

**SCOPED AGRICULTURAL IMPACT ASSESSMENT
FOR
PART LOTS 3 & 4, CONCESSION 4
TOWN OF MILTON**

PREPARED FOR:



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1.0 INTRODUCTION

Colville Consulting was retained by Orlando Corporation to complete a scoped Agricultural Impact Assessment (AIA) for the lands located at Part Lots 3 & 4 Concession 4, in the Town of Milton, Regional Municipality of Halton. There is a small portion of the property outside of the existing settlement boundary; consisting of approximately 14.25 ha (35.21 acres); that the scoped AIA will focus on and are referred to herein as the Subject Lands. The Subject Lands are located within the Greater Golden Horseshoe and are currently designated Agricultural Area, Regional Natural Heritage System within the Halton Region Official Plan (Map 1). The Subject Lands are located within the Greater Golden Horseshoe (GGH) and the Growth Plan (2020) area which requires that an AIA be completed for proposed development applications within Prime Agricultural Areas.

1.1 Purpose of Study

Prior to the completion of this AIA, a Minimum Distance Separation (MDS) report completed by Colville Consulting Inc. and Planning Justification Report (PJR) completed by Glen Schnarr and Associates Inc. (GSAI) was submitted to Halton Region staff for review. These documents were peer reviewed by Caldwell Consulting at the request of Halton Region Staff. The peer review assessed these reports against provincial and regional AIA guidelines and identified certain components were not adequately addressed. Halton Region staff prepared a scoped Terms of Reference for the completion of this AIA which is intended to address these missing components (See Appendix A).

The Subject Lands are located within the GGH and are part of the GGH's Agricultural Land Base. These lands have been identified by the province as prime agricultural lands and are part of a prime agricultural area. As such, the Growth Plan for the GGH (August 28, 2020) requires that an AIA be completed to evaluate the potential impacts of the development on agricultural operations and the Agricultural System; and where identified impacts cannot be avoided, recommendations are to be provided to minimize and mitigate adverse impacts. This AIA has been prepared in accordance with the Ontario Ministry of Agriculture, Food and Rural Affairs' (OMAFRA) draft Agricultural Impact Assessment Guidance Document (March 2018).

The purpose of the AIA is to assess and evaluate the potential impacts of the proposed settlement boundary expansion on the Agricultural System. The AIA will determine whether the proposed settlement boundary expansion is in compliance with the provincial agricultural policies, as well as those of the Region of Halton and the Town of Milton.

1.2 Subject Lands

The Subject Lands are irregularly shaped and located west of the intersection of James Snow Parkway North and Esquesing Line. They are approximately 14.25 ha (35.21 acres) in size. A majority of the property (including the Subject Lands) are being cultivated for common field crops. A residence that is planned to be relocated and a retired livestock barn currently being disassembled are located on the Subject Property but not within the Subject Lands. The Study Area includes all lands within 1500m of the Subject Lands.

The Town of Milton Official Plan (OPA 31) shows the property designated as Agricultural Area. The Subject Lands are zoned “A1 – Agricultural Zone” and “GA – Greenlands A” in the Town of Milton which generally permits agricultural and agricultural related uses. The MDS formula is to be applied in both Agricultural and Rural designations.

Land uses surrounding the Subject Lands are primarily urban to the south and west and rural residential to the north and east. Lands immediately south of the Subject Lands are designated Industrial Area.

1.3 Study Area

To be consistent with the 2018 draft Agricultural Impact Assessment Guidance Document, the Study Area includes all lands within approximately 1.5 kilometers (1,500 m) of the Subject Land boundaries.

The Study Area is generally bounded to the north by 10 Sideroad, Regional Road 25 to the west, Steeles Avenue and Woodward Avenue to the south, and Fifth Line to the east. Figure 1 shows the location of both the Study Area and the Subject Lands.

The lands within the Study Area are primarily designated Urban Area and Prime Agricultural Area in the Halton Region Official Plan and Town of Milton Official Plan. In the Town of Milton Official Plan, the Urban Area Land Use is primarily designated as Residential Area, Industrial Area, and Business Park Area. Lands to the north and east of the Subject Lands are within the Town of Halton Hills. Lands within the Town of Halton Hills Official Plan are primarily designated Agricultural Area, Protected Countryside Area, and Urban Area.

1.4 Description of Proposed Development

The proposed settlement area boundary expansion requires an amendment to the Halton Region Official Plan and seeks to permit development for employment uses and form part of the Town of Milton’s 401 Industrial/Business Park Secondary Plan. Subsequent to the settlement boundary expansion, an industrial development is proposed to be developed on the Subject Lands and part of the Subject Property. A copy of the conceptual development plan is provided in Appendix B.

1.5 Scope of Study

The scope of the AIA was prepared based on consultation between Colville Consulting Inc. and Halton Region staff during an online meeting on February 16th, 2022. A formal Terms of Reference was later provided by Halton Region staff (see Appendix A). The scoping for the AIA includes, but is not limited to, the following:

- ◆ A review of applicable agricultural policies and other background information (e.g., aerial photography);
- ◆ an assessment of the soil capability for common field crop production using the Canada Land Inventory (CLI) classification system;
- ◆ a land use survey of all lands within one and a half kilometres 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 for direct and indirect impacts on agricultural resources and operations within the Study Area;
- ◆ the development of mitigation measures to minimize potential negative impacts of the proposed development;
- ◆ an assessment of the net impacts of the proposed development on agricultural resources including recommendations to reduce impacts; and
- ◆ An assessment as to whether the proposed development is consistent with local and regional agricultural policies including the Greater Golden Horseshoe Growth Plan and the Provincial Policy Statement (PPS).

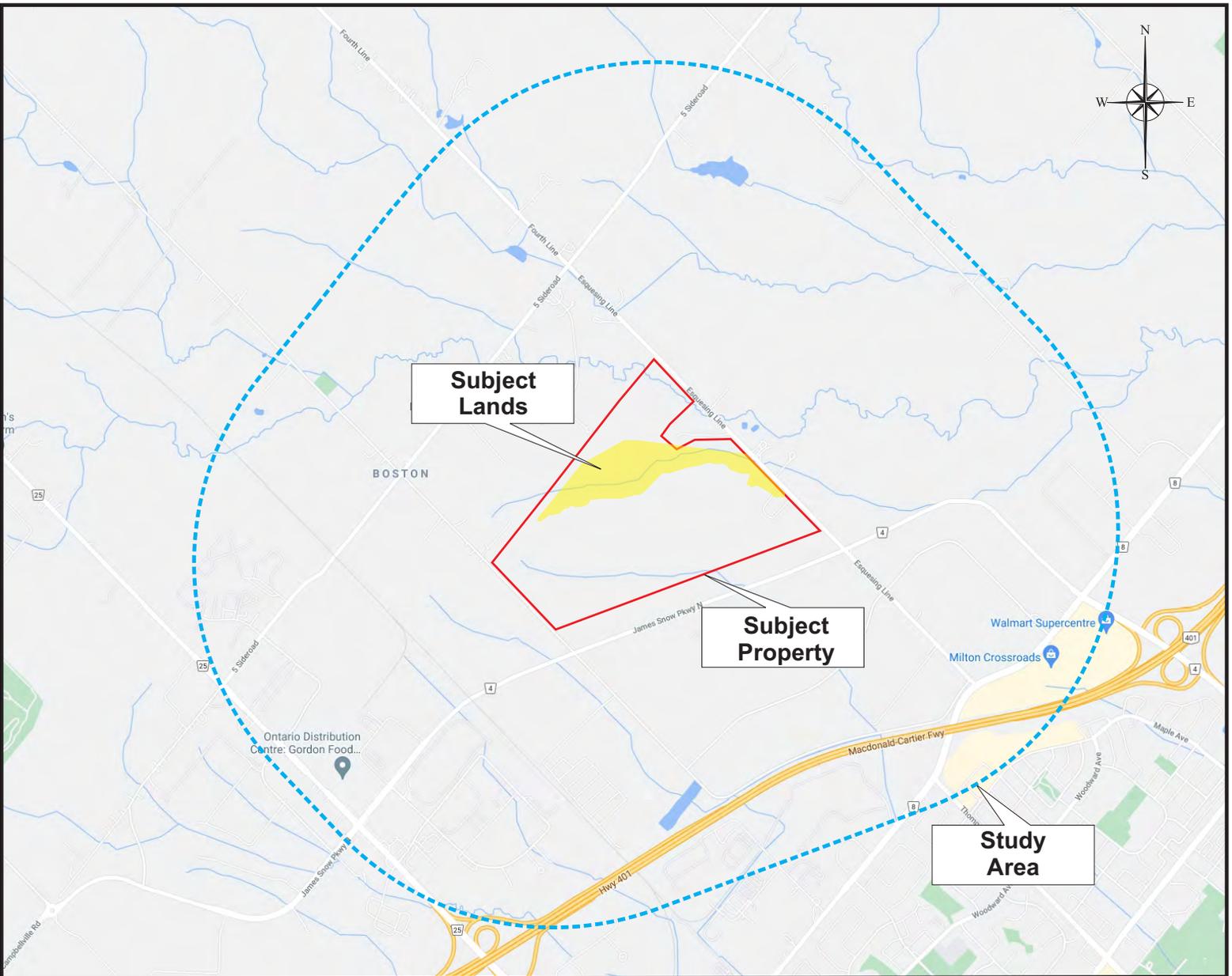


Figure 1
Location Map

Scoped Agricultural Impact Assessment
Part Lots 3 & 4, Concession 4
Town of Milton

Prepared for: **ORLANDO CORPORATION**

Prepared by: **COLVILLE CONSULTING INC.**

DATE: May 2022

FILE: C22026

2.0 PROCESS

Colville Consulting Inc. was initially retained on July 28th, 2021 by Glen Schnarr & Associates Inc. (GSAI) on behalf of Orlando Corporation to complete a Minimum Distance Separation (MDS) study to identify potential constraints related to a Draft Plan of Subdivision, Zoning By-law Amendment application and a proposed Settlement Boundary Expansion on the Subject Lands. Colville Consulting Inc was then retained again on March 7, 2022 by Orlando Corporation to complete an AIA in addition to the MDS work already completed to address comments from Halton Region staff discussed in Section 1.1 above.

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 Halton Region and for the Town of Milton on several agricultural related projects including the preparation of AIAs for settlement area boundary expansions.

This study was led by Sean Colville, who has over 30 years of experience preparing Agricultural Impact Assessments in Ontario and is very familiar with the requirements of the Ontario Ministry of Agriculture, Food and Rural Affairs' (OMAFRA) draft Agricultural Impact Assessment Guidance Document in 2018. Brett Espensen was the Project Manager and author of the AIA. Brett has over eight years of experience preparing AIAs with Colville Consulting Inc. The CV of Sean Colville and Brett Espensen are included in Appendix C.

The AIA was prepared with consultation with municipal planners on the Terms of Reference. Local agricultural groups were not consulted as part of this AIA. Should consultations be necessary to address any concerns related to the AIA conclusions the results of the consultations will be addressed through an addendum to this AIA.

3.0 AGRICULTURAL POLICIES

3.1 Provincial Policy Statement

Land Use Policy and development in the province of Ontario is directed by the Provincial Policy Statement. The PPS issued under the authority of Section 3 of the Planning Act and which came into effect on May 1, 2020 and replaces the PPS issued April 30, 2014. Section 3 of the Planning Act states that decisions affecting planning matters “shall be consistent with” policy statements issued under the Act.

3.1.1 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. As mentioned previously, the Subject Lands are part of a prime agricultural area, but they are not part of a specialty crop area.

3.1.2 Policies for Settlement Boundary Expansion

The Subject Lands are located within a prime agricultural area; section 2.3.5.1 of the PPS states “Planning authorities may only exclude land from prime agricultural areas for expansions of or identification of settlement areas in accordance with policy 1.1.3.8.”

Section 1.1.3.8 of the PPS states that under certain conditions planning authorities may identify a settlement area or allow the expansion of a settlement area boundary during a comprehensive review:

“A planning authority may identify a settlement area or allow the expansion of a settlement area boundary only at the time of a comprehensive review and only where it has been demonstrated that:

- a) sufficient opportunities for growth 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.

In undertaking a comprehensive review, the level of detail of the assessment should correspond with the complexity and scale of the settlement boundary expansion or development proposal.”

Section 1.1.3.9 addresses settlement boundary expansion outside of a comprehensive review:

“Notwithstanding policy 1.1.3.8, municipalities may permit adjustments of settlement area boundaries outside a comprehensive review provided:

- a) there would be no net increase in land within the settlement areas;
- b) the adjustment would support the municipality’s ability to meet intensification and redevelopment targets established by the municipality;
- c) prime agricultural areas are addressed in accordance with 1.1.3.8 (c), (d) and (e); and
- d) the settlement area to which lands would be added is appropriately serviced and there is sufficient reserve infrastructure capacity to service the lands.”

3.2 Growth Plan for the Greater Golden Horseshoe

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

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

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

A definition of an agricultural impact assessment is provided in the GPGGH.

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

The Agricultural System includes a continuous and productive land base, comprised of prime agricultural areas, including specialty crop areas, and rural lands, as well as a complementary agri-food network that together enable the agri-food sector to thrive. The agri-food network includes many agricultural related features such as regional infrastructure and transportation networks, on-farm buildings and infrastructure, agricultural services, farm markets, distributors and primary processing, as well as small towns and hamlets that are supportive of agriculture and are important to the viability of the agri-food sector. To ensure the long-term viability of a healthy agricultural system, land use planners

must ensure that there are opportunities within the agricultural land base for key infrastructure, services and assets which support the agricultural industry. This includes agri-food network (AFN) features such as cold storage facilities, abattoirs, food processors, grain dryers, distribution centres, and food hubs/co-ops.

OMAFRA's Agricultural System Portal shows that the majority of the Subject Lands are part of the GGH's Agricultural Land Base. Figure 2 below shows the Subject Lands as mapped by OMAFRA's Agricultural Systems Portal. The lands are also identified to be within the limits of the Provincially Significant Employment Zone of the Growth Plan.

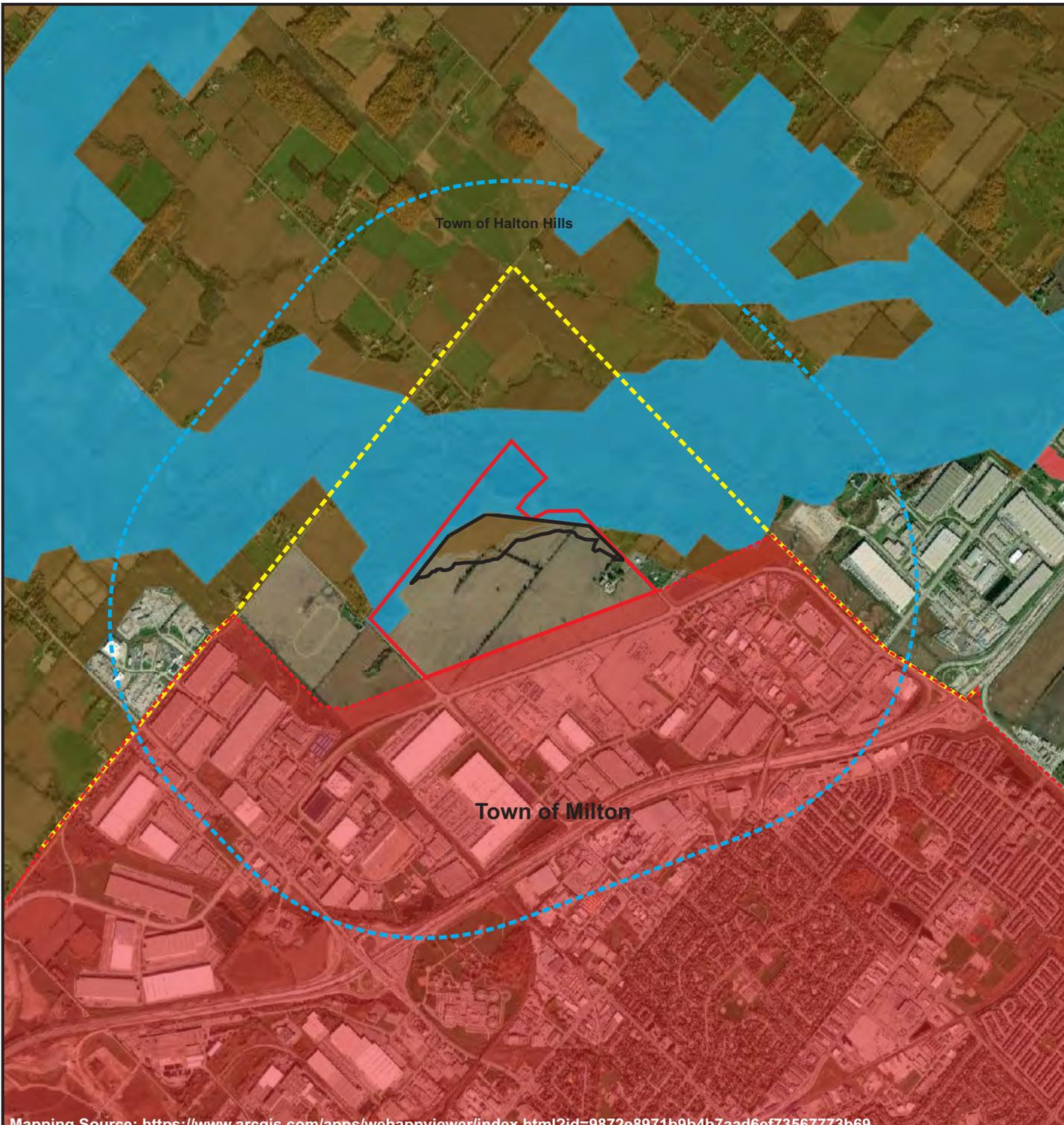
3.2.2 Settlement Area Boundary Expansion

Section 2.2.8 of the GPGGH specifically deals with settlement area boundary expansions. Section 2.2.8.1 states that "settlement area boundaries will be delineated in official plans".

Section 2.2.8.2 directs that a settlement area boundary expansion may only occur through a municipal comprehensive review where an upper- or single-tier municipality demonstrates that criteria have been met, including meeting minimum density and intensification targets and undertaking a land needs assessment based on the standard methodology issued by the minister of municipal affairs.

Section 2.2.8.3 states 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. Policies relating directly to agriculture in Section 2.2.8.3 include 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 of the Agricultural System and in accordance with the following:
 - i. expansion into speciality 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;..."



