation
- Beef Operation
- Equestrian Operation
- Remnant Farm
- Hobby Farm
- Mushroom Farm
- Poultry Operation
- Unoccupied Livestock Facility
- Specialty Crop Operation
- Greenhouse

Agriculture-Related Uses

- Cidery
- Cheese Shop
- Animal Feed Retailer

On-Farm Diversified Uses

- Farm Stand

Non-Agricultural Uses

- Commercial
- Recreational
- Industrial
- Institutional
- Non-Farm Residence

Cropping Pattern

- Corn
- Cultivated
- Idle
- Scrub
- Orchard

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**Figure 3
Land Use**

**Agricultural Impact Assessment
Elfrida Secondary Plan Area**

Prepared for: **Elfrida Community Builders
Group Inc.**

Prepared by: **COLVILLE
CONSULTING INC.**

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In addition to the approximately 557 *non-farm residences* observed (excluding residences within City of Hamilton *settlement area*), thirty *non-agricultural uses* were identified during the land use survey. These uses include seventeen commercial uses, four institutional uses, five industrial uses, and four recreational uses. Land uses within the City of Hamilton *settlement area* were not assigned land use numbers, nor included within the land use notes. In addition, a large number of commercial, industrial, and residential uses were observed within the *settlement area*. The number of non-farm land uses far exceeds the number of agricultural operations observed in the Study Area.

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 and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including, but not limited to livestock facilities, manure storages, value-retaining facilities and accommodation for full-time farm labour when the size and nature of the operation requires additional employment.”

The various types of farm operations observed within the Subject Lands and Study Area were noted and identified as either active or inactive *livestock operations* (e.g., *empty livestock facilities*), *cash crop* operations, or *hobby farms*. Crop types observed were also recorded and mapped.

Subject Lands

Eleven agricultural operations were identified within the Subject Lands during the land use survey and desktop review. The active agricultural operations include one mushroom farm (#11), two *hobby farms* (#12 and #58), and one equestrian operation (#51), while the inactive agricultural operations include two *unoccupied livestock facilities* (#39, and #45) and five *remnant farms* (#26, #44, #49, #52, and #54).

Study Area

Within the Study Area, thirty-three agricultural operations were identified. The active agricultural operations include five *hobby farms* (#60, #62, #65, #75, and #79), two equestrian operations (#7 and #31), one beef operation (#56), one poultry operation (#24), five *cash crop* operations (#14, #40, #50, #69, and #78), two specialty crop operations (#53 and #73), and two greenhouse operations (#17 and #20). The inactive agricultural operations include four *unoccupied livestock facilities* (#10, #38, #42, and #55) and fourteen *remnant farms* (#19, #23, #25, #32, #34, #41, #47, #57, #61, #63, #64, and #76).

5.6.2 Agriculture-Related Uses

Agriculture-related uses are farm-related commercial and industrial uses. As defined in the PPS 2024, 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.

Four *agriculture-related land use* was identified within the Study Area. These uses include two cheese shops (#21 and #22), one cidery (#35), one animal feed store (#48), and one farm market (#53). No *agriculture-related uses* were identified within the Subject Lands.

5.6.3 On-Farm Diversified Uses

The *PPS 2024* defines *on-farm diversified uses* as “uses that are secondary to the principal *agricultural use* of the property and are limited in area. On-farm diversified uses include, but are not limited to, home occupations, home industries, Agri-tourism uses, and uses that produce value-added agricultural products”.

One *on-farm diversified use* was identified within the Study Area, which consists of a farm stand (#53). No *on-farm diversified uses* were identified within the Subject Lands.

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. Excluding those within the *settlement area* of the City of Hamilton, approximately 557 *non-farm residences* were observed, with 142 of these located within the Subject Lands and 415 located within the Study Area.

Excluding the *non-farm residences*, thirty *non-agricultural uses* were identified, with five located within the Subject Lands and twenty-five located within the Study Area. The *non-agricultural land uses* within the Subject Lands include three commercial uses, one industrial use, and one institutional use. The *non-agricultural uses* within the *Study Area* include fourteen commercial uses, four recreational uses, five industrial uses, and four institutional uses.

5.6.5 Land Use Summary

Table 3 below summarizes the types of land uses observed within the Subject Lands and Study Area. The lands uses observed do not reflect a thriving *Agricultural System* due to the significant amount of non-farm land uses observed within the Study Area.

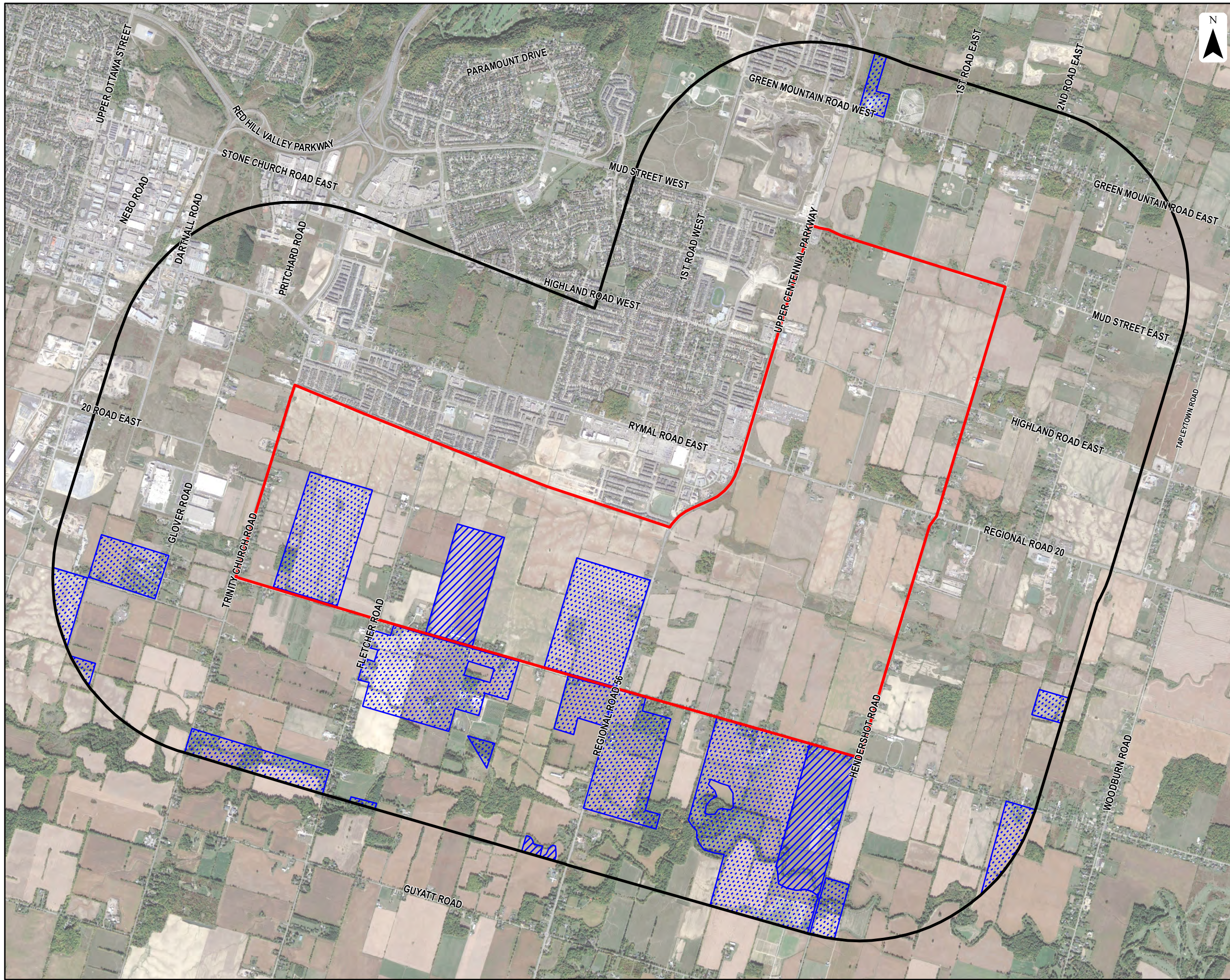
Table 3. Summary of Observed Land Uses			
	Total Number	Active	Empty or Remnant
Agricultural	44	7 – Hobby Farm 3 – Equestrian Operation 1 – Mushroom Farm 1 – Beef Operation 1 – Poultry Operation 5 – Cash Crop Operation 2 Specialty Crop Operation 2 – Greenhouse Operation	17 – Remnant Farm 6 – Unoccupied Livestock Facility
Agriculture-Related	4	2 – Cheese Shop 1 – Cidery 1 – Animal Feed Store	0
On-farm Diversified	1	1 – Farm Stand	0
	Total Number	Type	
Non-Agricultural	587	17 – Commercial 4 – Recreational 5 – Industrial 4 – Institutional 557 – Non-Farm Residential	

5.6.6 Cropping Pattern

The land use survey completed on February 25, 2026, identified crops based on observations of crop stubble and other identifying features. As shown in Figure 3, the majority of the Study Area is *cultivated*, however we were not always able to identify specific crops being grown. *Idle* agricultural lands and *scrub lands* were also identified. Unfortunately, the fields were mainly snow covered which hindered the identification of field crops. In some cases, we were able to identify crops based on observations of the crop stubble. However, Google Maps Street View was used to confirm that the majority of the crops in the Study Area consist of *common field crops*.

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 Study Area. Figure 4 below shows the drainage improvements within the Study Area.



- LEGEND**
- Study Area
 - Subject Lands
 - Tile Drainage - Random
 - Tile Drainage - Systematic

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Figure 4
Land Improvements

Agricultural Impact Assessment
Elfrida Secondary Plan Area

Prepared for: **Elfrida Community Builders Group Inc.**

Prepared by: **COLVILLE CONSULTING INC.**

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5.7.1 Drainage Improvements in Subject Lands

AgMaps shows installations of both systematic and random tile drainage within the Subject Lands. Both the random and systematic tile drainage installations are located in the southern portion of the Subject Lands, immediately north of Gold Club Road. There are approximately 110.66 ha (273.45 acres) of random tile drainage, and 36.89 ha of systematic tile drainage within the Subject Lands. The installation dates of the random and systematic tile drainage within the Subject Lands were not available through AgMaps. AgMaps does not show any constructed drains within the Subject Lands.

5.7.2 Drainage Improvements in Study Area

AgMaps shows the installation of random tile drainage and a smaller area of systematic tile drainage within the Study Area. The systematic tile drainage and most of the random tile drainage are located in the southern portion of the Study Area, with a small area of random tile drainage located in the northern portion of the Study Area. There are approximately 49.53 ha (122.39 acres) of systematic tile drainage and 344.97 ha (852.44 acres) of random tile drainage within the Study Area. The installation dates of the random and systematic tile drainage in the Study Area were not available through AgMaps.

AgMaps does not show any constructed drains within the Study Area.

5.7.3 Other Land Improvements

No other investments in land improvements within the Subject Lands nor Study Area were identified using the AgMaps Portal or 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 alone cannot sustain a family farm without a secondary source of off-farm income to maintain the agricultural operation.

Additionally, agricultural areas which have been fragmented often have a higher occurrence of *non-agricultural uses*, which in turn can result in more frequent occurrences of conflict arising between *agricultural* and *non-agricultural uses*. Agricultural areas with lower levels of fragmentation are considered to be more economically viable 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 area's agricultural priority.

The agricultural policies of the *PPS* recognize the impact of fragmentation on agricultural lands and try to minimize their fragmentation 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.

The review of lot fabric in the Study Area using AgMaps shows that there is a mix of parcel sizes ranging from single residential (< 1 ha) to large agricultural parcels (>60 ha). A number of the parcels within the

agricultural land base are not suitably sized for a variety of *agricultural uses*. The lands within the *Study Area* have a relatively high level of fragmentation and have a high occurrence of *non-agricultural uses*.

The current lot fabric of the Subject Lands is expected to change as the lands are developed for urban land uses. However, the Subject Lands' inclusion within the City of Hamilton's urban boundary removed the Subject Lands from the *agricultural land base*. Therefore, the *development* of the Subject Lands will not further fragment the City of Hamilton's *agricultural land base*. The lot fabric in the Study Area is shown in Figure 5 below.

