6586 BEATTY LINE NORTH
AGRICULTURAL IMPACT ASSESSMENT
TOWNSHIP OF CENTRE WELLINGTON
WELLINGTON COUNTY

DBH Soil Services Inc.

June 2025

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June 16, 2025

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DBH Soil Services Inc.

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1 INTRODUCTION

DBH Soil Services Inc was retained to complete an Agricultural Impact Assessment (AIA) Report for a parcel located at 6586 Beatty Line North in the Township of Centre Wellington, in Wellington County. The parcel immediately abuts a portion of the northern boundary of the settlement area of Fergus. This AIA will contribute to an Official Plan Amendment (OPA).

An OPA is required to designate these lands "Designated Built-Up Area" within the County of Wellington's Official Plan, in order to implement the proposed expansion of the existing settlement area of Fergus in Centre Wellington.

The proposed future development of this area required the completion of an AIA. This AIA identifies and assesses agricultural impacts based on roadside reconnaissance surveys and online resources and provides avoidance or mitigative measures as necessary to offset or lessen any impacts.

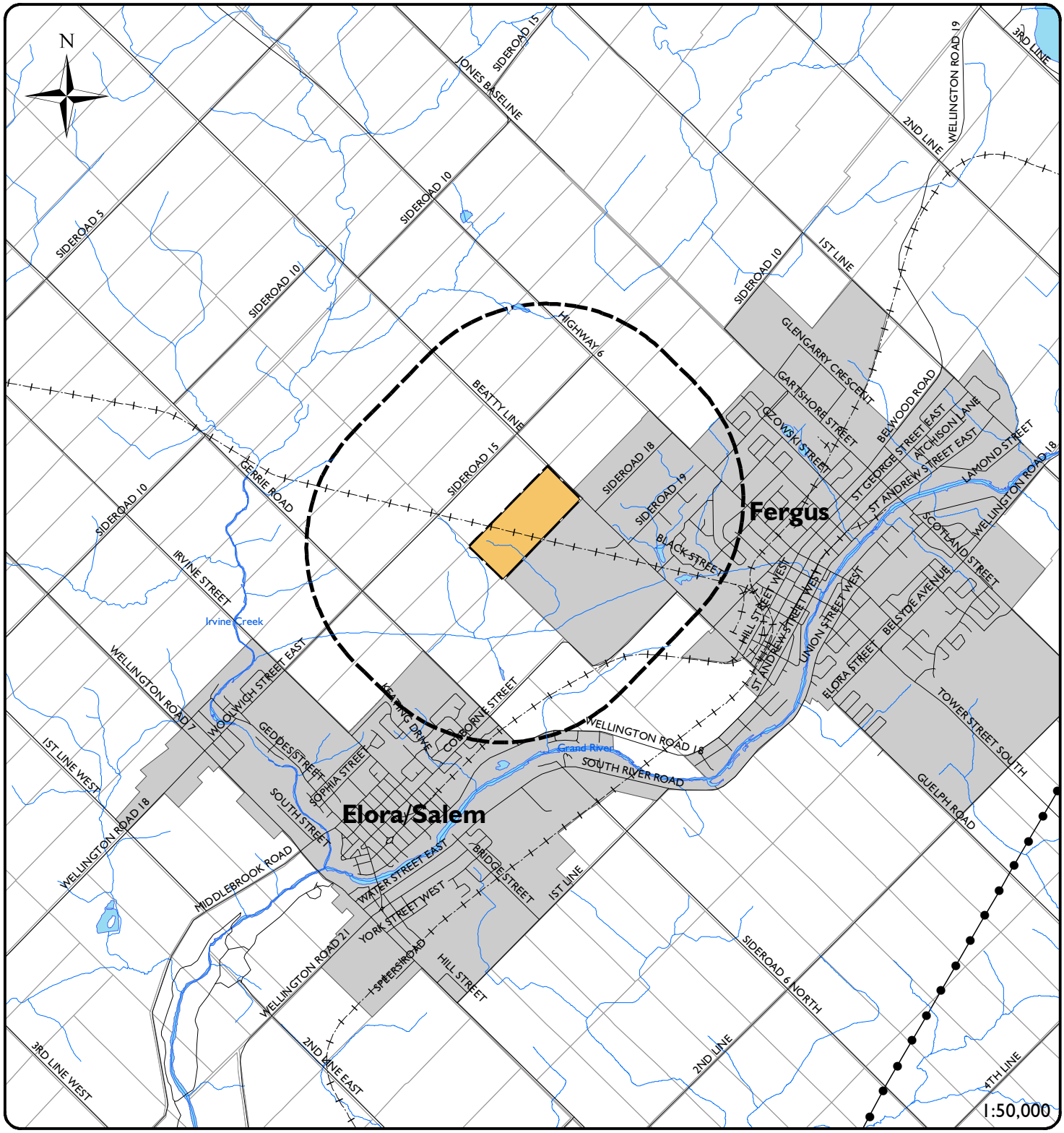
For the purposes of this AIA, 6586 Beatty Line North is identified as the Primary Study Area (PSA). A Secondary Study Area (SSA) of 1500 m beyond the boundaries of the PSA was used for the characterization of the agricultural community and the assessment of potential impacts both on and in the immediate vicinity of the PSA. The 1500 m SSA was defined in the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) *Draft Agricultural Impact Assessment Guidance Document (March 2018)* as is required for a settlement area boundary expansion.

The PSA comprises a mix of land uses including agricultural, disturbed, and woodland. The SSA comprises a mix of land uses including rural residential uses, agricultural lands, transportation corridors, urban lands, and woodlands. An abandoned rail corridor crosses both the PSA and the SSA.

Figure 1 illustrates the relative location and shape of the PSA and SSA with respect to the above-mentioned geographical and community features.

This AIA report documents the methodology, findings, conclusions, and mapping completed for this study.

It is noted that the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) has recently been renamed to the Ontario Ministry of Agriculture, Food, and Agribusiness (OMAFA) which has led to some confusion as to referencing documents and/or data. The references in this report relate to the particular reference identified in the respective document/data set.



Legend

- Abandoned Railway (MNR)
- Roads (MNR)
- Utility Line (MNR)
- Water Course (MNR)
- Lot Lines (MNR)
- Primary Study Area (PSA)
- Secondary Study Area (SSA) (1500 m)
- Settlements (WC)
- Water Body (MNR)

MNR - Ministry of Natural Resources, WC - Wellington County

Figure 1

Location

DBH Soil Services Inc.

May 2025

2 METHODOLOGY

A variety of data sources were evaluated to characterize the extent of agriculture resources and to assess any potential existing (or future) impacts to agriculture within the PSA and the surrounding SSA that may occur as a result of the proposed future development of the PSA.