Legend

- Subject Property
- - - Settlement Area Boundary
- Subject Lands
- - - 1500 Meter Study Area
- - - Municipal Boundary

Agricultural Land Base (OMAFRA)

- Agricultural Land Base
- Prime Agricultural Area
 - Candidate Area
 - Specialty Crop Area

Greenbelt Designation (LIO)

- Urban River Valley
- Protected Countryside
- Niagara Escarpment Plan
- Oak Ridges Moraine Conservation Plan

*Measurements and delineation are Approximate

Figure 2
Agricultural Systems
Portal Mapping

Scoped Agricultural Impact Assessment for
Part Lots 3 & 4, Concession 4
Town of Milton

Prepared for: **ORLANDO CORPORATION**

Prepared by: **COLVILLE CONSULTING INC.**

Section 2.2.8.5 and 2.2.8.6 allow for settlement boundary expansions outside of a municipal comprehensive review. Policy 2.2.8.5 states:

“Notwithstanding policies 2.2.8.2 and 5.2.4.3, a settlement area boundary expansion may occur in advance of a municipal comprehensive review, provided:

- a) the lands that are added will be planned to achieve at least the minimum density target in policy 2.2.7.2 or 2.2.7.5.13, as appropriate;
- b) the location of any lands added to a settlement area will satisfy the applicable requirements of policy 2.2.8.3;
- c) the affected settlement area is not a rural settlement or in the Greenbelt Area;
- d) the settlement area is serviced by municipal water and wastewater systems and there is sufficient reserve infrastructure capacity to service the lands; and
- e) the additional lands and associated forecasted growth will be fully accounted for in the land needs assessment associated with the next municipal comprehensive review.

Policy 2.2.8.6 states:

“For a settlement area boundary expansion undertaken in accordance with policy 2.2.8.5, the amount of land to be added to the settlement area will be no larger than 40 hectares.”

A portion of the Subject Lands are located within the GGH’s agricultural land base. The application proposes to bring these prime agricultural lands into the existing Urban Area with the remainder of the Subject Property.

3.3 Halton Region Official Plan

The Halton Region Official Plan (ROP) outlines a long-term regional strategic policy framework to guide growth and development. The region has identified its agricultural system and prime agricultural areas, where the goal of the agricultural system is to ‘maintain a permanently secure, economically viable agricultural industry and to preserve the open-space character and landscape of Halton’s non-urbanized areas’.

The Subject Lands are designated Agricultural Area in Map 1 and Prime Agricultural Area on Map 1E of the Halton Region Official Plan (2021). The southern portion of the Subject Lands are located within the Urban Area of the Town of Milton. Section 77(7) addresses urban area expansion and establishes criteria to be addressed in the AIA. Constraints to development relating to agricultural policies are discussed in Sections 90-101 and 139.9 of the ROP.

Section 77(7) states:

- d) “in *Prime Agricultural Areas*, as shown on Map 1E:
 - [i] the lands do not comprise *specialty crop areas*;

- [ii] there are no reasonable alternatives that avoid *Prime Agricultural Areas*; and
- [iii] there are no reasonable alternatives on lower priority agricultural lands within the *Prime Agricultural Areas*;
- e) impacts from the expansion on *agricultural operations* adjacent or close to the Urban Area are mitigated to the extent feasible;
- g) compliance with the *Minimum Distance Separation formulae* has been addressed.”

Section 101 of the ROP states that it is the policy of the Region to:

(1.7) Require that new land uses, including the creation of lots, and new or expanding livestock facilities within the Agricultural System comply with the provincially developed Minimum Distance Separation formulae.

Section 139.9 of the ROP outlines policy regarding prime agricultural areas. “The purpose of the *Prime Agricultural Areas*, as shown on Map 1E, is to assist in interpreting policies of this Plan and to assist the City of Burlington and the Towns of Milton and Halton Hills in developing detailed implementation policies for their respective Official Plans.”

139.9.2 states that “it is the *policy* of the Region to:

2. Within the Greenbelt Plan Area, prohibit the redesignation of land within *Prime Agricultural Areas* to permit non-agricultural uses, except where permitted by the Greenbelt Plan.
3. Outside the Greenbelt Plan Area, permit the removal of land from *Prime Agricultural Areas* only where the following have been demonstrated through appropriate studies to the satisfaction of the Region:
 - a) necessity for such uses within the planning horizon for additional land to be designated to accommodate the proposed uses;
 - b) amount of land area needed for such uses;
 - c) reasons for the choice of location;
 - d) justification that there are no reasonable alternate locations of lower capability agricultural lands;
 - e) no negative impact to adjacent *agricultural operations* and the *natural environment*;
 - f) there are no reasonable alternatives that avoid *Prime Agricultural Areas* as shown on Map 1E, and
 - g) the land does not comprise a *specialty crop area*.”

The AIA will address Section 77 and Section 139.9.2 2 & 3.

3.4 Town of Milton Official Plan

The Subject Lands are designated a mix of Agricultural Area and Urban Area in Schedule A – Land Use Plan of the Town of Milton Official Plan (OP), Consolidation August 2008. Section 4.4 of the OP identifies policies for the Agricultural Area land use designation.

Section 4.4.1 of the Official Plan identifies “the Agricultural Area designation on Schedule "A" means that the predominant use of land is for agricultural purposes.”

Section 4.4.3 outlines policies regarding lands that are designated Agricultural Area within the Town's Official Plan. Section 4.4.3.1 states "Subject to the policies of this Plan, the Town of Milton shall recognize and protect lands within the Rural and Agricultural Areas, as shown on Schedule "A" of this Plan, as an important natural resource to the economic viability of agriculture and to this end:

- a) Direct non-farm uses to Urban Areas and Hamlets.
- b) Promote the maintenance or establishment of woodlots and treescapes on farms.
- c) Encourage farmers to adopt farm practices that will sustain the long term productivity of the land and minimize adverse impact to the natural environment."

Section 4.4.3.2 outlines policies regarding the protection of the agricultural industry in Milton and "as the primary long-term activity and land use throughout the Rural and Agricultural Areas, as shown on Schedule "A" of this Plan, and to this end:

- a) Support and develop plans and programs that promote agriculture.
- b) Monitor, investigate, and periodically report on its conditions, problems, trends and means to maintain its competitiveness.
- c) Apply the criteria in the Provincial documents - Minimum Distance Separation Formula I and Minimum Distance Separation Formula II to protect farming from incompatible non-farm uses.
- d) Require the proponent of any non-farm use that is permitted by specific policies of this Plan but has a potential impact on adjacent agricultural operations to carry out an Agricultural Impact Assessment (AIA), based on guidelines adopted by Region of Halton Council.
- e) Support programs to reduce trespassing on agricultural operations and discourage the location of public trails near agricultural operations.

Section 5.3.3.9 outlines the requirements for expansions or extensions to urban boundaries, which requires an Official Plan amendment. Section 5.3.3.9 states:

"In addition to the requirements of the Regional Plan (1995), expansions or extensions to the Urban Expansion Area boundary shall only be permitted by amendment to this Plan, provided that the following conditions have been met:

- f) the amount of land included within the proposed expansion is needed, and justified;
- g) the area proposed for development is a logical extension of the existing urbanized areas;
- h) sufficient water and wastewater capacity to service the proposed development is available;
- i) a strategy for phasing and financing the proposed infrastructure to service the proposed development is formulated;
- j) the proposed development will make efficient use of the land, infrastructure and community services by having a compact form; and,
- k) prime agricultural land is included only if no reasonable alternative exists."

3.5 Minimum Distance Separation

Each of the planning documents listed in this section require that the proposed new non-farm land use meet the Minimum Distance Separation formulae (MDS). According to the OMAFRA FactSheet *Farmer and Neighbour Relations Preventing and Resolving Local Conflicts* (January 2005), neighbour complaints relating to odours generated by farm operations are the primary complaint received by farmers.

The concept of applying separation distances between livestock facilities and non-farm land uses in order to minimize land use conflicts with the growing non-agricultural rural population first originated in the early 1970's with the *Suggested Code of Practice* where a one size fits all solution was first applied to new or expanding livestock operations. The *Suggested Code of Practice* "rationalized that the effect of objectionable odours in a neighbourhood could be reduced if livestock and poultry facilities were located as far as practically possible from nearby dwellings" (Minimum Distance Separation Implementation Guidelines, Publication 707, 2006).

In 1976 the *Agricultural Code of Practice* was developed and introduced MDS formulas which would calculate the separation distances based on a range of factors specific to each livestock facility and the perceived sensitivity of the non-farm land uses. This document further reiterated that "Objectionable odours can be reduced if livestock buildings and rural residences are constructed at reasonable distances from each other." It goes on to say that "The MDS Formulas have been developed to provide a consistent and fair technique to determine separation distances between non-compatible land uses".

The 1978 *Food Land Guidelines*, the agricultural planning policy of the day, directed municipalities to indicate in relevant policies of their official plan that the MDS formula be applied to new or expanding livestock facilities and to new non-farm land uses.

The Agricultural Code of Practice was replaced by the Minimum Distance Separation I and Minimum Distance Separation II in 1995. In 2006, the OMAFRA updated the MDS formulae and the Minimum Distance Separation Implementation Guidelines, Publication 707 came into effect on January 1, 2007.

The MDS was once again updated in 2016 and came into effect on March 1st, 2017. The MDS guidelines are provided in "Minimum Distance Separation (MDS) Document", Publication 853 OMAFRA (2017). As with its predecessors, the MDS only addresses odour-related concerns.

The MDS only applies to Agricultural or Rural designated lands and is not applied to lands within existing settlement area boundaries unless specific wording is provided in a municipality's official plan stating that the MDS is to be applied within other land use designations.

Two different formulae have been developed by the Province; the MDS I formula and the MDS II formula. The MDS I formula calculates the minimum distance separation requirements between existing livestock facilities and proposed new non-agricultural uses or lot creation and is the applicable formula to be used for settlement area expansion. The MDS II calculates minimum distance separation requirements for new or expanding livestock facilities from existing or approved non-farm development. For the proposed development, the MDS I formula is applicable.

4.0 METHODOLOGY

The study methodology is consistent with the requirements of the Agricultural Impact Assessment Guidelines used by Halton Region. The AIA has been structured to follow the requirements of the more recently updated OMAFRA 2018 draft AIA Guidance Document which requires a further level of detail and research than the existing Halton Region guidelines.

The AIA includes a review of relevant agricultural policies, other agricultural-related sources of information, and the completion of field inventories. Upon compilation and assessment of the data, the potential impacts of the proposed development will be considered and recommendations to avoid and/or minimize potential impacts will be made. The AIA also assesses the development's conformity with the Provincial and Regional agricultural policies.

4.1 Background Data Collection

Information sources reviewed for this study included:

- ◆ Halton Region Official Plan and Land Use Schedules (Interim Office Consolidation, 2021);
- ◆ Town of Milton Official Plan and Land Use Schedules (Consolidated 2008);
- ◆ Provincial Policy Statement 2020 Under the Planning Act (2020);
- ◆ A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020);
- ◆ The Soils of Halton County - No. 43 of the Ontario Soil Survey, 1971;
- ◆ OMAFRA's digital soil Resource Database to obtain soil series and CLI agricultural capability mapping and data;
- ◆ OMAFRA's Minimum Distance Separation (MDS) Document (2016);
- ◆ OMAFRA's Artificial Drainage Systems mapping;
- ◆ OMAFRA's AgriSuite, AgMaps and Agri-Systems databases;
- ◆ Draft Agricultural Impact Assessment (AIA) Guidance Document, Ontario Ministry of Agriculture and Rural Affairs. March, 2018; and
- ◆ Ortho-rectified, digital aerial photography viewed using Google Earth™.

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

The AIA also relied on information provided in the Planning Justification Report (PJR) prepared by Glen Schnarr & Associates Inc. (GSAI) in October 2021.

A more detailed list of the information sources reviewed is provided in Section 11 of this report.

4.2 Field Inventories

The field inventories were initially completed on July 30th and August 13th, 2021 as part of the initial MDS report. A follow up field visit was completed on April 27, 2022 to confirm land use information and update as required. 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 Study Area.

4.2.1 Land Use Survey

The reconnaissance land use surveys of the Study Area were completed on July 30th, August 13th 2021, and April 27th, 2022. The land use survey identified the number and type of agricultural operations (both existing and retired), agricultural-related uses and secondary agricultural uses within the area, and the extent and type of non-farmland uses in the area. Field crops observed were identified and mapped. Visual evidence of agricultural land improvements was also assessed.

The land use survey noted the presence of the adjacent urban lands but it did not include descriptions of the types of urban land uses within the urban area.

4.2.2 MDS Calculation

The MDS is a land use planning tool developed by OMAFRA to minimize land use conflicts and nuisance complaints arising from odours generated by livestock operations. The MDS calculates a recommended separation distance between a livestock or manure storage and other land use(s). The most recent version of the MDS guidelines, The Minimum Distance Separation (MDS) Document, Publication 853 (2016), came into effect on March 1st, 2017.

The MDS uses two separate formulae depending on the type of land use proposed; MDS I and MDS II. The MDS I formula is used when a proposed new non-agricultural development is proposed in proximity to livestock facilities. The MDS II formula is used to calculate the distance from proposed new, enlarged or remodeled livestock facilities and existing or approved development.

For the proposed settlement area boundary expansion, the MDS calculation uses the MDS I formula. The information required by the MDS I formula was obtained through a combination of sources. As per the MDS Guidelines, we attempted to gather information directly from the landowner/tenant. Due to the ongoing coronavirus pandemic and updated internal health and safety policies, self addressed envelopes were left in mailboxes of potential livestock operations in addition to on farm interviews. However, we were able to speak directly with the two farmers closest to the Subject Lands.

To determine the minimum distance separation 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 the 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 system used. These observations were supplemented with aerial photography and web mapping tools such as Google Earth. Barn capacity and lot size was determined using these on-line mapping tools.

4.3 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 reconnaissance level land use surveys on July 30th and August 13th, 2021 with a follow up land use survey April 27th, 2022, and an online review to assist in identifying agricultural related features.

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

4.4 Evaluation of Agricultural Priority

Information to evaluate the agricultural priority of the Subject Lands was undertaken as part of the land use surveys completed as well as a review of online resources.

When choosing between two or more locations with the same or similar agricultural capability, the PPS directs development to “lower priority agricultural lands”. Although, the PPS, Growth Plan, or other provincial planning documents 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 will consider each of these criteria to assess the agricultural priority of the Subject Lands.

4.5 Evaluation of Alternative Locations

An evaluation of alternative locations is typically undertaken as part of an AIA for settlement boundary expansion. The location the Subject Lands and the site-specific locational requirements for this proposed settlement boundary expansion does not require that alternative sites be evaluated. The scoping provided by the Halton Region removed the requirement to address alternative locations (See Appendix A).

4.6 Identification of Potential Impacts and Mitigation Measures

Potential impacts of 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 from settlement boundary expansion 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 land base and the agri-food network were then developed.

4.7 Assessment of Conformity with Agricultural Policies

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

5.0 EVALUATION OF AGRICULTURAL RESOURCES

5.1 Physiography

The Subject Lands are located within the Peel Plain physiographic region (Chapman and Putnam, 1984). The Peel plain is a level-to-undulating landform consisting predominantly of clayey till soils derived from underlying limestone/dolostone and shale. This physiographic region traverses the central portions of York, Peel and Halton Regions.

Typical farm operations within the Peel Plain include livestock operations, equestrian operations, hobby farms and cash crop operations. According to the 2016 Census of Agriculture data, there has been a decline in the number of livestock operations and field crop production between 2011 and 2016. Common field crops in the area typically include winter wheat, mixed grains, corn for grain, corn for silage, hay, soybeans and potatoes (Census of Agriculture, 2016).

The soils in the Milton area are typically imperfectly drained, due to the dominant peel clay soil and relatively flat topography. The Subject Lands are mapped as imperfectly drained, due to the presence of Chinguacousy Clay Loam soils. These soils have a relatively high water-holding capacity and are moderately to slowly permeable and surface runoff is moderate. Elevation within the Study Area is relatively flat, with topography sloping south. Based on the topography and soils present, it is expected that surface flow will inundate low lying areas with clayey soils.

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 Georgetown Station (1981-2010) were obtained from the online database (Appendix D).

Environment Canada's Georgetown station is the closest to the Subject Property. Records show that this area receives an average of 885mm of precipitation annually (Environment Canada website); 743.8 mm of rainfall and 141.5 cm of snowfall. The daily average temperature ranges from a high of 20°C to a low of -6.3°C.

The Ministry of Agriculture and Food Factsheets provide data on crop production and growing seasons across Ontario. The rate of development of crops from planting to maturity is mainly dependent upon temperature. Regions within the Milton area 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 2680 crop heat units (CHU).

5.3 Agricultural Crop Statistics

Agricultural crop statistics are available through Statistics Canada's Agriculture and Food Statistics Census of Agriculture. The Subject Lands are located within the Census Western Ontario Region, Halton Regional Municipality. Data from Statistics Canada has been compiled by the Ontario Ministry of Agriculture, Food and Rural Affairs for the Ontario region. Agricultural crop statistics were obtained from the online database (Appendix E).

The County and Township Agricultural Profile for Halton Regional Municipality include data from the 2016 and 2011 census periods. The total number of farms in Halton decreased from 469 to 451, and the cropland decreased from 61,673 acres to 52,602 acres from 2011 to 2016. Field crops in Halton include winter wheat, mixed grains, corn for feed grain and silage, hay, soybeans and potatoes. Field crop production decreased marginally between 2011 and 2016, while oats for grain increased 12.21% and corn for silage increased 16.17%. Fruit crops in Halton include apples, peaches, grapes, strawberries, and raspberries. Total fruit crop production decreased by 18.93%, or 99 acres from 2011 to 2016. Vegetable crops include sweet corn, tomatoes, green peas and green or wax beans. Total vegetable production decreased by 6.82%, or 47 acres.

5.4 Specialty Crop Areas

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

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

There are two specialty crop areas recognized by the province, the Niagara Fruit Belt and the Holland Marsh. The Subject Lands are not located within either of these two specialty crop areas. The Subject Lands do not exhibit any of the characteristics of a specialty crop area. They are not part of a specialty crop area.

5.5 Regional Soils

5.5.1 Soil Series

The regional soil mapping is based on the *Soils of Halton County – Report No. 43* of the Ontario Soil Survey (Gillespie, J.E., Wicklund, R.E. Miller, M.H., 1971). The report includes descriptions of the soils and a soil map that shows the distribution of the soil series identified in Halton Region. The lands were mapped at a scale of 1:63,360 which is appropriate for regional level planning decisions.