5.9 Minimum Distance Separation

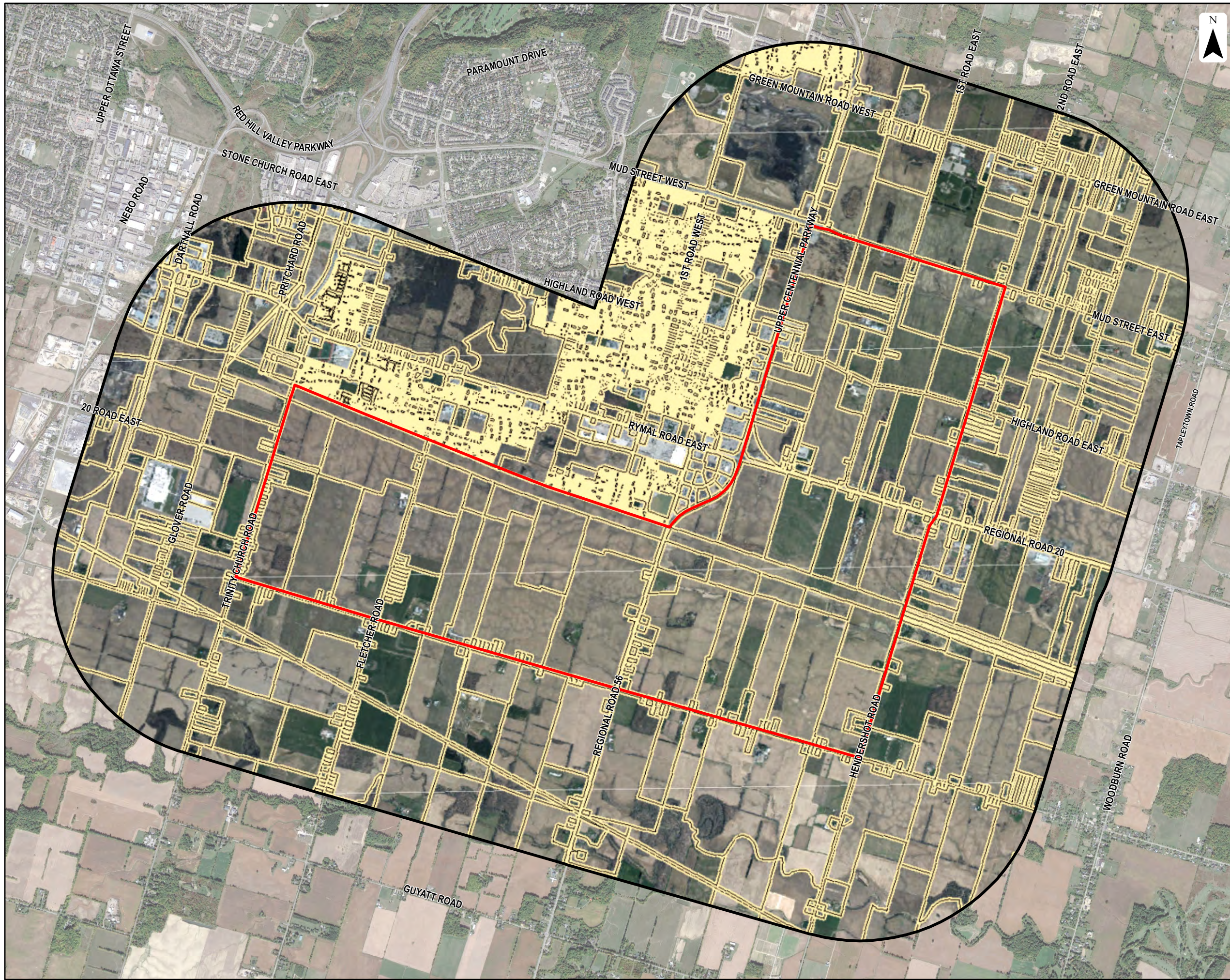
5.9.1 Requirement for MDS and Settlement Area Boundary Expansion

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 formula* as contained in OMAFRA's *The Minimum Distance Separation (MDS) Implementation Document: Formulae and Guidelines for Livestock Facility and 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 *anaerobic digester* on-site.

The *MDS I formula* 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* with little to no additional investment. The *MDS* is not applied to *remnant farms* with barns that are in poor condition and not suitable for housing *livestock*.

The *MDS formulae* are only applied to proposed *development* outside of an approved *settlement area*. As previously stated, it has been assumed that the Subject Lands have been included within the City of Hamilton's urban boundary. Therefore, the proposed *development* is not required to meet the *MDS I* setback requirements. However, *MDS I* setbacks have been calculated in order to identify areas that may be more sensitive to the introduction of future *non-agricultural uses* within the Subject Lands. Land use compatibility and conflict reduction through mitigation can be improved by identifying these sensitive areas. This will assist in the planning and phasing of future development within the Secondary Plan Area.

The *MDS I formula* was applied to all *livestock facilities* (active and *unoccupied*) observed within 1,500 m of the Subject Lands. The factors used to determine the *MDS I* setback requirements for these facilities include: the type of *livestock*; the maximum capacity of the barn for *livestock*; the type of *manure storage* system; and the type of land use (Type A and Type B). The proposed *development* is considered to be a Type B (more sensitive) land use. The remaining factors required to calculate the *MDS* setbacks were determined through field observations recorded during the land use survey, aerial photographic interpretation, and site-specific information provided by landowners, where possible. When a landowner could not be contacted, self-addressed envelopes and forms were left requesting information which would enable us to calculate the *MDS* setback requirements at *livestock* operations that had the potential to create *MDS* constraints for the Subject Lands.



LEGEND

- Study Area
- Subject Lands
- Fragmentation

Contains information licensed under the Open Government Licence – Ontario. Base map data from Ontario Ministry of Natural Resources, Ontario GeoHub Land Information Ontario (LIO) Warehouse Open Data Products. <https://geohub.lio.gov.on.ca/> Air photo: Google Earth 2022. Fragmentation: OMAFRA AgMaps. Coordinate system: NAD 1983, UTM Zone 17T.

Figure 5
Fragmentation

Agricultural Impact Assessment
Elfrida Secondary Plan Area

Prepared for: **Elfrida Community Builders Group Inc.**

Prepared by: **COLVILLE CONSULTING INC.**

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April 2026

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

5.9.2 MDS Guidelines

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

#1. Referencing MDS in Municipal Planning Documents
In accordance with the Provincial Policy Statement, 2014, 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.

Section 1.16.2 of the Rural Hamilton Official Plan states that “Minimum Distance Separation (MDS) distances shall be calculated in accordance with all provincial Minimum Distance Separation guidelines and regulations as amended from time to time.”

#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.

For the purposes of this AIA, it has been assumed that the Subject Lands have been included in the City of Hamilton’s urban boundary. While future *development* within the Subject Lands is not required to meet *MDS I* setbacks, the *MDS I formula* has been applied in order to identify areas which may be more sensitive to the introduction of *non-agricultural land uses*, and to inform phasing of future *development*.

#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 *development* is considered to be a Type B land use. Therefore, all existing *livestock facilities* or *anaerobic digesters* with 1,500 m of the Subject Lands have been investigated and *MDS I* setback calculations completed, where warranted.

#12. Existing Uses that Do Not Conform to MDS

An *MDS I* setback is required for proposed development or dwellings, even though there may be existing or approved development or dwellings nearby that do not conform to *MDS I* requirements.

However, a reduced *MDS I* setback may be permitted provided there are four, or more, nonagricultural uses, residential uses and/or dwellings closer to the subject livestock facility than the proposed development or dwellings and those four or more non-agricultural uses, residential uses and/or dwellings are:

- ♦ located within the intervening area (120° field of view shown in Figure 4 in Section 7 of this *MDS Document*) between the closest part of the proposed development or dwelling and the nearest livestock facility or anaerobic digester;
- ♦ located on separate lots; and
- ♦ of the same or greater sensitivity (i.e., Type A or Type B in accordance with Implementation Guidelines #33 and #34) as the proposed development or dwelling.

If ALL of the above conditions are met, the *MDS I* setback for the proposed development or dwelling may be reduced such that it is located no closer to the livestock facility or anaerobic digester than the furthest of the four non-agricultural uses, residential uses and/or dwellings as shown in Figure 4 (See *MDS Document*).

Guideline #12 can be used to reduce the calculated *MDS* setbacks for Operations #24 and #42. These operations have at least four *non-agricultural uses* or *dwellings* within a 120° field of view between the proposed *development* and the nearest *livestock facility* and/or *manure storage* system associated with the operation. However, the full *MDS I* setback has been mapped in order to identify areas that may be more sensitive to the introduction of *non-agricultural uses*.

#14. Uses Located on the Same Lot

An *MDS I* setback is NOT required to be met for proposed development, dwellings, agriculture-related use, or on-farm diversified use from an existing livestock facility or anaerobic digester located on the same lot as the proposal.

Two *hobby farms* (#12 and #58), one equestrian operation (#51), and two *unoccupied livestock facilities* (#39, and #45) were identified on the Subject Lands. Based on Guideline #14, the *MDS I formula* is not required to be applied to these *livestock facilities*. However, the *MDS I formula* has been applied to these operations to inform phasing of future *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 multiple farm operations with more than one barn located on the same property. Therefore, the *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 *development* consists of a Type B land use with a higher density of human occupancy, habitation, and activity. 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.

#36. Non-Application of MDS Within Settlement Areas

MDS I setbacks are NOT required for proposed land use changes (e.g., consents, rezonings, redesignations, etc.) within approved settlement areas, as it is generally understood that the long-term use of the land is intended to be for non-agricultural purposes.

For the purposes of this AIA, it has been assumed that the Subject Lands have been included within the City of Hamilton’s urban boundary. Therefore, the *MDS formulae* are not required to be applied to the proposed *development*. However, *MDS I* setbacks have been calculated to identify areas that may be more sensitive to the introduction of *non-agricultural land uses*, and to inform planning, mitigation and phasing for future *development* within the Subject Lands.

#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* does not apply to lands within existing *settlement area* boundaries; therefore, the proposed *development* complies with the *MDS formulae* as required by the *PPS*. However, to identify

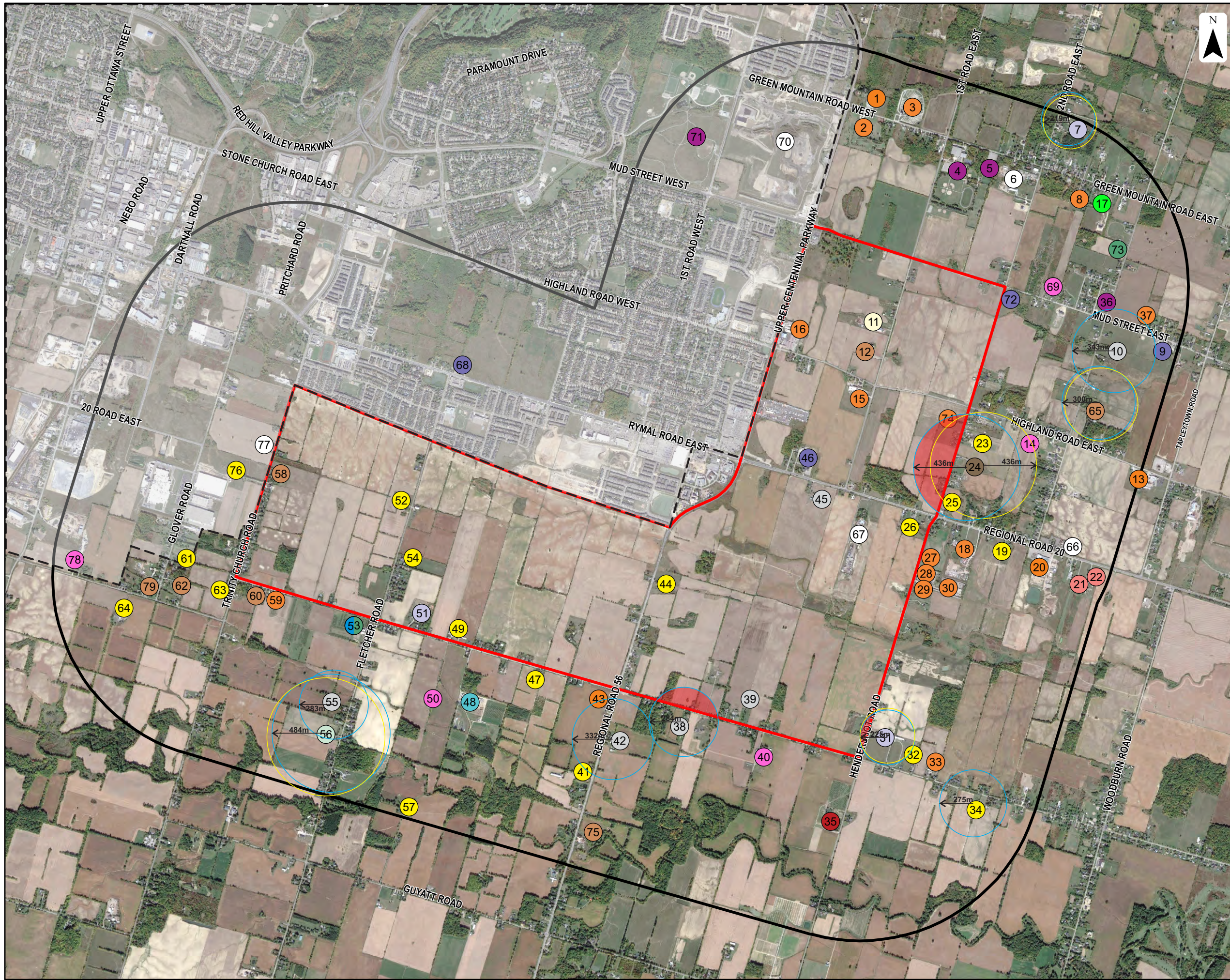
sensitive areas within the *settlement area* boundary, we have applied the *MDS I formula* to sixteen *livestock facilities* within 1.5 km of the Subject Lands. The *MDS I* reports generated by OMAFA's AgriSuite software can be found in Appendix H and the *MDS I* calculations are summarized in Table 4 below. 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* operations located outside of the 1.5 km Study Area.

Figure 6 shows that the *MDS I* setbacks for Operations #24, #31, and #38 extend approximately 347 m, 63 m, and 166 m into the Subject Lands, and occupy 19.38 ha, 1.33 ha, and 6.43 ha, respectively. Given that future *development* within the Subject Lands is not required to meet *MDS I* setbacks, this information is only provided for planning and phasing of future *development* within the Subject Lands. Additionally, the Draft Secondary Plan Schedule indicates that a portion of the encroachment area generated from the *MDS I* setback associated with Operation #38 will be utilized for a stormwater management facility and Natural Open Space Area, limiting the potential for nuisance complaints. It is also understood that the areas of encroachment will form part of a Special Policy Area within the Secondary Plan, which will require future *development* to demonstrate compliance with the *MDS I formula*.

Table 4. MDS Setback Requirements for Proposed Development

Site Number	MDS I Setback Requirement – Livestock Facility	MDS I Setback Requirement – Manure Storage	Nearest Distance to Subject Lands	Complies with MDS I Setback?
7	219 m	219 m	1,454 m	Yes
10	343 m	N/A	1,010 m	Yes
12	270 m	N/A	Within Subject Lands	Yes
24	480 m	480 m	133 m	Yes*
26	253 m	N/A	Within Subject Lands	Yes
31	225 m	225 m	162 m	Yes*
34	275 m	N/A	1,006 m	Yes
38	284 m	N/A	118 m	Yes*
39	262 m	N/A	Within Subject Lands	Yes
42	332 m	N/A	410 m	Yes
45	363 m	N/A	Within Subject Lands	Yes
51	233 m	233 m	Within Subject Lands	Yes
55	283 m	N/A	765 m	Yes
56	484 m	484 m	996 m	Yes
58	232 m	N/A	Within Subject Lands	Yes
65	300 m	300 m	1,115 m	Yes

* Complies with *MDS I formula* but sensitive area identified.



