

**AGRICULTURAL IMPACT ASSESSMENT
FOR
MAYFIELD TULLAMORE SECONDARY PLAN AREA**

PREPARED FOR:

MAYFIELD TULLAMORE LANDOWNERS GROUP INC.

130 ADELAIDE STREET WEST, SUITE 2800
TORONTO, ON
M5H3P5

PREPARED BY:



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

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EXECUTIVE SUMMARY

The purpose of the Agricultural Impact Assessment (AIA) is to identify and evaluate potential impacts of the proposed Secondary Plan application and subsequent *development* of the Mayfield Tullamore Secondary Plan Area on the local Agricultural System. Where impacts are identified, recommendations are provided to avoid, or where avoidance is not possible, minimize potential impacts to the extent feasible. The AIA includes a review of background information, field work, analysis of impacts, assessment of agricultural priority, analysis of net impacts following mitigation measures, and assessment of the proposal's consistency with provincial and municipal agricultural policies.

The Mayfield Tullamore Secondary Plan Area is currently designated as part of the Town of Caledon's *prime agricultural area*, however, these lands are not recognized by the Region, nor Province, as being part of a *prime agricultural area*. The Future Caledon Official Plan designates the Mayfield Tullamore Secondary Plan Area as New Community Area and New Employment Area, however, the Future Caledon Official Plan has not yet been approved by the Province. Despite the fact that these lands are intended in the long-term for urban uses, the Town's updated settlement area boundary has yet to be approved and the approved policies require that an AIA be completed for proposed *development* within a *prime agricultural area*.

The Mayfield Tullamore Secondary Plan Area is predominately in agricultural production of common field crops. There are also natural heritage features, two golf courses, and disturbed areas identified within the Study Area. There are two remnant agricultural operations, one active agricultural operation, one agriculture-related land use, and approximately 34 non-agricultural uses which includes approximately 28 non-farm residences.

The AIA determined that the proposal is consistent with provincial and municipal policies. Impacts associated with the proposal are primarily limited to the loss of *prime agricultural lands*, cultivatable land, tile drainage, and farm infrastructure. The AIA has recommended mitigation measures that will avoid, or minimize, impacts to the local Agricultural System, to the extent possible. Net indirect impacts following implementation of recommended mitigation measures will minimize potential impacts.

1. INTRODUCTION

1.1 Retainer

Colville Consulting Inc. was retained by the Mayfield Tullamore Landowners Group (MTLG) to complete an Agricultural Impact Assessment (AIA) for the Mayfield Tullamore Secondary Plan Area. These lands, herein referred to as the Subject Lands, are generally located east of Dixie Road, west of Torbram Road, north of Mayfield Road, and south of Old School Road, in the Town of Caledon. The Mayfield Tullamore Landowners Group control eleven parcels within the Subject Lands, accounting for the majority of the area of the Subject Lands. The majority of the Subject Lands are part of the Urban System and designated as part of the 2051 New Urban Area in the Region of Peel Official Plan (November 2022), with a smaller portion designated Prime Agricultural Area. The Subject Lands are primarily designated Prime Agricultural Area, with a smaller portion designated Environmental Policy Area in the Town of Caledon Official Plan (April 2018 Office Consolidation).

The portion of the Subject Lands which are designated Prime Agricultural Area in the Region of Peel Official Plan are located within the Natural Heritage System of the Protected Countryside designation in the Greenbelt Plan. The Subject Lands are also part of the Greater Golden Horseshoe and form part of the Agricultural Land Base's prime agricultural area.

Contrary to what is shown in the Agricultural Land Base mapping, the Province no longer recognizes the Subject Lands as being part of a *prime agricultural area*. The Region of Peel updated its Official Plan, through a Municipal Comprehensive Review (MCR), which designated the Subject Lands as 2051 New Urban Area. The updated Official Plan was approved by the Province in November of 2022, allowing the Region's mapping to take precedence.

At the March 26, 2024 Council Meeting for the Town of Caledon, Council adopted the Future Caledon Official Plan. The Future Caledon Official Plan has not yet received approval from the Province, however, it is expected that the Future Caledon Official Plan policies will be in effect prior to the development of the Mayfield Tullamore Study Area. The adopted Future Caledon Official Plan aligns with the Region of Peel Official Plan and shows the majority of the Subject Lands designated New Urban Area 2051 within the Urban Area, with a smaller portion designated Agricultural Area.

1.2 Description of Proposed Development

The Town of Caledon is in the process of updating its Official Plan and will require the development of a Secondary Plan to implement phasing of new proposed *development*. The updated Official Plan (Future Caledon Official Plan) was adopted by Town Council on March 26, 2024, however, it has not yet been approved by the Province. Until the Future Caledon Official Plan has been approved by the Province, the Town of Caledon Official Plan (2018) policies shall apply. However, the Future Caledon Official Plan indicates that the Subject Lands will be included within the Town of Caledon's Urban Area and designated New Community Area and New Employment Area.

The Structure Plan for the Mayfield Tullamore Secondary Plan Area was reviewed and indicates a mix of urban-related land uses within the boundaries of the Subject Lands. The Structure Plan shows community

areas, medium density residential uses, open space uses, neighbourhood centres, parks, schools, and urban corridor, existing schools and recreational centre, and a network of roads. A copy of the Structure Plan can be found in Appendix A.

1.3 Professional Qualifications

Colville Consulting Inc. was established in 2003 and provides agricultural and environmental consulting services to both private and public sector clients throughout Ontario. Colville Consulting Inc. has extensive experience working in Caledon and the GTA on several agricultural-related projects including the preparation of AIAs for settlement area boundary expansions into agricultural areas.

This study was led by Mr. Sean Colville who has over 35 years of experience preparing Agricultural Impact Assessments in Ontario. Mr. Colville also participated in the development of the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) draft Agricultural Impact Assessment Guidance Document (2018). As the Project Manager for this project, John Liotta was responsible for completing the field investigations and preparation of the AIA. John has over 5 years of formal education in Environmental and Agricultural Planning and has assisted in preparing a number of AIAs with Colville Consulting Inc. The CVs of Sean Colville and John Liotta can be found in Appendix B.

1.4 Purpose of Study

The Subject Lands are currently located within the Town of Caledon's Prime Agricultural Area. Section 5.1.1.17.1 of the Town of Caledon Official Plan states that "Proposals in the Prime Agricultural Area that have the potential to negatively impact agricultural uses will require an Agricultural Impact Assessment." The proposed Secondary Plan and associated non-agricultural development within the Prime Agricultural Area has the potential to negatively impact *agricultural uses*, therefore an AIA is required for the proposed Mayfield Tullamore Secondary Plan Area *development*.

1.5 Study Area

The *Study Area* is located within the Town of Caledon's Prime Agricultural Area. To be consistent with the draft Agricultural Impact Assessment Guidance Document (2018), the *Study Area* should include both a Primary and *Secondary Study Area*. For this AIA, the *Primary Study Area (PSA)* encompasses the Subject Lands, while all lands within approximately 1.5 kilometers (1,500 m) of the Subject Lands comprise the *Secondary Study Area*.

1.5.1 Primary Study Area

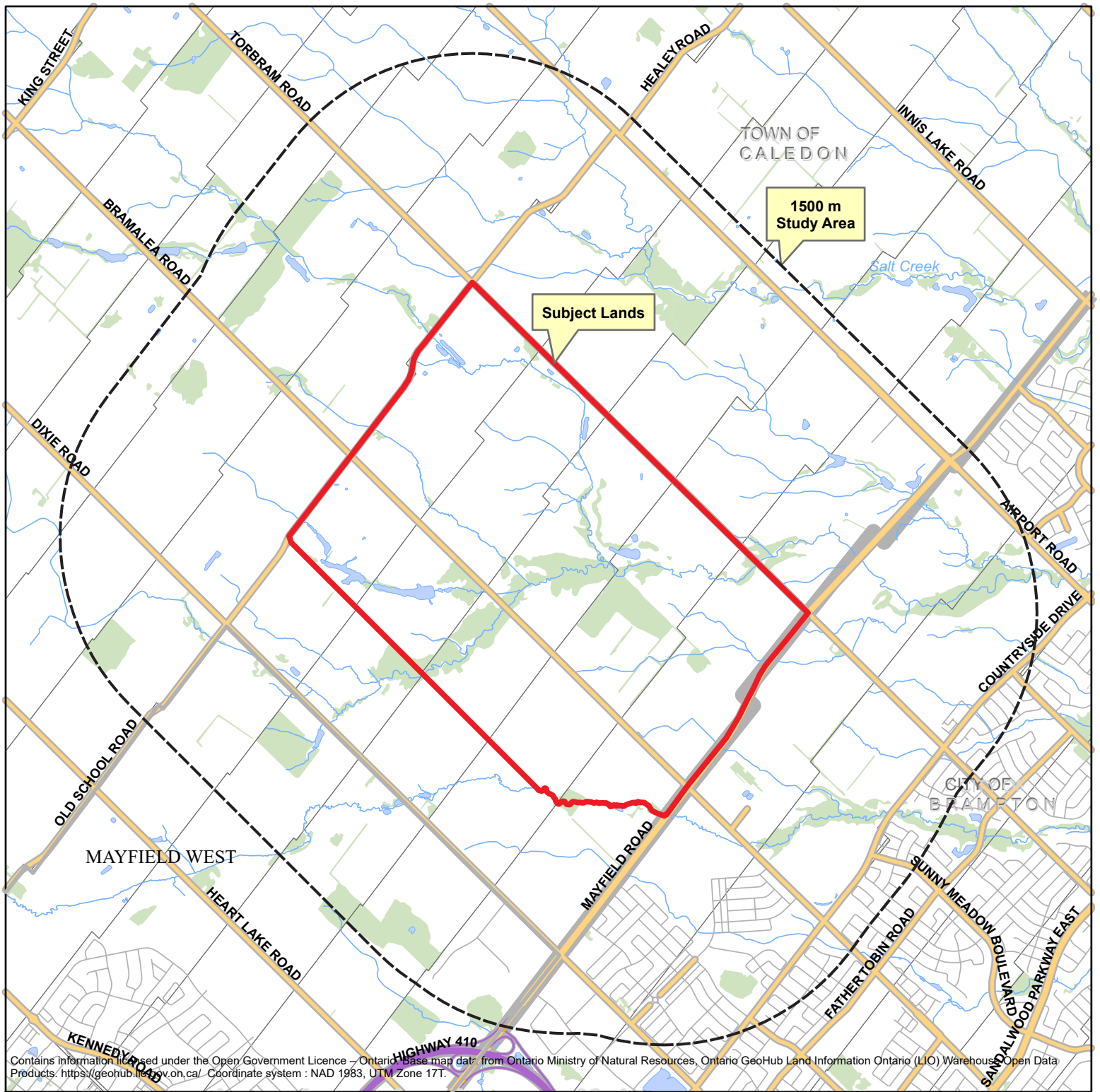
The *PSA* is generally located east of Dixie Road, west of Torbram Road, north of Mayfield Road, and south of Old School Road, in the Town of Caledon. The Subject Lands are made up of multiple parcels and, combined, are approximately 618.05 ha (1,527.24 acres) in size. The Subject Lands are primarily in agricultural production for common field crops and also contain natural heritage areas, two golf courses, various agricultural and non-agricultural uses, and a number of non-farm residences.

1.5.2 Secondary Study Area

The *Secondary Study Area* (i.e., Study Area) includes all lands within 1.5 km of the Subject Lands and is generally bounded by Airport Road to the west, Heart Lake Road to the east, Countryside Drive to the

south, and King Street to the north. The majority of the lands in the southeastern portion of the *Study Area* are located within the settlement area boundary of the City of Brampton and are designated for a range of *non-agricultural uses*. The remaining lands in the *Study Area* are primarily in agricultural production and also contain natural heritage features.

Figure 1 shows the location of both the *Primary* and *Secondary Study 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.infov.on.ca/>. Coordinate system: NAD 1983, UTM Zone 17T.

LOCATION MAP

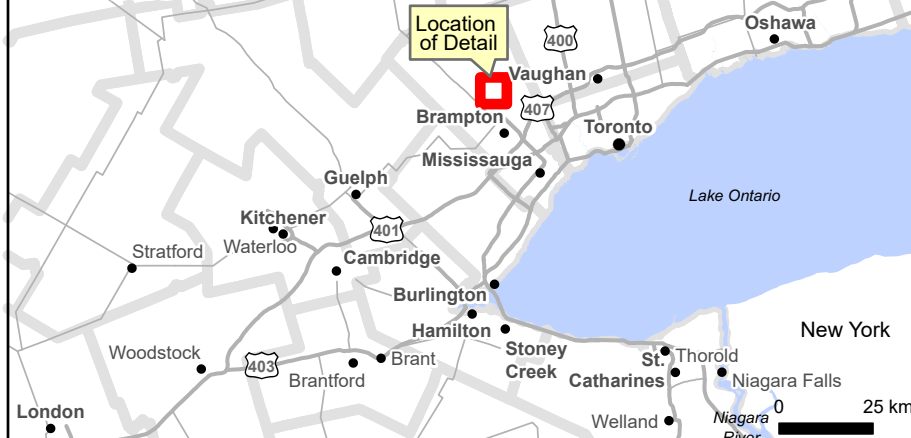


Figure 1
Location of Subject Lands

Agricultural Impact Assessment for
Mayfield Tullamore Secondary Plan Area

Prepared for:
**Mayfield Tullamore
Landowners Group**

Prepared by:
COLVILLE
CONSULTING INC.

0 0.5 KM
1:35,000



DATE:
Aug 2024

FILE:
C24035

2. SCOPE OF STUDY

To be consistent with the Draft Agricultural Impact Assessment Guidance Document (2018), 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 OMAFRA's digital soil resource database (for soil and CLI information, parcel fabric and land fragmentation, artificial drainage, agri-food components, etc.);
- ♦ a land use survey of all lands within one and a half kilometres (1.5 km) of the Subject Lands and a characterization of the area;
- ♦ an assessment of the *Minimum Distance Separation (MDS)* requirements for the proposed *development* using the 2017 *MDS I* formula;
- ♦ 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 identification of net impacts, mitigation measures and recommendations that can be implemented to avoid or minimize potential impacts;
- ♦ an assessment of the proposed *development's* consistency with agricultural policies in the *Provincial Policy Statement*, the Growth Plan for the Greater Golden Horseshoe, the Region of Peel Official Plan, and the Town of Caledon Official Plan; and
- ♦ the preparation of a report summarizing our findings.

3. METHODOLOGY

The study methodology for the AIA was prepared in accordance with the OMAFRA draft Agricultural Impact Assessment Guidance Document (2018). It includes a review of relevant provincial, regional, and local agricultural policies, other agricultural-related sources of information, and the completion of field inventories. 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 *development's* consistency with the provincial, regional, and local agricultural policies.

3.1 Background Data Collection

Information sources reviewed for this study included:

- ♦ *Provincial Policy Statement* (2020);
- ♦ A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020);
- ♦ Region of Peel Official Plan and Land Use Schedules (2022);
- ♦ Town of Caledon Official Plan and Land Use Schedules (2018);
- ♦ Future Caledon Official Plan and Land Use Schedules (Adopted March 26, 2024)
- ♦ Soil Survey of Peel County – Report No. 18 of the Ontario Soil Survey (1953);
- ♦ OMAFRA'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);
- ♦ OMAFRA's Artificial Drainage Systems mapping;
- ♦ OMAFRA's AgriSuite, AgMaps, and Agri-Systems databases;
- ♦ OMAFRA's Draft Agricultural Impact Assessment (AIA) Guidance Document (2018); 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 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 agricultural activity and level of agricultural investments on the Subject Lands and surrounding *Study Area*.

3.2 Field Inventories

Field inventories were completed on June 26, 2024. Field inventories included a reconnaissance level land use survey of the surrounding area to identify agricultural operations, relative level of investment in agriculture, the cropping pattern observed, and the mix of land uses within the Subject Lands and *Study*

Area. Information required to calculate the MDS I setback requirements was also collected during the land use survey.

3.2.1 Land Use Survey

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

3.2.2 MDS Calculations

The *MDS* is a land use planning tool developed by OMAFRA to minimize land use conflicts and nuisance complaints arising from odours generated by *livestock* operations. The *MDS* calculates a recommended separation distance between a *livestock 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 a proposed new non-agricultural *development* is proposed in proximity to *livestock facilities*. The *MDS II formula* is used to calculate the distance from proposed new, enlarged, or remodeled *livestock facilities* and existing or approved *development*.

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

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

- the type of *livestock* housed in the facility;
- the maximum capacity of the barn housing livestock;
- the type of *manure storage* facility; and
- the size of the property upon which the *livestock facility* is located.

This information was collected for all *livestock facilities* (active and empty). In cases where we were not able to collect information directly from the landowner, we used visual observations of the *livestock facility* and determined the most likely type of *livestock* housed and the type of *manure storage* system used. These observations were supplemented with aerial photography and web mapping tools such as AgMaps and Google Earth™. Barn capacity and lot size were determined using these online mapping tools.

3.3 Evaluation of the Agricultural System

An *Agricultural System* includes a continuous and productive land base, comprised of *prime agricultural areas*, including *specialty crop areas*, and *rural lands*, as well as a complementary *agri-food network* that together enable the agri-food sector to thrive. An evaluation of the *Agricultural System* and associated features within the *Study Area* was completed through a reconnaissance level land use survey on June 26, 2024, and online review to assist in identifying agricultural-related features.

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

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. The AIA must demonstrate that there are no reasonable alternative locations which avoid *prime agricultural areas* and there are no reasonable alternative locations in *prime agricultural areas* with lower priority agricultural lands.

The Subject Lands have primarily been included in the Region of Peel Official Plan's 2051 New Urban Area within the Urban System, which was approved by the Province. The portion of the Subject Lands that are not located within the 2051 New Urban Area form part of the Greenbelt Plan Area and are no development is proposed on these lands. The Region of Peel was required to assess alternative locations for *settlement area* boundary expansion, which indicates there are no reasonable alternative locations which avoid *prime agricultural areas* or locations of lower priority agricultural lands. Therefore, an assessment of alternative locations has not been completed as part of this AIA.