The Provincial Soil Resource database is compiled and administered by OMAFRA. It includes the regional soil survey data and the interpreted CLI classes for each soil polygon mapped. Much of this information is accessible from the Province’s Agricultural Information Atlas (AgMaps). This is an interactive online application that enables users to obtain agricultural information for Ontario such as soils and drainage, as well as data layers from other Government of Ontario ministries (e.g., lot boundaries). The database was accessed in April 2022.

Figure 3 shows the regional scale mapping and the CLI classes assigned to the soils by the province. It shows that three soil types were mapped on the Subject Property. They include the Chinguacousy Clay Loam, the Jeddo Clay Loam, and Oneida Clay Loam. Regional mapping shows that the soils on the Subject Lands are comprised entirely of Chinguacousy Clay Loam. The remainder of the Subject Property is comprised of Jeddo Clay Loam and Oneida Clay Loam. A general description of the Chinguacousy Clay Loam found on the Subject Lands is provided below.

Chinguacousy Clay Loam

The Chinguacousy soil series is the imperfectly drained member of the Oneida Catena. Oneida soils are well drained and have developed from a calcareous, silty clay to silty clay loam textured till, common throughout the South Slope physiographic region.

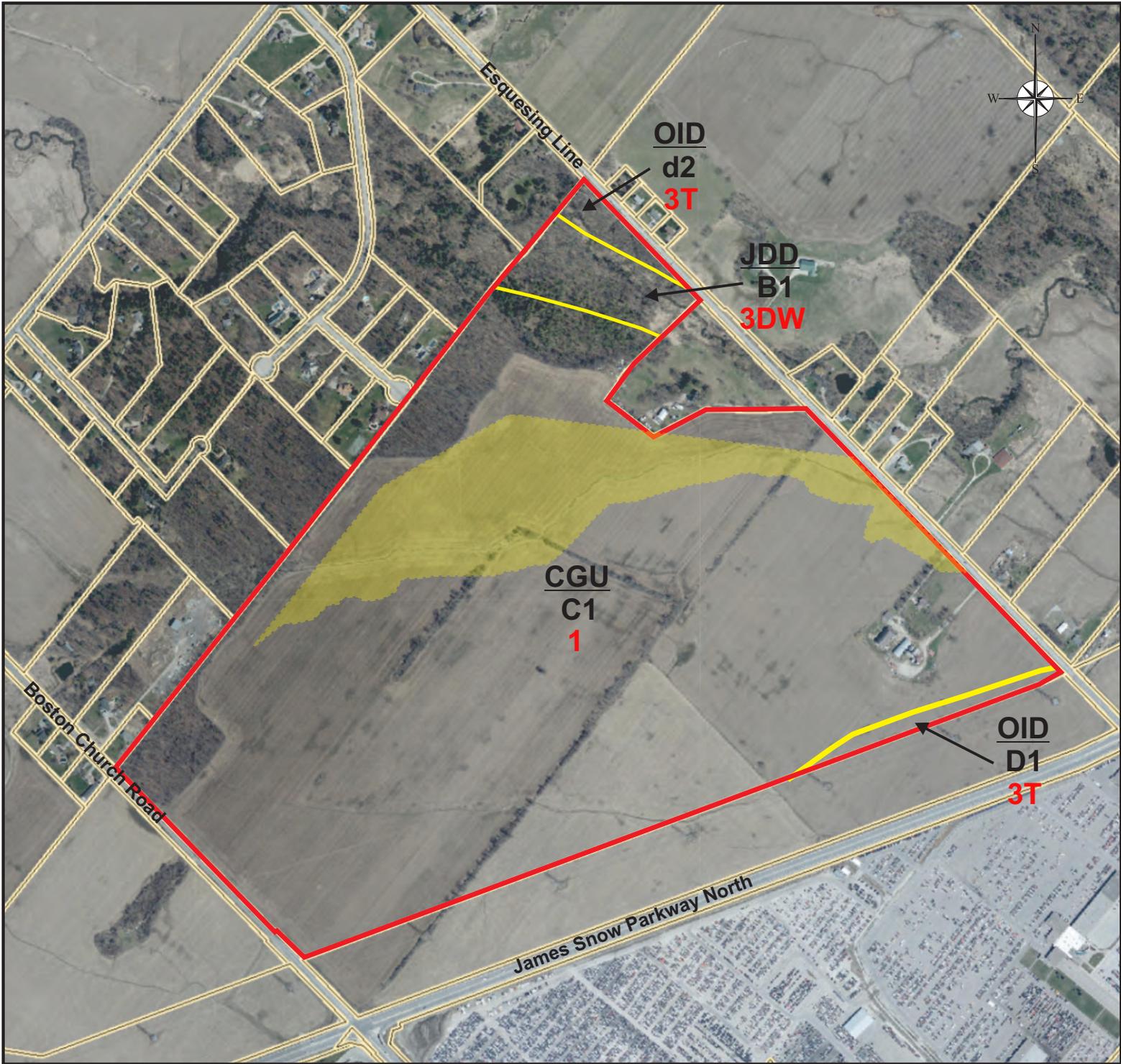
The Chinguacousy soil series has developed from the same calcareous, silty clay to silty clay loam till, parent material. The friable, silty clay loam surface (Ap) is 20 to 25 cm deep and contains few stones. It overlies a firm, clay loam to silty clay loam subsoil (Bmgj and Btgj horizons) and typically, the firm, parent material (Ckgj) is found at a depth between 60 and 80 cm.

Chinguacousy soils are imperfectly drained soils and mottles are present in the upper 50 cm of the soil profile. Mottles are described as few to common and distinct. These 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, most commonly in the spring and fall which corresponds to sowing and harvest periods. The high-water content in the soils during the spring may delay seeding.

5.5.2 CLI Agricultural Land Classification

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

According to the provincial database, the entirety of the Subject Lands is mapped as the Chinguacousy Clay Loam and CLI Class 1 lands on C slopes as shown in Figure 3 below. OMAFRA's document on classifying prime and marginal agricultural soils outlines the parameters for CLI classification in Ontario was reviewed to determine if a reassessment of the CLI Class was warranted. Based on the classifying parameters in this document, the Chinguacousy Clay Loam on the Subject Lands has been reassessed as CLI Class 2DT due to the presence undesirable soil structure and topographic limitations. The entirety of the Subject Lands (14.25 ha) has therefore been reclassified as CLI Class 2.



Legend

- Subject Property**
 - Subject Lands**
- Soil Symbol**
- Soil Series Name → **CGU**
- Slope Class → **C1** ← Stoniness
- Soil Series**
- CGU - Chinguacousy Clay Loam
 - JDD - Jeddo Clay Loam
 - OID - Oneida Clay Loam

- Slope Classes (%)**
- A a - Level slopes (0.0 - 0.5%)
 - B b - Nearly level slopes (0.5 - 2.0%)
 - C c - Very Gentle slopes (2.0 - 5.0%)
 - D d - Gentle slopes (5 - 9%)
 - E e - Moderate slopes (9 - 15%)
 - F f - Strong slopes (15 - 30%)
 - G g - Very Strong slopes (30 - 45%)
- Simple Slopes (uniform, lengths > 50 metres) denoted in upper case
Complex Slopes (short, irregular slopes) denoted in lower case

- Stoniness/Rockiness**
- 0 - Non
 - 1 - Slightly
 - 2 - Moderately
 - 3 - Very
 - 4 - Exceedingly
 - 5 - Excessively

CLI Class → 1¹⁰⁰ ← Percentage of Area

CLI AGRICULTURAL CAPABILITY CLASSES

Class 1 - Soils in this class have no significant limitations to use for common field crops

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

CLI AGRICULTURAL CAPABILITY SUBCLASSES

Subclass D - Undesirable soil structure and/or low permeability.

Subclass T - Topography due to steepness of slope.

Subclass W - Presence of excess water (i.e inadequate soil drainage, high water table, seepage or runoff from other areas).

Figure 3

Regional Soils and CLI Mapping

Scoped Agricultural Impact Assessment for Part Lots 3 & 4, Concession 4 Town of Milton

Prepared for:



Prepared by:



DATE: May 2022

FILE: 22026

5.6 Land Use

Reconnaissance level, land use surveys were initially completed on July 30th and August 13th, 2021, with a follow up survey completed on April 27th, 2022. The land use survey identified the number and type of agricultural operations (both existing and retired), agricultural-related uses and on-farm diversified uses on the Subject Lands and within the Study Area. The land use survey also identified the extent and type of non-farm land uses in the Study Area. The crop types observed within the Study Area were recorded and mapped (Figure 4). Photographs taken during the land use survey are provided in Appendix G.

The purpose of the land use survey is to document the mix of agricultural and non-agricultural uses in the Study Area; identify agricultural operations that may be sensitive to the introduction of new land uses; and identify livestock facilities to calculate the MDS setback requirements. Figure 4 shows the land uses observed. All of the farms, retired farms and hobby farms are numbered, and short descriptions of these operations are contained in the land use survey notes in Appendix H.

Land use survey results identified 17 agricultural uses (active livestock operation, retired livestock operation, equestrian operation, hobby farm and remnant farm), six non-agricultural land uses (excluding residential uses) and no agriculture-related uses or on-farm diversified uses.

Non-farm land uses within the Study Area include large portions of urban lands predominantly within the existing Town of Milton urban boundary south of the Subject Property. A rural employment area is located west of the Subject Property at the along the edge of the study area, and a commercial cluster in the Town of Halton Hills is located to the east. There are also over 30 non-farm residential dwellings scattered throughout the northern portion of the Study Area including a residential cluster north of the Subject Lands.

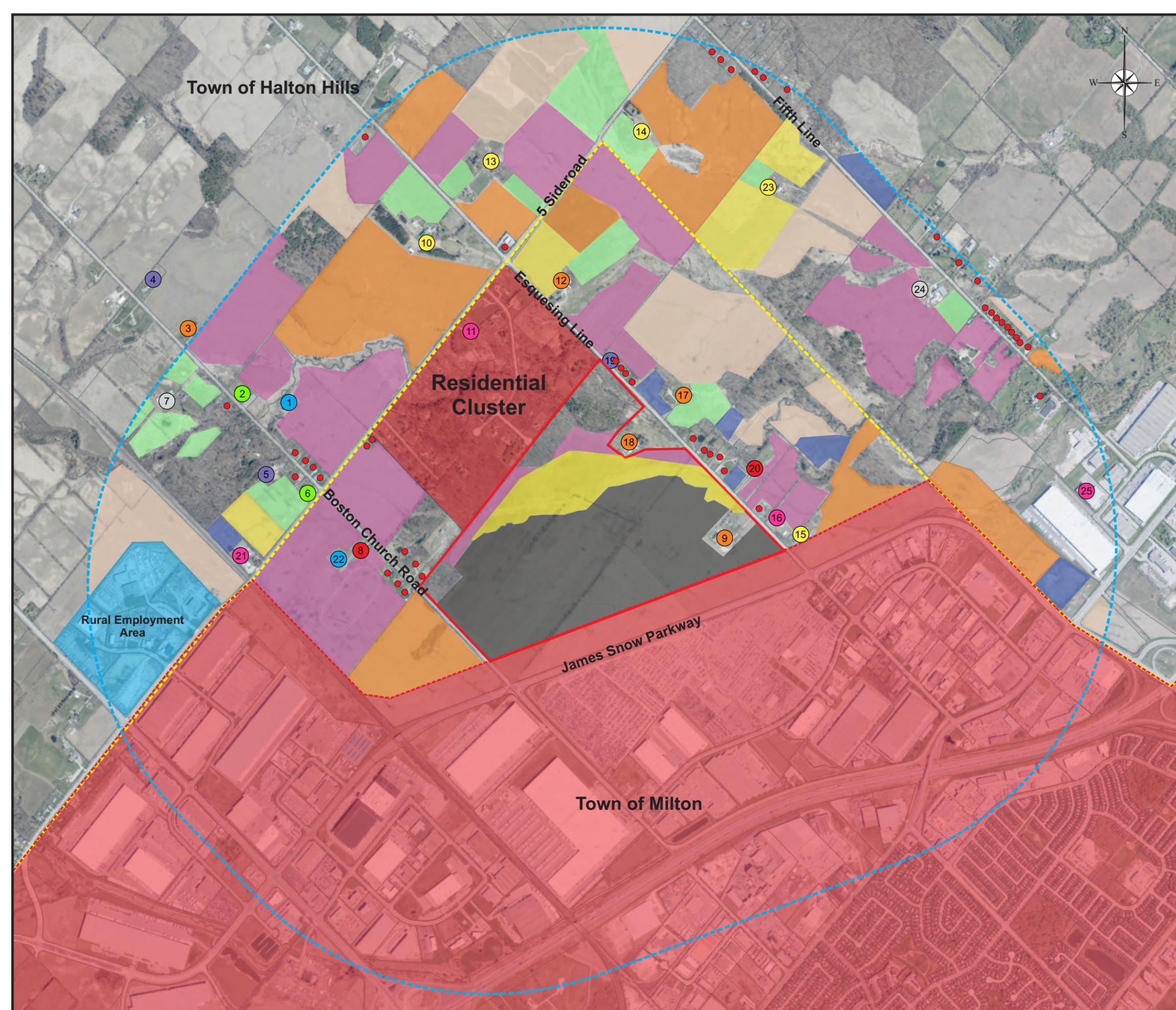
5.6.1 Agricultural Uses

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

Farm types were noted and identified as either active or retired (i.e., inactive), livestock, cash crop or hobby farms. Livestock operations include poultry, dairy, beef, cow-calf and equestrian operations. Those in active or retired farm operations were evaluated to determine whether they should be considered as either 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.

Subject Lands and Subject Property

There is no agricultural infrastructure on the Subject Lands. The Subject Lands are actively being used for row crop production. On the rest of the Subject Property, the majority of the cultivated lands are actively being stripped of topsoil in anticipation of future development. The grain dryer on the Subject Property



Legend

- Subject Property
- Subject Lands
- - - Settlement Area Boundary
- - - - - 1500 Meter Study Area
- - - - - Municipal Boundary

Agricultural Use

- Hobby Farm
- Retired Livesotck
- Equestrian Operation
- Livestock Operation
- Remnant Livestock

Non-Agricultural Uses

- Non-farm Residence
- Commercial
- Rural Employment
- Institutional
- Residential
- Topsoil Stripping

Cropping Pattern

- Hay
- Pasture/Forage
- Cultivated
- Idle
- Soybean
- Corn

0 250 M 500 M
1:16,650

*Measurements and delineation are Approximate

Figure 4
Land Use Mapping

**Scoped Agricultural Impact Assessment for
Part Lots 3 & 4, Concession 4
Town of Milton**

Prepared for:
ORLANDO CORPORATION

Prepared by:
COLVILLE CONSULTING INC.

DATE: May 2022

FILE: C22026

has been entirely disassembled and removed. The retired bank barn is in the process of being dismantled with the sheet metal roof removed during the most recent site visit. The majority of the trees surrounding the former livestock operation have been cut down and are awaiting removal from site.

No other agricultural infrastructure is present on the Subject Lands or Subject Property.

Study Area

As shown in Figure 4, the majority of the lands within the Study Area outside of the existing settlement boundary are in common field crop production. These crops include corn, soybeans, and pasture/forage crops. Forage crops typically consist of hay and haylage. These crops are typically associated with traditional cash crop and livestock farm operations.

Within the Study Area, including the Subject Lands and Subject Property, we have identified seventeen Agricultural Uses, of which eleven are active. The remaining six Agricultural Uses are comprised of retired and remnant livestock operations. The eleven active agricultural uses include six livestock operations (#10, #13, #14, #15, #17, and #23), three hobby farms (#4, #5, and #19), and two equestrian operations (#7 and #24).

Of the six retired farm operations, #3 has infrastructure in a condition that appears to be suitable for housing livestock. Two retired livestock operations (#12 & #18) have structures that no longer appear to be suitable for housing livestock. There are three farm operations (#1, #9, and #22) that were identified as remnant farms which were either demolished leaving only foundations or they are in an advanced state of disrepair which clearly makes them no longer suitable for housing livestock without significant investment.

5.6.2 Agriculture-Related Uses

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

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

No Agriculture-Related Uses were identified on the Subject Lands or within the Study Area.

5.6.3 On-Farm Diversified Uses

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

No On-Farm Diversified land uses were identified on the Subject Lands or within the Study Area.

5.6.4 Non-Agricultural Uses

Non-farm land uses include single lot, non-farm residences, existing and approved rural residential subdivisions, residential clusters, settlement areas, municipal and commercial utilities, recreational, institutional, commercial, industrial, and aggregate extraction operations.

Six non-farm land uses, excluding residential, were identified in the Study Area outside of the settlement area. There are four commercial uses (#11, #16, & #25) and two institutional uses (#2 & #6).

The commercial uses include The Dogs Inn Dog kennel (#11), a small commercial unknown commercial operation (#16), Crawford’s Garden Centre (#21), and a commercial cluster east of the Subject Lands consisting off a number of commercial buildings (#25). The institutional uses include the Boston Presbyterian Church (#2) and an old, maintained cemetery that is no longer active (#6).

Two residential uses were numbered and included in Appendix H due to potential agricultural infrastructure identified during the background mapping review. A small storage shed not suitable for housing livestock with an associated residence (#8) was mapped as residential. Big Elm Farm (#20) has a residence and a large structure on site which was previously used to host auctions and is actively used for storage.

Non-farm residences were observed throughout the Study Area, many of which are concentrated in the residential cluster north of the Subject Lands. Smaller clusters were observed east and west of the Subject Lands along Boston Church Road, Esquesing Line, and Fifth Line.

5.6.5 Land Use Summary

Table 1 below summarizes the types of land uses observed within the Study Area including the Subject Lands.

Table 1 - Land Use Summary			
Land Use Types	Total Number	Active	Retired or Remnant
Agricultural	17	6 – Livestock Operation 3 – Hobby Farms 2 – Equestrian Operation	3 – Remnant Livestock 3 – Retired Livestock Operation
Agriculture-related	0	0	0
On-farm Diversified	0	0	0
	Total Number	Type	
Non-Agricultural	6	2 - Institutional 4 - Commercial	

The land uses observed are characteristic of an agricultural area adjacent a larger urban centre.

5.6.6 Cropping Pattern

The most recent land use survey was completed on April 27th, 2022. Cropping patterns were determined by identifying crop stubble and other identifying features. As shown in Figure 4, the Study Area outside of the existing settlement boundary and lands built up residential development is mapped as a mix of primarily soybean, corn, pasture/forage, and cultivated where land is being used for agricultural crops, but specific crops being grown were not observed. Smaller areas within the Study Area consist of idle lands and woodland features. No specialty crops or crop requiring special considerations were identified growing within the study area.