In an effort to determine the requirements for completion of an AIA, a review of the *County of Wellington Official Plan (Office Consolidation July 2024)* and associated schedules was completed. The review of the *County of Wellington Official Plan (Office Consolidation July 2024*) identified the need for AIAs in Section 4.6.5. Section 4.6.5 states:

> ***4.6.5 Agricultural Impact Assessment***
> *Where development is proposed in prime or secondary agricultural areas, a Council may require an assessment of the impacts the development may have on agricultural activities in the area. An assessment may include any or all of the following:*
> *a) the opportunity to use lands of lower agricultural potential;*
> *b) compliance with the minimum distance separation formulae for livestock operations;*
> *c) the degree to which agricultural expansion may be constrained;*
> *d) potential interference with normal agricultural activities and practices;*
> *e) potential interference with the movement of agricultural machinery on roads;*
> *f) such other concerns as a Council may consider relevant.*

Further, the review of the *County of Wellington Official Plan (Office Consolidation July 2024)* identified in Section 4.8.2 – Primary Urban Centre Expansion Criteria that:

> *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;*

The *County of Wellington Official Plan (Office Consolidation July 2024)* defined an Agricultural Impact Assessment as:

> *means 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.*

A further review was completed to determine the existence and use of AIA Guidelines in Ontario.

The review determined that a few municipalities had specific guidelines or terms of reference for completing AIAs within those respective jurisdictions.

The review on the existence and use of AIA Guidelines revealed that the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) had released draft Agricultural Impact Assessment guidelines in a document titled "*Draft Agricultural Impact Assessment (AIA) Guidance Document, March 2018*". This OMAFRA document is considered as "Draft for Discussion Purposes" and does not have status but is the basis for how OMAFRA addresses agricultural impacts and mitigation.

As a result of the review on the existence and use of AIA guidelines in Ontario, this AIA report has been completed with regard to the review/reference and requirements of the OMAFRA "*Draft Agricultural Impact Assessment (AIA) Guidance Document, March 2018*" and with regard to the requirements of the *County of Wellington Official Plan (Office Consolidation July 2024)*.

2.1 CONSULTATION

Agriculture is an important component of the economy in the Wellington County. As such, consultation with various agencies, provincial and municipal offices, and local farm community, would be appropriate to discuss and collect information related to agriculture and agricultural policy as part of the OPA and the AIA assessment.

At the time of writing this report, discussions/meetings had been held with some of the agencies as part of the planning process. Continued consultation will occur through the OPA process.

2.2 DATA COLLECTION

A variety of data sources were utilized in the assessment of agriculture in the PSA and SSA. Data was collected in a variety of formats including digital (shapefiles and imagery), paper copy, and through correspondence (telephone, email, etc), as necessary. A synopsis of the type of data and the collection of the relevant data is provided below.

2.2.1 POLICY

Relevant policy, by-laws and guidelines related to agriculture and infrastructure development were reviewed for this study.

The review included an examination of Provincial and Municipal policy as is presented in the *Provincial Planning Statement (PPS, 2024), the Greenbelt Plan (2017, updated mapping 2022), the Oak Ridges Moraine Conservation Plan (2017),* and the *County of Wellington Official Plan (Office Consolidation July 2024)*.

The review also included a review of the *Township of Centre Wellington Comprehensive Zoning By-law No. 2009-045 (Office Consolidation February 2024)*.

Further, the review included an assessment of *the Minimum Distance Separation (MDS) Document – Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks. Publication*

853. Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA, 2016). The MDS document was reviewed to determine the applicability of the document's use for this study.

An assessment of online data resources including OMAFRA, Geospatial Ontario (Ontario.ca), and the County of Wellington website was completed. Further, this assessment included telephone, email and in person communication/correspondence to derive a list of relevant policy, by-law and guidelines. Each relevant policy, by-law and guideline was collected in digital or paper format for examination for this study.

2.2.2 EVALUATION OF ALTERNATIVE LOCATIONS

The PPS 2024 Policy 2.3.2.1d identifies the requirement to complete an *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*. Of particular importance is the term "reasonable alternatives".

The PPS 2024 does not specifically define lower priority agricultural lands but provides a number of considerations to determine the agricultural priority of an area. These criteria include consideration of existing land use, capital investment in agriculture, degree of fragmentation, and proximity to non-agricultural lands uses (incompatibility). This AIA will consider these criteria to assess the agricultural priority and assessment of alternative locations.

2.2.3 PHYSIOGRAPHY

A review of the *Physiography of Southern Ontario 3rd Edition, Ontario Geological Survey Special Volume 2, Ministry of Natural Resources (1984)* and the associated digital GIS shapefiles was completed to document the type(s) and depth of bedrock and soil parent materials, and how these materials, in conjunction with glacial landforming processes, have led to the development of the existing soil resources.

2.2.4 TOPOGRAPHY AND CLIMATE

Topographic information was reviewed from the 1:10000 scale Ontario Base Mapping, Ontario GeoHub (Ontario.ca) digital contour mapping and windshield surveys.

Climate data was taken from the OMAFRA document titled *Agronomy Guide for Field Crops – Publication 811 (June 2017)* and online OMAFRA data sources. The use of this climate information is consistent with the description within the *Draft OMAFRA Agricultural Impact Assessment (AIA) Guidance Document (March 2018)* where there is a requirement to provide a general description of climatic features (crop heat units, frost free days, and general climatic patterns of the area).

The *Draft OMAFRA Agricultural Impact Assessment (AIA) Guidance Document (March 2018)* indicates the need to provide greater detail on climate only in specialty crop areas.

2.2.5 AGRICULTURAL LAND USE

Agricultural land use data was collected through observations made during roadside reconnaissance surveys and field surveys conducted on May 2, 2025. Data collected included the identification of land use (both agricultural and non-agricultural), the documentation of the location and type of agricultural facilities/services, the location of non-farm residential units and the location of non-farm buildings (businesses, storage facilities, industrial, commercial, and institutional usage).

Agricultural land use designations were correlated to the *Agricultural Resource Inventory* (ARI) and the information provided in the Agricultural System Portal (OMAFRA) for the purpose of updating the OMAFRA Land Use Systems mapping for both the PSA and SSA.

2.2.6 MINIMUM DISTANCE SEPARATION

Minimum Distance Separation (MDS) formulae were developed by OMAFRA to reduce and minimize nuisance complaints due to odour from livestock facilities and to reduce land use incompatibility.

A review of the OMAFRA document titled *The Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks* (Publication 853, Ontario Ministry of Agriculture, Food and Rural Affairs. 2016) was completed.

It is stated under guideline #1:

> *In accordance with the Provincial Planning Statement, 2014, this MDS Document shall apply in prime agricultural areas and on rural lands.*

This AIA is based on a proposed settlement area boundary expansion in an agricultural area. Therefore, an assessment of MDS1 is required.

Agricultural buildings in the PSA and SSA were assessed during a roadside reconnaissance survey and through a review of online imagery. Agricultural buildings housing livestock or having the capability to house livestock were identified and require MDS1 assessment and calculations.