LEGEND

- Subject Lands
- Study Area
- Urban Area

Agricultural Uses

- Cash Crop Operation
- Beef Operation
- Equestrian Operation
- Remnant Farm
- Hobby Farm
- Mushroom Farm
- Poultry Operation
- Unoccupied Livestock Facility
- Specialty Crop Operation
- Greenhouse

Agriculture-Related Uses

- Cidery
- Cheese Shop
- Animal Feed Retailer

On-Farm Diversified Uses

- Farm Stand

Non-Agricultural Uses

- Commercial
- Recreational
- Industrial
- Institutional
- Non-Farm Residence

MDS I Setbacks

- Livestock Facility
- Manure Storage
- Encroachment

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Figure 6
MDS

Agricultural Impact Assessment
Elfrida Secondary Plan Area

Prepared for: **Elfrida Community Builders Group Inc.**

Prepared by: **COLVILLE CONSULTING INC.**

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5.10 Economic and Community Benefits of Agriculture

Identifying the economic and community benefits associated with agriculture in the Study Area is an important consideration and informs the impacts associated with the proposed *development*. The agricultural and agri-food sector is one of the largest primary goods producing sectors and plays a key role in the City's economy. However, according to Census of Agriculture data, the total number of farms in the Hamilton Division decreased from 885 in 2011, to 810 in 2016, to 679 farms in 2021. These farms employ residents throughout the Hamilton area, contributing economically to the area and supporting the *agri-food network*.

In 2021, agriculture, forestry, fishing, and hunting industry employed approximately 2600 individuals within the Hamilton Division, which is a slight increase from the 2,445 individuals employed in 2016. There were approximately 2,937 agri-food businesses in 2021 within the Hamilton Division, which is also a slight increase from the 2,800 agri-food businesses in 2016.

5.10.1 Assessment of Benefits

The majority of the Subject Lands are *cultivated*, and eleven *agricultural uses* were identified within the Subject Lands, of which seven are inactive (i.e., *unoccupied livestock facility, remnant farm*, etc.). Following the inclusion of the Subject Lands in the City of Hamilton's urban boundary, it is understood that the long-term use of the land is intended to be for non-agricultural purposes. With the implementation of mitigation measures to minimize indirect impacts on surrounding farm operations, it is expected that the proposed *development* can minimize the short-term impacts of *development* on the *Agricultural System*. However, the long-term impacts (e.g., loss of cultivable land) will be difficult to mitigate as the area transforms from agricultural to urban land uses.

The Subject Lands are located in an area that exhibits both urban and rural characteristics. The agricultural character of this area has already been influenced by the prevalence of *non-agricultural land uses*. Agriculture is demonstrably in decline within the Subject Lands and 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 uses*. It is unlikely that the farm operations within the Subject Lands contribute significantly to the local economy based on their scale and lack of recent investment in agricultural infrastructure. Other than the visual expression of the rural identity provided by the Subject Lands, there are no significant cultural benefits provided. The proposed *development* of the Subject Lands will not have a significant impact on the agricultural economy, and the limited community benefits provided by the Subject Lands.

6. 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, slow moving farm vehicles and noise generated through *normal farm practices*.

The re-designation of *prime agricultural areas* to urban uses can also have indirect impacts on adjacent farm operations. However, the Subject Lands are located between urban lands to the north and west, limiting the potential for indirect impacts along these edges of the Subject Lands. It is unlikely that the proposed *development* will have significant, long-term negative effects on the surrounding agricultural lands and community.

6.1 Direct Impacts

6.1.1 Prime Agricultural Lands

The Subject Lands are approximately 1,226 ha (3,030 acres) in size, of which approximately 1,171 ha are *prime agricultural lands*. These lands have already been redesignated for urban *development* and are no longer part of the *agricultural land base*. The proposed *development* will result in the conversion of these lands from agricultural uses to urban uses. To minimize the short-term impact of the conversion of these lands, the lands should be kept in agricultural production, if feasible, until they are to be developed for *non-agricultural uses*.

6.1.2 Agricultural Infrastructure

There are eleven agricultural operations within the Subject Land which have agricultural infrastructure associated with the operations. Four of these operations have agricultural infrastructure that is fully or partially collapsed, and an additional three are inactive operations. The *development* of the Subject Lands will result in the loss of the agricultural infrastructure associated with the eleven agricultural operations located within the Subject Lands. To mitigate this loss, and where feasible, the agricultural infrastructure should be left in place for *agricultural uses* until the land is needed for urban *development*.

6.1.3 Agricultural Land Improvements

Approximately 110.66 ha (273.45 acres) of random tile drainage and 36.89 ha of systematic tile drainage are present within the Subject Lands. There are no constructed drains located within the Subject Lands. The proposed *development* of the Subject Lands will eventually result in the loss of this investment in land improvements. The impacts of this loss on the *Agricultural System* will be negligible. To minimize the impact, the lands should remain in *agricultural use* until they are to be developed.

6.1.4 Loss of Crop Land

The Subject Lands are primarily *cultivated* for the production of common field crops, but also contain small portions *cultivated* for the production of specialty crops and forested areas, idle lands, and scrubland. Of the Subject Lands' 1,226 ha, approximately 928 ha of land are *cultivated*. The *development* of the Subject

Lands will result in the loss of these cultivated lands. To minimize the impact of this loss, where feasible, the lands should remain in agricultural production until they are needed for *development*. It is recommended that a *development* be phased in a way to maximize the amount of land available for agricultural production in the short-term.

While, from an agricultural perspective, it is preferable that all *cultivated* lands be developed in later stages of *development*, it is recognized that *development* phasing is a multidisciplinary exercise and cannot reasonably be based solely on the presence of *cultivated* lands.

6.2 Indirect Impacts

Potential impacts to adjacent farm operations and farm practices are considered to be indirect impacts. These impacts include changes to the surface drainage regime 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*.

6.2.1 Disruption to Surficial Drainage

The proposed *development* has the potential to cause changes in surface runoff, which can have a potential negative impact on adjacent lands used for agricultural purposes. It is understood that a Stormwater Management Plan, Grading Plan, and Master Drainage Plan are being completed as part of the Secondary Plan process. Implementation of the recommendations provided in these studies will minimize or eliminate the potential impacts, which are expected to be negligible.

6.2.2 Disruption to Farm Operations

Most active agricultural operations in the Study Area are well removed from the Subject Lands. These farms are unlikely to experience any form of disruption to their 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. If the crops grown on the Subject Lands are used to support a larger cash crop operation or *livestock operation*, the operation will eventually need to find additional lands to lease to replace those converted to urban uses. 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 is being prepared as part of the Secondary Plan process. It is anticipated that, a Hydrogeological Study would provide recommendations to mitigate impacts, if impacts to these water sources are anticipated.

Noise, dust, and litter can have a negative impact on some farm operations. Construction may temporarily generate greater levels of noise, dust, and litter. No sensitive farm operations were identified that would be impacted by noise, dust, and litter. However, it is recommended that noise and dust be controlled and

in compliance with Ministry of Environment, Conservation and Parks (MECP) guidelines. Efforts to control litter should be included in best management construction practices.

6.2.3 Trespass and Vandalism

Some farm operations within the Study Area may already have to deal with the potential for trespass and vandalism due to the close proximity of the City of Hamilton *settlement area* and the abundance of *non-agricultural uses* in the surrounding area. People walking their pets in farmer's fields, crossing and damaging fences, and rutting fields with dirt bikes and all-terrain vehicles are all examples of trespass and vandalism that may occur. As a result of the potential increase in urban population and construction activities, there is also a chance that debris (litter) can end up in farmers' fields.

Establishing temporary 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 6.3 of this report.

6.2.4 Minimum Distance Separation

The *MDS I* setback requirements have been calculated for all *livestock facilities* capable of housing *livestock* within the Subject Lands and Study Area. As previously stated, the *MDS I formula* is not applicable within a *settlement area* boundary. Therefore, there are no *MDS I* setbacks that constrain the proposed *development*.

However, there are three agricultural operations (#24, #31, and #38) that generate *MDS I* setbacks which encroach into the Subject Lands. When developing a phasing plan for *development*, the *MDS I* setbacks for Operations #24, #31, and #38 should be considered. These setbacks represent areas that some development may be sensitive to (e.g., odour) and some consideration to delaying *development* within these areas may improve the short-term land use compatibility. However, once these farm operations are no longer housing livestock, there would be no further need to delay development of the lands within the setbacks.

It is understood that these areas of encroachment will form part of a Special Policy Area within the Secondary Plan, which will require *development* in these areas to demonstrate compliance with the *MDS I formula*. Additionally, the Draft Secondary Plan Schedule indicates the *development* of a stormwater management facility and Natural Open Space Areas within the majority of the encroachment area associated with Operation #38.

6.2.5 Transportation Impacts

Currently, there is a substantial amount of traffic along Regional Road 20, Upper Centennial Parkway, and Regional Road 56. It is likely that with the additional urban land uses within the Subject Lands, there will be substantially more traffic introduced to these roads over time. Agricultural operations in the Study Area already must contend with non-farm traffic and will have modified their practices accordingly.

It is understood that a Transportation Management Study is being prepared as part of the Secondary Plan process. To ensure transportation impacts are minimized, recommendations outlined in the Transportation Management Study should be adhered to. We also recommend placing "Share the Road" or similar signage along the roadways to remind non-farm traffic to be aware of farm traffic and safety. The implementation of edge planning techniques will further minimize potential transportation impacts, as discussed further in Section 6.3 of this report.

6.2.6 Economic and Community Impacts

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

While agriculture in the City of Hamilton provides economic and community benefits, the influence of agriculture is waning in the Subject Lands. There are limited operations within the Subject Lands which exhibit signs of recent investment in agricultural infrastructure or land improvements.

The proposed *development* is anticipated to be beneficial to the local and regional economies through population growth and job creation. The loss of input to the agricultural economy is likely to be offset by the additional inputs to the economies associated with the proposed *development*. To mitigate the loss of agricultural inputs to the economy, the proposed *development* should be phased to allow agricultural activities to continue until the lands are to be developed.

6.3 Implementation of Edge Planning Techniques

The agricultural/urban interface (AUI) is typically the area where farm operations are negatively impacted the most. When *settlement area* boundary expansion occurs, edge planning techniques should be considered along the new AUI.

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, 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 and *non-agricultural uses* can have on one another and presents options to prevent such impacts.

Edge planning techniques represent a suite of best practices intended to promote land use compatibility between agricultural and *non-agricultural uses*. While a range of edge planning techniques are available, it is recognized that not all techniques will be feasible or appropriate in all circumstances. It is our opinion that the specific edge planning techniques to be implemented for the proposed *development* should not be prescribed at this stage of the planning process. Rather, the selection and design of appropriate edge planning techniques should be determined through a multidisciplinary review at later stages of *development*, such as during site plan approval, plan of subdivision, or other detailed design processes, and secured through conditions of approval.

6.3.1 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.

The Draft Secondary Plan Schedule indicates that the AUI will primarily be developed for low-density residential uses, as well as Natural Open Space areas, and stormwater management facilities. Locating lower-density urban uses along the AUI will improve land use compatibility and reduce non-agricultural traffic, compared to higher-density uses.

6.3.2 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 is 15 metres for commercial or industrial land uses, 30 metres for residential land uses, and 90 metres for institutional land uses. These techniques should be implemented at later stages of *development*.

6.3.3 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.). It is our understanding that the Natural Open Space areas along the AUI will retain existing tree cover, providing a buffer along the AUI.

6.3.4 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 or institutional land uses, and 8 metres for commercial or industrial land uses. 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. A good vegetative

buffer will also reduce the intensity of winds, which will minimize the extent of obnoxious odours originating from *livestock operations*. It can also minimize sound and lighting generated by farm operations.

6.3.5 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).

6.4 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 impact.

Table 5. Summary of Impacts

Potential Impact	Potential Degree of Impact	Mitigation Measure	Anticipated Net Impact
Direct Impacts			
Loss of <i>prime agricultural land</i>	High	<ul style="list-style-type: none"> Develop a phasing plan that will enable the continued use of the lands for farming until lands are needed for <i>development</i> 	Eventual loss of approximately 1,171 ha of <i>prime agricultural lands</i>
Loss of agricultural infrastructure	Low	<ul style="list-style-type: none"> Develop a phasing plan that will enable the use of agricultural infrastructure until lands are needed for <i>development</i> 	Eventual loss of agricultural infrastructure from eleven agricultural operations
Loss of agricultural land improvements	Low	<ul style="list-style-type: none"> Develop a phasing plan that will enable the continued use of the lands for farming until lands are needed for <i>development</i> 	Eventual loss of approximately 147.55 ha of tile drainage
Loss of cropland	High	<ul style="list-style-type: none"> Develop a phasing plan that will enable the continued use of the lands for farming until lands are needed for <i>development</i> 	Eventual loss of approximately 927.91 ha of cultivatable land
Indirect Impacts			
Surficial Drainage	Low	<ul style="list-style-type: none"> Prepare a Grading Plan, Master Drainage Plan and Stormwater Management Plan Implement recommendations if impacts identified 	No impact anticipated
Disruption to Farm Operations	Low	<ul style="list-style-type: none"> Ensure that access to farm operations and farm fields is maintained at all times Establish temporary fencing during construction Consider the use of edge planning techniques along new agricultural/urban interface 	No significant impact anticipated
Non-farm traffic	Low	<ul style="list-style-type: none"> Prepare a Transportation Management Study to assess potential impacts Implement recommendations if impact identified 	No significant impact anticipated

Table 5. Summary of Impacts

Potential Impact	Potential Degree of Impact	Mitigation Measure	Anticipated Net Impact
Trespass, Vandalism, and Stray Pets	Low	<ul style="list-style-type: none"> Consider the use of edge planning techniques along the new agricultural-urban interface 	No significant impact anticipated
Noise, Dust & Light	Low	<ul style="list-style-type: none"> Adhere to Ministry of the Environment, Conservation and Parks (MECP) guidelines 	No impact anticipated
Changes to Microclimatic Conditions	Low	<ul style="list-style-type: none"> None required No changes to microclimatic conditions 	No impact
Land Use Compatibility	Low	<ul style="list-style-type: none"> Consider the use of edge planning techniques along the new agricultural-urban interface 	No significant impact anticipated
Conflict with MDS formula	Low	<ul style="list-style-type: none"> Utilize <i>MDS</i> information for planning purposes to assist with the development of a phasing plan to achieve short-term land use compatibility Implement edge planning techniques (e.g., vegetative buffer) along agricultural-urban interface 	Complies with <i>MDS I</i> formula. Improves short-term compatibility
Economic & Community	Low	<ul style="list-style-type: none"> The City of Hamilton and land developers should promote local farm <i>livestock</i> and produce 	No significant impact. Potential for increase in local farmgate sales
Wells, Irrigation, Water Bodies	Low	<ul style="list-style-type: none"> Prepare a Hydrogeological Study to identify potential impacts Implement recommendations of Hydrogeological Study if impact identified 	No impact anticipated

7. CONSISTENCY WITH AGRICULTURAL POLICIES

7.1 Provincial Planning Statement

Under the assumption that the Subject Lands have been included within the City of Hamilton's urban boundary, the Subject Lands are no longer part of a *prime agricultural area* nor part of *rural lands*. Therefore, the agricultural policies regarding *settlement area* boundary expansion in the *PPS* are no longer relevant to the proposed *development*.

