AGRICULTURAL IMPACT ASSESSMENT
FOR
CENTRE WELLINGTON SABE

PREPARED FOR:

COUNTY OF WELLINGTON

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C24032
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1. INTRODUCTION

1.1 Retainer

The County of Wellington (County) initiated a Municipal Comprehensive Review (MCR) to identify preferred SABE locations to meet projected population and employment growth by 2051. A Land Needs Assessment was completed by Watson and Associates Land Economists Ltd. (September 2022) for the County. The study determined that an additional 398 ha (984 acres) of urban lands are required to accommodate projected growth in Centre Wellington, which includes the settlement areas of Fergus and Elora. In February 2024, the County established the Urban Boundary Expansion Framework to determine how and where this growth will occur. The Urban Boundary Expansion Framework will be used to consider what lands may be feasible for urban expansion. Evaluation criteria have been established by the County to assess the urban boundary and assist in evaluating the appropriateness and suitability of lands for boundary expansion. The evaluation criteria are based on the policy tests outlined in the Growth Plan and associated Provincial and County planning documents. The overall recommendation as to whether a given candidate area is feasible for expansion will be based on the comprehensive application of all criteria.

Colville Consulting Inc. was retained by the County of Wellington on April 10, 2024, to assist the County identify potential areas for settlement area boundary expansion. This was completed in two phases. The first phase included a Minimum Distance Separation (MDS) Study to identify potential constraints for development and refine the study area for potential settlement area boundary expansion (SABE) locations. This refined area includes eight Potential Expansion Areas (PEAs), all immediately adjacent to the current settlement area boundaries of Fergus and Elora. The second phase of the study addresses the County's Agricultural Resources criteria of the Urban Boundary Expansion Framework. The Agricultural Resources criteria aim to:

- protect prime agricultural lands within the prime agricultural area;
- minimize fragmentation of contiguous prime agricultural lands;
- comply with the Minimum Distance Separation (MDS) Formulae; and
- avoid or minimize impacts to the agri-food network.

To satisfy these Agricultural Resources criteria, Colville Consulting Inc. was retained to complete an Agricultural Impact Assessment (AIA) for the PEAs in the Township of Centre Wellington. The AIA includes a comparison analysis for each of the PEAs to assist with the identification of a preferred SABE location. PEAs

1.2 Description of Proposed Development

Through a Land Needs Assessment of the County of Wellington, it was determined that the Township of Centre Wellington requires an additional 194 ha (479 acres) of Employment Area in Fergus and Elora (combined), 134 ha (331 acres) of Community Area in Fergus, and 70 ha (173 acres) of Community Area in Elora. Throughout the County's MCR process, County staff collected requests made for properties that wish to be included in SABE. The County has received requests for inclusion in SABE from 30 property owners within Centre Wellington, totalling approximately 973 ha (2,404 acres) of land. These requests were assessed by Centre Wellington staff to determine Focus Areas for SABE options. Colville Consulting Inc.

completed a Minimum Distance Separation (MDS) Study in June of 2024, which assisted in the refinement of the potential SABE locations. The Township has since modified the original eight Focus Areas, which represent the PEAs.

As shown in Figure 1, the eight PEAs have been assigned a letter from 'A' to 'H'. It is understood that portions of Areas A and H will be utilized to satisfy the Employment Area land needs, Areas B, C, D, and G will be utilized to satisfy the Fergus Community Area land needs, and Area E and Area F will be utilized to satisfy the Elora Community Area land needs.

1.3 Professional Qualifications

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

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

1.4 Purpose of Study

The vast majority of the Township of Centre Wellington, and particularly surrounding Fergus and Elora, are within a prime agricultural area. SABE will not be able to avoid prime agricultural areas. As such, an Agricultural Impact Assessment has been completed to identify the SABE's potential impacts on the area's Agricultural System. Where impacts cannot be avoided, mitigation measures have been recommended to minimize potential impacts of settlement area expansion. More detailed mitigation measures may be required following the selection of a preferred PEA.

1.5 Study Area

The *Study Area* is located within the County of Wellington's Prime Agricultural land use designation. To be consistent with the draft Agricultural Impact Assessment Guidance Document (2018), the *Study Area* should include both a *Primary Study Area* and *Secondary Study Area*. For this AIA, the *Primary Study Area (PSA)* encompasses each of the PEAs, while all lands within approximately 1.5 kilometers (1,500 m) of the PEAs comprise the *Secondary Study Area*. The area of investigation did not include lands within the existing Centre Wellington settlement area boundaries.

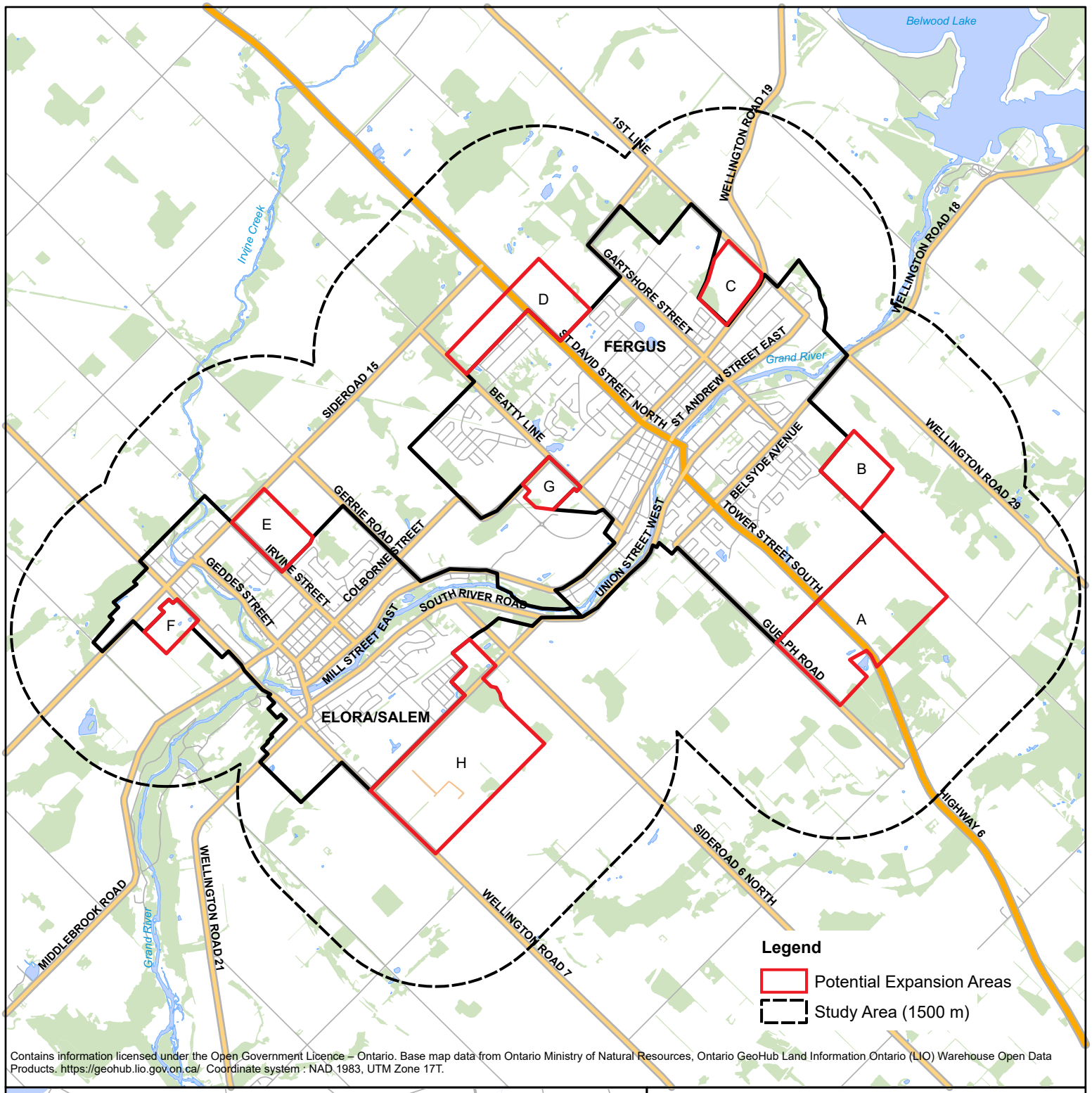

Figure 1
Location of Potential Expansion Areas

MDS for Potential Locations for Settlement Area Boundary Expansion, Centre Wellington

Prepared for: County of Wellington

Prepared by: COLVILLE CONSULTING INC.

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DATE: Sept 2024

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1.5.1 Primary Study Area

The PEAs are located in eight distinct areas surrounding the settlement area boundaries of Fergus and Elora. Schedule B1 of the County of Wellington Official Plan shows that the PEAs are designated Prime Agricultural, Core Greenlands, and Greenlands. The PEAs are also part of the Greater Golden Horseshoe and form part of the Agricultural Land Base's prime agricultural area.

PEAs are primarily in agricultural production of common field crops. There are also some areas that include natural heritage features.

1.5.2 Secondary Study Area

The *Secondary Study Area,* herein referred to as the *Study Area*, includes all lands within 1.5 km of the PEAs. Lands within the *Study Area* are primarily designated Prime Agricultural in the County of Wellington Official Plan, with smaller areas designated Core Greenlands, Greenlands, and Recreational.

The majority of the lands in the *Study Area* are in agricultural production of common field crops and also contain natural heritage features.

2. SCOPE OF STUDY

To be consistent with the Draft Agricultural Impact Assessment Guidance Document (2018), the study scope includes:

- a review of applicable agricultural policies and other background information and land use information for lands within the surrounding area (e.g., aerial photography);
- a review of data sources such as AgMaps and the Agricultural Systems Portal and OMAFRA's digital soil resource database (for soil and CLI information, parcel fabric and land fragmentation, artificial drainage, agri-food components, etc.);
- a land use survey of all lands within one and a half kilometres (1.5 km) of the PEAs and a characterization of the area;
- an assessment of the *Minimum Distance Separation (MDS)* requirements for the proposed SABE using the 2017 *MDS I formula*;
- an assessment of the level of fragmentation of agricultural lands in the *Study Area*;
- an assessment of the potential impacts of the proposed SABE on the *Agricultural System*, agricultural resources, farm operations, and the broader *agri-food network*;
- the identification of net impacts, mitigation measures and recommendations that can be implemented to avoid or minimize potential impacts;
- an assessment of the proposed SABE's consistency with agricultural policies in the *Provincial Policy Statement*, the Growth Plan for the Greater Golden Horseshoe, and the County of Wellington Official Plan; and
- the preparation of a report summarizing our findings.

It should be noted that on October 20, 2024, the Ontario government will replace the current Provincial Policy Statement (2020) and A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020) with the Provincial Planning Statement (2024). This AIA will evaluate the proposed SABE's consistency with the agricultural policies of the Provincial Planning Statement, as well as the Provincial Policy Statement and the Growth Plan.

3. METHODOLOGY

The study methodology for the AIA was prepared in accordance with the OMAFRA draft Agricultural Impact Assessment Guidance Document (2018). It includes a review of relevant provincial and municipal agricultural policies, other agricultural-related sources of information, and the completion of field inventories. Following the collection and assessment of the data, the potential impacts of the proposed SABE will be considered and recommendations to avoid and/or minimize potential impacts will be made. The AIA also assesses the proposed SABE's consistency with the provincial, and municipal agricultural policies.

3.1 Background Data Collection

Information sources reviewed for this study included:

- *Provincial Policy Statement* (2020);
- *Provincial Planning Statement* (2024);
- A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020);
- County of Wellington Official Plan and Land Use Schedules (July 2024);
- Soil Survey of Wellington County – Report No. 35 of the Ontario Soil Survey (1963);
- Wilton Consulting Group's Wellington County Agri-Food System Study (June 2023);
- OMAFRA's digital soil Resource Database to obtain soil series and CLI agricultural capability mapping and data;
- OMAFRA's The Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks. Publication 853 (2016);
- OMAFRA's Artificial Drainage Systems mapping;
- OMAFRA's AgriSuite, AgMaps, and Agri-Systems databases;
- OMAFRA's Draft Agricultural Impact Assessment (AIA) Guidance Document (2018); and
- Ortho-rectified, digital aerial photography viewed using Google Earth™.

Aerial photography covering the *Study Area* and the parcel fabric were examined to assess the presence of *non-agricultural uses*, *agricultural uses*, *agriculture-related uses*, *on-farm diversified uses*, and the level of fragmentation based on the lot fabric. The review of aerial photographic imagery provides a general impression of the agricultural activity and level of agricultural investments on the PEAs and surrounding S*tudy Area*.

3.2 Field Inventories

Field inventories were completed on May 8th, 2024, and May 15th, 2024. Field inventories included a reconnaissance level land use survey of the surrounding area to identify agricultural operations, relative level of investment in agriculture, the cropping pattern observed, and the mix of land uses within the PEAs

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

3.2.1 Land Use Survey

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

3.2.2 MDS Calculations

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

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

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

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

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

As per the MDS Guidelines, we attempted to gather information directly from the landowner/tenant. Where landowners could not be contacted or were not available, self-addressed envelopes and forms were left requesting information which would enable the calculation of MDS setback requirements at livestock operations that had the potential to create MDS constraints for the PEAs. In the absence of direct information, we used aerial photographic interpretation, professional judgement, and information provided by the municipality and locals who are knowledgeable about the area and the livestock facilities of interest. Online mapping tools, such as Google Earth® and AgMaps, were also used to determine lot sizes and barn dimensions to calculate the maximum capacity of the livestock facilities. The information

and conclusions made in Phase 1 of this study (Minimum Distance Separation Study) were relied upon for the completion of this AIA and updated accordingly with the refined PEAs.

3.3 Evaluation of the Agricultural System

An *Agricultural System* includes a continuous and productive land base, comprised of *prime agricultural areas*, including *specialty crop areas*, and *rural lands*, as well as a complementary *agri-food network* that together enable the agri-food sector to thrive. An evaluation of the *Agricultural System* and associated features within the *Study Area* was completed through reconnaissance level land use surveys on May 8th, 2024, and May 15th, 2024, a online review to assist in identifying agricultural-related features, and a review of Wilton Consulting Group's *Wellington County Agri-Food System Study*.

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

3.4 Evaluation of Alternative Locations

The *PPS* directs *settlement area* boundary expansion to avoid *prime agricultural areas*, where possible. Where *prime agricultural areas* cannot be avoided, policy directs *development* to lower priority agricultural lands. The AIA must demonstrate that there are no reasonable alternative locations which avoid *prime agricultural areas* and there are no reasonable alternative locations in *prime agricultural areas* with lower priority agricultural lands.

The County has identified potential SABE locations with a total area in excess of their additional land needs. The AIA will assess the potential SABE locations to determine locations of lower agricultural priority through a comparative analysis and will provide input on the most reasonable locations for SABE to occur, from an agricultural perspective. Given that all lands surrounding the settlement area boundaries of Fergus and Elora are part of a prime agricultural area, avoidance of prime agricultural areas will not be possible.

3.5 Evaluation of Agricultural Priority

When evaluating alternative locations, the *PPS* directs *development* to "lower priority agricultural lands". Although, the *PPS*, Growth Plan, nor other provincial planning documents do not specifically define in policy "lower priority agricultural lands", there are a number of considerations used by OMAFRA to determine the 'agricultural priority' of an area. These considerations include the criteria such as the current land use, amount of capital investment in agricultural infrastructure, amount of land under active cultivation, existing degree of lot fragmentation to the surrounding agricultural land base, and proximity to incompatible land uses such as urban and rural *settlement areas*. The AIA considers these criteria to assess the agricultural priority of the PEAs.

3.6 Identification of Potential Impacts and Mitigation Measures

Potential impacts of the proposed SABE were identified following an assessment of the agricultural resources on and adjacent to the PEAs. Direct impacts evaluated include an assessment of elements such

as the loss of *prime agricultural land*, agricultural infrastructure, land improvements, and cropland. Indirect impacts that may result from the proposed SABE were also evaluated and included an assessment of elements such as the impacts related to surficial drainage, disruption to farm operations, non-farm traffic, restricted farm access, *MDS* conflicts, hydrogeological features, trespass, and vandalism. Mitigation measures that avoid or minimize potential impacts on the *Agricultural System* are then developed.

3.7 Assessment of Consistency with Agricultural Policies

All planning decisions must be consistent with the *PPS* and comply with applicable provincial land use plans. Municipalities also have their own agricultural policies that are to be consistent with the *PPS* and to which the proposed SABE must adhere to. A background review of all applicable provincial and municipal policies relating to agriculture was undertaken. Policies applicable to the proposed SABE were identified and assessed for consistency as part of this AIA.

3.8 Pre-Consultation

The draft Agricultural Impact Assessment Guidance Document recommends that the AIA process include a pre-consultation meeting to provide invited participants the opportunity to provide relevant information that could be important to the AIA. The specific concerns of the participants can be identified during the meeting and addressed in the AIA. For this study, a meeting was held with the County's planning staff and members of the Wellington Federation of Agriculture (WFA). The concerns raised by the participants regarding the expansion of the settlement area boundaries were noted and have been incorporated into the assessment of impacts.

4. AGRICULTURAL POLICIES

4.1 Provincial Policy Statement

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

4.1.1 Prime Agricultural Areas

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

4.1.2 Policies for Removal of Land from Prime Agricultural Areas

Section 2.3.5.1 of the PPS states that "planning authorities may only exclude land from prime agricultural areas for expansion of or identification of settlement areas in accordance with policy 1.1.3.8."

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

a) *sufficient opportunities to accommodate growth and to satisfy market demand are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon;*

b) *the infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;*

c) *in prime agricultural areas:*

    1. *the lands do not comprise specialty crop areas;*

    2. *alternative locations have been evaluated, and*

        i. *there are no reasonable alternatives which avoid prime agricultural areas; and*

        ii. *there are no reasonable alternatives on lower priority agricultural lands in prime agricultural areas;*

d) *the new or expanding settlement area is in compliance with the minimum distance separation formulae; and*

e) *impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.*

The PEAs are part of a *prime agricultural* area. The proposed SABE will be assessed for consistency with Sections 1.1.3.8 and 2.3 of the PPS.

4.2 Provincial Planning Statement (2024)

In 2022, the Province initiated a review on approaches for leveraging the housing supportive policies of the *Provincial Policy Statement* and the Growth Plan, removing barriers and continuing to protect the environment through a streamlined province-wide land use planning policy framework.

The feedback received from this review contributed to the development of the *Provincial Planning Statement*. On October 20, 2024, the *Provincial Planning Statement* will come into effect and replace the policies of the *Provincial Policy Statement* and the Growth Plan.

In the event that the Provincial Planning Statement comes into effect before the County of Wellington's Municipal Comprehensive Review (MCR) is complete, the proposed SABE has been assessed for consistency with the agricultural policies of the Provincial Planning Statement.

4.2.1 Prime Agricultural Areas

Section 4.3 of the Provincial Planning Statement specifically deals with agricultural policy. Section 4.3.1.2 states that "As part of the agricultural land base, prime agricultural areas, including specialty crop areas, shall be designated and protected for long-term use for agriculture". The Provincial Planning Statement defines *prime agricultural areas* as areas where *prime agricultural lands* predominate. *Prime agricultural lands* include *specialty crop areas* and Canada Land Inventory (CLI) Classes 1, 2 and 3 soils, in this order of priority for protection. Section 4.3.2.4, Permitted Uses, states that "New land uses in prime agricultural areas, including the creation of lots and new or expanding livestock facilities, shall comply with the minimum distance separation formulae."

4.2.2 Policies for Removal of Land from Prime Agricultural Areas

Policy 4.3.4.1 of the Provincial Planning Statement states that "Planning authorities may only exclude land from prime agricultural areas for expansion of or identification of settlement areas in accordance with policy 2.3.2."

Policy 2.3.2.1 states that "In identifying a new settlement area or allowing a settlement area boundary expansion, planning authorities shall consider the following:

a) the need to designate and plan for additional land to accommodate an appropriate range and mix of land uses;

b) if there is sufficient capacity in existing or planned infrastructure and public service facilities;

c) whether the applicable lands comprise specialty crop areas;

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

e) whether the new or expanded settlement area complies with the minimum distance separation formulae;

f) whether impacts on the agricultural system are avoided, or where avoidance is not possible, minimized and mitigated to the extent feasible as determined through an agricultural impact assessment or equivalent analysis, based on provincial guidance; and

g) the new or expanded settlement area provides for the phased progression of urban development."

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

As stated above, the PEAs are part of a *prime agricultural area.* As such, the proposed SABE will be evaluated for consistency with Sections 2.3.2.1 and 4.3 of the Provincial Planning Statement.

4.3 Growth Plan for the Greater Golden Horseshoe

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

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

4.3.1 Agricultural System

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

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

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

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

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

the agricultural industry. This includes *agri-food network* features such as cold storage facilities, abattoirs, food processors, grain dryers, distribution centres, and food hubs/co-ops.

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

4.3.2 Settlement Area Boundary Expansions

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

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

f) prime agricultural areas should be avoided where possible. To support the Agricultural System, alternative locations across the upper- or single-tier municipality will be evaluated, prioritized and determined based on avoiding, minimizing and mitigating the impact on the Agricultural System and in accordance with the following:

i. expansion into specialty crop areas is prohibited;

ii. reasonable alternatives that avoid prime agricultural areas are evaluated; and

iii. where prime agricultural areas cannot be avoided, lower priority agricultural lands are used;

g) the settlement area to be expanded is in compliance with the minimum distance separation formulae;

h) any adverse impacts on the agri-food network, including agricultural operations, from expanding settlement areas would be avoided, or if avoidance is not possible, minimized and mitigated as determined through an agricultural impact assessment;"

The completion of an AIA is required for the proposed SABE through the policies of the Growth Plan. The AIA will assess the proposed SABE's consistency with Section 2.2.8 of the Growth Plan.

4.4 County of Wellington Official Plan

Schedule B1 of the County of Wellington Official Plan designates the PEAs as Prime Agricultural. Section 4.3.1 of the Official Plan states that "Prime Agricultural Areas will be identified and protected so that normal farming operations are not hindered by conflicting development."

Section 4.3.3a) outlines the requirements for settlement area boundary expansion and states that "Urban Centre or Hamlet expansions are subject to the municipal comprehensive review policies of Section 4.8 Expansion of Primary Urban Centres, Secondary Urban Centres and Hamlets.". Section 4.8.2 states in part that "A primary urban centre expansion may only occur as part of a municipal comprehensive review where it has been demonstrated that:

f) prime agricultural areas should be avoided where possible. To support the Agricultural System, alternative locations across the County will be evaluated, prioritized and determined based on

avoiding, minimizing and mitigating the impact on the Agricultural System and in accordance with the following;

a. reasonable alternatives that avoid prime agricultural areas are evaluated; and;
b. where prime agricultural areas cannot be avoided, lower priority agricultural lands are used;

g) 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;

j) the settlement area to be expanded is in compliance with the minimum distance separation formulae."

The AIA will address Section 4.3 and 4.8.2 of the County of Wellington Official Plan.

5. STUDY FINDINGS

5.1 Physiography

The PEAs are located within the Guelph Drumlin Field Physiographic Region (Chapman and Putnam, 1984). The Guelph Drumlin Field, situated around the City of Guelph and Guelph Township, spans 320 square miles and extends into parts of Hamilton-Wentworth, Waterloo, Halton, and Wellington County. This region features approximately 300 drumlins of various sizes, predominantly broad and oval in shape, with less steep slopes compared to those in Peterborough. These drumlins are formed from till that is loamy and calcareous, primarily derived from the dolostone of the Amabel Formation, and characterized by a pale brown color due to the inclusion of red shale fragments. The Guelph Drumlin Field is underlain by dolostones that dip gently southwest, with an average elevation between 1,000 and 1,400 feet above sea level. The field features parallel valleys, broad sand and gravel terraces, and swampy bottoms with sluggish tributaries of the Grand River. Eskers crossing the plain are prominent but less significant as gravel sources compared to those in the Dundalk plain.

The soils often mapped within the drumlin fields include the Guelph catena. This catena includes the well-drained Guelph Loam, imperfectly drained London Loam, and the poorly drained Parkhill Loam. The loamy surfaced soils of formed on gravel terraces are included within the Burford catena and are widely distributed in the Grand River basin. These soils are generally fertile and adaptable to various crops, though the Burford and Guelph soils can experience challenges in dry or wet conditions, respectively. Soil management practices such as tile drainage and erosion control are recommended for maintaining soil health and productivity.

5.2 Climate

Climate data is available through Environment Canada's National Climate Data and Information Archive's online database. Climate Normals and Extremes for the Fergus Shand Dam station (1981-2010) were obtained from the online database (Appendix B).

Environment Canada's Fergus Shand Dam station is located approximately 7 km from the centre of the Study Area. Records show that this area receives an average of 945.78 mm of precipitation annually; 797.8 mm of rainfall and 147.8 cm of snowfall. The daily average temperature ranges from a high of 20.0°C to a low of -7.4°C.

The Ministry of Agriculture and Food Factsheets provide data on crop production and growing seasons across Ontario. The rate of development of crops from planting to maturity is mainly dependent upon temperature. Areas within the County of Wellington 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).

On average, the last spring frost in Centre Wellington occurs on May 7th and the first fall frost is expected on October 6th. This provides the surrounding area with a growing period of approximately 151 days. The climate in Centre Wellington provides a good overall growing period that can support a wide range of crops.

5.3 Agricultural Crop Statistics

Agricultural crop statistics are available from OMAFRA and Statistics Canada's Agriculture and Food Statistics Census of Agriculture. The PEAs are located within the Census Western Ontario Region, Wellington County. Agricultural crop statistics were obtained from the online database and are included in Appendix C. This data provides a general overview of agriculture and agri-food operations in the area but is unlikely to be inclusive of all operations present at the time of this report.

The County and Township Agricultural Profile for Wellington includes data from the 2011, 2016, and 2021 census periods. The total number of farms in Centre Wellington increased from 342 in 2016 to 363 in 2021, while total cropland decreased from 54,767 acres in 2016 to 53,881 acres in 2021; a difference of 886 acres.

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

Fruit crops grown in Centre Wellington include apples, peaches, strawberries, and raspberries. These crops only represent a small area within the Township. Fruit crop acreage decreased from 34 acres in 2016 to 25 acres in 2021.

Vegetable crops grown in Centre Wellington also occupy a small area. These crops include sweet corn, tomatoes, green peas, and green or wax beans. Vegetable crop acreage decreased from 65 acres in 2016 to 60 acres in 2021.

5.4 Specialty Crop Areas

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

a) soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;

b) farmers skilled in the production of specialty crops; and

c) a long-term investment of capital in areas such as crops, drainage, infrastructure and related facilities and services to produce, store, or process specialty crops."