A search of online reference material also identified a Colville Consulting Inc. letter report dated June 21, 2024, that provided an assessment of MDS1 for settlement area boundary expansion of Centre Wellington. The Colville Consulting Inc. report was reviewed as part of this AIA.

2.2.7 LAND FRAGMENTATION/SEVERANCE

Land fragmentation data was collected through a review of online interactive mapping on the Agmaps (OMAFRA) website, the Agricultural System Portal (OMAFRA), and the County of Wellington websites. This data was used to determine the extent, location, relative shape of each parcel/property within both the PSA and the SSA.

Land fragmentation can be defined as the increase in the number of smaller parcels, which are generally non-agricultural uses, within a predominantly agricultural area. Over time the increase in smaller non-agricultural land uses creates a patchwork-like distribution of rural land uses, resulting in lands lost to agricultural production. Generally, good productive areas of farmland are comprised of larger parcels with few (if any) smaller parcels interspersed.

The assessment of fragmentation looked at the size, shape and number of parcels within a given area, and provided comments on the potential effect on agriculture.

Land severance is the severing or dividing of a parcel into multiple sections. An assessment of land severance was completed to determine the extent of parcels that may be severed as a result of the proposed future development of the PSA.

2.2.8 SOIL SURVEY

Soil survey data and Canada Land Inventory (CLI) data was provided by OMAFRA in digital format through the Ontario Geohub Land Information Ontario (LIO) Warehouse Open Data website. The soils/CLI data is considered the most recent iteration of the soil information from OMAFRA.

The digital soil survey data was also correlated to the printed soil survey reports and maps (Soils of Wellington County, Report No. 35 of the Ontario Soil Survey (Hoffman, D.W., B.C. Matthews, and R.E. Wicklund, 1963)) to determine if the digital soils data have been modified from the original soil survey data.

Further, discussions with OMAFRA indicated that the Provincial soils data base has been updated to include some slope information in an effort to provide the digital data at a scale of 1:50000. The original reports and associated mapping were generally completed to a scale of 1:63360 or 1 inch to 1 mile.

2.2.9 AGRICULTURAL SYSTEM

The Ontario Ministry of Agriculture, Food and Rural Affairs online Agricultural Systems mapping was reviewed to determine the extent of agriculture in the PSA, in the SSA, and the County of Wellington in general.

OMAFRA identifies that the Agricultural System comprises two parts: Agricultural Land Base; and the Agri-Food Network.

The Agricultural Land Base illustrates the Prime Agricultural Areas (including specialty crop areas), while the Agri-Food Network illustrates regional infrastructure/transportation networks, buildings, services, markets, distributors, primary processing, and agriculture communities.

The review of the Agricultural Network included a visual assessment of any agricultural services and transportation networks identified during the roadside reconnaissance survey within the PSA and the SSA, and a review of the OMAFRA Agricultural Systems Portal mapping.

2.2.10 AGRICULTURAL STATISTICS

Agricultural statistics were provided by Statistics Canada and downloaded from the OMAFRA website for the County of Wellington. The data sets provide information up to (and including) the 2021 Census.

The OMAFRA draft AIA Guidelines indicates that the background data collection and review should include:

- *Agricultural crop statistics, over several recent census periods (Statistics Canada, Census of Agriculture).*

It is understood that the Census of Agriculture data is very extensive and detailed. This AIA utilized the Census of Agriculture data to provide a review of basic crop statistics over a minimum of three census periods extending from 2006 to 2021.

It is noted that the Census of Agriculture data does not always provide the most recent or updated municipality name. For the purposes of this AIA the review and assessment of the Census of Agriculture made use of the municipality name as was stated in the Census of Agriculture data sets.

3 POLICY REVIEW

Clearly defined and organized environmental practices are necessary for the conservation of land and resources. The long-term protection of quality agricultural lands is a priority of the Province of Ontario and has been addressed in the *Provincial Planning Statement (PPS, 2024)*. Further, in an effort to protect agricultural lands, the Province of Ontario has adopted policy and guidelines to provide a framework for managing growth. These three provincial land use plans: *the Greenbelt Plan (2017); the Niagara Escarpment Plan (2017), and the Oak Ridges Moraine Conservation Plan (2017)* support the long-term protection of farmland. The provincial land use plans have policies that require the completion of AIA studies for changes in agricultural land use.

With this in mind, the *Provincial Planning Statement (PPS, 2024); the Greenbelt Plan (2017); the Niagara Escarpment Plan (2017); and the Oak Ridges Moraine Conservation Plan (2017)* were reviewed.

With respect to this AIA and the three provincial land use plans, a review of the boundaries of the Greenbelt Plan Area, the Niagara Escarpment Plan Area and the Oak Ridges Moraine Conservation Area was completed.

It was determined that the PSA and the SSA were located outside the boundaries of the *Greenbelt Plan* mapping, the Niagara Escarpment Plan mapping and the *Oak Ridges Moraine Conservation Plan* mapping, therefore those policy plans do not apply to this AIA.

Municipal Governments have similar regard for the protection and preservation of agricultural lands and address their specific concerns within their respective Official Plans on County/Regional level and Township level.

A review of municipal policy was based on an examination of the *County of Wellington Official Plan (Office Consolidation July 2024*) and the *Municipal Official Plan of the Township of Centre Wellington (Office Consolidation February 2024)*.

The review also included a review of the *Township of Centre Wellington Comprehensive Zoning By-law No. 2009-045 (Office Consolidation February 2024)*.

It was determined through these reviews, that no portions of the PSA or the SSA were located in a provincially or municipally designated specialty crop area.

The relevant policies from the above-mentioned documents are presented as follows.

3.1 PROVINCIAL AGRICULTURAL POLICY

The *Provincial Planning Statement (PPS, 2024)* was enacted to document the Ontario Provincial Governments development and land use planning strategies. The *Provincial Planning Statement (PPS, 2024)* provides the policy foundation for regulating the development and use of land. With respect to the potential future settlement area boundary expansion development of the PSA, the following policies may apply.

Agricultural policies are addressed within Sections 4.3 (Agriculture) of the PPS, 2024. Select agricultural policies are provided as follows:

4.3.1 General Policies for Agriculture

1. *Planning authorities are required to use an agricultural system approach, based on provincial guidance, to maintain and enhance a geographically continuous agricultural land base and support and foster the long-term economic prosperity and productive capacity of the agri-food network.*

2. *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.*

3. *Specialty crop areas shall be given the highest priority for protection, followed by Canada Land Inventory Class 1, 2, and 3 lands, and any associated Class 4 through 7 lands within the prime agricultural area, in this order of priority.*

4.3.2 Permitted Uses

1. *In prime agricultural areas, permitted uses and activities are: agricultural uses, agriculture-related uses and on-farm diversified uses based on provincial guidance.*

   Proposed agriculture-related uses and on-farm diversified uses shall be compatible with, and shall not hinder, surrounding agricultural operations. Criteria for these uses may be based on provincial guidance or municipal approaches, as set out in municipal planning documents, which achieve the same objectives.