7.2 City of Hamilton Policy

Section A2.4.1 of the Urban Hamilton Official Plan states that "While the City's strategy for accommodating growth to 2051 is based on a No Urban Boundary Expansion approach which includes intensification and redevelopment within the built-up area, and development within greenfield areas. Provincial legislation, plans and policies allow for the submission of privately initiated applications for urban boundary expansions. If an urban expansion area is established by a privately initiated application, a coordinated approach to planning for the new Urban Expansion Area, shall be taken to ensure residential intensification targets for development within the built-up area are prioritized in accordance with this plan."

Section F1.2.7 of the Urban Hamilton Official Plan states that "In addition to Policies F.1.2.1 to F.1.2.6 and Section A.2.4 – Growth Management - Hamilton, secondary planning shall be completed for urban expansion areas established by a privately initiated application. An application for plan of subdivision, zoning by-law amendment or consent shall not be approved for lands within urban expansion areas until a secondary plan is in effect."

Section F1.2.8 continues by stating in part that "The following requirements shall apply to the preparation of secondary plans for urban expansion areas established by a privately initiated application:

- h) the following studies, amongst others, may be required to support the preparation of secondary plans for urban expansion areas:
 - i. Agricultural Impact Assessment."

This AIA has fulfilled the requirement for the completion of an Agricultural Impact Assessment as part of the Secondary Plan process. Potential impacts of the proposed *development* have been assessed, and recommendations have been made to minimize and mitigate identified impacts to the agricultural system, including recommendations for staging of the proposed *development* and the implementation of edge planning techniques.

The *MDS I* setbacks are not required due to the Subject Lands' inclusion within the City of Hamilton's urban boundary. As such, the proposed *development* complies with the applicable policies of the Urban Hamilton Official Plan and the policies of the Rural Hamilton Official Plan do not apply to the proposed *development*. Although the *MDS formulae* do not apply within *settlement area* boundaries, *MDS I* setbacks were calculated to identify areas that may be sensitive to new urban land uses in the short term.

8. CONCLUSION

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

1. The Subject Lands do not form part of a *specialty crop area*, and limited specialty crops were observed within the Subject Lands;
2. The Subject Lands' inclusion in the City of Hamilton's urban boundary resulted in the Subject Lands' removal from the City of Hamilton's *prime agricultural area* and *rural lands*. The long-term use of these lands is for urban-related uses;
3. Potential impacts associated with the proposed *development* are primarily limited to the loss of *prime agricultural land*, cultivatable land, agricultural infrastructure, and agricultural land improvements. Mitigation measures have been provided that will ensure that potential impacts will be minimized to the extent possible. The net indirect impacts will be negligible with the implementation of the recommended mitigation measures;
4. The proposed *development* will comply with the *MDS I formulae*; and
5. The proposed *development* is consistent with all relevant provincial agricultural policies and will comply with all relevant municipal agricultural policies.

Respectfully submitted by:



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9. 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 land base: - part of the agricultural system and is 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.

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.

Catena: - the group of soils that have developed on the same parent material but as a result of being located on a different position in the landform the group differs by drainage class (i.e., well drained, imperfectly drained, and poorly drained).

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.

Dairy operation: - a farm whose primary livestock is dairy cattle, including dairy heifers.

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.

Gleyed: - means soils that are poorly drained and exhibit greyish colours in the profile indicating that they have developed in a reduced environment (i.e., oxygen depleted) due to high water tables throughout the year.

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

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

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

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

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 ($\geq 18\%$ 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.

Morainal till: - generally a compact, poorly sorted, and poorly stratified material deposited by glacial action.

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

Non-agricultural uses:* - 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.

On-Farm Diversified Uses:* - 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.

Primary Study Area:* - the primary study area includes the Subject Lands (i.e. the lands where the development is taking place).

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

Rural residential cluster:* - means four or more, adjacent rural lots, generally one hectare or less in size, sharing a common contiguous boundary. Lots located directly across a road from one another shall be considered as having a common boundary.

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

Secondary Study Area (Study Area):* - the Secondary Study Area (Study Area) includes all lands that will be potentially impacted by the development. The Secondary Study Area may vary in its extent, but includes, at minimum, lands adjacent to the Primary Study Area.

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 without significant additional investment.

** 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.

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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)

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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:

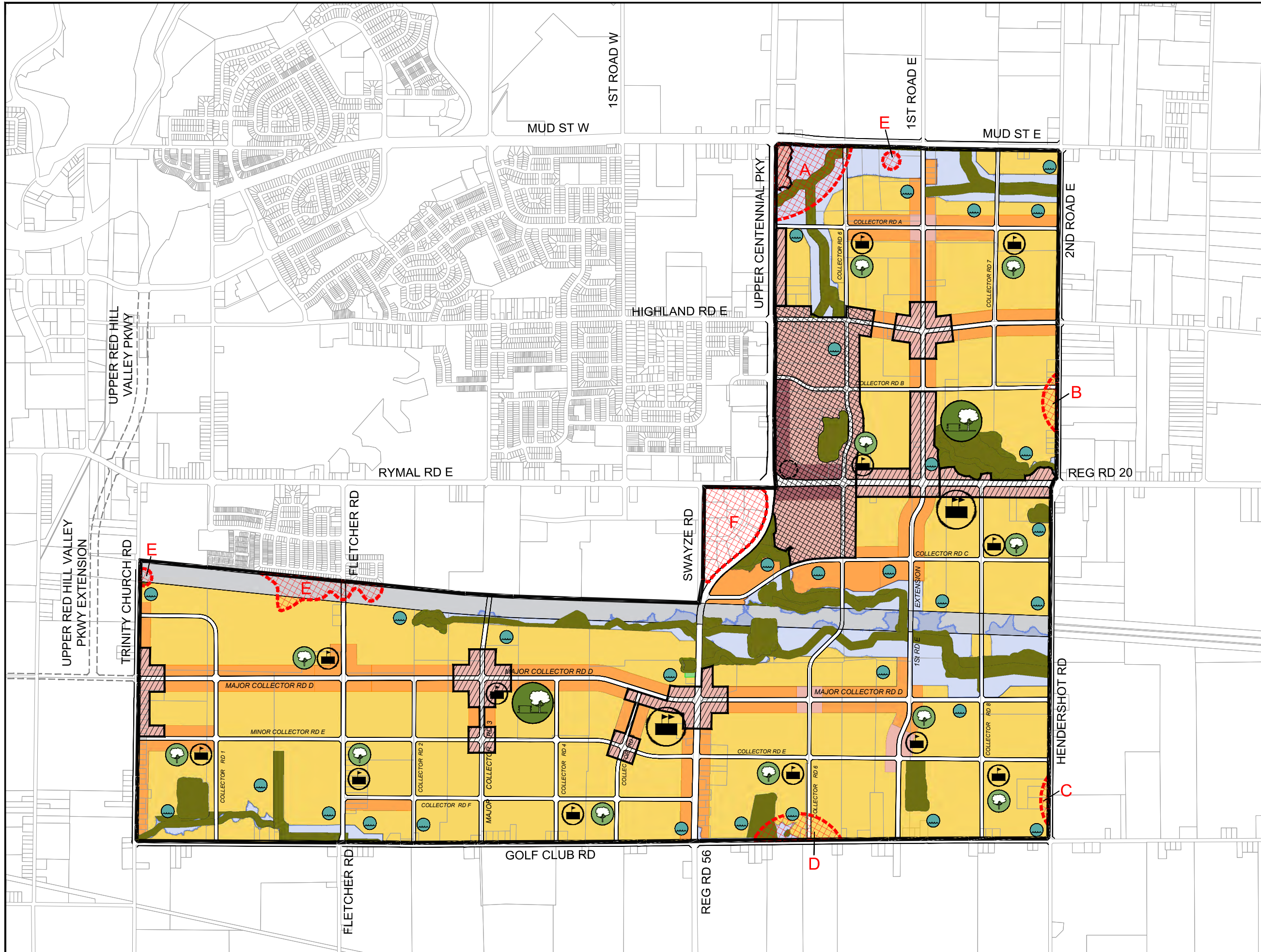
- ♦ Post-Construction Avian and Bat Mortality Monitoring for Pattern Energy, Korea Electric Power Corporation, and Samsung Renewable Energy Inc., Grand Renewable Energy Park, County of Haldimand, Ontario
- ♦ Agricultural Impact Assessment for landowner group, City of Pickering
- ♦ Agricultural Impact 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 Secondary Plan Schedule



Legend

Residential Designations

- Low Density Residential
- Medium Density Residential

Commercial and Mixed Use Designations

- Mixed Use - Medium Density
- Mixed Use - High Density
- Local Retail Node Overlay
- Community Retail Node Overlay

Parks and Open Space Designations

- Community Park
- Neighbourhood Park
- General Open Space

Natural Heritage System & Floodplain

- Natural Heritage System (Including Buffers and VPZ)
- Proposed Floodplain (Including Buffers)

Other Designations

- Utility
- Elementary School
- Secondary School
- Storm Water Management

Other Features

- Area or Site Specific Policy
- Elfrida Gateway Station
- Secondary Plan Boundary