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

5.5 Regional Soils

5.5.1 Soil Series

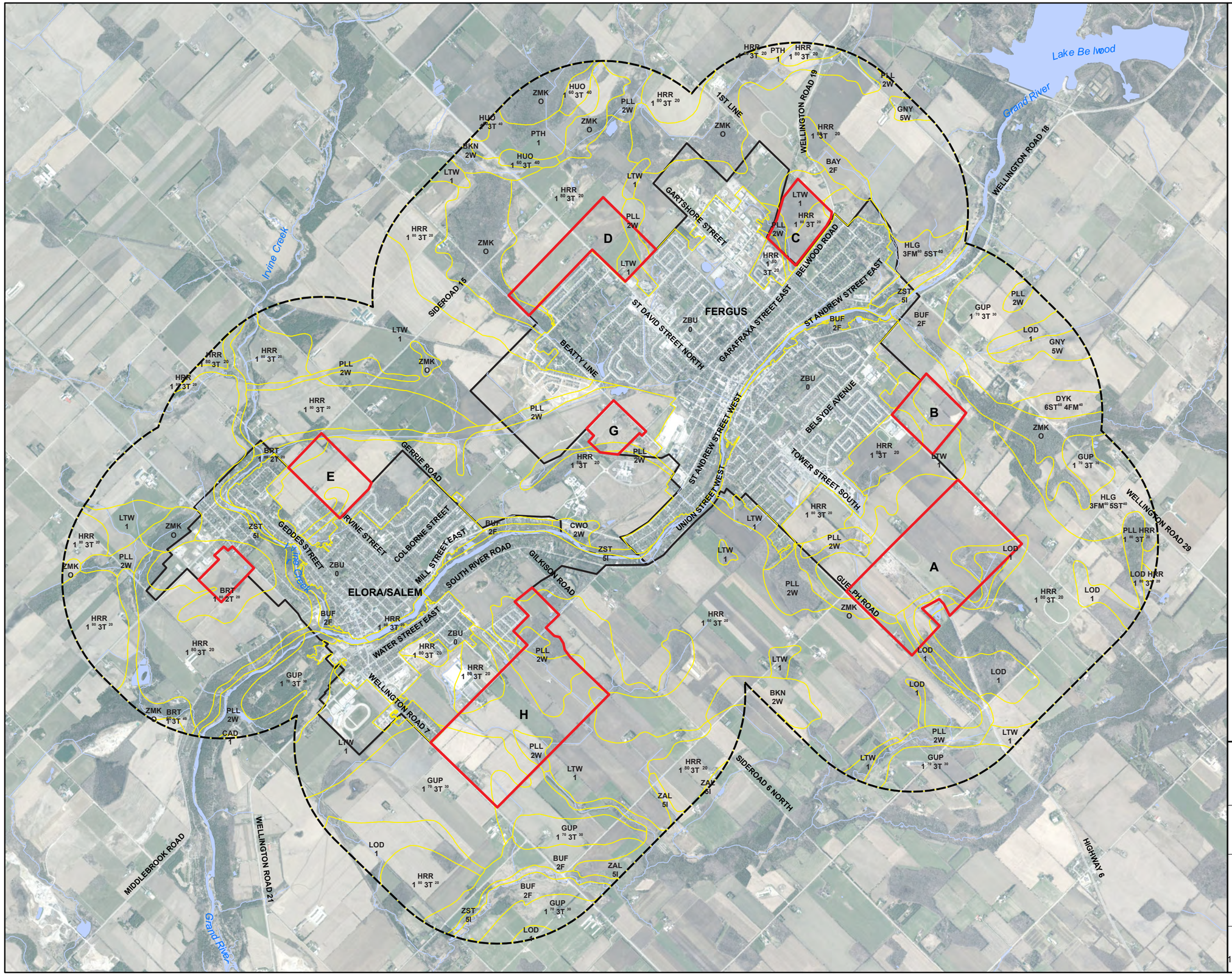
The *Soil Survey of Wellington County - No. 35* of the Ontario Soil Survey (Hoffman, D.W., Matthews, B.C., and Wicklund, R.E., 1963) includes a soil map that shows the distribution of the various soil series in the County of Wellington. The digital Provincial Soil Resource database is compiled and administered by OMAFRA and includes most of the soil surveys completed in Ontario. Much of this information is accessible from the Province's Agricultural Information Atlas. The database was accessed in August 2024.

The *Soil Survey of Wellington County* mapping shows that the soils within the eight PEAs are comprised primarily of Harriston Loam (53.47%) soils, with smaller areas of Listowel Loam (23.04%), Parkhill Loam (7.57%), Guelph Loam (6.56%), Brant Fine Sandy Loam (4.07%), London Loam (3.88%), Hillsburgh Fine Sandy Loam (0.13%), and Muck (1.13%) soils and Built Up Area (0.15%). Regional scale soil mapping is shown in Figure 2. Descriptions of the soils mapped within the PEAs is provided in Appendix D. Further breakdown of soil composition within each individual expansion area is provided in Appendix E.

5.5.2 CLI Agricultural Land Classification

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

According to the provincial database, the majority of the PEAs are mapped as CLI Class 1 lands (77.55%), with smaller areas mapped as CLI Class 2 (8.38%), Class 3 (12.74%), Class 5 (0.05%), Class 0 (0.15%), and Class O (1.13%), as shown in Figure 2. CLI Class 1 soils have no or very minor limitations for common field crop production. CLI Class 2T and 2W have moderate limitations for common field crop production due to adverse topography and excess soil moisture, respectively. CLI Class 3F, 3M, and 3T soils have moderately severe limitations for common field crop production due to adverse low natural fertility, moisture deficiency, and adverse topography, respectively. CLI Class 5S and 5T soils have very severe limitations for common field crop production due to a combination of limitations of equal severity and adverse topography, respectively. CLI Class O soils are organic soils and CLI Class 0 soils are assigned to the urban lands. Both CLI Class O and Class 0 soils are not rated (NR) by the CLI Capability system for agricultural soil. The composition of soils mapped within each PEA and their associated CLI Class are summarized in Appendix E.



Legend

- Study Area
- Potential Expansion Areas
- Soil

Soil Series Name → **BRT** ← Percentage of Area

CLI Class → $1^{60}3T^{40}$ ← CLI Subclass

SOIL SERIES

- **BRT** - Brant Fine Sandy Loam
- **GUP** - Guelph Loam
- **HLG** - Hillsburgh Fine Sandy Loam
- **HRR** - Harriston Loam
- **LOD** - London Loam
- **LTW** - Listowel Loam
- **PLL** - Parkhill Loam
- **ZBU** - Built Up Area
- **ZMK** - Muck

CLI AGRICULTURAL CAPABILITY CLASSES

Class 1 - No significant limitations in use for crops.

Class 2 - Moderate limitations that restrict the choice of crops, or require moderate conservation practices.

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

Class 5 - Very severe limitations that restrict their capability in producing perennial forage crops, and improvement practices are feasible.

Class 0 - Not placed in a capability class.

CLI AGRICULTURAL CAPABILITY SUBCLASSES

F	Low Natural Fertility	–	limitations due to soils having low natural fertlity
M	Moisture Deficiency	–	subclass where moisture holding capacity is low and are prone to droughtiness
S	Inundation	–	periodic flooding by streams or lakes
T	Topography	–	subclass where topography is a limitation
W	Excess Water	–	limited by excess soil moisture, other than brought about by inundation

Figure 2
Soil and CLI

AIA for Settlement Area Boundary Expansion, Centre Wellington

Prepared for: County of Wellington

Prepared by: COLVILLE CONSULTING INC.

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5.6 Land Use

Reconnaissance level land use surveys were completed on May 8, 2024 and May 15, 2024. The land use survey identified the number and type of agricultural operations (both existing and retired), *agriculture-related uses*, *on-farm diversified uses*, and the extent and type of *non-agricultural uses* within the *Study Area*. The crop types observed within the *Study Area* were recorded and mapped.

The purpose of the land use survey is to document the mix of agricultural and *non-agricultural uses* within the PEAs and *Study Area*; identify agricultural operations that may be sensitive to the introduction of new land uses; and identify *livestock facilities* to calculate the *MDS* setback requirements. Figures 3 though 6 show the land uses and crop types observed. Photographs from the land use surveys can be found in Appendix G. All observed land uses are numbered, and short descriptions of these operations are included in the land use survey notes in Appendix H.

Eighty-two agricultural and former *agricultural uses* were identified during the land use survey. The *agricultural uses* include seven *dairy operations*, seventeen *hobby farms*, ten beef operations, eight equestrian operations, eighteen cash crop operations, four poultry operations, fourteen *empty livestock facilities*, three *remnant* farms, and one future livestock operation. *Remnant* farms have no infrastructure that is capable of housing *livestock*, whereas *empty livestock operations* are not currently housing *livestock,* but have infrastructure that is capable of housing *livestock* with minimal investment.

One *agriculture-related use* was identified, which provides farrier services. No *on-farm diversified uses,* were observed during the land use survey and desktop review.

In addition to the approximately 25 *non-farm residences* observed (excluding the residential area within the Fergus and Elora *settlement areas*), thirty-one *non-agricultural uses* were identified within the PEAs and *Study Area*. These uses include eleven commercial uses, nine institutional uses, three industrial uses, three open space uses, four utility uses, and one research centre. Non-agricultural land uses located within the Fergus and Elora *settlement areas* were not included within the land use notes. A large number of commercial and residential uses were observed within the urban areas.

5.6.1 Agricultural Uses

The *Provincial Planning Statement* defines *agricultural uses* as: "the growing of crops, including nursery, biomass and horticultural crops; raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm buildings and structures, including, but not limited to livestock facilities, manure storages, value-retaining facilities and housing for farm workers, when the size and nature of the operation requires additional employment."

Farm types were noted and identified as either active or *retired farm operations* (e.g., *empty livestock operations*), *livestock* operations, *cash crop* operations, or *hobby farms*. *Retired farm operations* were evaluated to determine whether they should be considered an *empty livestock facility* 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.

NORTHEAST

Legend

- Potential Expansion Areas
- Study Area (1500 m)

Agricultural Uses

- Equestrian Operation
- Beef Operation
- Poultry Operation
- Dairy Operation
- Future Livestock Operation
- Empty Livestock Facility
- Hobby Farm
- Cash Crop Operation
- Remnant Farm

Non-Agricultural Uses

- Commercial
- Industrial
- Utility
- Institutional
- Open Space
- Research Centre
- Non-farm Residence

Agriculture-Related Uses

- Farrier Service

Cropping Pattern

- Corn
- Pasture/Forage
- Cultivated
- Idle
- Cover Crop
- Scrub
- Winter Wheat
- Hay
- Soy Bean

Figure 3
Land Use (Northeast)

AIA for Settlement Area Boundary Expansion, Centre Wellington

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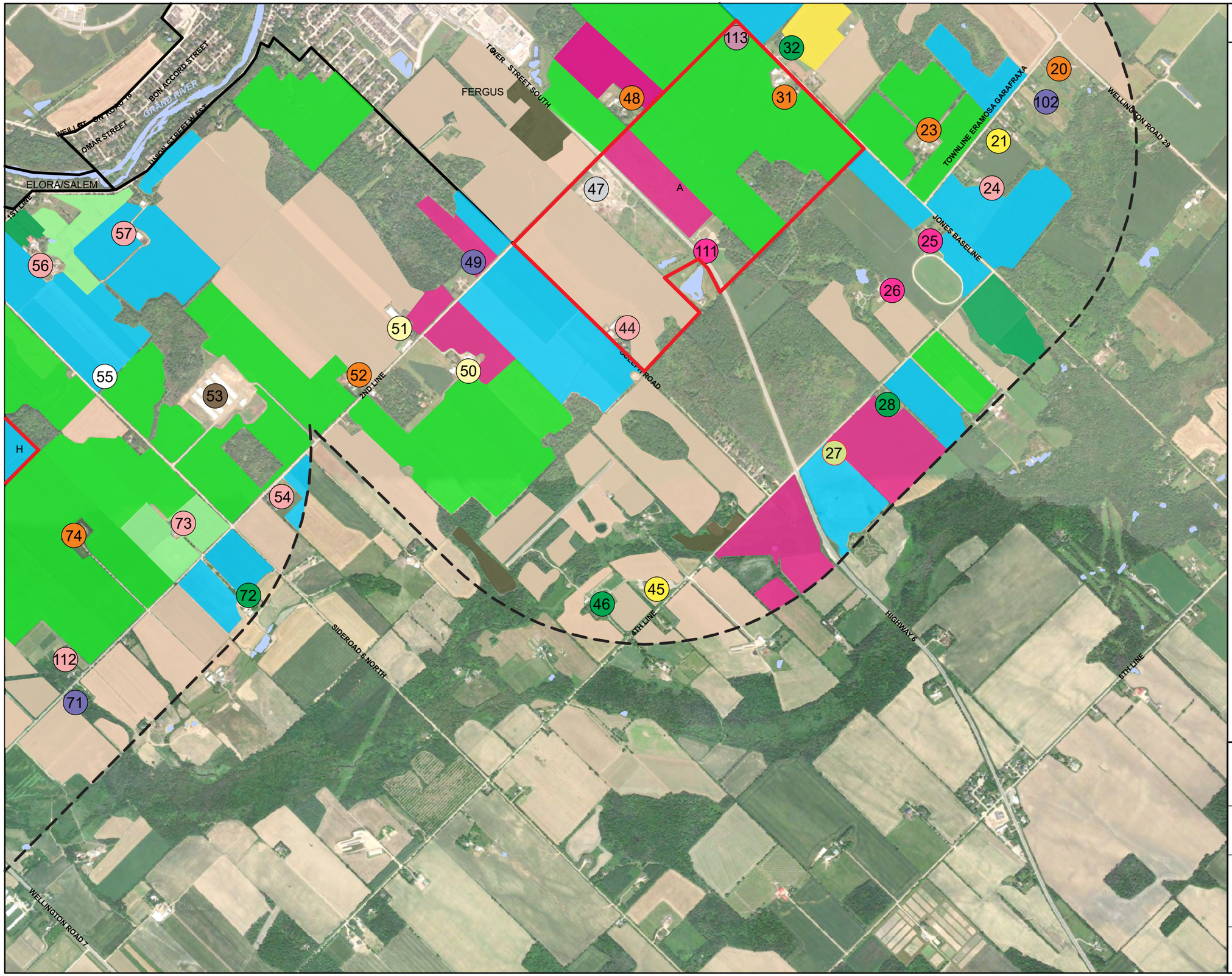

SOUTHEAST

Legend

- Potential Expansion Areas
- Study Area (1500 m)

Agricultural Uses

- Equestrian Operation
- Beef Operation
- Poultry Operation
- Dairy Operation
- Future Livestock Operation
- Empty Livestock Facility
- Hobby Farm
- Cash Crop Operation
- Remnant Farm

Non-Agricultural Uses

- Commercial
- Industrial
- Utility
- Institutional
- Open Space
- Research Centre
- Non-farm Residence

Agriculture-Related Uses

- Farrier Service

Cropping Pattern

- Corn
- Pasture/Forage
- Cultivated
- Idle
- Cover Crop
- Scrub
- Winter Wheat
- Hay
- Soy Bean

Figure 4
Land Use (Southeast)

AIA for Settlement Area Boundary Expansion, Centre Wellington

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SOUTHWEST

Legend

- Potential Expansion Areas
- Study Area (1500 m)

Agricultural Uses

- Equestrian Operation
- Beef Operation
- Poultry Operation
- Dairy Operation
- Future Livestock Operation
- Empty Livestock Facility
- Hobby Farm
- Cash Crop Operation
- Remnant Farm

Non-Agricultural Uses

- Commercial
- Industrial
- Utility
- Institutional
- Open Space
- Research Centre
- Non-farm Residence

Agriculture-Related Uses

- Farrier Service

Cropping Pattern

- Corn
- Pasture/Forage
- Cultivated
- Idle
- Cover Crop
- Scrub
- Winter Wheat
- Hay
- Soy Bean

Figure 5
Land Use (Southwest)

AIA for Settlement Area Boundary Expansion, Centre Wellington

Prepared for: County of Wellington

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NORTHWEST

Legend

Potential Expansion Areas

Study Area (1500 m)

Agricultural Uses

- Equestrian Operation
- Beef Operation
- Poultry Operation
- Dairy Operation
- Future Livestock Operation
- Empty Livestock Facility
- Hobby Farm
- Cash Crop Operation
- Remnant Farm

Non-Agricultural Uses

- Commercial
- Industrial
- Utility
- Institutional
- Open Space
- Research Centre
- Non-farm Residence

Agriculture-Related Uses

- Farrier Service

Cropping Pattern

- Corn
- Pasture/Forage
- Cultivated
- Idle
- Cover Crop
- Scrub
- Winter Wheat
- Hay
- Soy Bean

Figure 6
Land Use (Northwest)

AIA for Settlement Area Boundary Expansion, Centre Wellington

Prepared for: County of Wellington

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PEA 'A'

Three *agricultural uses* were identified within PEA 'A'. These uses include one *empty livestock facility* (#31), one equestrian operation (#111), and one *beef operation* (#44). PEA 'A' is currently *cultivated* for the production of corn and also include areas of idle lands, wooded areas, and cultivated fields where the land is being used for agricultural crops, but the specific crops being grown were not observed.

PEA 'B'

One *agricultural use* was identified within PEA 'B'. The agricultural use is an *empty livestock facility* (#29). PEA 'B' is currently *cultivated*, but the specific crops being grown were not observed.

PEA 'C'

No *agricultural uses* were identified within PEA 'C'. PEA 'C' is primarily *cultivated*, but the specific crops being grown were not observed, and contains a smaller wooded area.

PEA 'D'

Three *agricultural uses* were identified within PEA 'D'. These uses include one *empty livestock facility* (#108) and two *cash crop operations* (#106 & #107). PEA 'D' is primarily *cultivated*, but the specific crops being grown were not observed, and contains a smaller wooded area.

PEA 'E'

No *agricultural uses* were identified within PEA 'E'. PEA 'E' is currently *cultivated* for the production of common field crops, including soybeans and hay.

PEA 'F'

One *agricultural use* was identified within PEA 'F'. The agricultural use is a *hobby farm* (#83). PEA 'F' is currently *cultivated*, but the specific crops being grown were not observed.

PEA 'G'

No *agricultural uses* were identified within PEA 'G'. PEA 'G' is primarily *cultivated*, but the specific crop types were not observed. A smaller wooded area is also present.

PEA 'H'

Three *agricultural uses* were identified within PEA 'H'. These uses include three *cash crop operations* (#60, #62 & #66). PEA 'H' is currently *cultivated* for the production of common field crops including corn and soybeans, and also include areas of idle lands, wooded areas, and cultivated fields where the land is being used for agricultural crops, but the specific crops being grown were not observed.

Study Area

Within the *Study Area*, excluding the PEAs, seventy-four *agricultural uses* were identified. These thirteen cash crop operations, sixteen hobby farms, seven equestrian operations, four poultry operations, nine beef operations, seven dairy operations, eleven empty livestock facilities, three remnant farms, and one future livestock operation. The nine *empty livestock facilities* observed were determined to have barns which are capable of housing *livestock*.

5.6.2 Agriculture-Related Uses

Agriculture-related uses are farm-related commercial and industrial uses. As defined in the *PPS*, these are uses "that are directly related to farm operations in the area, support agriculture, benefit from being in

close proximity to farm operations, and provide direct products and/or services to farm operations as a primary activity". These uses may include uses such:

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

One *agriculture-related use* was identified within PEA 'A'. This use was identified as Peter Ayranto Farrier Services (#113), which provides farrier services (trimming of horses' hooves) throughout the Burlington, Campbellville, Milton, Hamilton, and Guelph areas.

No other *agriculture-related uses* were identified within the other PEAs or surrounding *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 uses* were identified within the PEAs nor *Study Area*.

5.6.4 Non-Agricultural Uses

Non-agricultural uses include *non-farm residences*, residential clusters, hamlets and *settlement areas*, municipal utilities, commercial and industrial operations, recreational uses, and institutional uses. Approximately 25 *non-farm residences* were observed throughout the PEAs and *Study Area*, excluding those within the Fergus and Elora *settlement areas*.

Excluding the *non-farm residences*, thirty-one *non-agricultural uses* were identified within the PEAs and *Study Area*. These uses include eleven commercial uses, nine institutional uses, three open space uses, three industrial uses, four utility uses, and one research centre.

One industrial use (#47) is located within PEA 'A' and two commercial uses (#78 & #68) are located within PEA 'G' and 'H', respectively. Excluding non-farm residences, no other non-agricultural uses are located within the PEAs.

5.6.5 Land Use Summary

Table 1 below summarizes the types of land uses observed within the PEAs and *Study Area*.

Table 1. Summary of Observed Land Uses			
	Total Number	**Active**	**Inactive**
Agricultural	81	Dairy Operation – 7 Hobby Farm – 17 Beef Operation – 10 Cash Crop Operation – 18 Equestrian Operation – 8 Poultry Operation – 4	Empty Livestock Facility – 13 Remnant Farm- 3 Future Livestock Operation – 1
Agriculture-Related	1	Farrier Service – 1	0
On-farm Diversified	0	0	0
	Total Number	**Type**	
Non-Agricultural	56	Commercial – 11 Industrial – 3 Utility – 4 Open Space – 3 Institutional – 9 Research Centre – 1 Non-Farm Residential - ~25	

5.6.6 Cropping Pattern

The land use surveys completed on May 8, 2024, and May 15, 2024, identified crops based on observations of crop stubble and other identifying features. As shown in Figures 3 through 6, the crops grown in the *Study Area*, outside of the Fergus and Elora *settlement areas*, are predominantly a mix of corn, soybeans, hay, winter wheat and cover crops or *cultivated* lands where land is being used for agricultural crops, but specific crops being grown were not observed. There are also areas of idle lands, scrublands, and natural heritage features.

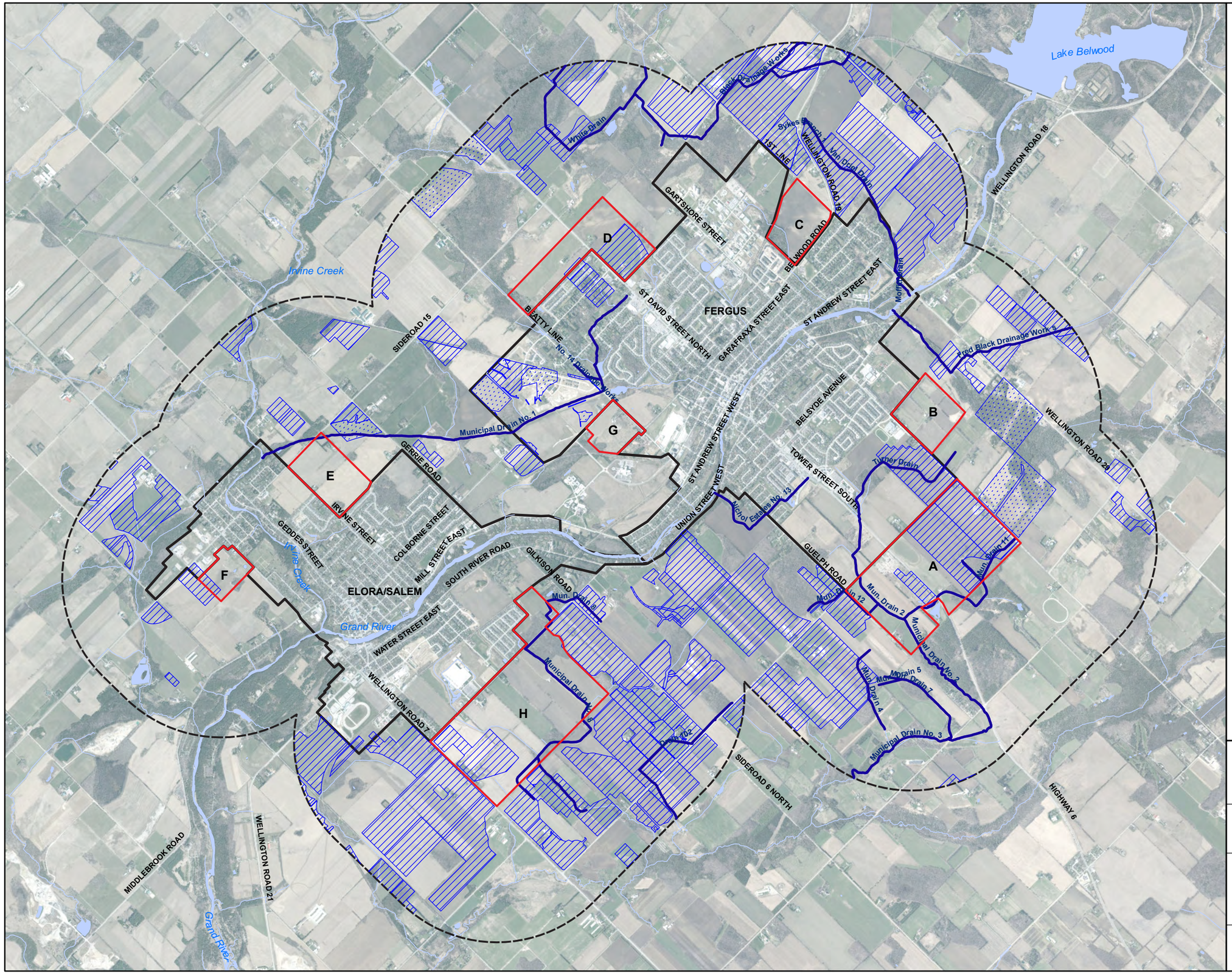
5.7 Land Improvements

OMAFRA's Agricultural Information Atlas (AgMaps) provides artificial drainage mapping for the province. This online tool was accessed to obtain drainage mapping for the *Study Area*. Figure 7 below shows the drainage improvements within the *Study Area*.

5.7.1 Drainage Improvements in PEA 'A'

According to OMAFRA's online mapping tool, AgMaps, PEA 'A' contains 75.89 ha of systematic tile drainage. The systematic tile drainage is located in the central and northeastern portions of PEA 'A'. The installation dates of the tile drainage were not available through the AgMaps Portal. No random tile drainage has been installed within PEA 'A'.

There are also three constructed drains located within PEA 'A'. Municipal Drain No. 2 and Municipal Drain No. 12 traverse the southwestern portion of the lands, while Municipal Drain No. 11 traverses the southern and eastern portions of the lands.



Legend

- Study Area (1500 m)
- Potential Expansion Areas
- Tile Drainage - Random
- Tile Drainage - Systematic
- Constructed Drain

Figure 7
Land Improvements

AIA for Settlement Area Boundary Expansion, Centre Wellington

Prepared for: County of Wellington

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5.7.2 Drainage Improvements in PEA 'B'

According to AgMaps, there are no systematic tile drainage, random tile drainage, nor constructed drains installed within PEA 'B'.

5.7.3 Drainage Improvements in PEA 'C'

According to AgMaps, there are no systematic tile drainage, random tile drainage, nor constructed drains installed within PEA 'C'.

5.7.4 Drainage Improvements in PEA 'D'

According to AgMaps, PEA 'D' contains 19.80 ha of systematic tile drainage. The systematic tile drainage is located in the southern and southeastern portions of PEA 'D'. The installation dates of the tile drainage were not available through the AgMaps Portal.

There are no random tile drainage installations, nor constructed drains, located within PEA 'D'.

5.7.5 Drainage Improvements in PEA 'E'

According to AgMaps, there are no systematic, nor random tile drainage installations within PEA 'E'. One constructed drain is located within PEA 'E', Municipal Drain No. 1, which traverses the northern corner on the lands.

5.7.6 Drainage Improvements in PEA 'F'

According to AgMaps, PEA 'F' contains 10.33 ha of systematic tile drainage. The systematic tile drainage is located in the western portion of the lands. No random tile drainage installations, nor constructed drains, are located with PEA 'F'.

5.7.7 Drainage Improvements in PEA 'G'

According to AgMaps, there are no systematic tile drainage, random tile drainage, nor constructed drains installed within PEA 'G'.

5.7.8 Drainage Improvements in PEA 'H'

According to AgMaps, PEA 'H' contains 27.64 ha of systematic tile drainage. The systematic tile drainage is located in the western portion of PEA 'H'. The installation dates of the tile drainage were not available through the AgMaps Portal. No random tile drainage has been installed within PEA 'H'.

There is also one constructed drain located within PEA 'H'. The constructed drain is Municipal Drain No. 8, which traverse the southern, eastern, and northern portions of the lands.

5.7.9 Drainage Improvements in Study Area

Large areas of both random and systematic tile drainage are installed within the *Study Area*. These tile drainage installations are located throughout the entire Study Area, with a higher concentration of drainage located in the southern, eastern, and northern portions of the Study Area. Installation dates of the tile drainage were not available through the AgMaps Portal.

There are also eighteen separate constructed drains present within the *Study Area*.