2. *In prime agricultural areas, all types, sizes and intensities of agricultural uses and normal farm practices shall be promoted and protected in accordance with provincial standards.*

3. *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.*

4.3.4 Removal of Land from Prime Agricultural Areas

1. *Planning authorities may only exclude land from prime agricultural areas for expansions of or identification of settlement areas in accordance with policy 2.3.2.*

4.3.5 Non-Agricultural Uses in Prime Agricultural Areas

1. *Planning authorities may only permit non-agricultural uses in prime agricultural areas for:*
   a) extraction of minerals, petroleum resources and mineral aggregate resources; or
   b) limited non-residential uses, provided that all of the following are demonstrated:
      1 the land does not comprise a specialty crop area;
      2 the proposed use complies with the minimum distance separation formulae;
      3 there is an identified need within the planning horizon identified in the official plan as provided for in policy 2.1.3 for additional land to accommodate the proposed use; and
      4 alternative locations have been evaluated, and
         i. there are no reasonable alternative locations which avoid prime agricultural areas; and
         ii. there are no reasonable alternative locations in prime agricultural areas with lower priority agricultural lands.
2. *Impacts from any new or expanding non-agricultural uses on the agricultural system are to be avoided, or where avoidance is not possible, minimized and mitigated as determined through an agricultural impact assessment or equivalent analysis, based on provincial guidance.*

4.3.6 Supporting Local Food and the Agri-food Network

1. *Planning authorities are encouraged to support local food, facilitate near-urban and urban agriculture, and foster a robust agri-food network.*

Further, the PPS Policy 2.3.2 provides context for Settlement Areas and Settlement Area Boundary Expansions. Select agricultural policies are provided as follows:

2.3.2 New Settlement Areas and Settlement Area Boundary Expansions

1. *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

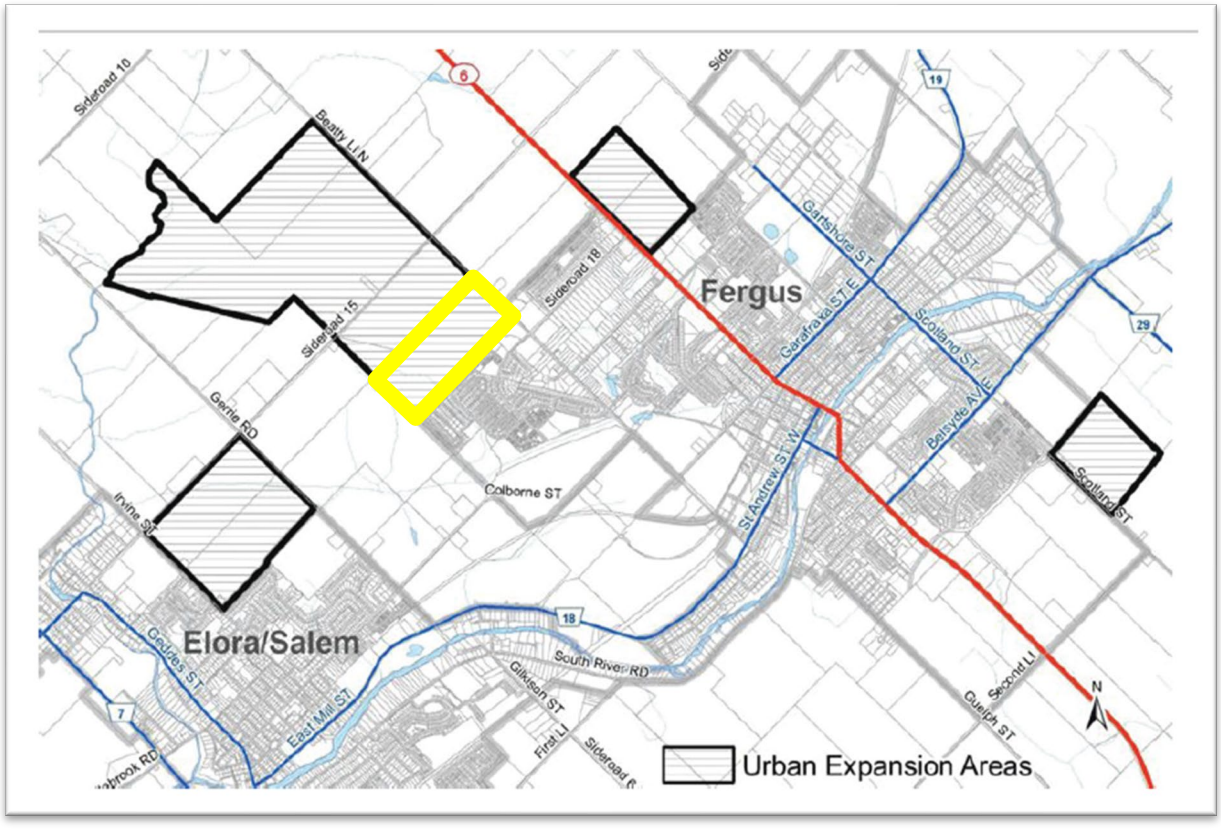
g) the new or expanded settlement area provides for the phased progression of urban development.

2. *Notwithstanding policy 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.*

This AIA does not provide an assessment of need, or an assessment of capacity of infrastructure and public services facilities. It is assumed that the assessment of the need and capacity of infrastructure has been addressed in other planning documents.

It is noted that these lands were part of modifications directed by the Ministry of Municipal Affairs approval of Official Plan Amendment (OPA) 119 (Version 1) County Growth Structure in April 2023. In December 2023 Bill 150 reversed most Provincial modifications related to OPA 119 (Version 2). In May 2024 Bill 162 modified OPA 119 (Version 3) with some Provincial modifications with scoped Municipal input and was in force retroactively December 6, 2023. It is noted that the PSA lands were included in the Urban Expansion Areas. Figure 2 illustrates the proposed urban expansion areas under OPA 119 (Version 1). The PSA is illustrated as a yellow highlighted outline crosshatch on Figure 2.

Figure 2 Proposed Urban Expansion Areas



Source: County of Wellington Image

A review was conducted of online resources to determine if there was any background information related to the reasons that these Urban Expansion Areas were chosen for OPA 119. The review failed to find any information related to these Urban Expansion Areas. It is assumed that there were some technical studies completed that determined that these were appropriate areas for settlement area boundary expansions and that these Urban Expansion Areas were based on an assessment of policy, need, and infrastructure.

The Province later reversed the decision on these Urban Expansion Areas effectively removing these lands from development. The review of online resources also failed to find any information related to why the decision was made to remove these lands.

