Agricultural Impact Assessment In Support of a Municipal Comprehensive Review Submission for Upper West Side Landowners Group

Prepared for: Upper West Side Landowners Group

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November 2022

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1.0 INTRODUCTION

The Upper West Side Landowners Group is proposing a residential, commercial and employment community on the subject lands located within the block bounded by Twenty Road West, Upper James Street, Dickenson Road and Glancaster Road. The proposal will support the Airport Growth Employment District and the John C. Munroe International Airport. The subject lands include approximately 219 ha of land within the development block (see Figure 1). It will also act as an effective land use transition to the existing low-density residential neighbourhood on the north side of Twenty Road West. The development will be supported by a comprehensive storm water management strategy, community facilities such as parks and schools and a natural heritage system.

Orion Environmental was retained to undertake an Agricultural Impact Assessment of the lands owned by the Upper West Side Landowners Group. The purpose of the Agricultural Impact Assessment (AIA) is to assess the impact of the development of the UWS Study Area with urban uses from an agricultural perspective in order to assess the agricultural implications resulting from the UWS Secondary Plan. Previous iterations of this report were completed in October 2018 and March 2021.

Upon completion of the aforementioned assessment the results were incorporated into a comparison of the four alternative potential growth areas within the City of Hamilton identified in Corbett Land Strategies Inc. report entitled Municipal Comprehensive Review (GRIDS 2) Process Employment Land Review. The purpose of this analysis was to compare the agricultural resources within the alternative growth areas, identify the potential long-term impacts to the agricultural land use in the region and recommend the preferred alternative for growth from an agricultural perspective. Figure 1 shows the Upper West Side Landowners Group lands and the alternative development lands reviewed in this assessment. The four alternative growth areas are as follows:

- Growth Area 1 Land designated Urban on Garner Road adjacent to the designated Employment Area adjacent to the John C. Munro Hamilton International Airport (Urban Hamilton Official Plan Schedule E Urban Structure, November 2022, see Appendix A) (see Figure 2).
- Upper West Side Landowners Group (UWSLG) Growth Area 2- The lands are designated as Urban Expansion Area Neighbourhoods and Urban Expansion Area Employment, while the majority of the lands are within the Employment Area defined in the Official Plan Schedule E (see Figure 3).
- 3. Twenty Road East Growth Area 3 The majority of the lands are within the urban boundary and are designated Urban Expansion Area Neighbours with the

lands north of Dickenson Road East designated Rural in Schedule E (see Figure 4).

4. Elfrida Growth Area 4 – Urban lands in the area of Ryman Road East and Upper Centennial Parkway designated Urban Expansion Area Neighbourhood in Appendix A (see Figure 5).

In addition to the lands with the aforementioned study areas the land use characteristics of the adjacent lands were considered in order to define the agricultural system characteristics within which the study areas were located.

2.0 SCOPE OF THE STUDY

The scope of the study assessed and compared agricultural resources within the individual study areas based on the agricultural resources present and the applicable guidelines and legislation that would be applied to assess the significance of the resource and its potential future land use.

The agricultural resources assessment and comparison of the alternative growth area included the following information sources:

- Soil capability for agriculture based on Canada Land Inventory and existing agricultural land use.
- Existing agricultural land use from field survey (e.g., livestock, cash cropping, specialty crops).
- Minimum Distance Separation (MDS) for existing livestock operations and structurally sound but unoccupied barns.
- Non-agricultural land use and fragmentation of the agricultural lands from non-agricultural land uses.
- Approved municipal land uses as defined by the City of Hamilton Official Rural and Urban Plans and the associated Secondary Plans.
- Provincial agricultural planning policies such the Provincial Planning Statement 2014, Greater Golden Horseshoe Growth Plan, Guidelines on Permitted Uses in Ontario Prime Agricultural Areas.

The same agricultural information sources were used for both the assessment of the UWSLG lands and the comparison of the alternative growth areas to ensure the analysis was consistent and applied equally to all study areas.

3.0 METHODOLOGY

The review of the agricultural areas used the Ontario Ministry of Agriculture, Food and Rural Affairs Draft Agricultural Impact Assessment Guidance Document (March 2018) to define the appropriate methodology for the comparison of the growth areas. To obtain an understanding of the applicable planning policies for the Twenty Road West lands and the alternative growth areas we reviewed the Ministry of Agriculture, Food and Rural Affairs guidelines, City of Hamilton Rural and Urban Official Plans, Greater Golden Horseshoe Growth Plan and the Airport Employment Growth District Secondary Plan. These documents were reviewed to identify policies that provide direction on the protection of agricultural or policies on how agricultural lands within the municipality are to be addressed for urban growth within the municipal limits.

A windshield survey was undertaken of the study area to define the nature of the agricultural operations, the soil capability based on crop production, the identification of livestock operations both active and inactive, the structural stability of the associated barns based on the physical condition of the farmstead buildings and the presence of rural residential and urban development within and adjacent to the study area.

The OMAFRA AgMap portal was used to review the soil capability for agriculture, soils type, slope, stoniness and other factors affecting cultivation. In reviewing the OMAFRA AgMap soil capability for agriculture data base it was apparent the mapping did not accurately reflect the agricultural lands physical characteristics or cropping practices which reflect soil capability. Our assessment of soil capability attempted to revise the classifications to better reflect the agricultural land use and provide a more accurate indication of the composition of soil capability classes within the study area.

The Minimum Distance Separation (MDS) was considered using the OMAFRA MDS model in the AgriSuite – Ontario Agricultural Planning Tool Suite. The potential housing area of any structurally sound barns was calculated from the area measurement function in the AgMap data base. Structurally sound barns were determined through a windshield field survey. The type of livestock housing present was based on the barn structure and associated feed storage and management facilities. This information defined the nature of the livestock operation for any MDS calculations. None of the farmers in the study area were contacted to review the structures. This was not seen as a deficiency in the analysis because the barns were readily visible from the windshield survey and the level of activity around the barns could be readily determined based on farmstead conditions.

All the agricultural areas were calculated using the AgMap area measurement function. The limit of the tillable lands was calculated using the land parcel layer overlain the aerial photograph. The soil capability for agriculture areas where determined based on

the characteristics of the individual fields. Existing rural residential dwellings, natural areas and large farmsteads were eliminated from the agricultural land area calculations.

OMAFRA defines Class 1 agricultural land as level to nearly level, well to imperfectly drained and have good nutrient and water holding capacity. They can be managed and cropped without difficulty. Lands designated Class 2 soil capability for agriculture had very gentle slopes with limited drainage swales and evidence of poor drainage. Lands defined as Class 3 had undulating topography and a predominance of drainage swales and areas with poor drainage evident by standing water and or evidence of crop damage from inundation in the fields. Class 4 lands are marginal for common field crops and are generally used for hay or pasture lands.

In reviewing the OMARFA AgMap soil capability for agriculture data base it was apparent the mapping did not accurately reflect the agricultural lands. Review of the OMAFRA Class 1 lands showed the majority of the fields had undulating topography with drainage swales and evidence of standing water indicating poor drainage. Therefore, we used the AgMap data but also revised the soil capability areas based on the individual field characteristics. Lands designated Class 2 soil capability for agriculture had very gentle slopes with limited drainage swales and evidence of poor drainage. Lands defined as Class 3 had undulating topography and a predominance of drainage swales and areas with poor drainage evident by standing water and or crop damage from inundation in the fields. Cultivated lands in common field crops (e.g., corn, soybeans, winter wheat) dominate all the areas. Cultivation of common field crops generally indicates Class 1-3 soil capability for crop production. Class 4 lands are marginal for common field crops and are generally used for hay, these lands are not present in the study area to any significant amount.

4.0 UPPER WEST SIDE LANDOWNERS GROUP

4.1 Planning Policy

4.1.1 City of Hamilton Urban Official Plan

The City of Hamilton Urban Official Plan 2022 Chapter E – Urban Systems and, Designations states in Section E.2.0 the urban structure formally defines how the City will physically grow over the long-term providing for employment, commercial and residential development and the associated infrastructure and community facilities.

The Upper West Side Landowners Group (UWSLG) lands are included in the urban area (see Figure 3). The lands are within the urban boundary and are designated Urban Expansion Area Neighbourhood, Urban Expansion Area Employment and Employment Area as shown in the appended Schedule E (Appendix A).

The UWSLG lands are located within the Airport Employment Growth District Secondary Plan Area. The landowners appealed portion of the plan before the Ontario Municipal Board which resulted in a Minutes of Settlement dated February 3, 2015 that excluded aforementioned parcels from development and designated them as Rural. In November 2022 the lands were designated urban in the Urban Official Plan.

The City of Hamilton Urban Official Plan (Jan 2018) in Chapter B.2.0 Defining Our Communities, Section 2.2.3 states that prior to undertaking an urban boundary expansion the municipality shall undertake a comprehensive review and secondary plan that shall include: d) in prime agricultural areas, the lands do not comprise specialty crop areas, there are no reasonable alternatives that avoid prime agricultural area and there are no reasonable alternatives on lower priority agricultural lands. Subsection e) requires it be demonstrated that impacts from new or expanding urban areas on agricultural operations which are adjacent or close to urban areas are mitigated to the extent feasible with consideration of urban development staging or phasing. This policy reinforces with the change of the lands to urban the City has confirmed the lands will not be retained in agriculture.

4.1.2 Airport Employment Growth District Secondary Plan

The UWSLG lands are located partially within the Airport Employment Growth District Secondary Plan, as shown in the Airport Employment Growth District Secondary Plan. Land Use Plan Map B.8-1 in Appendix B. The portions of the UWSLG lands outside the Airport Employment Growth lands are designated as Urban Expansion Area Neighbourhood and Urban Expansion Area Employment in the Urban Hamilton Official Plan.

Development of the Airport Employment Lands are directed by the policies of the Urban OP Volume 2, Chapter B – Airport Employment Growth District. The policies are directed at development of employment lands that are integrated with and compliment the John C. Munro Hamilton International Airport. This growth district is to be an ecoindustrial park concept with prestige industrial, light industrial, airport-related business and institutional development.

Section 8.2.13 Agricultural Principles, states the employment lands shall develop in a manner which complements food production operations and minimizes conflict between land uses. The intent is to maintain agricultural operations and support local food production without any adverse impact from the employment lands.

Section 8.3.7 states the maintenance and enhancement of the productive agricultural lands shall be encouraged to remain as long as feasible. The policy indicates where an

agricultural activity is not feasible, the City shall encourage the activity to transition to a complementary or innovative agricultural activity which sustains or enhances the productive agricultural capacity of the lands.

In reviewing the associated mapping, the Urban OP, Schedule F Airport Influence Area lands previously defined as Rural now defined as Urban Expansion Areas surrounded by the Airport Influence Area. Schedule F in Appendix C shows these current land use designations.