5.7 Land Improvements

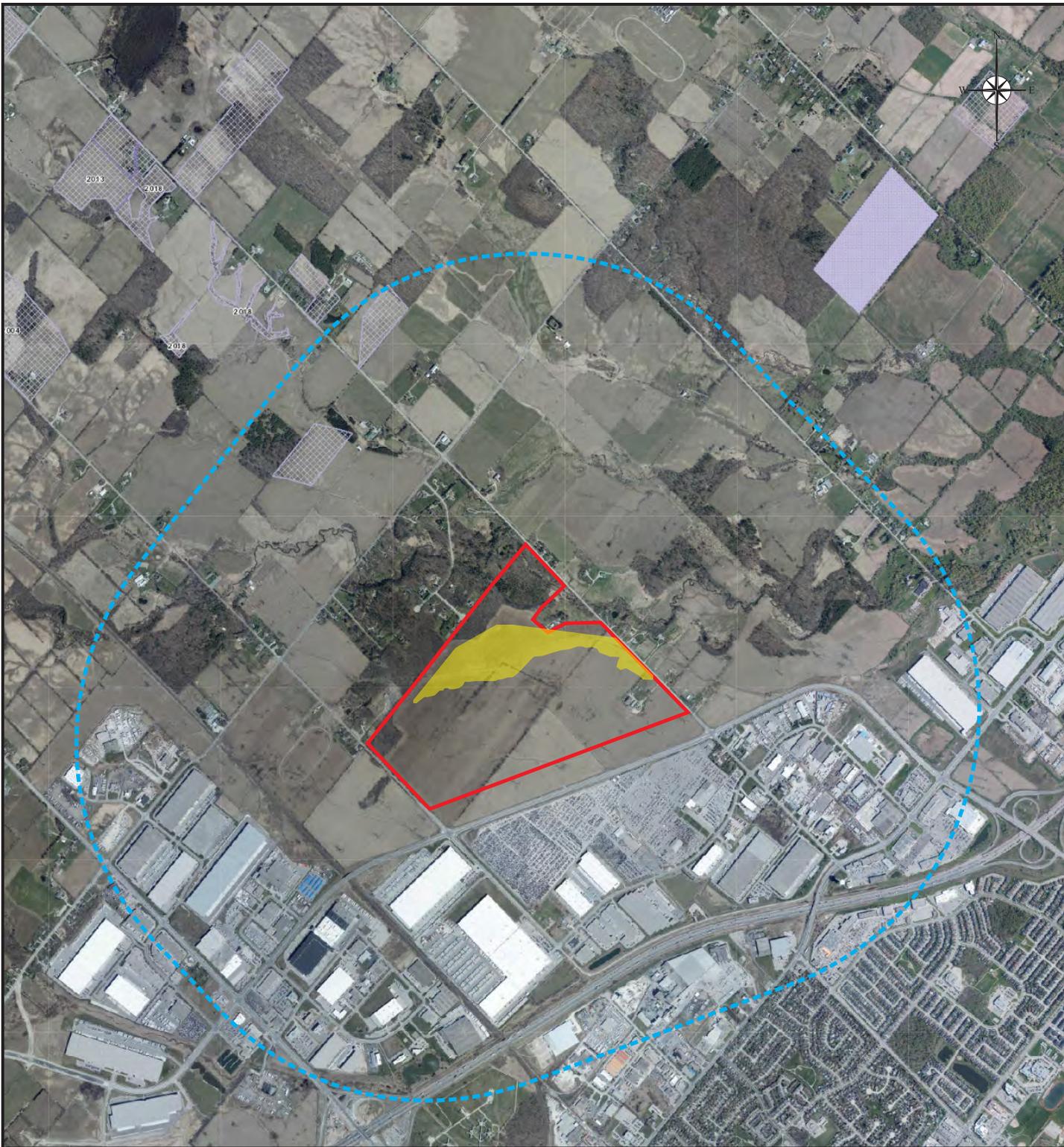
OMAFRA's Agricultural Information Atlas (AgMaps) provides artificial drainage mapping for the province. This online tool was accessed to obtain drainage mapping for the Subject Lands and Study Area. The tile drainage improvements on the Subject Lands and surrounding Study Area are shown in Figure 5 below.

5.7.1 Drainage Improvements on Subject Lands

According to AgMaps, no drainage improvements have been installed on the Subject Lands or Subject Property. Surface and overland drainage appears to primarily follow the natural slope of the land towards the south, the existing tributary traversing the Subject Property from west to east, in addition to roadside ditches adjacent to the Subject Property.

5.7.2 Drainage Improvements in Study Area

There is approximately 11.33ha (28 acres) of systematic tile drainage mapped within the Study Area, north of the Subject Lands. Other areas are systematically and randomly tile drained jus outside of the Study Area to the north and east. Information such as the installation date for some tile drainage is



Legend

- Subject Property
- Subject Lands
- Study Area (1500m)
- Agricultural Tile Drainage**
- Random
- Systematic

Figure 5
Tile Drainage Mapping

**Scoped Agricultural Impact Assessment for
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Town of Milton**

Prepared for:

ORLANDO CORPORATION

Prepared by:

COLVILLE CONSULTING INC.

DATE: May 2022

FILE: C22026

provided for some areas within AgMaps. This shows the majority of systematic tile drainage was installed in 2004, 2013 and 2018. There was no information provided on the installation of the systematic tile drainage within the Study Area, or the random tile drainage.

No constructed drains (municipal drains or natural watercourses that have been modified to improve drainage) were mapped on OMAFRA's Agricultural Information Atlas within the Study Area.

5.7.3 Other Land Improvements

No other investments in land improvements were observed within the Subject Lands, or identified using the Agricultural Systems Portal, in the Study Area.

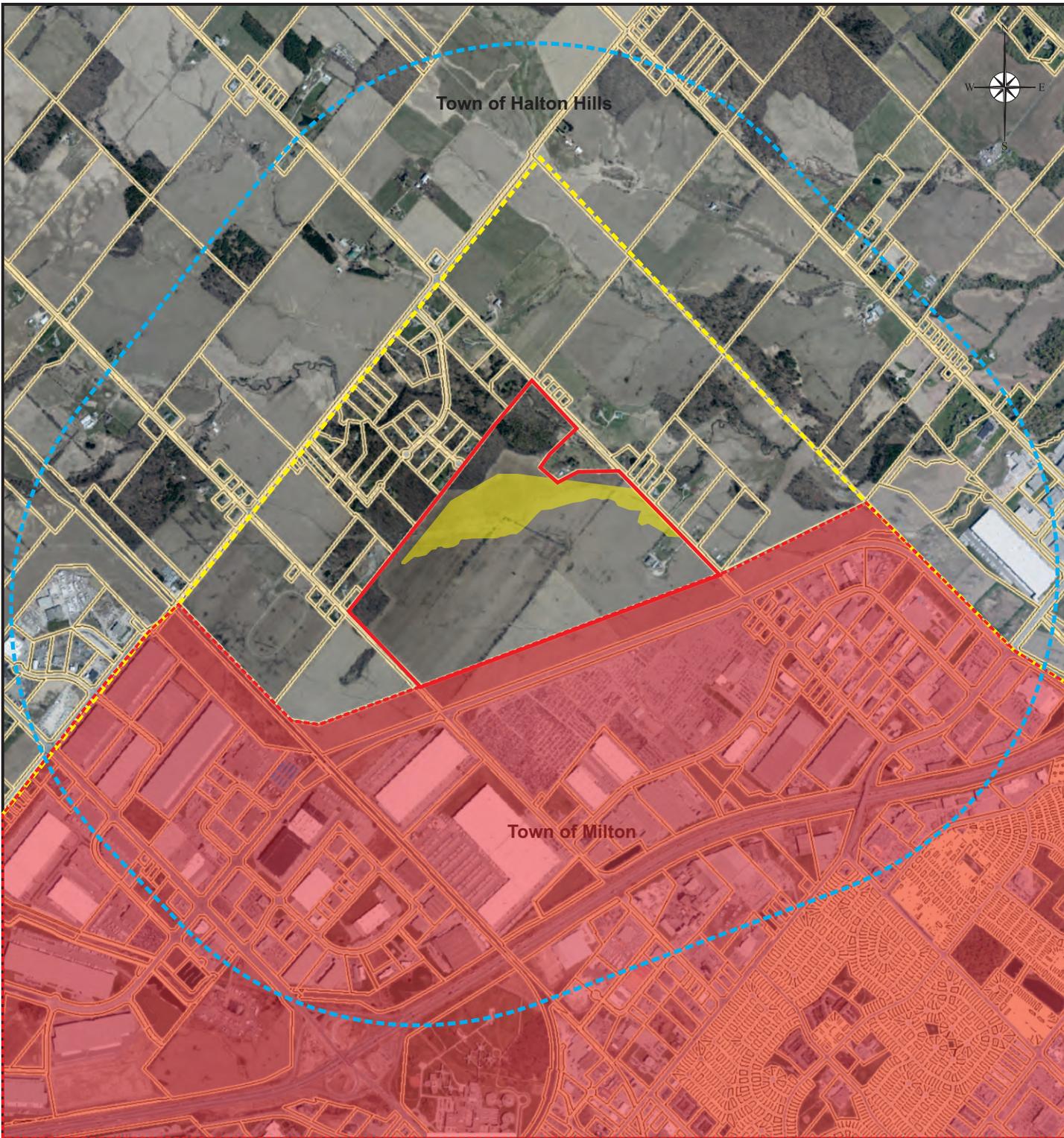
5.8 Fragmentation of Agricultural Lands

Fragmentation of agricultural lands can have a negative impact on the viability of agricultural lands and its long-term preservation for agricultural purposes. Fragmentation of farmlands can lead to a reduction in the economic viability of the agricultural area by reducing the efficiency of which lands are farmed and increasing the operating costs for farmers who must rely on several small and separated parcels. Larger farm parcels can accommodate a wider range of agricultural activities and ensure long term viability of the property. Whereas smaller farm parcels cannot offer the same flexibility and may not be viable as standalone parcels. They generally cannot support a family farm without there being a secondary source of income (off farm) that is required to maintain the agricultural operation.

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

The PPS planning policies recognize the impact of fragmentation on agricultural lands and tries 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 non-agricultural related 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, as observed using AgMaps, there are several large, contiguous parcels and a number of small to moderate sized parcels which form the agricultural land base (Figure 6). The lot fabric observed is characteristic of prime agricultural areas in proximity to urban settlement areas. The highest levels of fragmentation outside of the existing settlement area are associated with the lands north of east and west of the Subject Lands along Esquesing Line and Boston Church Road respectively. Fragmentation within the study is primarily a result of rural residential and commercial such as the commercial cluster east of the Subject Lands.



Legend

- Subject Property
- Settlement Area
- Subject Lands
- 1500 Meter Study Area
- Municipal Boundary
- Lot Boundary

Figure 6
Lot Fabric

Scoped Agricultural Impact Assessment for
Part Lots 3 & 4, Concession 4
Town of Milton

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5.9 Minimum Distance Separation

The MDS I formula was applied to one active livestock facilities or facilities capable of housing livestock identified within fifteen hundred (1500 m) of the Subject Lands. The factors used to determine the MDS I setback requirements for this facility include: the type of livestock; the maximum capacity of the barn for livestock; type of manure system and the type of land use (Type A and Type B). The proposed development is an industrial operation that would typically be considered Type A land use (a low intensity use). However, because the proposal is for the expansion of the settlement boundary to include the Subject Lands, we applied the Type B land use (a high intensity use). We calculated the MDS I setback for Type B land use.

To obtain the other factors we relied on our field observations recorded during the land use survey, aerial photographic interpretation, site specific information provided by landowners where possible. Attempts to speak directly to landowners were minimized due to COVID-19 precautions. We left self-addressed envelopes and form requesting information which would enable us to calculate the MDS setback requirements at potential livestock operations that had the potential to create MDS constraints for the Subject Lands.

The lot sizes were determined using the AgMaps measuring tool. In 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.

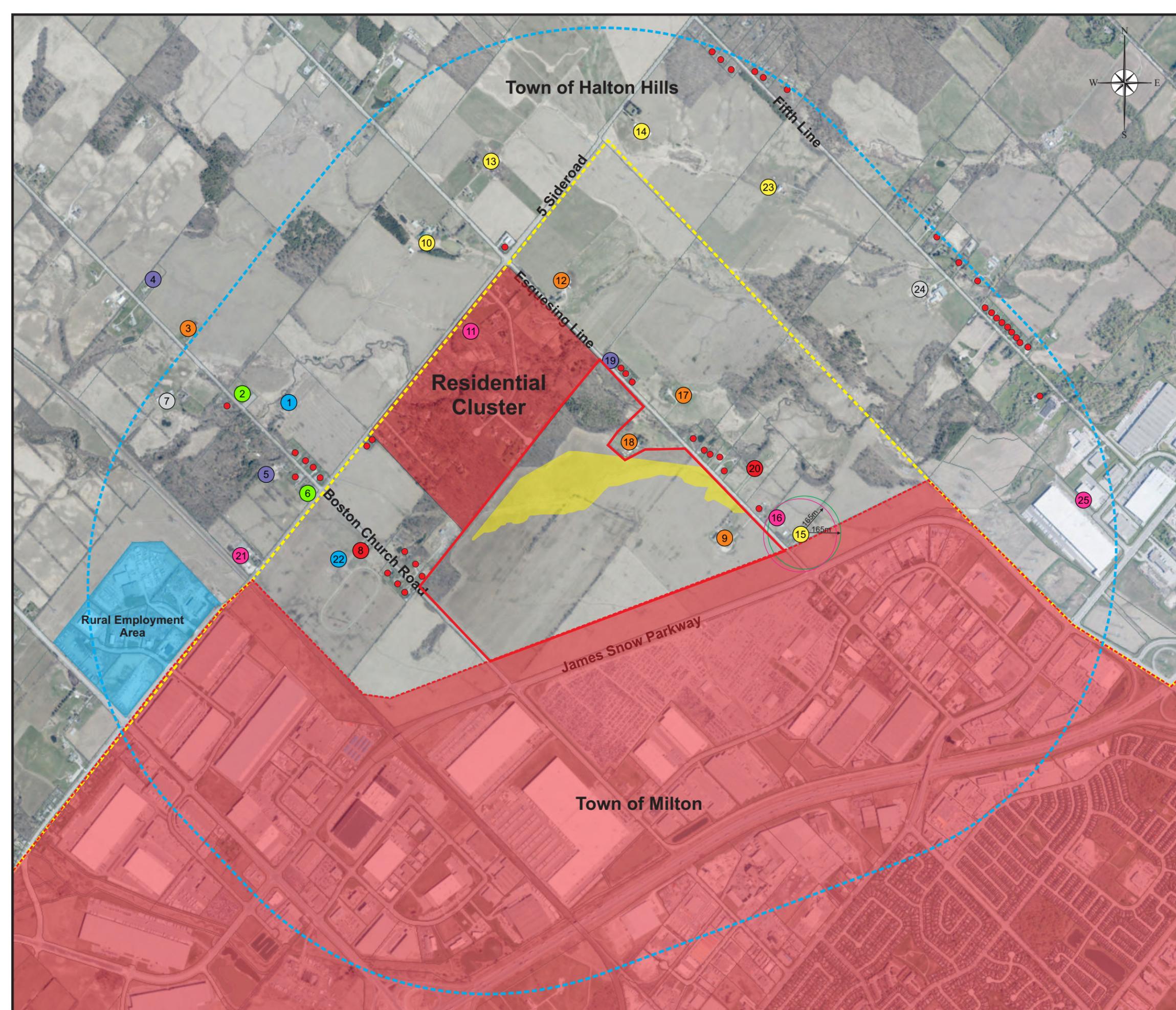
Table 2 summarizes the level of encroachment the proposed development has on the livestock operations and the level of compliance with MDS setback achievable. The AgriSuite MDS reports for these operations are provided in Appendix I.

Table 2 - MDS Setback Requirements

Site Number	MDS I Setback Requirement – Livestock Facility	MDS I Setback Requirement – Manure Storage	Dist. Between Livestock Facility & Subject Lands	Dist. Between Manure Storage & Subject Lands	Complies with Livestock Setback?	Complies with Manure Storage Setback?
15	165 m	165 m	286 m	298 m	Yes	Yes

Figure 7 shows the MDS I setback requirements based on these calculations. As shown in this figure, the proposed settlement area expansion will comply with the MDS I formula.

The MDS formula was not applied to farm operations with barns that are not structurally sound and capable housing livestock. Five farm operations with structures which are in poor condition or now absent of structures to house livestock were identified fit this description (e.g., #1, #9, #12, #18, and #22). As per Guideline No. 12 in the *The Minimum Distance Separation (MDS) Document (2017)*, a reduced MDS setback may be permitted if four or more non-agricultural uses are located between and closer to the livestock facility than the proposed development. These developments must be of the same or greater sensitivity than the proposed development (Type B). The non-agricultural uses must also be located within a 120° view of the nearest part of the livestock facility or manure storage to the proposed development.



Legend

- Subject Property
- - - Settlement Area Boundary
- Subject Lands
- 1500 Meter Study Area
- Municipal Boundary

Agricultural Use

- Hobby Farm
- Livestock Operation
- Retired Livestock
- Remnant Livestock
- Equestrian Operation

Non-Agricultural Uses

- Non-farm Residence
- Commercial
- Institutional
- Residential
- Rural Employment

Settlement Boundary Expansion (Type B)

- Minimum Distance Separation required from Livestock Facility
- Minimum Distance Separation Required From Manure Storage Area

0 250 M 500 M
1:16,650
*Measurements and delineation are Approximate

Figure 7
Minimum Distance Separation

Minimum Distance Separation for
East Block - Part Lot 3 & 4, Con 4,
Town of Milton

Prepared for: **ORLANDO CORPORATION**

Prepared by: **COLVILLE CONSULTING INC.**

DATE: May 2022 FILE: C22026

Guideline No. 12 would apply to nine sites (#3, #4, #5, #7, #10, #13, #14, #23, and #24) and the reduced setbacks generated by these facilities do not encroach into the Subject Lands. It should be noted that even without the application of Guideline #12, the MDS I setbacks would not encroach into the Subject Lands

5.10 Economic and Community Benefits of Agriculture

Identifying the economic and community benefits associated with agriculture in the Study Area is important to assess the impacts associated with the proposed development. Agriculture in the area and within Halton Region consist of active farming, crop lands, fruit and vegetable production, employs local residents as well as actively contributing to the agri-food network. As of 2016 there are a total of 451 farms within Halton Region, and 191 within the Town of Milton. These farms employ Halton and Milton residents and contribute economically to the region and support the agri-food network.