3.5 Evaluation of Agricultural Priority

When determining agricultural capability, the *PPS* directs *development* to "lower priority agricultural lands". Although, the *PPS*, Growth Plan, or other provincial planning documents do not specifically define in policy "lower priority agricultural lands", there are a number of considerations used by OMAFRA to determine the 'agricultural priority' of an area. These considerations include the criteria such as the current land use, amount of capital investment in agricultural infrastructure, amount of land under active cultivation, existing degree of lot fragmentation to the surrounding agricultural land base, and proximity to incompatible land uses such as urban and rural *settlement areas*. The AIA considers these criteria to assess the agricultural priority of the Subject Lands.

3.6 Identification of Potential Impacts and Mitigation Measures

Potential impacts of the non-agricultural *development* were identified following an assessment of the agricultural resources on and adjacent to the Subject Lands. Direct impacts evaluated include an assessment of elements such as the loss of *prime agricultural land*, agricultural infrastructure, land improvements, and cropland. Indirect impacts that may result from the proposed *development* were also evaluated and included

an assessment of elements such as the impacts related to surficial drainage, disruption to farm operations, non-farm traffic, restricted farm access, *MDS* conflicts, hydrogeological features, trespass, and vandalism. Mitigation measures that avoid or minimize potential impacts on the *Agricultural System* are then developed.

3.7 Assessment of Consistency with Agricultural Policies

All planning decisions must be consistent with the *PPS* and comply with applicable provincial land use plans. Municipalities also have their own agricultural policies that are to be consistent with the *PPS* and to which the proposed *development* must adhere to. 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 Policy Statement

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

4.1.1 Prime Agricultural Areas

Section 2.3 of the *PPS* specifically deals with agricultural policy. Section 2.3.1 states that “Prime agricultural areas shall be protected for long-term use for agriculture”. The *PPS* defines *prime agricultural areas* as areas where *prime agricultural lands* predominate. *Prime agricultural lands* include *specialty crop areas* and Canada Land Inventory (CLI) Classes 1, 2 and 3 soils, in this order of priority for protection. Section 2.3.3.3, Permitted Uses, states that “New land uses in prime agricultural areas, including the creation of lots and new or expanding livestock facilities, shall comply with the minimum distance separation formulae.”

4.1.2 Policies for Removal of Land from Prime Agricultural Areas

Section 2.3.5.1 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 1.1.3.8.”

Section 1.1.3.8 states that a planning authority may identify or allow for the expansion of a settlement area boundary only at the time of a comprehensive review and under certain conditions. These conditions include:

- a) *sufficient opportunities to accommodate growth and to satisfy market demand are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon;*
- b) *the infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;*
- c) *in prime agricultural areas:*
 1. *the lands do not comprise specialty crop areas;*
 2. *alternative locations have been evaluated, and*
 - i. *there are no reasonable alternatives which avoid prime agricultural areas; and*
 - ii. *there are no reasonable alternatives on lower priority agricultural lands in prime agricultural areas;*
- d) *the new or expanding settlement area is in compliance with the minimum distance separation formulae; and*
- e) *impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.*

The adopted Future Caledon Official Plan indicates that the Subject Lands will be included within the Town of Caledon's Urban Area and designated New Community Area and New Employment Area. However, the Future Caledon Official Plan has not yet received Provincial approval and, as such, the Subject Lands are still locally considered to be part of a *prime agricultural area* through the Town of Caledon Official Plan (2018). Although locally considered to be part of a *prime agricultural area*, the Subject Lands are no longer provincially recognized as being part of a *prime agricultural area* following the provincial approval of the updated Region of Peel Official Plan. As such, the proposed *development* is not required to be consistent with the agricultural policies of the *PPS*.

4.2 Provincial Planning Statement (2024)

On April 12, 2024, the Ontario government released for comment the latest draft of a new Provincial Planning Statement, which will replace the current Provincial Policy Statement (2020) and A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020). The Provincial Planning Statement has not yet come into effect and may be modified before the final draft is released. The comment period for the proposed Provincial Planning Statement closed on May 12, 2024, and is anticipated to be adopted in fall of 2024.

In the event that the Provincial Planning Statement comes into effect before the submission of the *development* application, the proposed *development* has been assessed for consistency with the agricultural policies of the draft Provincial Planning Statement. It should be noted that the Provincial Planning Statement is still in draft form and policies are subject to modification. If the Provincial Planning Statement is adopted prior to submission of the *development* application and modifications are made to policies which would alter the conclusions of this AIA, the AIA will be updated through an addendum.

4.2.1 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. Section 4.3.2.4, Permitted Uses, states that "New land uses in prime agricultural areas, including the creation of lots and new or expanding livestock facilities, shall comply with the minimum distance separation formulae."

4.2.2 Policies for Removal of Land from Prime Agricultural Areas

Policy 4.3.4.1 of the Provincial Planning Statement 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.”

As stated above, the Subject Lands are still mapped as part of a *prime agricultural area* in the approved Town of Caledon Official Plan; however, the Subject Lands are no longer provincially recognized as being part of a *prime agricultural area*, following the provincial approval of the updated Region of Peel Official Plan. As such, the proposed *development* is not required to be consistent with the agricultural policies of the Provincial Planning Statement.

4.3 Growth Plan for the Greater Golden Horseshoe

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

As stated above, the proposed Provincial Planning Statement is expected to replace the Provincial Policy Statement and the Growth Plan for the Greater Golden Horseshoe. The Provincial Planning Statement has not yet come into effect; however, if it is implemented prior to the submission of the *development* application, the proposed *development* will not be required to be consistent with the agricultural policies of the Growth Plan.

4.3.1 Agricultural System

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

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

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

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

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

The document *Implementation Procedures for the Agricultural System for the Greater Golden Horseshoe* (Publication 856, March 2020) was prepared by OMAFRA to assist municipalities in identifying *prime agricultural areas* and implement policies for the *Agricultural System*.

4.3.2 Settlement Area Boundary Expansions

Section 2.2.8 of the Growth Plan deals with policies involving settlement area expansions.

Section 2.2.8.2 states that settlement area expansion may only occur through a municipal comprehensive review and appropriate justification. Section 2.2.8.3 states in part that “Where the need for a settlement area boundary expansion has been justified in accordance with policy 2.2.8.2, the feasibility of the proposed expansion will be determined and the most appropriate location for the proposed expansion will be identified based on the comprehensive application of all of the policies in this Plan, including the following:

- f) *prime agricultural areas should be avoided where possible. To support the Agricultural System, alternative locations across the upper- or single-tier municipality will be evaluated, prioritized and determined based on avoiding, minimizing and mitigating the impact on the Agricultural System and in accordance with the following:*
 - i. *expansion into specialty crop areas is prohibited;*
 - ii. *reasonable alternatives that avoid prime agricultural areas are evaluated; and*
 - iii. *where prime agricultural areas cannot be avoided, lower priority agricultural lands are used;*
- g) *the settlement area to be expanded is in compliance with the minimum distance separation formulae;*
- h) *any adverse impacts on the agri-food network, including agricultural operations, from expanding settlement areas would be avoided, or if avoidance is not possible, minimized and mitigated as determined through an agricultural impact assessment;”*

Although the Subject Lands are still mapped as part of a *prime agricultural area* in the Agricultural Land Base for the Greater Golden Horseshoe, the Subject Lands are no longer provincially recognized as being part of a *prime agricultural area* following the provincial approval of the updated Region of Peel Official

Plan. As such, the proposed *development* is not required to be consistent with Section 2.2.8.3 f) of the Growth Plan.

4.4 Region of Peel Official Plan

Section 3.3 of the Region of Peel Official Plan recognizes the *Agricultural System*, which includes lands designated as Prime Agricultural Area and Rural Lands. The portion of the Subject Lands on which *development* is proposed is no longer located within the Region of Peel's Prime Agricultural Area or Rural Lands land use designations. As previously stated, the proposed Mayfield Tullamore Study Area has recently been included in the Region of Peel's 2051 New Urban Area within the Urban System following the Region's settlement area boundary expansion (SABE). The proposed *development* is not required to be consistent with the agricultural policies of the Region of Peel Official Plan.

4.5 Town of Caledon Official Plan

Schedule A of the Town of Caledon Official Plan (2018) designates the Subject Lands as Prime Agricultural Area. Section 4.1.3 of the Official Plan identifies Prime Agricultural Areas and General Agricultural Areas as lands that "generally coincide with a relatively large area of high capability agricultural lands recognized as Class 1, 2, and 3 agricultural lands according to the Canada Land Inventory and the Soil Capability for Agriculture through the Region of Peel Official Plan."

Section 4.2.3.3.1 outlines the requirements for settlement area boundary expansion and states that "Expansions to settlements will require an amendment to this Plan and shall be undertaken through a municipal comprehensive review". Section 4.2.3.3.1 states in part that the municipal comprehensive review "will address the following:

- h) An examination of reasonable alternative locations which avoid Prime Agricultural Areas, and reasonable alternative locations on lands with lower priority in the Prime Agricultural Area;
- j) Compliance with minimum distance separation formulae;
- o) Mitigation of impacts of settlement area expansions on agricultural operations which are adjacent to or close to the settlement area to the greatest extent feasible;"

As stated in section 5.1.1.1, the objective of the land use policies for lands designated as Prime Agricultural Area is "To protect Prime Agricultural Areas by encouraging the business of agriculture, by providing for innovation and diversification within agriculture, by providing additional economic opportunities through On-farm Diversified Uses, and by limiting non-agricultural uses and non-agricultural severances."

The requirement to complete an Agricultural Impact Assessment is outlined in Section 5.1.1.17.1 that states that "Proposals in the Prime Agricultural Area that have the potential to negatively impact agricultural uses will require an Agricultural Impact Assessment".

The AIA will address section 4.1.3, 4.2.3, and 5.1.1.1 of the Town of Caledon Official Plan.

4.6 Future Caledon Official Plan

The Future Caledon Official Plan (2024) was adopted by Town Council on March 26, 2024, which will guide *development* to the year 2051. The Future Caledon Official Plan has not yet been approved by the Province; however, the proposed *development* has been assessed for consistency with the policies of the Future

Caledon Official Plan in the event that the Future Caledon Official Plan is approved by the Province prior to submission of the application.

Schedule B4 of the Future Caledon Official Plan shows that the portion of the Subject Lands on which development is being proposed is designated New Community Area and New Employment Area within the Town's Urban Area. No portion of the developable area of the Subject Lands are located within the Town's Rural Lands, nor Prime Agricultural Area land use designation. Therefore, the agricultural policies of the Future Caledon Official Plan do not apply to the proposed *development*, following provincial approval of the Future Caledon Official Plan. If the Province modifies the Future Caledon Official Plan so that any portion of the Subject Lands are excluded from the Urban Area, the AIA will be updated through an addendum to evaluate the proposed *development's* consistency with the approved Future Caledon Official Plan.

5. STUDY FINDINGS

5.1 Physiography

The Subject Lands are located within the South Slope Physiographic Region (Chapman and Putnam, 1984). This physiographic region lies between the Oak Ridges Moraine to the north, the Peel Plain to the south, and the Niagara Escarpment to the west. The lands gently slope towards Lake Ontario. The South Slope consists of a faintly drumlinized till plain with smooth slopes and is often deeply scoured at intervals by valleys tributary to the Humber River system.

The bedrock geology of the South Slope includes the limestones of the Verulam and Lindsay Formations, the grey shales of the Georgian Bay Formations, and the reddish shales of the Queenston Formation. The South Slope contains a variety of soils that have developed upon tills which are sandier in the east of the South Slope and more clayey and steeper sloped in the west. Bondhead Loam and Darlington Loam soils are the more desirable agricultural soils in the area, whereas the Chinguacousy Clay Loam, Oneida Clay Loam and Jeddo Clay Loam soils have drainage and clayey textures that make it harder to work.

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 Toronto Pearson (Airport) station (1991-2020) were obtained from the online database (Appendix C).

Environment Canada's Toronto Pearson (Airport) station is located approximately 16 km from the Subject Lands. Records show that this area receives an average of 806.8 mm of precipitation annually; 697.4 mm of rainfall and 114.5 cm of snowfall. The daily average temperature ranges from a high of 22.1°C to a low of -5.0°C.

The Ministry of Agriculture and Food Factsheets provide data on crop production and growing seasons across Ontario. The rate of development of crops from planting to maturity is mainly dependent upon temperature. Areas within the Region of Peel begin to experience average temperatures greater than 10°C starting May 7th before reaching temperatures greater than 12.8°C for 3 consecutive days around May 19th. During this time and up until the season's average ending date, September 30th, the area accumulates an average of 3200 crop heat units (CHU).

On average, the last spring frost in the Caledon area occurs on April 27th and the first fall frost is expected on October 20th. This provides the surrounding area with a growing period of approximately 174 days. The climate in the Caledon 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 OMAFRA and Statistics Canada's Agriculture and Food Statistics Census of Agriculture. The Subject Lands are located within the Census Western Ontario Region, Peel Region. Agricultural crop statistics were obtained from the online database and are included in Appendix D. This data provides a general overview of agriculture and agri-food operations in the area but is unlikely to be inclusive of all operations present at the time of this report.

The County and Township Agricultural Profile for Peel includes data from the 2011, 2016, and 2021 census periods. The total number of farms in Caledon decreased from 345 in 2016 to 308 in 2021, while total cropland increased from 63,239 acres in 2016 to 73,460 acres in 2021.

Field crops include winter wheat, oats for grain, barley for grain, mixed grains, corn for grain, corn for silage, hay, soybeans, and potatoes. According to census data, field crop production between 2016-2021 decreased for potatoes, whereas all other major field crop production in Caledon increased in production. Census data from 2016 shows that there was no production of winter wheat, oats for grain, barley for grain, corn for grain, or corn for silage. This is highly unlikely to be reflective of the true crop production in Caledon in 2016.

Fruit crops grown in Caledon include apples, grapes, strawberries, and raspberries. Fruit crop acreage increased from 149 acres in 2016 to 196 acres in 2021. Vegetable crops grown in Caledon include sweet corn, tomatoes, green peas, and green or wax beans. Vegetable crop acreage increased from 240 acres in 2016 to 479 acres in 2021.

5.4 Specialty Crop Areas

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

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

There are two *specialty crop areas* recognized by the Province in the Greenbelt Plan area: the Niagara Peninsula Tender Fruit and Grape Area and the Holland Marsh. Neither the Subject Lands, nor any portion of the *Study Area*, are located within either of these *specialty crop areas*. Additionally, the Subject Lands do not exhibit any of the characteristics of a *specialty crop area*.

5.5 Regional Soils

5.5.1 Soil Series

The *Soil Survey of Peel County - No. 18* of the Ontario Soil Survey (Hoffman, D.W., Richards, N.R., 1953) includes a soil map that shows the distribution of the various soil series in the Region of Peel. The digital Provincial Soil Resource database is compiled and administered by OMAFRA and includes most of the soil surveys completed in Ontario. Much of this information is accessible from the Province’s Agricultural Information Atlas. The database was accessed in July 2024.

The *Soil Survey of Peel County* mapping shows that the soils within the Subject Lands are comprised primarily of Chinguacousy Clay Loam (76.19%) soils, with smaller amounts of Pontypool Sandy Loam

(7.83%), Jeddo Clay Loam (2.56%), Oneida Clay Loam (0.48%), and Bottom Land (12.94%) soils. Regional scale soil mapping is shown in Figure 2.

Oneida Clay Loam – Brunisolic Gray Brown Luvisol

The Oneida Clay Loam soil series is mapped on less than 1% of the Subject Lands. These well drained and relatively stone free soils are mapped on slopes ranging from very gently sloping (2-5%) to gently sloping (5-9%). The dark coloured, silty clay loam to clay loam surface horizon (Ap) is often 20 to 25 cm thick. The subsoil (B horizon) consists of silty clay loam to clay loam textures. It is common to find a well developed Bt horizon (the “t” indicates clay accumulations) just above the silty clay loam parent material (Ck horizon). The calcareous parent material is generally encountered at a depth of 60 to 80 cm.

Oneida soils have a relatively high bulk density, and the consistency is firm throughout the soil profile and will become very firm as the soil dries. These soils are moderately to slowly permeable due to their high clay content. However, surface run-off is rapid which results in a moderately well drained soil.

These soils have a Canada Land Inventory (CLI) rating for common field crop production of CLI Class 1 on very gentle 2-5% slopes and CLI Class 3T on 5-9% slopes. These soils need to be carefully managed due to their high bulk density to ensure that the soil structure is not damaged when under cultivation. Compaction of the soil can occur under wet soil conditions limiting root penetration and reducing air and water volumes in the soil. These soils are easily erodible on steeper slopes and best management practices are required to ensure the potential for erosion is minimized.