4.1.3 Provincial Planning Policy 2020

The Provincial Planning Policy is very clear in its requirements that prime agricultural lands be protected. Section 2.3 Agriculture, states under Section 2.3.1 Prime agricultural areas shall be protected for long-term use for agriculture. Prime agricultural areas are areas where prime agricultural lands predominate. Specialty crop areas shall be given the highest priority for protection, followed by Canada Land Inventory Class 1, 2, and 3 lands, and any associated Class 4 through 7 lands within the prime agricultural area, in this order of priority.

Section 2.3.3.2 reinforces the protection of agricultural land uses stating in prime agricultural areas, all types, sizes and intensities of agricultural uses and normal farm practices shall be promoted and protected in accordance with provincial standards.

These policies of the PPS require municipalities to protect prime agricultural lands for long term agricultural land use.

The challenge for municipalities in southern Ontario is that prime agricultural land dominates the landscape and the existing urban areas were established on agricultural lands. Expansion of these areas to accommodate growth and utilize existing infrastructure makes the avoidance on prime agricultural land extremely difficult. The most practical approach to this problem is to utilize the exiting agricultural lands that have been compromised by existing development and that have received formal approvals for development under the Planning Act or by the Ontario Municipal Board. Planning for future development on existing agricultural lands within designated settlement areas should focus on the agricultural lands already impacted by non-agricultural land uses that have or will fragment the area.

Review of the land uses existing and proposed that surround the UWSC lands confirms the agricultural lands that are designated Urban are totally encompassed by existing urban residential development, rural residential strip development, commercial and institutional land uses. The UWS Study Area have been effectively removed from agriculture by the approval of the current Urban Official Plan of the Airport Employment

Growth District Secondary Plan (see Appendix A) and the existing land uses the lands do not represent a long-term agricultural resource.

4.1.4 Greater Golden Horseshoe Growth Plan (2017)

In May 2017 the Province released the Growth Plan for the Greater Golden Horseshoe (GGH) that was prepared and approved under the Places to Grow Act, 2005. The introduction in the document states the GGH has some of Canada's most important and productive farmland and the proximity to markets support agricultural production that cannot be duplicated elsewhere in the country.

In recognition of the predominance of prime agricultural lands in southern Ontario and within the Greater Golden Horseshoe area the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has developed an agricultural systems approach to the protection of farmland. The systems approach is documented in the Implementation Procedures for the Agricultural System in Ontario's GGH which was issued by the province in February 2018. In developing the agricultural systems OMAFRA mapped the prime, specialty crop and candidate agricultural lands that form the agricultural land base for the Greater Golden Horseshoe Area (GGHA). A copy of the map is provided in Appendix D. The location of the Upper West Side Landowners Group lands is highlighted on the map and is shown entirely surrounded by the urban area of Hamilton.

This provincial agricultural land mapping shows the province and the City of Hamilton have confirmed the UWSLG lands are encompassed by the urban settlement boundary and lack any connection to the surrounding agricultural land. It is therefore reasonable to expect the lands will not be retained in the future for agricultural land use.

OMAFRA states the GGHA land use plans build upon the policy foundation defined in the PPS under policy 2.3.2 that directs municipalities to utilize provincial guidelines when designating prime agricultural areas. The OMAFRA prime agricultural land base mapping shown in Appendix D identifies the prime lands where the agricultural system services and assets exist, which is comprised of the prime agricultural land base and the agricultural infrastructure that are important to the viability of the agri-food sector. Both the Growth Plan and Greenbelt Plan contain policies that require municipalities to protect agricultural lands in the long term. These plans require municipalities avoid, minimize or mitigate impacts on the agricultural system when considering new or expanded settlement areas. Given the UWSLG lands are within the existing designated urban area of the City of Hamilton the development of these lands should be a priority before prime agricultural lands outside the urban area are considered for future development.

It is important to note that the GGHA policy 4.2.6 subsection 9 states municipalities may refine provincial mapping of the agricultural land base at the time of initial implementation of their Official Plans. Further, the Implementation Procedures for the Agricultural System in Ontario's Greater Golden Horseshoe, March 2020, Section 3.3 provides direction on refinement of the provincially mapped agricultural system, enabling municipalities to refine the prime agricultural land mapping.

The GGHA also states that prime agricultural lands defined by the OMAFRA agricultural land base map represent the core elements of the agricultural land base. The guideline states these areas warrant a prime agricultural area designation unless it can be demonstrated these designated lands are not prime agricultural areas. Through this, OMAFRA generally anticipates that minor refinements will occur which reflect existing non-agricultural land uses but changes should not be made that would result in an overall reduction in the agricultural land base or refine the agricultural land base without regard for the mapping principles used to define the GGHA agricultural land base.

4.1.5 Conclusions

In reviewing the planning polices as they pertain to the impact of the removing the Upper West Side Landowners Group land from agricultural land use, I make the following conclusions:

- The City of Hamilton Urban OP has designated the lands for urban neighbourhoods and employment.
- OMAFRA has not designated the lands as prime agricultural land.
- Based on the approved land uses in the Urban OP and Airport Employment Growth District Secondary Plan Area there is no requirement under the PPS to retain the lands in agriculture. PPS Section 2.3.2 states: Planning authorities are encouraged to use an agricultural system approach to maintain and enhance the geographic continuity of the agricultural land base and the functional and economic connections to the agri-food network. It is apparent that the City of Hamilton has assessed the agricultural resources along the urban/rural interface and concluded the lands are suitable for urban development.
- Removal of the lands from the Rural area would indicate the City has concluded removing the lands from agriculture will have no adverse impact on the agricultural systems land base within the City of Hamilton or the Province.

4.2 UWSLG Agricultural Land Use Assessment

4.2.1 Soils

The soil map of Wentworth County, Soil Survey Report No. 32 (1965) and the OMAFRA AgMap data base confirm the soils in the UWSLG agricultural areas are predominately well drained Brantford and Brant silt loam. The western portion of the area dominated by the golf course is poorly drained Toledo silty clay loam.

4.2.2 Existing Agricultural Land Uses

Based on the field conditions in March 2018 and October 2022, the agricultural lands within the UWSLG lands are predominately cultivated lands in cash crops such as corn and soybeans. There are no active livestock operations or structurally sound barns observed. No farmsteads were observed with cash crop equipment or large drive sheds that could house this equipment which would indicate the lands are probably rented or leased to area farmers living outside the study area.

An inactive orchard approximately 15ha is size is located in the centre of the study area. Based on Google mapping there appears to be no activity or maintenance of the orchard and no signage is evident at the entrance on Twenty Road West.

4.2.3 Adjacent Land Use

The UWSLG lands are currently surrounded by urban development, rural residential strip development, the John C. Munro Hamilton International Airport and agricultural lands.

The forms of urban development include residential development on the north side of Twenty Road West and the City of Hamilton bus operations centre on Upper James. The lands bordering on Glancaster Road, Dickenson Road and Upper James Street have extensive rural residential strip development. Beyond these roads is agricultural land generally cultivated in common field crops (e.g., corn, soybeans) with woodlots interspersed throughout. The airport lands encompass the majority of the lands to the south and extend to Dickenson Road West with a runway oriented toward the subject lands which would require a landing path over the easterly third of the property.

4.2.4 Soil Capability for Crop Production

The AgMap data base indicates the existing agricultural lands are predominately soil capability for crop production class 3 with topography limitations. The topography limitation is associated with the undulating topography that results in drainage swales

that traverse the lands conveying surplus surface water runoff to the northeast. These drainage swales are subject to inundation and poor drainage resulting in excess water that can limit soil productivity and crop growth. Small areas of Class 1 soils are mapped; however, this mapping would appear inaccurate given the presences of drainage swales in these areas. Class 1 soils have no limitations to crop production and are generally flat with good drainage. Based on the aforementioned drainage issues these lands would be considered Class 3 agricultural lands under the PPS.

4.2.5 Minimum Distance Separation

The Provincial Policy Statement and Growth Plan identify that the Minimum Distance Separation formulae (MDS) is to be considered to ensure new or expanding settlement areas are incompliance. Components of the MDS formulae were reviewed including through a windshield field survey to identify structurally sound barns. It is important to note that no active livestock operations or structurally sound barns were identified within a 1.5km radius.

The MDS guidelines Criteria 37 Application to Settlement Areas states MDS I does not apply to proposed non-agricultural uses in approved settlement area designations and that the application of MDS I will take its direction from the applicable municipal planning documents. For the expansion of livestock facilities under MDS II municipalities have the option to apply MDS and also the application of MDS II will take its direction from the applicable municipal planning documents.

The OMAFRA Draft Agricultural Impact Assessment Guidelines recommends for settlement area boundary expansions a 1.5km radius is recommended for MDS analysis for a secondary plan study area(s). This analysis was not undertaken because review of the UWSLG lands did not identify any active livestock operations or structurally sound barns that could potentially be used for livestock. In addition, the lands were within the defined urban boundary so no MDS is required under Criteria 37.

4.2.6 Conclusions

The agricultural land use of the area indicates the lands are probably not operated by the owner. The rental of agricultural land with no active livestock operations or structurally sound barns represents the decline of on-site full-time farmers due to the pressures of urban development and associated land values being elevated above agricultural land values. Although the lands are being cultivated the designation of the lands for urban development appears to have resulted in the elimination of full-time owner operated agricultural operation.

The lack of owner operated farm operations, livestock operations, the approval of Airport Employment Growth District Secondary Plan and the elimination of the lands from the GGHA agricultural land base has eliminated these lands from incorporation into an existing farm operation as farmer owned land. Land prices would reflect land development values and not those of agriculture. Based on these facts the conversion of the lands to Urban will not have a significant adverse impact on the agricultural land base with the City of Hamilton or the GGHA.

Review of the two previously Rural (Whitebelt Area) parcels within the UWSLG lands from an agricultural perspective did not identify any existing resources that would warrant their retention as a potential rural agricultural land use. The parcels are small in size. The existing agricultural land within the west parcel of designated rural lands is approximately 25.3 ha equally divided between two lots. The east parcel is approximately 26.9 ha spilt between three lots; 8.2ha, 2.6ha and 16.1ha. In addition, portions of these lots are within the designated settlement area, which further complicates future agricultural land uses for the properties. Individually they are too small to represent economically viable cash crop operations. The lands could be converted to a specialty crop land use but the value of the land because they are to be encompassed by urban development would make it cost prohibitive for a farmer to purchase the property and invest the monies to establish a specialty crop operation such as an orchard. None of the parcels have any structurally sound barns that could be utilized to reduce start-up costs. The proximity of the surrounding urban area would restrict the potential for a livestock operation due to MDS limitations and the limited land base for crop production would increase production costs for livestock. It is unlikely the lands could be purchased for crop production by a farmer in the adjacent lands due to the value of the property and the limited acreage to produce crops to make it economic. As the adjacent lands are developed over time it will become increasing more difficult to access the area with farm equipment safety due to conflicts with urban traffic. In my opinion these two previously Rural parcels have no long-term agricultural value and should be used for development to help reduce development pressures on the adjacent rural agricultural lands by optimizing utilization of the lands within the settlement area limits.