Council Adopted: _____
 Ministerial Approval: _____
 Effective Date: _____

**Urban Hamilton Official Plan
 Elfrida
 Secondary Plan
 Land Use Plan
 Map B.7.8-1**

Date: April 2026

Not To Scale

PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT

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APPENDIX C

Climate Normals Data

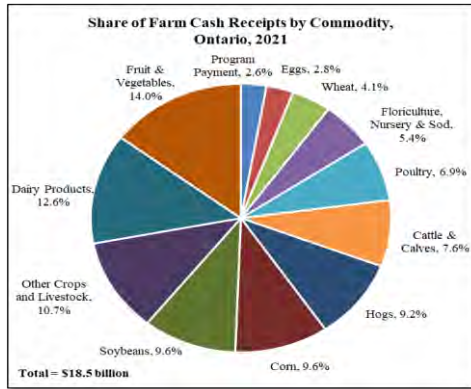
LOCATION NAME	PROVINCE OR TERRITORY	PERIOD OF RECORD	ELEMENT GROUP	NORMALS ELEMENT	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Code		
HAMILTON ON	ON	Normal	Temperature	Daily Average (°C)	-5.3	-5	0.2	6.5	13.1	18.9	20.9	20.1	16.1	9.7	3.8	-1.9	8.1	C		
HAMILTON ON	ON	Normal	Temperature	StdDev Mean Monthly Temperature (°C)																
HAMILTON ON	ON	Normal	Temperature	Daily Maximum (°C)	-1.4	-0.9	4.7	11.8	18.9	24.2	26.6	25.6	21.7	14.5	7.7	1.6	12.9	C		
HAMILTON ON	ON	Normal	Temperature	Daily Minimum (°C)	-9.1	-9.2	-4.4	1.3	7.3	12.8	15.2	14.5	10.5	4.8	-0.2	-5.4		3.2	C	
HAMILTON ON	ON	Normal	Temperature	Maximum Daily Mean (°C)	12.4	10.7	18.2	23.9	28.3	28.3	29.2	26.0	20.7	13.8	7.3	1.9	11.4			
HAMILTON ON	ON	Normal	Temperature	Maximum Daily Mean (°C) Date (yyyy/mm/dd)	2008-01-08	1997-02-21	2013-03-22	2002-04-16	2006-05-09	1994-06-18	1999-07-04	2006-08-01	2016-09-07	2007-10-08	2020-11-10	2001-12-05				
HAMILTON ON	ON	Normal	Temperature	Minimum Daily Mean (°C)	-24.1	-22.4	-19.6	-8.8	1.2	7.8	12.7	12.7	4.2	-0.2	-10.2	-19.9				
HAMILTON ON	ON	Normal	Temperature	Minimum Daily Mean (°C) Date (yyyy/mm/dd)	1994-01-19	2015-02-16	2003-03-03	1995-04-05	2020-05-09	1992-06-21	1995-07-08	2000-08-20	1993-09-30	2002-10-30	2018-11-22	2017-12-31				
HAMILTON ON	ON	Normal	Temperature	Extreme Maximum (°C)	16.7	17.9	26.8	27.8	33.1	34.8	35.8	34.9	33.9	30.3	23.7	18.2				
HAMILTON ON	ON	Normal	Temperature	Extreme Maximum (°C) Date (yyyy/mm/dd)	2005-01-13	2017-02-23	2013-03-22	2002-04-16	2006-05-09	2003-06-29	2012-07-17	2001-08-08	2007-09-08	2007-10-08	2020-11-10	1998-12-06				
HAMILTON ON	ON	Normal	Temperature	Minimum Daily Maximum (°C)	-20.1	-18.5	-14.3	-4	6.2	10.2	15.3	15.9	9.7	1.9	4.8	-14.2				
HAMILTON ON	ON	Normal	Temperature	Minimum Daily Maximum (°C) Date (yyyy/mm/dd)	1994-01-19	2015-02-15	2003-03-03	2007-04-06	2020-05-09	2003-06-04	1992-07-31	1992-08-13	2000-09-28	1993-10-31	2014-11-18	2017-12-31				
HAMILTON ON	ON	Normal	Temperature	Maximum Daily Minimum (°C)	9.9	5.5	13.7	14.8	20.8	21.9	24.4	25.1	22.5	17.8	12.5	9.4				
HAMILTON ON	ON	Normal	Temperature	Maximum Daily Minimum (°C) Date (yyyy/mm/dd)	2008-01-08	1997-02-21	1998-03-27	2002-04-17	1991-05-30	1994-06-17	1999-07-04	2006-08-01	2001-09-09	2002-10-01	1994-11-04	1999-12-05				
HAMILTON ON	ON	Normal	Temperature	Extreme Minimum (°C)	-30	-29.1	-24.6	-10.9	-3.8	1.1	5.8	5.8	1.8	-7.3	-14.9	-25.5				
HAMILTON ON	ON	Normal	Temperature	Extreme Minimum (°C) Date (yyyy/mm/dd)	2004-01-16	2015-02-16	2003-03-03	2018-04-05	2020-05-09	1998-06-06	2003-07-11	1992-08-20	1993-09-21	2020-10-31	2018-11-22	2017-12-31				
HAMILTON ON	ON	Long-Term	Temperature	Maximum Daily Mean (°C)	12.4	10.7	18.2	22.5	25.3	28.3	29.2	29.6	27.3	23.8	17.3	16.4				
HAMILTON ON	ON	Long-Term	Temperature	Maximum Daily Mean (°C) Date (yyyy/mm/dd)	2008-01-08	1997-02-21	2013-03-22	1990-04-25	1962-05-17	1994-06-18	1988-07-07	2006-08-01	1973-09-02	2007-10-08	2020-11-10	1982-12-03				
HAMILTON ON	ON	Long-Term	Temperature	Minimum Daily Mean (°C)	-24.1	-22.4	-19.6	-9.2	-1.1	6.8	12.3	12.3	4.2	-0.2	-10.2	-19.9				
HAMILTON ON	ON	Long-Term	Temperature	Minimum Daily Mean (°C) Date (yyyy/mm/dd)	1994-01-19	2015-02-16	2003-03-03	1972-04-07	1961-05-02	1980-06-10	1968-07-07	1965-08-29	1974-09-23	1969-10-23	2018-11-22	2017-12-31				
HAMILTON ON	ON	Long-Term	Temperature	Extreme Maximum (°C)	16.7	17.9	26.8	27.8	33.1	34.8	35.8	34.9	33.9	30.3	23.7	18.2				
HAMILTON ON	ON	Long-Term	Temperature	Extreme Maximum (°C) Date (yyyy/mm/dd)	2005-01-13	2017-02-23	2013-03-22	1990-04-25	2006-05-09	1988-06-25	1988-07-07	2001-08-08	1973-09-02	2007-10-08	2020-11-10	1982-12-03				
HAMILTON ON	ON	Long-Term	Temperature	Minimum Daily Maximum (°C)	-20.1	-18.5	-14.5	-4.6	3.3	10.3	15.3	14.4	6.1	1.7	4.8	-15				
HAMILTON ON	ON	Long-Term	Temperature	Minimum Daily Maximum (°C) Date (yyyy/mm/dd)	1994-01-19	2015-02-15	2003-03-03	1972-04-07	1961-05-02	2003-06-04	1992-07-31	1964-08-21	1967-09-28	1962-10-26	2014-11-18	1962-12-30				
HAMILTON ON	ON	Long-Term	Temperature	Maximum Daily Minimum (°C)	9.9	5.5	13.7	14.8	20.8	21.9	24.4	25.1	22.5	17.8	12.5	9.4				
HAMILTON ON	ON	Long-Term	Temperature	Maximum Daily Minimum (°C) Date (yyyy/mm/dd)	2008-01-08	1997-02-21	1998-03-27	2002-04-17	1991-05-30	1994-06-17	1999-07-04	2006-08-01	2001-09-09	2002-10-01	1994-11-04	1999-12-05				
HAMILTON ON	ON	Long-Term	Temperature	Extreme Minimum (°C)	-30	-29.1	-24.6	-10.9	-3.8	1.1	5.8	5.8	1.8	-7.3	-14.9	-25.5				
HAMILTON ON	ON	Long-Term	Temperature	Extreme Minimum (°C) Date (yyyy/mm/dd)	2004-01-16	2015-02-16	2003-03-03	1972-04-07	1966-05-10	1994-06-17	1992-07-26	1981-08-08	1996-09-07	1995-10-05	1999-11-10	1990-12-31				
HAMILTON ON	ON	Normal	Precipitation	Rainfall (mm)	36.4	24.5	43.9	73	81	78.1	97.5	65.5	75.6	83.2	67.7	40.2	764.6	C		
HAMILTON ON	ON	Normal	Precipitation	Precipitation (mm)	12.9	33.4	68.7	83.3	81	77.8	97.5	66.8	73.5	84.2	78.1	67.3	902.3	C		
HAMILTON ON	ON	Normal	Precipitation	Average Snow Depth (cm)	12	13	3	1	0	0	0	0	0	0	0	1	3	C		
HAMILTON ON	ON	Normal	Precipitation	Median Snow Depth (cm)	11	12	4	0	0	0	0	0	0	0	0	0	1	3	C	
HAMILTON ON	ON	Normal	Precipitation	Snow Depth at Month-end (cm)	14	11	1	0	0	0	0	0	0	0	0	1	6	3	C	
HAMILTON ON	ON	Normal	Precipitation	Extreme Daily Rainfall (mm)	41.2	33.8	41	50.6	39.9	56	66.2	54.1	59.4	91	59.8	34.6				
HAMILTON ON	ON	Normal	Precipitation	Extreme Daily Rainfall (mm) Date (yyyy/mm/dd)	2020-01-11	2001-02-09	2010-03-13	2017-04-20	2001-05-21	2015-05-27	2012-07-22	1992-08-28	1996-09-07	1995-10-05	1999-11-10	2006-12-01				
HAMILTON ON	ON	Normal	Precipitation	Extreme Daily Precipitation (mm)	41.2	33.8	41	50.6	39.9	56	66.2	54.1	59.4	91	59.8	34.6				
HAMILTON ON	ON	Normal	Precipitation	Extreme Daily Precipitation (mm) Date (yyyy/mm/dd)	2020-01-11	2001-02-09	2010-03-13	2017-04-20	2001-05-21	2015-05-27	2012-07-22	1992-08-28	1996-09-07	1995-10-05	1999-11-10	2006-12-01				
HAMILTON ON	ON	Normal	Precipitation	Extreme Snow Depth (cm)	59	58	50	39	0	0	0	0	0	0	17	50				
HAMILTON ON	ON	Normal	Precipitation	Extreme Snow Depth (cm) Date (yyyy/mm/dd)	2001-01-05	2011-01-13	2015-03-04	2003-04-08	1991-05-01	1991-06-01	1991-07-01	1991-08-01	1991-09-01	1991-10-01	2015-11-12	2000-12-31				
HAMILTON ON	ON	Long-Term	Precipitation	Extreme Daily Rainfall (mm)	41.2	33.4	41	50.6	39.9	56	66.2	54.1	59.4	91	59.8	34.6				
HAMILTON ON	ON	Long-Term	Precipitation	Extreme Daily Rainfall (mm) Date (yyyy/mm/dd)	2020-01-11	1990-02-22	2010-03-13	2017-04-20	1969-05-10	1984-06-17	1989-07-26	1981-08-08	1996-09-07	1995-10-05	1999-11-10	1990-12-30				
HAMILTON ON	ON	Long-Term	Precipitation	Extreme Daily Precipitation (mm)	44.6	54.1	42.8	50.6	39.9	66.8	107	90.8	59.4	91	58.8	56.8				
HAMILTON ON	ON	Long-Term	Precipitation	Extreme Daily Precipitation (mm) Date (yyyy/mm/dd)	1982-01-31	1990-02-22	2010-03-13	2017-04-20	1969-05-10	1984-06-17	1989-07-26	1981-08-08	1996-09-07	1995-10-05	1999-11-10	1990-12-30				
HAMILTON ON	ON	Long-Term	Precipitation	Extreme Snow Depth (cm)	59	58	50	39	0	0	0	0	0	0	17	50				
HAMILTON ON	ON	Long-Term	Precipitation	Extreme Snow Depth (cm) Date (yyyy/mm/dd)	2001-01-05	1978-03-02	2015-03-04	2003-04-08	1989-05-07	1970-06-01	1970-07-01	1970-08-01	1970-09-01	1989-10-21	1986-11-21	2000-12-31				
HAMILTON ON	ON	Normal	Days With ...	Freezing Rain or Freezing Drizzle	2.2	1.8	1.1	0.3	0	0	0	0	0	0	0	0	0.27	0.77	8.8	A
HAMILTON ON	ON	Normal	Days With ...	Thunderstorms	0.07	0.2	0.7	2.2	3.6	5.1	6.2	5.2	2.6	1.2	0.37	0.07	27.6	A		
HAMILTON ON	ON	Normal	Days With ...	Hail	0	0	0.07	0.2	0.1	0	0.03	0	0.03	0	0.03	0	0	0.46	A	
HAMILTON ON	ON	Normal	Days With ...	Fog, Ice Fog, or Freezing Fog	1.9	2.6	3.3	3.1	3.4	2.9	2.5	3.2	3.9	3.9	3.9	3.6	38.9	A		
HAMILTON ON	ON	Normal	Days With ...	Smaller or Haze	2.4	2	2	1.4	1.1	4.7	4.5	4.3	3.7	1.6	1.3	1.1	19.9	A		
HAMILTON ON	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature <= -30 °C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C	
HAMILTON ON	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature <= -20 °C	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	C	
HAMILTON ON	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature <= -10 °C	2.4	1.2	0.27	0	0	0	0	0	0	0	0	0	0.17	4	C	
HAMILTON ON	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature <= 0 °C	18.2	14.8	7.3	0.59	0	0	0	0	0	0	2.1	11.9	54.8	C		
HAMILTON ON	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature <= 10 °C	12.9	13.4	29.1	29.3	31	39	31	31	21	21	21	21	136.6	C		
HAMILTON ON	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature <= 20 °C	1.3	0.63	5.4	17.7	29.3	30	31	31	29.9	24.1	9.4	17	211.3	C		
HAMILTON ON	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature > 20 °C	0	0	0.5	3	12	24.4	30.2	29.3	18.7	4.6	0.21	0	12.3	C		
HAMILTON ON	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature > 30 °C	0	0	0	0.58	3.5	5	2.5	0.87	0.05	0	0	0	0	0	C	
HAMILTON ON	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature > 35 °C	0	0	0	0	0	0	0.09	0.04	0	0	0	0	0	0	C	
HAMILTON ON	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature > 40 °C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C	
HAMILTON ON	ON	Normal	Days with Minimum Temperature	Days with Minimum Temperature > 20 °C	0	0	0	0	0.04	0.83	2	1	0.39	0	0	0	0	0		

APPENDIX D

Agricultural Crop Statistics

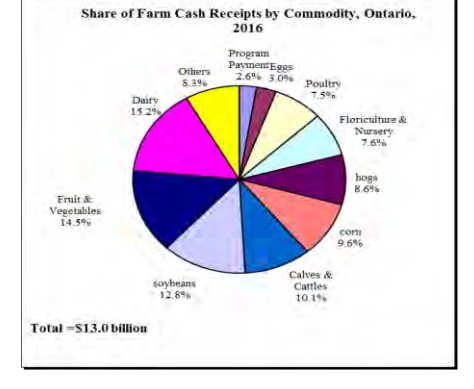
Hamilton Division at a Glance - 2021

Item	Hamilton	Province	Percent of province	Percent from 2016
Farms, 2021 Census (number)				
Total	679	48,346	1.40%	-16.17%
Under 10 acres	92	3,217	2.86%	-22.69%
10 to 69 acres	282	12,686	2.22%	-15.57%
70 to 129 acres	138	10,924	1.26%	-6.76%
130 to 179 acres	39	4,422	0.88%	-38.06%
180 to 239 acres	34	3,981	0.85%	-8.11%
240 to 399 acres	37	5,396	0.69%	-19.57%
400 to 599 acres	13	2,865	0.45%	-23.53%
600 to 759 acres	12	1,698	0.71%	0.00%
760 to 1,119 acres	14	1,600	0.88%	7.69%
1,120 to 1,599 acres	4	720	0.56%	-50.00%
1,600 to 2,239 acres	9	451	2.00%	28.57%
2,240 to 2,879 acres	1	173	0.58%	0.00%
2,880 to 3,519 acres	1	95	1.05%	0.00%
3,520 acres and over	3	118	2.54%	0.00%
Land Use, 2021 Census (acres)				
Land in crops	100,089	9,051,011	1.11%	-3.89%
Summerfallow land	393	13,964	2.81%	-47.46%
Tame or seeded pasture	3,219	400,480	0.80%	11.62%
Natural land for pasture	2,495	626,366	0.40%	-19.23%
Christmas trees, woodland & wetland	7,200	1,269,535	0.57%	-25.16%
All other land	4,673	404,714	1.15%	-41.99%
Total area of farms	118,070	11,766,071	1.00%	-8.14%
Greenhouse Area, 2021 Census (square feet)				
Total area in use	6,393,889	201,055,888	3.18%	36.07%
Farm Capital Value, 2021 Census (farms reporting)				
Under \$200,000	19	1,212	1.57%	-44.12%
\$200,000 to \$499,999	27	3,223	0.84%	-59.70%
\$500,000 to \$999,999	97	8,699	1.12%	-63.53%
\$1,000,000 and over	536	35,212	1.52%	20.99%
Total Gross Farm Receipts, 2021 Census (farms reporting)				
Under \$10,000	115	7,277	1.58%	-35.75%
\$10,000 to \$24,999	106	7,429	1.43%	-24.82%
\$25,000 to \$49,999	92	6,263	1.47%	-30.30%
\$50,000 to \$99,999	71	6,093	1.17%	-25.26%
\$100,000 to \$249,999	83	6,817	1.22%	-3.49%
\$250,000 to \$499,999	55	4,448	1.24%	-19.12%
\$500,000 to \$999,999	46	3,954	1.16%	6.98%
\$1,000,000 to \$1,999,999	42	2,452	1.71%	-2.33%
\$2,000,000 and over	32	1,696	1.89%	39.13%
Farms by Industry Group, 2021 Census (number of farms)				
Beef cattle ranching and farming	47	7,986	0.59%	2.17%
Dairy cattle and milk production	18	3,188	0.56%	-21.74%
Hog and pig farming	3	1,189	0.25%	-50.00%
Poultry and egg production	35	2,061	1.70%	-14.63%
Sheep and goat farming	11	1,309	0.84%	-15.38%
Other animal production	108	4,556	2.37%	-25.00%
Olseeds and grain farming	217	18,194	1.19%	-3.33%
Vegetable and melon farming	43	1,562	2.75%	-27.12%
Fruit and tree nut farming	33	1,211	2.73%	-41.07%
Greenhouse, nursery and floriculture	104	1,672	6.22%	-14.75%
Other crop farming	60	5,418	1.11%	-33.33%