3.2 PROVINCIAL AGRICULTURAL LEGACY LAND BASE MAPPING

Provincial policy requires that prime agricultural areas be protected for long-term use for agriculture. The province identified the agricultural land base through a Land Evaluation and Area Review (LEAR) assessment for the Greater Golden Horseshoe area to assist municipalities in making informed land-use planning decisions. Municipalities were required to review the agricultural land base mapping and provide refinements to the agricultural land base as part of Official Plan updates.

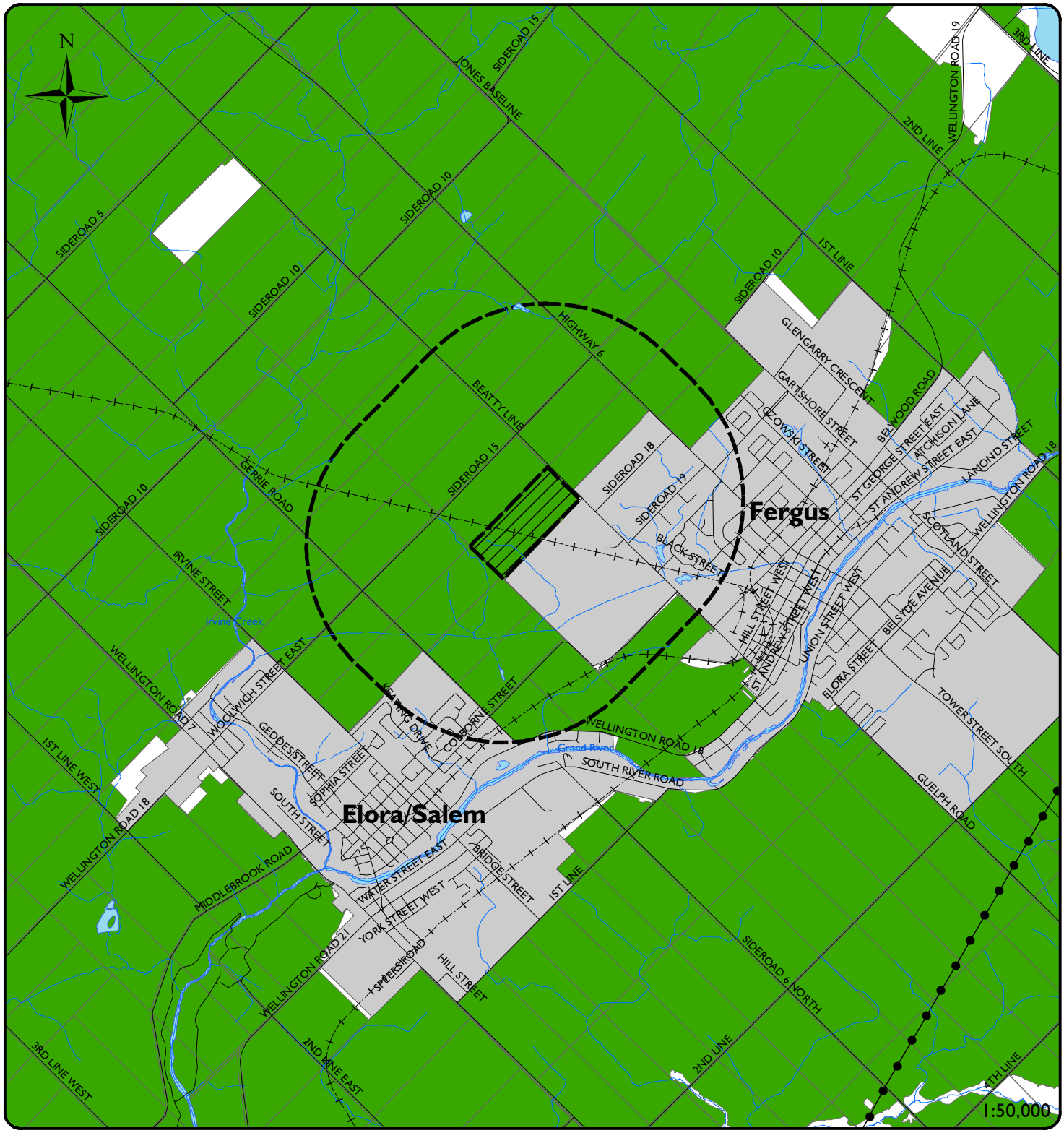
Figure 3 illustrates the relative location of the PSA and the SSA with respect to the Provincial Agricultural Land Base Mapping. It is noted that the Provincial Land Base mapping is now considered a legacy map and is not being updated by the province. Further, the province has indicated on the Agricultural Systems Portal website that "*For the most up-to-date prime agricultural area mapping, check the applicable, approved municipal official plan.*"

The PSA and SSA are located in the Prime Agricultural Area of the Provincial Legacy Land Base Mapping. As noted in Figure 3, there are no Specialty Crop Areas located near the PSA and SSA.

A recent letter from OMAFA Policy Branch April 15, 2025, provided the following comment regarding the legacy Agricultural Land Base Mapping and the Greenbelt Plan Protected Countryside.

> *The existing OMAFA Implementation Procedures for the Agricultural System (2020) continue to provide helpful guidance with respect to what/how municipalities can address Agricultural System policies in their respective official plans. It is important to note that given section 5.3 of the Greenbelt Plan, 2017 has not been modified, the 2018 provincial agricultural land base mapping and implementation procedures remains in effect for the Protected Countryside of the Greenbelt. OMAFA staff are developing updated Implementation Procedures for the Agricultural System to align with the PPS (2024) and will provide notice once these updates have been finalized.*

Therefore, the implementation procedures remain in effect for those areas of the Greenbelt



Legend

- Abandoned Railway (MNR)
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- Water Course (MNR)
- Lot Lines (MNR)
- Primary Study Area (PSA)
- Secondary Study Area (SSA) (1500 m)
- Settlements (WC)
- Water Body (MNR)

Agricultural Land Base Legacy (OMAFA)

- Candidate Area
- Prime Agricultural Area
- Specialty Crop Area

MNR - Ministry of Natural Resources, OMAFA - Ontario Ministry of Agriculture, Food, and Agribusiness, WC - Wellington County

Figure 3

Agricultural Land Base Legacy Mapping

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May 2025

Plan Protected Countryside identified in the legacy Agricultural Land Base Mapping. As the PSA and SSA are not located within the Greenbelt Plan mapping, this AIA will rely on the land use designations presented in the local municipal Official Plans.

3.3 THE GREENBELT PLAN

A review of the Greenbelt Plan (2017 and updated mapping 2022); mapping indicated that no portions of the PSA nor the SSA are located within the boundaries of the Greenbelt Plan area. Therefore, the Greenbelt Plan policies do not apply to this AIA.

3.4 THE NIAGARA ESCARPMENT PLAN

A review of the boundaries of the Niagara Escarpment Plan (2017) (and associated digital mapping) was completed. The review indicated that no portions of the PSA or the SSA are located within the Niagara Escarpment Plan area. Therefore, the policies of the Niagara Escarpment Plan do not apply to this AIA.