According to the 2016 Census of Agriculture data, the agriculture, forestry, fishing and hunting industry employs approximately 1,595 individuals within Halton Region, and 780 within the Town of Milton. In 2020, there were an estimated 72,795 agri-food businesses within Halton Region.

Of the 451 total farms in Halton, capital value for 16 farms are valued under \$200,000, 23 farms are valued between \$200,000 and \$499,999, 99 farms are valued between \$500,000 and \$999,999, and 313 farms are valued \$1,000,000 and over.

6.0 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 proposed development should be located on 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 the OMAFRA 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 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 a prime agricultural area; therefore, an assessment of the agricultural priority of the Subject Lands is required to address provincial policy. This analysis involves an assessment of whether the lands are considered to be 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-farm land uses, ability to minimize potential conflict (e.g., meeting the MDS I setback requirements) and the zoning of the parcel.

We have concluded that relative to much of the prime agricultural area in the Study Area, the Subject Lands are lower priority agricultural lands for the following reasons:

1. They are not located within a specialty crop area and no specialty crops such as vegetable or fruit crops are grown in the vicinity;
2. No investment associated with farm infrastructure or farm improvements are located on the Subject Lands;
3. The Subject Lands are a small-medium sized parcel which are less viable as stand-alone agricultural parcels than larger parcels which have a greater flexibility to accommodate a variety farm types;
4. The irregular shape and limited access points to the Subject Lands reduces the viability of the property to be effectively used for agricultural purposes;
5. The current location of the Subject Lands between the Greenbelt and natural heritage system to the north and existing settlement boundary to the south significantly restricts the ability to expand any agricultural operation on the Subject Lands; and
6. The agricultural land base within the study area is fragmented by made-made features (lot creation). There are a mix of both agricultural and non-agricultural land uses present. The presence and prevalence of the non-farm land uses increases the potential for conflict arising between farm and non-farm land uses which in turn reduces the agricultural priority of the area.

7.0 ASSESSMENT OF IMPACTS ON AGRICULTURE

To protect agricultural resources within the Greater Golden Horseshoe, Agricultural Systems are identified within Section 4.2.6 of the Growth Plan for the Greater Golden Horseshoe. 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.

Farm operations can be adversely impacted by new non-farm 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, noise, 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.

Based on our review of the Agricultural System Portal and Official Plan mapping, the Subject Lands are located primarily within OMAFRA's Prime Agricultural Area and Prime Agricultural Area on Map 1E of the Halton Region Official Plan. The proposed settlement boundary expansion will have both direct and indirect impacts. However, the direct impacts are minimal, and it is unlikely that the proposed settlement boundary expansion will have significant, long-term negative effect on the surrounding agricultural lands and community.

7.1 Direct Impacts

7.1.1 Prime Agricultural Lands

The settlement boundary expansion will remove approximately 14.25 ha of prime agricultural land from the agricultural land base. Class 2 lands have the second highest priority for preservation among prime agricultural lands behind CLI Class 1 lands and ahead of CLI Class 3 lands.

To minimize the impact, the cultivated lands should remain available for agriculture until the lands are needed for development purposes.

7.1.2 Agricultural Infrastructure

No farm operations or investment associated with farm infrastructure will be removed as part of the settlement boundary expansion.

7.1.3 Agricultural Land Improvements

No agricultural land improvements were identified on the Subject Lands.

7.1.4 Loss of Crop Land

Of the 14.25 ha of land that comprises the Subject Lands, approximately 13 ha are being cultivated. The remaining 1.25 ha consist of the watercourse and riparian area on the Subject Lands which is not being cultivated. Settlement boundary expansion will eventually consume these croplands.

7.1.5 Minimum Distance Separation

The MDS I setback requirements have been calculated for the livestock and former livestock operations in the Study Area. The majority of the livestock operations are well removed from the proposed development. The MDS setback requirements do not encroach into the Subject Lands.

7.1.6 Transportation Impacts

Increase in motor vehicle traffic in area due to the settlement boundary expansion and development is expected to occur. This is unlikely to have a significant impact on farm vehicles accessing the Subject Lands prior to the transition to commercial uses as the traffic increase will not be realized until development of the lands occurs. If there is any disruption of farm traffic, it is likely to only impact one farm operation (i.e, the farm that is presently cultivating the lands).

Farms in the vicinity located to the north and east of the Subject Land are unlikely to see significant increases in non-farm traffic compared to existing conditions. The development concept plan (Appendix B) shows two entrances are proposed fronting onto James Snow Parkway and a third entrance onto Boston Church Road. The expansion of the settlement boundary to include the Subject Lands may lead to increases in traffic when compared to existing traffic levels on these roads. However, these roads are already heavily travelled as part of existing industrial operations in the area. It is also understood that lands along Boston Church Road south of 5 Sideroad will eventually be converted from agricultural use to industrial use. Most active farm operations are well removed from the Subject Lands limiting the potential negative impacts.

7.1.7 Economic and Community Impacts

The viability of agriculture and economic generation for communities and surrounding areas is of important consideration. Local and regional economies and communities can be adversely impacted by new development, causing loss of farmland, fragmentation, removal of agricultural investments, commodities, and services, and impacts to other farming operations. The agricultural land base in the Town of Milton should be maintained to the extent possible, with little impact to communities and economy.

The proposed settlement boundary expansion will result in the loss of approximately 14.25 ha of cultivated, agricultural lands. There will be no significant impact to the economic viability of the Regions agricultural land base and the agricultural community.

7.2 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 land uses.

7.2.1 Disruption to Surficial Drainage

There is a potential for surface and groundwater contamination through construction activities. Farm operations depend on clean drinking water for livestock and as a source of irrigation water for crops. There is one existing livestock operation within the surrounding Study area.

The Subject Lands are relatively flat. Surface and overland drainage appears to primarily follow the natural slope of the land towards the south, in addition to roadside ditches adjacent to the Subject Property. There is a tributary that traverses the Subject Lands from east to west. The proposed development includes woodlot and wetland areas, as well as a proposed channel and stormwater management pond. These proposed features are expected to enhance surficial drainage, and it is therefore unlikely that any changes to surficial drainage will have a negative impact on farm operations within the Study Area.

7.2.2 Disruption to Farm Operations

Farm operations can be adversely impacted by new non-farm development on adjacent lands. There are several active agricultural operations in the Study Area (six livestock, three hobby farms and two equestrian operations). The majority of the operations are located to the north and west of the Subject Lands, with mostly commercial and retired livestock operations in the immediate vicinity of the Subject Lands. The potential for disruption to the agricultural and agricultural-related operations is low. The livestock operation (#15) directly south east of the Subject Lands has a moderate potential for temporary disruption during construction activities.

7.2.3 Trespass and Vandalism

Trespass and vandalism are nuisances that farmers often have to deal with when adjacent to urban land uses. People walking their pets in farmer's fields, crossing and damaging fences, rutting fields with dirt bikes and all-terrain vehicles are all examples of trespass and vandalism. There is also the potential for debris ending up in farmer's fields as a result of an increase in the urban population as well as during construction activities. Litter in fields can be incorporated into animal feed (e.g., hay) which can negatively affect their health.

7.3 Summary of Impacts

The potential direct and indirect impacts identified are summarized in Table 3 along with the potential degree of impact, mitigation measures to avoid or minimize the potential impact and the resulting anticipated impact.

Table 3 - Summary of Impacts			
Potential Impact	Potential Degree of Impact	Mitigation Measure	Anticipated Net Impact
Direct Impacts			
Loss of prime agricultural land	High Potential	◆ If possible, phase development to allow for continued cultivation until lands are required for development	Eventual loss of 14.25 ha of CLI Class 2 lands
Loss of agricultural infrastructure	Low Potential	◆ None	No Impact
Loss of agricultural land improvements	Low Potential	◆ None	No Impact
Loss of cropland	High Potential	◆ If possible, phase development and topsoil stripping to allow for continued cultivation until lands are required for development	Eventual loss of approximately 13 ha of crop land
Indirect Impacts			
Surficial Drainage	Low Potential	◆ Preparation of grading plan and stormwater management plan to ensure adjacent farm lands are not directly impacted	No Impact
Disruption to Farm Operations	Low Potential	◆ Implement edge planning techniques to minimize conflicts along the agricultural and urban interface	Negative Impact unlikely
Non-farm traffic	Low Potential	◆ Implement edge planning techniques to minimize conflicts along the agricultural and urban interface ◆ Low amount of traffic resulting from settlement boundary expansion anticipated outside of James Snow Parkway which already has high traffic volumes	Negative Impact unlikely
Restrict access to farm fields	Low Potential	◆ During construction and buildout of the	No Impact

Table 3 - Summary of Impacts			
Potential Impact	Potential Degree of Impact	Mitigation Measure	Anticipated Net Impact
		future development, develop measures to ensure that farmers are not prevented from accessing fields	
Conflict with MDS formula	None	◆ None Required	No Impact
Wells, Irrigation, water bodies	Low Potential	<ul style="list-style-type: none"> ◆ Undertake hydrogeological study to ensure that farm wells are not negatively impacted ◆ Implement mitigation measures to restore impacted wells 	No Impact
Trespass and vandalism	Low Potential	<ul style="list-style-type: none"> ◆ Impacts minimized by distance and existing residential areas ◆ 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 employees that farm lands are private and that trespassing is unlawful 	No Impact
Stray Pets	Low Potential	<ul style="list-style-type: none"> ◆ Implement edge planning techniques to minimize potential for pets to wander onto neighbouring farm lands ◆ Pets are not typically permitted at large industrial operations 	No Impact

8.0 CONFORMITY WITH AGRICULTURAL POLICIES

8.1 Provincial Policy Statement

The AIA has demonstrated that the proposed settlement area expansion is consistent with Sections 1.1.3.8 and 1.1.3.9 of the PPS. The PJR prepared by GSAI has demonstrated that there is a need for additional lands to be brought into the urban area. It has been concluded that there are no other sites or opportunities within designated growth areas that can accommodate planned growth through intensification or redevelopment, and there are no reasonable alternatives which avoid prime agricultural areas. The proposed development is in close proximity to existing and planned infrastructure, demonstrating financial viability and community suitability.

We have concluded that the development will not impact a specialty crop area. It will be located on lower priority agricultural lands, and it will meet the MDS requirements. The potential impact on the agriculture system is expected to be low.

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

The Province has identified an Agricultural System for the Greater Golden Horseshoe 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.

This Study fulfills the GPGGH requirement to complete an AIA. The AIA has demonstrated that the development application will be consistent with Section 4.2.6.3 of the GPGGH. The proposed settlement boundary expansion will have a low impact on the agricultural system and appropriate mitigation measures are included as part of this AIA.

Section 2.2.8 of the GPGGH deals with settlement area boundary expansions. We have concluded that the development will not impact a specialty crop area, that there are no opportunities to located the development in a non-prime agricultural area, and the lands are lower priority agricultural lands. The proposed development is in compliance with the MDS requirements.

8.3 Halton Region Official Plan

Section 77(7) of the ROP states that it is the policy of the Region to:

“Introduce, only by amendment(s) to this Plan, Urban Area expansions based on a municipal comprehensive review undertaken as part of the Region’s statutory five-year review of the Official Plan under the Planning Act, provided that it can be demonstrated that:

f) “in *Prime Agricultural Areas*, as shown on Map 1E:

[i] the lands do not comprise *specialty crop areas*;

- [ii] there are no reasonable alternatives that avoid *Prime Agricultural Areas*; and
- [iii] there are no reasonable alternatives on lower priority agricultural lands within the *Prime Agricultural Areas*;
- g) impacts from the expansion on *agricultural operations* adjacent or close to the Urban Area are mitigated to the extent feasible;
- h) compliance with the *Minimum Distance Separation formulae* has been addressed.”

Section 139.9 of the ROP outlines policy regarding prime agricultural areas. “The purpose of the *Prime Agricultural Areas*, as shown on Map 1E, is to assist in interpreting policies of this Plan and to assist the City of Burlington and the Towns of Milton and Halton Hills in developing detailed implementation policies for their respective Official Plans.”

139.9.2 states that “it is the *policy* of the Region to:

- 4. Within the Greenbelt Plan Area, prohibit the redesignation of land within *Prime Agricultural Areas* to permit non-agricultural uses, except where permitted by the Greenbelt Plan.
- 5. Outside the Greenbelt Plan Area, permit the removal of land from *Prime Agricultural Areas* only where the following have been demonstrated through appropriate studies to the satisfaction of the Region:
 - h) necessity for such uses within the planning horizon for additional land to be designated to accommodate the proposed uses;
 - i) amount of land area needed for such uses;
 - j) reasons for the choice of location;
 - k) justification that there are no reasonable alternate locations of lower capability agricultural lands;
 - l) no negative impact to adjacent *agricultural operations* and the *natural environment*;
 - m) there are no reasonable alternatives that avoid *Prime Agricultural Areas* as shown on Map 1E, and
 - n) the land does not comprise a *specialty crop area*.”

We have concluded that the Subject Lands do not comprise a specialty crop area, no reasonable alternative locations that avoid prime agricultural areas or on lower priority agricultural lands exist, and the proposed development is in compliance with the MDS requirements. The AIA has provided mitigative measures on the impacts expected from the settlement boundary expansion and demonstrated that impacts will be minimal. The PJR prepared by GSAI provides supplementary discussion on the above.

8.4 Town of Milton Official Plan

Section 5.3.3.9 outlines the requirements for expansions or extensions to urban boundaries, which requires an Official Plan amendment. Section 5.3.3.9 states:

“In addition to the requirements of the Regional Plan (1995), expansions or extensions to the Urban Expansion Area boundary shall only be permitted by amendment to this Plan, provided that the following conditions have been met:

- l) the amount of land included within the proposed expansion is needed, and justified;
- m) the area proposed for development is a logical extension of the existing urbanized areas;
- n) sufficient water and wastewater capacity to service the proposed development is available;
- o) a strategy for phasing and financing the proposed infrastructure to service the proposed development is formulated;
- p) the proposed development will make efficient use of the land, infrastructure and community services by having a compact form; and,
- q) prime agricultural land is included only if no reasonable alternative exists.”

This AIA has demonstrated that the Subject Lands are on lower priority agricultural lands, and no reasonable alternative location exists which avoids a prime agricultural area. The PJR prepared by GSAI provides justification on the necessity of the proposed development.

9.0 CONCLUSIONS

This AIA has assessed the agricultural resources and farm operations within the Study Area and assessed the potential impacts associated with proposed settlement boundary expansion. We have determined the following:

1. The Subject Lands are currently situated in a prime agricultural area and are comprised of prime agricultural lands;
2. The proposed development will remove approximately 14.25 ha of prime agricultural land (CLI Class 2) from the agricultural land base;
3. The proposed development will comply with the MDS formula;
4. The proposed settlement boundary expansion to include the Subject Lands will have a negligible impact on the Agricultural System;
5. The Subject Lands do not contain any investments in agricultural infrastructure or land improvements;
6. Potential impacts on agriculture will be relatively minor and can be mitigated to reasonable levels; and
7. The proposed settlement boundary expansion will comply with Provincial agricultural policies and those of Halton Region and Town of Milton.

This AIA was prepared by Brett Espensen and reviewed by Sean Colville. Curriculum vitae are included in Appendix C.

Respectfully submitted by:



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10.0 GLOSSARY OF TERMS

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

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

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

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

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

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: - 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*.

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

***Former Livestock Facility:** - means an empty livestock facility that no longer contains manure or livestock. The buildings are generally in fair to good condition and the potential for housing livestock in the building remains. The MDS formula is applied to these facilities.

Glaciolacustrine Deposit: - soil derived from material deposited in a glacial lake environment.

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

Gleyed Horizon: – greyish colours and prominent mottles in the soil horizon profile which indicate that soils are poorly drained and have developed in a reduced environment (i.e., oxygen depleted) due to high water tables throughout the year.

Hobby Farm: - A residential dwelling, with or without accessory buildings, which may include some crop production for personal consumption or limited sale; and/or small numbers of livestock raised for

personal consumption, pleasure or limited sale. A hobby farm normally will generate little or no income and as such may not have a Farm Business Registration Number.

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

Inclusion: - a small soil polygon that occurs within a larger soil polygon and which is comprised of a different soil type or is located on a different slope class, however it is too small to map as a single unit given the scale of map.

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

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

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

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

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

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

Non-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.

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

Prime Agricultural Land: - means land that includes *specialty crop 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 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 Residential Cluster: - means four or more, adjacent rural lots, generally one hectare or less in size, sharing a common contiguous boundary. Lots located directly across a road from one another shall be considered as having a common boundary.*

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

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

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

- 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.*

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

- ♦ soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both; and/or
- ♦ a combination of farmers skilled in the production of specialty crops, and of capital investment in related facilities and services to produce, store or process specialty crops.

Specialty crops include crops such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops and crops from agriculturally developed organic soil.

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

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

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

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

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

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

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- Ontario Ministry of Agriculture, Food and Rural Affairs. Digital Soil Resource information provided 2010. Guelph Geomatics Services.

Ontario Ministry of Municipal Affairs. Provincial Policy Statement. 2020, Queen's Printer for Ontario.

Ontario Ministry of Municipal Affairs. Places to Grow, Growth Plan for the Greater Golden Horseshoe. 2019, Queen's Printer for Ontario.

Halton Region Official Plan, Interim Office Consolidation November 10, 2021.
.https://www.halton.ca/Repository/ROP-Office-Consolidation-Text

Town of Milton Official Plan, December 1997, (Consolidated August, 2008)
https://www.milton.ca/en/business-and-development/resources/FINAL-VERSION-TEXT-ONLY---
OP-Consolidation---Aug2008.pdf

W. Caldwell, 2021. RE: Peer Review: Agricultural Impact Assessment and Minimum Distance Separation I Requirements, Milton North Business Park. Submitted December 11, 2021, Halton Region. 22 pgs.