Hamilton Division at a Glance - 2016

Item	Hamilton	Province	Percent of province	Percent from 2011
Farms, 2016 Census (number)				
Total	810	49,600	1.63	-8.47
Under 10 acres	119	3,051	3.90	-14.42
10 to 69 acres	334	12,625	2.65	-10.93
70 to 129 acres	148	10,742	1.38	-18.68
130 to 179 acres	64	4,592	1.39	-3.03
180 to 239 acres	37	4,282	0.86	-21.28
240 to 399 acres	46	6,008	0.77	-11.54
400 to 599 acres	17	3,093	0.55	70.00
600 to 759 acres	12	1,990	0.60	-29.41
760 to 1,119 acres	13	1,593	0.82	-13.33
1,120 to 1,599 acres	8	801	1.00	166.67
1,600 to 2,239 acres	7	457	1.53	-22.22
2,240 to 2,879 acres	1	168	0.60	-50.00
2,880 to 3,519 acres	1	88	1.14	0.00
3,520 acres and over	3	110	2.73	0.00
Land Use, 2016 Census (acres)				
Land in crops	104,136	9,021,298	1.15	-0.46
Summerfallow land	748	15,885	4.71	-38.79
Tame or seeded pasture	2,884	514,168	0.56	-25.73
Natural land for pasture	3,089	783,566	0.39	-4.78
Christmas trees, woodland & wetland	9,620	1,542,637	0.62	-13.25
All other land	37	14,814	0.25%	-23.37
Total area of farms	128,532	12,348,463	1.04	-1.58
Greenhouse Area, 2016 Census (square feet)				
Total area in use	4,699,015	158,511,328	2.96	-1.41
Farm Capital Value, 2016 Census (farms reporting)				
Under \$200,000	34	2,142	1.59	0.00
\$200,000 to \$499,999	67	7,433	0.90	-53.15
\$500,000 to \$999,999	266	12,500	2.13	-19.39
\$1,000,000 and over	443	27,525	1.61	17.20
Total Gross Farm Receipts, 2016 Census (farms reporting)				
Under \$10,000	179	9,536	1.88	-24.47
\$10,000 to \$24,999	141	8,376	1.68	2.92
\$25,000 to \$49,999	132	6,755	1.95	11.86
\$50,000 to \$99,999	95	6,263	1.52	-18.10
\$100,000 to \$249,999	86	7,022	1.22	-7.53
\$250,000 to \$499,999	68	4,707	1.44	11.48
\$500,000 to \$999,999	43	3,689	1.17	-34.85
\$1,000,000 to \$1,999,999	43	2,019	2.13	26.47
\$2,000,000 and over	23	1,233	1.87	0.00
Farms by Industry Group, 2016 Census (number of farms)				
Beef cattle ranching and farming	46	6,786	0.68	-4.17
Dairy cattle and milk production	23	3,439	0.67	-17.86
Hog and pig farming	6	1,229	0.49	20.00
Poultry and egg production	41	1,816	2.26	-2.38
Sheep and goat farming	13	1,097	1.19	-40.91
Other animal production	144	5,902	2.44	-19.10
Olseeds and grain farming	210	16,876	1.24	1.94
Vegetable and melon farming	59	1,856	3.18	1.72
Fruit and tree nut farming	56	1,362	4.11	-1.75
Greenhouse, nursery and floriculture	122	2,050	5.95	-15.28
Other crop farming	90	7,187	1.25	-7.22



Hamilton Division at a Glance - 2011

Item	Hamilton	Province	Percent of province	Percent from 2011
Farms, 2011 Census (number)				
Total	810	49,600	1.63	-8.47
Under 10 acres	119	3,051	3.90	-14.42
10 to 69 acres	334	12,625	2.65	-10.93
70 to 129 acres	148	10,742	1.38	-18.68
130 to 179 acres	64	4,592	1.39	-3.03
180 to 239 acres	37	4,282	0.86	-21.28
240 to 399 acres	46	6,008	0.77	-11.54
400 to 599 acres	17	3,093	0.55	70.00
600 to 759 acres	12	1,990	0.60	-29.41
760 to 1,119 acres	13	1,593	0.82	-13.33
1,120 to 1,599 acres	8	801	1.00	166.67
1,600 to 2,239 acres	7	457	1.53	-22.22
2,240 to 2,879 acres	1	168	0.60	-50.00
2,880 to 3,519 acres	1	88	1.14	0.00
3,520 acres and over	3	110	2.73	0.00
Land Use, 2011 Census (acres)				
Land in crops	104,622	8,929,947	1.17	-12.50
Summerfallow land	1,222	23,450	5.21	-
Tame or seeded pasture	3,883	648,758	0.60	-
Natural land for pasture	3,244	984,809	0.39	-
Christmas trees, woodland & wetland	11,089	1,612,444	0.69	-20.95
All other land	6,529	468,828	1.39	-25.00
Total area of farms	130,589	12,668,236	1.03	-
Greenhouse Area, 2011 Census (square feet)				
Total area in use	4,765,977	133,520,541	3.57	-
Farm Capital Value, 2011 Census (farms reporting)				
Under \$200,000	34	2,562	1.33	-
\$200,000 to \$499,999	143	12,994	1.10	-
\$500,000 to \$999,999	330	15,276	2.16	-
\$1,000,000 and over	378	21,118	1.79	-
Total Gross Farm Receipts, 2011 Census (farms reporting)				
Under \$10,000	237	12,263	1.93	-28.24
\$10,000 to \$24,999	137	9,098	1.51	-87.43
\$25,000 to \$49,999	118	6,720	1.76	-
\$50,000 to \$99,999	116	6,189	1.87	-
\$100,000 to \$249,999	93	6,985	1.33	-
\$250,000 to \$499,999	61	5,086	1.20	-
\$500,000 to \$999,999	66	3,248	2.03	-
\$1,000,000 to \$1,999,999	34	1,558	2.18	-
\$2,000,000 and over	23	803	2.86	-
Farms by Industry Group, 2011 Census (number of farms)				
Beef cattle ranching and farming	48	7,105	0.68	-
Dairy cattle and milk production	28	4,036	0.69	-
Hog and pig farming	5	1,235	0.40	-
Poultry and egg production	42	1,619	2.59	-
Sheep and goat farming	22	1,446	1.52	-
Other animal production	178	6,966	2.56	-
Olseeds and grain farming	206	15,818	1.30	-
Vegetable and melon farming	58	1,531	3.79	-
Fruit and tree nut farming	57	1,548	3.68	-
Greenhouse, nursery and floriculture	144	2,372	6.07	-
Other crop farming	97	8,274	1.17	-

Item	Hamilton	Province	Percent of province	Percent from 2011
Farms, 2011 Census (number)				
Total	885	51,950	1.70	-
Under 10 acres	104	2,741	2.99	-
10 to 69 acres	375	12,681	2.96	-
70 to 129 acres	182	11,779	1.55	-
130 to 179 acres	66	4,969	1.33	-
180 to 239 acres	47	4,801	0.98	-
240 to 399 acres	52	6,460	0.80	-
400 to 599 acres	10	3,359	0.30	-
600 to 759 acres	17	2,026	0.84	-
760 to 1,119 acres	15	1,587	0.95	-
1,120 to 1,599 acres	3	788	0.38	-
1,600 to 2,239 acres	9	436	2.06	-
2,240 to 2,879 acres	2	152	1.32	-
2,880 to 3,519 acres	0	79	0.00	-
3,520 acres and over	3	92	3.26	-
Land Use, 2011 Census (acres)				
Land in crops	104,622	8,929,947	1.17	-
Summerfallow land	1,222	23,450	5.21	-
Tame or seeded pasture	3,883	648,758	0.60	-
Natural land for pasture	3,244	984,809	0.39	-
Christmas trees, woodland & wetland	11,089	1,612,444	0.69	-
All other land	6,529	468,828	1.39	-
Total area of farms	130,589	12,668,236	1.03	-
Greenhouse Area, 2011 Census (square feet)				
Total area in use	4,765,977	133,520,541	3.57	-
Farm Capital Value, 2011 Census (farms reporting)				
Under \$200,000	34	2,562	1.33	-
\$200,000 to \$499,999	143	12,994	1.10	-
\$500,000 to \$999,999	330	15,276	2.16	-
\$1,000,000 and over	378	21,118	1.79	-
Total Gross Farm Receipts, 2011 Census (farms reporting)				
Under \$10,000				

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 ¹
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

¹ "Acid" means pH<5.5; "Neutral" pH 5.5 to 7.4; "Alkaline" pH>7.4 as measured in 0.01 M CaCl₂ (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 ²), 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 ²).
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



Photo 1: Operation #26 – Photo showing unoccupied livestock facility.

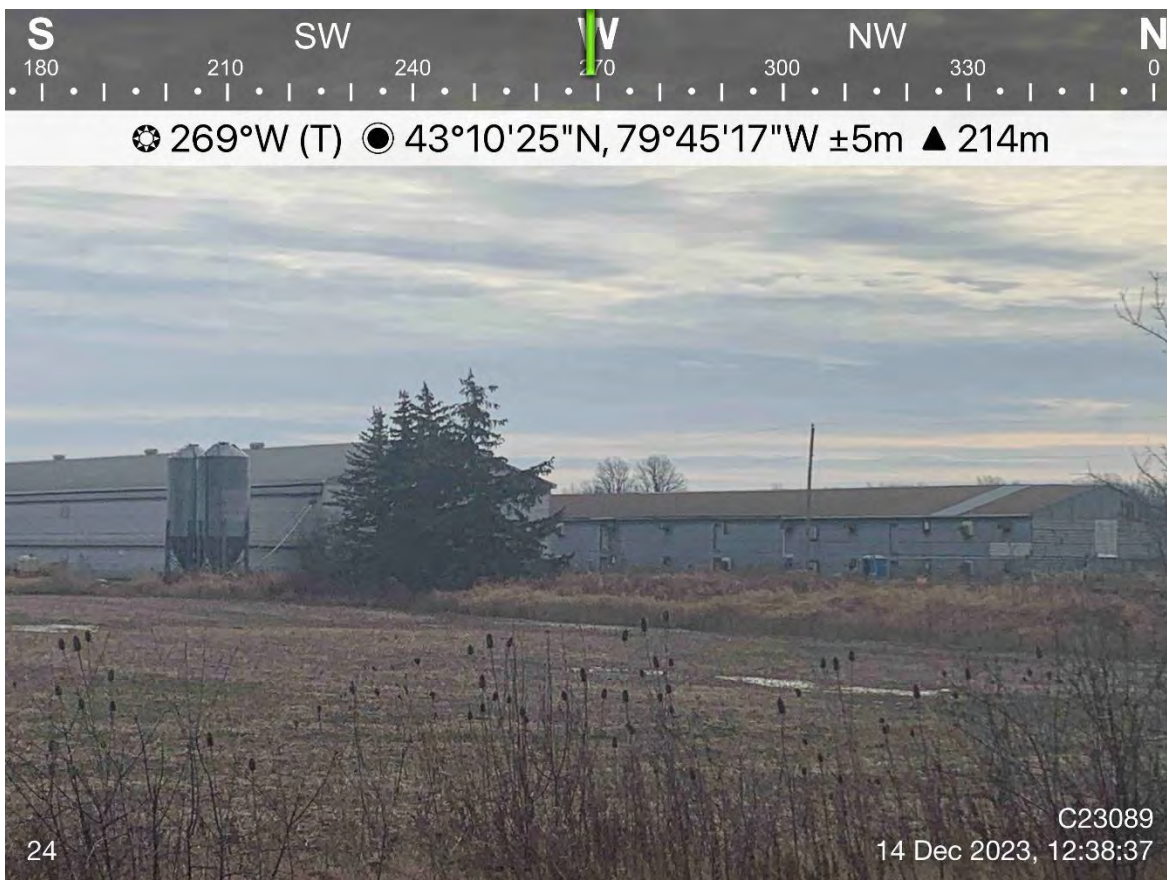


Photo 2: Operation #24 – Poultry operation show two two-storey chicken barns.