5.0 ALTERNATIVE GROWTH AREA COMPARISON

The purpose of the analysis was to compare the agricultural resources within the alternative growth areas within the City of Hamilton identified in Corbett Land Strategies Inc. report entitled Municipal Comprehensive Review (GRIDS 2) Process Employment Land Review. The comparison of the alternative growth areas assessed the agricultural resources in each area and evaluated the potential long-term impacts to the agricultural land use in the region. Based on the significance of the agricultural impacts the

preferred growth alternative for the preservation of agricultural land was selected. The four alternative growth areas are as follows:

- 1. Growth Area 1 Land designated Urban on Garner Road adjacent to the approved Airport Employment Growth District Secondary Plan (see Figure 2).
- 2. Upper West Side Landowners Group Growth Area 2 Land within the approved Airport Employment Growth District Secondary Plan designated Urban adjacent to Twenty Road West (see Figure 3).
- 3. Twenty Road East Growth Area 3 Urban and Rural lands in the area of Twenty Road East and Miles Road (see Figure 4).
- 4. Elfrida Growth Area 4 Urban lands in the area of Ryman Road East and Upper Centennial Parkway (see Figure 5).

5.1 Methodology

Currently all four development areas are entirely designated Urban except for Growth Area 4 which as both Urban and Rural designations. In 2020 Growth Areas 1, 3 and 4 were designated Rural and portions of Growth Area 2 were designated Rural. The purpose of the comparison of the alternative growth areas from an agricultural perspective is to identify the alternative that would have the least overall impact on the agricultural resources in the event future planning decisions reinstate of Rural/Urban boundaries prior to the November 2022 boundary changes. The Provincial Planning Policy 2014 and the Implementation Procedures for the Agricultural System in Ontario's Greater Golden Horseshoe (OMAFRA 2018) direct municipalities to preserve agricultural land to support the agri-sector of Ontario's economy. Review of the four proposed growth areas shows all are predominately in an existing agricultural land use, therefore the evaluation of agricultural impacts should be a primary consideration in selecting the preferred growth area to help meet the current need for greenfield growth for Hamilton.

The analysis was done at a landscape level to characterize the agricultural land uses within each of the alternative growth areas. Lands already approved for urban development and included within the existing urban boundary were not included in the analysis because the approval has effectively removed them from the agricultural land base.

The potential growth areas were reviewed in the field survey to define the level of agricultural land use within the areas. Information collected to determine the nature and

intensity of agricultural use included identification of active livestock operations, structurally sound barns currently not in use, cultivated lands, specialty crops, soil capability based on field characteristics and adjacent livestock operations that potentially could be impacted by Minimum Distance Separation requirements. The degree of fragmentation from non-agricultural land uses (e.g., woodlots, watercourses, rural residential lots) was also reviewed. Minimum Distance Separation calculations were not undertaken because livestock barns were found to be structurally unsound, inactive and incorporated into the rural residential use, of insufficient size to represent a constraint to development or they were already impacted by the adjacent rural residential development. Planning policies applicable to the growth areas was reviewed to determine the potential level of protection provided by provincial and municipal authorities.

To provide a replicable evaluation process for the comparison of the alternative growth area an evaluation matrix was developed using quantitative and qualitative factors that provided a subjective comparison between growth areas. The evaluation is presented in Table 1.

The OMAFRA AgMap portal was used to review the soil capability for agriculture, soils type, slope, stoniness and other factors affecting cultivation. In reviewing the OMAFRA AgMap soil capability for agriculture (CLI) data base it was apparent the mapping did not accurately reflect the agricultural lands physical characteristics or cropping practices which reflect soil capability. The assessment of soil capability revised the AgMap classifications based on the field characteristics (e.g., defined drainage swales, undulating topography, poor drainage evident by wet soils) and the crops grown. Continuous cultivation is crops such as corn, soybeans or winter wheat generally indications prime agricultural land. To quantify the amounts of Class 1, 2 or 3 land present the soil capability for agriculture classifications were assigned to the field pattern because review of the AgMap CLI Class 1, 2 and 3 polygon boundaries showed no correlation to the field characteristics. Adjusting the CLI to the field boundaries provided an assessment that more accurately reflected field conditions and the associated agricultural land use.

OMAFRA defines Class 1 agricultural land as level to nearly level, well to imperfectly drained and have good nutrient and water holding capacity. They can be managed and cropped without difficulty. Lands designated Class 2 soil capability for agriculture had very gentle slopes with limited drainage swales and evidence of poor drainage. Lands defined as Class 3 had undulating topography and a predominance of drainage swales and areas with poor drainage evident by standing water and or evidence of crop damage from inundation in the fields. Class 4 lands are marginal for common field crops and are generally used for hay or pasture lands. These descriptions were used to revise the AgMap CLI soil capability for agriculture classifications to more accurately

reflect the agricultural capability. This ensured the evaluation and comparison of agricultural lands within the alternative growth areas was consistently applied based on the site conditions.

All the agricultural areas were calculated using the Google Earth area measurement function. Existing rural residential dwellings and large farmsteads were eliminated from the agricultural land calculation.

5.2 Planning Policy Review

5.2.1 Provincial Planning Policy 2020

The Provincial Planning Policy provides direction of the expansion of settlement areas within agricultural lands.

Section 1.1.3.8 states: 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 to accommodate growth and to satisfy market demand are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon;
- b) the infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;
- c) in prime agricultural areas:
 - 1. the lands do not comprise specialty crop areas;
 - 2. alternative locations have been evaluated, and
 - i. there are no reasonable alternatives which avoid prime agricultural areas; and
 - ii. there are no reasonable alternatives on lower priority agricultural lands in prime agricultural areas;
- d) the new or expanding settlement area is in compliance with the minimum distance separation formulae; and
- e) impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.

The inclusion of the Rural lands in the UWSLG lands into the settlement area does not compromise specialty crop areas, does not have reasonable alternatives on lower priority agricultural lands given the lands are surrounded by a settlement area, is in compliance with MDS and will not impact adjacent or close agricultural operations.

5.2.2 Ministry of Agriculture, Food and Rural Affairs

In recognition of the predominance of prime agricultural lands in southern Ontario and within the Greater Golden Horseshoe area the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has developed an agricultural systems approach to the protection of farmland. The systems approach is documented in the Implementation Procedures for the Agricultural System in Ontario's Greater Golden Horseshoe which was issued by the province in February 2018. In developing the agricultural systems OMAFRA mapped the prime, specialty crop and candidate agricultural lands that form the agricultural land base for the Greater Golden Horseshoe Area (GGHA). The location of the alternative growth areas is highlighted on the GGHA agricultural land map presented in Appendix D.

The Agricultural System Mapping Method Technical Document (OMAFRA January 2018) defines prime agricultural areas includes areas where there is a local concentration of farms that exhibit characteristics of ongoing agriculture. These areas are large clusters of agricultural uses that contain agricultural services that support the agri-food network and lands dominated by farming and lacking conflicting non-agricultural land uses. Candidate areas are non-agricultural and non-residential land uses that are not likely to be rehabilitated back to agriculture or are not characteristic of a prime agricultural area (e.g., commercial, industrial, institutional, golf courses, built up areas along roads, natural heritage areas, significantly fragmented agricultural land).

The GGHA states land use plans need to build upon the policy foundation defined in the PPS under policy 2.3.2 that directs municipalities to utilize this guideline when designating prime agricultural areas. The OMAFRA prime agricultural land base defines the prime lands where the agricultural system which is comprised of the prime agricultural land base and the agricultural infrastructure, services and assets that are important to the viability of the agri-food sector. Both the Growth Plan and Greenbelt Plan contain policies that require municipalities to protect agricultural lands in the long term. These plans require municipalities avoid, minimize or mitigate impacts on the agricultural system when considering new or expanded settlement areas.

The GGHA states that prime agricultural lands defined by the OMAFRA agricultural land base map represent the core elements of the agricultural land base. The guideline states these areas warrant a prime agricultural area designation unless it

can be demonstrated these designated lands are not prime agricultural areas. OMAFRA expects there will be minor refinements to reflect existing non-agricultural land uses but changes should not be made that would result in an overall reduction in the agricultural land base or refine the agricultural land base without regard for the mapping principles used to define the GGHA agricultural land base.

Growth Area 1 and the Upper West Side Landowners Group Growth Area 2 are candidate areas within the GGHA agricultural land base. Twenty Road East Growth Area 3 and the Elfrida Growth Area 4 are completely within the GGHA agricultural land base. Therefore, Growth Area 1 and Upper West Side Landowners Group lands under the policies of the Greater Golden Horseshoe Growth Plan are preferred for development.

5.2.3 City of Hamilton Rural Official Plan 2012

The City of Hamilton Rural Official Plan 2012 Chapter D – Rural System, Designations and Resources states that Rural Hamilton's primary land use function is resource related and the main purpose of the land use designations applying to this area is to provide a secure land base for agricultural activities. It indicates the City supports the right-to-farm and when applying the policies of the OP agricultural uses will be given priority in Rural Hamilton. In Section D.1.0 the goals of the plan clearly reinforce the City's desire to retain the current agricultural land uses within the rural land use for the preservation and enhancement of agriculture.

In the 2012 Rural OP Growth Area 1 and Upper West Side Landowners Group Growth Area 2 contained designated Rural lands that are encompassed by the designated urban area. Growth Area 1 and Upper West Side Landowners Group Growth Area 2 lands are bounded by the Airport Employment Growth District Secondary Plan Area. Within both parcels the Rural lands were completely encompassed by urban development. In reviewing the decision in the Ontario Municipal Board Minutes of Settlement dated February 3, 2015 there is no indication that the parcels had any significant agricultural resources that warranted protection through implementation of the Rural designation, particularly as the evidence submitted indicates the City was considering the lands for urban boundary expansion.

Twenty Road East Growth Area 3 is designated Rural and the Elfrida Growth Area 4 is predominately Agricultural with an area of Rural north of Highland Road East. The location and limits of these areas in the 2012 OP are shown on Schedule D Rural Land Use Designations in Appendix E.

5.2.4 Elfrida Growth Area Study

Elfrida Growth Area Study, Existing Conditions Report prepared by the City of Hamilton in 2017 defined the limits of the Rural and Agricultural land uses in the Elfrida Growth Area using the aforementioned Schedule D Rural Land Use Designations. Section 3.4 states the preservation of sustainable agriculture as a key direction for the future of this area. Section 7.0 Agriculture, confirms most of the lands in the growth area are prime agricultural lands and that urban development will impact crop and livestock production with the region and adjacent lands. Nuisance issues, adverse impact of parcel fragmentation and potential conflict with urban uses are all identified as potential problems with urban development in this agriculturally dominated area.

The report states the Land Evaluation and Area Review (LEAR) study done in 2003 to define prime agricultural soils using a methodology developed by OMARFA also confirmed the Elfrida area is almost extensively prime agricultural land.

Section 7.2 Key Directions state any adverse impacts on agricultural operations and on the agri-food network from the expanding settlement area will be avoided or if avoidance is not possible, minimized and mitigated.