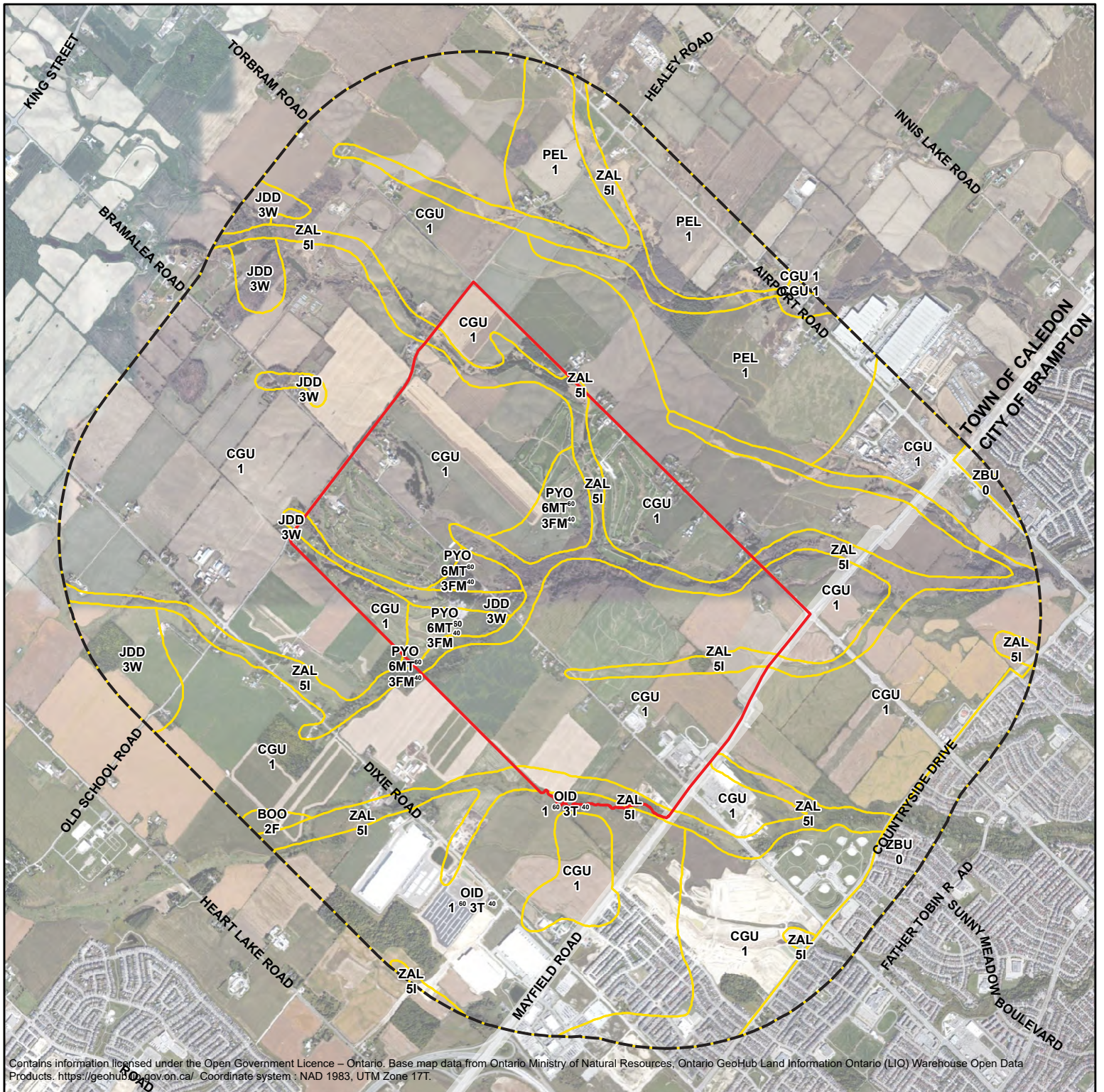
Oneida soils are well adapted to the growing of common field crops and a wide range of vegetable crops.

Chinguacousy Clay Loam - Gleyed Brunisolic Gray Brown Luvisol

The Chinguacousy Clay Loam soils are the dominant soil type mapped on the Subject Lands. They are the imperfectly drained member of the Oneida catena. Approximately 76.19% of the property is mapped as the Chinguacousy Clay Loam on very gentle slopes (2-5%). The Chinguacousy soil series has developed from the same calcareous, silty clay to silty clay loam till, parent material as the Oneida. Similar to the Oneida the parent material (Ckgj) is found between 60 and 80 cm from the surface and its consistency is firm. The friable, silty clay loam surface (Ap) is 20 to 25 cm deep and contains few stones. The Ap horizon typically overlies a firm, clay loam to silty clay loam subsoil (Bmgj and Btgj horizons).

The imperfectly drained Chinguacousy soils have a relatively high water holding capacity. They are moderately to slowly permeable and surface runoff is moderate. Excess soil water is often found in the upper soil horizons as a result of high groundwater or perched conditions during the growing season. As a result, mottles are present in the upper 50 cm of the soil profile.

Chinguacousy soils are generally found on nearly level slopes (0.5-2%) to very gentle slopes (2-5%). These soils are rated CLI Class 1 lands on nearly level slopes and a CLI Class 2D lands on very gentle slopes, indicating moderate limitations for common field crops due to a relatively high bulk density. The soil is easily compacted by machinery when soil moisture conditions are high. Tile drainage is often necessary to improve crop yields particularly where soil compaction has occurred. Erosion control measures may need to be implemented for lands under row crop production as Chinguacousy soils are also easily erodible.



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Legend

- Subject Lands
- 1500m Study Area
- Soil OMAFRA

Soil Series Name → **BOO** ← Percentage of Area
 CLI Class → **1⁶⁰3T⁴⁰** ← CLI Subclass

CLI AGRICULTURAL CAPABILITY SUBCLASSES

- I** Inundation – periodic flooding by streams or lakes
- W** Excess Water – presence of excess soil moisture, other than that brought about by inundation
- T** Topography – subclass where topography is a limitation

SOIL SERIES

- BOO** - Bookton Sandy Loam
- JDD** - Jeddo Clay Loam
- CGU** - Chinguacousy Clay Loam
- OID** - Oneida Clay Loam
- PEL** - Peel Clay
- PYO** - Pontypool Sandy Loam
- ZAL** - Bottom Land
- ZBU** - Built Up Area

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 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.

**Figure 2
Soils and CLI**

Agricultural Impact Assessment for
Mayfield Tullamore Secondary Plan Area

Prepared for:
**Mayfield Tullamore
Landowners Group**

Prepared by:
**COLVILLE
CONSULTING INC.**

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DATE:
Aug 2024

FILE:
C24035

Jeddo Clay Loam – Humic Luvic Gleysol

The Jeddo Clay Loam is found in close association with the Chinguacousy soil. These soils are mapped on the nearly level (0.5-2%) and very gentle (2-5%) slopes associated with low lying areas. Jeddo soils are the poorly drained member of the Oneida catena and have developed from similar clay till parent material. These soils are slowly permeable and are often saturated for much of the year. Temporary ponding following heavy rainfall events is a common problem, particularly in depressional areas where surface runoff is slow. Tile drainage is required to lower the high groundwater table during the growing season however, perched conditions may arise where compaction becomes a problem and tile drainage becomes less effective.

The dark coloured surface horizon is approximately 20-30 cm in depth and the organic matter content in this horizon is relatively high. The silty clay textures of the gleyed B horizons (Bg) also contain thin sand lenses indicating that the deposition of the surface material may also have had a lacustrine influence. The calcareous parent material (Ckg) is found at a depth of 60-80 cm.

In areas where these poorly drained soils can be effectively tile drained, they are rated CLI Class 3W for common field crops. They have a moderately severe limitation for common field crop production due to excessive wetness and require artificial drainage to obtain moderate yields. They are considered to be good agricultural soils if they can be effectively drained through the use of tile drainage and surficial drains. However, where these soils can not be feasibly drained, they have a CLI rating of Class 5W and are only suitable for permanent forage crops such as hay and pasture.

These soils are also susceptible to compaction and soil structure can be negatively impacted if these soils are worked under wet conditions. They are considered to be a “late” soil which means that they often cannot be worked by farmers until later in the growing season.

On the Subject Lands, Jeddo soils are mapped on 2.56% of the area.

Pontypool Sandy Loam

The Pontypool Sandy Loam series is the only member of the Pontypool *catena* and has developed on poorly sorted sands and gravel. These soils are well drained and have coarse textures that consist of mainly sand, with pockets of gravel and a moderately textured till may also be present. They are mapped on approximately 7.83% of the Subject Lands. The Pontypool Sandy Loam soils mapped on the Subject Lands occur on gentle (5-9%) and very strong (30-45%) slopes, and are rated as CLI Class 3 and 6 lands, respectively.

Pontypool Sandy Loam soils are early soils which are low in organic matter. These soils often experience wind erosion and droughtiness due to the coarse texture of the soil and associated internal drainage. A wide range of crops are grown on this soil, such as corn, peas, tomatoes cereal grains, tree fruits, and hay. Usually the farm business consists of a, combination of dairying, canning crop production, and fruit growing. Since the sandy loam requires heavy applications of manure to maintain and build up the organic matter content, the combination of dairy farming and growing of canning crops works out very well.

Bottom Land

Bottom Land soils are low lying soils which occur along stream courses and are often subject to flooding. These soils are immature and show little horizon differentiation. These soils are typically alluvial soils that include the associated valley slopes. The *soil profile* usually consists of variable textures and the drainage also often varies from poor along the valley floor to rapid along the valley slopes. They are mapped on approximately 12.94% of the Subject Lands.

Bottom Land soils are not good agricultural soils and are typically used for *pasture* or are not farmed. In areas where large amounts of Bottom Land soils are mapped, other agricultural crops can be grown, but are dependant on the timing and extent of flooding in the area.

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 (76.48%), with smaller areas mapped as CLI Class 3 (5.59%), Class 5 (12.94%), and Class 6 (4.70%), as shown in Figure 2. CLI Class 1 soils have no or very minor limitations for common field crop production. CLI Class 3F, 3M, 3T, and 3W soils have moderately severe limitations for common field crop production due to adverse low natural fertility, moisture deficiency, adverse topography, and excess water, respectively. CLI Class 5I soils have very severe limitations for common field crop production due to inundation (flooding) by streams or lakes. CLI Class 6 soils are unsuited for cultivation, but are capable of use for unimproved permanent pasture. The composition of soils mapped within the Subject Lands and their associated CLI Class are summarized in Table 1 below.

Table 1. Regional Soil Series for Subject Lands			
Soil Series	CLI Class	Area (Ha)	% of Subject Lands
Oneida Clay Loam	1	1.76	0.29
	3T	1.18	0.19
Chinguacousy Clay Loam	1	470.90	76.19
Jeddo Clay Loam	3W	15.83	2.56
Pontypool Sandy Loam	3FM	19.37	3.13
	6MT	29.05	4.70
Bottom Land	5I	79.96	12.94
Totals		618.05	100.00%

5.6 Land Use

A reconnaissance level land use survey was completed on June 26, 2024. The land use survey identified the number and type of agricultural operations (both existing and retired), *agriculture-related uses*, *on-farm diversified uses*, and the extent and type of *non-agricultural uses* within the *Study Area*. The crop types observed within the *Study Area* were recorded and mapped.

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

Twenty-two agricultural and former *agricultural uses* were identified during the land use survey. The *agricultural uses* include one *dairy operation*, five *hobby farms*, two beef operations, two *empty livestock operations*, and twelve *remnant farms*. *Remnant farms* have no infrastructure that is capable of housing *livestock*, whereas *empty livestock operations* are not currently housing *livestock*, but have infrastructure that is capable of housing *livestock* with minimal investment.

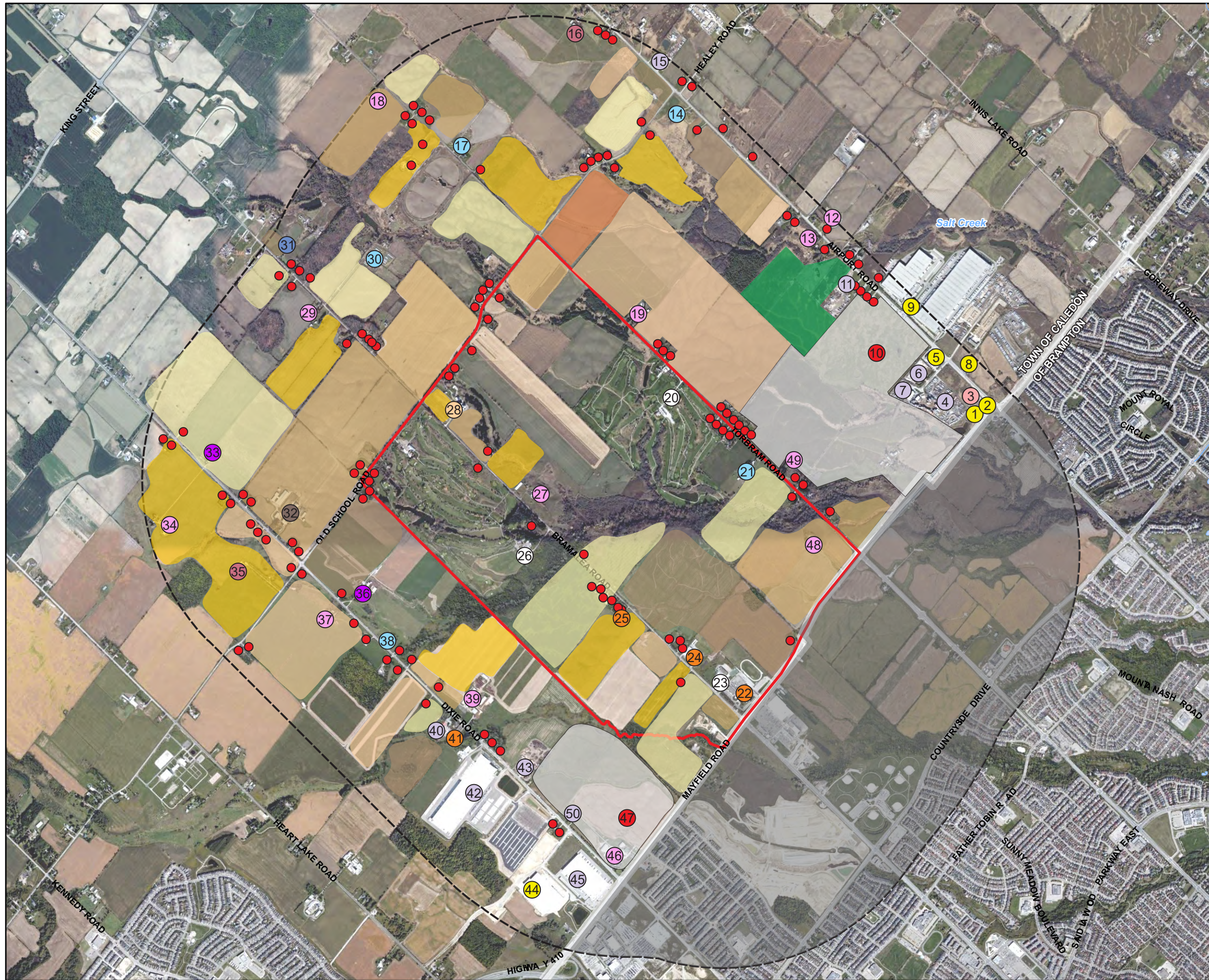
Three *agriculture-related uses* were identified during the land use survey. These uses include one grain elevator, one vegetable wholesaler, and one garden centre. No *on-farm diversified uses* were observed during the land use survey and desktop review.

In addition to the approximately 121 *non-farm residences* observed (excluding the residential area within the City of Brampton *settlement area*), twenty-five *non-agricultural uses* were identified within the Subject Lands and *Study Area*. These uses include six commercial uses, four institutional uses, ten industrial uses, three recreational uses, and two future residential developments. Non-agricultural land uses located within the City of Brampton *settlement area* were not included within the land use notes. A large number of commercial and residential uses were observed within the urban 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.”

Farm types were noted and identified as either active or *retired farm operations* (e.g., *empty livestock operations*), *livestock operations*, *cash crop operations*, or *hobby farms*. *Retired farm operations* were evaluated to determine whether they should be considered an *empty livestock operation* or as a *remnant farm*. *Remnant farms* have no infrastructure that is suitable for housing *livestock*, whereas the infrastructure for an *empty livestock facility* is still in a condition that could permit the keeping of *livestock* with minimal investment.



- Legend**
- Subject Lands
 - 1500m Study Area
- Agricultural Use**
- Remnant Farm
 - Beef Operation
 - Cash Crop Operation
 - Dairy Operation
 - Hobby Farm
 - Empty Livestock Operation
 - Greenhouse
- Agriculture-Related Use**
- Vegetable Wholesaler
 - Grain Elevator
 - Garden Centre
- Non-Agricultural Use**
- Commercial
 - Institutional
 - Industrial
 - Future Residential Development
 - Recreational
 - Non-Farm Residential
- Crop Pattern**
- | | |
|--|---|
| Soy | Idle |
| Corn | Hay |
| Cultivated | Scrubland |
| Cover Crop | Disturbed |

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Figure 3
General Land Use

Agricultural Impact Assessment for
Mayfield Tullamore Secondary Plan Area

Prepared for:
**Mayfield Tullamore
Landowners Group**

Prepared by:
COLVILLE
CONSULTING INC.

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Subject Lands

Three *agricultural uses* were identified within the Subject Lands. These uses include one *hobby farm* (#21), and two *remnant farms* (#27 and #48). The Subject Lands are currently *cultivated* with common field crops including soy, corn, hay, and also include large areas of idle lands, disturbed lands, and two golf courses.

Study Area

Within the *Study Area*, excluding the Subject Lands, nineteen *agricultural uses* were identified. These include one *dairy operation* (#32), four *hobby farms* (#14, #17, #30, and #38), two beef operations (#16 and #35), ten *remnant farms* (#12, #13, #18, #19, #29, #34, #37, #39, #46, and #49), and two *empty livestock operations* (#33 and #36). The two *empty livestock operations* observed were determined to have barns which are capable of housing *livestock*.

5.6.2 Agriculture-Related Uses

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

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

Three *agriculture-related uses* were identified within the *Study Area*. These uses include one grain elevator (#28), one vegetable wholesaler (#31), and one garden centre (#3). The grain elevator is located in within the northern portion of the Subject Lands.

5.6.3 On-Farm Diversified Uses

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

No *on-farm diversified uses* were identified within the Subject Lands nor *Study Area*.

5.6.4 Non-Agricultural Uses

Non-agricultural uses include *non-farm residences*, residential clusters, hamlets and *settlement areas*, municipal utilities, commercial and industrial operations, recreational uses, and institutional uses. Approximately 121

non-farm residences were observed throughout the Subject Lands and *Study Area*, excluding those within the City of Brampton *settlement area*.