5.7.10 Other Land Improvements

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

5.8 Fragmentation of Agricultural Lands

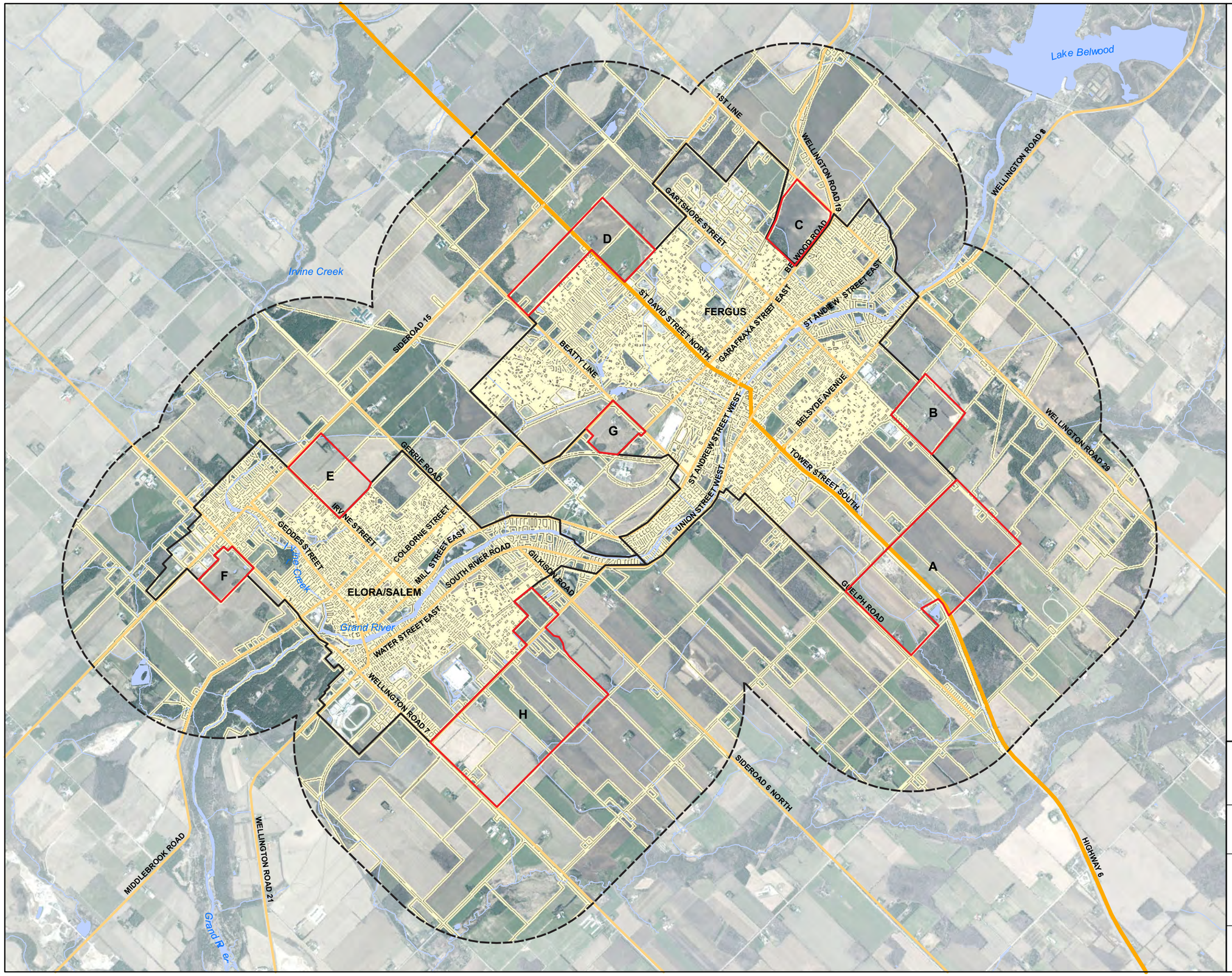
Fragmentation of agricultural lands can have a negative impact on the viability of agricultural lands and its long-term preservation for agricultural purposes. Fragmentation of farmlands can diminish the economic viability of the agricultural area by reducing farming efficiency and increasing operating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

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

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

Based on our review of the lot fabric in the *Study Area* using AgMaps and direct observation, there is a mix of parcel sizes ranging from single residential (< 1 ha) to large agricultural sized parcels (>60 ha). The PEAs are immediately adjacent to the current Fergus and Elora *settlement areas*, which has been developed for a number of *non-agricultural uses*. The lands within the *Study Area* have a relatively high level of fragmentation and have a high occurrence of *non-agricultural uses*. The eventual *development* of the PEAs for *non-agricultural land uses* will lead to further fragmentation of the already fragmented agricultural land base in this area.

It should be noted that a number of parcels within the Study Area are not suitably sized for a variety of *agricultural uses*. While some fragmentation is evident within the Study Area, it is not considered to be a highly fragmented area, as there are also a considerable number of parcels that are suitably sized for a variety of *agricultural uses*. The eight PEAss exhibit similar levels of fragmentation, when compared to one another. The level of fragmentation in the Study Area is shown in Figure 8 below.



Study Area (1500 m)

Potential Expansion Areas

Fragmentation

Figure 8
Fragmentation

AIA for Settlement Area Boundary Expansion, Centre Wellington

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5.9 Minimum Distance Separation

5.9.1 Application of MDS

As previously mentioned, the *MDS formulae* only apply to lands outside of *settlement areas*. The PEAs are part of the County of Wellington's *prime agricultural area* and are designated "Prime Agricultural". Therefore, we have applied the *MDS I formula* to the *livestock facilities* identified in the *Study Area*.

The *MDS I formula* was applied to all *livestock facilities,* that are capable of housing livestock, observed within 1,500 m of the PEAs. The factors used to determine the *MDS I* setback requirements for these facilities include: the type of *livestock*; the maximum capacity of the barn for *livestock*; the type of *manure storage* system; and the type of land use proposed.

With regards to the type of land use proposed, the MDS recognizes two land use types: Type A (less sensitive) and Type B (more sensitive). Type B land uses generally have a higher density of human occupancy, habitation, or activity. The MDS Guidelines consider the proposed SABE to be a Type B land use, which has a higher potential for generating nuisance complaints. MDS I setback distances for Type B land uses are twice that of the setback for Type A land uses.

The remaining factors required to calculate the *MDS* setbacks were determined through field observations recorded during the land use survey, aerial photographic interpretation, information provided by the municipality and locals who are knowledgeable about the area and the livestock facilities of interest, and site-specific information provided by landowners, where possible. When a landowner could not be contacted, self-addressed envelopes and forms were left requesting information which would enable us to calculate the *MDS* setback requirements at *livestock* operations that had the potential to create *MDS* constraints for the PEAs.

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.

The following are relevant MDS guidelines for settlement area boundary expansion.

#1. Referencing MDS in Municipal Planning Documents
In accordance with the Provincial Policy Statement, 2014, this MDS Document shall apply in prime agricultural areas and on rural lands. Consequently, the appropriate parts of this MDS Document shall be referenced in municipal official plans, and detailed provisions included in municipal comprehensive zoning by-laws such that, at the very least, MDS setbacks are required in all designations and zones where livestock facilities and anaerobic digesters are permitted.

The County of Wellington recognizes the PEAs as being part of a *prime agricultural area*. As such, the *MDS formulae* must be applied for the proposed settlement area boundary expansion. Section 4.8.2 j) of the County of Wellington Official Plan states that a primary urban centre expansion must demonstrate that "the settlement area to be expanded is in compliance with the minimum distance separation formulae."

#2. For What, and When is an MDS Setback Required?
The MDS I setback distances shall be met prior to the approval of: proposed lot creation in accordance with Implementation Guidelines #8 and #9; rezonings or re-designations in accordance with Implementation Guideline #10; building permits on a lot which exists prior to March 1, 2017 in accordance with Implementation Guideline #7; and as directed by municipalities for local approvals for agriculture-related uses or on-farm diversified uses in accordance with Implementation Guideline #35. The information used to carry out an MDS I calculation must reflect the circumstances at the time that the municipality deems the planning or building permit application to be complete.

The proposed SABE will require the PEAs to be redesignated for non-agricultural land uses. Therefore, the calculation of MDS I setback distances is required for the proposed SABE.

#6. Required Investigation Distances for MDS
A separate MDS I setback shall be required to be measured from all existing livestock facilities and anaerobic digesters on lots in the surrounding area that are reasonably expected by an approval authority to be impacted by the proposed application. As part of municipal consideration of planning or building permit applications, all existing livestock facilities or anaerobic digesters within a 750 m distance of a proposed Type A land use and within a 1,500 m distance of a proposed Type B land use shall be investigated and MDS I setback calculations undertaken where warranted. In circumstances where large livestock facilities (e.g., >1,200 Nutrient Units) exist beyond the 750 m or 1,500 m study area, MDS I setbacks from these facilities should also be calculated.

As discussed above, the proposed SABE is considered to be a Type B land use. Therefore, all existing livestock facilities or anaerobic digesters with 1,500 m of the PEAs were investigated and MDS I setback calculations completed, where warranted.

#10. MDS I Setbacks for Zoning By-Law Amendments and Official Plan Amendments
An MDS I setback is required for all proposed amendments to rezone or redesignate land to permit development in prime agricultural areas and rural lands presently zoned or designated for agricultural use. This shall include amendments to allow site-specific exceptions which add non-agricultural uses or residential uses to the list of agricultural uses already permitted on a lot, but shall exclude applications to rezone a lot for a residence surplus to a farming operation (e.g., to a rural residential zone) in accordance with Implementation Guideline #9 above. Amendments to rezone or redesignate land already zoned or designated for a non-agricultural use, shall only need to meet the MDS I setbacks if the amendment(s) will permit a more sensitive land use than existed before. In other words, if the proposal is to change an existing Type A land use (e.g., industrial use outside of a settlement area) to a Type B land use (e.g., commercial) in accordance with Implementation Guidelines #33 and #34, then an MDS I setback shall be required.

The PEAs must be redesignated in the County of Wellington Official Plan to permit the proposed SABE. Guideline #10 of the MDS Document requires the application of the MDS formulae to redesignate land in a prime agricultural area for development.

#12. Existing Uses that Do Not Conform to MDS

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

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

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

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

Guideline #12 can be used to reduce the calculated MDS setbacks for Operations #11. This operation has at least four non-agricultural uses or dwellings within a 120° field of view between the closest part of the PEAs or dwelling and the nearest livestock facility and/or manure storage system associated with the operation.

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

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

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

Within the Study Area, there are multiple farm operations with more than one barn located on the same property. Therefore, MDS I setback calculations were based on the combined design capacity of all livestock barns on a lot and applied to the livestock facility nearest to the PEAs.

#34. Type B Land Uses (More Sensitive)

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

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

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

As discussed above, the proposed settlement area boundary expansion is considered to be a Type B land use. Therefore, MDS I setbacks have been calculated for a Type B land use, which generates an MDS I setback that is twice that of a Type A land use.

#36. Non-Application of MDS Within Settlement Areas

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

MDS I setbacks have been calculated and mapped for all manure storages and livestock facilities capable of housing livestock within the PEAs and Study Area. However, if the proposed SABE is approved, the PEAs will be within an approved settlement area boundary and MDS setbacks will no longer apply.

#40. Measurement of MDS Setbacks for Development and Dwellings

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

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

As discussed above, MDS I setback distances shall be applied to the shortest distance between the PEAs (i.e., nearest Focus Area) and the manure storages or livestock occupied portions of the livestock facility.

5.9.2 MDS Results

The information collected during the land use survey and interpretation of aerial photography was entered into OMAFRA's AgriSuite Software and used to generate the MDS setback distance for a Type B Land Use (expanding settlement area boundary). For ease of viewing and interpretation, the Study Area has been sub-divided into four quadrants (i.e., northeast, southeast, southwest, and northwest). The MDS I setbacks

have been calculated and mapped for all manure storage systems and livestock facilities capable of housing livestock within the Study Area, as shown in Figures 9 through 12 below. These figures also identify areas of encroachment that the calculated MDS I setbacks have on the PEAs.

As per the MDS Guidelines, information for each livestock operations was collected directly from the landowner of the operation, where possible. Where this was not possible, we relied on observations from the land use survey, aerial photographic interpretation, and mapping software to calculate lot size and barn dimensions. Within Figures 9 through 12, MDS setback arcs are mapped with solid lines for operations where information was gathered directly from the landowner of the operation, and dashed lines when the information could not be confirmed. When the information for MDS I calculations could not be obtained from landowners, a 'worst-case' MDS I setback arc (i.e., larger setback) was applied to the operation. This worst-case scenario is based on observations and the assumption of the most likely type of livestock and manure facilities. Barn capacity is calculated using the outside dimensions of the facility using on-line measuring tools.

The *MDS I formula* was applied to fifty-seven *livestock operations*, which are capable of housing *livestock*, observed within 1,500 m of the PEAs. The MDS I setbacks for Operation #11 can be reduced due to the presence of four or more non-agricultural land uses within the intervening area. With the reduced setback, the MDS I setback for Operation #11 does not encroach into the PEAs.

Figures 9 through 12 shows that Operations #36, #50, #59, #67, and #69 all generate MDS I setbacks that encroach into the PEAs. These operations encroach 0.38 ha into PEA 'A', 2.88 ha into PEA 'D', and 13.34 ha into PEA 'H'. Operations which are located within one of the eight PEAs have not been included in the encroachment area calculations, as the MDS setbacks of these operations will no longer apply if the lands are brought into the settlement area. However, the MDS I setbacks for operations within the PEAs have been calculated and mapped in the event that the lands are not included in SABE. All other manure storages and livestock facilities identified within the Study Area are well removed from the PEAs and do not create any MDS I related constraints to SABE. The MDS I Reports generated by the MDS I software are provided in Appendix I.

NORTHEAST

Legend

- Potential Expansion Areas
- Study Area (1500 m)

Agricultural Uses

- Equestrian Operation
- Beef Operation
- Poultry Operation
- Dairy Operation
- Future Livestock Operation
- Empty Livestock Facility
- Hobby Farm
- Cash Crop Operation
- Remnant Farm

Non-Agricultural Uses

- Commercial
- Industrial
- Utility
- Institutional
- Open Space
- Research Centre
- Non-farm Residence

Agriculture-Related Uses

- Farrier Service

MDS I Setbacks

- Livestock Facility (Confirmed)
- Manure Storage (Confirmed)
- Livestock Facility (Unconfirmed)
- Manure Storage (Unconfirmed)
- Area of Constraint

*Note: If PEA is selected for inclusion within settlement area, MDS I setbacks will no longer apply

Figure 9
MDS Mapping (Northeast)

AIA for Settlement Area Boundary Expansion, Centre Wellington

Prepared for: County of Wellington

Prepared by: COLVILLE CONSULTING INC.

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1:20,000

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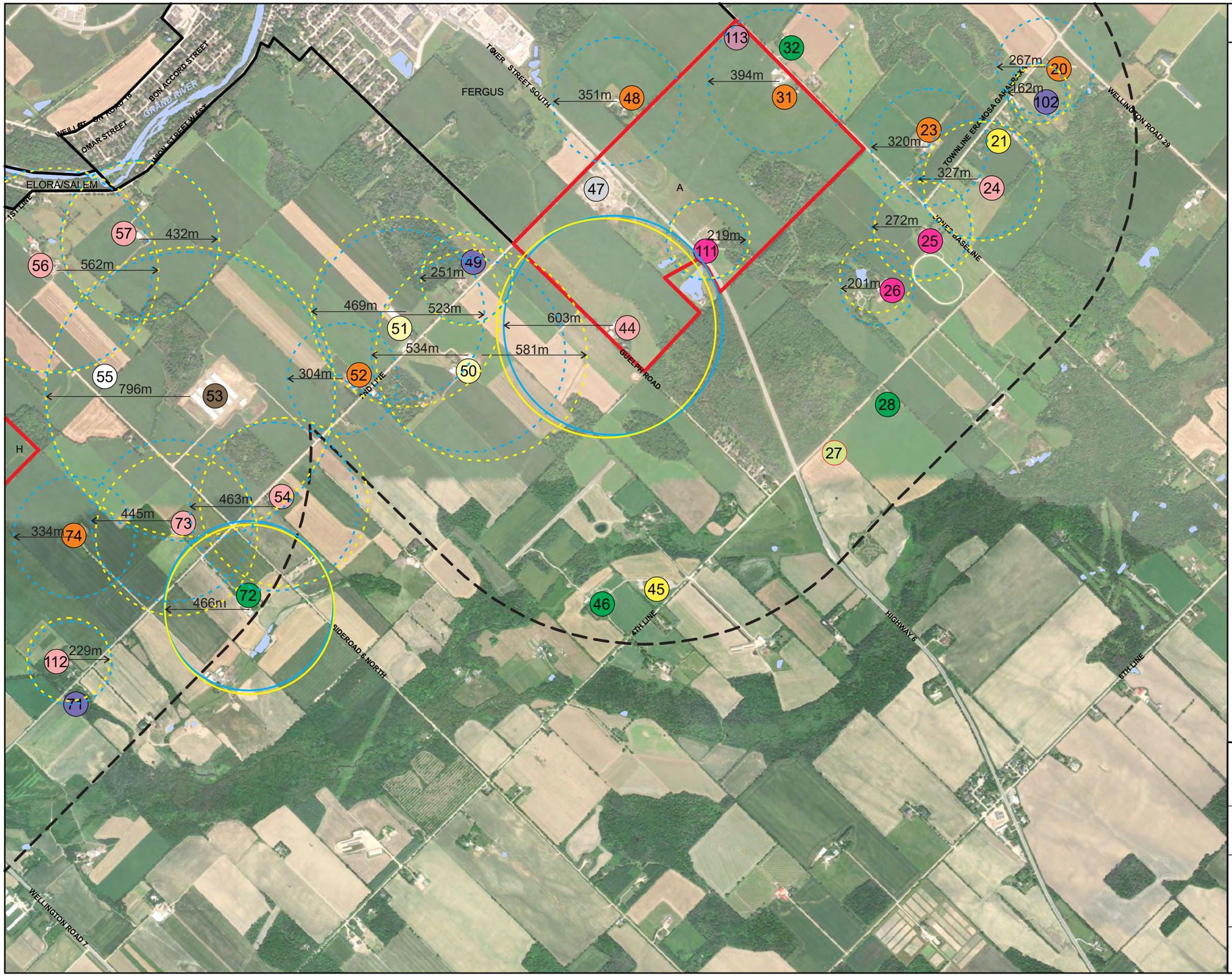
DATE: Sept 2024

FILE: C24032



SOUTHEAST

Legend

- Potential Expansion Areas
- Study Area (1500 m)

Agricultural Uses

- Equestrian Operation
- Beef Operation
- Poultry Operation
- Dairy Operation
- Future Livestock Operation
- Empty Livestock Facility
- Hobby Farm
- Cash Crop Operation
- Remnant Farm

Non-Agricultural Uses

- Commercial
- Industrial
- Utility
- Institutional
- Open Space
- Research Centre
- Non-farm Residence

Agriculture-Related Uses

- Farrier Service

MDS I Setbacks

- Livestock Facility (Confirmed)
- Manure Storage (Confirmed)
- Livestock Facility (Unconfirmed)
- Manure Storage (Unconfirmed)
- Area of Constraint

*Note: If PEA is selected for inclusion within settlement area, MDS I setbacks will no longer apply

Figure 10
MDS Mapping (Southeast)

AIA for Settlement Area Boundary Expansion, Centre Wellington

Prepared for: County of Wellington

Prepared by: COLVILLE CONSULTING INC.

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DATE: Sept 2024

FILE: C24032

SOUTHWEST

Legend

- Potential Expansion Areas
- Study Area (1500 m)

Agricultural Uses

- Equestrian Operation
- Beef Operation
- Poultry Operation
- Dairy Operation
- Future Livestock Operation
- Empty Livestock Facility
- Hobby Farm
- Cash Crop Operation
- Remnant Farm

Non-Agricultural Uses

- Commercial
- Industrial
- Utility
- Institutional
- Open Space
- Research Centre
- Non-farm Residence

Agriculture-Related Uses

- Farrier Service

MDS I Setbacks

- Livestock Facility (Confirmed)
- Manure Storage (Confirmed)
- Livestock Facility (Unconfirmed)
- Manure Storage (Unconfirmed)
- Area of Constraint

*Note: If PEA is selected for inclusion within settlement area, MDS I setbacks will no longer apply

Figure 11
MDS Mapping (Southwest)

AIA for Settlement Area Boundary Expansion, Centre Wellington

Prepared for: County of Wellington

Prepared by: COLVILLE CONSULTING INC.

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1:20,000

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DATE: Sept 2024

FILE: C24032

NORTHWEST

Legend

- Potential Expansion Areas
- Study Area (1500 m)

Agricultural Uses

- Equestrian Operation
- Beef Operation
- Poultry Operation
- Dairy Operation
- Future Livestock Operation
- Empty Livestock Facility
- Hobby Farm
- Cash Crop Operation
- Remnant Farm

Non-Agricultural Uses

- Commercial
- Industrial
- Utility
- Institutional
- Open Space
- Research Centre
- Non-farm Residence

Agriculture-Related Uses

- Farrier Service

MDS I Setbacks

- Livestock Facility (Confirmed)
- Manure Storage (Confirmed)
- Livestock Facility (Unconfirmed)
- Manure Storage (Unconfirmed)
- Area of Constraint

*Note: If PEA is selected for inclusion within settlement area, MDS I setbacks will no longer apply

Figure 12
MDS Mapping (Northwest)

AIA for Settlement Area Boundary Expansion, Centre Wellington

Prepared for: County of Wellington

Prepared by: COLVILLE CONSULTING INC.

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1:20,000

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DATE: Sept 2024

FILE: C24032

5.10 Economic and Community Benefits of Agriculture

Identifying the economic and community benefits associated with agriculture in the *Study Area* is an important consideration and informs the impacts associated with the proposed SABE. The agriculture and agri-food sector is one of the largest primary goods producing sectors and plays a large role in the Township of Centre Wellington and the County of Wellington economies. According to Census of Agriculture data, the total number of farms in the County of Wellington increased from 2,348 in 2016, to 2,617 in 2021. The Township of Centre Wellington also observed an increase in farm numbers, with data showing 342 in 2016 and 363 farms in 2021. These farms employ residents from the County and Township, contributing economically to the area and supporting the *agri-food network*.

As of 2021, the agriculture, forestry, fishing and hunting industry employed approximately 4,565 individuals within the County of Wellington, which is an increase from the 4,250 individuals employed in 2016. The Township of Centre Wellington observed a similar increase in individuals employed by the agriculture, forestry, fishing and hunting industry, with data showing the industry employed 555 individuals in 2016 and 650 individuals in 2021. Within the County of Wellington, there were approximately 4,593 agri-food businesses in 2023, with 778 of these businesses located within the Township of Centre Wellington. Both County of Wellington and the Township of Centre Wellington have experienced an increase in agri-food businesses from 2021 to 2023.

As of 2021, of the 363 total farms within the Township of Centre Wellington, 14 farms were valued under $200,000, 3 farms were valued between $200,000 and $499,999, 41 farms were valued between $500,000 and $999,999, and 305 farms were valued $1,000,000 and over. Over the past three census periods, the number of farms valued at $1,000,000 and over has increased, with the number of farms valued under $1,000,000 decreasing.

The County of Wellington's population is expected to grow by approximately 61% by 2051, putting noticeable pressure on its farmland. The current settlement areas of Fergus and Elora will be unable to accommodate the expected population growth that has been allocated to the Township. As a result, the settlement area will require expansion into the agricultural land base. The County and Township support a thriving agricultural and agri-food sector, and special consideration for maintaining these thriving industries must be given when determining where expansion should occur.

With the implementation of mitigation measures to minimize indirect impacts on surrounding farm operations and choosing expansion areas which will have the least impact on agriculture, it is expected that impacts from the proposed SABE will have a negligible impact on the *Agricultural System* in the area.

6. CONSULTATIONS

On August 1, 2024, Colville Consulting Inc., along with Sarah Wilhelm of the County of Wellington, met with three members of the Wellington Federation of Agriculture (WFA). During this meeting, the WFA members outlined their concerns regarding the potential impacts on the Agricultural System associated with the proposed SABE.

The WFA members' concerns were primarily related to the loss of prime agricultural lands and cultivatable lands; increases in non-farm traffic which may impact the agri-food system's transportation network; and the loss of agricultural investments (e.g., agricultural infrastructure, artificial drainage, etc.).

These issues are dealt with in the subsequent sections of this report.

7. ASSESSMENT OF AGRICULTURAL PRIORITY

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

The PEAs are located within the County of Wellington's *prime agricultural area*; therefore, an assessment of the agricultural priority of the PEAs is required to be consistent with OMAFRA's draft Agricultural Impact Assessment Guidance Document. This analysis involves an assessment of whether the lands are part of a *specialty crop area*, the soil capability relative to other lands within the *Study Area*, the level of investment in agricultural infrastructure and land improvements, the parcel size, presence of existing *non-agricultural uses*, ability to minimize potential conflict (e.g., meeting the *MDS I* setback requirements), and the zoning of the parcel. These factors will be used to assist in determining the most preferred locations for settlement area expansion through a comparative analysis of all PEAs in Section 9 of this report.

8. ASSESSMENT OF ALTERNATIVE LOCATIONS

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

8.1 Provincial Policy

Section 2.3.5.1 of the Provincial Policy Statement states that "planning authorities may only exclude land from prime agricultural areas for expansion of or identification of settlement areas in accordance with policy 1.1.3.8."

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

a) *sufficient opportunities to accommodate growth and to satisfy market demand are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon;*

b) *the infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;*

c) *in prime agricultural areas:*

    1. *the lands do not comprise specialty crop areas;*

    2. *alternative locations have been evaluated, and*

        i. *there are no reasonable alternatives which avoid prime agricultural areas; and*

        ii. *there are no reasonable alternatives on lower priority agricultural lands in prime agricultural areas;*

d) *the new or expanding settlement area is in compliance with the minimum distance separation formulae; and*

e) *impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.*

The Provincial Planning Statement has similar policies for identifying new or expanding settlement areas, and also requires the assessment of alternative locations. As mentioned previously, all lands surrounding the Fergus and Elora settlement areas are part of a *prime agricultural area*. Therefore, settlement area boundary expansion in Centre Wellington will not be able to avoid *prime agricultural areas* and alternative locations must be evaluated to identify any lower priority agricultural lands.

8.2 Evaluation of Alternative Locations

The County of Wellington initiated a Municipal Comprehensive Review (MCR) to identify preferred SABE locations to meet projected population and employment growth by 2051. Through a Land Needs Assessment, it was determined that Centre Wellington requires an additional 194 ha (479 acres) of

Employment Area in Fergus and Elora (combined), 134 ha (331 acres) of Community Area in Fergus, and 70 ha (173 acres) of Community Area in Elora. The overall land needs to accommodated Centre Wellington's projected growth is approximately 398 ha.

The County of Wellington, together with the Township of Centre Wellington, identified eight PEAs based on requests made by landowners for inclusion in SABE and the feasibility of servicing the PEAs. The eight PEAs are approximately 591.43 ha in size, combined. Given that the PEAs encompass approximately 193 ha of excess land than required to accommodate growth, the consideration of public input as to where expansion should occur, and the feasibility of servicing the PEAs, this AIA will not evaluate additional lands outside of the PEAs for SABE in Centre Wellington. Instead, this AIA will provide a comparative analysis of the eight PEAs and rank each location based on their agricultural priority to determine the most preferred locations for SABE, from an agricultural perspective.

9. ASSESSMENT OF IMPACTS TO AGRICULTURE

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

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

9.1 Direct Impacts

9.1.1 Prime Agricultural Lands

The PEAs are approximately 591.43 ha (1,461.46 acres) in size, of which approximately 583.58 ha are *prime agricultural lands*. *Development* of these lands will lead to the loss of the *prime agricultural lands*. However, the PEAs are approximately 193 ha larger than the area required to accommodated forecasted population growth in the Township of Centre Wellington. As such, the proposed SABE will consume a maximum of 398 ha of *prime agricultural* lands. To mitigate this loss, *development* should be phased, and *prime agricultural lands* should be kept in agricultural production until the land is needed for development.