Appendix A

Scoped AIA Terms of Reference



North Porta Lands

February 15, 2022

AIA Terms of Reference

Applicable Sections

		<ul style="list-style-type: none">• Focus of information is on the secondary study area to understand how the area will be impacted from the new development and from removing agricultural land within the primary study area• Secondary study area to be 1.0 km radius from the primary study area• Note the location of all barns in the secondary study area and if appropriate, complete an MDS setback calculation (go to 1.5 km)• Flag any farms in the primary study area
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Required	Description of the Proposal	
X	A description of the type of application and the nature of the proposal including a site plan and a plan showing the location of the proposal in the context of the surrounding area.	
X	A description of any activities or processes associated with the proposal. If the proposal would provide for a range of possible uses, the AIA should address all possible scenarios involving permitted or proposed uses causing the maximum adverse impacts on agriculture.	
	CONTEXT	
	Applicable Planning Policies	
X	A review of the policy context and regulatory framework in which the development is proposed, from an agricultural perspective, including relevant provisions of the Provincial Policy Statement, Niagara Escarpment Plan, Greenbelt Plan and other Provincial Plans, the Regional Official Plan, Local Official Plan and Zoning By-Law.	PPS 2020 PPS Section 2.3.4 (doesn't apply) PPS Section 2.3.5 PPS Section 2.3.6 PPS Section 2.4.4 (doesn't apply) Greenbelt Plan (2017) Growth Plan Niagara Escarpment Plan (2017) Regional Official Plan (on website halton.ca)



		Local Official Plan Zoning By-law Other (as applicable)
X	Identification of the existing and proposed official plan designations and zoning on the property as well as location within Provincial planning policy areas.	
X	An assessment of applicable agricultural-related policies in the above plans and by-law and demonstration of how the proposed development is consistent with these policies, or, when the application is for an official plan amendment, justification of why a change in designation should be approved.	
	RESOURCE INVENTORY	
	On-site and Surrounding Area Physical Resource Inventory	
X	Soils: A detailed description including mapping of the soil composition of the site and surrounding area and the CLI agricultural capability ratings of the soils. A description of the inherent limitations to agricultural capability should be included. Verification/refinement of existing soil capability mapping may be necessary.	
X	Climate: A general description of climatic features including Crop Heat Units, number of frost-free days, and the general climatic patterns of the area. A description of any microclimatic conditions particular to the site should be included (e.g. frost pockets).	



X	Slope/Topography: A general description of slope and topographic features including contour mapping of the site and the surrounding area. If there are CLI notations regarding topography, an assessment of this information should be completed. A description of any limitations to agricultural capability based on slope should be included.	
X	Drainage: A description of the details regarding drainage including existing or past improvements. If tile drainage exists a description of the system and its status should be provided. If no system exists the need for one and the potential improvements that could be achieved through tile drainage should be addressed.	See Land Information Ontario or OMAFRA's Agricultural Information Atlas. Indicate location of municipal drains, tile outlets and field tile in the secondary study area.
	LAND USE FEATURES	
	On-site Land Use Features	
	Past Farming Practices: An outline of the history of the type and extent of agricultural operations on the site, including any recent changes.	Scope out of the AIA Report
X	Type and Intensity of Existing Agricultural Production: A description of on-site non-agricultural uses. Indicate conflicts with existing and potential on-site agriculture.	
X	Parcel Size, Shape, and Accessibility: A description of fields on the site and their relationship to transportation routes and neighbouring farm properties vis-à-vis accessibility by farm machinery, indicate limitations on farming efficiency posed by the same.	Note points of access to farm operations and fields for farm machinery if applicable.



	<p>Existing Farm Management: A description of land tenure and management on-site i.e. leased or owner operated, on or off-site residence, size of the total operation of which property is part.</p>	Scoped out of the AIA Report
X	<p>Capital Investment in Agriculture: A description and evaluation of the degree of investment in land improvements, irrigation systems, tile drainage, rootstocks, facilities, buildings, machinery, etc.</p>	
	<p>LAND USE FEATURES</p>	
	<p>Off-site Land Use Features</p>	
X	<p>Surrounding Land Use Types: A description of the location, type and intensity of surrounding agricultural and non-agricultural land uses and proposed land use changes up to a distance of 1 km from the property boundary of the site. These should be indicated on a map with details about the history of surrounding agricultural uses.</p>	Note all barns and if these are presently being used or in a state of good/poor repair. Also note any agri-food businesses.
X	<p>Existing and Potential Constraints to On-site Agriculture: An evaluation of constraints on agricultural production on-site arising as a result of existing and proposed non-agricultural uses in the area, including Minimum Distance Separation, nutrient management, traffic impacts, etc.</p>	
X	<p>Regional Land Use, Lot and Tenure Patterns: In order to determine the general character of the area which might influence the long-term agricultural potential of the</p>	Tenure patterns to be scoped out of the AIA report.

	<p>site, an overall description of the broad rural area containing the site, including the extent of the area considered, a description of the fragmentation and tenure (absentee, non-farm) characteristics, non-agricultural land uses, the general agricultural (soil and macroclimatic) capability, and a review of non-agricultural commitments in the pertinent planning documents. Indicate the availability of agricultural support services to the site.</p>	
	<p>AGRICULTURAL VIABILITY</p>	
	<p>Agricultural Viability</p>	
X	<p>An assessment of the viability of the site property as an agricultural operation on its own and in consolidation with a larger existing operation. The flexibility of the site for different types of agricultural operations should be considered in the viability assessment. This review should include considerations related to alternative agricultural operations that could occur into the future.</p>	
X	<p>Impact on the viability of neighbouring agricultural operations resulting from increased restrictions that may occur as a result of the proposed development.</p>	
	<p>IMPACTS ON AGRICULTURE</p>	
	<p>Assessments of the Impacts on Agriculture</p>	
X	<p>A description of the short and long term effects of the proposal on the agricultural community through the direct loss of agricultural resources including a description of the quantity and quality of land lost from agricultural</p>	



	production and the effects on existing or potential operations on the site.	
X	A description of the potential effects of the proposal on existing and potential farming operations on surrounding lands. The discussion should consider Minimum Distance Separation criteria, Nutrient Management issues, the compatibility of the proposal with agricultural operations, and the effects on the flexibility of surrounding lands to accommodate both changes in types of farming, such as from cash crops to livestock, and expansions to livestock operations. Potential impacts on existing wells or impacts due to noise and increased traffic should be addressed.	Include water, noise, dust, traffic and movement of farm machinery etc.
X	Consideration of the proposal's impact on the existing agricultural character of the general area including implications for land use, tenure or fragmentation patterns. The effect of the proposal as an intrusion in an agricultural area or on the continuity of the agricultural area should be considered.	
X	Consideration of the potential cumulative impacts of this proposed development in the context of other decisions in the area.	
	Alternative Location Analysis	
	If the AIA is being completed to satisfy the policies of the PPS, a Provincial Plan or the Regional Official Plan to address the proposed removal of land from prime agricultural areas, an alternative location analysis should	Scoped out of the AIA report.



	<p>be completed to demonstrate that the proposed development location has the least impact on agriculture and to demonstrate the need, within an appropriate planning horizon, for additional land to be designated to accommodate the proposed use.</p>	
	<p>Mitigative Measures</p>	
X	<p>A description of any measures that could be taken to reduce the impacts of the proposal on both on-site and off-site agriculture and the degree to which the impacts would be reduced (e.g. confining the development to areas on the site with poorer capability land and retaining as much good quality land in production as possible, establishing appropriate buffers on the development site so as not to impact the ability of abutting operations to expand).</p>	<p>Consider</p> <ul style="list-style-type: none"> • Disruption or loss of function to artificial drainage and irrigation installations • Changes to soil drainage regime • Changes to hydrogeological conditions that could affect neighboring municipal or private wells sources of irrigation water and sources of water for livestock • Potential effects of noise, vibration, dust and traffic on agricultural operations and activities

		<ul style="list-style-type: none"> • Potential compatibility concerns such as normal farm practices facing challenges with e.g. nuisance complaints, vandalism and trespassing • Inability or challenges to move farm vehicles and equipment along roads • Considerations during and post construction
X	<p>Identification of the impact of removal and/or mitigation measures the proponent proposes to undertake as part of the proposal.</p> <p>Identification of any notices that could be included as conditions of development to ensure that the presence of surrounding agricultural operations are recognized and to advise future land owners that those operations may be subject to future expansion or shifts in production.</p>	
	Conclusions	
	<p>The main findings from the study should be summarized.</p> <p>Net potential impacts to agriculture resulting from approval of the proposed development after implementation of agreed to mitigation measures should be identified.</p> <p>Opinions regarding the implications for the Regional</p>	



	<p>agricultural sector of proceeding with the proposal as described should be provided. If appropriate, mitigation measures to reduce any negative impacts on the agricultural sector should be proposed. Proposals for ongoing monitoring to assess future impacts should be included. The report should include professional opinions as to the extent to which the development can satisfy the directions of the Provincial Policy Statement (PPS), the agricultural development policies of the Regional Official Plan and Local Official Plan, and why the proposal represents good planning.</p>	
	<p>Background Information</p>	
	<p>The AIA should be supported with the following background information:</p> <ul style="list-style-type: none"> • Literature cited; • All background data sources; • A list of people contacted during the study; • A description of the methodologies and survey techniques employed in the study, including a description of soil sampling techniques and method of viability assessment; • Soil survey site investigation data (e.g. soil profile descriptions and slope measurements); and • Curriculum vitae of study team members 	<p>Include technical agricultural and land use planning expertise and credentials</p>
	<p>Summary</p>	



X	Include a summary at the front of the report containing a description of the proposal, its effects on agriculture and all conclusions and recommendations arising from the study.	
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Information Sources

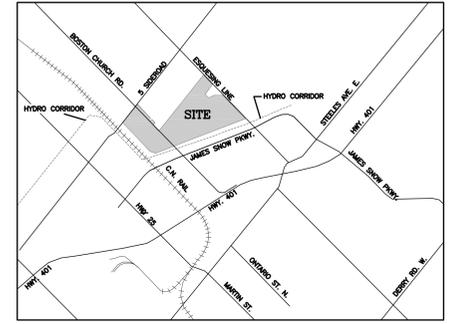
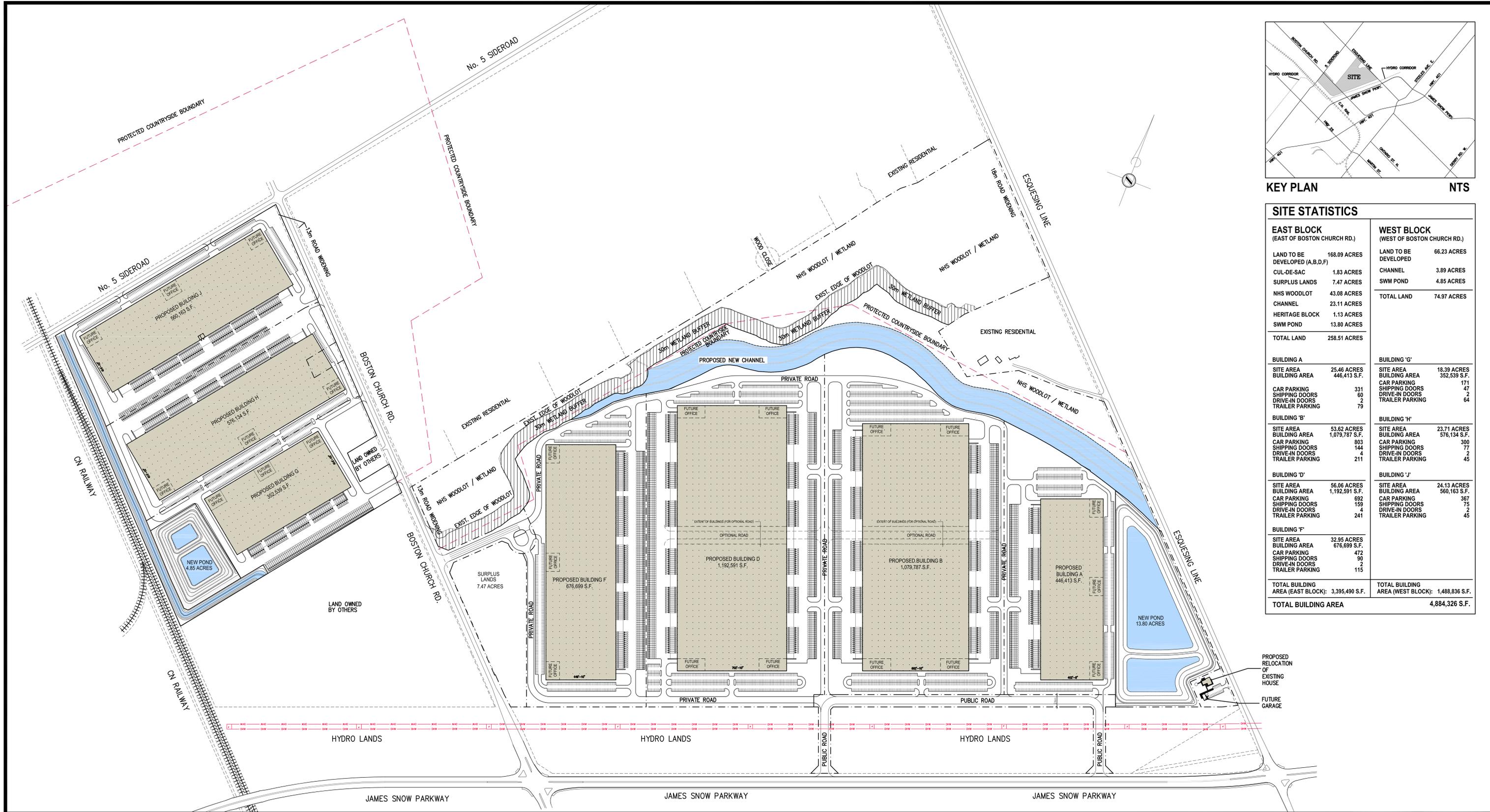
- Relevant provincial land use plans and policy documents (e.g. PPS, Growth Plan, Greenbelt Plan, Niagara Escarpment Plan)
- Regional Official Plan (land use designation)
- Local Official Plan (land use designation)
- OMAFRA's Agricultural System Portal (agricultural land base mapping and agri-food network)
- Local or Regional data
- OMAFRA's constructed and agricultural Artificial Drainage Mapping
- Soil and CLI capability mapping (Land Information Ontario <http://www.ontario.ca/page/land-information-ontario> or OMAFRA's Agricultural Information Atlas) www.omafra.gov.on.ca/english/landuse/soils.htm
<http://www.omafra.gov.on.ca/english/landuse/gis/portal.htm>
- Aerial imagery
- Topographic/elevation mapping
- Regional AIA Guidelines
- Provincial Draft AIA Guidelines
- Crop type and yield information which can include farm fields with type of crop (e.g. pasture, hay, field or horticultural crop, etc.)



- Parcel mapping and related assessment class information
- Census of Agriculture data 2016

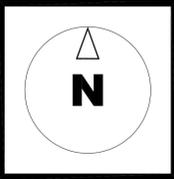
Appendix B

Development Concept Plan



KEY PLAN NTS

SITE STATISTICS	
EAST BLOCK (EAST OF BOSTON CHURCH RD.)	WEST BLOCK (WEST OF BOSTON CHURCH RD.)
LAND TO BE DEVELOPED (A,B,D,F)	LAND TO BE DEVELOPED
168.09 ACRES	66.23 ACRES
CUL-DE-SAC	CHANNEL
1.83 ACRES	3.89 ACRES
SURPLUS LANDS	SWM POND
7.47 ACRES	4.85 ACRES
NHS WOODLOT	TOTAL LAND
43.08 ACRES	74.97 ACRES
CHANNEL	
23.11 ACRES	
HERITAGE BLOCK	
1.13 ACRES	
SWM POND	
13.80 ACRES	
TOTAL LAND	
258.51 ACRES	
BUILDING A	BUILDING 'G'
SITE AREA	SITE AREA
25.46 ACRES	18.39 ACRES
BUILDING AREA	BUILDING AREA
446,413 S.F.	352,539 S.F.
CAR PARKING	CAR PARKING
331	171
SHIPPING DOORS	SHIPPING DOORS
60	47
DRIVE-IN DOORS	DRIVE-IN DOORS
2	2
TRAILER PARKING	TRAILER PARKING
79	64
BUILDING 'B'	BUILDING 'H'
SITE AREA	SITE AREA
53.62 ACRES	23.71 ACRES
BUILDING AREA	BUILDING AREA
1,079,787 S.F.	576,134 S.F.
CAR PARKING	CAR PARKING
803	300
SHIPPING DOORS	SHIPPING DOORS
144	77
DRIVE-IN DOORS	DRIVE-IN DOORS
4	2
TRAILER PARKING	TRAILER PARKING
211	45
BUILDING 'D'	BUILDING 'J'
SITE AREA	SITE AREA
56.06 ACRES	24.13 ACRES
BUILDING AREA	BUILDING AREA
1,192,591 S.F.	560,163 S.F.
CAR PARKING	CAR PARKING
692	367
SHIPPING DOORS	SHIPPING DOORS
158	75
DRIVE-IN DOORS	DRIVE-IN DOORS
4	2
TRAILER PARKING	TRAILER PARKING
241	45
BUILDING 'F'	
SITE AREA	
32.95 ACRES	
BUILDING AREA	
676,699 S.F.	
CAR PARKING	
472	
SHIPPING DOORS	
90	
DRIVE-IN DOORS	
2	
TRAILER PARKING	
115	
TOTAL BUILDING AREA (EAST BLOCK):	TOTAL BUILDING AREA (WEST BLOCK):
3,395,490 S.F.	1,488,836 S.F.
TOTAL BUILDING AREA	4,884,326 S.F.



Milton North Business Park
Milton, Ontario

CONCEPT PLAN
SCALE: 1:2500
DATE: SEPT. 30, 2021

A-1

Appendix C

Curriculum Vitae

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

404 Queenston St., St. Catharines, ON L2P 2Y2

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	Colville Consulting Inc., St. Catharines, Ontario. President
2001 – 2003:	ESG International Inc., St. Catharines, Senior Project Manager/Office Manager
1998 – 2001:	ESG International Inc., Guelph, Senior Project Manager
1988 – 1998:	ESG International Inc., Guelph, Project Manager
1984 – 1988:	MacLaren Plansearch Ltd., Halifax, Nova Scotia, Soil Scientist
05/1982 - 09/1983:	Nova Scotia Department of Agriculture and Marketing, Nova Scotia, Assistant Soil Scientist

EXPERIENCE

Sean M. Colville, B.Sc., P.Ag., president of Colville Consulting Inc., established the firm in June of 2003 to provide consulting services for clients involving matters related to agriculture and the natural environmental. Sean has over 30 years of consulting experience which includes agricultural resource evaluation studies, soil survey and interpretation of agricultural capability, agricultural impact assessment and alternate site assessments, and soil and microclimatic rehabilitation/restoration projects. Sean has extensive experience interpreting agricultural land use policies involving development applications and settlement expansion proposals.

Sean is a Professional Agrologist (P.Ag.), and a member of 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 been qualified to present expert testimony before the Ontario Municipal Board, the Consolidated Joint Board the Assessment Review Board, Ontario Superior Court proceedings and the Normal Farm Practices Protection Board for projects involving land use planning matters as they relate to agriculture, impact assessment, resource evaluation and soil science.