5.2.5 Conclusions

In reviewing the planning polices as they pertain to the four alternative growth areas and the implications of those policies I make the following conclusions:

- The Elfrida Growth Area Study and OMAFRA has designated the majority of Growth Areas 3 and 4 as prime agricultural lands and fully recognize the importance of maintaining a viable agricultural industry. The City of Hamilton 2012 Rural OP had designated the majority of Growth Area Rural and Growth Area 4 as Agricultural. Given the extensive and ongoing agricultural land use within these areas they should be retained in agricultural and should not be considered for development until the smaller designated Rural areas in Growth Areas 1 and 2 are utilized to meet growth demands in the City.
- Growth Areas 1 and 2 are completely encompassed by lands approved for development and represent small acreages already impacted by urban development. The development of these lands would have a much less impact on the agri-food sector in the region.
- Growth Areas 1 and 2 will be already experiencing the direct and indirect impacts
 of the adjacent urban development such as inflated land prices and farmequipment/traffic conflicts and the termination of livestock operations.
 Development of these lands should occur first in recognition of these existing

impacts and the large area of adjacent agricultural land already approved for development.

6.0 URBAN IMPACTS ON AGRICULTURE

Urban growth in proximity to agricultural lands has a number of significant impacts to the long-term use of the lands for food production. Impacts occur as both direct and indirect impacts that adversely affect farming operations. The following sections present these impacts of urban development on agricultural lands:

Elevated Land Values

Urban expansion is implemented by the development industry. Private developers are continually looking at municipal Official Plans and future potential settlement expansion areas in order to purchase lands to maintain their land base for development. This leads to land speculation on where and when development may occur. Agricultural lands within settlement areas are generally owned by development interests and rented to area farmers for the property tax reduction until development occurs. These lands and any lands that are being assessed by municipalities for potential future development will immediately have a land value in excess of agricultural land values in recognition of the higher economic value of urban development compared to crop production. The Ontario Ministry of Agriculture, Food and Rural Affairs prepared a budgeting spreadsheet in 2020 that includes projected commodity price, yield, crop insurance, expenses (e.g., seed, fertilizer, herbicide, drying, trucking, storage), machinery, labour, depreciation, etc. as a budgeting tool for farmers. In applying these budgeting tools in show expected costs and profits in 2020.

To demonstrate the impact of agricultural land speculation in proximity to urban areas we used the OMAFRA corn budget for 2020 and input the mortgage costs/acre under different land cost scenarios for conservative land costs. The mortgage cost per acre was done using the Farm Credit Corporation mortgage calculator. For the analysis an interest rate of 3% and an amortization period of 20 years was applied. The table below provides the mortgage cost per acre under these parameters. We input the conservative land cost of \$50,000/acres into the OMAFRA budget table provided in Appendix F to demonstrate the how speculation negates any reasonable expectation the lands will ever be purchases and retained in agriculture by area farmers. At a purchase cost of \$50,000/acre the OMAFRA budget shows a loss of \$3,093/acre.

Farm Size (acres)	Purchase Price per Acre	Purchase Price	Monthly Mortgage Cost	Annual Mortgage Cost per Acre
100	\$200,000	\$20,000,000	\$110,733	\$13,287
100	\$100,000	\$10,000,000	\$55,336	\$6,640
100	\$50,000	\$5,000,000	\$27,683	\$3,321
100	\$17,000	\$1,700,000	\$9,413	\$1,129

Provincial and municipal planning policies do not incorporate land prices in the analysis of lands to be retained in agriculture. However, agriculture like any business relies on economic viability. While the province or municipalities can designate lands for agriculture, that is not a significant factor in the long-term economic viability of any farming business. Farm operators can lease or rent lands owned by development interests but the continuation of the lands in agriculture is fully controlled by non-agricultural interests. Renting lands that could potentially subject to development reduces the incentive to management improvements to the land and deters use of the lands for livestock operations due Minimum Distance Separation requirements impacts on the developable land area.

The Ontario Federation of Agriculture coauthored a paper *entitled Famland at risk: Why land-use planning needs improvements for a healthy agricultural future in the Greater Golden Horseshoe* (November 2015). The paper addresses the impacts to agriculture from urban growth. With respect to the implications of speculation for development the paper stated the following:

When land banking (speculation) is rampant in an agricultural area, the price of farmland is artificially inflated, sometimes exponentially. High land prices can make it prohibitively expensive for farmers to expand their operations by purchasing adjacent properties, another factor that can impact farm viability. New farmers cannot enter the field due to exorbitant land prices, which cuts off the supply of new farmers into the agricultural community. Farm parcels subject to speculation are often rented on short-term leases to farmers who plant cash crops such as corn and soyabeans, and understandably are reluctant to invest in maintaining or upgrading their operations. As a result, agricultural areas subjected to speculation often take on a dilapidated air. As farming becomes more expensive, expansion becomes more difficult, and nearby farms begin to deteriorate, a vicious cycle sets in where farmers simply give up and give in to developer offers to buy.

This reinforces the impact of the adjacent urban development designations on the long-term viability of the lands for agriculture.

Livestock Operations

Livestock operations in proximity to urban development are subject to odour complaints from adjacent urban development. In recognition of this reality OMAFRA implemented the Minimum Distance Separation (MDS) Guidelines to establish buffers for odour attenuation for adjacent non-farm development. The greatest impact to existing livestock operations is the inability to expand their facilities due to their operations lacking sufficient buffers to urban development. Livestock operations beyond an approved settlement area boundary are subject to MDS for any proposed expansion of livestock housing. Municipalities require farmers to comply with MDS prior to approval of any new facilities. Urban development in proximity to livestock operations adversely impacts their ability to expand the operation to enhance profitability.

Conflicts Between Urban Traffic and Farm Equipment

Modern tillage equipment is large in an effort to cover more acreage during the planting and harvesting seasons. The larger equipment provides economic efficiencies because the price of agricultural commodities has not increased to reflect the cost of production. The cost of farm equipment requires tillage of higher acreages to grow more crop with the same equipment to remain profitable. The result is farm equipment width often exceeds the 3.7m lane width impeding the ability of traffic to pass safely on busy urban roads with oncoming traffic. Farmers regularly report vehicle operators making unsafe passing efforts on both the left and right side of the lane often resulting in collisions or near misses.

Termination Of Crop Production Due To Land Sale To Non-Farm Interests

Developers purchase lands in proximity to settlement areas to provide a land base for potential future development. These lands are generally continued in agriculture but in some situations the developer does not continue renting the lands. This represents a loss of food production within the agricultural land use system of the municipality. Idle lands become a source for weed propagation that can adversely impact neighbouring cultivated lands by requiring costlier herbicide application to control weed growth, thereby reducing profitability for the farmer.

Complaints About Noise, Dust And Odour

The operation of farm equipment for cultivation generates noise and dust. These operations in proximity to urban development can result in nuisance complaints from the adjacent landowners. Farmers are not able to implement mitigative measures because the operations are short term, require drier soil conditions for cultivation which often results in dust and affects large acreages over which machinery is continuously moving.

Odours generated from livestock manure handling and storage are dispersed into the air from the livestock facility ventilation systems and manure storage facilities. Odours from ventilation are constant because modern livestock operations house the animals

rather than permitting them to graze or forage outside. Odours from manure storage are generally experienced during the application of manure of the fields which is a short-term impact.

Complaints from neighbouring urban land uses are a factor in farmers deciding to relocate or terminate their farming operations.

Trespassing

Farmers in proximity to urban centres are required to deal with trespassing by hunters, people walking their pets, families coming to see the animals or taking pictures, dumping waste, having picnics, etc. Recently a Hamilton area bird seed farmer had to call police to manage people trespassing to take selfies with sunflowers resulting in the physical damaging and stealing of the crop. Many urban residents do not view rural properties a private land and freely walk through rural farm property. Beyond the damage done to crops farmers are concerned over liability issues if they were injured by livestock or by being totally unaware for potential hazards on a farm.

All the aforementioned issues result in increased stress for farm operators. The pressures of future urban growth are unavoidable given the fact that prime agricultural land is located in southern Ontario which is the area of the urban growth in the province. Where municipalities cannot provide for expansion and avoid prime agricultural land the most effective strategy is to stage development such that prime agricultural lands can remain in agriculture for as long as possible. The implementation of projected growth schedule would help enable farmers to plan the most economical use of the lands.

7.0 AGRICULTURAL LAND USE ASSESSMENT

The results of the agricultural land use comparison for the alternative growth areas have been presented in an evaluation matrix presented in Table 1. Table 1 presents the quantitative and qualitative factors used to compare the agricultural impact associated with each alternative. The following presents the basic conclusions of the analysis.

Growth Area 1 contains an 18ha apple orchard representing approximately 50% of the agricultural land in the area. This specialty crop operation within the urban areas represents a significant agri-food enterprise that should be retained because as the area develops its potential market will increase. While there are potential nuisance impacts related to pesticide application on the adjacent planned employment land development, employment lands would be less sensitive to this issue than residential.

Upper West Side Landowners Group Growth Area 2 agricultural land use is predominately cash crop. With the development of the Airport secondary plan and the associated traffic, the movement of farm machinery to cultivate these lands would

represent a significant nuisance and safety issue. Surrounded by urban development the high land values would make it uneconomical a farmer to purchase and pay for the lands cultivating common field crops. In designating the two isolated parcels Rural it appears the City recognizes these lands should not be considered a significant part of the agricultural land base. The Rural designation represents only 11% of the UWSLG lands.

Twenty Road East Growth Area 3 is predominately prime agricultural land and is designated by OMAFRA as part of the agricultural land base for the province. Although the lands are fragmented by rural residential development the movement of farm equipment in this area is a less significant nuisance and safety issue than areas 1 and 2 because they do not have to traverse urban areas to access the fields. It is unclear why with 61% of the lands in cultivation and being prime agricultural land, the City reduced their significance for agriculture by designating them Rural.

Elfrida Growth Area 4 is almost entirely prime agricultural land and is designated by OMAFRA as part of the agricultural land base for the province. The Rural Hamilton OP, Schedule D defines the majority of the lands as agricultural. It is adjacent to prime agricultural land making it an important part of the region and provincial agricultural system. The lands are not fragmented by rural residential development and serviced by a rural road network which reduces potential nuisance and safety issues with the movement of farm equipment on area roads. Based on the planning documents and our assessment this area is the highest priority for protection of the agricultural lands of the four growth areas.

In my opinion the Upper West Side Landowners Group Growth Area 2 is the preferred alternative for future growth from an agricultural perspective for the following reasons:

- It is encompassed by approved and existing urban development.
- The lands lack any active specialty crop enterprises.
- The lands are not an economically viable agricultural use given the high land values imposed by the surrounding urban development and the small fragmented acreage.
- The lands are not designated agricultural by the City or the Province.
- Being encompassed by approved urban development the movement of farm equipment to the site for continued common field crop production represents a significant nuisance and safety concern.

Please contact me if you have any questions.