9.1.2 Agricultural Infrastructure

Eleven agricultural operations and one *agriculture-related use* with agricultural infrastructure have been identified within the PEAs. Of the eight PEAs, five contain agricultural infrastructure. Depending on which PEAs are included within the SABE. it is expected that SABE will likely result in the loss of some of the infrastructure associated with these operations. It is unlikely that SABE will be able to avoid all investments in agricultural infrastructure. To mitigate this loss, PEAs which contain fewer investments in agricultural infrastructure should be prioritized. Additionally, *development* should be phased and the agricultural infrastructure should be left in place until the land is to be developed.

9.1.3 Agricultural Land Improvements

The PEAs contain approximately 133.66 ha of systematic tile drainage. The *development* of land requires the removal of artificial drainage. SABE in Centre Wellington will not be able to avoid the loss of at least a portion of the systematic tile drainage. To mitigate this loss, PEAs with less area of systematic tile drainage installations should be prioritized when selecting SABE locations. *Development* of the PEAs will result in the loss of a portion of this agricultural investment, but it will have a negligible impact on the local *Agricultural System*.

9.1.4 Loss of Crop Land

The PEAs are primarily *cultivated* for the production of common field crops, but also contain large portions of natural heritage areas and idle lands. The future *development* of the PEAs will result in the loss of these cultivatable lands. To mitigate this loss, lands should be left in agricultural production until the lands are to be developed and lands that are not utilized for crop production should be prioritized when finalizing where SABE in Centre Wellington should occur.

9.2 Indirect Impacts

Potential impacts to adjacent farm operations and farm practices are considered to be indirect impacts. These would include changes to the surface drainage that could impact adjacent lands, disruption to farm traffic and access to adjacent agricultural fields, instances of trespass and vandalism, and conflicts arising from farm odour and other nuisance complaints often received by farmers in close proximity to *non-agricultural uses*.

9.2.1 Disruption to Surficial Drainage

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

9.2.2 Disruption to Farm Operations

Most active agricultural operations in the *Study Area* are well removed from the PEAs and are unlikely to experience any form of disruption to their operations. Access points to farm operations should be identified and construction activity should ensure that access to farmlands is maintained at all times. It is unlikely that there will be a negative impact on farm operations due to the proposed SABE.

The proposed SABE will have no impact on the flexibility of surrounding lands to accommodate changes in types of farming for most PEAs. PEA 'A' and 'H' have agricultural operations located in close proximity to the expansion area boundaries. To ensure adjacent lands will be able to continue or expand their operations, or change the type of farming operation, lands which have agricultural operations located further away from the PEAs should be prioritized when finalizing SABE locations.

New non-agricultural *development* may have an impact on the existing farm wells, irrigation ponds, and ponds or other waterbodies used to provide *livestock* with sources of water in the surrounding area. A Hydrogeological Study should be prepared with consideration of potential impacts on agricultural wells and water sources. It is anticipated that the Hydrogeological Study will provide recommendations to mitigate impacts if impacts to these water sources occur.

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

9.2.3 Trespass and Vandalism

Farm operations within the *Study Area* may already have to deal with the potential for trespass and vandalism due to the proximity of the Fergus and Elora *settlement areas* and the abundance of *non-agricultural uses* in the surrounding area. People walking their pets in farmer's fields, crossing and damaging fences, and rutting fields with dirt bikes and all-terrain vehicles are all examples of trespass and vandalism that may occur. As a result of the potential increase in urban population and construction

activities, there is also a chance that debris (litter) can end up in farmer's fields. Establishing buffers, fencing, and other edge planning techniques should be considered to minimize impacts.

9.2.4 Minimum Distance Separation

The *MDS I* setback requirements have been calculated for all *livestock operations* capable of housing *livestock* in the *Study Area*. PEAs 'B', 'C', 'E', 'F', and 'G' have no development constraints related to the MDS and should be prioritized for SABE. The remaining PEAs have one or more MDS I setback requirements which encroach into the lands. Should these lands be brought into the settlement area, the MDS I setbacks will no longer apply and development would comply with the *MDS I formula* at such time. Lands with the fewest MDS I constraints should be prioritized for SABE.

9.2.5 Transportation Impacts

The proposed SABE is expected to generate in increase in non-farm traffic in the area. Construction/roadwork activities in the area have also led to an increase in non-farm traffic to a number of arterial roads used by farm operations for the moving of farm equipment and agricultural products. To ensure transportation impacts are minimized, a Traffic Impact Study should be prepared for the future *development* and recommendations outlined in that study to minimize impacts on farm operations should be adhered to minimize potential impacts.

9.2.6 Economic and Community Impacts

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

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

9.3 Implementation of Edge Planning Techniques

The agricultural/urban interface (AUI) is typically the area where farm operations are negatively impacted the most. When *settlement area* boundary expansion is being proposed, some consideration should be given to minimizing the length of the AUI. Edge planning techniques should be considered along the newly created AUI.

The *Guide to Edge Planning: Promoting Compatibility Along Agriculture-Urban Edges* (2015) developed by the British Columbia Ministry of Agriculture and Lands provides a basis for achieving compatibility where agricultural and urban uses interface. *Edge Planning: Strategies for Rural and Urban Interface* (2015) developed by MHBC for the Peel Agricultural Advisory Working Group provides a review of case study examples, methods and recommendation for addressing the mitigation of conflict where *settlement areas* and *prime agricultural areas* interface. These guides recognize and address the potential negative impacts that agricultural and *non-agricultural uses* can have on one another and presents options to prevent such impacts. Edge planning techniques to reduce potential impacts on farmers and non-farmers are discussed below.

9.3.1 Subdivision Design: Density, Road, and Lot Patterns

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

9.3.2 Building Design and Layout

Building setbacks from the AUI can help create separation between agricultural and urban land uses. The urban-side of the AUI should consider a setback distance, rear-yard for housing, and green spaces to provide physical separation from the farmlands. Setbacks could include space for a wide, vegetated buffer. There is a range of recommended building setback distances from the AUI depending on the type of land use. The recommended setback distance from the AUI is 15 metres for commercial or industrial land uses, 30 metres for residential land uses, and 90 metres for institutional land uses.

9.3.3 Open Space and Landscape Design

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

9.3.4 Urban-Side Buffer Design

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

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

The height of the vegetative buffer should exceed 6 metres at plant maturity to create an effective vegetative screen and capture more dust and spray drift between agricultural and urban land uses. A good vegetative

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

9.3.5 Trail System

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

9.4 Summary of Impacts

The potential direct and indirect impacts identified are summarized in Table 2 along with the potential degree of impact, mitigation measures to avoid or minimize the potential impact, and the resulting anticipated impact. It should be noted that the net impacts associated with the proposed SABE cannot be fully determined until final SABE locations have been determined. Following refinement of the PEAs to the final proposed SABE, a more fulsome assessment of impacts may be required through an addendum to this AIA.

Table 2. Summary of Impacts			
Potential Impact	**Relative Degree of Impact**	**Mitigation Measure**	**Anticipated Net Impact**
Direct Impacts			
Loss of *prime agricultural land*	High	• Consider phasing *development* to allow for continued cultivation until lands are required for *development*.	Eventual loss of approximately 398 ha of *prime agricultural lands*
Loss of agricultural infrastructure	Moderate	• Consider phasing *development* to allow agricultural operations until lands are required for *development*. • Choose SABE locations which have fewer investments in agricultural infrastructure.	Eventual loss of agricultural infrastructure from chosen expansion areas
Loss of agricultural land improvements	Low	• None required	Loss of systematic tile drainage within chosen expansion areas
Loss of cropland	High	• Consider phasing *development* to allow for continued cultivation until lands are required for *development*. • Choose SABE locations with areas of idle or disturbed lands first for SABE	Eventual loss of cultivatable land within chosen expansion areas
Indirect Impacts			
Surficial Drainage	Low	• Prepare a Grading Plan and Stormwater Management Plan. • Implement recommendations if impact identified.	No impact anticipated
Disruption to Farm Operations	Low	• Ensure that access to farm operations and farm fields is maintained at all times.	No significant impact anticipated
Non-farm traffic	Low	• Traffic Impact Study to assess potential impacts. • Implement recommendations if impact identified.	No significant impact anticipated

Table 2. Summary of Impacts

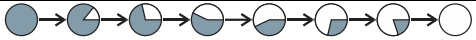
Potential Impact	Relative Degree of Impact	Mitigation Measure	Anticipated Net Impact
Trespass, Vandalism, and Stray Pets	Low	• Implement edge planning techniques to minimize conflicts along the agricultural and urban interface. • If trespass and unintended damage to farm fencing, machinery, crops, etc. become a problem for neighbouring farm operations, place signage reminding residents that farm lands are private and that trespassing is prohibited.	No significant impact anticipated
Noise, Dust & Light	Low	• Adhere to Ministry of the Environment and Climate Change (MOECC) guidelines	No Impact
Conflict with *MDS formulae*	Low	• None required. SABE can comply with MDS Formulae • Choose SABE locations that have no encroachment of MDS I setbacks	No Impact
Economic	Low	• None required	No significant impact
Wells, Irrigation, water bodies	Low	• Completion of Hydrogeological Study to identify potential impacts. • Implement recommendations if impact identified.	No impact anticipated

10. COMPARATIVE ANALYSIS OF PEAS

The information gathered throughout this AIA was used to compare the eight PEAs to determine which potential SABE locations are most preferred, from an agricultural perspective. The comparative analysis can be found in Table 3 below. The table identifies the most and least preferred locations for SABE in Centre Wellington based on the degree of impact associated with the removal of the lands from the agricultural land base. As shown in Table 3, the least preferred location for inclusion in SABE is PEA 'H' and the most preferred location is PEA 'G'. It is understood that the Township of Centre Wellington will require SABE to occur in at least a portion of multiple PEAs to meet the land needs of the expected population growth. The comparative analysis and their respective preferences for SABE, from an agricultural perspective, should be used in determining the final SABE locations.

It is understood that the County of Wellington and Township of Centre Wellington would prefer to allocate Employment Growth Areas to PEAs 'A' and 'H'. As shown in the table below, these locations will have the greatest impact to the Agricultural System and careful consideration should be given to these areas when determining the final SABE locations to ensure compliance with the MDS I formula and to ensure surrounding agricultural operations are not hindered in the future. However, it is understood that there are limited alternative locations for the allocation of Employment Growth Area land needs due to special servicing and land use compatibility requirements.

Table 3. Comparative Analysis of PEAs						
	Vegetative Cover	**Land Improvements**	**MDS I Constraints**	**Potential for MDS II Constraints**	**CLI %**	**Agricultural Infrastructure**
PEA 'A' (overall*)	Primarily cultivated with disturbed area and natural heritage area	75.89 ha of systematic tile drainage, 3 constructed drains	0.38 ha constrained by MDS I setbacks	4 agricultural operations potentially unable to change/expand operations due to SABE	CLI Class 1 (72.89%), CLI Class 2 (9.66%), CLI Class 3 (14.81%), and Not Rated (2.64%) lands.	7 barns, 1 implement shed, 1 Quonset hut
PEA 'B' (overall)	Primarily cultivated	No drainage improvements	None	1 agricultural operation potentially unable to change/expand operation due to SABE	CLI Class 1 (86.87%), CLI Class 3 (12.97%), and Not Rated (0.16%) lands.	1 barn
PEA 'C' (overall)	Primarily cultivated and a small natural heritage area	No drainage improvements	None	None	CLI Class 1 (76.97%), CLI Class 2 (12.05%), CLI Class 3 (10.15%), and CLI Class 5 (0.83%) lands.	None
PEA 'D' (overall)	Primarily cultivated and a small natural heritage area	19.80 ha of systematic tile drainage	2.88 ha constrained by MDS I setbacks	3 agricultural operations potentially unable to change/expand operations due to SABE	CLI Class 1 (72.47%), CLI Class 2 (7.83%), CLI Class 3 (15.74%), and Not Rated (3.96%) lands.	3 barns, 1 implement shed, 1 Quonset hut
Most Preferred for SABE: → → → → → → → **Least Preferred for SABE**						

Table 3. Comparative Analysis of PEAs						
PEA 'E'  (overall)	Primarily cultivated 	1 constructed drain 	None 	None 	CLI Class 1 (81.39%), CLI Class 2 (3.47%), and CLI Class 3 (15.14%) lands. 	None 
PEA 'F'  (overall)	Primarily cultivated and a large idle area 	10.33 ha of systematic tile drainage 	None 	1 agricultural operation potentially unable to change/expand operation due to SABE 	CLI Class 1 (80.00%), CLI Class 2 (19.74%), and CLI Class 3 (0.26%) lands. 	1 barn 
PEA 'G'  (overall)	Primarily cultivated with disturbed area and natural heritage area 	No drainage improvements 	None 	None 	CLI Class 1 (69.16%), CLI Class 2 (13.54%), and CLI Class 3 (17.30%) lands. 	None 
PEA 'H'  (overall*)	Primarily cultivated and a small natural heritage area 	27.64 ha of systematic tile drainage, 1 constructed drain 	13.34 ha constrained by MDS I setbacks 	4 agricultural operations potentially unable to change/expand operations due to SABE 	CLI Class 1 (81.64%), CLI Class 2 (7.77%), CLI Class 3 (10.48%), and Not Rated (0.11%) lands. 	1 barn, 3 implement sheds 
Most Preferred for SABE:  **Least Preferred for SABE**						

*Employment Growth Areas have special locational requirements due to servicing and land use compatibility issues. Although both Employment Growth Areas (PEA 'A' and 'H') are the least preferred expansion locations, from an agricultural perspective, it is understood that these locations represent the most appropriate locations for allocating Employment Growth Area land needs.

11. CONSISTENCY WITH AGRICULTURAL POLICIES

11.1 Provincial Policy Statement

County of Wellington Official Plan shows the PEAs within the County's *prime agricultural area.* The proposed development will comply with the *MDS formulae* and recommendations have been made to mitigate the potential impacts of the settlement area expansion. The proposed SABE is occurring at the time of a municipal comprehensive review. SABE of Centre Wellington will be unable to avoid prime agricultural areas and alternative locations have been evaluated to determine areas of lower agricultural priority. The proposed SABE will be able to comply with the MDS I formula and does not conflict with the agricultural policies of the *PPS*.

In the event that the Provincial Planning Statement is implemented prior to the completion of the municipal comprehensive review, the agricultural policies of the *PPS* will not be applicable, as the Provincial Planning Statement will replace the *PPS* and the Growth Plan.

11.2 Provincial Planning Statement

The Provincial Planning Statement has similar policies for SABE compared to the Provincial Policy Statement. The primary difference in policy is that SABE may occur outside of a municipal comprehensive review, and an agricultural impact assessment is required when prime agricultural areas cannot be avoided. This report fulfills the need to complete and AIA and the proposed SABE does not conflict with the agricultural policies of the Provincial Planning Statement.

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

The PEAs are located within the Greater Golden Horseshoe and form part of the Agricultural Land Base. This AIA has assessed the potential impacts on the Agricultural System associated with the proposed SABE and has provided mitigation measures to avoid or minimize the identified impacts. The proposed SABE. Therefore, the proposed SABE is consistent with the agricultural policies of the Growth Plan.

In the event that the Provincial Planning Statement is implemented prior to the completion of the municipal comprehensive review, the agricultural policies of the Growth Plan will not be applicable, as the Provincial Planning Statement will replace the Provincial Policy Statement and the Growth Plan.

11.4 County of Wellington Official Plan

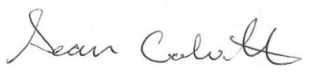
The County of Wellington recognizes the PEAs as being part of its *prime agricultural area.* The proposed SABE of Centre Wellington comes at the time of a municipal comprehensive review and SABE will not be able to avoid prime agricultural lands. Reasonable alternative locations have been evaluated to identify lower priority agricultural lands and MDS I setback requirements have been calculated for all livestock facilities and manure storages within the Study Area. This AIA identified the potential impacts associated with the proposed SABE and has provided mitigation measures to avoid or minimize the identified impacts. Therefore, the proposed SABE is consistent with the agricultural policies of the County of Wellington Official Plan.

12. CONCLUSION

This AIA has identified and described the agricultural resources and farm operations within the PEAs and *Study Area*. The PEAs have been compared to identify the most preferred locations for where SABE should occur. It was determined that PEA 'G' is the most preferred location, while PEA 'H' is the least preferred location. The comparative analysis in Section 9 of this report should be used when determining the allocation of land needs for SABE to be consistent with provincial and municipal policies for identifying lower priority agricultural lands. Given that SABE locations have not been finalized, the net impact of the proposed SABE cannot be determined definitively. However, the potential impacts associated with the proposed SABE have been assessed and we have determined the following:

1. The PEAs are part of a *prime agricultural area.* Avoidance of *prime agricultural areas* for the land needs identified for SABE is not possible;
2. Potential direct impacts of the proposed SABE include the loss of *prime agricultural land*, lands cultivated for agricultural crops, investments in tile drainage, and investments in farm infrastructure;
3. Mitigation measures have been provided to minimize potential impacts to the extent feasible. The net indirect impacts will be negligible with the implementation of the recommended mitigation measures;
4. The proposed SABE has the ability to be consistent with the agricultural policies of the Provincial Policy Statement, Provincial Planning Statement, Growth Plan, and County of Wellington Official Plan; and
5. The proposed SABE can comply with the *MDS I* formulae and is consistent with PPS policy 1.1.3.8 d) and e).

Respectfully submitted by:



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13. GLOSSARY OF TERMS

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

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

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

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

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

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

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

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

Cultivated: - means lands that have recently been under active agricultural production, however, depending on the season or growth stage of the crop during the land use survey or through aerial photographic interpretation the crop type could not be determined.

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

Development: - means the creation of a new lot, a change in land use, or the construction of buildings and structures, requiring approval under the Planning Act; but does not include activities that create or maintain infrastructure authorized under an environmental assessment process; or works subject to the Drainage Act.

Dwelling:* - Any permanent building that is used, or intended to be used, continuously or seasonally, as a domicile by one or more persons and usually containing cooking, eating, living, sleeping, and sanitary facilities.

Empty livestock facility/operation: - A livestock barn that does not currently house any livestock, but that housed livestock in the past and continues to be structurally sound and reasonably capable of housing livestock.

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

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

Livestock:* - includes dairy, beef, swine, poultry, horses, goats, sheep, 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.

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

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

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

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

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

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

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

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

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

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

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

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

Prime agricultural land:* - means land that includes *specialty crop lands* and/or Canada Land Inventory Class 1, 2 and 3 soils, in this order of priority for protection.

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

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

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

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

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

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

a. built up areas where development is concentrated and which have a mix of land uses, and

b. lands which have been designated in an official plan for development over the long-term planning horizon provided for in policy 1.1.2of the PPS. In cases where land in designated growth areas is not available, the settlement area may be no larger than the area where development is concentrated.

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

Specialty crop area:* - means areas within the agricultural land base designated based on provincial guidance. In these areas, specialty crops are predominantly grown such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops and crops from agriculturally developed organic soil., usually resulting from:

a. soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;

b. farmers skilled in the production of specialty crops; and

c. a long-term investment of capital in areas such as crops, drainage, infrastructure and related facilities and services to produce, store, or process specialty crops.

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

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

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

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APPENDIX A

Curriculum Vitae

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

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EDUCATION

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

PROFESSIONAL AFFILIATIONS

Ontario Institute of Agrology
Agricultural Institute of Canada

POSITIONS HELD

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

EXPERIENCE

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

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

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

Agricultural Impact Assessments and Alternative Site Studies

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

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

Recent examples of Sean Colville's agricultural work include:

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

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EDUCATION

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

PROFESSIONAL AFFILIATIONS

Eco Canada – Environmental Professional in Training

POSITIONS HELD

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

EXPERIENCE

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

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

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

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

ADDITIONAL TRAINING AND WORKSHOPS

Standard First Aid, CPR C, AED – St. John's Ambulance (2023)
Windmill Safety Training – Stantec Inc (2022)
Workplace Hazardous Materials Information System
Natural Gas Pipeline Safety Training – TC Energy (2022)
Excavation Safety Training – TC Energy (2022)
Supervisor (Level 2) Ground Disturbance Training (2022)

APPENDIX B

Climate Normals Data

Climate Normals 1981-2010 Station Data

Metadata including Station Name, Province or Territory, Latitude, Longitude, Elevation, Climate ID, WMO ID, TC ID							
STATION_NAME	PROVINCE	LATITUDE	LONGITUDE	ELEVATION	CLIMATE_ID	WMO_ID	TC_ID
*FERGUS SHAND DAM	ON	43°44'05.088" N	80°19'49.098" W	417.6 m	6142400		
* 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)	-7.4	-6.3	-1.9	5.7	12.2	17.5	20	19	14.9	8.3	2.1	-3.9	6.7	A
Standard Deviation	3.1	2.4	1.9	1.6	2.1	1.4	1.3	1.3	1.4	1.3	1.6	2.8	0.9	A
Daily Maximum (°C)	-3.6	-2.1	2.6	10.4	17.5	22.8	25.2	24.2	19.8	12.7	5.4	-0.7	11.2	A
Daily Minimum (°C)	-11.1	-10.5	-6.5	0.9	6.9	12.2	14.7	13.8	9.9	3.9	-1.2	-7.1	2.2	A
Extreme Maximum (°C)	15.6	12	23.9	29	32	34	35.5	35	35	28.9	24.4	17.5		
Date (yyyy/dd)	1950/25	2000/27	1945/26	1990/28	2006/29	1988/25	Jun-88	1948/27	Feb-53	Jun-46	Jan-50	Mar-82		
Extreme Minimum (°C)	-35	-32.8	-31.7	-18.9	-6.1	-0.6	2.2	-0.6	-5	-11.7	-18.3	-34.4		
Date (yyyy/dd)	1943/20	Oct-48	May-48	Jan-44	Jul-66	Mar-57	1950/16	1942/25	1965/27	1965/29	1958/30	1942/20		
Precipitation														
Rainfall (mm)	27.8	25.3	36.7	67.9	86.8	83.8	89.2	96.6	93.1	75.6	80.5	34.7	797.8	A
Snowfall (cm)	40.1	30.6	22.9	6.2	0.1	0	0	0	0	1.6	12.5	33.9	147.8	A
Precipitation (mm)	67.9	55.9	59.6	74.1	86.9	83.8	89.2	96.6	93.1	77.2	93	68.6	945.7	A
Extreme Daily Rainfall (mm)	33.6	42	42.4	67.4	87.9	113.5	81.2	117.6	105.8	78.7	50.4	39.4		
Date (yyyy/dd)	Apr-93	01-Sep	1942/16	Sep-91	1955/24	Oct-67	1987/19	May-68	Oct-86	1954/15	Dec-92	1942/27		
Extreme Daily Snowfall (cm)	25.4	22.2	22.9	20.8	2.8	0	0	0	1.3	16.5	45.7	24.1		
Date (yyyy/dd)	1966/22	06-Apr	Apr-47	Feb-75	Feb-40	Jan-40	Jan-40	Jan-40	1942/28	1952/19	1950/24	1968/27		
Extreme Daily Precipitation (mm)	33.6	43.2	42.4	67.4	87.9	113.5	81.2	117.6	105.8	78.7	61	39.4		
Date (yyyy/dd)	Apr-93	01-Sep	1942/16	Sep-91	1955/24	Oct-67	1987/19	May-68	Oct-86	1954/15	1950/24	1942/27		
Extreme Snow Depth (cm)	44	54	52	22	0	0	0	0	0	7	16	39		
Date (yyyy/dd)	01-May	01-Aug	01-Jun	01-Feb	Jan-83	Jan-83	Jan-83	Jan-83	Jan-83	1997/27	2005/26	2000/24		
Days with Maximum Temperature														
<= 0 °C	23	17.9	11.2	1.6	0	0	0	0	0	0.04	5.1	17.2	75.9	A
> 0 °C	8	10.4	19.9	28.4	31	30	31	31	30	31	24.9	13.9	289.4	A
> 10 °C	0.15	0.23	4	14.8	27.8	29.9	31	31	29.4	20.2	6.2	0.81	195.5	A
> 20 °C	0	0	0.27	2.2	10	21.6	28.6	26.9	14.1	2.7	0	0	106.4	A
> 30 °C	0	0	0	0	0.12	1.3	2.2	1.1	0.23	0	0	0	4.9	A
> 35 °C	0	0	0	0	0	0	0.04	0	0	0	0	0	0.04	A
Days with Minimum Temperature														
> 0 °C	0.96	1.1	3.7	15.2	29.2	30	31	31	29.7	23.9	10.2	2.1	208	A
<= 2 °C	30.8	27.9	29.1	19.7	5.8	0	0	0	1.7	13	23.8	30	181.7	A
<= 0 °C	30	27.1	27.3	14.8	1.9	0	0	0	0.35	7.1	19.9	28.9	157.3	A
< -2 °C	27.3	24.3	22.1	7.3	0.12	0	0	0	0.04	1.3	11.4	23.4	117.3	A
< -10 °C	15.6	14.4	8.1	0.27	0	0	0	0	0	0	1	9.2	48.6	A
< -20 °C	3.4	2.9	0.77	0	0	0	0	0	0	0	0	0.73	7.8	A
< - 30 °C	0.2	0.08	0	0	0	0	0	0	0	0	0	0	0.28	A

Days with Rainfall														
>= 0.2 mm	4.7	4.5	7.4	12.9	14.3	12	11.5	12.4	13.9	16.3	13.1	6.8	129.7	A
>= 5 mm	1.8	1.6	2.6	4.3	5.1	4.9	5.2	4.6	5.4	5.3	4.9	2.4	48	A
>= 10 mm	1	0.77	1.3	2.1	3.1	3	3.2	3	3	2.5	2.6	1.1	26.6	A
>= 25 mm	0.08	0.23	0.04	0.27	0.54	0.54	0.77	1.1	0.62	0.27	0.65	0.15	5.3	A
Days With Snowfall														
>= 0.2 cm	16.5	11.8	8.2	2.8	0.15	0	0	0	0	0.73	5.6	13.2	59	A
>= 5 cm	2.3	1.9	1.5	0.38	0	0	0	0	0	0.15	0.77	1.9	8.9	A
>= 10 cm	0.46	0.42	0.46	0	0	0	0	0	0	0.04	0.19	0.58	2.2	A
>= 25 cm	0	0	0	0	0	0	0	0	0	0	0	0	0	A
Days with Precipitation														
>= 0.2 mm	19.7	14.9	14	14.6	14.4	12	11.5	12.4	13.9	16.5	17.4	18.3	179.5	A
>= 5 mm	4.2	3.5	4.2	4.8	5.1	4.9	5.2	4.6	5.4	5.5	5.8	4.4	57.4	A
>= 10 mm	1.5	1.2	1.9	2.2	3.1	3	3.2	3	3	2.5	2.9	1.7	29.3	A
>= 25 mm	0.08	0.27	0.04	0.27	0.54	0.54	0.77	1.1	0.62	0.27	0.65	0.15	5.3	A
Wind														
Maximum Hourly Speed (km/h)	64	55	60	72	53	47	45	40	48	55	56	56	72	
Date (yyyy/dd)	1974/27	1972/19	May-76	Jun-79	Jun-66	1988/25	1970/21	1965/29	1974/29	1965/31	Oct-75	1982/28	Jun-79	
Direction of Maximum Hourly Speed	SW	NW	W	W	NW	SW	NW	NW	NW	NW	SW	SW	W	
Degree Days														
Above 24 °C	0	0	0	0	0.1	1	3.9	1.9	0.1	0	0	0	7	A
Above 18 °C	0	0	0	0.9	8.8	39.5	75.6	55.5	16.3	0.6	0	0	197.1	A
Above 15 °C	0	0	0.3	3.7	26.9	92.7	156	128.9	49.9	4.3	0	0	462.6	A
Above 10 °C	0	0	2.8	19.6	98.4	226.1	309.3	280.4	154.3	34.2	2.3	0.3	1127.6	A
Above 5 °C	0.4	0.5	13.3	70.1	225.7	374.9	464.3	435.3	296.4	117	24.2	3	2025.2	A
Above 0 °C	7.4	9.2	49.4	179	378.9	524.9	619.3	590.3	446.2	257	91.2	19.7	3172.5	A
Below 0 °C	233	187.1	109.1	9.5	0	0	0	0	0	0.3	28.2	141.3	708.5	A
Below 5 °C	381	319.5	228	50.6	1.8	0	0	0	0.2	15.4	111.2	279.7	1387.3	A
Below 10 °C	535.5	460.2	372.5	150.1	29.5	1.1	0	0.1	8	87.6	239.2	432	2315.8	A
Below 15 °C	690.5	601.3	524.9	284.2	113	17.8	1.6	3.6	53.6	212.7	387	586.7	3477	A
Below 18 °C	783.5	686	617.7	371.4	187.8	54.6	14.2	23.2	110.1	302	477	679.7	4307.2	A