Agricultural Impact Assessment, Alternative Site Studies, Minimum Distance Separation

Sean specializes in agricultural impact assessment and alternative site studies for development applications and urban boundary expansion proposals. His experience includes well over 100 agricultural impact assessments and soil surveys for a wide variety of projects including Class EAs for linear facilities, waste management facilities, municipal services, impact assessments for aggregate operations, residential, commercial, recreational, industrial and institutional developments. Many of these projects require the interpretation of agricultural land use policies, inventory and assessment of the agricultural resources, land use, land tenure, an assessment of conflict potential including determination of minimum distance separation requirements, identification of prime agricultural lands and areas, and interpretation of the agricultural priority of lands proposed for development.

Sean has been retained by both municipalities and private sector clients to prepare agricultural impact assessment for settlement area expansion proposals and the development of secondary plans. Sean has also been retained by municipalities to complete peer review studies of agricultural impacts assessments and minimum distance separation calculations for various development applications.

The list below provides some examples of the studies completed by Sean. The bolded bullets identify examples of settlement area expansion.

- ◆ Agricultural Impact Assessment, Milton (2018)
- ◆ Agricultural Impact Assessment for Port Colborne Quarries Inc. (2018)
- ◆ Agricultural Impact Assessment for Twenty Road East Group, Hamilton (2017)
- ◆ Agricultural Impact Assessment for Mayfield West Secondary Plan Update, Town of Caledon (2017)
- ◆ Agricultural Impact Assessment for the Book Road Land Owners Group, City of Hamilton (2016)
- ◆ Agricultural Impact Assessment for Schuyler Farms Limited, County of Norfolk (2015)
- ◆ Minimum Distance Separation for single family residence, Dundas, City of Hamilton (2015)
- ◆ Agricultural Impact Assessment & Comparative Analysis of Alternative Sites for Employment Land Options - Northumberland County (2015)
- ◆ Agricultural Impact Assessment and Alternative Site Assessment for North West Quadrant, Niagara Falls, Regional Municipality of Niagara (2014)
- ◆ Agricultural Impact Assessment for Smith Farm - Airport Employment Growth District, City of Hamilton (2014-15)
- ◆ Agricultural Alternate Site Study in Cavan-Monaghan Township for Brookfield Residential (2014)
- ◆ Agricultural Impact Assessment and Alternative Site Analysis for Angus Manor, Township of Essa, Simcoe County (2014)
- ◆ King Township Official Plan: Review and Update of Agricultural Policies, King Township (2014)
- ◆ Agricultural Impact Assessment for Vision Georgetown, Town of Halton Hills (2013-14)
- ◆ Agricultural Impact Assessment for Bolton Residential Expansion Study, Town of Caledon (2013-14)
- ◆ Agricultural Impact Assessment for Canadian Motor Speedway racetrack in Fort Erie (2007-2012)
- ◆ Agricultural Impact Assessment for multiple sites in City of Niagara Falls (2011)
- ◆ Agricultural Impact Assessment of the Zone 6 Reservoir and Feedermain, Class EA - Regional Municipality of Peel (2009)
- ◆ Agricultural Impact Assessment of the North Bolton Elevated Tank and Feedermain, Class EA - Regional Municipality of Peel (2009)
- ◆ Agricultural Impact Assessment of the Alloa Reservoir, Pumping Station and Feedermain, Class EA - Regional Municipality of Peel (2008)
- ◆ Urban Boundary Expansion – Mayfield West Phase II Secondary Plan Agricultural Impact Assessment – Town of Caledon (2008 - Present)
- ◆ Urban Boundary Expansion – South Albion/Bolton Community Plan Agricultural Impact Assessment – Town of Caledon(2009)
- ◆ Urban Boundary Expansion - Agricultural Screening Study for the Township of West Lincoln's Growth Management Study, Regional Municipality of Niagara (2007)
- ◆ Urban Boundary Expansion - Agricultural Studies for Niagara Gateway Estates, Town of Grimsby, Regional Municipality of Niagara (2003)
- ◆ Urban Boundary Expansion - Agricultural Impact Assessment and Alternative Site Study for Regional Official Plan Amendment #9 Secondary Plan – City of Hamilton (2003)
- ◆ Niagara Region Mid-Term Waste Disposal Alternatives Study (2003)

Soil Survey and Resource Evaluation

As a Pedologist (soil scientist), Sean is highly experienced in completing soil surveys, soil resource evaluations and assessing the productivity of soil for common field crops using the Canada Land Inventory system (CLI) of soil classification and for soil suitability for production of specialty crops using the system developed by the Ontario Ministry of Agriculture and Food. He has extensive experience interpreting the soil landscape, glacial landforms and soil forming processes; is skilled in the use of aerial photography for stereoscopic interpretation and identification of soil landforms for soil map production. Sean is recognized by the Ontario Ministry of Agriculture, Food and Rural Affairs as a Consulting Pedologist and a qualified soil scientist capable of preparing soil capability assessments based on the Canada Land Inventory (CLI) Soil Capability Classification for Agriculture (ARDA, 1965).

Sean has lead and participated in a number of large soil survey programs in Ontario, Nova Scotia and New Brunswick. Sean's soil survey experience includes:

- ◆ conducting well over 200 soil surveys of various size and scale to assess the soil capability for identification of prime and non-prime agricultural lands for agricultural impact assessments and other studies;
- ◆ conducting soil surveys along linear facilities to determine depth of topsoil and subsoil, assess soil capability along the route to determine baseline conditions and identify areas that pose limitations to construction;
- ◆ the preparation of soil maps, CLI maps and reports for solar farm applications to address the Ontario Power Authority's requirements for ground-mounted solar project on agricultural lands;
- ◆ conducting county level soil survey reports that included the delineation, evaluation and mapping of soils series and the assessment of the soil capability for selected areas in Cumberland County, Colchester County, Hants County and Kings County, Nova Scotia;
- ◆ conducting county level soil survey reports that included the delineation, evaluation and mapping of soils series and the assessment of the soil capability for selected areas in Westmoreland County, New Brunswick; and
- ◆ conducting soil surveys for paired watershed studies assessing the benefits and effectiveness of no-till cultivation compared to traditional methods in Oxford County, Ontario.

LEAR Studies

Sean is very familiar with Land Evaluation and Area Review (LEAR) methodologies and has prepared a LEAR study to identify Prime Agricultural Areas in the Town of Mono, County of Dufferin. Sean has also applied LEAR methodologies when completing alternate site studies to assist municipalities identify low priority agricultural lands for settlement area expansion purposes and to assist development proponents justify choice of location, to ensure that proposed settlement area expansion or proposed development applications is consistent with the Provincial Policy Statement.

Agricultural Rehabilitation and Monitoring

Sean has prepared a number of rehabilitation plans for the aggregate industry and for highway and pipeline construction projects. Sean also has experience assessing the economic impacts for compensation related to the temporary or permanent loss of use of agricultural land often associated with the construction of linear facilities. Specific examples agricultural rehabilitation and monitoring studies include:

- ◆ Development and implementation of a soil reclamation plan for TransCanada Pipelines. This involved an investigation as to the extent of contamination and debris along a pipeline easement, as well as an analysis of the soil quality, the level of degradation and the development of mitigation measures to restore the agricultural capability of the site for specialty crop production;
- ◆ Development of progressive agricultural rehabilitation plan for Vineland Quarry and Crushed Stone Limited's quarry expansion project in Vineland, Ontario. The rehabilitation plan included the restoration of a significant portion of the sites climate to a condition suitable for the production of grape and tender fruit trees;
- ◆ Prepared progressive agricultural rehabilitation plans for the expansion of LaFarge's Fonthill pit located on the Fonthill Kame. This area has special soil and microclimatic characteristics that make it suitable for the production of specialty crops. The rehabilitation plans considered both the soils and microclimatic conditions in the design in order to restore the site following extraction to conditions suitable for the production of specialty crops;
- ◆ Development of a progressive agricultural rehabilitation plan for Walker Brothers Quarries Ltd. quarry expansion project in Niagara Falls, Ontario. Also prepared and implemented the vegetation screening and naturalization concepts for which annual monitoring reports are prepared for review by the City of Niagara Falls and the Ministry of Natural Resources; and
- ◆ Soil and crop monitoring, and post construction monitoring of soil and crops for various TransCanada Pipeline, Union Gas, and Enbridge pipeline construction projects. Projects often included the development of restoration recommendations to improve soil conditions and crop yields.

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, Ont.

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

Brett Espensen, B.A., EMAGP

EDUCATION

B.A. Honours, Major in Environmental Governance and Geography, University of Guelph, 2013
Graduate Certificate, Environmental Management and Assessment, Niagara College, 2014

POSITIONS HELD

May 2014 – Present Colville Consulting Inc., St. Catharines, Ontario.
May – July, 2011-2013 PRT Growing Services Ltd

EXPERIENCE

Brett Espensen, Environmental and Agricultural Consultant at Colville Consulting Inc., has over 5 years of formal educational training and experience in Environmental Planning. Brett has completed Minimum Distance Separation (MDS) Requirements, Alternative Site Assessments, Agricultural Impact Assessments, and Environmental Impact Statements in his role as an Agricultural Consultant at Colville.

Through his education, Brett has gained a broad base knowledge of Environmental Planning and Management, which he has taken with him to his work with Mr. Sean Colville, P. Ag., at Colville Consulting. His work at Colville includes the interpretation of regional and local land use policies, creation and interpretation of land use maps, environmental protection policies, and species at risk regulations. He has participated in the completion of Agricultural Impact Assessments, Environmental Impact Studies, and the Ministry of Natural Resources Species at Risk permitting process. Brett has also been actively involved in the supervision of interns from the Environmental Management and Assessment Graduate Program at Niagara College. He has completed work both in the field—doing land use surveys—and in the office, through the preparation of reports and mapping.

Some Colville Consulting projects that Brett has been involved in include:

- Agricultural Impact Assessment of Activa Holdings in the Kitchener area, Region of Waterloo
- Agricultural Impact Assessment for Elle B Inc. in the Laurentian Valley area, Renfrew County
- Agricultural Impact Assessment for Mayfield West Phase 2 Secondary Plan Update, Town of Caledon
- Land Evaluation Study for Golder Associates Ltd., Region of Waterloo
- Agricultural Impact Assessment for Titan Trailers Inc., Delhi, Ontario
- Minimum Distance Separation (MDS I) Report - Dundas, Ontario
- Minimum Distance Separation (MDS I) Report - Stayner, Ontario
- Supervision of post-construction reclamation crews during vegetation remediation over TransCanada pipelines in the Region of Peel
- Environmental Impact Statement for proposed fuel station, City of Hamilton
- Acoustic Monitoring for Bat roosting identification, in the Vineland area, Regional Municipality of Niagara

ADDITIONAL QUALIFICATIONS AND TRAINING

- Brett has completed basic industrial Workplace Hazardous Materials Information System (WHMIS) training
- Extensively acquainted with the Occupational Health and Safety Act
- Valid Drivers Licence – Class G
- Standard First Aid Training

Appendix D

Climate Data

Climate Normals 1981-2010 Station Data

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

STATION_NAME PROVINCE LATITUDE LONGITUD ELEVATIONCLIMATE_I WMO_ID TC_ID

*GEORGETOWN WWTP ON 43°38'24.C 79°52'45.C 221.0 m 6152695

* This station meets WMO standards for temperature and precipitation.

Legend

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

B = At least 25 years

C = At least 20 years

D = At least 15 years

1981 to 2010 Canadian Climate Normals station data	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Code
Temperature														
Daily Average (°C)	-6.3	-5.2	-0.9	6	12.3	17.4	20	19	14.8	8.4	2.8	-2.9	7.1	A
Standard Deviation	3.2	2.3	1.7	1.4	1.8	1.4	1.3	1.4	1.3	1.3	1.5	2.7	0.8	A
Daily Maximum (°C)	-1.7	-0.2	4.6	12.1	19.1	24.4	26.9	25.8	21.4	14.3	7.3	1.1	12.9	A
Daily Minimum (°C)	-10.9	-10.2	-6.4	-0.2	5.3	10.4	13	12.1	8.1	2.4	-1.7	-6.9	1.3	A
Extreme Maximum (°C)	17	15.5	25	31.5	34.5	36	37	36.5	35.5	29.5	22	20.5		
Date (yyyy/dd)	2005/13	1984/23	1986/30	1990/25	2006/29	1988/25	Jul-88	1-Aug	2-Sep	2-Jan	Mar-87	Mar-82		
Extreme Minimum (°C)	-33	-31.5	-28	-13	-5	-0.5	3	0	-4	-8.5	-15.5	-29.5		
Date (yyyy/dd)	1984/16	Oct-94	Aug-84	May-82	Mar-86	Sep-80	Jan-86	1982/29	1993/30	1987/26	1987/22	1980/25		
Precipitation														
Rainfall (mm)	29.7	28.4	35.2	71.3	79	74.8	73.5	79.3	86.2	67.8	79.9	36.4	741.5	A
Snowfall (cm)	38.1	31.7	22.1	5.2	0.3	0	0	0	0	0.5	8.6	29.5	135.9	A
Precipitation (mm)	67.8	60	57.2	76.5	79.3	74.8	73.5	79.3	86.2	68.3	88.5	65.9	877.4	A
Average Snow Depth (cm)		9	8	0	0	0	0	0	0	0	0	2		
Median Snow Depth (cm)		8	10	0	0	0	0	0	0	0	0	3		
Extreme Daily Rainfall (mm)	42.8	36.1	38.8	53.6	59.7	85.8	93	110.5	70.2	54.2	58.4	40.8		
Date (yyyy/dd)	1995/20	Jan-68	1991/27	2000/20	1974/16	1982/28	1969/28	1969/16	Oct-86	May-95	Sep-62	1979/24		
Extreme Daily Snowfall (cm)	40.6	27	20.3	23.6	8	0	0	0	0	11.2	15	27		
Date (yyyy/dd)	1966/22	Nov-88	Oct-64	1976/25	1983/14	Jan-63	Jan-63	Jan-62	Jan-63	1969/21	1991/28	Oct-92		
Extreme Daily Precipitation (mm)	42.8	39.5	38.8	53.6	59.7	85.8	93	110.5	70.2	54.2	58.4	43.2		
Date (yyyy/dd)	1995/20	Dec-85	1991/27	2000/20	1974/16	1982/28	1969/28	1969/16	Oct-86	May-95	Sep-62	Dec-72		
Extreme Snow Depth (cm)	29	27	28	3	0	0	0	0	0	0	8	15		
Date (yyyy/dd)	1984/25	Jan-84	May-84	5-Mar	Jan-83	Jan-83	Jan-83	Jan-82	Jan-82	Jan-82	2005/25	2005/16		
Days with Maximum Temperature														
<= 0 °C	18.2	14.9	7.6	0.67	0	0	0	0	0	0	2.2	12.1	55.8	C
> 0 °C	12.8	13.3	23.4	29.3	31	30	31	31	30	31	27.8	18.9	309.4	C
> 10 °C	0.52	0.48	5.3	17.5	29.5	30	31	31	29.9	23.3	8	1.4	207.8	C
> 20 °C	0	0	0.63	3.4	11.8	23.9	30	28.7	17.2	4.3	0.24	0.05	120.3	C
> 30 °C	0	0	0	0.13	0.64	3.1	5.2	2.5	0.6	0	0	0	12.2	C
> 35 °C	0	0	0	0	0	0.08	0.28	0	0.04	0	0	0	0.4	C
Days with Minimum Temperature														
> 0 °C	1.2	1	3.2	12.8	25.2	30	31	30.9	28.5	19.4	10.1	3.1	196.3	C
<= 2 °C	30.7	27.8	29.4	21	9	0.88	0	0.08	4	16.4	24.1	30	193.3	C
<= 0 °C	29.8	27.2	27.8	17.2	5.8	0.04	0	0.08	1.5	11.6	19.9	27.9	169	C
< -2 °C	26.5	24	22.8	11	1.6	0	0	0	0.17	5.4	13.6	22.4	127.3	C

< -10 °C	15.3	14	7.5	0.3	0	0	0	0	0	0	0.96	7.9	46	C
< -20 °C	4.3	2.9	0.7	0	0	0	0	0	0	0	0	0.84	8.7	C
< -30 °C	0.13	0.09	0	0	0	0	0	0	0	0	0	0	0.22	C
Days with Rainfall														
>= 0.2 mm	4.1	4.1	6.4	11.6	11.8	11.2	10.6	10.6	11.7	12.2	11.4	6.5	112.1	A
>= 5 mm	1.9	1.8	2.4	4.9	5	4.8	4	4.6	5.1	4.6	4.8	2.6	46.7	A
>= 10 mm	0.92	1.1	1.2	2.4	3	2.2	2.3	2.6	3.1	2.3	2.9	1.3	25.1	A
>= 25 mm	0.27	0.19	0.12	0.32	0.48	0.52	0.56	0.6	0.62	0.31	0.54	0.04	4.6	A
Days With Snowfall														
>= 0.2 cm	9.4	6.2	4.8	1.4	0.04	0	0	0	0	0.27	2.5	6.9	31.5	A
>= 5 cm	2.6	2.4	1.6	0.44	0.04	0	0	0	0	0.04	0.5	2.3	9.8	A
>= 10 cm	0.88	0.85	0.72	0.12	0	0	0	0	0	0	0.19	0.81	3.6	A
>= 25 cm	0.08	0.15	0	0	0	0	0	0	0	0	0	0.04	0.27	A
Days with Precipitation														
>= 0.2 mm	12.6	9.4	10.6	12.4	11.9	11.2	10.6	10.6	11.7	12.3	13.3	12.3	138.9	A
>= 5 mm	4.6	4.2	4	5.3	5	4.8	4	4.6	5.1	4.7	5.4	4.8	56.5	A
>= 10 mm	1.9	2	2	2.6	3	2.2	2.3	2.6	3.1	2.4	3.1	2.2	29.2	A
>= 25 mm	0.35	0.35	0.12	0.32	0.48	0.52	0.56	0.6	0.62	0.35	0.54	0.12	4.9	A
Days with Snow Depth														
>= 1 cm			7	0	0	0	0	0	0	0	0.75	0		
>= 5 cm			0	0	0	0	0	0	0	0	0.25	0		
>= 10 cm			0	0	0	0	0	0	0	0	0	0		
>= 20 cm			0	0	0	0	0	0	0	0	0	0		
Degree Days														
Above 24 °C	0	0	0	0	0.2	1.3	4.9	1.8	0.2	0	0	0	8.4	C
Above 18 °C	0	0	0.1	1.1	8.5	36.3	76	55.2	14.8	0.8	0	0	192.7	C
Above 15 °C	0	0	0.5	3.7	24.6	87.7	155.5	125.4	47.9	4.3	0.1	0	449.6	C
Above 10 °C	0	0	2.7	18.3	93.2	220.3	308.8	275.8	152.4	33.3	3.3	0.5	1108.6	C
Above 5 °C	1	0.4	12.7	69.9	223	369.5	463.8	430.7	295.6	116	26.7	4.3	2013.6	C
Above 0 °C	11.9	11.5	55.3	184.3	377.4	519.5	618.8	585.7	445.5	258.9	102.3	29.4	3200.6	C
Below 0 °C	206.5	164.5	82.9	6.6	0	0	0	0	0	0.1	19.1	107.4	587.2	C
Below 5 °C	350.6	294.5	195.3	42.2	0.6	0	0	0	0.1	12.2	93.6	237.3	1226.3	C
Below 10 °C	504.6	435.2	340.3	140.7	25.8	0.8	0	0.1	6.9	84.6	220.1	388.5	2147.4	C
Below 15 °C	659.6	576.3	493.1	276.1	112.2	18.2	1.6	4.7	52.4	210.5	366.9	543	3314.6	C
Below 18 °C	752.6	661	585.7	363.5	189	56.8	15.2	27.5	109.3	300	456.8	636	4153.3	C