3.5 THE OAK RIDGES MORAINE CONSERVATION PLAN

A review of the boundaries of the Oak Ridges Conservation Plan (and associated digital mapping) was completed. The review indicated that no portions of the PSA or the SSA are located within the Oak Ridges Conservation Plan (2017) area. Therefore, the policies of the Oak Ridges Moraine Conservation Plan do not apply to this project.

3.6 OFFICIAL PLAN POLICY

Official Plan policies are prepared under the Planning Act, as amended, of the Province of Ontario. Official Plans generally provide policy comments for land use planning while taking into consideration the economic, social, and environmental impacts of land use and development concerns. A review for Official Plan documents revealed that the Township of Centre Wellington is a lower tier municipality located within the County of Wellington (upper tier).

For the purpose of this AIA, the review of Official Plans included an examination of the *County of Wellington Official Plan (Office Consolidation July 2024) and the Municipal Official Plan of the Township of Centre Wellington (Office Consolidation February 2024)*.

As noted on the Centre Wellington website:

> *"The Township of Centre Wellington's Official Plan only applies to the Elora and Fergus Urban Centres, including Salem and Belwood. All other areas of the Township are governed by the County of Wellington's Official Plan."*

Therefore, the review of agricultural policy for the PSA and SSA relied on the *County of Wellington Official Plan (Office Consolidation July 2024)*.

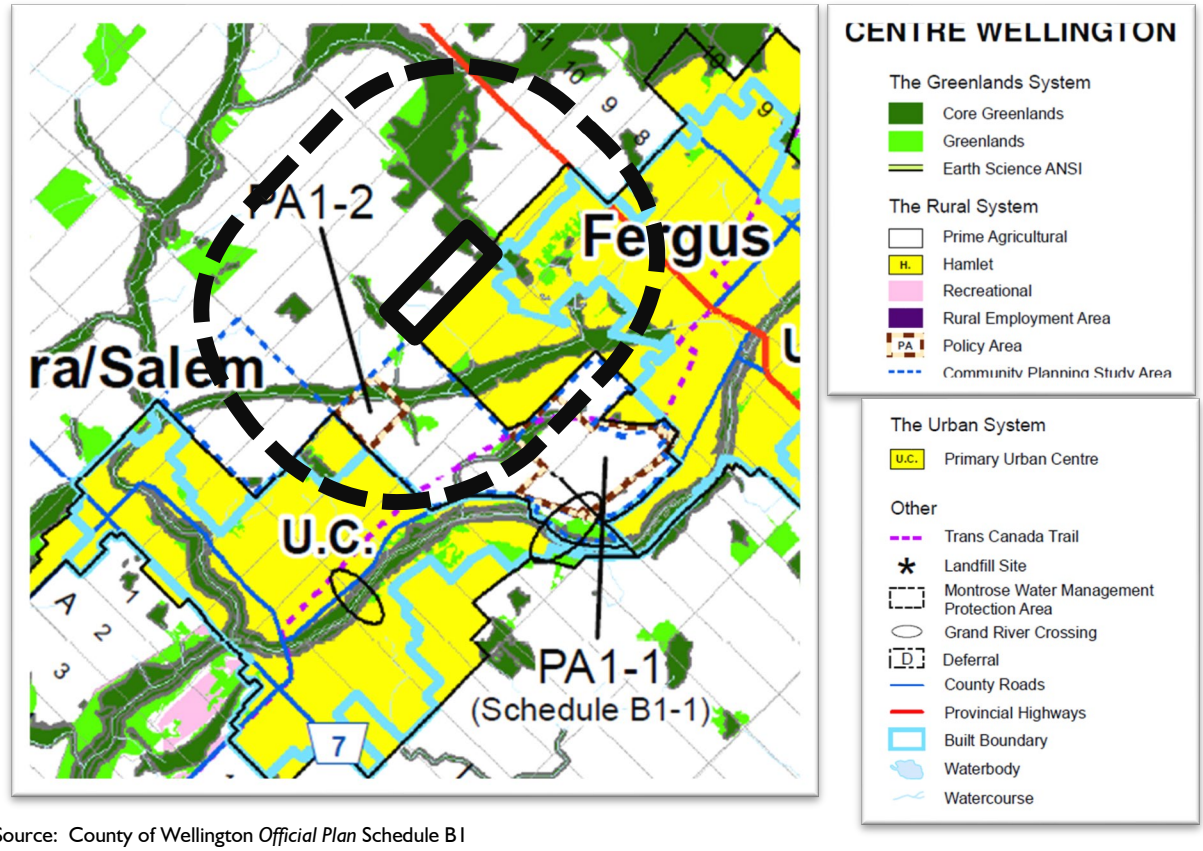
A review was also completed for the Township of Centre Wellington Comprehensive Zoning By-law No. 2009-045 (Office Consolidation February 2024).

3.6.1 COUNTY OF WELLINGTON OFFICIAL PLAN

The review of the *County of Wellington Official Plan (Office Consolidation July 2024)* Schedule B1 Land Use Centre Wellington revealed that the PSA was comprised of lands designated as Prime Agricultural, Core Greenlands, and Greenlands. The SSA was comprised of lands designated as Prime Agricultural, Core Greenlands, Greenlands, and Primary Urban Centre.

Figure 4 illustrates a select portion of Schedule B1 showing the land use designations for the PSA and SSA. The PSA is illustrated as a solid black line, while the SSA is illustrated as a dashed black line.

Figure 4 County of Wellington Official Plan Schedule B1



Source: County of Wellington *Official Plan* Schedule B1

The review of the County of Wellington Official Plan (Office Consolidation July 2024) identified Farmland Protection policies in Section 4.3, and the Prime Agricultural policies in Section 4.3.1. Select Prime Agricultural Policies are provided as follows.

4.3.1 Prime Agricultural Areas

Prime Agricultural Areas will be identified and protected so that normal farming operations are not hindered by conflicting development.

4.3.3 Policy Direction

a) Class 1, 2 and 3 agricultural soils, associated Class 4 to 7 soils and additional areas where there is a local concentration of farms which exhibit the characteristics of ongoing agriculture, and specialty crop land will be designated as prime agricultural areas unless:

i) municipal scale studies demonstrate that the land would more appropriately be placed in a greenlands or secondary agricultural designation in consultation with the OMAF;

ii) studies demonstrate that limited non-residential use is appropriate.

b) 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.

c) Limited non-residential uses, other than aggregate extraction, may only take place in prime agricultural areas if the need for the use can be demonstrated and provided that there are no reasonable alternative locations which avoid prime agricultural areas with lower priority agricultural lands. In considering need and alternative locations, decision makers will be guided by the following.

i) Need

- *projected population for the local municipality and county or growth allocated by broader studies*
- *public health or safety considerations*
- *existing vacant land already designated for the proposed use*
- *potential for infilling existing areas*
- *previous rates of land consumption*
- *availability and efficiency of servicing*
- *need for a variety of opportunities to encourage economic development and satisfy housing and business demand*

ii) ***Alternative Locations***

- *impacts on agricultural land and operations*
- *location requirements of the proposed use*
- *degree of land fragmentation in the area*
- *Canada Land Inventory classification*

ii) Compliance with minimum separation distances established for livestock operations.