1981 to 2010 Canadian Climate Normals station data (Frost-Free)		
	Frost-Free:	Code
Average Date of Last Spring Frost	07-May	A
Average Date of First Fall Frost	06-Oct	A
Average Length of Frost-Free Period	151 Days	A

Probability of last temperature in spring of 0 °C or lower on or after indicated dates	10%	25%	33%	50%	66%	75%	90%
Date	19-May	15-May	12-May	08-May	04-May	01-May	28-Apr

Probability of first temperature in fall of 0 °C or lower on or before indicated dates	10%	25%	33%	50%	66%	75%	90%
Date	20-Sep	27-Sep	29-Sep	04-Oct	09-Oct	11-Oct	18-Oct

Probability of frost-free period equal to or less than indicated period (Days)	10%	25%	33%	50%	66%	75%	90%
Days	122	139	143	150	155	157	163

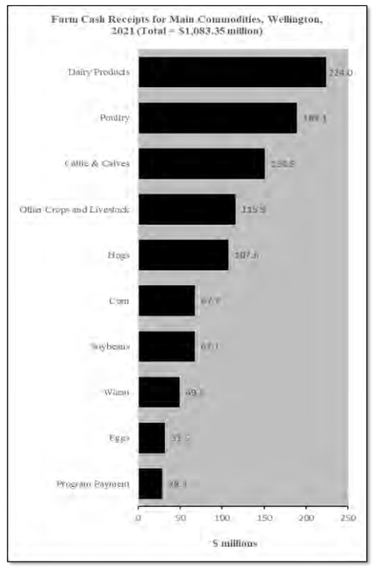
APPENDIX C

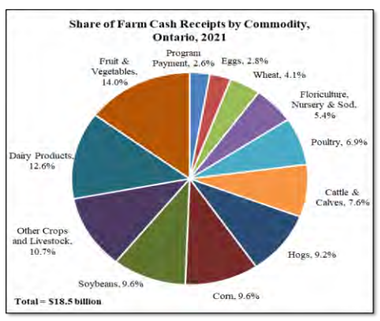
Agricultural Crop Statistics

Wellington County at a Glance - 2021

Item	Wellington	Province	Percent of province	Percent from 2016
Farms, 2021 Census (number)				
Total	2,617	48,346	5.41%	11.46%
Under 10 acres	204	3,217	6.34%	45.71%
10 to 69 acres	604	12,686	4.76%	3.78%
70 to 129 acres	742	10,924	6.79%	18.72%
130 to 179 acres	300	4,422	6.78%	15.83%
180 to 239 acres	276	3,981	6.93%	6.98%
240 to 399 acres	255	5,396	4.73%	2.00%
400 to 559 acres	91	2,865	3.18%	-13.33%
560 to 759 acres	56	1,698	3.30%	33.33%
760 to 1,119 acres	33	1,600	2.06%	-10.81%
1,120 to 1,599 acres	19	720	2.64%	-5.00%
1,600 to 2,239 acres	16	451	3.55%	33.33%
2,240 to 2,879 acres	3	173	1.73%	-66.67%
2,880 to 3,519 acres	5	95	5.26%	66.67%
3,520 acres and over	13	118	11.02%	116.67%
Land Use, 2021 Census (acres)				
Land in crops	436,390	9,051,011	4.82%	14.62%
Summerfallow land	375	13,964	2.69%	-30.17%
Tame or seeded pasture	14,319	400,480	3.58%	4.02%
Natural land for pasture	10,844	626,366	1.73%	24.73%
Christmas trees, woodland & wetland	44,694	1,269,535	3.52%	-1.39%
All other land	17,281	404,714	4.27%	-0.38%
Total area of farms	523,903	11,766,071	4.45%	12.33%
Greenhouse Area, 2021 Census (square feet)				
Total area in use	269,985	201,055,888	0.13%	-33.92%
Farm Capital Value, 2021 Census (farms reporting)				
Under $200,000	72	1,212	5.94%	12.50%
$200,000 to $499,999	60	3,223	1.86%	-50.82%
$500,000 to $999,999	267	8,699	3.07%	-44.26%
$1,000,000 and over	2,218	35,212	6.30%	31.79%
Total Gross Farm Receipts, 2021 Census (farms reporting)				
Under $10,000	297	7,277	4.08%	-10.81%
$10,000 to $24,999	294	7,429	3.96%	-3.92%
$25,000 to $49,999	295	6,263	4.71%	1.72%
$50,000 to $99,999	290	6,093	4.76%	16.00%
$100,000 to $249,999	358	6,817	5.25%	1.42%
$250,000 to $499,999	351	4,448	7.89%	0.86%
$500,000 to $999,999	370	3,954	9.36%	34.06%
$1,000,000 to $1,999,999	177	2,452	7.22%	37.21%
$2,000,000 and over	88	1,696	5.19%	39.68%
Farms by Industry Group, 2021 Census (number of farms)				
Beef cattle ranching and farming	503	7,986	6.30%	32.02%
Dairy cattle and milk production	374	3,188	11.73%	6.55%
Hog and pig farming	101	1,189	8.49%	-9.01%
Poultry and egg production	205	2,061	9.95%	20.59%
Sheep and goat farming	93	1,309	7.10%	60.34%
Other animal production	314	4,556	6.89%	-17.15%
Oilseed and grain farming	703	18,194	3.86%	26.21%
Vegetable and melon farming	38	1,562	2.43%	2.70%
Fruit and tree nut farming	13	1,211	1.07%	44.44%
Greenhouse, nursery and floriculture	61	1,672	3.65%	-3.17%
Other crop farming	212	5,418	3.91%	-8.62%

Item	Wellington	Province	Percent of province	Percent from 2016
Major Field Crops, 2021 Census (acres)				
Winter wheat	80,307	1,144,406	7.02%	24.14%
Oats for grain	4,365	84,320	5.18%	11.55%
Barley for grain	5,710	68,756	8.30%	-22.66%
Mixed grains	5,633	59,961	9.39%	-38.44%
Corn for grain	92,169	2,202,465	4.18%	17.44%
Corn for silage	29,650	289,678	10.24%	5.16%
Hay	83,411	1,704,017	4.89%	12.53%
Soybeans	116,923	2,806,255	4.17%	19.89%
Potatoes	128	39,193	0.33%	40.66%
Major Fruit Crops, 2021 Census (acres)				
Total fruit crops	166	48,661	0.34%	1.84%
Apples	62	16,008	0.39%	-16.22%
Sour Cherries	2	1,383	0.14%	-
Peaches	1	4,608	0.02%	-
Grapes	1	18,432	0.01%	-
Strawberries	55	2,633	2.09%	89.66%
Raspberries	5	438	1.14%	-58.33%
Major Vegetable Crops, 2021 Census (acres)				
Total vegetables	629	127,893	0.49%	20.27%
Sweet corn	128	20,518	0.62%	0.00%
Tomatoes	14	14,614	0.10%	-17.65%
Green peas	5	14,044	0.04%	-90.20%
Green or wax beans	7	8,709	0.08%	-
Livestock Inventories, 2021 Census (number)				
Total cattle and calves	150,093	1,604,810	9.35%	14.54%
Steers	45,748	299,540	15.27%	18.89%
Beef cows	9,398	224,194	4.19%	18.96%
Dairy cows	30,716	327,272	9.39%	15.43%
Total pigs	255,297	4,071,902	6.27%	9.79%
Total sheep and lambs	28,879	322,508	8.95%	49.16%
Poultry Inventories, 2021 Census (number)				
Total hens and chickens	6,953,181	53,802,772	12.92%	2.00%
Total turkeys	176,261	2,453,126	7.19%	0.53%



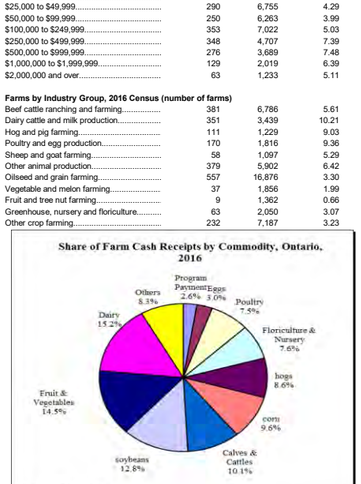


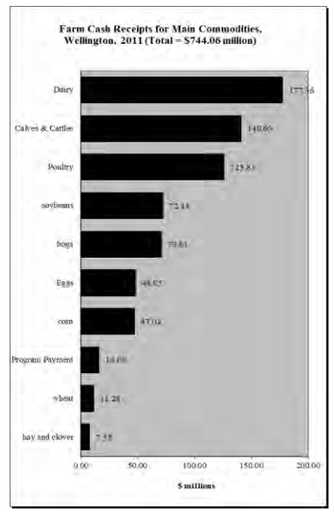
F - too unreliable to be published
Sources: 2021 & 2016 Census of Agriculture, OMAFRA
2022-06-21

Wellington County at a Glance - 2016

Item	Wellington	Province	Percent of province	Percent from 2011
Farms, 2016 Census (number)				
Total	2,348	49,600	4.73	-6.49
Under 10 acres	140	3,051	4.59	5.26
10 to 69 acres	582	12,625	4.61	-3.48
70 to 129 acres	625	10,742	5.82	-10.84
130 to 179 acres	259	4,592	5.64	-4.78
180 to 239 acres	258	4,282	6.03	-9.15
240 to 399 acres	250	6,008	4.16	-12.28
400 to 559 acres	105	3,093	3.39	-6.25
560 to 759 acres	42	1,990	2.11	-6.67
760 to 1,119 acres	37	1,593	2.32	54.17
1,120 to 1,599 acres	20	801	2.50	-13.04
1,600 to 2,239 acres	12	457	2.63	9.09
2,240 to 2,879 acres	9	168	5.36	50.00
2,880 to 3,519 acres	3	88	3.41	-50.00
3,520 acres and over	6	110	5.45	0.00
Land Use, 2016 Census (acres)				
Land in crops	380,733	9,021,298	4.22	-5.50
Summerfallow land	537	15,885	3.38	-31.24
Tame or seeded pasture	13,766	514,168	2.68	-20.64
Natural land for pasture	8,694	783,566	1.11	-31.20
Christmas trees, woodland & wetland	45,323	1,542,637	2.94	-5.86
All other land	17,347	470,909	3.68	-0.17
Total area of farms	466,400	12,348,463	3.78	-6.57
Greenhouse Area, 2016 Census (square feet)				
Total area in use	408,602	158,511,328	0.26	21.77
Farm Capital Value, 2016 Census (farms reporting)				
Under $200,000	64	2,142	2.99	48.84
$200,000 to $499,999	122	7,433	1.64	-60.65
$500,000 to $999,999	479	12,500	3.83	-40.57
$1,000,000 and over	1,683	27,525	6.11	24.48
Total Gross Farm Receipts, 2016 Census (farms reporting)				
Under $10,000	333	9,536	3.49	-17.37
$10,000 to $24,999	306	8,376	3.65	-15.70
$25,000 to $49,999	290	6,755	4.29	-5.84
$50,000 to $99,999	250	6,263	3.99	-7.75
$100,000 to $249,999	353	7,022	5.03	-20.67
$250,000 to $499,999	348	4,707	7.39	-7.20
$500,000 to $999,999	276	3,689	7.48	24.32
$1,000,000 to $1,999,999	129	2,019	6.39	57.32
$2,000,000 and over	63	1,233	5.11	50.00
Farms by Industry Group, 2016 Census (number of farms)				
Beef cattle ranching and farming	381	6,786	5.61	-9.93
Dairy cattle and milk production	351	3,439	10.21	-3.31
Hog and pig farming	111	1,229	9.03	-7.50
Poultry and egg production	170	1,816	9.36	2.41
Sheep and goat farming	58	1,097	5.29	-30.12
Other animal production	379	5,902	6.42	-16.34
Oilseed and grain farming	557	16,876	3.30	1.64
Vegetable and melon farming	37	1,856	1.99	68.18
Fruit and tree nut farming	9	1,362	0.66	-40.00
Greenhouse, nursery and floriculture	63	2,050	3.07	-12.50
Other crop farming	232	7,187	3.23	-5.69

Item	Wellington	Province	Percent of province	Percent from 2011
Major Field Crops, 2016 Census (acres)				
Winter wheat	64,692	1,080,378	5.99	1.56
Oats for grain	3,913	82,206	4.76	52.91
Barley for grain	7,383	103,717	7.12	-34.26
Mixed grains	9,150	92,837	9.86	-23.51
Corn for grain	78,481	2,162,004	3.63	-2.34
Corn for silage	28,195	295,660	9.54	0.69
Hay	74,124	1,721,214	4.31	-17.15
Soybeans	97,524	2,783,443	3.50	5.87
Potatoes	91	34,685	0.26	-23.53
Major Fruit Crops, 2016 Census (acres)				
Total fruit crops	163	51,192	0.32	-4.12
Apples	74	15,893	0.47	17.46
Sour Cherries	x	2,121	-	-
Peaches	x	5,232	-	-
Grapes	x	18,718	-	-
Strawberries	29	2,915	0.99	-53.23
Raspberries	12	680	1.76	9.09
Major Vegetable Crops, 2016 Census (acres)				
Total vegetables	523	135,420	0.39	-42.08
Sweet corn	128	22,910	0.56	-14.67
Tomatoes	17	15,744	0.11	-61.36
Green peas	0.04	16,268	0.31	24.39
Green or wax beans	x	9,732	-	-
Livestock Inventories, 2016 Census (number)				
Total cattle and calves	131,038	1,623,710	8.07	-7.85
Steers	38,479	305,514	12.59	-8.88
Beef cows	7,900	236,253	3.34	-23.67
Dairy cows	26,610	311,960	8.53	3.22
Total pigs	232,527	3,534,104	6.58	-1.53
Total sheep and lambs	19,361	321,495	6.02	-29.72
Poultry Inventories, 2016 Census (number)				
Total hens and chickens	6,816,729	50,759,994	13.43	19.46
Total turkeys	175,336	3,772,146	4.65	-29.53



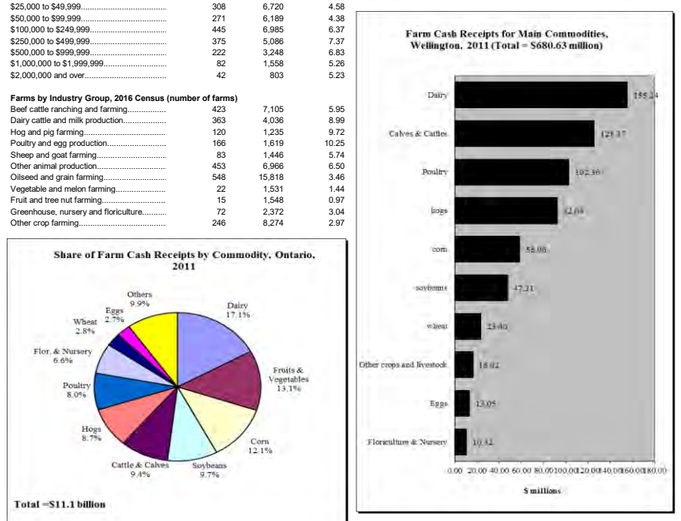


x Suppressed data
Sources: 2016 & 2011 Census of Agriculture and Strategic Policy Branch, OMAFRA
2017-06-02

Wellington County at a Glance - 2011

Item	Wellington	Province	Percent of province
Farms, 2011 Census (number)			
Total	2,511	51,950	4.83
Under 10 acres	133	2,741	4.85
10 to 69 acres	603	12,681	4.76
70 to 129 acres	701	11,779	5.95
130 to 179 acres	272	4,969	5.47
180 to 239 acres	284	4,801	5.92
240 to 399 acres	285	6,460	4.41
400 to 559 acres	112	3,359	3.33
560 to 759 acres	45	2,026	2.22
760 to 1,119 acres	24	1,587	1.51
1,120 to 1,599 acres	23	788	2.92
1,600 to 2,239 acres	11	436	2.52
2,240 to 2,879 acres	6	152	3.95
2,880 to 3,519 acres	6	79	7.59
3,520 acres and over	6	92	6.52
Land Use, 2011 Census (acres)			
Land in crops	402,894	8,929,947	4.51
Summerfallow land	781	23,450	3.33
Tame or seeded pasture	17,346	648,758	2.67
Natural land for pasture	12,636	984,809	1.28
Christmas trees, woodland & wetland	48,143	1,612,444	2.99
All other land	17,376	468,828	3.71
Total area of farms	499,176	12,668,236	3.94
Greenhouse Area, 2011 Census (square feet)			
Total area in use	335,564	133,520,541	0.25
Farm Capital Value, 2011 Census (farms reporting)			
Under $200,000	43	2,562	1.68
$200,000 to $499,999	310	12,994	2.39
$500,000 to $999,999	806	15,276	5.28
$1,000,000 and over	1,352	21,118	6.40
Total Gross Farm Receipts, 2011 Census (farms reporting)			
Under $10,000	403	12,263	3.29
$10,000 to $24,999	363	9,098	3.99
$25,000 to $49,999	308	6,720	4.58
$50,000 to $99,999	271	6,189	4.38
$100,000 to $249,999	445	6,985	6.37
$250,000 to $499,999	375	5,086	7.37
$500,000 to $999,999	222	3,248	6.83
$1,000,000 to $1,999,999	82	1,558	5.26
$2,000,000 and over	42	803	5.23
Farms by Industry Group, 2016 Census (number of farms)			
Beef cattle ranching and farming	423	7,105	5.95
Dairy cattle and milk production	363	4,036	8.99
Hog and pig farming	120	1,235	9.72
Poultry and egg production	166	1,619	10.25
Sheep and goat farming	83	1,446	5.74
Other animal production	453	6,966	6.50
Oilseed and grain farming	548	15,818	3.46
Vegetable and melon farming	22	1,531	1.44
Fruit and tree nut farming	15	1,548	0.97
Greenhouse, nursery and floriculture	72	2,372	3.04
Other crop farming	246	8,274	2.97

Item	Wellington	Province	Percent of province
Major Field Crops, 2011 Census (acres)			
Winter wheat	63,700	1,100,003	5.79
Oats for grain	2,559	71,040	3.60
Barley for grain	11,230	126,881	8.85
Mixed grains	11,962	106,162	11.27
Corn for grain	80,363	2,032,356	3.95
Corn for silage	28,002	271,701	10.31
Hay	89,465	2,077,911	4.31
Soybeans	92,119	2,464,870	3.74
Potatoes	119	37,384	0.32
Major Fruit Crops, 2011 Census (acres)			
Total fruit crops	170	52,740	0.32
Apples	63	15,830	0.40
Sour Cherries	3	2,342	0.13
Peaches	x	6,455	-
Grapes	x	18,383	-
Strawberries	62	3,283	1.89
Raspberries	11	902	1.22
Major Vegetable Crops, 2011 Census (acres)			
Total vegetables	903	129,595	0.70
Sweet corn	150	25,540	0.59
Tomatoes	44	16,558	0.27
Green peas	41	15,121	0.27
Green or wax beans	x	9,186	-
Livestock Inventories, 2011 Census (number)			
Total cattle and calves	142,197	1,741,381	8.17
Steers	42,229	291,263	14.50
Beef cows	10,350	282,062	3.67
Dairy cows	25,779	318,158	8.10
Total pigs	236,144	3,088,646	7.65
Total sheep and lambs	27,548	352,807	7.81
Poultry Inventories, 2011 Census (number)			
Total hens and chickens	5,706,394	46,902,316	12.17
Total turkeys	248,811	3,483,828	7.14



Centre Wellington Township at a Glance - 2021

Item	Centre Wellington	Province	Percent of province	Percent from 2016
Farms, 2021 Census (number)				
Total	363	48,346	0.75%	6.14%
Under 10 acres	41	3,217	1.27%	46.43%
10 to 69 acres	104	12,686	0.82%	19.54%
70 to 129 acres	86	10,924	0.79%	2.38%
130 to 179 acres	30	4,422	0.68%	-11.76%
180 to 239 acres	34	3,981	0.85%	6.25%
240 to 399 acres	31	5,396	0.57%	-16.22%
400 to 559 acres	17	2,865	0.59%	21.43%
560 to 759 acres	9	1,698	0.53%	-30.77%
760 to 1,119 acres	5	1,600	0.31%	-28.57%
1,120 to 1,599 acres	3	720	0.42%	-25.00%
1,600 to 2,239 acres	2	451	0.44%	100.00%
2,240 to 2,879 acres	0	173	0.00%	-
2,880 to 3,519 acres	0	95	0.00%	-100.00%
3,520 acres and over	1	118	0.85%	-
Land Use, 2021 Census (acres)				
Land in crops	53,881	9,051,011	0.60%	-1.62%
Summerfallow land	24	13,964	0.17%	-20.00%
Tame or seeded pasture	2,002	400,480	0.50%	22.07%
Natural land for pasture	1,006	626,366	0.16%	-4.46%
Christmas trees, woodland & wetland	4,577	1,269,535	0.36%	-16.77%
All other land	2,736	404,714	0.68%	1.79%
Total area of farms	64,226	11,768,071	0.55%	-2.21%
Greenhouse Area, 2021 Census (square feet)				
Total area in use	47,140	201,055,888	0.02%	19.77%
Farm Capital Value, 2021 Census (farms reporting)				
Under $200,000	14	1,212	1.16%	180.00%
$200,000 to $499,999	3	3,223	0.09%	-83.33%
$500,000 to $999,999	41	8,699	0.47%	-48.10%
$1,000,000 and over	305	35,212	0.87%	27.08%
Total Gross Farm Receipts, 2021 Census (farms reporting)				
Under $10,000	50	7,277	0.69%	-23.08%
$10,000 to $24,999	40	7,429	0.54%	-9.09%
$25,000 to $49,999	42	6,263	0.67%	5.00%
$50,000 to $99,999	45	6,093	0.74%	55.17%
$100,000 to $249,999	41	6,817	0.60%	-19.61%
$250,000 to $499,999	38	4,448	0.85%	-15.56%
$500,000 to $999,999	44	3,954	1.11%	12.82%
$1,000,000 to $1,999,999	25	2,452	1.02%	47.06%
$2,000,000 and over	11	1,696	0.65%	-8.33%
Farms by Industry Group, 2021 Census (number of farms)				
Beef cattle ranching and farming	57	7,986	0.71%	46.15%
Dairy cattle and milk production	34	3,188	1.07%	-19.05%
Hog and pig farming	13	1,189	1.09%	-7.14%
Poultry and egg production	34	2,061	1.65%	13.33%
Sheep and goat farming	18	1,309	1.38%	100.00%
Other animal production	41	4,556	0.90%	-26.79%
Oilseed and grain farming	109	18,194	0.60%	12.37%
Vegetable and melon farming	7	1,562	0.45%	75.00%
Greenhouse, nursery and floriculture	10	1,672	0.60%	-16.67%
Other crop farming	39	5,418	0.72%	2.63%
Fruit and tree nut farming	1	1,211	0.08%	0.00%
Major Field Crops, 2021 Census (acres)				
Winter wheat	9,199	1,144,406	0.80%	6.15%
Oats for grain	697	84,320	0.83%	165.02%
Barley for grain	549	68,756	0.80%	-45.15%
Mixed grains	343	59,961	0.57%	-54.75%
Corn for grain	13,481	2,202,465	0.61%	2.91%
Corn for silage	3,320	289,678	1.15%	-18.93%
Hay	10,434	1,704,017	0.61%	-2.00%
Soybeans	14,569	2,806,255	0.52%	-1.83%
Potatoes	76	39,193	0.19%	68.89%
Major Fruit Crops, 2021 Census (acres)				
Total fruit crops	25	48,661	0.05%	-26.47%
Apples	12	16,008	0.07%	-25.00%
Sour Cherries	0	1,383	0.00%	-
Peaches	1	4,608	0.02%	-
Grapes	0	18,432	0.00%	-
Strawberries	9	2,633	0.34%	-
Raspberries	1	438	0.23%	-66.67%
Major Vegetable Crops, 2021 Census (acres)				
Total vegetables	60	127,893	0.05%	-7.69%
Sweet corn	27	20,518	0.13%	12.50%
Tomatoes	3	14,614	0.02%	0.00%
Green peas	1	14,044	0.01%	-
Green or wax beans	2	8,709	0.02%	100.00%
Livestock Inventories, 2021 Census (number)				
Total cattle and calves	17,691	1,604,810	1.10%	1.79%
Steers	6,022	299,540	2.01%	5.95%
Beef cows	1,230	224,194	0.55%	10.61%
Dairy cows	3,168	327,272	0.97%	-16.06%
Total pigs	14,771	4,071,902	0.36%	-47.16%
Total sheep and lambs	3,572	322,508	1.11%	39.53%
Poultry Inventories, 2021 Census (number)				
Total hens and chickens	1,518,260	53,802,772	2.82%	0.95%
Total turkeys	24,056	2,453,126	0.98%	-40.85%