Excluding the *non-farm residences*, twenty-five *non-agricultural uses* were identified within the Subject Lands and *Study Area*. These uses include six commercial uses (#1, #2, #5, #8, #9, and #44), four institutional uses (#22, #24, #25, and #41), three recreational uses (#20, #23, and #26), ten industrial uses (#4, #6, #7, #11, #15, #40, #42, #43, #45, and #50), and two future residential developments (#10 and #47).

5.6.5 Land Use Summary

Table 2 below summarizes the types of land uses observed within the Subject Lands and *Study Area*.

Table 2. Summary of Observed Land Uses			
	Total Number	Active	Empty or Remnant
Agricultural	22	Dairy Operation – 1 Hobby Farm – 5 Beef Operation – 2	Empty Livestock Facility – 2 Remnant Farm- 12
Agriculture-Related	3	Grain Elevator – 1 Vegetable Wholesaler – 1 Garden Centre – 1	0
On-farm Diversified	0	0	0
	Total Number	Type	
Non-Agricultural	146	Commercial – 6 Industrial – 10 Future Residential Development – 2 Recreational – 3 Institutional – 4 Rural Residential - ~121	

The lands within the Study Area have already been significantly impacted by non-farm development.

5.6.6 Cropping Pattern

The land use survey completed on June 26, 2024, identified crops based on observations of crop stubble and other identifying features. As shown in Figure 3, the crops grown in the *Study Area*, outside of the City of Brampton *settlement area*, are predominantly a mix of corn, soybeans, hay, and cover crops or *cultivated* lands where land is being used for agricultural crops, but specific crops being grown were not observed. There are also areas of idle lands, scrublands, and disturbed lands.

5.7 Land Improvements

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

5.7.1 Drainage Improvements in Subject Lands

According to OMAFRA's online mapping tool, AgMaps, the Subject Lands contain small amounts of both random and systematic tile drainage. There is approximately 20.37 ha of systematic tile drainage and 31.97 ha of random tile drainage installed within the Subject Lands, with both primarily located in the central and northwestern portion of the Subject Lands, with a small portion of random tile drainage installed in the southern portion. The installation dates of the tile drainage were not available through the AgMaps Portal.

There are no constructed drains present within the Subject Lands.

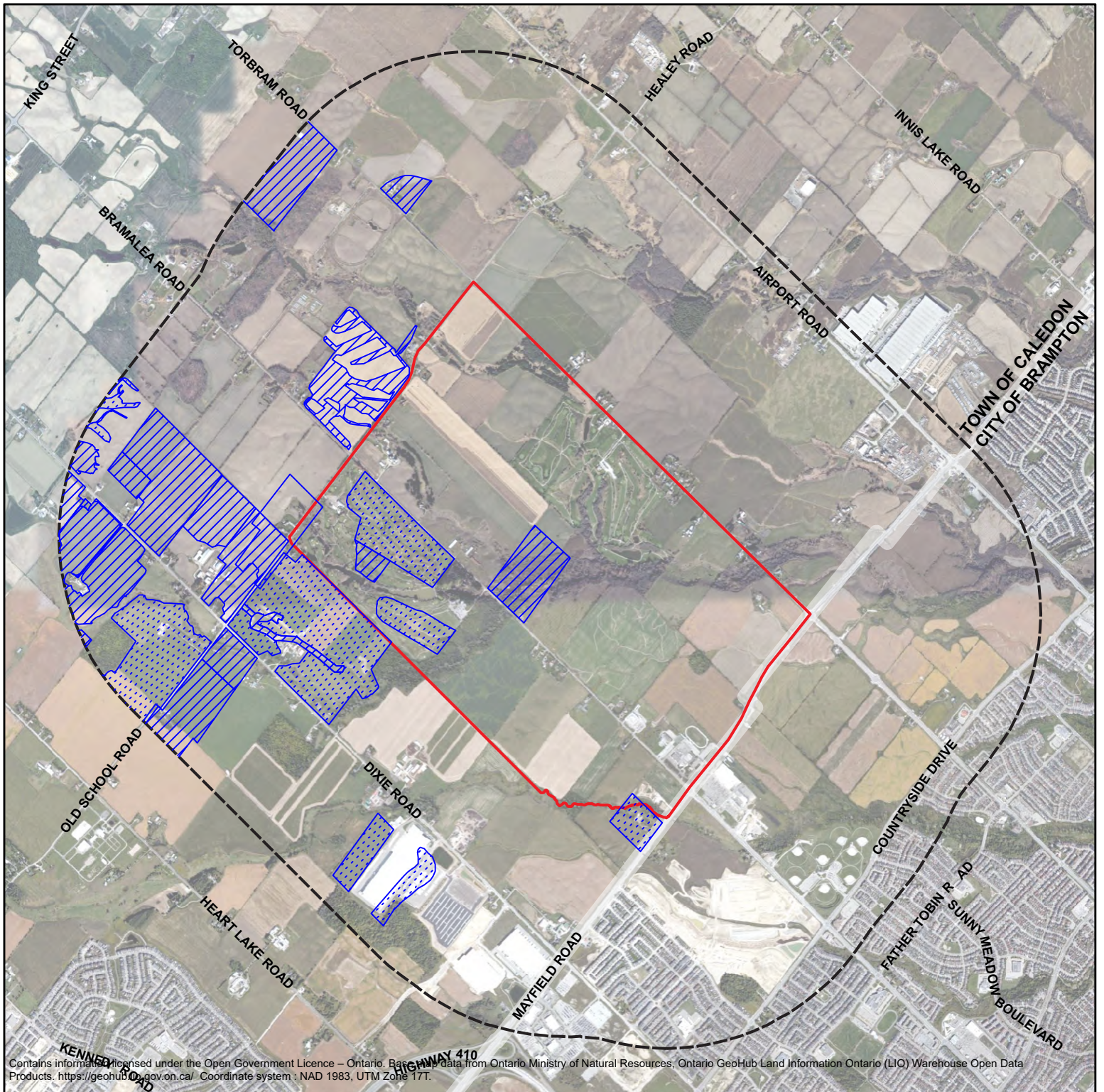
5.7.2 Drainage Improvements in Study Area

Areas of both random and systematic tile drainage are installed within the *Study Area*. Both the systematic and random tile drainage installations are primarily located west of the Subject Lands, with smaller areas of systematic drainage installed to the north and random tile drainage installed to the south of the Subject Lands. Installation dates of the tile drainage were not available through the AgMaps Portal.

There are also no constructed drains present within the *Study Area*.

5.7.3 Other Land Improvements

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



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Legend





-  Subject Lands
-  1500m Study Area
-  Random Tile Drainage
-  Systematic Tile Drainage

Figure 4
Land Improvements

Agricultural Impact Assessment for
Mayfield Tullamore Secondary Plan Area

Prepared for: **Mayfield Tullamore
Landowners Group**

Prepared by: **COLVILLE
CONSULTING INC.**

0 0.5 KM
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DATE:
Aug 2024

FILE:
C24035

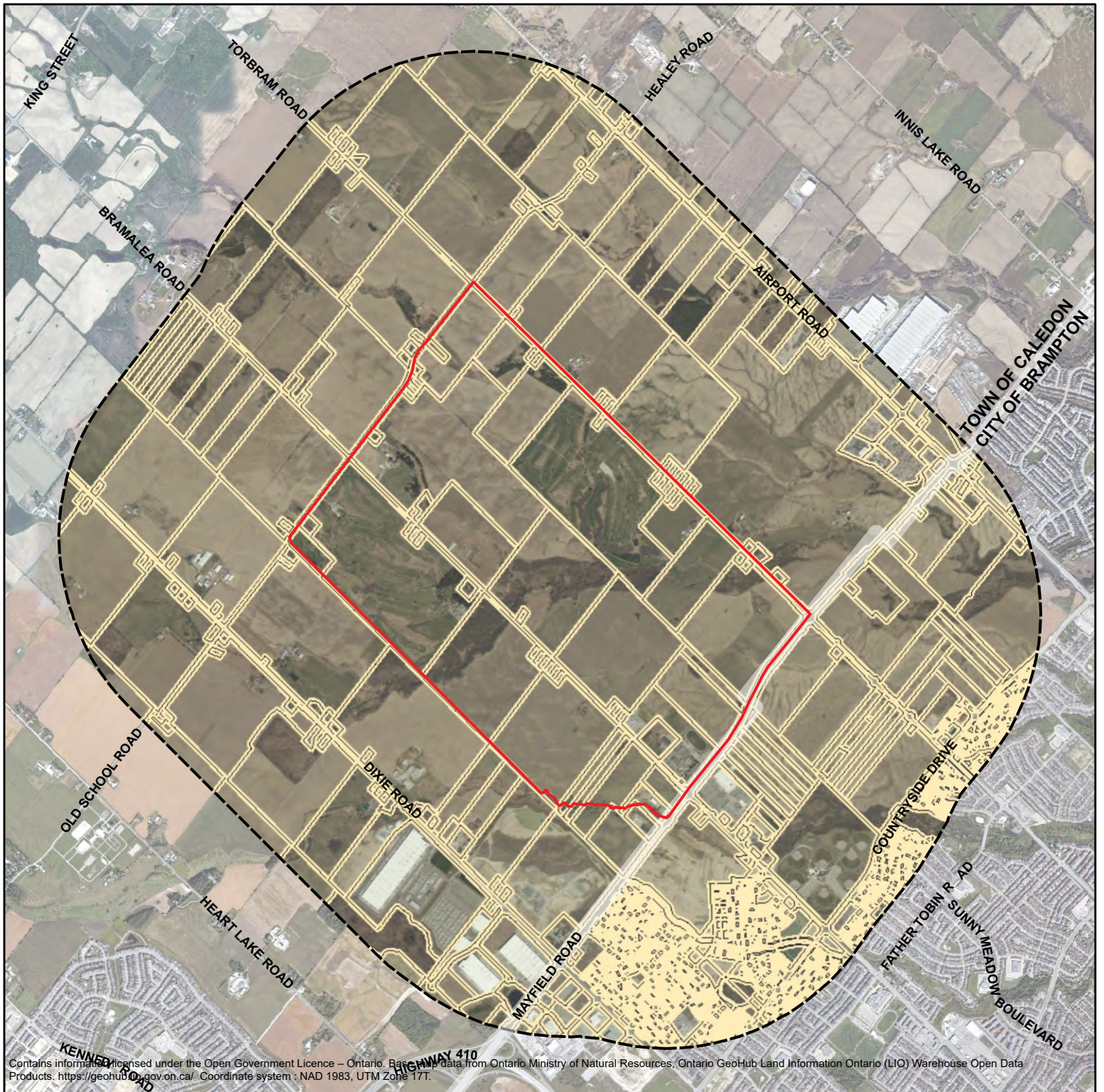
5.8 Fragmentation of Agricultural Lands

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

Additionally, agricultural areas which have been fragmented often have a higher occurrence of *non-agricultural 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 viable economically for *agricultural uses* and generally have fewer sources of non-agricultural land use conflicts. In most cases, these areas have a higher priority for protection. High levels of fragmentation in an agricultural area lower the area's agricultural priority.

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

Based on our review of the lot fabric in the *Study Area* using AgMaps and direct observation, there is a mix of parcel sizes ranging from single residential (< 1 ha) to large agricultural sized parcels (>60 ha). A number of the parcels within the agricultural land base are not suitably sized for a variety of *agricultural uses*. Additionally, the current lot fabric is not reflective of the near-term lot fabric. New community areas were observed to be in development during the land uses survey, and the GTW West Corridor traverses the Subject Lands and Study Area, which will lead to further fragmentation of the area. The Subject Lands are also immediately adjacent to the current City of Brampton *settlement area*, which has been developed for a number of *non-agricultural uses*. The lands within the *Study Area* are highly fragmented and have a high occurrence of *non-agricultural uses*. Fragmentation of the *Study Area* is shown in Figure 5 below.



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Legend

- Subject Lands
- 1500m Study Area
- Fragmentation

**Figure 5
Fragmentation**

Agricultural Impact Assessment for
Mayfield Tullamore Secondary Plan Area

Prepared for: **Mayfield Tullamore
Landowners Group**

Prepared by: **COLVILLE
CONSULTING INC.**

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5.9 Minimum Distance Separation

5.9.1 Application of MDS

As previously mentioned, the *MDS formulae* only apply to lands outside of approved *settlement areas*. Guideline #36 of the MDS Guidance Document states that “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.”

The Region of Peel has incorporated the Subject Lands into the 2051 New Urban Area and considers these lands to be within the Urban System. Through a phone call with an OMAFRA land use planner on January 9, 2024, it was confirmed that, although the Subject Lands are designated Prime Agricultural Area within the approved Town of Caledon Official Plan, Guideline #36 applies to the Subject Lands due to of their inclusion within the Region of Peel’s approved *settlement area*. It is worth noting that the land use planner also stated that under similar circumstances, local municipalities may require the application of the *MDS formulae* if the regional municipality defers the requirement to the local municipality through Official Plan policy. However, the Region of Peel has not deferred this requirement to the local municipalities.

Section 4.2.3.3.1 of the Town of Caledon Official Plan outlines policy for *settlement area* boundary expansion. Section 4.2.3.3.1 states in part that:

Expansions to settlements will require an amendment to this Plan and shall be undertaken through a municipal comprehensive review that will address the following:

- j) *Compliance with minimum distance separation formulae;*

The Town of Caledon Official Plan defines the *minimum distance separation formulae* as “Formulae and guidelines developed by the Province, as amended from time to time, to separate uses to reduce incompatibility concerns about odour from livestock facilities.” Given the confirmation that Guideline #36 applies to the Subject Lands, and the Town of Caledon clearly states that the Provincial *MDS formulae* and guidelines are to be used, the proposed *development* is not required to comply with *MDS I* setbacks. Therefore, compliance with the *MDS formulae* has been achieved for the proposed *development*.

Although it is not required through policy, *MDS I* setbacks were calculated for all *livestock facilities* capable of housing *livestock* observed within 1,500 m of the Subject Lands. The purpose of this exercise was to identify the potential degree of impact associated with nuisance complaints from odours of surrounding agricultural operations and provide mitigation measures if impacts were anticipated.

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* will contain a mix of *non-agricultural land uses*, which are considered to be Type B (more sensitive) land uses.

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 requesting information which would enable the calculation of *MDS* setback

requirements at *livestock operations* that had the potential to create *MDS* constraints for the Subject Lands were left.

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 Results

The *MDS I* formula was applied to eight *livestock facilities*, which are capable of housing *livestock*, observed within 1,500 m of the Subject Lands. Figure 6 shows the *MDS I* setback distances for the identified *livestock operations*. The *MDS I* setbacks for Operations #32 and #35 can be reduced due to the presence of four or more non-agricultural land uses within the intervening area. However, the *MDS I* setback distance was only reduced for Operation #32 as the full *MDS I* setback for Operation #35 does not encroach into the Subject Lands. Figure 6 shows that two of the *MDS* setback distances for the *livestock operations* identified in the *Study Area* extend into the Subject Lands (Operations #32 and #36). As previously stated, the proposed *development* is not required to comply with the *MDS I* setback distances, as the Subject Lands are within an approved settlement area.

Table 3 summarizes the level of encroachment the proposed *development* has on the *livestock operations* and the level of compliance with *MDS* setback achievable. The AgriSuite *MDS* reports for these operations are provided in Appendix H. Although the proposed *development* is not required to comply with the *MDS I* setback requirements, the calculated *MDS I* setbacks do not encroach into the Subject Lands and specific mitigation measures to minimize conflict are not required.

Table 3. 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?
14	327 m	462 m	1,214 m	Yes
16	230 m	230 m	1,452 m	Yes
17	281 m	281 m	798 m	Yes
21	228 m	228 m	Within Subject Lands	Yes
32	477 m*	456 m*	455 m	Yes
33	371 m	N/A	993 m	Yes
35	430 m	430 m	970 m	Yes
36	500 m	500 m	431 m	Yes

* *MDS I* setback distance reduced through application of Guideline #12



- Legend**
- Subject Lands
 - 1500m Study Area
- Agricultural Use**
- Remnant Farm
 - Beef Operation
 - Cash Crop Operation
 - Dairy Operation
 - Hobby Farm
 - Empty Livestock Operation
 - Greenhouse
- Agriculture-Related Use**
- Vegetable Wholesaler
 - Grain Elevator
 - Garden Centre
- Non-Agricultural Use**
- Commercial
 - Institutional
 - Industrial
 - Future Residential Development
 - Recreational
 - Non-Farm Residential
- MDS I**
- Livestock Facility Setback (Confirmed)
 - Manure Storage Setback (Confirmed)
 - Livestock Facility Setback (Unconfirmed)
 - Manure Storage Setback (Unconfirmed)
 - Area of Encroachment

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Figure 6
MDS I Mapping

Agricultural Impact Assessment for
Mayfield Tullamore Secondary Plan Area

Prepared for:
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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 agriculture and agri-food sector is one of the largest primary goods producing sectors and at one time played a larger role in the Town of Caledon and Region of Peel economies. However, according to Census of Agriculture data, the total number of farms in the Region of Peel decreased from 440 in 2011, to 408 in 2016, to 377 farms in 2021. The Town of Caledon observed a similar trend of decreasing farm numbers, with data showing 365 farms in 2011, 345 farms in 2016, and 308 farms in 2021. These farms employ residents from the Region of Peel and the Town of Caledon, contributing economically to the area and supporting the *agri-food network*.

As of 2021, the agriculture, forestry, fishing and hunting industry employed approximately 1,465 individuals within the Region of Peel, which is a decrease from the 2,010 individuals employed in 2016. The Town of Caledon observed a similar decrease in individuals employed by the agriculture, forestry, fishing and hunting industry, with data showing the industry employed 600 individuals in 2016 and 505 individuals in 2021. Within the Region of Peel, there were approximately 6,993 agri-food businesses in 2021, with 569 of these businesses located within the Town of Caledon. Both the Region of Peel and the Town of Caledon have experienced a slight increase in agri-food businesses from 2016 to 2021.