Yours truly,

ORION ENVIRONMENTAL SOLUTIONS, INC.

Paul Neals, B.Sc./Agr., P.Ag.

Principal

PCN:

CC: Candice Hood, Corbett Land Strategies

8.0 REFERENCES

City of Hamilton, Elfrida Growth Area Study, Existing Conditions Report. 2017.

Corbett Land Strategies Inc., Submission To The City of Hamilton, Municipal Comprehensive Review (GRIDS2) Process Employment Land Review. September 2017.

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Ontario Municipal Board, Case No(s). PL101300, PL090114 & PL110331. Minutes of Settlement AEGD Phase 3 Hearing. February 3, 2015.

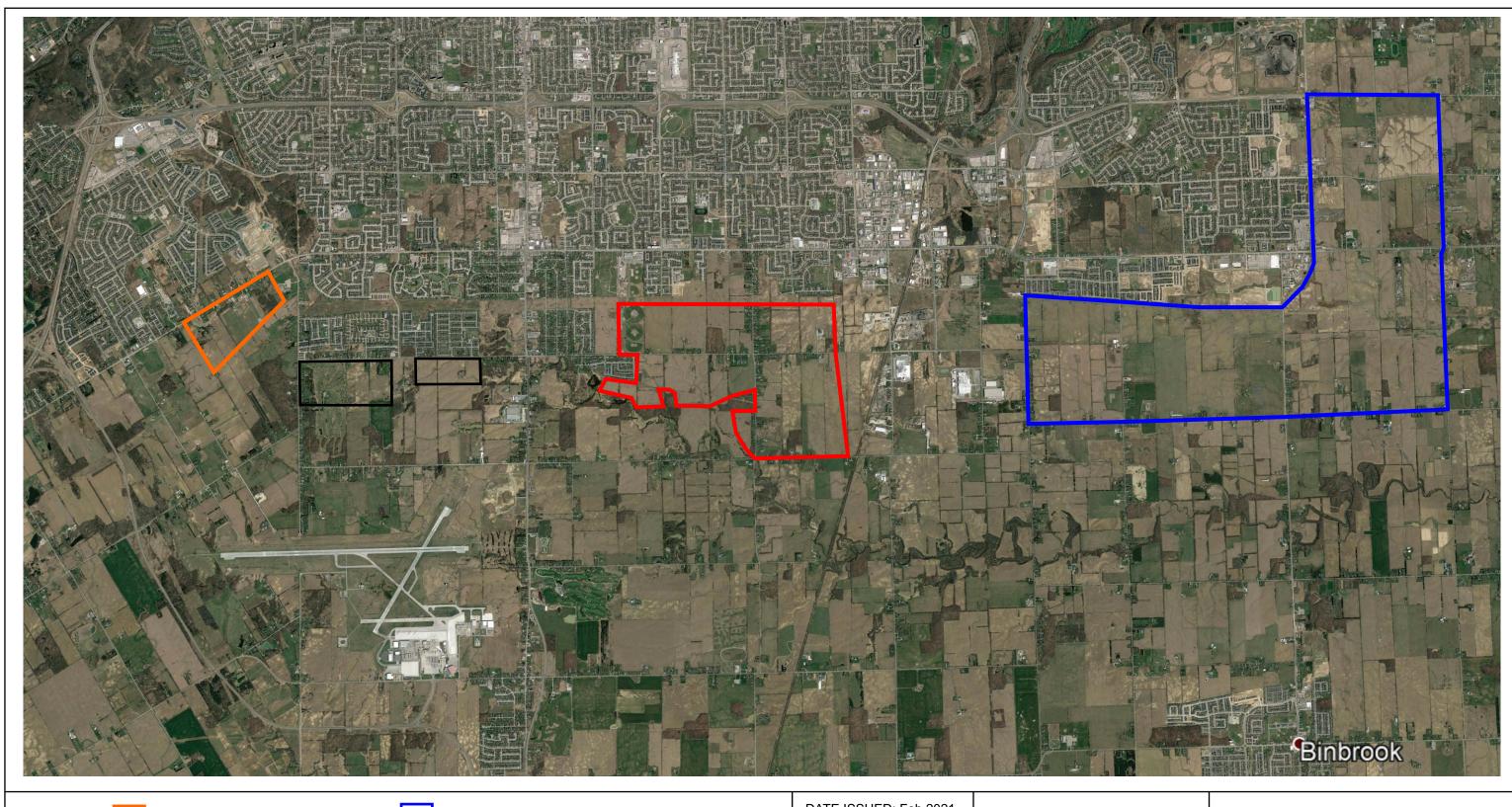


Figure 5 Elfrida Growth Area 4 Figure 2 Growth Area 1 LEGEND Figure 3 Upper West Side Landowners Group Growth Area 2 Figure 4 Twenty Road East Growth Area 3

DATE ISSUED: Feb 2021

CREATED BY: SNB

PROJECT NO. - 17-073

NOT TO SCALE

Study Areas

Figure 1

ORION ENVIRONMENTAL SOLUTIONS

1930 George Johnston Road Minesing, ON L9X 1C1 705-794-7107 paul@orionenvironmentalsolutions.com



LEGEND

Growth Area 1 Limits

Class 1 Agricultural Land

DATE ISSUED: FEB 2020

CREATED BY: SNB

PROJECT NO. - 17-073

NOT TO SCALE

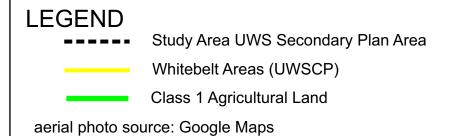
Growth Area 1

Figure 2

ORION ENVIRONMENTAL SOLUTIONS

1930 George Johnston Road Minesing, ON L9X 1C1 705-794-7107 paul@orionenvironmentalsolutions.com

aerial photo source: Google Maps



Agricultural Land
Class 2 Agricultural Land
Class 3 Agricultural Land

Upper West Side

CREATED BY: SNB

PROJECT NO. - 17-073

Landowners Group

Growth Area 2

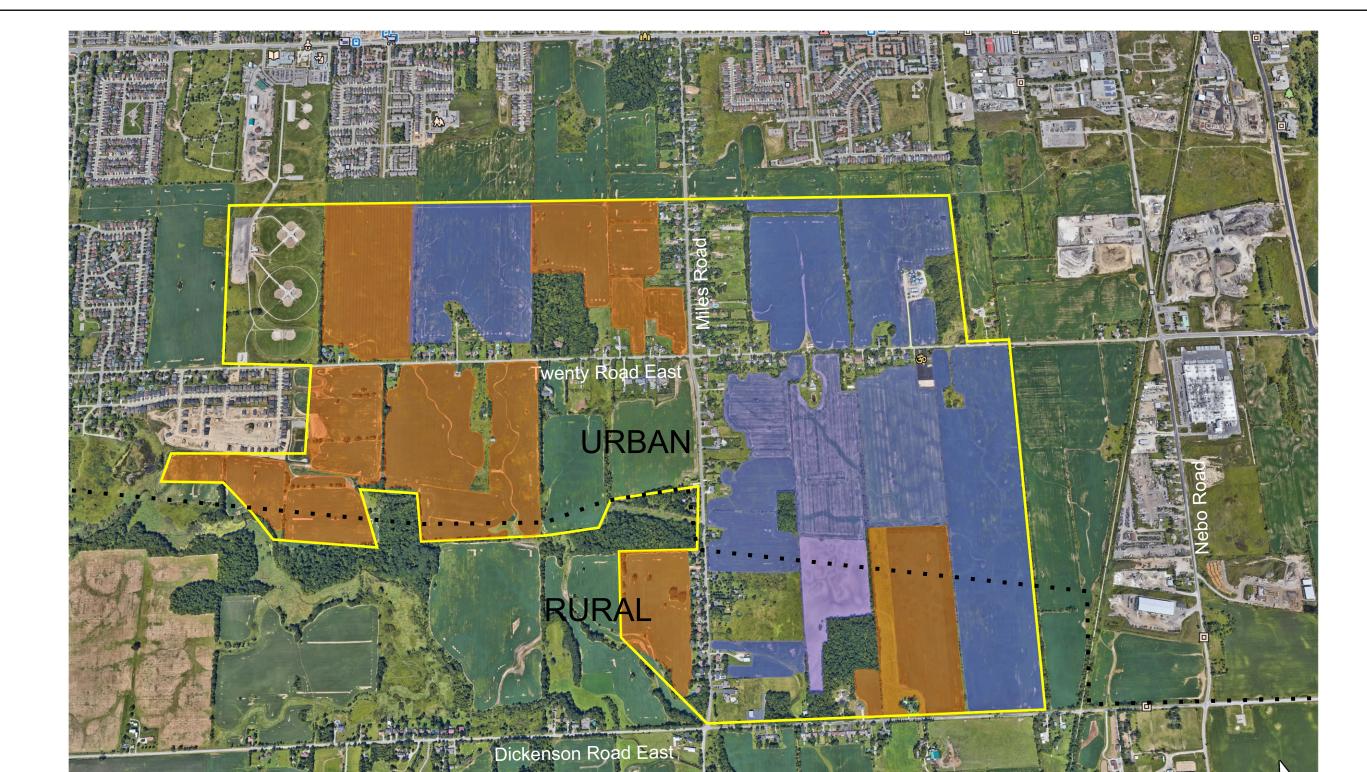
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Figure 3

ORION ENVIRONMENTAL SOLUTIONS

N

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LEGEND

Twenty Road East Growth Area

Class 1 Agricultural Land

Class 2 Agricultural Land

Urban/Rural Boundary (approx.)