Centre Wellington Township at a Glance - 2016

Item	Centre Wellington	Province	Percent of province	Percent from 2011
Farms, 2016 Census (number)				
Total	342	49,600	0.69	-13.42
Under 10 acres	28	3,051	0.92	-17.65
10 to 69 acres	87	12,625	0.69	-7.45
70 to 129 acres	84	10,742	0.78	-23.64
130 to 179 acres	34	4,592	0.74	3.03
180 to 239 acres	32	4,282	0.75	-15.79
240 to 399 acres	37	6,008	0.62	-22.92
400 to 559 acres	14	3,093	0.45	0.00
560 to 759 acres	13	1,990	0.65	8.33
760 to 1,119 acres	7	1,593	0.44	40.00
1,120 to 1,599 acres	4	801	0.50	33.33
1,600 to 2,239 acres	1	457	0.22	-66.67
2,240 to 2,879 acres	0	168	0.00	-
2,880 to 3,519 acres	1	88	1.14	-
3,520 acres and over	0	110	0.00	-100.00
Land Use, 2016 Census (acres)				
Land in crops	54,767	9,021,298	0.61	-13.63
Summerfallow land	30	15,885	0.19	-71.15
Tame or seeded pasture	1,640	514,168	0.32	-24.46
Natural land for pasture	1,053	783,566	0.13	-50.40
Christmas trees, woodland & wetland	5,499	1,542,637	0.36	-7.42
All other land	2,688	470,909	0.57	-26.19
Total area of farms	65,677	12,348,463	0.53	-15.13
Greenhouse Area, 2016 Census (square feet)				
Total area in use	39,359	158,511,328	0.02	-73.57
Farm Capital Value, 2016 Census (farms reporting)				
Under $200,000	5	2,142	0.23	-37.50
$200,000 to $499,999	18	7,433	0.24	-58.14
$500,000 to $999,999	79	12,500	0.63	-39.69
$1,000,000 and over	240	27,525	0.87	12.68
Total Gross Farm Receipts, 2016 Census (farms reporting)				
Under $10,000	65	9,536	0.68	-9.72
$10,000 to $24,999	44	8,376	0.53	-20.00
$25,000 to $49,999	40	6,755	0.59	-20.00
$50,000 to $99,999	29	6,263	0.46	-43.14
$100,000 to $249,999	51	7,022	0.73	-21.54
$250,000 to $499,999	45	4,707	0.96	-16.67
$500,000 to $999,999	39	3,689	1.06	34.48
$1,000,000 to $1,999,999	17	2,019	0.84	70.00
$2,000,000 and over	12	1,233	0.97	33.33
Farms by Industry Group, 2016 Census (number of farms)				
Beef cattle ranching and farming	39	6,786	0.57	-17.02
Dairy cattle and milk production	42	3,439	1.22	-10.64
Hog and pig farming	14	1,229	1.14	7.69
Poultry and egg production	30	1,816	1.65	30.43
Sheep and goat farming	9	1,097	0.82	-40.00
Other animal production	56	5,902	0.95	-29.11
Oilseed and grain farming	97	16,876	0.57	-16.38
Vegetable and melon farming	4	1,856	0.22	-20.00
Greenhouse, nursery and floriculture	12	2,050	0.59	20.00
Other crop farming	38	7,187	0.53	2.70
Fruit and tree nut farming	1	1,362	0.07	-66.67
Major Field Crops, 2016 Census (acres)				
Winter wheat	8,666	1,080,378	0.80	-18.66
Oats for grain	263	82,206	0.32	-43.80
Barley for grain	1,001	103,717	0.97	-42.07
Mixed grains	758	92,837	0.82	-28.69
Corn for grain	13,100	2,162,004	0.61	-10.00
Corn for silage	4,095	295,660	1.39	4.30
Hay	10,647	1,721,214	0.62	-18.19
Soybeans	14,840	2,783,443	0.53	-0.07
Potatoes	45	34,685	0.13	-4.26
Major Fruit Crops, 2016 Census (acres)				
Total fruit crops	34	51,192	0.07	-5.56
Apples	16	15,893	0.10	60.00
Sour Cherries	x	2,121	-	-
Peaches	0	5,232	0.00	-
Grapes	0	18,718	0.00	-
Strawberries	x	2,915	-	-
Raspberries	3	680	0.44	-25.00
Major Vegetable Crops, 2016 Census (acres)				
Total vegetables	65	135,420	0.05	-54.86
Sweet corn	24	22,910	0.10	-50.00
Tomatoes	3	15,744	0.02	-84.21
Green peas	x	16,268	-	-
Green or wax beans	1	9,732	0.01	0.00
Livestock Inventories, 2016 Census (number)				
Total cattle and calves	17,380	1,623,710	1.07	-4.17
Steers	5,684	305,514	1.86	14.30
Beef cows	1,112	236,253	0.47	-36.13
Dairy cows	3,774	311,960	1.21	3.45
Total pigs	27,953	3,534,104	0.79	44.18
Total sheep and lambs	2,560	321,495	0.80	-29.75
Poultry Inventories, 2016 Census (number)				
Total hens and chickens	1,504,031	50,759,994	2.96	195.15
Total turkeys	40,671	3,772,146	1.08	-10.62

Centre Wellington at a Glance - 2011

Item	Centre Wellington	Province	Percent of province
Farms, 2011 Census (number)			
Total	395	51,950	0.76
Under 10 acres	34	2,741	1.24
10 to 69 acres	94	12,681	0.74
70 to 129 acres	110	11,779	0.93
130 to 179 acres	33	4,969	0.66
180 to 239 acres	38	4,801	0.79
240 to 399 acres	48	6,460	0.74
400 to 559 acres	14	3,359	0.42
560 to 759 acres	12	2,026	0.59
760 to 1,119 acres	5	1,587	0.32
1,120 to 1,599 acres	3	788	0.38
1,600 to 2,239 acres	3	436	0.69
2,240 to 2,879 acres	0	152	0.00
2,880 to 3,519 acres	0	79	0.00
3,520 acres and over	1	92	1.09
Land Use, 2011 Census (acres)			
Land in crops	63,408	8,929,947	0.71
Summerfallow land	104	23,450	0.44
Tame or seeded pasture	2,171	648,758	0.33
Natural land for pasture	2,123	984,809	0.22
Christmas trees, woodland & wetland	5,940	1,612,444	0.37
All other land	3,642	468,828	0.78
Total area of farms	77,388	12,668,236	0.61
Greenhouse Area, 2011 Census (square feet)			
Total area in use	148,934	133,520,541	0.11
Farm Capital Value, 2011 Census (farms reporting)			
Under $200,000	8	2,562	0.31
$200,000 to $499,999	43	12,994	0.33
$500,000 to $999,999	131	15,276	0.86
$1,000,000 and over	213	21,118	1.01
Total Gross Farm Receipts, 2011 Census (farms reporting)			
Under $10,000	72	12,263	0.59
$10,000 to $24,999	55	9,098	0.60
$25,000 to $49,999	50	6,720	0.74
$50,000 to $99,999	51	6,189	0.82
$100,000 to $249,999	65	6,985	0.93
$250,000 to $499,999	54	5,086	1.06
$500,000 to $999,999	29	3,248	0.89
$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	47	7,105	0.66
Dairy cattle and milk production	47	4,036	1.16
Hog and pig farming	13	1,235	1.05
Poultry and egg production	23	1,619	1.42
Sheep and goat farming	15	1,446	1.04
Other animal production	79	6,966	1.13
Oilseed and grain farming	116	15,818	0.73
Vegetable and melon farming	5	1,531	0.33
Greenhouse, nursery and floriculture	10	2,372	0.42
Other crop farming	37	8,274	0.45
Fruit and tree nut farming	3	1,548	0.19
Major Field Crops, 2011 Census (acres)			
Winter wheat	10,654	1,100,003	0.97
Oats for grain	468	71,040	0.66
Barley for grain	1,728	126,881	1.36
Mixed grains	1,063	106,162	1.00
Corn for grain	14,556	2,032,356	0.72
Corn for silage	3,926	271,701	1.44
Hay	13,015	2,077,911	0.63
Soybeans	14,850	2,464,870	0.60
Potatoes	47	37,384	0.13
Major Fruit Crops, 2011 Census (acres)			
Total fruit crops	36	52,740	0.07
Apples	10	15,830	0.06
Sour Cherries	0	2,342	0.00
Peaches	x	6,455	-
Grapes	0	18,383	0.00
Strawberries	17	3,283	0.52
Raspberries	4	902	0.44
Major Vegetable Crops, 2011 Census (acres)			
Total vegetables	144	129,595	0.11
Sweet corn	48	25,540	0.19
Tomatoes	19	16,558	0.11
Green peas	1	15,121	0.01
Green or wax beans	1	9,186	0.01
Livestock Inventories, 2011 Census (number)			
Total cattle and calves	18,136	1,741,381	1.04
Steers	4,973	291,263	1.71
Beef cows	1,741	282,062	0.62
Dairy cows	3,648	318,758	1.15
Total pigs	19,388	3,088,646	0.63
Total sheep and lambs	3,644	352,807	1.03
Poultry Inventories, 2011 Census (number)			
Total hens and chickens	509,586	46,902,316	1.09
Total turkeys	45,504	3,483,828	1.31

APPENDIX D

Soil Series Descriptions

Guelph Loam

Guelph Loam soils are the well drained member of the Guelph catena and occupy the gently rolling hills and steeply rolling drumlins of the area. The soil parent material consists of glacial till derived from the grey and brown limestones of the underlying rock strata.

Guelph Loam soils are among the most productive soils in the Province and are well suited for the production of common field crops. Crop yields are primarily limited by the frequency and steepness of slopes, which can cause erosion. Crop yields can be increased in these soils through the application of fertilizers.

London Loam

London Loam soils are the imperfectly drained member of the Guelph catena and occupy the gently undulating upland areas where surface runoff is slow and internal drainage is moderate. London Loam soils have the same parent material as Guelph Loam soils and have the same potential for agricultural production if they are artificially drained.

London Loam soils are good agricultural soils and are well suited for the production of common field crops. Crop yields are primarily limited by excess soil moisture, which can be mitigated through the installation of artificial drainage. Where artificial drainage has been installed, London Loam soils have a higher agricultural potential due to the smoother topography.

Parkhill Loam

Parkhill Loam soils are the poorly drained member of the Guelph catena and occur in depressional areas. Parkhill Loam soils have the same parent material as Guelph Loam and London Loam soils, but are much less productive due to the presence of excess water for the majority of the year.

Parkhill Loam soils are poor agricultural soils and are primarily used for pasture and hay crops. These soils are not suited for the cultivation of most common field crops due to the presence of excess water. The installation of artificial drainage is often not possible as these soils are located in low-lying areas, making it difficult to find a suitable outlet for the tile drainage.

Harriston Loam

Harriston Loam soils are the well drained member of the Harriston catena and occur on moderately to gently rolling topography. The soil parent material is a glacial till that has been derived from the soft yellowish-brown limestones that form the underlying rock strata.

Harriston Loam soils are also among the most productive soils in the Province and are well suited for the production of common field crops. Crop yields are primarily limited by the frequency and steepness of slopes, which can cause erosion. Crop yields can be increased in these soils through the application of fertilizers.

Listowel Loam

Listowel Loam soils are the imperfectly drained member of the Harriston catena and occur on gently undulating upland areas where surface runoff is slow and internal drainage is moderate. Listowel Loam soils are derived from the same parent material as Harriston Loam soils, however, they are less productive due to the presence of excess soil moisture.

Listowel Loam soils are good agricultural soils and are well suited for the production of most common field crops. Crop yields are primarily limited by the soil remaining saturated for a portion of the year and winter wheat yields can be significantly reduced by severe winter conditions. Crop yields can be increased on these soils through the installation of artificial drainage.

Hillsburgh Fine Sandy Loam

Hillsburgh Fine Sandy Loam soils are the only member of the Hillsburgh catena and are well drained. These soils occur on rough topography and have developed from the fine sands which are intermixed with, and overlie, the coarse, stony till of the Dumfries soils. The sandy textures, rapid internal and external drainage, and rough topography of these soils makes Hillsburgh Fine Sandy Loam soils very susceptible to erosion.

Hillsburgh Fine Sandy Loam soils are fair agricultural soils and can be cultivated for the production of most common field crops, however, they are best suited for potatoes, hay, and pasture. Crop yields are primarily limited by erosion and topography and soil management practices are required to maintain their productivity.

Brant Fine Sandy Loam

Brant Fine Sandy Loam soils are the well drained member of the Brant catena and developed from fine sands and silt. These soils occur on gently rolling topography and have moderate external and internal drainage.

Brant Fine Sandy Loam soils are good agricultural soils and are well suited for the production of common field crops. Crop yields are primarily limited by erosion, which can be mitigated through soil management practices and year-round crop coverage.

Muck

Muck soils consist of organic deposits that have accumulated in shallow lakes, ponds, or wet, undrained depressions. These soils differ from mineral soils as they are derived from decayed plant material and how no profile development. Muck soils are most likely to develop in areas that are saturated for the entire year.

Muck soils are poor agricultural soils and are not suited for the production of common field crops. Muck soils are typically covered with trees and underbrush. Where Muck soils occur, the areas need to be cleared, drained, and fertilized before agricultural production may occur.

APPENDIX E

Soils & CLI of PEAs

Table 1. Regional Soil Series for Potential Expansion Area 'A'			
Soil Series	**CLI Class**	**Area (Ha)**	**% of Subject Lands**
Harriston Loam	**1**	99.67	59.24
	3T	24.92	14.81
Parkhill Loam	**2W**	16.24	9.66
London Loam	**1**	22.97	13.65
Muck	**O**	4.43	2.64
Totals		**168.23**	**100.00%**

Table 2. Regional Soil Series for Potential Expansion Area 'B'			
Soil Series	**CLI Class**	**Area (Ha)**	**% of Subject Lands**
Harriston Loam	**1**	18.94	51.86
	3T	4.73	12.97
Listowel Loam	**1**	12.78	35.01
Built Up Area	**0**	0.06	0.16
Totals		**36.51**	**100.00%**

Table 3. Regional Soil Series for Potential Expansion Area 'C'			
Soil Series	**CLI Class**	**Area (Ha)**	**% of Subject Lands**
Harriston Loam	**1**	12.80	35.63
	3T	3.20	8.91
Parkhill Loam	**2W**	4.34	12.05
Listowel Loam	**1**	14.87	41.34
Hillsburgh Fine Sandy Loam	**3FM**	0.45	1.24
	5ST	0.30	0.83
Totals		**35.96**	**100.00%**

Table 4. Regional Soil Series for Potential Expansion Area 'D'			
Soil Series	**CLI Class**	**Area (Ha)**	**% of Subject Lands**
Harriston Loam	**1**	45.36	62.95
	3T	11.34	15.74
Parkhill Loam	**2W**	5.65	7.83
Listowel Loam	**1**	6.86	9.52
Muck	**O**	2.25	3.12
Built Up Area	**0**	0.60	0.84
Totals		**72.06**	**100.00%**

Table 5. Regional Soil Series for Potential Expansion Area 'E'			
Soil Series	**CLI Class**	**Area (Ha)**	**% of Subject Lands**
Harriston Loam	**1**	25.33	60.57
	3T	6.33	15.14
Parkhill Loam	**2W**	0.37	0.88
Listowel Loam	**1**	4.37	10.46
Brant Fine Sandy Loam	**1**	4.33	10.36
	2T	1.08	2.59
Totals		**41.81**	**100.00%**

Table 6. Regional Soil Series for Potential Expansion Area 'F'			
Soil Series	**CLI Class**	**Area (Ha)**	**% of Subject Lands**
Harriston Loam	**1**	0.20	1.06
	3T	0.05	0.26
Brant Fine Sandy Loam	**1**	14.94	78.94
	2T	3.74	19.74
Totals		**18.93**	**100.00%**

Table 7. Regional Soil Series for Potential Expansion Area 'G'			
Soil Series	**CLI Class**	**Area (Ha)**	**% of Subject Lands**
Harriston Loam	**1**	14.99	69.16
	3T	3.75	17.30
Parkhill Loam	**2W**	2.93	13.54
Totals		**21.67**	**100.00%**

Table 8. Regional Soil Series for Potential Expansion Area 'H'			
Soil Series	**CLI Class**	**Area (Ha)**	**% of Subject Lands**
Harriston Loam	**1**	35.70	18.18
	3T	8.93	4.55
Parkhill Loam	**2W**	15.24	7.77
Listowel Loam	**1**	97.40	49.63
Guelph Loam	**1**	27.14	13.83
	3T	11.63	5.93
Built Up Area	**0**	0.21	0.11
Totals		**196.25**	**100.00%**

APPENDIX F

Canada Land Inventory Information

Canada Land Inventory Soil Capability Classification for Agriculture

The Canada Land Inventory (CLI) classification system was developed to classifying soil capability for agricultural use for use across Canada. CLI is an interpretative system which assesses the effects of climate and soil characteristics on the limitations of land for growing common field crops. It classifies soils into one of seven capability classes based on the severity of their inherent limitations to field crop production. Soils descend in quality from Class 1, which is highest, to Class 7 soils which have no agricultural capability for the common field crops. Class 1 soils have no significant limitations. Class 2 through 7 soils have one or more significant limitations, and each of these are denoted by a capability subclass.

In Ontario the document, "Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario" (OMAFRA, 2008) provides a Provincial interpretation of the CLI classification system. These guidelines are based on the "Canada Land Inventory, Soil Capability Classification for Agriculture" (ARDA Report No. 2, 1965) and have been modified for use in Ontario. In Ontario, CLI Classes 1 to 4 lands are generally considered to be arable lands and Classes 1 to 3 soils and specialty crop lands are considered to be prime agricultural lands.

The following definitions were taken from Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario (2008).

Definitions of the Capability Classes

Class 1 - Soils in this class have no significant limitations in use for crops. Soils in Class 1 are level to nearly level, deep, well to imperfectly drained and have good nutrient and water holding capacity. They can be managed and cropped without difficulty. Under good management they are moderately high to high in productivity for the full range of common field crops

Class 2 - Soils in this class have moderate limitations that reduce the choice of crops, or require moderate conservation practices. These soils are deep and may not hold moisture and nutrients as well as Class 1 soils. The limitations are moderate and the soils can be managed and cropped with little difficulty. Under good management they are moderately-high to high in productivity for a wide range of common field crops.

Class 3 - Soils in this class have moderately severe limitations that reduce the choice of crops or require special conservation practices. The limitations are more severe than for Class 2 soils. They affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. Under good management these soils are fair to moderately high in productivity for a wide range of common field crops.

Class 4 - Soils in this class have severe limitations that restrict the choice of crops, or require special conservation practices and very careful management, or both. The severe limitations seriously affect one or more of the following practices: timing and ease of tillage; planting and harvesting; choice of crops; and methods of conservation. These soils are low to medium in productivity for a narrow to wide range of common field crops, but may have higher productivity for a specially adapted crop.

Class 5 - Soils in this class have very severe limitations that restrict their capability to producing perennial forage crops, and improvement practices are feasible. The limitations are so severe that the soils are not capable of use for sustained production of annual field crops. The soils are capable of producing native or tame species of perennial forage plants and may be improved through the use of farm machinery. Feasible improvement practices may include clearing of bush, cultivation, seeding, fertilizing or water control.

Class 6 - Soils in this class are unsuited for cultivation, but are capable of use for unimproved permanent pasture. These soils may provide some sustained grazing for farm animals, but the limitations are so severe that improvement through the use of farm machinery is impractical. The terrain may be unsuitable for the use of farm machinery, or the soils may not respond to improvement, or the grazing season may be very short.

Class 7 - Soils in this class have no capability for arable culture or permanent pasture. This class includes marsh, rockland and soil on very steep slopes.

Definitions of the Prime and Non-prime Agricultural Lands

In Ontario, CLI Classes 1, 2 and 3 and specialty crop lands are considered prime agricultural lands. Non-prime agricultural lands are comprised of CLI Class 4-7 lands.

Organic soils (Muck) are not classified under the CLI system but are mapped and identified as O in the provincial mapping.

Definitions of the Capability Subclasses

Capability Subclasses indicate the kinds of limitations present for agricultural use. Thirteen Subclasses were described in CLI Report No. 2. Eleven of these Subclasses have been adapted to Ontario soils.

Subclass Definitions:

Subclass C - Adverse climate: This subclass denotes a significant adverse climate for crop production as compared to the "median" climate which is defined as one with sufficiently high growing-season temperatures to bring common field crops to maturity, and with sufficient precipitation to permit crops to be grown each year on the same land without a serious risk of partial or total crop failures. In Ontario this subclass is applied to land averaging less than 2300 Crop Heat Units.

Class	Crop Heat Units
1	>2300
2C	1900-2300
3C	1700-1900
4C	<1700

Subclass D - Undesirable soil structure and/or low permeability*:* This subclass is used for soils which are difficult to till, or which absorb or release water very slowly, or in which the depth of rooting zone is restricted by conditions other than a high water table or consolidated bedrock. In Ontario this subclass is based on the existence of critical clay contents in the upper soil profile.

Class	Soil Characteristics
2D	The top of a clayey horizon >15 cm thick occurs within 40 cm of the soil surface. Clayey materials in this case must have >35% clay content.
3D	The top of a very fine clayey (clay content >60%) horizon >15 cm thick occurs within 40 cm of the soil surface

Subclass E - Erosion*:* Loss of topsoil and subsoil by erosion has reduced productivity and may in some cases cause difficulties in farming the land e.g. land with gullies.

Class	Soil Characteristics
2E	Loss of the original plough layer, incorporation of original B horizon material into the present plough layer, and general organic matter losses have resulted in moderate losses to soil productivity.
3E	Loss of original solum (A and B horizons) has resulted in a plough layer consisting mostly of

	Loamy or Clayey parent material. Organic matter content of the cultivated surface is less than 2%.
4E	Loss of original solum (A and B horizons) has resulted in a cultivated layer consisting mainly of Sandy parent material with an organic matter content of less than 2%; shallow gullies and occasionally deep gullies which cannot be crossed by machinery may also be present.
5E	The original solum (A and B horizons) has been removed exposing very gravelly material and/or frequent deep gullies are present which cannot be crossed by machinery.

Subclass F - Low natural fertility*:* This subclass is made up of soils having low fertility that is either correctable with careful management in the use of fertilizers and soil amendments or is difficult to correct in a feasible way. The limitation may be due to a lack of available plant nutrients, high acidity, low exchange capacity, or presence of toxic compounds.

Class	Upper Texture Group (>40 and <100 cm from surface)	Lower Texture Group (remaining materials to 100 cm depth)	Drainage Class	Additional Soil Characteristics[1]
2F	Sandy	Sandy or very gravelly	Rapid to imperfect	Neutral or alkaline parent material with a Bt horizon within 100 cm of the surface
3F	Sandy	Sandy or very gravelly	Any drainage class	Neutral or alkaline parent material with no Bt horizon present within 100 cm of surface
3F	Sandy	Loamy or Clayey	Any drainage class	Acid parent material
3F	Loamy or clayey	Any Texture Group	Any drainage class	Acid parent material
4F	Sandy	Sandy or very gravelly	Any drainage class	Acid parent material
4F	Very gravelly	Any texture	Rapid to imperfect	Neutral to alkaline parent material
5F	Very Gravelly	Any texture	All drainage classes	Acid parent material

[1] "Acid" means pH<5.5; "Neutral" pH 5.5 to 7.4; "Alkaline" pH>7.4 as measured in 0.01 M CaCl2 (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 I - Inundation by streams or lakes: Flooding by streams and lakes causes crop damage or restricts agricultural use.

Class	Soil Characteristics
3I	Frequent inundation with some crop damage; estimated frequency of flooding is less than once every 5 years (Floodplain); includes higher floodplain-terraces on which cultivated field crops can be grown.
5I	Very frequent inundation with some crop damage; estimated frequency of flooding is at least once every 5 years (Floodplain); includes active floodplain areas on which forage crops can be grown primarily for pasture.
7I	Land is inundated for most of the growing season; often permanently flooded (Marsh)

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

Class	Soil Texture Groups		Drainage	Additional Soil Characteristics
	Upper materials1	Lower materials2		
2M	15 to 40 cm of loamy or finer materials	Sandy to Very Gravelly	Well	
2M	40 to < 100 cm of sandy to very gravelly material.	Loamy to Very Fine Clayey	Well	
2M	Sandy		Rapid to well	Well developed Bt3 horizon occurs within 100 cm of surface
3M	Sandy material to > 100cm		Rapid	Bt horizon absent within 100 cm of surface
4M	Very Gravelly to > 100 cm		Rapid	Bt horizon present within 100 cm of surface
5M	Very gravelly to > 100cm		Very rapid	Bt horizon absent within 100cm

Subclass P - Stoniness: This subclass indicates soils sufficiently stony to hinder tillage, planting, and harvesting operations.

Class	Soil Characteristics
2P	Surface stones cause some interference with tillage, planting and harvesting; stones are 15-60 cm in diameter, and occur in a range of 1-20 m apart, and occupy <3% of the surface area. Some stone removal is required to bring the land into production.
3P	Surface stones are a serious handicap to tillage, planting, and harvesting; stones are 15-60 cm in diameter, occur 0.5-1m apart (20-75 stones/100 m^2), and occupy 3-15% of the surface area. The occasional boulder >60 cm in diameter may also occur. Considerable stone removal is required to bring the land into production. Some annual removal is also required.
4P	Surface stones and many boulders occupy 3-15% of the surface. Considerable stone and boulder removal is needed to bring the land into tillable production. Considerable annual removal is also required for tillage and planting to take place.
5P	Surface stones 15-60 cm in diameter and/or boulders >60 cm in diameter occupy 15-50% of the surface area (>75 stones and/or boulders/100 m2).
6P	Surface stones 15-60 cm in diameter and/or boulders >60 cm in diameter occupy >50% of the surface area.

Subclass R - Shallowness to Consolidated Bedrock: This subclass is applied to soils where the depth of the rooting zone is restricted by consolidated bedrock. Consolidated bedrock, if it occurs within 100 cm of the surface, reduces available water holding capacity and rooting depth. Where physical soil data were available, the water retention model of McBride and Mackintosh was used to assist in developing the subclass criteria.

Class	Soil Characteristics
3R	Consolidated bedrock occurs at a depth of 50-100 cm from the surface causing moderately severe restriction of moisture holding capacity and/or rooting depth.
4R	Consolidated bedrock occurs at a depth of 20-50 cm from the surface causing severe restriction of moisture holding capacity and/or rooting depth.
5R	Consolidated bedrock occurs at a depth of 10 to 20 cm from the surface causing very severe restrictions for tillage, rooting depth and moisture holding capacity. Improvements such as tree removal, shallow tillage, and the seeding down and fertilizing of perennial forages for hay and grazing may be feasible.

6R	Consolidated bedrock occurs at a depth of 10-20 cm from the surface but improvements as in 5R are unfeasible. Open meadows may support grazing.
7R	Consolidated bedrock occurs at < 10cm from the surface.

Subclass S - Adverse soil characteristics: This subclass denotes a combination of limitations of equal severity. In Ontario it has often been used to denote a combination of F and M when these are present with a third limitation such as T, E or P.

Subclass T - Topography

The steepness of the surface slope and the pattern or frequency of slopes in different directions are considered topographic limitations if they: 1) increase the cost of farming the land over that of level or less sloping land; 2) decrease the uniformity of growth and maturity of crops; and 3) increase the potential of water and tillage erosion.

Determination of Subclass T for Very Gravelly and Sandy Soils

Slope %	<2		2-5		5-9		9-15		15-30		30-60		>60	
Slope type	S	C	S	C	S	C	S	C	S	C	S	C	S	C
Class				2T	2T	3T	3T	4T	5T	5T	6T	6T	7T	7T

Slope %	<2		2-5		5-9		9-15		15-30		30-60		>60	
Slope type	S	C	S	C	S	C	S	C	S	C	S	C	S	C
Class				2T	3T	3T	4T	4T	5T	5T	6T	6T	7T	7T

S = Simple Slopes >50 m in length

C =Complex Slopes <50 m in length

Subclass W - Excess water:

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

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

APPENDIX G

Site Photographs

Photo 1: Operation #44 – Beef operation located within PEA A showing barn and uncapped silos.

Photo 2: Operation #51 – Dairy operation showing barn, cows, silos, and haybails.

Photo 3: Operation #3 – Hobby farm showing ovegrown paddocks and small barn for housing livestock.

Photo 4: Operation #4 – Equestrian operation showing paddocks, barns, and grain bin.

Photo 5: Operation #11 – Poultry operation showing grain bins and two-storey chicken barn.