As of 2021, of the 308 total farms within the Town of Caledon, seven farms were valued under \$200,000, three farms were valued between \$200,000 and \$499,999, 26 farms were valued between \$500,000 and \$999,999, and 272 farms were valued \$1,000,000 and over. Over the past three census periods, the number of farms valued at \$1,000,000 and over has increased, with the number of farms valued under \$1,000,000 decreasing.

The Subject Lands are located in a fast-developing area in which the lands are being transformed from agriculture to *non-agricultural uses*, in part due to the Region of Peel settlement area boundary expansion. While agriculture in this area still provides economic and community benefits, the influence of agriculture is waning in the *Study Area*.

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 longer-term impacts will be difficult to mitigate as the area transforms to an urban area.

6. ASSESSMENT OF AGRICULTURAL PRIORITY

The *PPS* requires that non-agricultural *developments* avoid locating in *prime agricultural areas* whenever possible. Where this is not possible or practical, the *PPS* directs *development* to lands with lower agricultural priority. When choosing between two or more locations with the same or similar agricultural capability, the *PPS* directs *development* to “lower priority agricultural lands”. Although, neither the *PPS* nor OMAFRA specifically defines in policy “lower priority agricultural lands”, there are a number of considerations used by OMAFRA to determine the ‘agricultural priority’ of an area. These considerations include the ability of the site to comply with the requirements of *MDS I*, current land use, amount of capital investment in agricultural infrastructure, amount of land under active cultivation, existing degree of lot fragmentation to the surrounding agricultural land base, and proximity to incompatible land uses such as urban and rural *settlement areas*.

The Subject Lands are located within the Town of Caledon’s *prime agricultural area*; therefore, an assessment of the agricultural priority of the Subject Lands are required to be consistent with OMAFRA’s draft Agricultural Impact Assessment Guidance Document. This analysis involves an assessment of whether the lands are part of a *specialty crop area*, the soil capability relative to other lands within the *Study Area*, the level of investment in agricultural infrastructure and land improvements, the parcel size, presence of existing *non-agricultural uses*, ability to minimize potential conflict (e.g., meeting the *MDS I* setback requirements), and the zoning of the parcel.

We have concluded that the Subject Lands are lower priority agricultural lands for the following reasons:

1. They are part of the 2051 New Urban Area within the Urban System and mapped as Designated Greenfields Area in the Region of Peel Official Plan. This indicates further non-agricultural *development* in the future and the likely removal of the Town of Caledon’s Prime Agricultural Area designation following provincial approval of the Future Caledon Official Plan;
2. They are not located within a provincially recognized *prime agricultural area*;
3. They are not located within a *specialty crop area* and no specialty crops are grown in the vicinity;
4. They are located in a highly fragmented area in which there is a mix of agricultural and *non-agricultural uses*, and a major 400 series highway. The presence and prevalence of the *non-agricultural uses* increases the potential for conflict arising between agricultural and *non-agricultural uses* which in turn reduces the agricultural priority of the area;
5. The Subject Lands are located in close proximity to the *settlement area* boundary of the City of Brampton. The close proximity of the *non-agricultural uses* significantly increases the potential for conflicts with agriculture and make these lands less desirable to farm than other lands further removed from these non-agricultural influences;
6. High traffic volumes along Mayfield Road make moving farm machinery difficult and dangerous at times. Traffic volumes are expected to increase as *development* within the *Study Area* continues;
7. *MDS I* setback requirements can be met for the proposed *development* on the Subject Lands; and
8. The close proximity to a settlement boundary and non-agricultural uses creates *MDS* setback constraints that limit the use of the Subject Lands for housing livestock and manure storage.

7. ASSESSMENT OF ALTERNATIVE LOCATIONS

The evaluation of alternative locations as part of an AIA needs to demonstrate that higher quality agricultural land was avoided by selecting lower priority lands when *prime agricultural areas* cannot be avoided.

7.1 Provincial Policy

Section 2.3.5.1 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 1.1.3.8.”

Section 1.1.3.8 states that a planning authority may identify or allow for the expansion of a settlement area boundary only at the time of a comprehensive review and under certain conditions. These conditions include:

- a) *sufficient opportunities to accommodate growth and to satisfy market demand are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon;*
- b) *the infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;*
- c) *in prime agricultural areas:*
 1. *the lands do not comprise specialty crop areas;*
 2. *alternative locations have been evaluated, and*
 - i. *there are no reasonable alternatives which avoid prime agricultural areas; and*
 - ii. *there are no reasonable alternatives on lower priority agricultural lands in prime agricultural areas;*
- d) *the new or expanding settlement area is in compliance with the minimum distance separation formulae; and*
- e) *impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.*

As mentioned previously, the Subject Lands are no longer provincially recognized as being part of a *prime agricultural area* following provincial approval of the Region of Peel Official Plan in November 2022. Therefore, an assessment of alternative locations for settlement area boundary expansion is not required for the proposed development.

7.2 Evaluation of Alternative Locations

The updated Region of Peel Official Plan was approved by the Province and shows the Subject Lands within the 2051 New Urban Area in the Urban System and designates the Subject Lands as Designated Greenfields Area. Therefore, the Subject Lands are no longer provincially recognized as being part of a *prime agricultural area*. Given the Subject Lands’ approved designation in the Region of Peel Official Plan,

the level of non-agricultural *development* in the *Study Area*, and the close proximity to the City of Brampton *settlement area*, the Subject Lands are a logical location for the proposed development.

7.2.1 Avoidance of Prime Agricultural Areas

The Agricultural Systems Portal shows that nearly all lands surrounding the Town of Caledon and City of Brampton *settlement areas* are located within the Greater Golden Horseshoe's Prime Agricultural Area. However, the updated Region of Peel Official Plan was approved by the Province, designating the Subject Lands as Designated Greenfield Area and maps them as part of the 2051 New Urban Area within the Urban System. The Provincial approval resulted in the Subject Lands' removal from the provincially recognized *prime agricultural area*. It is anticipated that the Subject Lands will also be removed from the Town of Caledon's Prime Agricultural Area designation following the provincial approval of the Future Caledon Official Plan. Therefore, the proposed *development* is consistent with Section 2.3.6.1.4 i) and will avoid a *prime agricultural area*.

7.2.2 Low Priority Alternative Areas

Where it is not possible or practical to avoid lands within a *prime agricultural area*, the *PPS* directs *development* to locate on lands with lower agricultural priority. As discussed in Section 6 of this AIA, the Subject Lands are lower priority agricultural lands for a variety of reasons.

7.3 Summary of Assessment of Alternative Locations

Assuming that the need for additional urban areas has been demonstrated, the removal of these lands from the Town's prime agricultural area for urban uses is consistent with provincial policy. The Subject Lands are a reasonable choice of location as they are lower priority agricultural lands; and they can meet the *MDS* setback requirements.

8. ASSESSMENT OF IMPACTS TO AGRICULTURE

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

The proposed *development* will have both direct and indirect impacts. It is unlikely that the proposed *development* will have significant, long-term negative effects on the surrounding agricultural lands and community.

8.1 Direct Impacts

8.1.1 Prime Agricultural Lands

The Subject Lands are approximately 618.05 ha (1,527.23 acres) in size, of which approximately 509.04 ha are *prime agricultural lands*. *Development* of these lands will lead to the loss of the *prime agricultural lands*. However, the portion of the Subject Lands which are located within the Greenbelt Plan area (approximately 197.3 ha) are not proposed for development. The proposed *development* will result in the loss of approximately 410 ha of *prime agricultural lands*. To mitigate this loss, *development* should be phased, and *prime agricultural lands* should be kept in agricultural production until the land is needed for development.

8.1.2 Agricultural Infrastructure

There are three agricultural operations and one *agriculture-related use* within the Subject Land which contain agricultural infrastructure. The proposed *development* will eventually result in the loss of the infrastructure associated with these operations. To mitigate this loss, *development* should be phased if possible, and the agricultural infrastructure should be left in place until the land is to be developed.

8.1.3 Agricultural Land Improvements

The Subject Lands contain approximately 20.37 ha of systematic tile drainage and 31.97 ha of random tile drainage. The *development* of the Subject Lands will result in the removal of the systematic and random tile drainage. *Development* of the Subject Lands will result in the loss of this agricultural investment but it will have a negligible impact on the local *Agricultural System*.

8.1.4 Loss of Crop Land

The Subject Lands are primarily *cultivated* for the production of common field crops, but also contain large portions of natural heritage areas, recreational uses, and disturbed lands. Of the Subject Lands' 618.05 ha, approximately 213.22 ha of land are *cultivated*. The *development* of the Subject Lands will result in the loss of these cultivatable lands. To mitigate this loss, lands should be left in agricultural production until the lands are to be developed.

8.2 Indirect Impacts

Potential impacts to adjacent farm operations and farm practices are considered to be indirect impacts. These would include changes to the surface drainage that could impact adjacent lands, disruption to farm

traffic and access to adjacent agricultural fields, instances of trespass and vandalism, and conflicts arising from farm odour and other nuisance complaints often received by farmers in close proximity to *non-agricultural uses*.

8.2.1 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 agricultural lands. To ensure potential impacts are mitigated, a Grading Plan and Stormwater Management Plan should be prepared. Implementation of the recommendations provided in these studies will minimize or eliminate the potential impacts, which are expected to be negligible.

8.2.2 Disruption to Farm Operations

Most active agricultural operations in the *Study Area* are well removed from the Subject Lands and are unlikely to experience any form of disruption to their operations. The southeastern edge of the Subject Lands also immediately abut lands that are part of the City of Brampton *settlement area*. Access points to farm operations should be identified and construction activity should ensure that access to farmlands is maintained at all times. It is unlikely that there will be a negative impact on farm operations due to the proposed *development*.

The proposed *development* will have no impact on the flexibility of surrounding lands to accommodate changes in types of farming. The adjacent lands will not be affected and 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. A Hydrogeological Study should be prepared with consideration of potential impacts on agricultural wells and water sources. It is anticipated that the Hydrogeological Study will provide recommendations to mitigate impacts if impacts to these water sources occur.

Noise, dust, and light can have a negative impact on some farm operations. Construction may temporarily generate greater levels of noise, dust, and lighting. No sensitive farm operations were identified that would be impacted by noise, dust, and lighting. However, it is recommended that these elements be controlled and in compliance with Ministry of Environment, Conservation and Parks (MECP) guidelines. No negative indirect impacts are anticipated from construction activity.

8.2.3 Trespass and Vandalism

Farm operations within the *Study Area* may already have to deal with the potential for trespass and vandalism due to the proximity of the City of Brampton *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 farmer's fields. Establishing buffers, fencing, and other edge planning techniques should be considered to minimize impacts.

8.2.4 Minimum Distance Separation

The MDS I setback requirements have been calculated for all active *livestock* and *retired livestock operations* capable of housing *livestock* in the *Study Area*. There are no development constraints related to the MDS. The proposed Secondary Plan and subsequent *development* will comply with the *MDS formulae*.

8.2.5 Transportation Impacts

The Region's expansion of the urban area and the proposed 400 series highway that traverses the central portion of the Subject Lands will substantially transform the agricultural character of the area. It is expected that traffic volumes will increase accordingly. Currently, there is a substantial amount of traffic along Mayfield Road, and it is likely that the Mayfield Tullamore *development* will introduce significantly more traffic to these roads over time. Given the close proximity of the City of Brampton *settlement area* and the existing *non-agricultural uses* within the *Study Area*, it is likely that the agricultural operations in the *Study Area* have already become accustomed to non-farm traffic and modified their practices accordingly. Many of the farm operations to the west and east of the Subject Lands are also within the Region's settlement area boundary and will eventually be retired. Increased traffic levels will have no long-term impact on these farm operations.

In the short-term, to ensure transportation impacts are minimized, a Traffic Impact Study should be prepared for the proposed *development* and recommendations outlined in that study to minimize impacts on farm operations should be adhered to minimize potential impacts.

8.2.6 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 Town of Caledon still provides economic and community benefits, the influence of agriculture is waning in the *Study Area*. The proposed *development* is anticipated to be beneficial to the local and regional economies through the increase in population 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 land is to be developed.

8.3 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, some consideration should be given to minimizing the length of the AUI. The proposed *development* of the Subject Lands does not substantially create a new agricultural/urban interface because the majority of the boundary is already formed by existing urban areas or roadways. Edge planning techniques should be considered along the boundary of the Greenbelt Plan area.

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 to reduce potential impacts on farmers and non-farmers are discussed below.

8.3.1 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 agricultural-urban interface (AUI) as much as possible.

8.3.2 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.

8.3.3 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.).

8.3.4 Urban-Side Buffer Design

As part of the building setback, the urban-side buffer design should include a continuous vegetative buffer along the urban-side of the AUI 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 total 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.

8.3.5 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.

8.4 Summary of Impacts

The potential direct and indirect impacts identified are summarized in Table 4 along with the potential degree of impact, mitigation measures to avoid or minimize the potential impact, and the resulting anticipated impact.

Table 4. Summary of Impacts			
Potential Impact	Relative Degree of Impact	Mitigation Measure	Anticipated Net Impact
Direct Impacts			
Loss of <i>prime agricultural land</i>	High	♦ Consider phasing <i>development</i> to allow for continued cultivation until lands are required for <i>development</i> .	Eventual loss of approximately 410 ha of <i>prime agricultural lands</i>
Loss of agricultural infrastructure	Moderate	♦ Consider phasing <i>development</i> to allow agricultural operations until lands are required for <i>development</i> .	Eventual loss of agricultural infrastructure from three agricultural operations and one agriculture-related use
Loss of agricultural land improvements	Low	♦ None required	Loss of approximately 52.34 ha of tile drainage
Loss of cropland	High	♦ Consider phasing <i>development</i> to allow for continued cultivation until lands are required for <i>development</i> .	Eventual loss of approximately 213.22 ha of cultivatable land
Indirect Impacts			
Surficial Drainage	Low	♦ Prepare a Grading Plan and Stormwater Management Plan. ♦ Implement recommendations if impact identified.	No impact anticipated
Disruption to Farm Operations	Low	♦ Ensure that access to farm operations and farm fields is maintained at all times.	No significant impact anticipated
Non-farm traffic	Low	♦ Traffic Impact Study to assess potential impacts. ♦ Implement recommendations if impact identified.	No significant impact anticipated

Table 4. Summary of Impacts			
Potential Impact	Relative Degree of Impact	Mitigation Measure	Anticipated Net Impact
Trespass, Vandalism, and Stray Pets	Low	<ul style="list-style-type: none"> ♦ Implement edge planning techniques to minimize conflicts along the agricultural and urban interface. ♦ If trespass and unintended damage to farm fencing, machinery, crops, etc. become a problem for neighbouring farm operations, place signage reminding residents that farm lands are private and that trespassing is prohibited. 	No significant impact anticipated
Noise, Dust & Light	Low	<ul style="list-style-type: none"> ♦ Adhere to Ministry of the Environment and Climate Change (MOECC) guidelines 	No Impact
Conflict with <i>MDS formulae</i>	Low	<ul style="list-style-type: none"> ♦ None required. Complies with MDS Formulae 	No Impact
Economic	Low	<ul style="list-style-type: none"> ♦ None required 	No significant impact
Wells, Irrigation, water bodies	Low	<ul style="list-style-type: none"> ♦ Completion of Hydrogeological Study to identify potential impacts. ♦ Implement recommendations if impact identified. 	No impact anticipated

9. CONSISTENCY WITH AGRICULTURAL POLICIES

9.1 Provincial Policy Statement

The updated Region of Peel Official Plan shows the Subject Lands within the 2051 New Urban Area in the Urban System and designates the Subject Lands as Designated Greenfields Area. The Provincial approval of the Region of Peel Official Plan in November of 2022 resulted in the Subject Lands being removed from the provincially recognized *prime agricultural area*. Therefore, the agricultural policies of the *PPS* are not applicable to the Subject Lands. The proposed development will comply with the *MDS formulae* and recommendations have been made to mitigate the potential impacts of the proposed development. The proposed *development* does not conflict with the agricultural policies of the *PPS*.

In the event that the Provincial Planning Statement is implemented prior to the submission of the *development* application, the agricultural policies of the *PPS* will not be applicable, as the Provincial Planning Statement will replace the *PPS* and the Growth Plan.

9.2 Provincial Planning Statement

The approved Region of Peel Official Plan removed the Subject Lands from a provincially recognized *prime agricultural area*. Therefore, the agricultural policies of the proposed Provincial Planning Statement are not applicable to the Subject Lands. The proposed *development* will comply with the *MDS formulae* and recommendations have been made to mitigate the potential impacts of the proposed *development*. In the event that the Provincial Planning Statement is implemented prior to submission of the *development* application, the proposed *development* will not conflict with the agricultural policies of the Provincial Planning Statement.

9.3 A Place to Grow: Growth Plan for the Greater Golden Horseshoe

The Subject Lands are located within the Greater Golden Horseshoe but are no longer part of the Agricultural Land Base following the approval of the updated Region of Peel Official Plan. Since their removal, Sections 2.2.8.3 f) and 4.2.6 are not applicable to the Subject Lands. The proposed development will comply with the *MDS formulae* and recommendations have been made to mitigate the potential impacts of the proposed *development*. Therefore, the proposed development is consistent with the agricultural policies of the Growth Plan.

In the event that the Provincial Planning Statement is implemented prior to the submission of the *development* application, the agricultural policies of the Growth Plan will not be applicable, as the Provincial Planning Statement will replace the Provincial Policy Statement and the Growth Plan.