Probability of last temperature in spring of 0 °C or lower on or after indicated dates	10%	25%	33%	50%	66%	75%	90%
Date	6-Jun	30-May	28-May	19-May	16-May	15-May	7-May
Probability of first temperature in fall of 0 °C or lower on or before indicated dates	10%	25%	33%	50%	66%	75%	90%
Date	1-Sep	19-Sep	21-Sep	24-Sep	29-Sep	2-Oct	16-Oct
Probability of frost-free period equal to or less than indicated period (Days)	10%	25%	33%	50%	66%	75%	90%
Days	109	116	117	121	128	132	150

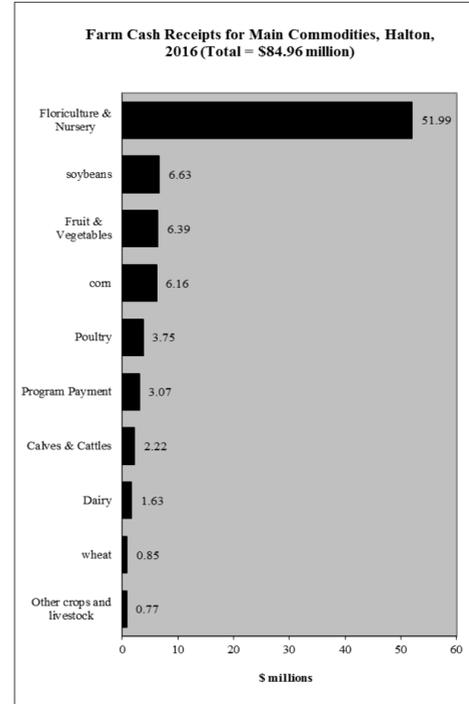
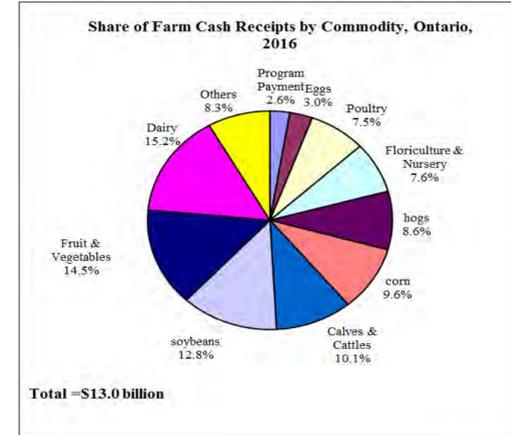
Appendix E

Crop Statistics Data

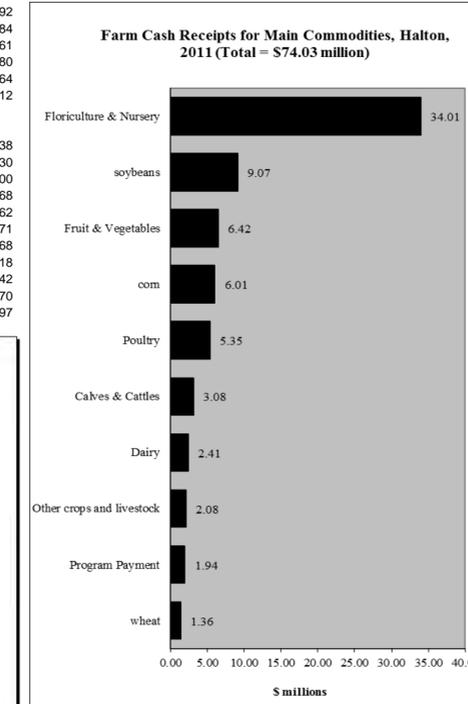
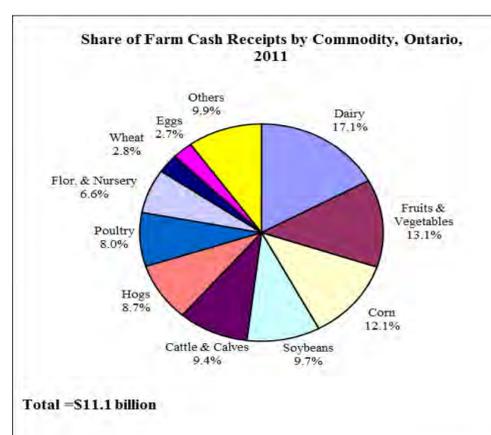
Halton Regional Municipality at a Glance - 2016

Halton Regional Municipality at a Glance - 2011

Item	Halton	Province	Percent of province	Percent from 2011
Farms, 2016 Census (number)				
Total	451	49,600	0.91	-3.84
Under 10 acres	63	3,051	2.06	40.00
10 to 69 acres	200	12,625	1.58	-0.99
70 to 129 acres	77	10,742	0.72	-22.22
130 to 179 acres	29	4,592	0.63	-3.33
180 to 239 acres	25	4,282	0.58	-10.71
240 to 399 acres	24	6,008	0.40	-25.00
400 to 559 acres	11	3,093	0.36	37.50
560 to 759 acres	10	1,990	0.50	42.86
760 to 1,119 acres	7	1,593	0.44	-30.00
1,120 to 1,599 acres	2	801	0.25	-33.33
1,600 to 2,239 acres	1	457	0.22	-66.67
2,240 to 2,879 acres	1	168	0.60	-
2,880 to 3,519 acres	0	88	0.00	-100.00
3,520 acres and over	1	110	0.91	0.00
Land Use, 2016 Census (acres)				
Land in crops	52,602	9,021,298	0.58	-14.71
Summerfallow land	243	15,885	1.53	-66.11
Tame or seeded pasture	1,850	514,168	0.36	-21.84
Natural land for pasture	3,414	783,566	0.44	-11.67
Christmas trees, woodland & wetland	5,789	1,542,637	0.38	-24.78
All other land	4,778	470,909	1.01	47.06
Total area of farms	68,676	12,348,463	0.56	-13.69
Greenhouse Area, 2016 Census (square feet)				
Total area in use	2,086,958	158,511,328	1.32	12.67
Farm Capital Value, 2016 Census (farms reporting)				
Under \$200,000	16	2,142	0.75	33.33
\$200,000 to \$499,999	23	7,433	0.31	-62.30
\$500,000 to \$999,999	99	12,500	0.79	-23.26
\$1,000,000 and over	313	27,525	1.14	17.23
Total Gross Farm Receipts, 2016 Census (farms reporting)				
Under \$10,000	125	9,536	1.31	-16.67
\$10,000 to \$24,999	72	8,376	0.86	-19.10
\$25,000 to \$49,999	64	6,755	0.95	68.42
\$50,000 to \$99,999	48	6,263	0.77	-15.79
\$100,000 to \$249,999	73	7,022	1.04	23.73
\$250,000 to \$499,999	22	4,707	0.47	-29.03
\$500,000 to \$999,999	26	3,689	0.70	0.00
\$1,000,000 to \$1,999,999	10	2,019	0.50	0.00
\$2,000,000 and over	11	1,233	0.89	22.22
Farms by Industry Group, 2016 Census (number of farms)				
Beef cattle ranching and farming	28	6,786	0.41	3.70
Dairy cattle and milk production	5	3,439	0.15	-58.33
Hog and pig farming	0	1,229	0.00	-
Poultry and egg production	12	1,816	0.66	9.09
Sheep and goat farming	11	1,097	1.00	22.22
Other animal production	129	5,902	2.19	8.40
Oilseed and grain farming	97	16,876	0.57	-9.35
Vegetable and melon farming	26	1,856	1.40	44.44
Fruit and tree nut farming	23	1,362	1.69	4.55
Greenhouse, nursery and floriculture	57	2,050	2.78	-10.94
Other crop farming	63	7,187	0.88	-21.25



Item	Halton	Province	Percent of province	Percent from 2011
Farms, 2011 Census (number)				
Total	469	51,950	0.90	-16.00
Under 10 acres	45	2,741	1.64	12.21
10 to 69 acres	202	12,681	1.59	-56.38
70 to 129 acres	99	11,779	0.84	-35.03
130 to 179 acres	30	4,969	0.60	-5.09
180 to 239 acres	28	4,801	0.58	16.17
240 to 399 acres	32	6,460	0.50	-27.81
400 to 559 acres	8	3,359	0.24	-11.15
560 to 759 acres	7	2,026	0.35	-
760 to 1,119 acres	10	1,587	0.63	0.00
1,120 to 1,599 acres	3	788	0.38	-18.93
1,600 to 2,239 acres	3	436	0.69	-32.09
2,240 to 2,879 acres	0	152	0.00	-
2,880 to 3,519 acres	1	79	1.27	-
3,520 acres and over	1	92	1.09	-
Land Use, 2011 Census (acres)				
Land in crops	61,673	8,929,947	0.69	12.00
Summerfallow land	717	23,450	3.06	-
Tame or seeded pasture	2,367	648,758	0.36	-6.82
Natural land for pasture	3,865	984,809	0.39	-14.43
Christmas trees, woodland & wetland	7,696	1,612,444	0.69	120.00
All other land	3,249	468,828	0.68	-
Total area of farms	79,567	12,668,236	0.63	-
Greenhouse Area, 2011 Census (square feet)				
Total area in use	1,852,311	133,520,541	1.39	-34.60
Farm Capital Value, 2011 Census (farms reporting)				
Under \$200,000	12	2,562	0.47	-41.93
\$200,000 to \$499,999	61	12,994	0.47	-32.80
\$500,000 to \$999,999	129	15,276	0.84	-
\$1,000,000 and over	267	21,118	1.26	24.94
Total Gross Farm Receipts, 2011 Census (farms reporting)				
Under \$10,000	150	12,263	1.22	16.11
\$10,000 to \$24,999	89	9,098	0.98	-
\$25,000 to \$49,999	38	6,720	0.57	-
\$50,000 to \$99,999	57	6,189	0.92	-
\$100,000 to \$249,999	59	6,985	0.84	-
\$250,000 to \$499,999	31	5,086	0.61	-
\$500,000 to \$999,999	26	3,248	0.80	-
\$1,000,000 to \$1,999,999	10	1,558	0.64	-
\$2,000,000 and over	9	803	1.12	-
Farms by Industry Group, 2011 Census (number of farms)				
Beef cattle ranching and farming	27	7,105	0.38	-
Dairy cattle and milk production	12	4,036	0.30	-
Hog and pig farming	0	1,235	0.00	-
Poultry and egg production	11	1,619	0.68	-
Sheep and goat farming	9	1,446	0.62	-
Other animal production	119	6,966	1.71	-
Oilseed and grain farming	107	15,818	0.68	-
Vegetable and melon farming	18	1,531	1.18	-
Fruit and tree nut farming	22	1,548	1.42	-
Greenhouse, nursery and floriculture	64	2,372	2.70	-
Other crop farming	80	8,274	0.97	-



Appendix F

Canada Land Inventory

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 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 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.

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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 (CSSC, 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

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

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 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

Determination of Subclass T for Loamy, Clayey and Very Fine Clayey 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	3T	3T	4T	4T	5T	5T	6T	6T	7T	7T

S = Simple Slopes >50 m in length

C =Complex Slopes <50 m in length

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Subclass W - Excess water:

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

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

Appendix G

Site Photographs



Photo 1: Site 5, horses observed grazing in paddock on site.



Photo 2: Site 13, Livestock operation, no MDS due to Guideline 12.



Photo 3: Site 9, retired bank barn on Subject Lands, to be demolished



Photo 4: Site 15, east of Subject Lands. Small barn for cow/calf livestock storage.



Photo 5: Site 14, Active cow/calf livestock operation.



Photo 6: Site 9, Active earth works and barn removal on Subject Property.



Photo 7: Corn and soy stubble on Subject Lands, watercourse in background viewing east



Photo 8: Corn and soy stubble on Subject Lands, watercourse in background viewing southwest

Appendix H

Land Use Notes

Land Use Survey Notes – Scoped AIA fo Part Lots 3 & 4, Concession 4, Town of Milton

Weather	Partly Cloudy	Date (s)	July 30 th and August 13 th , 2021 & April 27 th , 2022
Temperature	21°C	File	C22026

Site No.	Type of Use	Type of Operation	MDS Calculation Required?	Description of Operation
1	Agricultural	Remnant Livestock	No	Appears that livestock structure has been removed and residence built.
2	Non-Agricultural	Institutional	No	“Boston Presbyterian Church” Church and cemetery
3	Agricultural	Retired Livestock Operation	No Guideline 12	Appears to be retired livestock operation. No livestock observed on site. Blocked by NFR’s.
4	Agricultural	Hobby Farm	No Guideline 12	Appears to small hobby farm. Small barn with fenced in area in good condition. Well removed from Subject Lands
5	Agricultural	Hobby Farm	No Guideline 12	Small hobby farm. Three horses observed grazing in pasture. Small barn observed from road. Manure appears to be stored outside (Aerial photos).
6	Non-Agricultural	Institutional	No	Old cemetery – not active.
7	Agricultural	Equestrian Operation	No Guideline 12	Observed from road. Appears to have indoor riding arena.
8	Non-Agricultural	Residence	No	Small storage shed behind residence. Not suitable for housing livestock, likely used for storage
9	Agricultural	Remnant Livestock Operation	No	Talked with resident (Jim Marshall) on August 13, 2021. He provided information for other sites in the area including 15,17,18 and 20. April 27 th – Grain dryer removed, barn being dismantled on site. No longer used for agriculture.
10	Agricultural	Livestock Operation	No Guideline 12	Large livestock operation. Blocked by NFR’s.
11	Non-Agricultural	Commercial	No	“The Dogs Inn” Dog Kennel

12	Agricultural	Retired Livestock Operation	No	Barn is in poor condition and falling down. Property for sale. Not suitable for housing livestock
13	Agricultural	Livestock Operation	No Guideline 12	Large barn, beef cattle observed grazing.
14	Agricultural	Livestock Operation	No Guideline 12	Appears to be active livestock operation. Well removed from Subject Lands.
15	Agricultural	Livestock Operation	Yes	Beef cattle observed on site from road. Talked with Land owner at Site 9. Cow/calf operation – 6 cows and 6 calves. Small barn on site suitable for housing livestock.
16	Non-Agricultural	Commercial	No	Commercial Operation.
17	Agricultural	Livestock Operation	No	Approximately 10 beef cattle observed grazing at roadside. Cattle are grazed on site but no housing or manure storage on property.
18	Agricultural	Retired Livestock Operation	No	Bank barn on site. Land owner at Site 9 said barn is used for farm implement storage. Had not been used for livestock for many years. No longer suitable for housing livestock.
19	Agricultural	Hobby Farm	No	Chickens observed on site. No sign of housing from road or aerial photos. If housing present, under 10m2 so no MDS required.
20	Non-Agricultural	Residential	No	“Big Elm Farm” No livestock or manure storage on site. Large steel sided barn on site is used for storage, used to have auctions.
21	Non-Agricultural	Commercial	No	“Crawford’s Garden Centre”.
22	Agricultural	Remnant Livestock Operation	No	Old horse practice track on property. Barn and outbuildings have been removed.
23	Agricultural	Livestock Operation	No Guideline 12	Appears to be active livestock operation. Well removed from Subject Lands.

24	Agricultural	Equestrian Operation	No Guideline 12	"Farmscape Equestrian" Active equestrian operation. Well removed from Subject Lands.
25	Non-Agricultural	Commercial	No	Commercial cluster. Multiple commercial operations, new operations under development.

	Total Number	Active	Retired or Remnant
Agricultural	17	6 – Livestock Operation 3 – Hobby Farms 2 – Equestrian Operation	3 – Remnant Livestock 3 – Retired Livestock Operation
Agriculture-related	-	-	-
On-farm Diversified	-	-	-
	Total Number	Active	Retired
Non-Agricultural	8	2 - Institutional 2 – Residential 4 - Commercial	-

Appendix I

MDS Outputs

Description: MDS Calcs

Application Date: Tuesday, August 17, 2021

Municipal File Number:

Proposed Application: New or expanding settlement area boundary
Type B Land Use

Applicant Contact Information

Brett Espensen
Colville Consulting Inc
Email: Brett@colvilleconsultinginc.ca

Location of Subject Lands

Regional Municipality of Halton, Town of Milton
ESQUESING, Concession: 4, Lot: 3
Roll Number: 2409 

Calculation Name: *Farm 15*

Description:
Farm Contact Information

Not Specified

Location of existing livestock facility or anaerobic digester

Regional Municipality of Halton, Town of Milton
ESQUESING, Concession: 5, Lot: 2

Roll Number: 2409050998002000000 

The barn area is an estimate only and is intended to provide users with an indication of whether the number of livestock entered is reasonable.

Manure Type	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	6	6.0	28 m ²

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

Existing Manure Storage: V3. Solid, outside, no cover, >= 30% DM

Design Capacity (NU): 6.0

Potential Design Capacity (NU): 6.0

Factor A (Odour Potential)	Factor B (Size)	Factor D (Manure Type)	Factor E (Encroaching Land Use)	=	Building Base Distance 'F' (minimum distance from livestock barn)	(actual distance from livestock barn)
0.7	X 153.33	X 0.7	X 2.2		165 m (542 ft)	TBD
					Storage Base Distance 'S' (minimum distance from manure storage)	(actual distance from manure storage)
					165 m (542 ft)	TBD

Preparer Information

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Signature of Preparer: _____
Brett Espensen, Agricultural Consultant

Date: _____

NOTE TO THE USER:

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