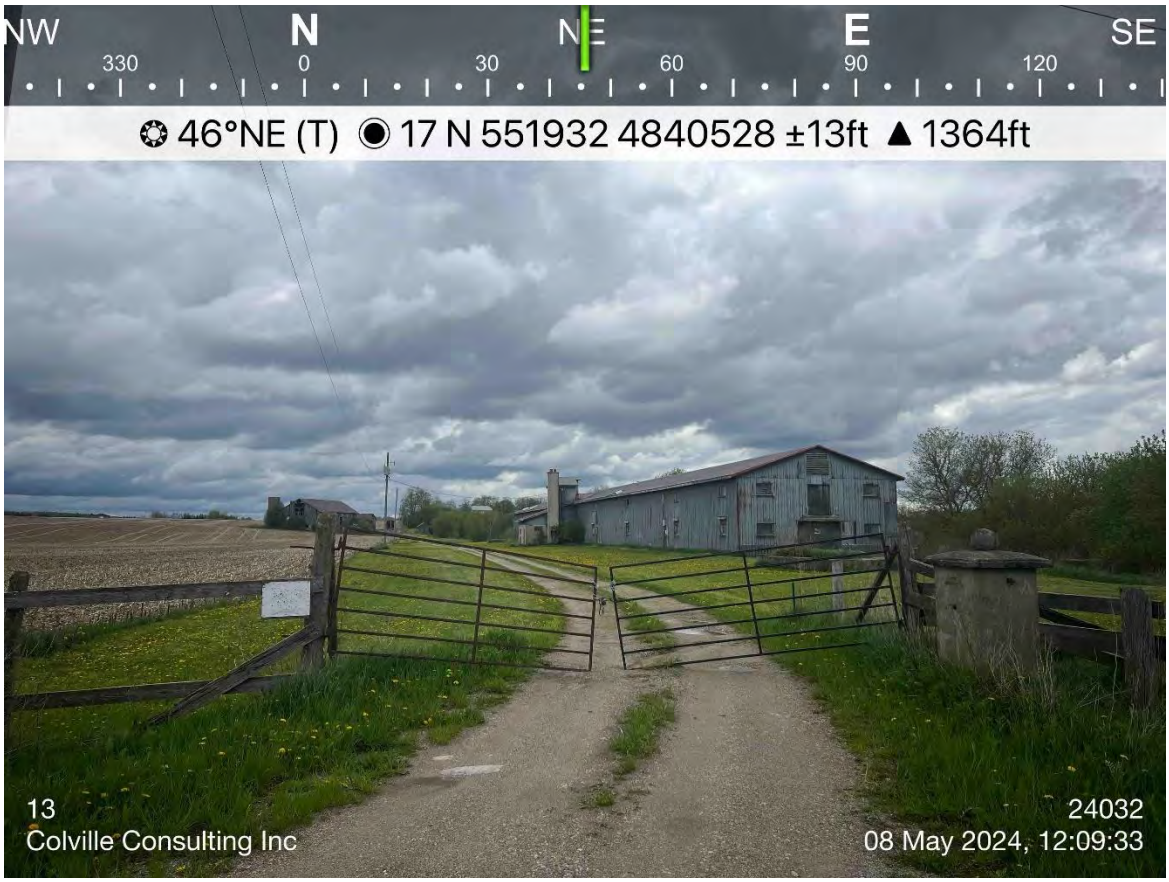


Photo 6: Operation #13 – Remnant farm showing barn in poor consition.

Photo 7: Operation #18 – Hobby farm showing barns in fair condition and shed.

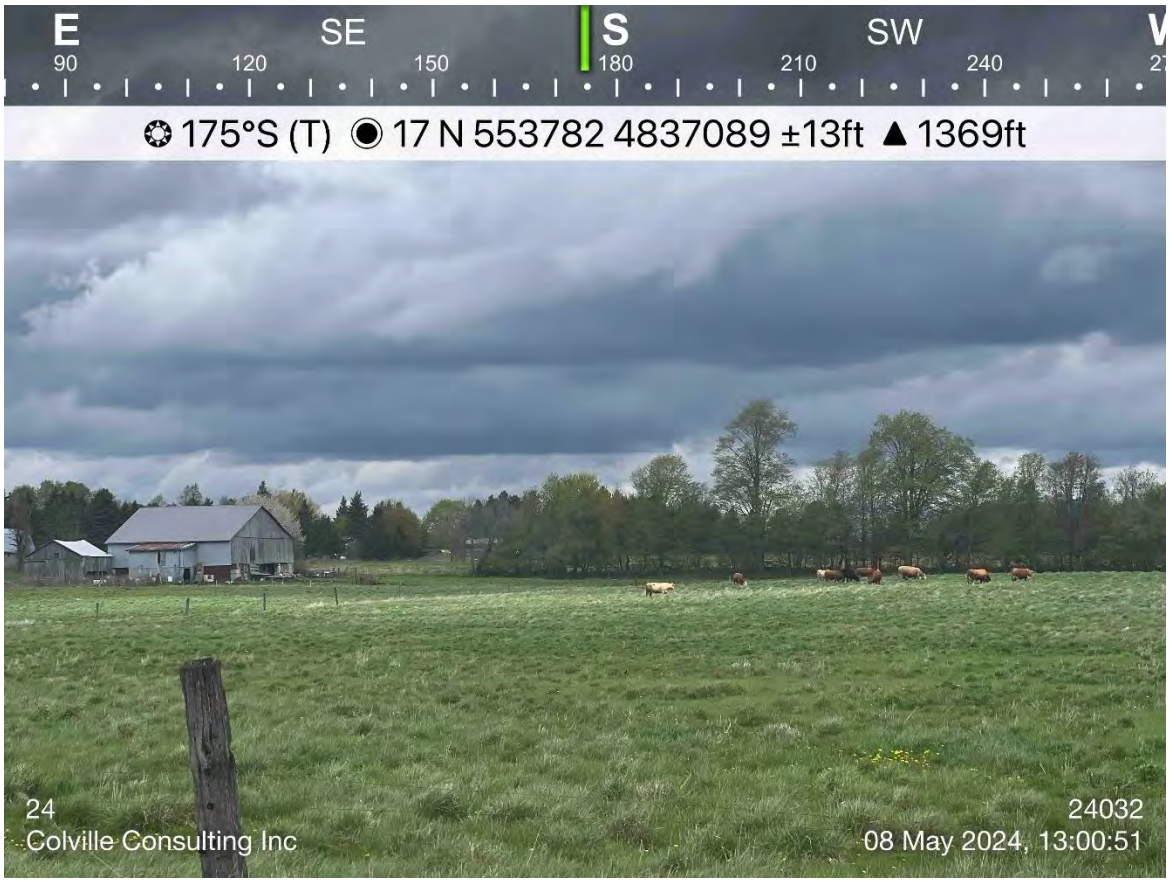


Photo 8: Operation #24 – Beef operation showing cows in pasture and barn.

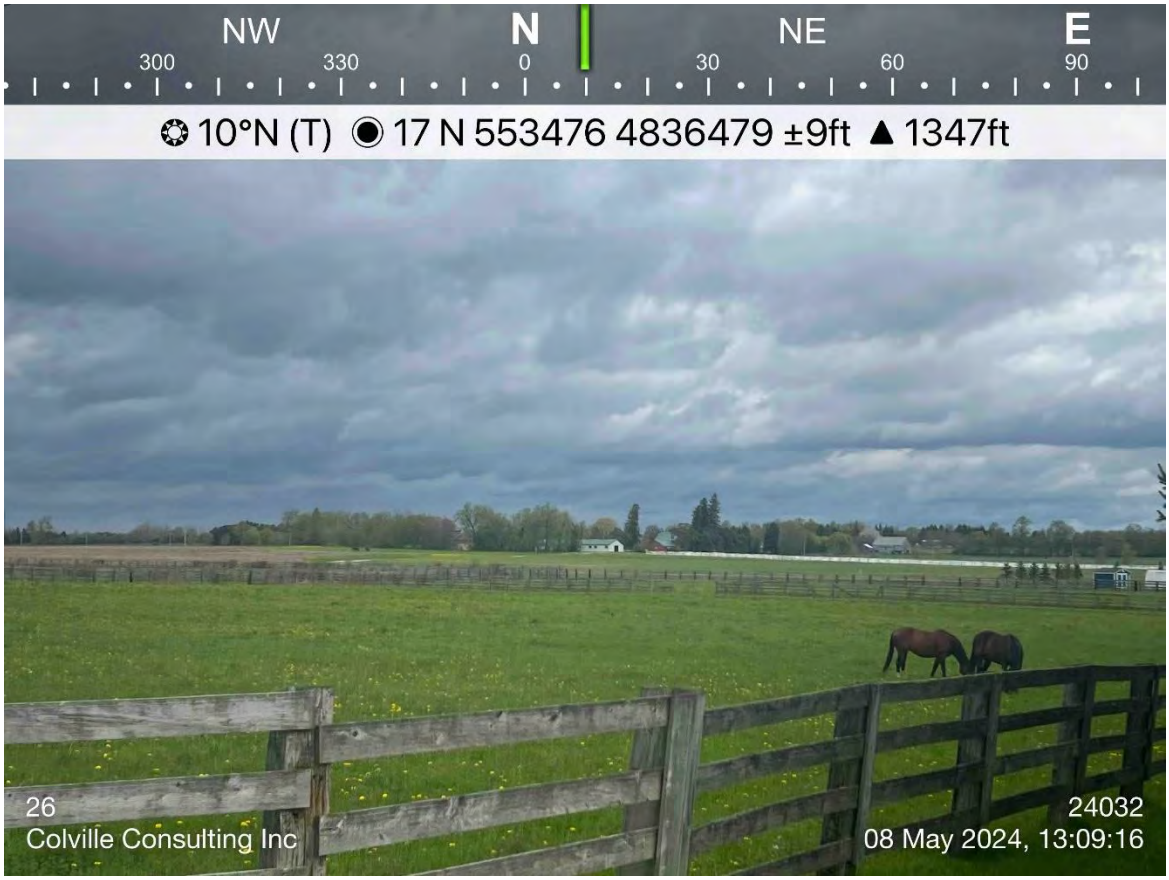


Photo 9: Operation #26 – Equestrian operation showing horses in paddock.

Photo 10: Operation #27 – Future livestock operation showing barn under construction.

Photo 11: Operation #36 – Equestrian operation showing horses and field shelter.

Photo 12: Operation #40 – Dairy operation showing barn and silo.

APPENDIX H

Land Use Notes

Study Area Land Use Survey Notes

Date	Temperature	Cloud Conditions	Wind
May 8th, 2024	13° C (19° C)	Few Clouds	28 km/h W
May 15th, 2024	15° C (21° C)	Overcast/Few Clouds	16km/h E

Site No.	Type of Operation	Land Use	Description of Operation
1	Cash/Field Crop Operation	Agricultural	Large bank barn, okay condition. Smaller barn with equipment. Large home with manicured lawn. No sign of a livestock operation. Spoke with landowner who confirmed there is no livestock and no structures capable of housing livestock.
2	Hobby Farm	Agricultural	Paddocks, small field shelter, no barn capable of housing livestock. Large garage converted out of former barn based on aerial imagery, skid steer holding equipment.
3	Empty Livestock Facility	Agricultural	House under construction/in disrepair. Open holes in fencing along property line. Small barn in fair to poor condition, likely capable of housing livestock. Watercourse between 2 and 3. Topsoil/manure pile. Likely former hobby farm.
4	Equestrian Operation	Agricultural	Several large barns in good condition. Horse and chariot observed. 3 large tractors, 1 large grain pile, multiple paddocks. Spoke with landowner who said there are 27 stalls for horses.
5	Commercial	Non-Agricultural	Columbia Precision Outdoor Power – lawmower sales

6	Industrial	Non-Agricultural	Jeni Mobile Wash. 2 large propane/gas tanks. 2 large structures. Possibly a former agricultural operation now an industrial operation. No livestock, paddocks, manure, etc. observed.
7	Industrial	Non-Agricultural	Active security system, possibly old implement shed converted to shop, large trucks observed in aerial photos, no sign of livestock, no structures capable of housing livestock
8	Poultry Operation	Agricultural	OFA member. 2 metal silos, 2 large barns good condition. 2 manure piles in back, 3 silos in air photos. Manure piles walled on 2 sides. 2 workers on site, no information provided.
9	Equestrian Operation	Agricultural	Multiple paddocks, private property, no trespassing, barn appears to be capable of housing livestock from aerial photos, uncapped silo, likely an equestrian operation.
10	Hobby Farm	Agricultural	Fresh eggs. Lots of traffic. Trailer/RV storage. Paddocks, horse stable, large red bank barn. 2 horses observed. Appears to have previously been larger operation, now used as hobby farm/storage facility, barns still capable of housing livestock.
11	Poultry Operation	Agricultural	2 older large poultry barns good condition, active. 1 barn brand new. Manure/compost pile at rear. 1 older barn completely empty but capable of holding livestock.
12	Utility	Non-Agricultural	Communications tower.

13	Remnant Farm	Agricultural	Former agricultural operation. No access (gate closed). 2 barns, 1 wood 1 metal. Wood barn very poor condition unsuitable to house livestock, metal barn poor condition, unlikely capable of housing livestock.
14	Open Space	Non-Agricultural	Pierpoint Fly Fishing Nature Reserve.
15	Utility	Non-Agricultural	Communications tower.
16	Utility	Non-Agricultural	Electrical utilities.
17	Commercial	Non-Agricultural	Investment Planning Council (financial services)
18	Hobby Farm	Agricultural	1 large wood bank barn with metal roof, good condition. Paddock. Pile of fence posts. Potential renovations to farm structure. Old wooden barn poor condition, boards missing. Unlikely to house livestock. No trespassing. Likely hobby farm. Small manure pile covered with hay (check air photos). Barn/implement shed likely holding farm equipment for adjacent crops. Six beef cows observed in 2018 Google Streetview photos, sheep observed in 2022
19	Commercial	Non-Agricultural	Leslie's Equipment. Autobody/scrap metal yard.
20	Empty Livestock Facility	Agricultural	Former farm with small barn likely capable but not currently holding livestock. No sign of livestock since approximately 2006 based on aerial photos, overgrown around barn.
21	Commercial	Non-Agricultural	Grand Electric Residential, Commercial, and Agricultural Services.

22	Equestrian Operation	Agricultural	CanterBerry Stables. 3 paddocks, 2 large barns, 8 horses observed. Multiple other fenced in areas for grazing. OFA Member.
23	Empty Livestock Facility	Agricultural	Large wooden bank barn with metal roof good condition, 1 missing board. Uncapped silo. Large metal implement shed. Quonset hut. No sign of livestock, capable of housing livestock.
24	Beef Operation	Agricultural	Old wooden bank barn metal roof rusted with missing boards. Okay condition. Housing livestock. Manure pile in back (from air photos). Small beef operation (11 cattle observed). Electric fence, no trespassing sign. CFFO member.
25	Equestrian Operation	Agricultural	Equestrian. Large horse track. Wooden bank barn metal roof good condition. Horse trailer, tractor. Paddock, large manure pile behind second barn – stable for horses. Multiple long paddocks – grazing.
26	Equestrian Operation	Agricultural	4 horses observed. Barn, new farm, Quonset hut, multiple paddocks.
27	Future Livestock Operation	Agricultural	Two large farming buildings under construction. Not active. Likely to be a dairy operation, but not currently capable of housing livestock.
28	Cash/Field Crop Operation	Agricultural	Swan Creek Farm. Appears to be cash crop. No evidence of livestock.
29	Empty Livestock Facility	Agricultural	Former livestock operation now likely cash crop operation, paddocks removed in 2019, likely a former beef operation, no signs of livestock, barn still capable of housing livestock.

30	Empty Livestock Facility	Agricultural	Small paddock area surrounding wooden bank barn. Likely former livestock operation turned cash crop. No signs of livestock. Small uncapped silo. Spoke with landowner who informed that the barn has been converted for storage use and would not be capable of housing livestock without significant investment.
31	Empty Livestock Facility	Agricultural	1 large barn, 1 capped cement silo, 1 implement shed, Quonset hut. Likely a former dairy operation, one silo and grain bins removed, no sign of livestock, barn still capable of housing livestock.
32	Cash/Field Crop Operation	Agricultural	True Craft Contracting. "Fresh Asparagus". Commercial/residential building likely associated with small cash crop operation.
33	Institutional	Non-Agricultural	Canadian Reformed Church of Fergus North
34	Research Centre	Non-Agricultural	Ontario Nutrilab Inc. Pet product testing facility specializing in nutrient analysis, palatability trials and digestibility No trespassing. Large gate, no access. Surrounded by large, vegetated berms and electric fences.
35	Beef Operation	Agricultural	Wooden bank barn metal roof okay condition 2 boards missing. 3 plastic Quonset huts, small coup-like structure, 1 capped silo. No livestock observed but likely capable of housing livestock. Manure storage on back side of barn observed through aerial imagery, likely a small beef operation.

36	Equestrian Operation	Agricultural	3 bank barns multiple paddocks, equestrian. 7 horses observed. 6611 Highway 6.
37	Cash/Field Crop Operation	Agricultural	OFA member. Cash/field crop.
38	Hobby Farm	Agricultural	Hoppy Fields Farm. Hobby farm with chickens. 30-40 chickens observed. Paddocks. 2 horses, 15-20 goats all ages, visible. Hobby farm. "R R". 7784 Sideroad 15. 1 small gambrel barn. Multiple paddocks. (2nd Description originally another number, consolidated upon further study)
39	Cash/Field Crop Operation	Agricultural	Appears to be cash/field crop operation. One small bank barn, one Quonset hut. No evidence of livestock. Historical air photos show no previous evidence of livestock on the property.
40	Dairy Operation	Agricultural	Large bank barn structure good condition holding hay. 2 large silos. Dairy cows. Upon further research, it was found that this operation is associated (on same assessment parcel) as Farm 92. MDS calculation from this operation has been added to Farm 92.
41	Remnant Farm	Agricultural	No longer exists, remnant farm.
42	Hobby Farm	Agricultural	Large wooden bank barn metal roof good condition. Plastic Quonset hut. Fencing/paddock. Large grazing area. Uncapped silo.

43	Cash/Field Crop Operation	Agricultural	1 capped silo 1 uncapped silo. Multiple Quonset huts with farming equipment inside. Potential grain harvesting operation. OFA member. Spoke to landowner, no livestock, just grain operation.
44	Beef Operation	Agricultural	3 uncapped silos, bank barn metal roof good condition. Associated field crops. Manure pile outside uncovered. 2 long barns holding cattle. 3 viable livestock holding barns. 15 cattle visible 8-10 calves, more in barn. Burnside Farms. MDS II received indicating capacity for 510 beef cattle
45	Commercial	Non-Agricultural	Bellamy Electric. Likely retired cash crop operation. Laneway still in use for tractor traffic.
46	Cash/Field Crop Operation	Agricultural	No access. Appears to be cash/field crop operation accessed through Bellamy Electric (45).
47	Industrial	Non-Agricultural	Grand River Natural Stone.
48	Empty Livestock Facility	Agricultural	7856 2nd Line. 1 large barn good condition, no sign of livestock. Small shed holding farm equipment/vehicle. 2 silos, 1 capped, 1 uncapped. Round walled liquid manure storage structure decommissioned, uncovered. Private property signs with cameras. Left MDS letter.
49	Hobby Farm	Agricultural	Small barn good condition. Appears to be hobby farm. 3 beef cows observed, outdoor manure storage. Hay storage in back.

50	Dairy Operation	Agricultural	Faregrove Holstien. 2 large barns, 1 with cattle visible (approximately 15 Holsteins observed). Chickens – likely laying hens. Lots of farm implements, large implement storage, silage bunker, silos. Dairy and eggs.
51	Dairy Operation	Agricultural	Large dairy operation. 4 large barns good condition. 1 silo, capped. 25+ cattle observed. 7694 2nd Line.
52	Cash/Field Crop Operation	Agricultural	Faodail Farm. Likely former livestock operation now cash crop. 7672 2nd Line. No evidence of livestock, still capable of housing livestock.
53	Poultry Operation	Agricultural	7652 2nd Line. No trespassing. Large operation, no access. Check air photos.
54	Hobby Farm	Agricultural	Hobby farm. Evidence of livestock. Paddock, 2 barns okay condition capable of housing livestock. Area for manure storage, no manure present.
55	Utility	Non-Agricultural	Utilities
56	Beef Operation	Agricultural	Hilloch Farm. 033 First Lie. OFA member. Spoke to landowner, confirmed livestock on property, did not feel comfortable disclosing what/how many. Manure storage walled in back. two capped silos. Two long green barns in back, one large bank barn, one implement shed
57	Beef Operation	Agricultural	Likely associated with Hilloch Farms (56). No access, check air photos and parcel data.

58	Cash/Field Crop Operation	Agricultural	Appears to be growing vegetables/field crop. Greenhouse in back. No access. No evidence of livestock from road/air photos.
59	Empty Livestock Facility	Agricultural	0239 1st Line. Large Bank Barn, wooden with metal roof good condition. No obvious signs of livestock. Appears retired. Implement shed. Barn appears capable of holding livestock. No one home. Historical air photos does not show any evidence of past livestock on the property.
60	Cash/Field Crop Operation	Agricultural	No trespassing sign. 1 farm structure, no signs of livestock. Field/cash crop operation.
61	NFR	Non-Agricultural	OFA Member. No access no trespassing. Check air photos. Roadway under construction. Based on air photos, likely NFR. Fields behind property not on same parcel as house.
62	Cash/Field Crop Operation	Agricultural	Lake Ag Ventures Ltd. OFA member. Pioneer Brand Products. Likely grain operation. 2 barn structures with garages likely used for implement storage. No evidence of livestock observed from road or air photos. No animals inside barns. Does not appear to be capable of housing livestock without additional investment.
63	Hobby Farm	Agricultural	OFA member. Fruit and vegetable stand. Appears to be small hobby farm. 1 small barn structure capable of housing livestock.6448 Wellington Road 7. Surrounded by NFR.

64	Cash/Field Crop Operation	Agricultural	Likely cash/field crop. No signs of livestock. Likely not capable of housing livestock.
65	Empty Livestock Facility	Agricultural	Abandoned house, large gambrel barn okay-poor condition. Vacant/retired. Laneway associated with hay production.
66	Cash/Field Crop Operation	Agricultural	Eloa View Farm. 6389 Wellington Road 7. Large barn structure metal roof okay condition boards missing. No trespassing no parking without written permissions. Farm structures appear to have been repurposed for non-agricultural/livestock use (Large garage doors on old barns). Check air photos. From air photos, appears to not be semi-non agricultural, but based off parcel data, likely still associated with cash/field crops.
67	Beef Operation	Agricultural	6374 Wellington Road 7. Large bank barn okay condition. Uncapped silo. Paddocked area, no livestock heard/observed. Walked around site. Electric fences around paddock. Likely capable of housing livestock. No mailbox to leave letter. Based off air photos, appears to be former beef operation. Appears their may be some horses currently on the property.
68	Commercial	Non-Agricultural	6363 Wellington Road 7. Cousins and Johnson Inc. Construction company. Spoke to office, confirmed no livestock.

69	Poultry Operation	Agricultural	6342 Wellington Road 7. Webfoot, duck and hatchery. Grain elevator, multiple structures, large operation 10+ structures. 3-4 long bank barns metal roof good condition. 3 structures observed to hold equipment. Letter and phone number given to office. Several propane tanks observed.
70	Hobby Farm	Agricultural	Haigsee Holstiens. Biota Farms Organic Vegetables. 6295 Wellington Road 7. 2 barn structures wood sides metal roof poor condition. Appears to be storing equipment. Small chicken coop. 1 large 1 small plastic sided greenhouses. Likely retired cattle operation, now hobby farm. Walked past barn no cows observed/heard. Based on air photos, appears to have been active in 2007.
71	Hobby Farm	Agricultural	7571 Wellington Road 7. Small hobby farm. Fresh eggs and maple syrup. Cannot see any livestock structure on site.
72	Cash/Field Crop Operation	Agricultural	Large silo, several large farm implements. Spoke with landowner, grain operation, 3 beef cattle on site for personal use. Former beef operation, barns still capable of housing livestock.
73	Beef Operation	Agricultural	7588 2nd Line. OFA member. 2 barns in great condition. Cattle operation, manure storage in front uncovered. 10 geese, 16 chickens, 20+ cows observed. No on home. Large paddock area.

74	Empty Livestock Facility	Agricultural	Retired livestock barn in poor condition. Likely incapable of housing livestock. Upon reviewing air photos, appears to be a retired livestock operation, potentially still functioning as a field/cash crop operation. Area surrounding bank barn (metal roof, appears to be in okay condition from air photos) appears to be overgrown and no longer operational. Historical air photos show evidence of active livestock usage on the property as recently as 2021. Therefore, assumed that barn structure still capable of housing livestock.
75	Open Space	Non-Agricultural	Cottontail Road Trail, formerly 2nd Line East. No car access.
76	Institutional	Non-Agricultural	Groves Memorial Community Hospital.
77	Institutional	Non-Agricultural	Wellington County Museum and Archives.
78	Commercial	Non-Agricultural	Yard Weasels Landscape Products.
79	Diary Operation	Agricultural	River Front Farms. 7406 Middlebrook Road. Biosecurity, no entry. AO Smith Slurry Store System. Based on air photos, appears to be dairy operation with walled liquid manure storage. 2 dairy barns.
80	Hobby Farm	Agricultural	12 laying hens confirmed with landowner. Hobby farm/cash crops. 7386 Middlebrook Road.

81	Empty Livestock Facility	Non-Agricultural (Future Agricultural)	The Fieldstone Barn. No livestock currently. Retired cattle farm, owner not on site for the day, spoke with "Nick" and left letter. Spoke to landowner, future planning for chickens, alpacas, and goats.
82	Open Space	Non-Agricultural	Elora Gorge Conservation Area
83	Hobby Farm	Agricultural	Large bank barn 1 capped silo, 3 horses observed from road. Equestrian hobby farm. Spoke with tenant of house on property, landowner owns The Gorge restaurant down the road. Tenants' sister rents barn with horses. Left contact information with tenant to give to sister. Received a call from current tenant (Donna), 5 horses currently on property, max 25 capacity in barn.
84	Dairy Operation	Agricultural	6698 Wellington Road 7. OFA member. Cnossen Dairy. 7 goats, 5 ducks. Dairy operation. 7 barn structures wood and metal siding, good condition. Cattle observed housed in 1. Spoke to landowner, max capacity is 200, currently housing less. No anerobic digester. Manure storage behind barn, walled silage bunker observed from road.
85	Commercial/Hobby Farm	Non-Agricultural/ Agricultural	Shantz Automotive Auto Repair Shop. 1800 Wellington Road 7 (rented). In rear: livestock, landowner not home, left letter. Observed 3 horses, appears to be hobby farm.

86	Dairy Operation	Agricultural	Bellwin Farms. Holstiens. 24 cows no anerobic digester. Leased by neighbour. Manure pile uncovered. Likely 30 max. Spoke to landowner barn in great condition, 1 capped silo.
87	Hobby Farm	Agricultural	Hobby farm, 2 horses observed small stable/barn good condition.
88	Beef Operation	Agricultural	Bank barn wood metal roof okay condition. Large manure pile in front. Old/decommissioned liquid manure storage on back of barn. Cows and calves observed in barn. Only 1 structure suitable to house livestock. 7394 Wellington Road 18
89	Hobby Farm	Agricultural	7361 Wellington Road 18. 1 farm structure appears capable of housing livestock. 3 horses, chickens, for personal use. Spoke to landowner.
90	Dairy Operation	Agricultural	12 cattle observed from road, dairy operation. No trespassing sign, no access. Check air photos. Milky Hills Farm. Housing approximately 50 cattle.
91	Institutional	Non-Agricultural	Portage Ontario Institutional Drug Addiction and Rehabilitation for Adolescents in Ontario.
92	Dairy Operation	Agricultural	Drost Cattle Company. Check air photos. Appears to have 3 buildings capable of holding livestock. Likely beef or dairy. Upon further investigation, this operation is part of #42 and will have the barn capacity combined and applied to both locations.

93	Cash/Field Crop Operation	Agricultural	No one on site. 2 barns metal siding good condition. Does not appear to be housing livestock, barn holding lumber. No signs of livestock.
94	Commercial	Non-Agricultural	Elora Transfer Station, waste management service
95	Commercial	Non-Agricultural	Gerrie's Farm Market Inc.
96	Institutional	Non-Agricultural	Wellington County Police Station
97	Institutional	Non-Agricultural	Wellington Long Term Care
98	Institutional	Non-Agricultural	Wellington Place Childcare and Learning Centre
99	Institutional	Non-Agricultural	Kingdom Hall of Jehovah's Witnesses
100	Institutional	Non-Agricultural	Central Church
101	Commercial	Non-Agricultural	GrahamGolden – Temporarily Closed
102	Hobby Farm	Agricultural	Hobby farm. 2 small paddocks, 1 small barn, 1 small manure pile in back. Evidence of livestock but none observed. Likely horses.
103	Cash/Field Crop Operation	Agricultural	Quonset hut, large amount of hay storage, bank barn to good to fair condition, storage observed in bank barn, uncapped silo, no sign of livestock, barn does not appear capable of housing livestock.
104	Hobby Farm	Agricultural	Small hobby farm that likely had horses in the past. No livestock observed. Small barn for housing horse in fair condition, paddocks.
105	Beef Operation	Agricultural	Appears to be small beef operation. Cattle grazing can be seen in air photos. 1 barn structure appears to be capable of housing livestock. Paddocks and solid outdoor manure storage.