9.4 Region of Peel Official Plan

The Region of Peel Official Plan recognizes the Rural System, which includes lands designated as Prime Agricultural Area and Rural Lands. The Subject Lands are not located within the Rural System of the Region of Peel. The updated Regional Official Plan shows the Subject Lands within the 2051 New Urban Area in the Urban System and designates the Subject Lands as Designated Greenfields Area. As such, adherence to the agricultural policies of the Region of Peel Official Plan is not required.

9.5 Town of Caledon Official Plan

Section 4.2.3.3.1 of the Town of Caledon Official Plan outlines the requirements for settlement area boundary expansion and states that “Expansions to settlements will require an amendment to this Plan and shall be undertaken through a municipal comprehensive review”. Section 4.2.3.3.1 states in part that the municipal comprehensive review “will address the following:

- h) An examination of reasonable alternative locations which avoid Prime Agricultural Areas, and reasonable alternative locations on lands with lower priority in the Prime Agricultural Area;
- j) Compliance with minimum distance separation formulae;
- o) Mitigation of impacts of settlement area expansions on agricultural operations which are adjacent to or close to the settlement area to the greatest extent feasible;”.

Section 5.1.1.17.1 of the Town of Caledon Official Plan states “Proposals in the Prime Agricultural Area that have the potential to negatively impact agricultural uses will require an Agricultural Impact Assessment”.

This AIA fulfills the requirement of completing an Agricultural Impact Assessment for non-agricultural *development* in the Town of Caledon’s Prime Agricultural Area. The proposed Secondary Plan and subsequent *development* avoids the Region’s prime agricultural areas and the development utilizes lower priority agricultural lands. The proposed development will comply with the *MDS formulae*, and mitigation measures have been provided to minimize impacts on existing agricultural resources.

9.6 Future Caledon Official Plan

Schedule B4 of the Future Caledon Official Plan indicates that the Subject Lands are designated as New Community Area and New Employment Area within the Town’s Urban Area. None of the Subject Lands’ developable area falls within the Town’s Rural Lands or Prime Agricultural Area land use designation. Consequently, the agricultural policies of the Future Caledon Official Plan are not applicable to the proposed development, pending provincial approval of the Future Caledon Official Plan. Should the Province amend the Future Caledon Official Plan to exclude any portion of the Subject Lands from the Urban Area, the AIA will be revised through an addendum to ensure the proposed *development* aligns with the approved Future Caledon Official Plan.

10. 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 are not located in a provincially recognized *prime agricultural area* and are not part of the *Agricultural Land Base*. Therefore, the proposed *development* is consistent with the agricultural polices of the *PPS*, Growth Plan, and the Region of Peel Official Plan;
2. The Town of Caledon still considers the Subject Lands to be part of a *prime agricultural area* and are designated Prime Agricultural Area in the Town of Caledon Official Plan. However, it is understood that the agricultural designation is likely to be removed from its prime agricultural area and designated as New Community Area and New Employment Area. Therefore, the proposed *development* will comply with the local official plan;
3. Potential impacts of the proposed *development* are primarily limited to the loss of *prime agricultural land*, cultivatable land, tile drainage, and farm infrastructure. 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 is consistent with PPS policy 1.1.3.8 d) and e);
5. The majority of lands outside of the Town of Caledon and City of Brampton *settlement area* boundaries are considered to be part of a *prime agricultural area*. The Subject Lands are located within the Region of Peel's settlement area and are not part of the agricultural land base. Therefore, these are lower priority lands. These lands are a reasonable location compared to alternative lands within the Region's agricultural land base; and
6. The proposed *development* will comply with all relevant provincial and regional agricultural policies. It is anticipated that the Subject Lands will be brought into the Town of Caledon *settlement area* and will comply with the local agricultural policies at such time.

Respectfully submitted by:



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



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

11. GLOSSARY OF TERMS

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

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

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

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

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

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.

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).

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 farm/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.

Empty livestock facility/operation: - A livestock barn 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.

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

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

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

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

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

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

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

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

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

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

Non-agricultural uses:* - Buildings designed or intended for a purpose other than an *agricultural use*; as well as land, vacant or otherwise not yet fully developed, which is zoned or designated such that the principal or long-term use is not intended to be an *agricultural use*, including, but not limited to: commercial, future urban development, industrial, institutional, *open space uses*, *recreational uses*, *settlement area*, *urban reserve*, etc.

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

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

innovative technology in a manner consistent with proper advanced farm management practices. *Normal farm practices* shall be consistent with the *Nutrient Management Act, 2002* and regulations made under that Act.

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

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

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

Retired livestock/farm operation: - means a former farm operation whose buildings or farm related structures remain; however, it has either been converted to a non-agricultural use; would require significant upgrades and investment to modernize; or it is in poor condition and not suitable for agricultural uses. The MDS may still apply if it is a former livestock facility.

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

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

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

- 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 planning horizon provided for in policy 1.1.2 of the PPS. In cases where land in designated growth areas is not available, the settlement area may be no larger than the area where development is concentrated.

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

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.

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

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

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

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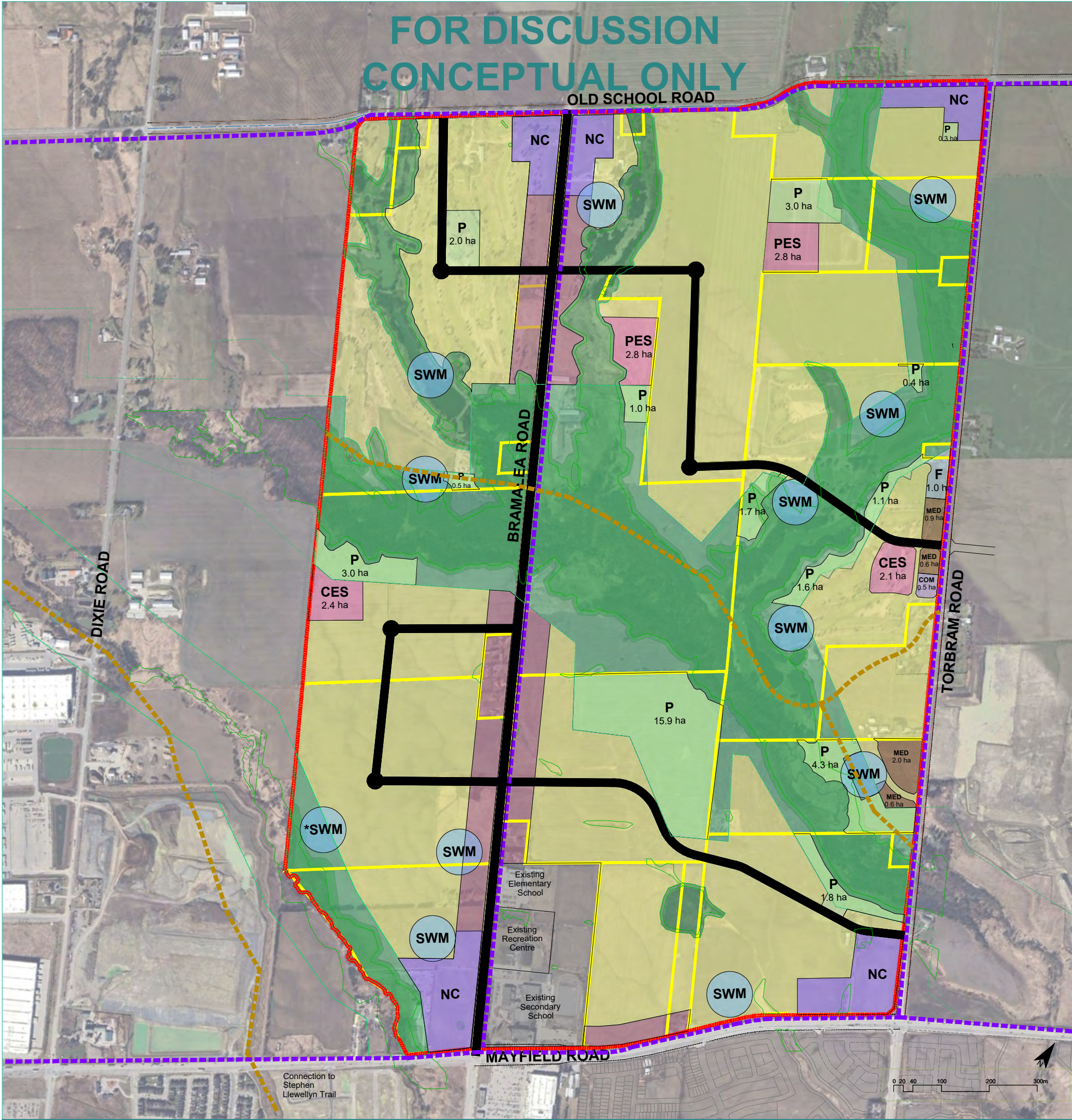
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APPENDIX A

Structure Plan

FOR DISCUSSION CONCEPTUAL ONLY



MAYFIELD TULLAMORE LAND OWNERS GROUP

STRUCTURE PLAN-PREFERRED OPTION

LAND USE	AREA OUTSIDE GB	AREA WITHIN GB	TOTAL
Community Area	267.4	0.0	267.4
Medium Density	3.9	0.0	3.9
Urban Corridor	27.6	0.0	27.6
Neighbourhood Centre	21.9	0.0	21.9
School	10.2	0.0	10.2
Park	5.4	31.3	36.7
Collector Roads (incl. Bramalea)	26.3	0.7	27.0
Open Space	29.0	165.3	194.3
Existing Schools and Rec Centre	20.0	0.0	20.0
TOTAL	411.7	197.3	609.0

TRAILS

- Multi Use Trail
- Multi Use Path

Note:
Natural Heritage features are not show as they are under study. The developable area is preliminary and requires further technical study to confirm the limit. As such, the developable area is subject to change.

SWM Stormwater Management Facility

* Provisional SWM

MGP File No.: 24-3365
Date: June 20, 2024
Date or Air Photography: April 2024 Google

MGP Malone
Given
Parsons.
140 Renfrew Drive, Suite 201 | Markham, ON | L3R 0B3
905 513 0170 | mgp.ca

APPENDIX B

Curriculum Vitae



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

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

EDUCATION

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

PROFESSIONAL AFFILIATIONS

Ontario Institute of Agrology
Agricultural Institute of Canada

POSITIONS HELD

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

EXPERIENCE

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

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

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

Agricultural Impact Assessments and Alternative Site Studies

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

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

Recent examples of Sean Colville's agricultural work include:

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

Publications

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

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

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

EDUCATION

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

PROFESSIONAL AFFILIATIONS

Eco Canada – Environmental Professional in Training

POSITIONS HELD

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

EXPERIENCE

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

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

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

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

ADDITIONAL TRAINING AND WORKSHOPS

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

Windmill Safety Training – Stantec Inc (2022)

Workplace Hazardous Materials Information System

Natural Gas Pipeline Safety Training – TC Energy (2022)

Excavation Safety Training – TC Energy (2022)

Supervisor (Level 2) Ground Disturbance Training (2022)

APPENDIX C

Climate Normals Data

LOCATION_NAME	PROVINCE	PERIOD_OF_RECORD	ELEMENT_GROUP	NORMALS_ELEMENT	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Code
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Daily Average (°C)		-5	-4.4	0.6	7	13.7	19.2	22.1	21.1	16.9	10	4.1	-1.6	8.6 B
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	StdDev Mean Monthly Temperature (°C)		3	3	2.2	1.6	2	1.3	1.8	1.3	1.7	1.3	2	2.1	1.3 B
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Daily Maximum (°C)		-1.2	-0.3	5	12	19.2	24.5	27.4	26.3	22.3	14.6	7.9	1.9	13.3 B
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Daily Minimum (°C)		-8.9	-8.5	-3.8	1.9	8.2	13.9	16.6	15.8	11.6	5.3	0.2	-5	3.9 B
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Maximum Daily Mean (°C)		13.4	10.9	18.2	22.4	27.6	29.5	31.8	31.5	28.5	24.5	16.1	14.1	
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Maximum Daily Mean (°C) Date (yyyy/mm/dd)	2008-01-08	2017-02-23	2012-03-22	2002-04-17	2006-05-30	2012-06-20	2011-07-21	2006-08-01	2016-09-07	2002-10-01	2020-11-10	2001-12-05		
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Minimum Daily Mean (°C)		-24.7	-22.3	-18.8	-4.7	0.9	8.4	13.6	13.2	4.5	-1	-9.6	-18.6	
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Minimum Daily Mean (°C) Date (yyyy/mm/dd)	1994-01-15	2015-02-15	2003-03-03	2003-04-06	2020-05-08	1992-06-20	1992-07-31	1992-08-13	1993-09-30	2020-10-30	2018-11-22	2017-12-31		
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Extreme Maximum (°C)		17.6	17.7	26	29.6	34.1	36.2	37.9	37.9	35	31.8	24.3	18.3	
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Extreme Maximum (°C) Date (yyyy/mm/dd)	2005-01-13	2017-02-23	2012-03-22	2002-04-16	2006-05-29	1994-06-18	2011-07-21	2001-08-08	2016-09-07	2019-10-01	2020-11-10	2001-12-05		
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Minimum Daily Maximum (°C)		-21	-19.1	-12.8	-3	4.8	10	15.4	16.2	9.9	2.3	-5.9	-14.5	
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Minimum Daily Maximum (°C) Date (yyyy/mm/dd)	1994-01-15	2015-02-15	2003-03-03	2003-04-04	2020-05-08	1992-06-20	1992-07-31	1992-08-13	2000-09-28	2020-10-30	2018-11-22	2017-12-31		
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Maximum Daily Minimum (°C)		11.3	6.5	11.9	16.3	22.2	24.4	26	26.3	23.4	19.4	12.3	9.8	
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Maximum Daily Minimum (°C) Date (yyyy/mm/dd)	2008-01-08	2009-02-11	2012-03-23	2002-04-17	2006-05-30	2012-06-20	2011-07-21	2006-08-01	2001-09-09	2002-10-01	2002-11-10	2001-12-05		
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Extreme Minimum (°C)		-31	-25.5	-24.7	-9.2	-4.7	3	7.9	8	-1.2	-5.4	-13.9	-24.3	
TORONTO PEARSON (AIRPORT)	ON	Normal	Temperature	Extreme Minimum (°C) Date (yyyy/mm/dd)	1994-01-16	2015-02-15	2003-03-03	1995-04-05	2020-05-09	1998-06-05	1992-07-22	1992-08-20	1993-09-30	2020-10-31	2019-11-13	2004-12-20		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Maximum Daily Mean (°C)		13.4	10.9	18.2	24	27.6	29.5	31.8	31.5	30	24.5	16.7	15	
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Maximum Daily Mean (°C) Date (yyyy/mm/dd)	2008-01-08	2017-02-23	2012-03-22	1990-04-26	2006-05-30	2012-06-20	2011-07-21	2006-08-01	1953-09-02	2002-10-01	1974-11-01	1966-12-08		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Minimum Daily Mean (°C)		-24.7	-23.4	-18.8	-11.1	0.9	5.3	11.4	9.5	2.5	-3.6	-11.7	-20.9	
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Minimum Daily Mean (°C) Date (yyyy/mm/dd)	1994-01-15	1943-02-15	2003-03-03	1972-04-07	2020-05-08	1945-06-01	1968-07-03	1965-08-30	1965-09-27	1969-10-22	1949-11-26	1942-12-20		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Extreme Maximum (°C)		17.6	17.7	26	31.1	34.4	36.7	37.9	38.3	36.7	31.8	25	20	
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Extreme Maximum (°C) Date (yyyy/mm/dd)	2005-01-13	2017-02-23	2012-03-22	1990-04-25	1962-05-16	1952-06-25	2011-07-21	1948-08-25	1953-09-02	2019-10-01	1950-11-01	1982-12-03		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Minimum Daily Maximum (°C)		-21	-19.2	-15	-5	4.4	9.4	15.4	15.6	6.7	0	-7.3	-17.8	
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Minimum Daily Maximum (°C) Date (yyyy/mm/dd)	1994-01-15	1979-02-17	1938-03-03	1972-04-07	1976-05-07	1945-06-01	1992-07-31	1964-08-13	1950-09-24	1969-10-22	1987-11-21	1955-12-20		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Maximum Daily Minimum (°C)		11.3	6.5	12.6	17.5	22.2	24.4	26	26.3	23.4	19.4	13.9	12.8	
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Maximum Daily Minimum (°C) Date (yyyy/mm/dd)	2008-01-08	2009-02-11	1989-03-28	1990-04-26	2006-05-30	1959-06-29	2011-07-21	2006-08-01	2001-09-09	2002-10-01	1956-11-01	1966-12-08		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Extreme Minimum (°C)		-31.3	-31.1	-28.9	-17.2	-5.6	0.6	3.9	1.1	-3.9	-8.3	-18.3	-31.1	
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Temperature	Extreme Minimum (°C) Date (yyyy/mm/dd)	1981-01-04	1943-02-15	1950-03-04	1972-04-07	1966-05-07	1949-06-08	1968-07-30	1965-08-30	1965-09-27	1969-10-23	1949-11-26	1942-12-20		
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Rainfall (mm)		33.8	23.9	34	70.7	77.5	80.7	74	68.5	67	62.7	35.3	697.4 B	
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Snowfall (cm)		31.5	27.7	17.2	4.5	0.1	0	0	0	0	0.2	9.3	24.1	114.5 B
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Precipitation (mm)		61.6	50.2	50.5	76.7	77.6	80.7	74	68.5	69.4	67.2	71.8	58.6	806.8 B
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Average Snow Depth (cm)		6	7	3	0	0	0	0	0	0	0	3	2	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Median Snow Depth (cm)		5	5	1	0	0	0	0	0	0	0	1	1	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Snow Depth at Month-end (cm)		8	6	0	0	0	0	0	0	0	0	0	3	1
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Extreme Daily Rainfall (mm)		59	25.8	40.8	55.8	59.4	53.8	126	41.4	66.4	64.8	52.4	30.2	
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Extreme Daily Rainfall (mm) Date (yyyy/mm/dd)	2020-01-11	2009-02-11	1991-03-27	1992-04-11	2000-05-12	2000-06-13	2013-07-08	1991-08-03	1996-09-07	1995-10-05	1999-11-02	1998-12-06		
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Extreme Daily Snowfall (cm)		26.4	30.4	15.2	10.4	2.8	0	0	0	0	2	19.4	17.4	
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Extreme Daily Snowfall (cm) Date (yyyy/mm/dd)	2019-01-28	2008-02-06	1998-03-21	1994-04-06	2020-05-11	1991-06-01	1991-07-01	1991-08-01	1991-09-01	2018-10-27	2020-11-22	2014-12-21		
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Extreme Daily Precipitation (mm)		59	40.4	40.8	55.8	59.4	53.8	126	41.4	66.4	64.8	52.4	30.2	
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Extreme Daily Precipitation (mm) Date (yyyy/mm/dd)	2020-01-11	2001-02-08	1991-03-27	1992-04-11	2000-05-12	2000-06-13	2013-07-08	1991-08-03	1996-09-07	1995-10-05	1999-11-02	1998-12-06		
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Extreme Snow Depth (cm)		67	48	30	12	0	0	0	0	0	0	18	36	
TORONTO PEARSON (AIRPORT)	ON	Normal	Precipitation	Extreme Snow Depth (cm) Date (yyyy/mm/dd)	1999-01-15	2008-02-13	2008-03-09	1994-04-07	1991-05-01	1991-06-01	1991-07-01	1991-08-01	1991-09-01	1991-10-01	2002-11-18	2008-12-24		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Precipitation	Extreme Daily Rainfall (mm)		59	31.8	41.7	55.8	59.4	53.8	126	41.4	66.4	64.8	52.4	30.2	
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Precipitation	Extreme Daily Rainfall (mm) Date (yyyy/mm/dd)	2020-01-11	1975-02-24	1942-03-16	1992-04-11	1944-05-31	2000-06-13	2013-07-08	1970-08-30	1948-09-18	1954-10-15	1962-11-10	1962-12-06		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Precipitation	Extreme Daily Snowfall (cm)		36.8	39.9	32.3	26.7	2.8	0	0	0	0	7.4	33.5	28.2	
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Precipitation	Extreme Daily Snowfall (cm) Date (yyyy/mm/dd)	1966-01-23	1965-02-25	1964-03-10	1939-04-10	2020-05-11	1938-06-01	1938-07-01	1938-08-01	1938-09-01	1962-10-25	1940-11-30	1944-12-11		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Precipitation	Extreme Daily Precipitation (mm)		59	55.9	41.7	55.8	59.4	53.8	126	41.4	66.4	64.8	52.4	30.2	
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Precipitation	Extreme Daily Precipitation (mm) Date (yyyy/mm/dd)	2020-01-11	1965-02-25	1942-03-16	1992-04-11	1944-05-31	2000-06-13	2013-07-08	1970-08-30	1948-09-18	1954-10-15	1962-11-10	1962-12-06		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Precipitation	Extreme Snow Depth (cm)		67	48	30	13	0	0	0	0	0	13	18	36	
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Precipitation	Extreme Snow Depth (cm) Date (yyyy/mm/dd)	1999-01-15	2008-02-13	2008-03-09	1975-04-04	1955-05-01	1955-06-01	1955-07-01	1955-08-01	1955-09-01	1969-10-22	2002-11-18	2008-12-24		
TORONTO PEARSON (AIRPORT)	ON	Normal	Days With ...	Freezing Rain or Freezing Drizzle		2	1.1	0.77	0.47	0	0	0	0	0	0	0.23	0.9	5.5 A
TORONTO PEARSON (AIRPORT)	ON	Normal	Days With ...	Thunderstorms		0.13	0.3	0.5	2.2	3.5	5.1	5.5	4.7	2.6	1.3	0.4	0.2	26.3 A
TORONTO PEARSON (AIRPORT)	ON	Normal	Days With ...	Hail		0	0	0.03	0.13	0.13	0.07	0	0.07	0	0.07	0	0.53 A	
TORONTO PEARSON (AIRPORT)	ON	Normal	Days With ...	Fog, Ice Fog, or Freezing Fog		2	1.3	1.4	1	1.6	0.7	0.43	0.23	0.73	1.3	1.9	1.5	14.2 A
TORONTO PEARSON (AIRPORT)	ON	Normal	Days With ...	Smoke or Haze		2.5	2.2	2.8	2.1	3.5	4.5	4.2	4.2	2.9	2.4	3.1	2.5	37.2 A
TORONTO PEARSON (AIRPORT)	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 C
TORONTO PEARSON (AIRPORT)	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	0.04 C
TORONTO PEARSON (AIRPORT)	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature <= -10 °C		2.6	1.1	0.24	0	0	0	0	0	0	0	0	0.15	4 C
TORONTO PEARSON (AIRPORT)	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature <= 0 °C		16.9	13.7	6.3	0.44	0	0	0	0	0	0	1.5	10.7	49.5 C
TORONTO PEARSON (AIRPORT)	ON	Normal	Days with Maximum Temperature	Days with Maximum Temperature > 0 °C		14.1												