DATE ISSUED: NOV 2023

CREATED BY: SNB

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NOT TO SCALE

Twenty Road East Growth Area 3

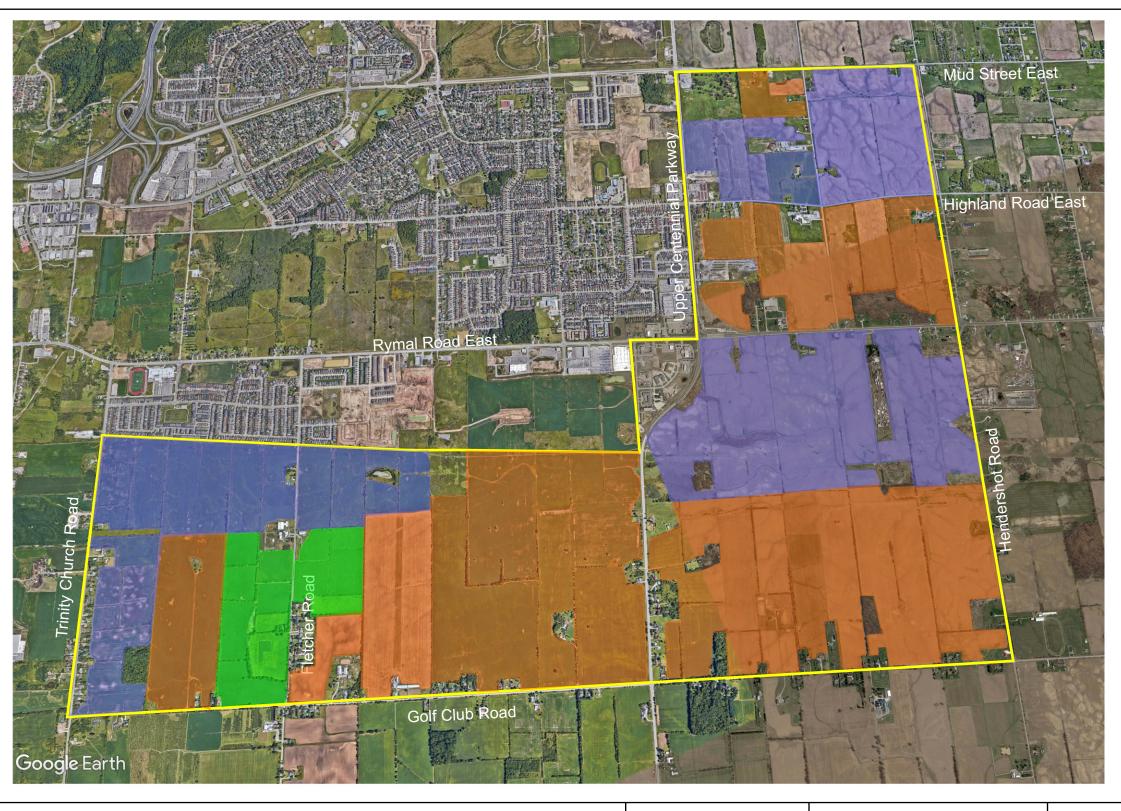
Figure 4

ORION ENVIRONMENTAL SOLUTIONS

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aerial photo source: Google Maps

Class 3 Agricultural Land





Elfrida Growth Area

Class 1 Agricultural Land

aerial photo source: Google Maps

Agricultural Land

Class 2 Agricultural Land

Class 3 Agricultural Land

ISSUED: FEB 2021

CREATED BY: SNB

PROJECT NO. - 17-073

NOT TO SCALE

Elfrida Growth Area 4

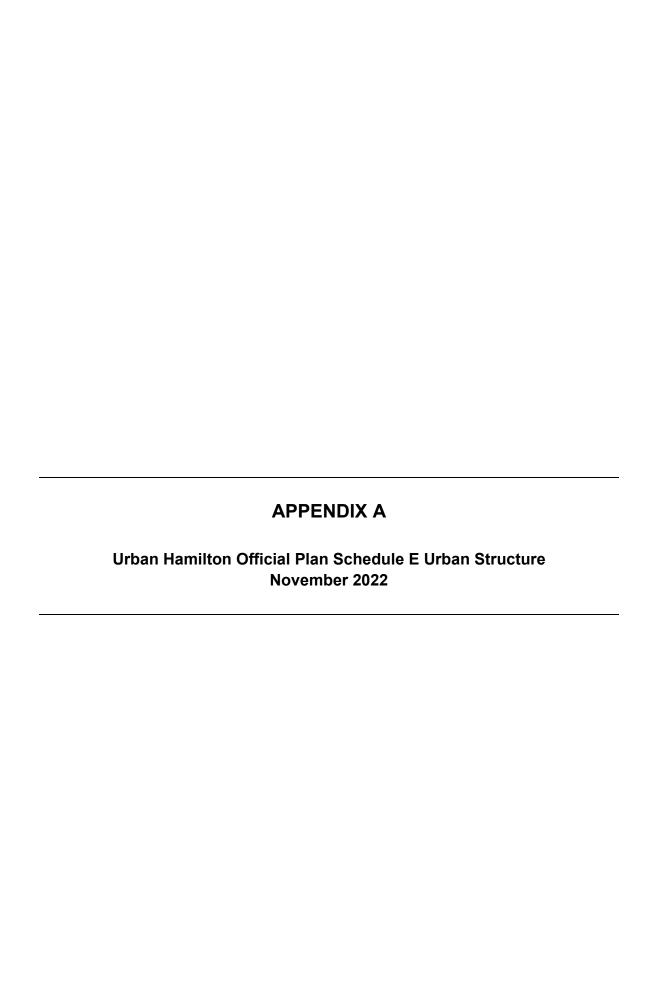
Figure 5

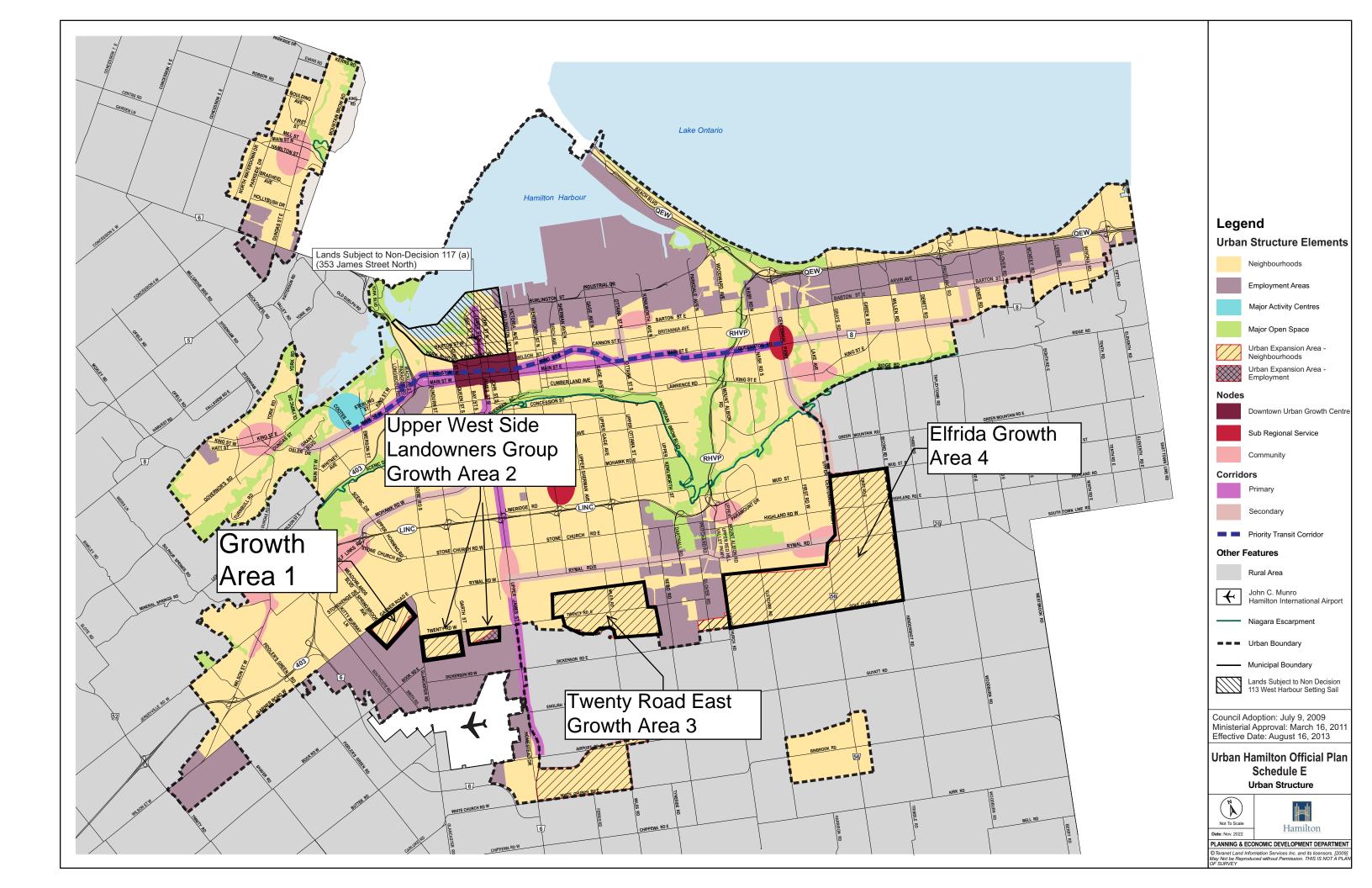
ORION ENVIRONMENTAL SOLUTIONS

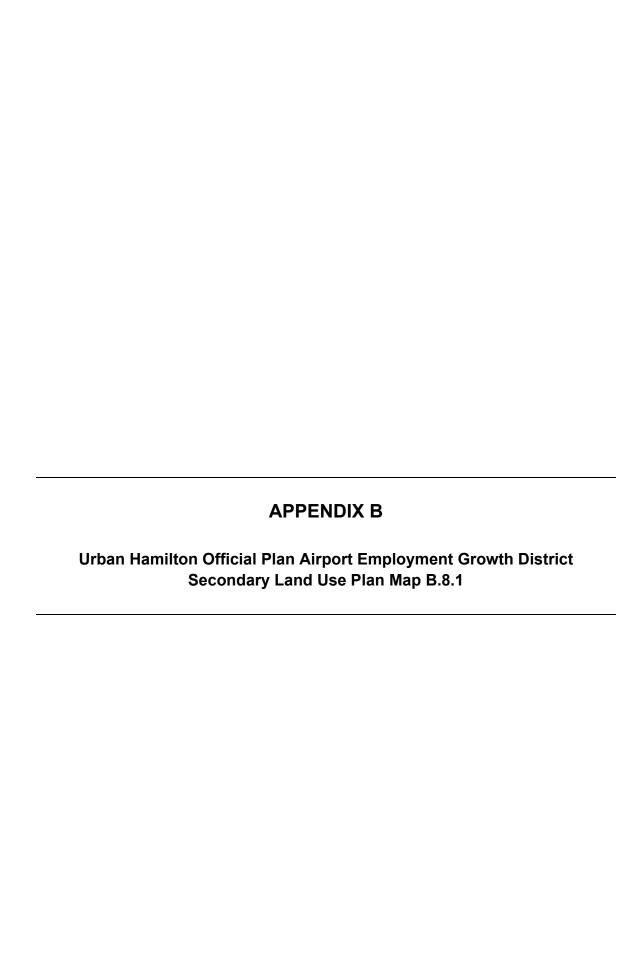
1930 George Johnston Road Minesing, ON L9X 1C1 705-794-7107 paul@orionenvironmentalsolutions.com