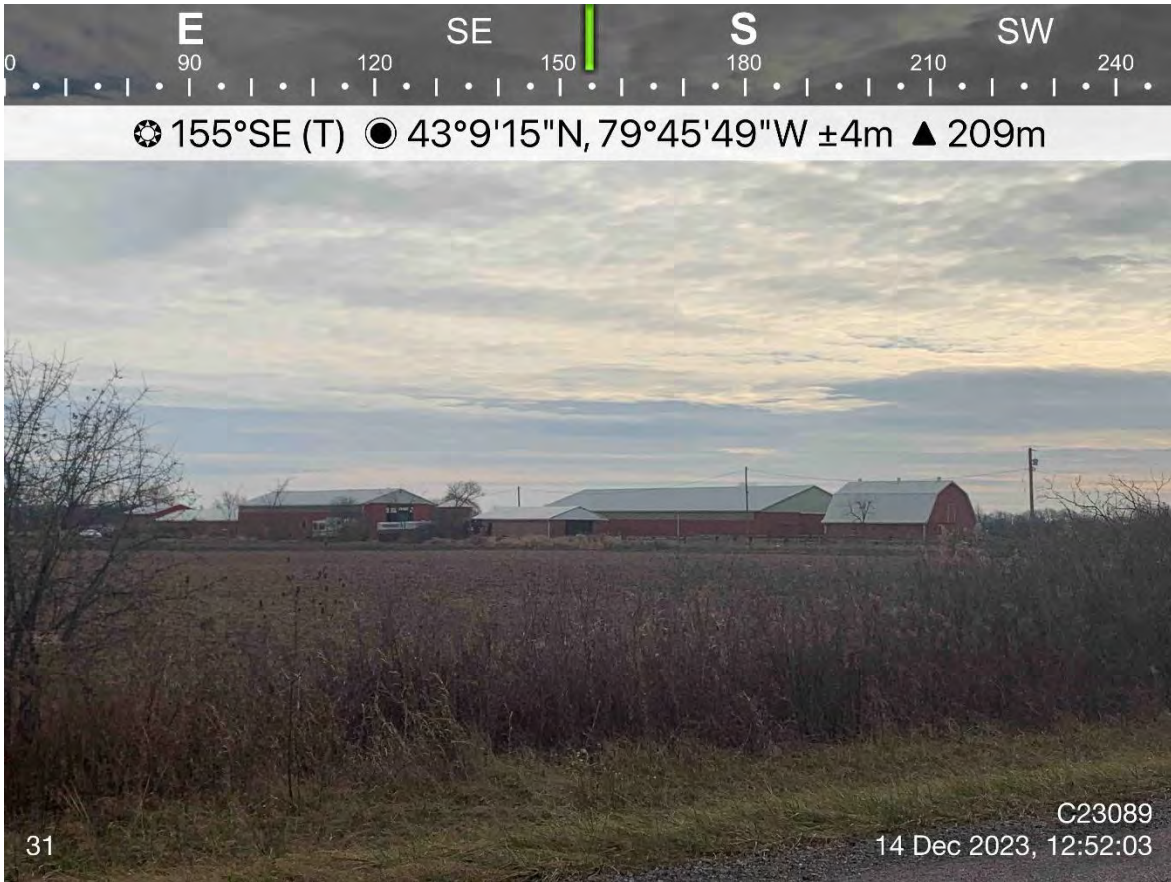


Photo 3: Operation #31 – Equestrian operation showing barns and riding area.



Photo 4: Operation #40 – Cash crop operation showing Quonset hut, grain driers, and silos.



Photo 5: Operation #49 – Remnant farm showing barn in poor condition.



Photo 6: Operation #56 – Beef operation showing cows and barn.



Photo 7: Operation #42 – Unoccupied Livestock Facility showing barn, uncapped silo, and grain bins.

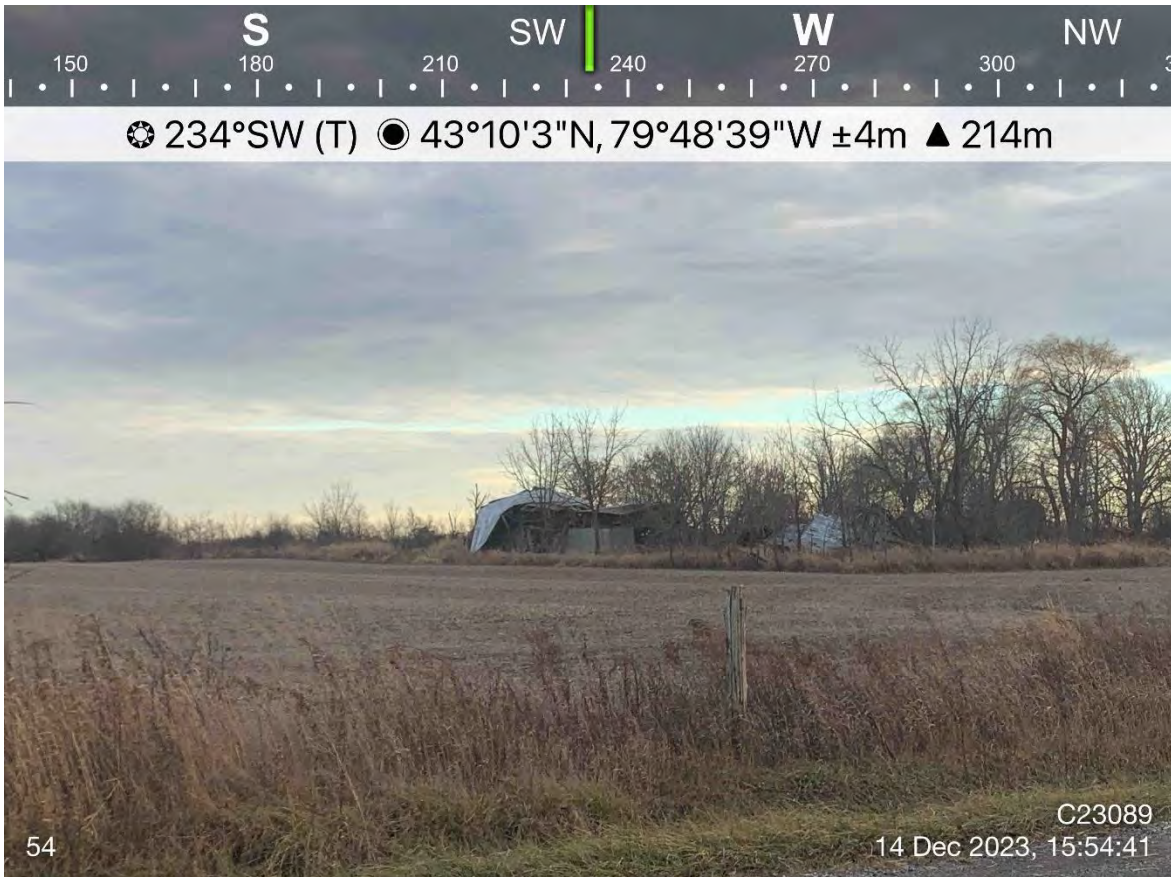


Photo 8: Operation #54 – Remnant farm showing collapsed barn.



Photo 9: Operation #78 – Cash crop operation showing implement shed.



Photo 10: Operation #52 – Remnant farm showing abandoned property.

APPENDIX G

Land Use Notes

Land Use Survey Notes – AIA for Elfrida Community Builders Group

Weather	Flurries	Date (s)	February 25, 2026
Temperature	1°C	File	C23089

Site No.	Type of Use	Type of Operation	MDS Calculation Required?	Description of Operation
1	Non-Agricultural	Commercial	No	Green Mountain Gardens.
2	Non-Agricultural	Commercial	No	Pros Golf Centre. Driving range and mini golf
3	Non-Agricultural	Commercial	No	Starlight Drive in Movie Theatre
4	Non-Agricultural	Recreational	No	Dofasco park. FH Sherman Recreation and Learning Centre
5	Non-Agricultural	Recreational	No	Croatian Sports and Community Centre
6	Non-Agricultural	Industrial	No	Stoney Creek Yard Storage Parking Rental Space
7	Agricultural	Equestrian Operation	Yes	Alex Duncan Racing Stables. Large horse barn, horses observed outside. Barn is in fair condition, some recent signs of investment. Spoke with landowner who said there are 15 stalls in barn and also have 2 miniature horses, 8 horses, outdoor manure storage, and horses are used for racing.
8	Non-Agricultural	Commercial	No	Danny's Live Bait
9	Non-Agricultural	Institutional	No	Tapleystown Public School
10	Agricultural	Unoccupied Livestock Facility	Yes	Pelizzari Family Farm. Chicken coop with approximately 20 chickens. Large barn in good condition and implement shed on property. Spoke with landowner and confirmed barn is currently empty
11	Agricultural	Mushroom Farm	No	Bills Mushroom Farm. Buildings in fair condition, trucks and equipment outside. OFA Member.

12	Agricultural	Hobby Farm	No	Spoke with landowner in 2023, have a few pigeons and a peacock. Large barn no longer capable of housing livestock. No manure storage.
13	Non-Agricultural	Commercial	No	Highlands Country Markets/ Highland Packers Ltd
14	Agricultural	Cash Crop Operation	No	Old implement shed, two trailers parked outside, small amount of gravel storage, does not appear to be used for farm equipment storage, no residence associated with building.
15	Non-Agricultural	Commercial	No	“Dorr Foods” Meet packing plant
16	Non-Agricultural	Commercial	No	U-Haul Moving and Storage of Stoney Creek. Storage Lockers
17	Agricultural	Greenhouse	No	OFA member, 7 greenhouses, no sign of livestock, no structures capable of housing livestock, no sign associated with greenhouse business.
18	Non-Agricultural	Commercial	No	EVCustom Canada.
19	Agricultural	Remnant Farm	No	Barn collapsed, no structures capable of housing livestock.
20	Agricultural	Greenhouse	No	TERRA Greenhouses – Hamilton.
21	Agriculture-Related	Cheese Shop	No	Paron Cheese. Sale of cheese, no livestock on property, milk imported.
22	Agriculture-Related	Cheese Shop	No	Gran Sassame Cheese Co. Two barns in poor condition at the back of the property. Talked with owner, barns are used for storage as part of the shop. Unable to house livestock in current condition. Milk imported to site.
23	Agricultural	Remnant Farm	No	Spoke to landowner in 2023, used to have 22,000 chickens but have not had any for over 10 years. Barn no longer capable of housing livestock. Grain bin, barn has solar power roof, some outdoor storage.

24	Agricultural	Poultry Operation	Yes	Two two-storey chicken barns, SWK Farms Ltd. Spoke with tenant in 2023, only one barn currently used to house chicken, was unsure of capacity of barn. Left MDS letter in 2026.
25	Agricultural	Remnant Farm	No	Bank barn, no fencing, no sign of livestock, no trespassing sign, no structures capable of housing livestock.
26	Agricultural	Remnant Farm	No	Bank barn in fair condition, no signs of livestock. Property for sale. Based on aerial photographs no livestock in 20+ years. Structures described as storage in real estate listing.
27	Non-Agricultural	Commercial	No	Platinum Roofing & Exteriors
28	Non-Agricultural	Commercial	No	Barry Metal Products
29	Non-Agricultural	Commercial	No	Maljohn Company
30	Non-Agricultural	Commercial	No	Hendershott Road Storage
31	Agricultural	Equestrian Operation	Yes	2 Large Barns in good condition. OFA Member. Spoke with landowner in 2023. Manure stored outside on cement slab and removed a few times each year. Barn can house up to 24 horses. Capped grain silo on site, horses observed.
32	Agricultural	Remnant Farm	No	Former livestock operation, barn demolished in 2021, not capable of housing livestock.
33	Non-Agricultural	Commercial	No	Tow-truck company, possible former livestock operation but no longer capable of housing livestock in any structures.
34	Agricultural	Remnant Farm	Yes	Bank barn in poor condition, construction equipment and tow truck stored outside, associated residence boarded up.

35	Agriculture-Related	Cidery	No	Tall Post Craft Cider. Pick your own apple operation, approximately 20 ducks, 10 chickens, 2 goats, and 3 sheep observed within metal fenced enclosure in 2023. Barn appears converted for cidery.
36	Non-Agricultural	Recreational	No	Tapleystown Men's Club Park
37	Non-Agricultural	Commercial	No	Light commercial operation, no sign associated with business, shop and implement shed.
38	Agricultural	Unoccupied Livestock Facility	Yes	Two steel sided barns in fair condition, one appears to be used for implement storage. No signs of livestock, left MDS letter.
39	Agricultural	Unoccupied Livestock Facility	Yes	Talk to landowner. Old bank barn in fair condition. No livestock, no fencing, potential to house livestock, but has not had any in the last 20 years. Currently have two donkeys as pets but are not housed in barns.
40	Agricultural	Cash Crop Operation	No	"Mount Hope Dairy Farm" Talked to landowner in 2023. Former large dairy operation, currently cash cropping. 3 large grain bins, 1 capped and 1 uncapped silo, grain dryer, Quonset hut, farm equipment outside. Used to have 100 head of dairy cows, sold all quotas. Landowner said no longer suitable for housing livestock.
41	Agricultural	Remnant Farm	No	Uncapped cement silo, barn in poor condition and missing side boards.
42	Agricultural	Unoccupied Livestock Facility	Yes	Cement silo (uncapped). 3 metal grain bins. Implement shed in fair condition. No livestock present. Two Aluminum barns in fair condition. Left MDS letter. Spoke with landowner, no livestock in barns since 1980's/1990's. Northern barn older and likely incapable of housing livestock, southern barn is newer and may be capable of housing livestock, assumed capable and MDS calculated.

43	Non-Agricultural	Commercial	No	Ozlos Repair Shop.
44	Agricultural	Remnant Farm	No	Old barn in poor condition, decommission silo, no structures capable of housing livestock. RV storage outside.
45	Agricultural	Unoccupied Livestock Facility	Yes	Wooden barn in good condition, spoke to landowner. Barn appears in fair condition, no livestock since late 90's. Previously a dairy operation with 75 head of cattle.
46	Non-Agricultural	Institutional	No	Our Lady of Assumption Elementary School
47	Agricultural	Remnant Farm	No	Barn repurposed to be used as garage and no longer capable of housing livestock, small outdoor chicken coop, no sign of livestock.
48	Agriculture-Related	Animal Feed Retailer	No	Paradise Fields selling feed for animals. Public notice sign at entrance indicating future development of 25 guest bed and breakfast, restaurant, and naturopathic clinic. Greenhouse complex.
49	Agricultural	Remnant Farm	No	Large cement barn, partially collapsed roof, farm equipment outside, five grain bins, no sign of livestock, not capable of housing livestock.
50	Agricultural	Cash Crop Operation	No	OFA member, capped cement silo, old bank barn and implement shed in good condition, steel Quonset hut. Spoke with previous landowner who said it is a former dairy operation but has been cash crop since 1997, barn no longer capable of housing livestock.
51	Agricultural	Equestrian Operation	Yes	"Golden Gate Equestrian". Spoke with landowner in 2017, they have capacity for 28 horses, manure is scraped and spread over surrounding fields as part of their NMP. Structures appear in good condition.