TORONTO PEARSON (AIRPORT)	ON	Normal	Wind	Days with Gusts >= 90 km/h	0.19	0.32	0.29	0.2	0	0.13	0.1	0	0.11	0.22	0.32	0.14	2	D
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind	Extreme Wind Speed (km/h)	80	70	72	82	70	59	56	59	61	76	72	76		
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind	Extreme Wind Speed (km/h) Date (yyyy/mm/dd hh:mi)	2017-01-11 2:00	2002-02-01 15:00	2009-03-11 10:00	2011-04-28 10:00	2002-05-10 12:00	2011-06-01 15:00	1996-07-19 13:00	1992-08-10 19:00	2005-09-29 11:00	2003-10-15 12:00	1992-11-12 23:00	2008-12-28 9:00		
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind	Direction of Extreme Wind Speed	W	W	W	W	W	W	NW	NW	NW	W	W	W		
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind	Direction of Extreme Wind Speed Date (yyyy/mm/dd hh:mi)	2017-01-11 2:00	2002-02-01 15:00	2009-03-11 10:00	2011-04-28 10:00	2002-05-10 12:00	2011-06-01 15:00	1996-07-19 13:00	1992-08-10 19:00	2005-09-29 11:00	2003-10-15 12:00	1992-11-12 23:00	2008-12-28 9:00		
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind	Extreme Gust Speed (km/h)	109	96	96	115	89	98	104	115	106	102	106	109		
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind	Extreme Gust Speed (km/h) Date (yyyy/mm/dd)	1996-01-27	1997-02-27	1996-03-19	2009-04-25	1996-05-19	1991-06-15	2013-07-19	2009-08-11	2010-09-22	2002-10-07	1995-11-11	1996-12-01		
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind	Direction of Extreme Gust Speed	SW	W	NE	W	SW	SW	NW	NE	NW	W	S			
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind	Direction of Extreme Gust Speed Date (yyyy/mm/dd)	1996-01-27	1997-02-27	1996-03-19	2009-04-25	1996-05-19	1991-06-15	2013-07-19	2009-08-11	2010-09-22	2002-10-07	1995-11-11	1996-12-01		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Wind	Extreme Wind Speed (km/h)	80	77	97	82	71	63	61	71	77	92	80	76		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Wind	Extreme Wind Speed (km/h) Date (yyyy/mm/dd hh:mi)	2017-01-11 2:00	1958-02-17 8:00	1959-03-15 18:00	2011-04-28 10:00	1964-05-09 15:00	1980-06-20 10:00	1964-07-13 2:00	1958-08-31 13:00	1954-09-22 0:00	1954-10-16 0:00	1955-11-16 19:00	2008-12-28 9:00		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Wind	Direction of Extreme Wind Speed	W	N	SW	W	W	NW	E	W	W	W	W	W		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Wind	Direction of Extreme Wind Speed Date (yyyy/mm/dd hh:mi)	2017-01-11 2:00	1958-02-17 8:00	1959-03-15 18:00	2011-04-28 10:00	1964-05-09 15:00	1980-06-20 10:00	1964-07-13 2:00	1958-08-31 13:00	1954-09-22 0:00	1954-10-16 0:00	1955-11-16 19:00	2008-12-28 9:00		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Wind	Extreme Gust Speed (km/h)	115	105	124	115	109	107	135	115	106	104	122	109		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Wind	Extreme Gust Speed (km/h) Date (yyyy/mm/dd)	1978-01-26	1956-02-25	1964-03-05	2009-04-25	1983-05-02	1990-06-03	1956-07-01	2009-08-11	2010-09-22	1989-10-14	1955-11-17	1996-12-01		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Wind	Direction of Extreme Gust Speed	E	W	SW	W	W	W	NW	NE	NW	NW	SW	S		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Wind	Direction of Extreme Gust Speed Date (yyyy/mm/dd)	1978-01-26	1956-02-25	1964-03-05	2009-04-25	1983-05-02	1990-06-03	1956-07-01	2009-08-11	2010-09-22	1989-10-14	1955-11-17	1996-12-01		
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Above 24 °C	0	0	0	0	0.5	5.9	18.2	7.9	1.7	0	0	0	34.1	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Above 18 °C	0	0	0	0.7	16	65.4	129.5	101.1	32.4	2.5	0	0	347.6	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Above 15 °C	0	0	0.5	3.5	39.5	132.4	218.9	187.2	79.9	10.4	0.1	0	672.4	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Above 10 °C	0.2	0	4.4	22.5	125.5	275.2	373.7	341.9	203.8	52.2	6	0.3	1405.7	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Above 5 °C	3	1.7	22.2	89.5	285	425.1	528.7	496.9	351.3	159	39.5	5.2	2387.2	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Above 0 °C	22.1	17.9	79.3	214.9	419.3	575.1	683.7	651.9	501.3	308.1	131.4	38.7	3643.7	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Below 0 °C	175.2	134	59.6	3.1	0	0	0	0	0	0.1	13.4	87.3	472.6	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Below 5 °C	311.1	259.2	157.5	27.6	0.7	0	0	0	0	5.9	71.5	208.8	1042.4	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Below 10 °C	463.3	398.9	294.7	110.6	16.2	0.1	0	0	2.5	54.2	188	358.8	1887.3	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Below 15 °C	618.1	540.2	445.8	241.6	85.2	7.3	0.2	0.3	28.6	167.4	332.1	513.6	2980.4	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Degree Days	Degree Days Below 18 °C	711.1	625	538.3	328.8	154.7	30.3	3.8	7.2	71.1	252.4	422	606.6	3751.3	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Quintiles	Quintile 1 (Lower Bound)	24.4	20.2	18	29.2	14.4	20.4	20.4	11.6	25.2	17.6	10.2	17		
TORONTO PEARSON (AIRPORT)	ON	Normal	Quintiles	Quintile 1 (Upper Bound)	37.5	25.5	30	47.8	47.8	45	34	39.5	44.2	40.2	33	36.2		
TORONTO PEARSON (AIRPORT)	ON	Normal	Quintiles	Quintile 2 (Upper Bound)	47.6	38.4	40.7	63.5	67.4	59.4	57.6	52.6	54.2	58	52			
TORONTO PEARSON (AIRPORT)	ON	Normal	Quintiles	Quintile 3 (Upper Bound)	63.2	47.3	52.8	88.6	79.6	72.7	85.3	67.4	69.8	70.8	62.5			
TORONTO PEARSON (AIRPORT)	ON	Normal	Quintiles	Quintile 4 (Upper Bound)	72.2	75.3	63.7	102.7	93.3	109	100.8	91.9	86.3	95.6	91.9	72.4		
TORONTO PEARSON (AIRPORT)	ON	Normal	Quintiles	Quintile 5 (Upper Bound)	133.3	107.6	98.4	133.8	152.8	191.6	193.2	154.4	166.2	136.2	141.2	99.8		
TORONTO PEARSON (AIRPORT)	ON	Normal	Humidex	Days with Humidex >= 30	0	0	0	0.17	3.5	10	18.3	16.2	7.2	0.55	0	0	55.9	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Humidex	Days with Humidex >= 35	0	0	0	0	0.9	4	8	6.2	2.1	0.14	0	0	21.3	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Humidex	Days with Humidex >= 40	0	0	0	0	0.07	0.93	2.1	1.3	0.14	0	0	0	4.6	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Humidex	Extreme Humidex	19	19.1	29.6	34.9	42.6	45.6	50.3	46.6	43	39.1	27.4	21.1		
TORONTO PEARSON (AIRPORT)	ON	Normal	Humidex	Extreme Humidex Date (yyyy/mm/dd)	2005-01-13	2018-02-20	2012-03-22	2002-04-16	2006-05-30	2018-06-30	1995-07-14	2006-08-01	2018-09-05	2007-10-08	2020-11-10	1998-12-06		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Humidex	Extreme Humidex	19	19.1	29.6	37.9	42.6	45.6	50.3	46.6	48	39.1	28.6	23.9		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Humidex	Extreme Humidex Date (yyyy/mm/dd)	2005-01-13	2018-02-20	2012-03-22	1990-04-25	2006-05-30	2018-06-30	1995-07-14	2006-08-01	1953-09-01	2007-10-08	1961-11-03	1982-12-03		
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind Chill	Days with Wind Chill < -20	8.8	7	1.8	0	0	0	0	0	0	0	0.17	2.8	20.6	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind Chill	Days with Wind Chill < -30	1.8	0.76	0.1	0	0	0	0	0	0	0	0	0.14	2.8	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind Chill	Days with Wind Chill < -40	0.03	0.03	0	0	0	0	0	0	0	0	0	0	0.06	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind Chill	Days with Wind Chill < -50	0	0	0	0	0	0	0	0	0	0	0	0	0	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind Chill	Extreme Wind Chill	-40.2	-40.6	-36.2	-18.5	-8.9	0	0	0	-5.2	-8.9	-22.9	-37.2		
TORONTO PEARSON (AIRPORT)	ON	Normal	Wind Chill	Extreme Wind Chill Date (yyyy/mm/dd)	1994-01-15	2015-02-15	2003-03-03	1995-04-05	2020-05-09	1991-06-01	1991-07-01	1991-08-01	1993-09-30	2020-10-30	2005-11-25	2004-12-20		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Wind Chill	Extreme Wind Chill	-44.7	-40.6	-36.2	-25.4	-9.5	0	0	0	-8	-13.5	-25.4	-38.5		
TORONTO PEARSON (AIRPORT)	ON	Long-Term	Wind Chill	Extreme Wind Chill Date (yyyy/mm/dd)	1981-01-04	2015-02-15	2003-03-03	1972-04-07	1963-05-01	1953-06-01	1953-07-01	1953-08-01	1965-09-27	1969-10-23	1958-11-30	1980-12-25		
TORONTO PEARSON (AIRPORT)	ON	Normal	Humidity	Average Vapour Pressure (kPa)	0.4	0.4	0.5	0.6	1	1.5	1.8	1.8	1.4	1	0.7	0.5	1	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Humidity	Average Relative Humidity - 0600LST (%)	79.2	77.4	75.2	73	75.7	77.6	79.3	83.7	85.5	83.6	81.4	80.7	79.3	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Humidity	Average Relative Humidity - 1500LST (%)	69.7	65.7	58.5	53.4	53.6	54.4	52.9	55.2	57.3	61.6	66.7	70.5	60	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Pressure	Average Station Pressure (kPa)	99.6	99.6	99.6	99.4	99.4	99.3	99.4	99.5	99.7	99.6	99.6	99.5	99.5	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Pressure	Average Sea Level Pressure (kPa)	101.7	101.7	101.7	101.5	101.5	101.4	101.4	101.6	101.7	101.7	101.8	101.7	101.6	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Visibility	Visibility < 1 km (hours with)	10	9.2	5.5	2.8	3.5	2.1	0.6	0.4	1.4	4.3	6.7	7	53.4	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Visibility	Visibility 1 to 9 km (hours with)	126.9	97.1	76.3	60.5	50.6	53.5	39.7	43.4	43.8	55.1	82.5	103.8	833.2	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Visibility	Visibility > 9 km (hours with)	606.9	571.7	662	656.3	689.5	664	702.9	699.5	674.3	684.1	630.3	632.9	7874.4	A
TORONTO PEARSON (AIRPORT)	ON	Normal	Cloud Amount	Cloud Amount 0 to 2 tenths (hours with)	129.8	154.2	206.3	184.4	221.7	212	229.5	261.4	257.1	200.2	141.7	131.8	2330	D
TORONTO PEARSON (AIRPORT)	ON	Normal	Cloud Amount	Cloud Amount 3 to 7 tenths (hours with)	94.6	104.6	117.6	121.6	152.7	179.7	214.4	200.2	166.8	139	108.3	99.8	1699.2	D
TORONTO PEARSON (AIRPORT)	ON	Normal	Cloud Amount	Cloud Amount 8 to 10 tenths (hours with)	519.7	421.2	420.1	414.1	369.7	328.3	300.1	282.4	296.1	404.8	512.4	4738.8	D	
TORONTO PEARSON (AIRPORT)	ON	Normal	Frost-Free	Average Date of Last Spring Frost													27-Apr	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Frost-Free	Average Date of First Fall Frost													20-Oct	C
TORONTO PEARSON (AIRPORT)	ON	Normal	Frost-Free	Average Length of Frost-Free Period												174 Days	C	

APPENDIX D

Agricultural Crop Statistics

\$250,000 to \$499,999	32	4,448	0.72%	6.67%
\$500,000 to \$999,999	26	3,954	0.66%	44.44%
\$1,000,000 to \$1,999,999	9	2,462	0.37%	49.00%
\$2,000,000 and over	8	1,696	0.47%	33.33%

Farms by Industry Group, 2011 Census (number of farms)