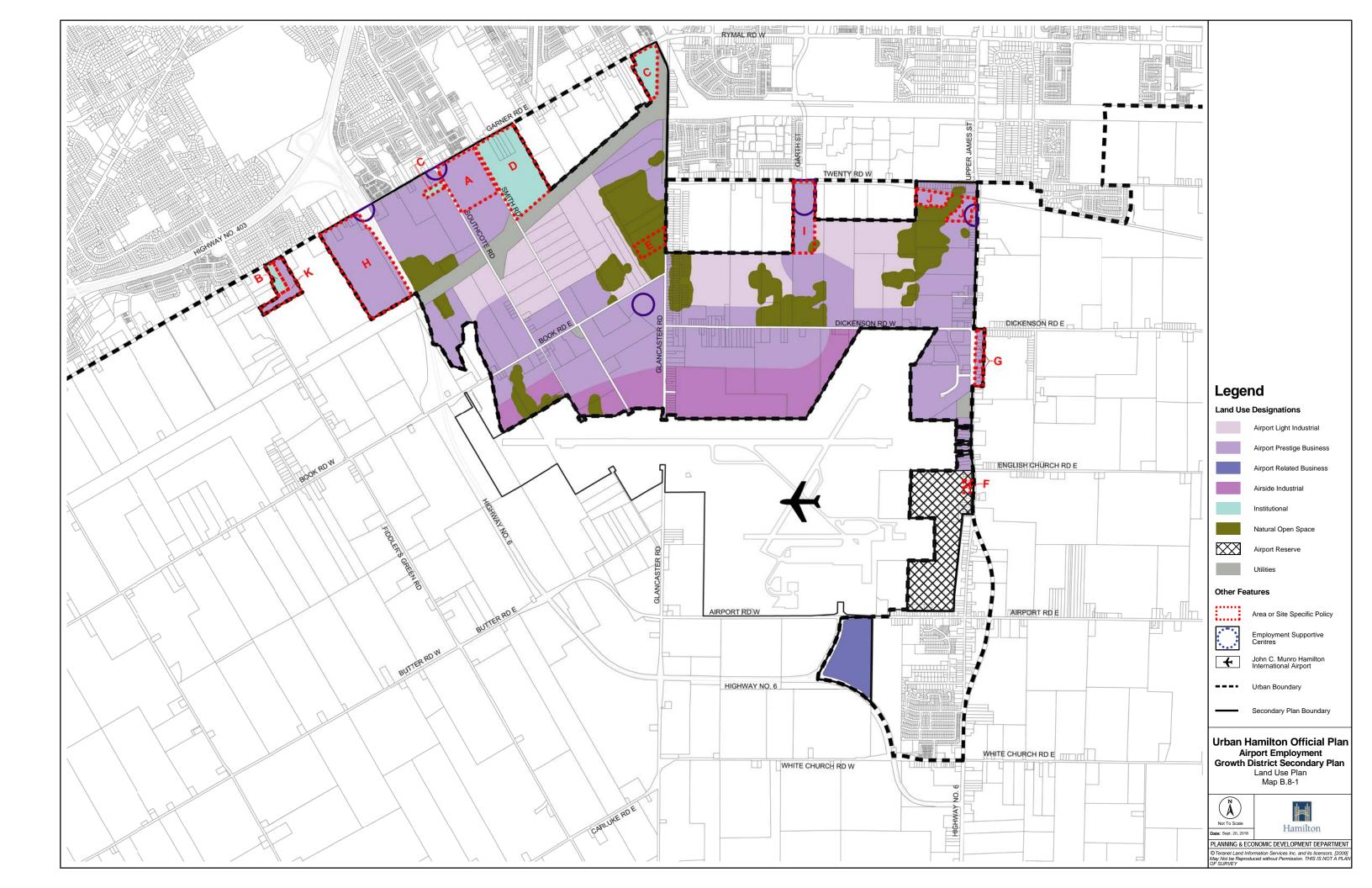
Table 1 - Alternative Growth Area Agricultural Comparison

	Greater Golden Horseshoe Agricultural Land Base	Official Plan Designation	Agricultural Land Use	Specialty Crops	Active Livestock Operations	Estimated CLI Class 1 (ha)	Estimated CLI Class 2 (ha)	Estimated CLI Class 3 (ha)	Total Prime Agricultural Class 1-3	Growth Area Size (ha)	Percentage of Growth Area in Agriculture	Percentage of Growth Area Designated for Agriculture/ Rural	Minimum Distance Separation Issues	Comments
Growth Area 1	- no, located within approved secondary plan area	Urban expansion area neighbourhoods, inside urban boundary	- cash crop (e.g., corn, soybeans)	18 ha active orchard	No	37	0	0	37	70	53%		- no, one small horse farm outside growth area within land designated airport prestige business, adjacent urban development on Glancaster Road	Agricultural lands encompassed by urban land use subject to significant nuisance impacts, parcels too small to be economically viable for common field cash crops. Orchard is a specialty crop that can benefit from surrounding urban development as they provide significant customer base.
Upper West Side Community - Growth Area 2	- no, located within approved secondary plan area	Airport light industrial & prestige business. Within urban area. Two areas designated urban expansion neighbourhoods and one area designated urban expansion area employment surrounded by employment area.		No	No	0	0	60	60	389	15%	100.0%	- no, roads bordering the growth area heavily populated with rural residential development which would already limit expansion of adjacent livestock operations, MDS calculation for adjacent lands not required due to existing residential development surrounding growth area 2	Agricultural lands encompassed by urban land use subject to significant nuisance impacts, parcels too small to be economically viable for common field cash crops. Retaining lands in agriculture are of no significant benefit to agricultural land base in the City or Region.
Twenty Road East - Growth Area 3	- yes, located within the GGH agricultural land base, PPS, OMAFRA and Rural Hamilton OP policies reinforce protection of agricultural land	Majority of land in urban boundary, south portion in rural area	- cash crop (e.g., corn, soybeans, winter wheat), three active livestock operations	No	No	0	135	153	288	471	61%	100%	on inactive and one under utilized, unlikely operations will continue as livestock operations in future . No	Agricultural lands are fragmented by rural residential development but of sufficient size to provide significant contribution to agricultural land base for common field crop production.
Elfrida - Growth Area 4	- yes, located within the GGH agricultural land base, PPS and OMAFRA policies reinforce protection of agricultural land	Agricultural, small Rural	- cash crop (e.g., corn, soybeans, winter wheat)	Mushroom grower	No	52	525	389	965	1,252	77%	100%	and Golf Club Rd active horse	Large areas of prime agricultural land not significantly fragmented by rural residential development. Greatest priority for protection among the four growth areas.