52	Agricultural	Remnant Farm	No	Former dairy operation. Property has been abandoned. Hay storage and implement shed across the street appear to be associated with the property, three implement sheds on site, 2 grain bins on site, 1 uncapped cement silo. Metal Quonset hut at back of property. No livestock or manure observed. Bank barn has been demolished, no structures capable of housing livestock.
53	Agricultural/ On-Farm Diversified	Specialty Crop Operation/Farm Stand	No	Fletchers Fruit Farms, Post Family Farm. Sells pumpkins, apples, and pears. Orchard on property. Bank barn appears to be converted for fruit prep. No sign of livestock, no structures appear capable of housing livestock. Spoke to employee, no livestock to her knowledge.
54	Agricultural	Remnant Farm	No	Structures collapsed, no structures capable of housing livestock.
55	Agricultural	Unoccupied Livestock Facility	Yes	Two out buildings in poor condition, 1 uncapped cement silo. 1 large barn in fair condition, no signs of livestock, appears to be used for implement storage, very overgrown. No trespassing sign, but barn appears capable of housing livestock.
56	Agricultural	Beef Operation	Yes	No trespassing sign, OFA Member. Large bank barn at rear of property, 10 cows observed. 2 grain bins, outdoor manure storage, plastic Quonset hut.
57	Agricultural	Remnant Farm	No	CFFO member. Spoke with landowner, barn scheduled for demolition as of 2023, in poor condition, no longer capable of housing livestock. 2 implement sheds, plastic coverall. Sells maple syrup on site. Apple Creek Farms.

58	Agricultural	Hobby Farm	Yes	Small old bank barn, spoke with landowner, has 30 chickens in barn, sells eggs, manure is spread in garden and not stored.
59	Non-Agricultural	Commercial	No	Pooch Haven Grooming and Doggies Day Care
60	Agricultural	Hobby Farm	No	Pasture fencing, field shelters, no structures capable of housing livestock.
61	Agricultural	Remnant Farm	No	Bank barn in poor condition, no trespassing sign, no sign of livestock, barn not capable of housing livestock.
62	Agricultural	Hobby Farm	No	Talked to landowner in 2017. Formerly chicken operation (50,000 capacity), however retired in 1996. Barn in poor condition, currently used for storage with no electrical connection, no longer capable of housing livestock. Currently have 8 chickens for eggs and 4 rabbits for personal use.
63	Agricultural	Remnant Farm	No	Property abandoned, very overgrown around structures, structures fully or partially collapsed, not capable of housing livestock.
64	Agricultural	Remnant Farm	No	Implement shed, no structures capable of housing livestock. Road work in front of property, portable office adjacent to residence. Trucks parked behind barn, soil storage on site.
65	Agricultural	Hobby Farm	Yes	OFA member, sells farm fresh eggs, 2 grain bins, barn in fair to poor condition, steel sided implement shed, no trespassing sign.
66	Non-Agricultural	Industrial	No	Transport truck parking and outdoor storage
67	Non-Agricultural	Industrial	No	High Class Recovery. Transport truck parking and outdoor storage. Large shop
68	Non-Agricultural	Institutional	No	Rymal Road Community Church

69	Agricultural	Cash Crop Operation	No	Implement shed, no barn, no structures capable of housing livestock
70	Non-Agricultural	Industrial	No	GFL Landfill
71	Non-Agricultural	Recreational	No	Dog Park
72	Non-Agricultural	Institutional	No	Guru Nanak Darbar
73	Agricultural	Specialty Crop Operation	No	Implement shed in good condition, orchard.
74	Non-Agricultural	Commercial	No	Light commercial operation, new shop, transport rucks and outdoor storage, no sign associated with business.
75	Agricultural	Hobby Farm	No	Small chicken coop (<10m x10m), approximately 20 chickens, 20 ducks observed, steel Quonset hut, barn in poor condition converted for commercial use, outdoor storage, sea containers, no structures capable of housing livestock. No trespassing, gated entry.
76	Agricultural	Remnant Farm	No	Partially collapsed barn, 2 metal grain bins, uncapped cement silo, no structures capable of housing livestock.
77	Non-Agricultural	Industrial	No	Reimer Forming & Construction. Shop and outdoor storage.
78	Agricultural	Cash Crop Operation	No	No trespassing sign, 2 metal grain bins, 2 metal sided implement sheds in fair condition, no sign of livestock, no structures capable of housing livestock. Gated entry, property for sale.
79	Agricultural	Hobby Farm	No	2 chicken coops, too small for MDS.

	Total Number	Active	Retired or Remnant
Agricultural	44	7 – Hobby Farm 3 - Equestrian Operation 1 – Mushroom Farm 1 – Beef Operation 1 – Poultry Operation 5 – Cash Crop Operation 2 – Specialty Crop Operation 2 – Greenhouse Operation	17 – Remnant Farm 6 – Unoccupied Livestock Facility
Agriculture-related	4	2 – Cheese Shop 1 – Cidery 1 – Animal Feed Store	0
On-farm Diversified	1	1 – Farm Stand	0
	Total Number	Type	
Non-Agricultural	30	17 – Commercial 4 – Recreational 5 – Industrial 4 – Institutional	

APPENDIX H

AgriSuite MDS Reports

C23089

General information

Application date
Mar 11, 2026

Municipal file number

Proposed application
New or expanding settlement area boundary

Applicant contact information
ON

Location of subject lands
City of Hamilton
City of Hamilton

Calculations

Operation 10

Farm contact information
ON

Location of existing livestock facility or anaerobic digester
City of Hamilton
City of Hamilton
SALTFLEET
Concession 7 , Lot 18
Roll number: 2518

Total lot size
5.81 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	621 m ²	31.1 NU	621 m ²

Confirm Livestock/Manure Information (Operation 10)

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

Unoccupied Barn or Unused Storage (Operation 10)

The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -		
Design capacity	31.1 NU		
Potential design capacity	31.1 NU		
Factor A (odour potential)	1	Factor B (design capacity)	222.1
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	343 m (1125 ft)		
Actual distance from livestock barn	NA		
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage		
Actual distance from manure storage	NA		

Operation 12

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton SALTFLEET Concession 7, Lot 23 Roll number: 2518	Total lot size 4.04 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	251 m ²	12.6 NU	251 m ²

Confirm Livestock/Manure Information (Operation 12)

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

Unoccupied Barn or Unused Storage (Operation 12)

The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -		
Design capacity	12.6 NU		
Potential design capacity	12.6 NU		
Factor A (odour potential)	1	Factor B (design capacity)	175.16
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			270 m (886 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			No existing manure storage
Actual distance from manure storage			NA

Operation 24

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton SALTFLEET Concession 8 , Lot 20 Roll number: 2518	Total lot size 7.98 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Broilers	3420 m ²	137.9 NU	3420 m ²
Solid	Chickens, Broilers	1580 m ²	63.7 NU	1580 m ²

Confirm Livestock/Manure Information (Operation 24)

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	201.6 NU		
Potential design capacity	201.6 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	403.57
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			436 m (1430 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			436 m (1430 ft)
Actual distance from manure storage			NA

Operation 26

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton BINBROOK Concession 1 , Lot BLOCK 3 Roll number: 2518	Total lot size 3.82 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	182 m ²	9.1 NU	182 m ²

Confirm Livestock/Manure Information (Operation 26)

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

Unoccupied Barn or Unused Storage (Operation 26)

The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -		
Design capacity	9.1 NU		
Potential design capacity	9.1 NU		
Factor A (odour potential)	1	Factor B (design capacity)	163.66
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			253 m (830 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			No existing manure storage
Actual distance from manure storage			NA

Operation 31

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton Roll number: 2518	Total lot size 10.07 ha
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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)	24	24 NU	557 m ²

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	24 NU		
Potential design capacity	24 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	208
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			225 m (738 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			225 m (738 ft)
Actual distance from manure storage			NA

Operation 34

Farm contact information	Location of existing livestock facility or anaerobic digester	Total lot size
ON	City of Hamilton City of Hamilton BINBROOK Concession 2 , Lot BLOCK 2 Roll number: 2518	34.11 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	271 m ²	13.6 NU	271 m ²

Confirm Livestock/Manure Information (Operation 34)

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

Unoccupied Barn or Unused Storage (Operation 34)

The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -		
Design capacity	13.6 NU		
Potential design capacity	13.6 NU		
Factor A (odour potential)	1	Factor B (design capacity)	178.5
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	275 m (902 ft)		
Actual distance from livestock barn	NA		
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage		
Actual distance from manure storage	NA		

Operation 38

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton BINBROOK Concession 2 , Lot BLOCK 3 Roll number: 2518	Total lot size 16.33 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	306 m ²	15.3 NU	306 m ²

Confirm Livestock/Manure Information (Operation 38)

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

Unoccupied Barn or Unused Storage (Operation 38)

The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -		
Design capacity	15.3 NU		
Potential design capacity	15.3 NU		
Factor A (odour potential)	1	Factor B (design capacity)	184.33
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			284 m (932 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			No existing manure storage
Actual distance from manure storage			NA

Operation 39

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton BINBROOK Concession 1 , Lot BLOCK 3 Roll number: 2518	Total lot size 2.08 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	219 m ²	10.9 NU	219 m ²

Confirm Livestock/Manure Information (Operation 39)

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

Unoccupied Barn or Unused Storage (Operation 39)

The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -		
Design capacity	10.9 NU		
Potential design capacity	10.9 NU		
Factor A (odour potential)	1	Factor B (design capacity)	169.83
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	262 m (860 ft)		
Actual distance from livestock barn	NA		
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage		
Actual distance from manure storage	NA		

Operation 42

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton BINBROOK Concession 2 , Lot BLOCK 3 Roll number: 2518	Total lot size 45.33 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	554 m ²	27.7 NU	554 m ²

Unoccupied Barn or Unused Storage (Operation 42)

The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -		
Design capacity	27.7 NU		
Potential design capacity	27.7 NU		
Factor A (odour potential)	1	Factor B (design capacity)	215.4
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	332 m (1089 ft)		
Actual distance from livestock barn	NA		
Storage base distance 'S' (minimum distance from manure storage)	No existing manure storage		
Actual distance from manure storage	NA		

Operation 45

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton BINBROOK Concession 1 , Lot BLOCK 3 Roll number: 2518	Total lot size 28.44 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	755 m ²	37.8 NU	755 m ²

Confirm Livestock/Manure Information (Operation 45)

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

Unoccupied Barn or Unused Storage (Operation 45)

The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -		
Design capacity	37.8 NU		
Potential design capacity	37.8 NU		
Factor A (odour potential)	1	Factor B (design capacity)	235.5
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			363 m (1191 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			No existing manure storage
Actual distance from manure storage			NA

Operation 51

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton BINBROOK Concession 1 , Lot 5 BLOCK 4 Roll number: 2518	Total lot size 14.5 ha
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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)	28	28 NU	650 m ²

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	28 NU		
Potential design capacity	28 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	216
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
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)			233 m (764 ft)
Actual distance from manure storage			NA

Operation 55

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton BINBROOK Concession 2 , Lot BLOCK 5 Roll number: 2518	Total lot size 19.27 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	302 m ²	15.1 NU	302 m ²

Confirm Livestock/Manure Information (Operation 55)

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

Unoccupied Barn or Unused Storage (Operation 55)

The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -		
Design capacity	15.1 NU		
Potential design capacity	15.1 NU		
Factor A (odour potential)	1	Factor B (design capacity)	183.66
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			283 m (928 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			No existing manure storage
Actual distance from manure storage			NA

Operation 56

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton BINBROOK Concession 2 , Lot BLOCK 5 Roll number: 2518	Total lot size 21.82 ha
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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	273	273 NU	1268 m ²

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	273 NU		
Potential design capacity	273 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	448.74
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			484 m (1588 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			484 m (1588 ft)
Actual distance from manure storage			NA

Operation 58

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton BINBROOK Concession 1 , Lot 6 BLOCK 4 Roll number: 2518	Total lot size 0.82 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Floor Run	30	0.2 NU	3 m ²

Setback summary

Existing manure storage	- Not Specified -		
Design capacity	0.2 NU		
Potential design capacity	0.2 NU		
Factor A (odour potential)	1	Factor B (design capacity)	150
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			232 m (761 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			No existing manure storage
Actual distance from manure storage			NA

Operation 65

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton SALTFLEET Concession 7 , Lot 18 Roll number: 2518	Total lot size 4.19 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Floor Run	2763	18.4 NU	257 m ²

Confirm Livestock/Manure Information (Operation 65)

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	18.4 NU		
Potential design capacity	18.4 NU		
Factor A (odour potential)	1	Factor B (design capacity)	194.73
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			300 m (984 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			300 m (984 ft)
Actual distance from manure storage			NA

Operation 7

Farm contact information ON	Location of existing livestock facility or anaerobic digester City of Hamilton City of Hamilton SALTFLEET Concession 5 , Lot 20 Roll number: 2518	Total lot size 4.12 ha
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Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	15	21.4 NU	453 m ²

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	21.4 NU		
Potential design capacity	21.4 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	202.86
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
<hr/>			
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			219 m (718 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			219 m (718 ft)
Actual distance from manure storage			NA

Preparer signoff & disclaimer

Preparer contact information

ON

Signature of preparer



(Signature)

March 19, 2026

Date (Month-Day-Year)

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.