106	Cash/Field Crop Operation	Agricultural	Appears to be cash/field crop operation. No signs of livestock
107	Cash/Field Crop Operation	Agricultural	Appears to be cash/field crop operation. No signs of livestock
108	Empty Livestock Facility	Agricultural	Appears to be cash/field crop operation. No signs of livestock, however air photos suggest an active livestock operation in 2006. Now area around barn structure overgrown. "Hay for Sale" sign in front.
109	Equestrian Operation	Agricultural	Appears to be equestrian operation. Expanded sometime after 2019. Smaller farm structure assumed to be stable, while larger structure assumed to be indoor arena/riding ring.
110	Remnant Farm	Agricultural	Appears to be abandoned/remnant farm structure.
111	Equestrian Operation	Agricultural	Large barn and smaller barn, paddocks, horse sign on barn, one horse observed outside.
112	Beef Operation	Agricultural	Unable to see barn structure from road. Upon reviewing air photos, appears to be small Beef operation/hobby farm. Paddocks and solid outdoor manure storage, with field on the back of the property to graze.
113	Ferrier Service	Agriculture-Related	Peter Ayranto Farrier Services. Certified Journeyman Farrier experienced in all areas of farrier services from barefoot to therapeutic shoeing.
114	Empty Livestock Facility	Agricultural	Old wooden bank barn in good to fair condition, no sign of livestock but appears capable of housing livestock. Sign of livestock in 2019 aerial photos

115	Empty Livestock Facility	Agricultural	Old bank barn in fair condition, overgrown paddocks, no sign of livestock, barn appears capable of housing livestock

	Total Number	**Active**	**Inactive**
Agricultural	82	18 – Cash Crop Operation 17 – Hobby Farm 8 – Equestrian Operation 4 – Poultry Operation 10 – Beef Operation 7 – Dairy Operation	14 – Empty Livestock Facility 3 – Remnant Farm 1 – Future Livestock Operation
Agriculture-Related	1	1 – Farrier Service	0
On-farm Diversified	0	0	0
	Total Number	**Type**	
Non-Agricultural	56	11 – Commercial 3 – Industrial 25 – Non-farm residential 4 – Utility 3 – Open Space Use 9 – Institutional 1 – Research Centre	

APPENDIX I

AgriSuite MDS Report

Ontario

AgriSuite

MDS I

General information

Application date
Jun 5, 2024

Municipal file number

Proposed application
New or expanding settlement area boundary

Applicant contact information

ON

Location of subject lands

Calculations

Farm 112

Farm contact information

7526 2nd Line
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 2 , Lot 3
Roll number: 2326000020046000000

Total lot size
6.27 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Confinement	47	15.7 NU	218 m²

Confirm Livestock/Manure Information (Farm 112)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**15.7 NU**
Potential design capacity	**15.7 NU**

Factor A (odour potential) **0.8**
Factor D (manure type) **0.7**
Factor B (design capacity) **185.56**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**229 m (751 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**229 m (751 ft)**
Actual distance from manure storage	**NA**

Farm 105

Farm contact information

7510 2nd Line
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 2 , Lot 2
Roll number: 2326000020047000000

Total lot size
44.5 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Confinement	106	35.3 NU	492 m²

Confirm Livestock/Manure Information (Farm 105)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**35.3 NU**
Potential design capacity	**35.3 NU**

Factor A (odour potential) **0.8**
Factor B (design capacity) **230.66**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**285 m (935 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**285 m (935 ft)**
Actual distance from manure storage	**NA**

Farm 108

Farm contact information

6586 Highway 6
Fergus, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 15 , Lot 17
Roll number: 2326000021098000000

Total lot size
29.01 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	640 m²	32 NU	640 m²

Confirm Livestock/Manure Information (Farm 108)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Farm 108)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**32 NU**
Potential design capacity	**32 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **224**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**345 m (1132 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Farm 109

Farm contact information

Fergus, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 15 , Lot 16
Roll number: 2326000021097000000

Total lot size
40.45 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	8	11.4 NU	242 m²

Confirm Livestock/Manure Information (Farm 109)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V1. Solid, inside, bedded pack**
Design capacity	**11.4 NU**
Potential design capacity	**11.4 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **171.43**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**185 m (607 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**185 m (607 ft)**
Actual distance from manure storage	**NA**

Farm 36

Farm contact information

6611 Highway 6
Fergus, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 16 , Lot 16
Roll number: 2326000023006000000

Total lot size
39.52 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	31	44.3 NU	936 m²

Confirm Livestock/Manure Information (Farm 36)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage **V3. Solid, outside, no cover, >= 30% DM**

Design capacity **44.3 NU**

Potential design capacity **44.3 NU**

Factor A (odour potential) **0.7**
Factor B (design capacity) **248.58**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E)
(minimum distance from livestock barn) **268 m (879 ft)**

Actual distance from livestock barn **NA**

Storage base distance 'S'
(minimum distance from manure storage) **268 m (879 ft)**

Actual distance from manure storage **NA**

Farm 38

Farm contact information

Hoppy Fields Farm
7784 15th Sideroad
Fergus, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 15 , Lot 15
Roll number: 2326000023047000000

Total lot size
54.69 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Broiler breeder growers (males/females transferred out to layer barn)	70	0.2 NU	11 m²
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	6	8.6 NU	181 m²

Confirm Livestock/Manure Information (Farm 38)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**8.8 NU**
Potential design capacity	**8.8 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **162.66**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**176 m (577 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**176 m (577 ft)**
Actual distance from manure storage	**NA**

Farm 42

Farm contact information

7715 15th Sideroad
Fergus, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 14 , Lot 16
Roll number: 2326000021046000000

Total lot size
34.93 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	90 m²	4.5 NU	90 m²

Confirm Livestock/Manure Information (Farm 42)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Farm 42)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**V1. Solid, inside, bedded pack**
Design capacity	**4.5 NU**
Potential design capacity	**4.5 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **150**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**232 m (761 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Farm 59

Farm contact information

203 1st Line
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 1 , Lot 5
Roll number: 2326000020060000000

Total lot size
45.17 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	430 m²	21.5 NU	430 m²

Confirm Livestock/Manure Information (Farm 59)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Farm 59)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**No storage required (manure is stored for less than 14 days)**
Design capacity	**21.5 NU**
Potential design capacity	**21.5 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **203**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**313 m (1027 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Farm 63

Farm contact information

6448 Wellington Road 7
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession 1 , Lot 2
Roll number: 2326000017013000000

Total lot size
10.1 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	150 m²	7.5 NU	150 m²

Confirm Livestock/Manure Information (Farm 63)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Farm 63)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**7.5 NU**
Potential design capacity	**7.5 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **158.33**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**244 m (801 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**244 m (801 ft)**
Actual distance from manure storage	**NA**

Farm 65

Farm contact information

6410 Wellington Road
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession 1 , Lot 3
Roll number: 2326000017011000000

Total lot size
62.75 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	470 m²	23.5 NU	470 m²

Confirm Livestock/Manure Information (Farm 65)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Farm 65)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**23.5 NU**
Potential design capacity	**23.5 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **207**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**319 m (1047 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Farm 67

Farm contact information

6374 Wellington Road
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession 1 , Lot 3
Roll number: 2326000017010000000

Total lot size
40.69 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Confinement	172	57.3 NU	799 m²

Confirm Livestock/Manure Information (Farm 67)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**57.3 NU**
Potential design capacity	**57.3 NU**

Factor A (odour potential) **0.8**
Factor B (design capacity) **274.66**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**339 m (1112 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**339 m (1112 ft)**
Actual distance from manure storage	**NA**

Farm 69

Farm contact information

Webfoot (Duck & Hatchery)
6342 Wellington Road 7
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession 1 , Lot 4
Roll number: 2326000017009000000

Total lot size
60.53 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Ducks, Muscovy	3750 m²	151.2 NU	3750 m²

Confirm Livestock/Manure Information (Farm 69)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V1. Solid, inside, bedded pack**
Design capacity	**151.2 NU**
Potential design capacity	**151.2 NU**

Factor A (odour potential) **0.8**
Factor D (manure type) **0.7**
Factor B (design capacity) **364.92**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**450 m (1476 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**450 m (1476 ft)**
Actual distance from manure storage	**NA**

Farm 70

Farm contact information

6297 Wellington Road 7
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 2 , Lot 1
Roll number: 2326000020049000000

Total lot size
43.64 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	482 m²	24.1 NU	482 m²

Confirm Livestock/Manure Information (Farm 70)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Farm 70)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**24.1 NU**
Potential design capacity	**24.1 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **208.2**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**321 m (1053 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**321 m (1053 ft)**
Actual distance from manure storage	**NA**

Farm 74

Farm contact information

7568 2nd Line
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 2 , Lot 4
Roll number: 2326000020045000000

Total lot size
44.78 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	568 m²	28.4 NU	568 m²

Confirm Livestock/Manure Information (Farm 74)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Farm 74)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**No storage required (manure is stored for less than 14 days)**
Design capacity	**28.4 NU**
Potential design capacity	**28.4 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **216.8**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**334 m (1096 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Farm 79

Farm contact information

7394 Middlebrook Road
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession BLOCK A , Lot 3
Roll number: 2326000017143000000

Total lot size
51.41 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Dairy, Calves Large Frame (45 - 182 kg) (eg. Holsteins)	1292	215.3 NU	4201 m²

Confirm Livestock/Manure Information (Farm 79)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**M1. Liquid, outside, no cover, straight-walled storage**
Design capacity	**215.3 NU**
Potential design capacity	**215.3 NU**

Factor A (odour potential) **0.7**
Factor B (design capacity) **412.98**
Factor D (manure type) **0.8**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**509 m (1670 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**559 m (1834 ft)**
Actual distance from manure storage	**NA**

Farm 80

Farm contact information

7386 Middlebrook Road
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession BLOCK A , Lot 4
Roll number: 2326000017142050000

Total lot size
0.51 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Floor Run	12	0.1 NU	1 m²

Setback summary

Existing manure storage	**V1. Solid, inside, bedded pack**
Design capacity	**0.1 NU**
Potential design capacity	**0.1 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **150**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**232 m (761 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**232 m (761 ft)**
Actual distance from manure storage	**NA**

Farm 81

Farm contact information

7450 Middlebrook Road
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession BLOCK A , Lot 1
Roll number: 2326

Total lot size
6.7 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	460 m²	23 NU	460 m²

Confirm Livestock/Manure Information (Farm 81)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Farm 81)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**No storage required (manure is stored for less than 14 days)**
Design capacity	**23 NU**
Potential design capacity	**23 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **206**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**318 m (1043 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Farm 83

Farm contact information

Donna (Current Tenant)
485 Avruskin Street
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession BLOCK A , Lot 1
Roll number: 2326000017131000000

Total lot size
18.28 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	25	35.7 NU	755 m²

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**35.7 NU**
Potential design capacity	**35.7 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **231.42**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**250 m (820 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**250 m (820 ft)**
Actual distance from manure storage	**NA**

Farm 84

Farm contact information

6698 Wellington Road 7
Elora, ON
N0B 1S0

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession 1 WEST OF THE GRAND RIVER , Lot 13
Roll number: 2326000016011000000

Total lot size
78.74 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Dairy, Calves Large Frame (45 - 182 kg) (eg. Holsteins)	200	33.3 NU	650 m²

Setback summary

Existing manure storage	**M1. Liquid, outside, no cover, straight-walled storage**
Design capacity	**33.3 NU**
Potential design capacity	**33.3 NU**

Factor A (odour potential) **0.7**
Factor B (design capacity) **226.66**
Factor D (manure type) **0.8**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**280 m (919 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**352 m (1155 ft)**
Actual distance from manure storage	**NA**

Farm 85

Farm contact information

6715 Wellington Road
Elora, ON
N0B 1S0

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 11 , Lot 13
Roll number: 2326000022217500000

Total lot size
2.39 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	3	4.3 NU	91 m²

Confirm Livestock/Manure Information (Farm 85)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**4.3 NU**
Potential design capacity	**4.3 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **150**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**162 m (531 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**162 m (531 ft)**
Actual distance from manure storage	**NA**

Farm 86

Farm contact information

Bellwin Farms
6700 1st Line West
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession 2 WEST OF THE GRAND RIVER , Lot 13
Roll number: 2326000016056000000

Total lot size
40.07 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Dairy, Calves Large Frame (45 - 182 kg) (eg. Holsteins)	30	5 NU	98 m²

Setback summary

Existing manure storage	**No storage required (manure is stored for less than 14 days)**
Design capacity	**5 NU**
Potential design capacity	**5 NU**

Factor A (odour potential) **0.7**
Factor B (design capacity) **150**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**162 m (531 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Farm 87

Farm contact information

6664 1St Line
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession 2 WEST OF THE GRAND RIVER , Lot 14
Roll number: 2326000016057010000

Total lot size
3.07 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	3	4.3 NU	91 m²

Confirm Livestock/Manure Information (Farm 87)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**4.3 NU**
Potential design capacity	**4.3 NU**

Factor A (odour potential) **0.7**
Factor B (design capacity) **150**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**162 m (531 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**162 m (531 ft)**
Actual distance from manure storage	**NA**

Farm 88

Farm contact information

7394 Wellington Road 18
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession 2 WEST OF THE GRAND RIVER , Lot 15
Roll number: 2326000016058000000

Total lot size
30.15 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Confinement	114	38 NU	530 m²

Confirm Livestock/Manure Information (Farm 88)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**38 NU**
Potential design capacity	**38 NU**

Factor A (odour potential) **0.8**
Factor B (design capacity) **236**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**291 m (955 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**291 m (955 ft)**
Actual distance from manure storage	**NA**

Farm 89

Farm contact information

7361 wellington Road 18
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
PILKINGTON
Concession BLOCK A , Lot 4
Roll number: 2326000017134000000

Total lot size
40.73 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	13	18.6 NU	393 m²

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**18.6 NU**
Potential design capacity	**18.6 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **195.23**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**211 m (692 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**211 m (692 ft)**
Actual distance from manure storage	**NA**

Farm 90

Farm contact information

6718 Gerrie Road
Elora, ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 12 , Lot 13
Roll number: 2326000023084000000

Total lot size
89.34 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Dairy, Calves Large Frame (45 - 182 kg) (eg. Holsteins)	375	62.5 NU	1219 m²

Confirm Livestock/Manure Information (Farm 90)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**M1. Liquid, outside, no cover, straight-walled storage**
Design capacity	**62.5 NU**
Potential design capacity	**62.5 NU**

Factor A (odour potential) **0.7**
Factor B (design capacity) **282.23**
Factor D (manure type) **0.8**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**348 m (1142 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**414 m (1358 ft)**
Actual distance from manure storage	**NA**

Calculations

Operation #10

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 2 , Lot 5
Roll number: 2326

Total lot size
15.76 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	33	47.1 NU	996 m²

Confirm Livestock/Manure Information (Operation #10)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**47.1 NU**
Potential design capacity	**47.1 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **254.28**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**275 m (902 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**275 m (902 ft)**
Actual distance from manure storage	**NA**

Operation #102

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
ERAMOSA
Concession 1 , Lot 32
Roll number: 2326

Total lot size
4.85 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	3	4.3 NU	91 m²

Confirm Livestock/Manure Information (Operation #102)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**4.3 NU**
Potential design capacity	**4.3 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **150**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**162 m (531 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**162 m (531 ft)**
Actual distance from manure storage	**NA**

Operation #11

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 2 , Lot 5
Roll number: 2326

Total lot size
3.94 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Broilers	42504 m²	1713.9 NU	42504 m²

Setback summary

Existing manure storage **V3. Solid, outside, no cover, >= 30% DM**

Design capacity **1713.9 NU**

Potential design capacity **1713.9 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **838.53**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E)
(minimum distance from livestock barn) **904 m (2966 ft)**

Actual distance from livestock barn **NA**

Storage base distance 'S'
(minimum distance from manure storage) **904 m (2966 ft)**

Actual distance from manure storage **NA**

Operation #111

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 3 , Lot 12
Roll number: 2326

Total lot size
19.47 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	15	21.4 NU	453 m²

Confirm Livestock/Manure Information (Operation #111)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**21.4 NU**
Potential design capacity	**21.4 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **202.86**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**219 m (718 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**219 m (718 ft)**
Actual distance from manure storage	**NA**

Operation #114

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 1 , Lot 5
Roll number: 2326

Total lot size
37 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	505 m²	25.3 NU	505 m²

Confirm Livestock/Manure Information (Operation #114)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation #114)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**- Not Specified -**
Design capacity	**25.3 NU**
Potential design capacity	**25.3 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **210.5**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**325 m (1066 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Operation #115

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 1 , Lot 4
Roll number: 2326

Total lot size
33.3 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	362 m²	18.1 NU	362 m²

Confirm Livestock/Manure Information (Operation #115)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation #115)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**- Not Specified -**
Design capacity	**18.1 NU**
Potential design capacity	**18.1 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **193.66**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**299 m (981 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Operation #18

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 2 , Lot 4
Roll number: 2326

Total lot size
41.21 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Sheep, Ewes & rams (for meat lambs; includes unweaned offspring & replacements), Outside Access	300	37.5 NU	418 m²

Confirm Livestock/Manure Information (Operation #18)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**37.5 NU**
Potential design capacity	**37.5 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **235**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**254 m (833 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**254 m (833 ft)**
Actual distance from manure storage	**NA**

Operation #20

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
ERAMOSA
Concession 1 , Lot 32
Roll number: 2326

Total lot size
5 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	239 m²	11.9 NU	239 m²

Confirm Livestock/Manure Information (Operation #20)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation #20)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**- Not Specified -**
Design capacity	**11.9 NU**
Potential design capacity	**11.9 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **173.16**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**267 m (876 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Operation #23

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 1 , Lot 1
Roll number: 2326

Total lot size
34.78 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	475 m²	23.8 NU	475 m²

Confirm Livestock/Manure Information (Operation #23)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation #23)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**- Not Specified -**
Design capacity	**23.8 NU**
Potential design capacity	**23.8 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **207.5**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**320 m (1050 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Operation #24

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
ERAMOSA
Concession 1 , Lot 32
Roll number: 2326

Total lot size
24.24 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	86	86 NU	399 m²

Confirm Livestock/Manure Information (Operation #24)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**86 NU**
Potential design capacity	**86 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **303.24**
Factor E (encroaching land use) **2.2**

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

Operation #25

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 4 , Lot 14
Roll number: 2326

Total lot size
39.81 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	32	45.7 NU	966 m²

Confirm Livestock/Manure Information (Operation #25)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**45.7 NU**
Potential design capacity	**45.7 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **251.42**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**272 m (892 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**272 m (892 ft)**
Actual distance from manure storage	**NA**

Operation #26

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 4 , Lot 13
Roll number: 2326

Total lot size
39.37 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	11	15.7 NU	332 m²

Confirm Livestock/Manure Information (Operation #26)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**15.7 NU**
Potential design capacity	**15.7 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **185.69**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**201 m (659 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**201 m (659 ft)**
Actual distance from manure storage	**NA**

Operation #29

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 1 , Lot 4
Roll number: 2326

Total lot size
33.65 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	427 m²	21.4 NU	427 m²

Confirm Livestock/Manure Information (Operation #29)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation #29)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**- Not Specified -**
Design capacity	**21.4 NU**
Potential design capacity	**21.4 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **202.7**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**313 m (1027 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Operation #3

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 2 , Lot 9
Roll number: 2326

Total lot size
0.88 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	103 m²	5.2 NU	103 m²

Confirm Livestock/Manure Information (Operation #3)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation #3)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**5.2 NU**
Potential design capacity	**5.2 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **150.5**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**232 m (761 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**232 m (761 ft)**
Actual distance from manure storage	**NA**

Operation #31

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 3 , Lot 14
Roll number: 2326

Total lot size
40.7 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	952 m²	47.6 NU	952 m²

Confirm Livestock/Manure Information (Operation #31)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation #31)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**- Not Specified -**
Design capacity	**47.6 NU**
Potential design capacity	**47.6 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **255.2**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**394 m (1293 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Operation #35

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 16 , Lot 18
Roll number: 2326

Total lot size
7.05 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	74	74 NU	344 m²

Confirm Livestock/Manure Information (Operation #35)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**74 NU**
Potential design capacity	**74 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **292.51**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**316 m (1037 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**316 m (1037 ft)**
Actual distance from manure storage	**NA**

Operation #4

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 2 , Lot 9
Roll number: 2326

Total lot size
61.29 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	27	38.6 NU	815 m²

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**38.6 NU**
Potential design capacity	**38.6 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **237.14**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**256 m (840 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**256 m (840 ft)**
Actual distance from manure storage	**NA**

Operation #40 & #92

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 13 , Lot 14
Roll number: 2326

Total lot size
192.05 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Shortkeepers (12.5 - 17.5 months)	1250	625 NU	7549 m²

Setback summary

Existing manure storage	**V2. Solid, outside, covered**
Design capacity	**625 NU**
Potential design capacity	**625 NU**

Factor A (odour potential) **0.8**
Factor B (design capacity) **599.65**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**739 m (2425 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**739 m (2425 ft)**
Actual distance from manure storage	**NA**

Operation #44

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 3 , Lot 11
Roll number: 2326

Total lot size
42.91 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	510	510 NU	2369 m²

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**510 NU**
Potential design capacity	**510 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **558.46**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**603 m (1978 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**603 m (1978 ft)**
Actual distance from manure storage	**NA**

Operation #48

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 2 , Lot 13
Roll number: 2326

Total lot size
2.73 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	674 m²	33.7 NU	674 m²

Confirm Livestock/Manure Information (Operation #48)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation #48)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**- Not Specified -**
Design capacity	**33.7 NU**
Potential design capacity	**33.7 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **227.4**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**351 m (1152 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Operation #49

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 2 , Lot 10
Roll number: 2326

Total lot size
22.41 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	36	36 NU	167 m²

Confirm Livestock/Manure Information (Operation #49)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**36 NU**
Potential design capacity	**36 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **232**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**251 m (823 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**251 m (823 ft)**
Actual distance from manure storage	**NA**

Operation #50

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 3 , Lot 9
Roll number: 2326

Total lot size
44.81 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Dairy, Heifers Large Frame (182 - 545 kg) (eg. Holsteins), Free Stall	297	148.5 NU	2069 m²
Solid	Chickens, Layer hens (for eating eggs; after transfer from pullet barn), Floor Run	8032	53.5 NU	747 m²

Confirm Livestock/Manure Information (Operation #50)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**M1. Liquid, outside, no cover, straight-walled storage**
Design capacity	**202.1 NU**
Potential design capacity	**202.1 NU**

Factor A (odour potential) **0.78**
Factor B (design capacity) **403.88**
Factor D (manure type) **0.77**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**534 m (1752 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**581 m (1906 ft)**
Actual distance from manure storage	**NA**

Operation #51

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 2 , Lot 9
Roll number: 2326

Total lot size
45.01 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Dairy, Heifers Large Frame (182 - 545 kg) (eg. Holsteins), Free Stall	340	170 NU	2369 m²

Confirm Livestock/Manure Information (Operation #51)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**M1. Liquid, outside, no cover, straight-walled storage**
Design capacity	**170 NU**
Potential design capacity	**170 NU**

Factor A (odour potential) **0.7**
Factor B (design capacity) **380.19**
Factor D (manure type) **0.8**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**469 m (1539 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**523 m (1716 ft)**
Actual distance from manure storage	**NA**

Operation #52

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 2 , Lot 8
Roll number: 2326

Total lot size
4.92 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Unoccupied Livestock Barn	382 m²	19.1 NU	382 m²

Confirm Livestock/Manure Information (Operation #52)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Unoccupied Barn or Unused Storage (Operation #52)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	**- Not Specified -**
Design capacity	**19.1 NU**
Potential design capacity	**19.1 NU**

Factor A (odour potential) **1**
Factor B (design capacity) **196.99**
Factor D (manure type) **0.7**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**304 m (997 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**No existing manure storage**
Actual distance from manure storage	**NA**

Operation #53

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 2 , Lot 6
Roll number: 2326

Total lot size
44.75 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Broilers	28074 m²	1132 NU	28074 m²

Confirm Livestock/Manure Information (Operation #53)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**1132 NU**
Potential design capacity	**1132 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **738.23**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**796 m (2612 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**796 m (2612 ft)**
Actual distance from manure storage	**NA**

Operation #54

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 3 , Lot 6
Roll number: 2326

Total lot size
2.42 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	240	240 NU	1115 m²

Confirm Livestock/Manure Information (Operation #54)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage **V3. Solid, outside, no cover, >= 30% DM**

Design capacity **240 NU**

Potential design capacity **240 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **428.96**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**463 m (1519 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**463 m (1519 ft)**
Actual distance from manure storage	**NA**

Operation #56

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 1 , Lot 6
Roll number: 2326

Total lot size
44.42 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	419	419 NU	1946 m²

Confirm Livestock/Manure Information (Operation #56)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage **V3. Solid, outside, no cover, >= 30% DM**

Design capacity **419 NU**

Potential design capacity **419 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **521.33**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**562 m (1844 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**562 m (1844 ft)**
Actual distance from manure storage	**NA**

Operation #57

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 1 , Lot 7
Roll number: 2326

Total lot size
41.92 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	197	197 NU	915 m²

Confirm Livestock/Manure Information (Operation #57)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**197 NU**
Potential design capacity	**197 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **400.32**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**432 m (1417 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**432 m (1417 ft)**
Actual distance from manure storage	**NA**

Operation #72

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 3 , Lot 4
Roll number: 2326

Total lot size
43.81 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	245	245 NU	1138 m²

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**245 NU**
Potential design capacity	**245 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **432.06**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**466 m (1529 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**466 m (1529 ft)**
Actual distance from manure storage	**NA**

Operation #73

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 2 , Lot 5
Roll number: 2326

Total lot size
44.44 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Cows, including calves to weaning (all breeds), Yard/Barn	215	215 NU	999 m²

Confirm Livestock/Manure Information (Operation #73)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**215 NU**
Potential design capacity	**215 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **412.76**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**445 m (1460 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**445 m (1460 ft)**
Actual distance from manure storage	**NA**

Operation #8

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 2 , Lot 8
Roll number: 2326

Total lot size
69.63 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Broilers	3796 m²	153.1 NU	3796 m²

Confirm Livestock/Manure Information (Operation #8)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**153.1 NU**
Potential design capacity	**153.1 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **366.47**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**396 m (1299 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**396 m (1299 ft)**
Actual distance from manure storage	**NA**

Operation #9

Farm contact information

ON

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
GARAFRAXA
Concession 3 , Lot 8
Roll number: 2326

Total lot size
36.9 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Large-framed, mature; > 680 kg (including unweaned offspring)	14	20 NU	423 m²

Confirm Livestock/Manure Information (Operation #9)
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

Setback summary

Existing manure storage	**V3. Solid, outside, no cover, >= 30% DM**
Design capacity	**20 NU**
Potential design capacity	**20 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **199.99**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	**216 m (709 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**216 m (709 ft)**
Actual distance from manure storage	**NA**

Preparer signoff & disclaimer

Preparer contact information
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Signature of preparer

John Liotta , Agrologist/Ecologist

Date (mmm-dd-yyyy)

Note to the user

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