The County of Wellington Official Plan (Office Consolidation July 2024) contains policy for AIAs in Section 4.6.5 as stated previously in this AIA.

Further, the *County of Wellington Official Plan (Office Consolidation July 2024)* provides policy for Primary Urban Centre Expansion Criteria in Section 4.8.2. The policies related to Prime Agricultural Areas are presented as follows:

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;

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

3.6.2 ZONING BY-LAW

Official Plans set out a municipality's general policies for existing and future land use. Zoning bylaws specify permitted uses and standards for each municipally designated zone. The specific requirements identified within a zoning bylaw are legally enforceable. Local municipalities are the approval authority for zoning bylaws. As such, this AIA study reviewed the *Township of Centre Wellington Comprehensive Zoning By-law No. 2009-045 (Office Consolidation February 2024)*.

3.6.2.1 Township of Centre Wellington Comprehensive Zoning By-law

The review of the *Township of Centre Wellington Comprehensive Zoning By-law No. 2009-045 (Office Consolidation February 2024)* identified that the zoning for the PSA was provided on the Township of Centre Wellington Zoning By-law Schedule "A" Map 17 and 18. The respective zones in the PSA were identified as Agricultural (A) and Environmental Protection (EP), and Environmental Protection Overlay.

The SSA review identified that the SSA comprised portions of Maps 12, 13, 17, 18, 23, and 24. The SSA comprised areas zoned as Agricultural (A), Environmental Protection (EP), Environmental Protection Overlay, Residential (R1), Commercial (C), Institutional (IN), Open Space (OS), Industrial (M), and Urban Area (U).

Zone standards for Agriculture were provided in Part 6 – Agricultural Zones. Select Agricultural Zone permitted uses and zone standards are provided below.

6.1 Agricultural (A) Zone

No person shall use land or erect, alter or use any buildings or structures within an Agricultural(A) Zone, except in accordance with the following provisions:

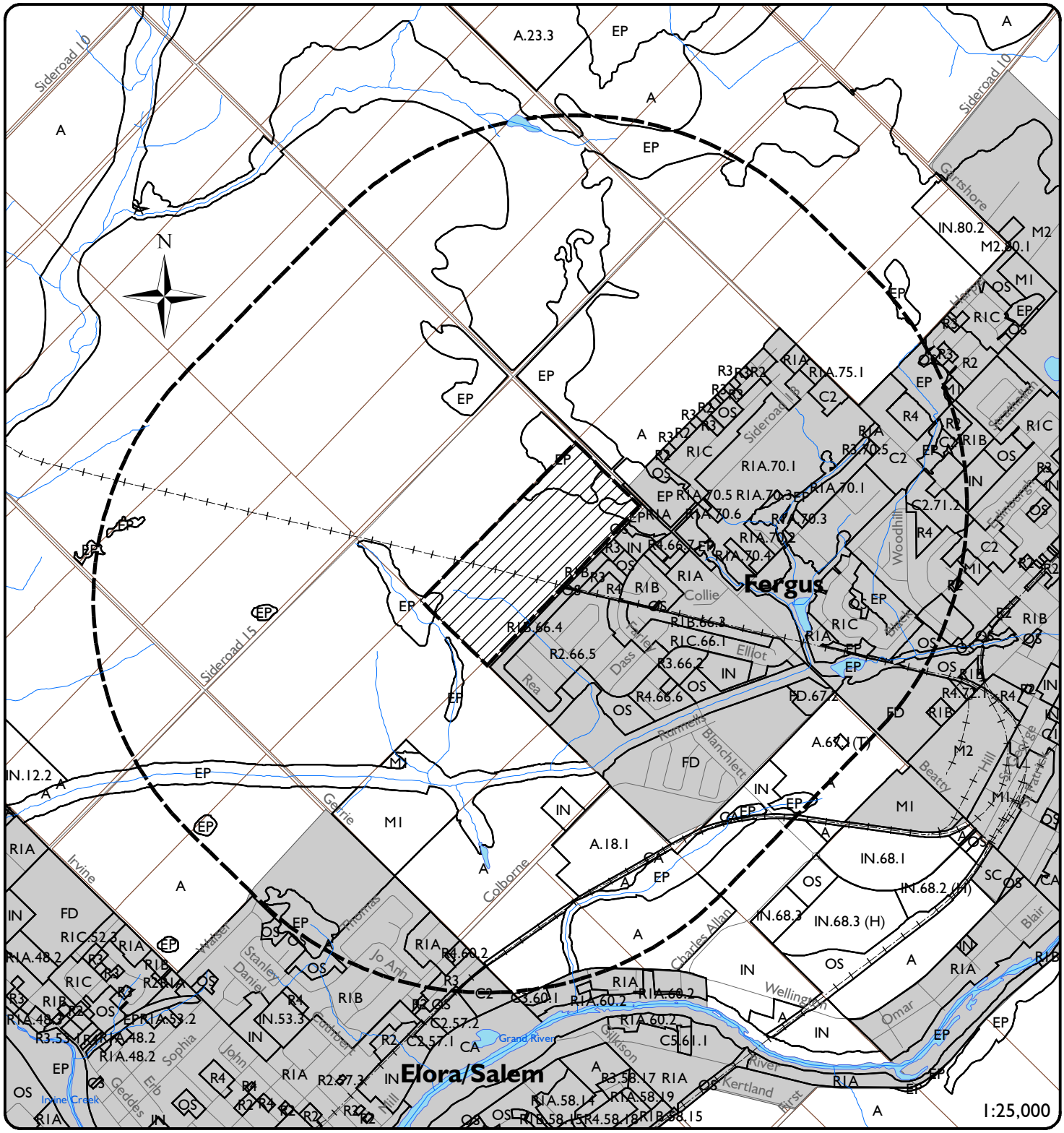
6.1.1 Permitted Uses

a) An agricultural use
b) A single detached dwelling
c) A group home in accordance with Section 4.16
d) A commercial kennel in accordance with Section 4.9
e) A lawfully existing institutional use
f) A wayside pit or quarry
g) A temporary portable asphalt plant
h) Uses accessory to the foregoing, including:
i. A bed and breakfast establishment (Class 1 or Class 2) in accordance with Section 4.6
ii. An additional residential unit in accordance with Section 6.1.4
iii. An On-Farm Diversified Use in accordance with Section 6.1.2
iv. A home occupation in accordance with Section 4.17
v. A home business-tradespersons in accordance with Section 4.18
vi. A micro wind energy system in accordance with Section 4.42 (This section has been superseded by O. Reg. 359/09 made under the Environmental Protection Act)
vii. A small wind energy system in accordance with Section 4.43 (This section has been superseded by O. Reg. 359/09 made under the Environmental Protection Act)
viii. A sales outlet for agricultural products in accordance with Section 4.33

6.1.2 Regulations

a) Minimum Lot Area 10 ha

Figure 5 illustrates the zoning for the PSA and SSA based on the available online digital zoning data from Centre Wellington.