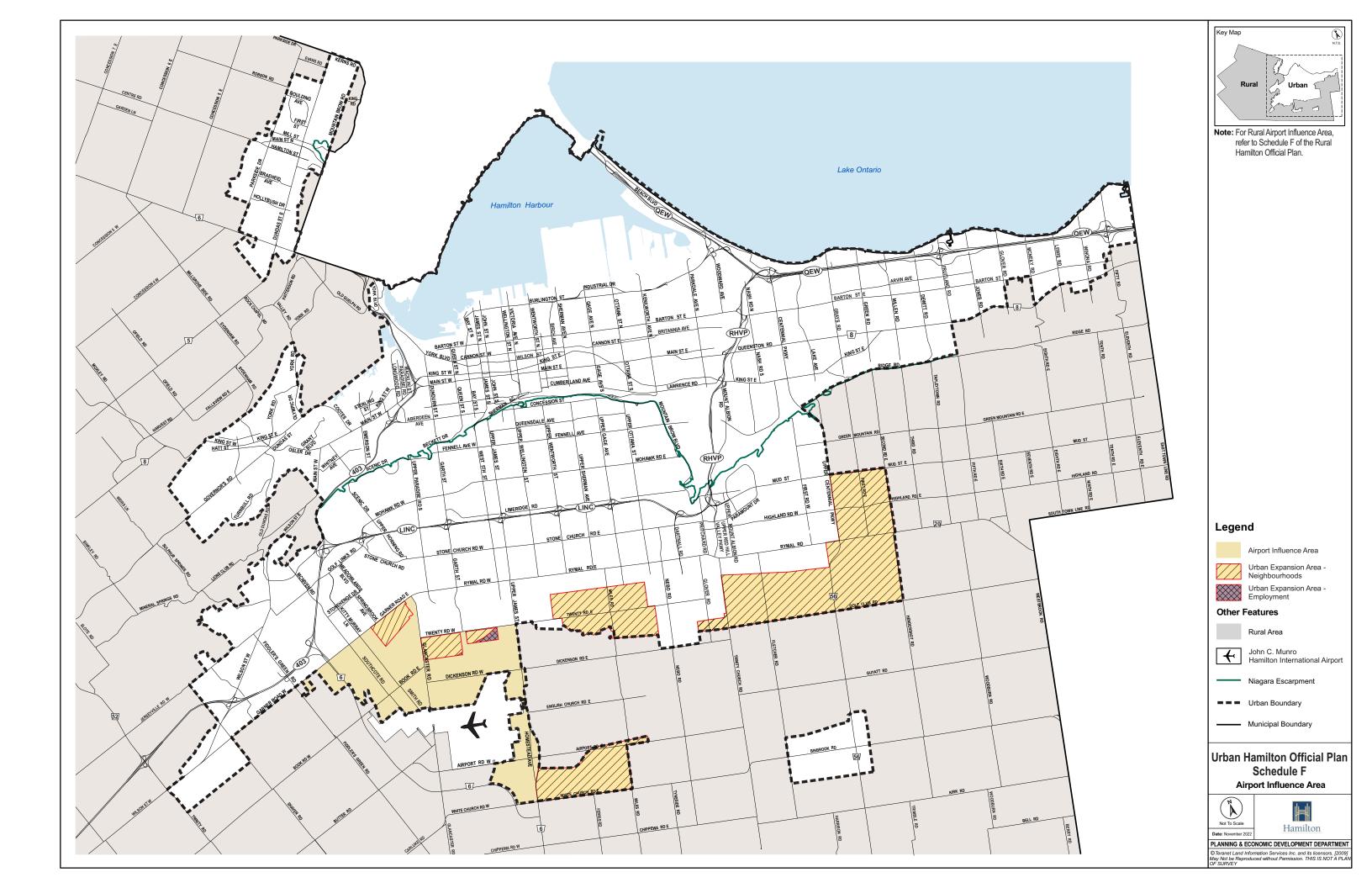


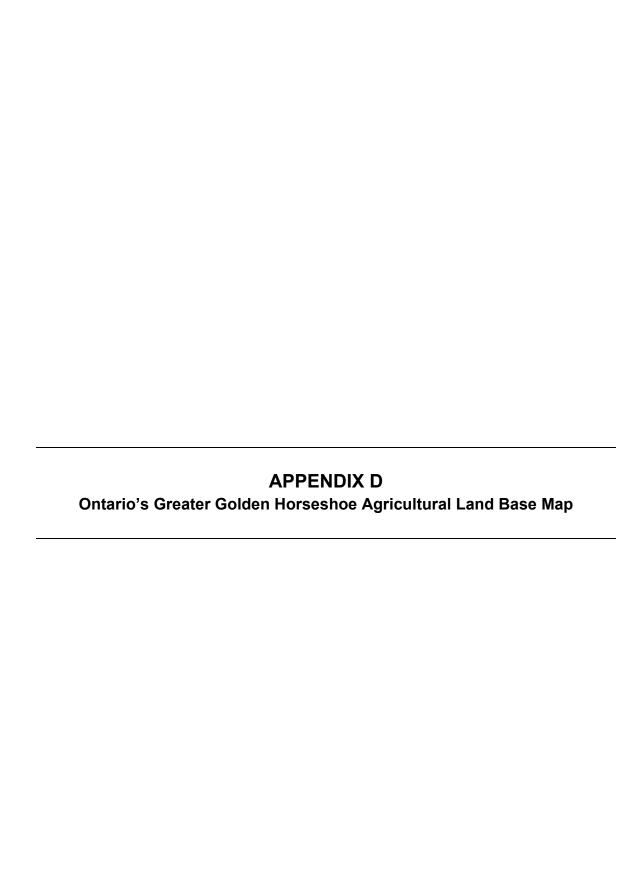




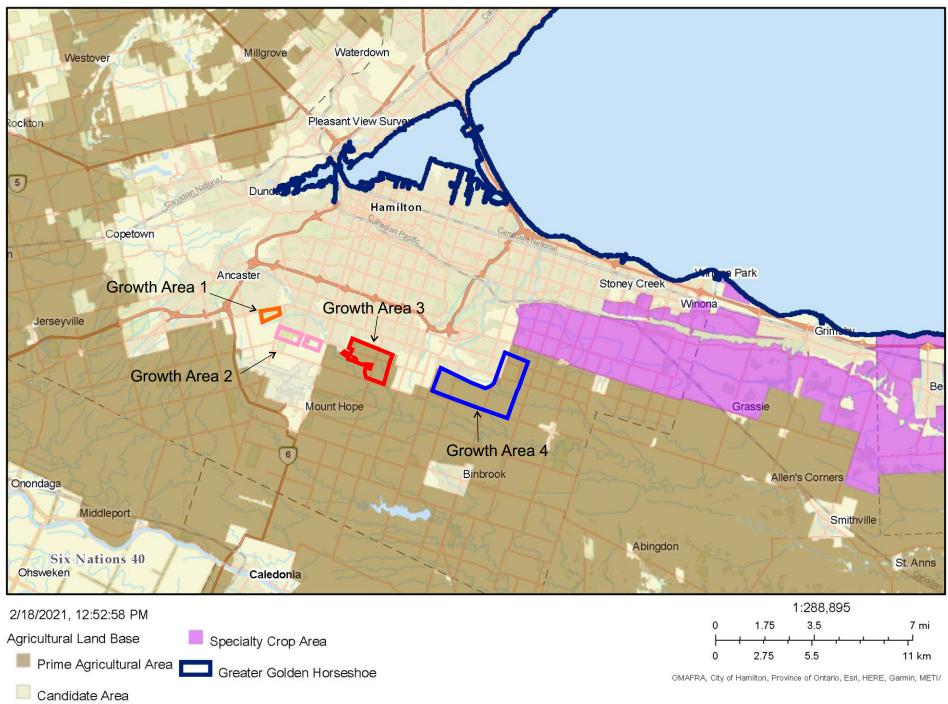


APPENDIX C Urban Hamilton Official Plan Schedule F Airport Influence Areas



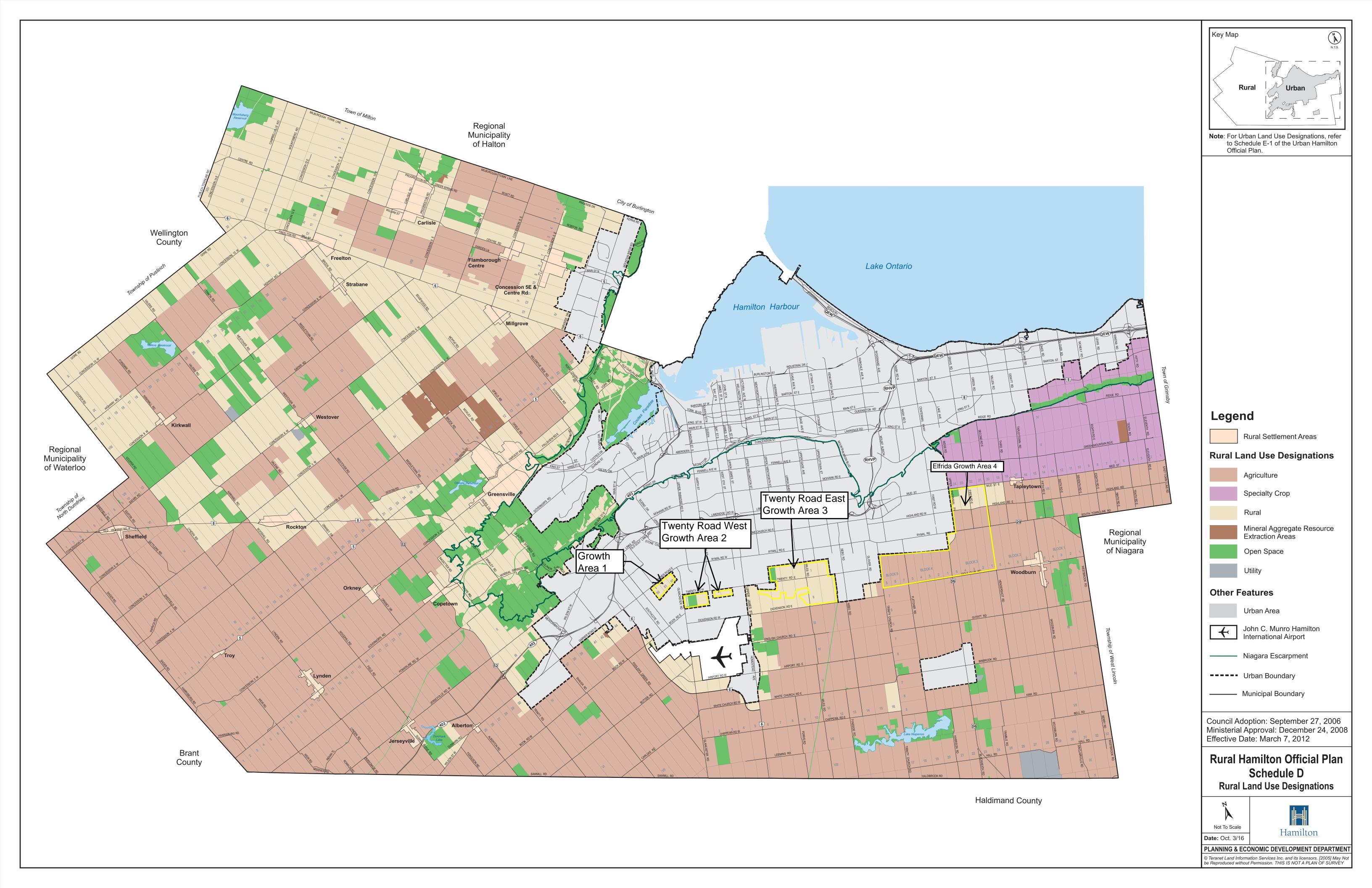


Ontario Agriculture Systems



APPENDIX E

Rural Hamilton Official Plan Schedule D Rural Land Use Designations April 2014





Ontario 😿

GRAIN CORN-CONVENTIONAL ENTERPRISE BUDGET

Revised: Jan '20

Number of Acres =

100

Return Per Acre 1 tonne = (\$3,092.71) 39.368 bushels

	Optimistic	Expected	Pessimistic
Yield - bushel/acre	179	174	134
Price - \$/bushel	6.20	4.96	2.71
Production - bushels	17900	17400	13400

Insurance Evaluation	
Production Insurance (PI)	
C.I. Premium/acre:	11.60
Level of Coverage	90%
Guaranteed Yield/acre	156.60
Probability of a payout	21.97%
Expected Payout/acre	14.06
Participate in PI? (y/n)	No

			Unit/Acre	Number	Cost/Unit	\$/Acre	\$/Year
Expenses							
Variable Cos	sts:						
Seed			M-kernel	32	3.44	110	11008
Seed Treatr	ment		ml [1	1.60	2	160
Fertilizer	#1	N	kg	68	1.248	84	8436
	#2	P_2O_5	kg	32	1.093	35	3498
	#3	K ₂ O	kg	22	0.875	19	1890
			Unit/Acre	Number	Cost/Unit	\$/Acre	\$/Year
Herbicide							
	asses and Broa	dleaf	kg or l	1	26.40	26	2640
Other Herl			kg or l	0	0.00	0	0
Other Herl	bicides		kg or l	0	0.00	0	0
Insecticides	6		kg or l	0	0.00	0	0
Fungicides			kg or l	0	0.00	0	0
Production	Insurance		Insurance	0	11.60	0	0
Program Pr	emium		ac	1	8.80	9	880
Custom Wo	ork #1	Pesticide .	Application	1	11.00	11	1100
	#2	Fertilizer /	Application	1	12.00	12	1200
Drying 8 Po	ints		tonnes	4.86	18.27	89	8883
Storage	(4 months)		tonnes	4.42	9.40	42	4155
Trucking			tonnes	4.42	9.00	40	3978
Marketing F	ees		tonnes	4.42	0.40	2	177
Other			[0	0.00	0	0

Risk Indicator	-	Coefficient of	variation	==>	0.45	High Ris
Chance of at Chance of at	least breaking e least	ven ==> 0	\$/acre return =	:=>	0% 0%	
			Total Costs		22.73	
Break-even \$/bu to cov	er:		Variable Costs Fixed Costs		3.30 19.44 	
Expected Net Revenue			-3093	-309271		
less: Fixed Costs			3382	338190		
Expected Operating Margin			289	28919		
less: Variable Costs			574	57385		
Revenues: Fotal Expected Revenues			\$/Acre 863	\$/Year 86304		
otal Fixed Costs					3382	338190
General Fixed Costs		5.8	0		6	580
Land Costs		3321	┪ ゜		3321	332100
Interest on Term Loans Long-term Leases		13.95 0	0 0		14 0	1395 0
Depreciation		41.15	0		41	4115
Fixed Costs:		Typical \$/Acre	Enterprise \$ Allocated		\$/Acre	\$/Year
Fotal Variable Costs					 574	 57385
Operating Capital	4.95	50	0		13	1286
Interest on	%int	%year	-			
General Variable Costs		0	- o		0	0
Labour		15.3	∃ ŏ		15	1530
Mach. Repair & Maint. Bldg. Repair & Maint.		27.8 0	0 0		28 0	2780 0
Fuel		37.85	0		38	3785
		\$/Acre	\$ Allocated		\$/Acre	\$/Year
		Typical	Enterprise			

Chance of at least breaking even	ven ==>	0%	
Chance of at least	0 \$/acre return ==>	0%	
Risk Indicator -	Coefficient of variation ==>	> 0.45	High Risk
Returns \$/acre	Chances of at least		
	this return per acre		
-2714	17 %		
-2925	33 %		
-3093	50 %		
-3261	67 %		
-3471	83 %		
The user of this wo	rksheet assumes all responsibility.		

For more information:
OMAFRA Agricultural Information Contact Centre ag.info.omafra@ontario.ca

1-877-424-1300

Ontario Ministry of Agriculture, Food and Rural Affairs Website