Beef cattle ranching and farming	43	7,986	0.54%	19.44%
Dairy cattle and milk production	12	3,189	0.34%	-33.33%
Hog and pig farming	3	1,189	0.25%	200.00%
Poultry and egg production	10	2,061	0.49%	11.11%
Sheep and goat farming	4	1,309	0.31%	-42.86%
Other animal production	55	4,558	1.21%	-38.20%
Corn and grain farming	93	16,194	0.51%	-3.13%
Vegetable and melon farming	27	1,562	1.73%	42.11%
Fruit and tree nut farming	10	1,211	0.83%	-16.67%
Greenhouse, nursery and floriculture	14	1,672	0.84%	-12.50%
Other crop farming	37	5,418	0.68%	-11.90%

\$250,000 to \$499,999	30	4,797	0.64	-3.23
\$500,000 to \$999,999	18	3,089	0.46	20.00
\$1,000,000 to \$1,999,999	15	2,919	0.74	25.00
\$2,000,000 and over	6	1,233	0.40	0.00

Farms by Industry Group, 2016 Census (number of farms)

Beef cattle ranching and farming	36	6,798	0.53	-18.18
Dairy cattle and milk production	16	3,439	0.52	-18.18
Hog and pig farming	1	1,229	0.09	-
Poultry and egg production	9	1,816	0.50	12.50
Sheep and goat farming	7	1,097	0.64	0.00
Other animal production	89	5,902	1.51	8.54
Corn and grain farming	96	16,876	0.57	7.67
Vegetable and melon farming	19	1,856	1.02	35.71
Fruit and tree nut farming	12	1,362	0.88	0.00
Greenhouse, nursery and floriculture	16	2,050	0.79	-44.83
Other crop farming	42	7,187	0.58	-27.59

\$250,000 to \$499,999	31	5,086	0.81
\$500,000 to \$999,999	15	3,348	0.46
\$1,000,000 to \$1,999,999	12	1,558	0.77
\$2,000,000 and over	6	803	0.75

Farms by Industry Group, 2011 Census (number of farms)

Beef cattle ranching and farming	44	7,105	0.62
Dairy cattle and milk production	22	4,006	0.35
Hog and pig farming	0	1,235	0.00
Poultry and egg production	8	1,619	0.49
Sheep and goat farming	7	1,446	0.48
Other animal production	82	6,968	1.18
Corn and grain farming	99	15,816	0.56
Vegetable and melon farming	14	1,531	0.91
Fruit and tree nut farming	12	1,543	0.78
Greenhouse, nursery and floriculture	20	2,372	1.22
Other crop farming	58	8,174	0.70

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

South Elevation

☉ 343°N (T) ● 43°47'20"N, 79°48'17"W ±4m ▲ 268m



28

C24035

26 Jun 2024, 10:06:06

Photo 1: Operation #28 – Grain elevator and drier located within the Subject Lands.

East Elevation

☉ 256°W (T) ● 43°47'12"N, 79°48'52"W ±4m ▲ 269m



32

C24035

26 Jun 2024, 10:19:27

Photo 2: Operation #32 – Large dairy operation showing barns and hay storage.

South Elevation

☉ 355°N (T) ● 43°47'15"N, 79°49'35"W ±4m ▲ 275m



Photo 3: Operation #33 – Empty livestock facility showing bank barn, implement shed, and silo.

West Elevation

☉ 98°E (T) ● 43°46'53"N, 79°49'5"W ±4m ▲ 269m



Photo 4: Operation #36 – Empty livestock facility showing barn in fair to poor condition and uncapped silo.

East Elevation

☉ 271°W (T) ● 43°48'37"N, 79°48'35"W ±4m ▲ 269m



Photo 5: Operation #18 – Remnant farm showing collapsed barn, silo, and implement shed.

East Elevation

☉ 277°W (T) ● 43°48'54"N, 79°47'32"W ±4m ▲ 257m



Photo 6: Operation #16 – Beef operation showing bank barn, implement shed, and grain bin.

East Elevation

☉ 258°W (T) ☉ 43°48'35"N, 79°47'7"W ±4m ▲ 254m



14

C24035

26 Jun 2024, 09:08:38

Photo 7: Operation #14 – Hobby farm showing barn, two silos, and farm building.

APPENDIX G

Land Use Notes

Land Use Survey Notes – AIA for Mayfield Tullamore Landowner Group			
Weather	Partially Cloudy	Date (s)	June 26, 2024
Temperature	26°C	File	C24035

Site No.	Type of Use	Type of Operation	MDS Calculation Required?	Description of Operation
1	Non-Agricultural	Commercial	No	Tim Hortons
2	Non-Agricultural	Commercial	No	Shell gas station
3	Agriculture-Related	Garden Centre	No	Caledon Sabzi Farm Garden Centre/Farmers Market. Retail store, sells plants soil, etc.
4	Non-Agricultural	Industrial	No	C-Cancontainers. Sipping container storage
5	Non-Agricultural	Commercial	No	Aecon Materials Engineering. Engineering consultants
6	Non-Agricultural	Industrial	No	Strada Aggregates – Caledon Depot. Aggregate storage
7	Non-Agricultural	Industrial	No	HGC The Herman Group. Transportation services/distribution centre for trucks
8	Non-Agricultural	Commercial	No	Commercial plaza with convenience store, two restaurants, and car sales/servicing
9	Non-Agricultural	Commercial	No	CESclean. Commercial cleaning services
10	Non-Agricultural	Future Residential Development	No	Lands have been disturbed, ongoing development, construction equipment and monitoring wells observed
11	Non-Agricultural	Industrial	No	No sign associated with business, tractor trailers and heavy equipment observed outside
12	Agricultural	Remnant Farm	No	Steel sided barn in fair condition, large dump truck in back, public notice sign File #RZ 2021-0011, no trespassing signs, no structures appear capable of housing livestock and non-agricultural development will be the future use of the lands
13	Agricultural	Remnant Farm	No	Property has been abandoned, all buildings in poor condition, public notice sign indicating future development
14	Agricultural	Hobby Farm	Yes	Three livestock facilities in fair condition, implement shed, outdoor manure storage, spoke with landowner who said they have 50 pigs, 75 lay hens, 25 goats, 35 cattle, 25 ducks, 10 rabbits, and 100 pigeons, and a liquid earthen manure pit

15	Non-Agricultural	Industrial	No	Metro Truck. Truck rentals and leasing
16	Agricultural	Beef Operation	Yes	Bank barn in fair condition, two implement sheds, grain bin, outdoor manure storage, spoke with landowner who informed they have 25 beef cattle and 12 sheep. Small operation
17	Agricultural	Hobby Farm	Yes	Bank barn in fair condition, capped silo, implement shed, OFA member, Harvistore system. Spoke with landowner who said there is currently 4 beef cattle but used to be a dairy operation for 100 cows
18	Agricultural	Remnant Farm	No	Barn collapsed, implement shed in fair condition, capped silo, no structures capable of housing livestock
19	Agricultural	Remnant Farm	No	Barn observed being demolished, two capped silos, no structures capable of housing livestock
20	Non-Agricultural	Recreational	No	Mayfield Golf Course
21	Agricultural	Hobby Farm	Yes	Manure pile near front of property, no trespassing, sign out front saying sheep, lambs, and rabbits for sale, OFA member
22	Non-Agricultural	Institutional	No	Mayfield Secondary School
23	Non-Agricultural	Recreational	No	Mayfield Recreation Complex
24	Non-Agricultural	Institutional	No	James Grieve Public School
25	Non-Agricultural	Institutional	No	Guru Nanak Nishka Sewa Centre. Gurudwara
26	Non-Agricultural	Recreational	No	Banty's Roost Golf Course
27	Agricultural	Remnant Farm	No	Two old barns in poor condition, two grain bins, gated entry, no trespassing, property abandoned and overgrown, no structures capable of housing livestock
28	Agriculture-Related	Grain Elevator	No	Grain elevator and drier, large implement shed, transport truck for hauling grain observed outside
29	Agricultural	Remnant Farm	No	Barn foundation remaining, other agricultural buildings overgrown and in poor condition, no structures capable of housing livestock
30	Agricultural	Hobby Farm	No	No trespassing, appears to have remnant barns, very large gardens, and outdoor storage. Appears to be used to produce

				vegetables, no structures capable of housing livestock observed.
31	Agriculture-Related	Vegetable Wholesaler	No	Sidhu Punjabi Farm. Vegetable crops sold for wholesale prices. No structures capable of housing livestock
32	Agricultural	Dairy Operation	Yes	Armstrong Manner Farms. Two plastic Quonset huts storing hay, three large dairy barns, gated laneway. Spoke with landowner who said there is capacity for 465 milking cows, 700 cows total including calves, and an H1 liquid manure storage system
33	Agricultural	Empty Livestock Facility	Yes	Brymarie Farms. Bank barn in good condition, capped silo, implement shed, OFA member, spoke with landowner who said barn is empty and lands are tenant farmed. Barn appears capable of housing livestock
34	Agricultural	Remnant Farm	No	Barn missing large portion of roof, possibly now a cash crop operation, appears as though nobody lives on the property, implement shed likely used for storage, snow removal equipment observed outside. No structures capable of housing livestock
35	Agricultural	Beef Operation	Yes	Jackson's Farm. Bank barn in good/fair condition, hay storage, approximately 20 cows observed in pasture, property has been sold, nobody living on property and nowhere to leave MDS letter.
36	Agricultural	Empty Livestock Facility	Yes	Bank barn in fair condition, uncapped silo, implement shed in poor condition, OFA member. Spoke with landowner who said barn is now empty but had 300 beef cattle this past winter
37	Agricultural	Remnant Farm	No	Demolished barn, manure storage decommissioned, no trespassing sign
38	Agricultural	Hobby Farm	No	Two beef cattle observed in pasture, OFA member, no agricultural buildings observed. Appears to be associated with Operation #36
39	Agricultural	Remnant Farm	No	Two large implement sheds, barn in poor condition, sign listing manure sales says permanently closed, OFA member, Ontario Cattleman's Association, no structures capable of housing livestock.
40	Non-Agricultural	Industrial	No	BP Landscaping and Snow Removal
41	Non-Agricultural	Institutional	No	Mayfield United Church
42	Non-Agricultural	Industrial	No	UPS facility/distribution centre

43	Non-Agricultural	Industrial	No	Salisbury Garden Supplies. Soil and aggregate stockpiles, grinds asphalt, sells firewood
44	Non-Agricultural	Commercial	No	Lindfast Solutions Group
45	Non-Agricultural	Industrial	No	Grainger Canada Distribution Centre
46	Agricultural	Remnant Farm	No	Spoke with landowner who said barn was capable of housing livestock last year but is no longer capable. Farm surrounded by ongoing development activity, Agricultural buildings in fair condition but not capable of housing livestock
47	Non-Agricultural	Future Residential Development	No	Lands have been disturbed, ongoing development, construction equipment and monitoring wells observed
48	Agricultural	Remnant Farm	No	Barn demolished, implement shed in poor condition, no structures capable of housing livestock
49	Agricultural	Remnant Farm	No	Barn demolished, lands disturbed for development, barn was standing in 2023 according to aerial images
50	Non-Agricultural	Industrial	No	Black Mamba Mobile Truck Trailer Repair

	Total Number	Active	Empty or Remnant
Agricultural	22	Dairy Operation – 1 Hobby Farm – 5 Beef Operation – 2	Empty Livestock Facility – 2 Remnant Farm- 12
Agriculture-Related	3	Grain Elevator – 1 Vegetable Wholesaler – 1 Garden Centre – 1	0
On-farm Diversified	0	0	0
	Total Number	Type	
Non-Agricultural	25	Commercial – 6 Industrial – 10 Future Residential Development – 2 Recreational – 3 Institutional – 4	

APPENDIX H

AgriSuite MDS Report


Mayfield Tullamore

General information

Application date
Jul 16, 2024

Municipal file number

Proposed application
New or expanding settlement area boundary

Applicant contact information 

ON

Location of subject lands
Regional Municipality of Peel
Town of Caledon
CHINGUACOUSY
Concession 5 EAST OF CENTRE ROAD , Lot 19

Calculations

Operation #14

Farm contact information

ON

Location of existing livestock facility or anaerobic digester
 Regional Municipality of Peel
 Town of Caledon
 CHINGUACOUSY
 Concession 6 EAST OF CENTRE ROAD , Lot 22
 Roll number: 2124

Total lot size
 20 ha

Livestock/manure summary


Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Swine, Feeders (27 - 136 kg), Full Slats	50	9.5 NU	48 m ²
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Floor Run	75	0.5 NU	7 m ²
Solid	Goats, Dairy Kids, Confinement	25	0.8 NU	19 m ²
Liquid	Ducks, Muscovy	25 m ²	1 NU	25 m ²
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	35	35 NU	163 m ²
Solid	Rabbits, Breeding females (including males, replacements & market animals), 1 Tier Cages	10	0.3 NU	18 m ²

Setback summary

Existing manure storage	H1. Liquid, outside, no cover, sloped-sided storage		
Design capacity	47.1 NU		
Potential design capacity	47.1 NU		
Factor A (odour potential)	0.81	Factor B (design capacity)	254.12
Factor D (manure type)	0.72	Factor E (encroaching land use)	2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	327 m (1073 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	462 m (1516 ft)
Actual distance from manure storage	NA

Operation #16

Farm contact information 

ON

Location of existing livestock facility or anaerobic digester

Regional Municipality of Peel
Town of Caledon
CHINGUACOUSY
Concession 6 EAST OF CENTRE ROAD , Lot 24
Roll number: 2124

Total lot size
38 ha


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	25	25 NU	116 m ²
Solid	Sheep, Ewes & rams (for meat lambs; includes unweaned offspring & replacements), Outside Access	12	1.5 NU	17 m ²

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	26.5 NU		
Potential design capacity	26.5 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	213
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			230 m (755 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			230 m (755 ft)
Actual distance from manure storage			NA

Operation #17

Farm contact information 

ON

Location of existing livestock facility or anaerobic digester

Regional Municipality of Peel
Town of Caledon
CHINGUACOUSY
Concession 6 EAST OF CENTRE ROAD , Lot 24
Roll number: 2124

Total lot size

40.4 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Dairy, Heifers Large Frame (182 - 545 kg) (eg. Holsteins), Deep Bedded	100	50 NU	650 m ²

Setback summary

Existing manure storage	V4. Solid, outside, no cover, 18-30% DM, with covered liquid runoff storage		
Design capacity	50 NU		
Potential design capacity	50 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	260
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	281 m (922 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	281 m (922 ft)
Actual distance from manure storage	NA

Operation #21

Farm contact information

ON

Location of existing livestock facility or anaerobic digester

Regional Municipality of Peel
Town of Caledon
CHINGUACOUSY
Concession 5 EAST OF CENTRE ROAD , Lot 19
Roll number: 2124

Total lot size

9.5 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Sheep, Ewes & rams (for meat lambs; includes unweaned offspring & replacements), Outside Access	205	25.6 NU	286 m ²




Confirm Livestock/Manure Information (Operation #21)

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	25.6 NU		
Potential design capacity	25.6 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	211.26
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			228 m (748 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			228 m (748 ft)
Actual distance from manure storage			NA

Operation #32

Farm contact information 

ON

Location of existing livestock facility or anaerobic digester

Regional Municipality of Peel
Town of Caledon
CHINGUACOUSY
Concession 4 EAST OF CENTRE ROAD , Lot 23
Roll number: 2124

Total lot size

39.7 ha


Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Dairy, Heifers Large Frame (182 - 545 kg) (eg. Holsteins), Free Stall	465	232.5 NU	3240 m ²
Liquid	Dairy, Calves Large Frame (45 - 182 kg) (eg. Holsteins)	235	39.2 NU	764 m ²

Setback summary

Existing manure storage	H1. Liquid, outside, no cover, sloped-sided storage		
Design capacity	271.7 NU		
Potential design capacity	271.7 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	447.98
Factor D (manure type)	0.8	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			552 m (1811 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			642 m (2106 ft)
Actual distance from manure storage			NA

Operation #33

Farm contact information 

ON

Location of existing livestock facility or anaerobic digester
 Regional Municipality of Peel
 Town of Caledon
 CHINGUACOUSY
 Concession 4 EAST OF CENTRE ROAD , Lot 24
 Roll number: 2124

Total lot size
 40.3 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	808 m ²	40.4 NU	808 m ²




Unoccupied Barn or Unused Storage (Operation #33)

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	40.4 NU		
Potential design capacity	40.4 NU		
Factor A (odour potential)	1	Factor B (design capacity)	240.8
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	371 m (1217 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 #35

Farm contact information 

ON

Location of existing livestock facility or anaerobic digester

Regional Municipality of Peel
Town of Caledon
CHINGUACOUSY
Concession 3 EAST OF CENTRE ROAD , Lot 23
Roll number: 2124

Total lot size

39.5 ha

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	194	194 NU	901 m ²



Confirm Livestock/Manure Information (Operation #35)

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	194 NU		
Potential design capacity	194 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	398.17
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			430 m (1411 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			430 m (1411 ft)
Actual distance from manure storage			NA

Operation #36

Farm contact information

ON

Location of existing livestock facility or anaerobic digester

Regional Municipality of Peel
Town of Caledon
CHINGUACOUSY
Concession 4 EAST OF CENTRE ROAD , Lot 22
Roll number: 2124

Total lot size

58.2 ha

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	300	300 NU	1394 m ²

Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	300 NU		
Potential design capacity	300 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	463.8
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			500 m (1640 ft)
Actual distance from livestock barn			NA
Storage base distance 'S' (minimum distance from manure storage)			500 m (1640 ft)
Actual distance from manure storage			NA

Preparer signoff & disclaimer

Preparer contact information

John Liotta
Colville Consulting Inc.
432 Niagara St Unit 2
St. Catharines, ON
L2M 4W3
905-935-2161 x110
john@colvilleconsultinginc.ca

Signature of preparer

John Liotta , Agrologist/Ecologist

Date (mmm-dd-yyyy)

Note to the user

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