Legend

- Abandoned Railway (MNR)
- Roads (WC)
- Water Course (MNR)
- Centre Wellington Zoning (CW)
- Lot Lines (MNR)
- Primary Study Area (PSA)
- Secondary Study Area (SSA) (1500 m)
- Settlements (WC)
- Water Body (MNR)

Figure 5

Zoning

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4 AGRICULTURAL RESOURCE POTENTIAL

4.1 PHYSICAL CHARACTERISTICS

The physiographic resources within the PSA and the SSA are described in this section. The physiographic resources identify the overall large area physical characteristics documented as background to the soils and landform features. These characteristics are used to support the description of the soils and agricultural potential of an area.

4.1.1 PHYSIOGRAPHY

On review of the Geohub digital physiographic region data, and *The Physiography of Southern Ontario 3rd Edition*, (Ontario Geological Survey Special Volume 2, Ministry of Natural Resources, 1984), it was determined that the PSA is located in the Guelph Drumlin Field, while the SSA is located within the Guelph Drumlin Field and the Stratford Till Plain physiographic regions.

The Guelph Drumlin Field physiographic region is described as an area centered on the City of Guelph and north of the Paris moraine that contains more than 300 drumlins of all sizes. The drumlins are generally oval in shape and are not closely spaced, leaving more low ground between the drumlins.

The Stratford Till Plain physiographic region is described as an area of ground moraine (broad clay plain) extending from London to Listowel.

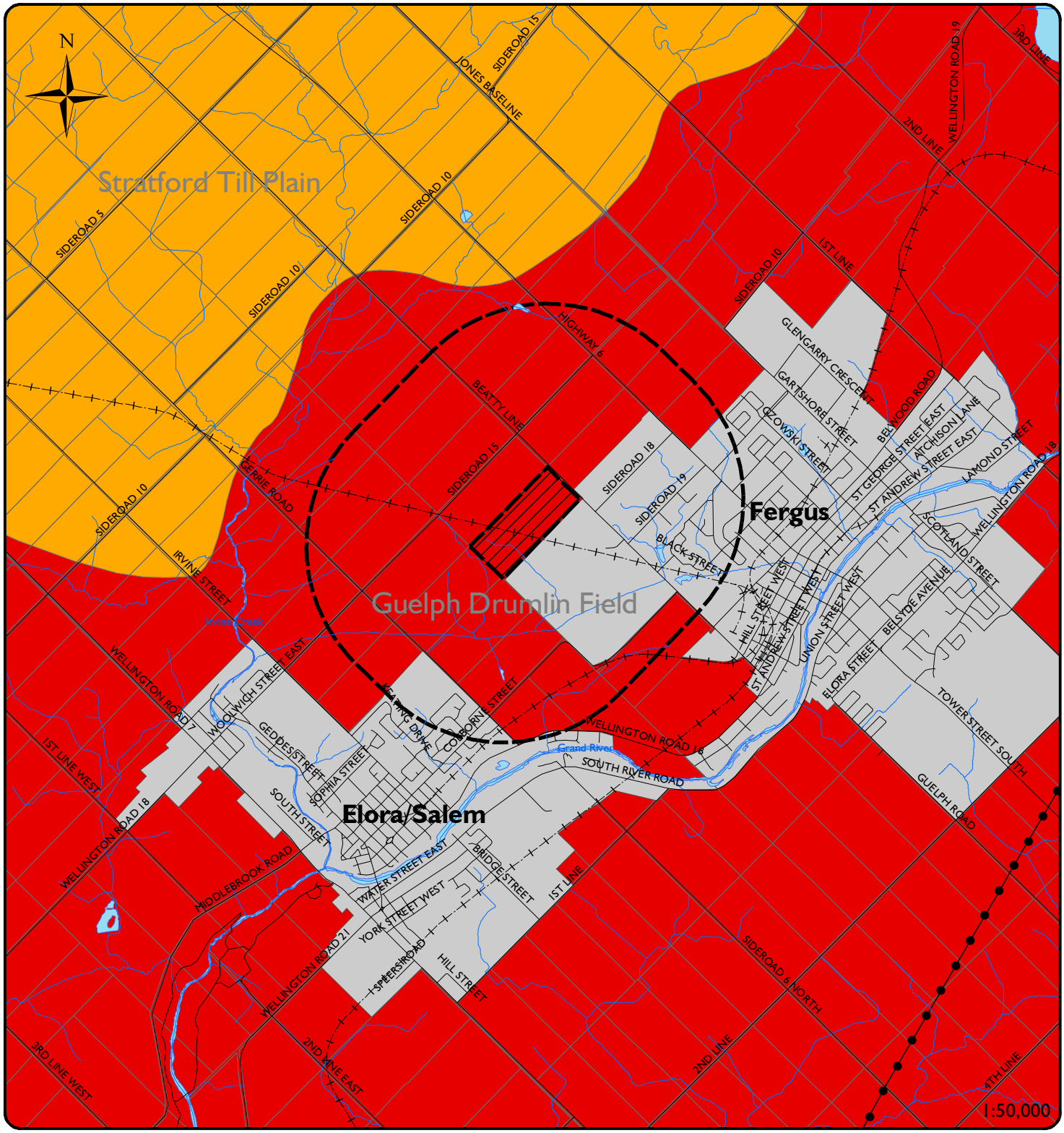
Figure 6 illustrates the geographic location and shape of the respective physiographic region as compared to the location and shape of the PSA and SSA.

4.1.2 TOPOGRAPHY AND CLIMATE

Topographic information was reviewed and correlated to the 1:10000 scale Ontario Base Mapping, Land Information Ontario digital contour mapping, and aerial photo interpretation.

The PSA and the SSA are a complex mix of topography with gently undulating areas generally used for agricultural production, and steeper slopes along incised stream channels.

Climate data was taken from the OMAFRA document titled *Agronomy Guide for Field Crops – Publication 811 (June 2017)* and the *Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Factsheet – Crop Heat Units for Corn and Other Warm Season Crops in Ontario, 1993.*



Legend

- Abandoned Railway (MNR)
- Roads (MNR)
- Utility Line (MNR)
- Water Course (MNR)
- Lot Lines (MNR)
- Primary Study Area (PSA)
- Secondary Study Area (SSA) (1500 m)
- Settlements (WC)
- Water Body (MNR)

Physiographic Region

- Guelph Drumlin Field
- Stratford Till Plain

Figure 6

Physiography

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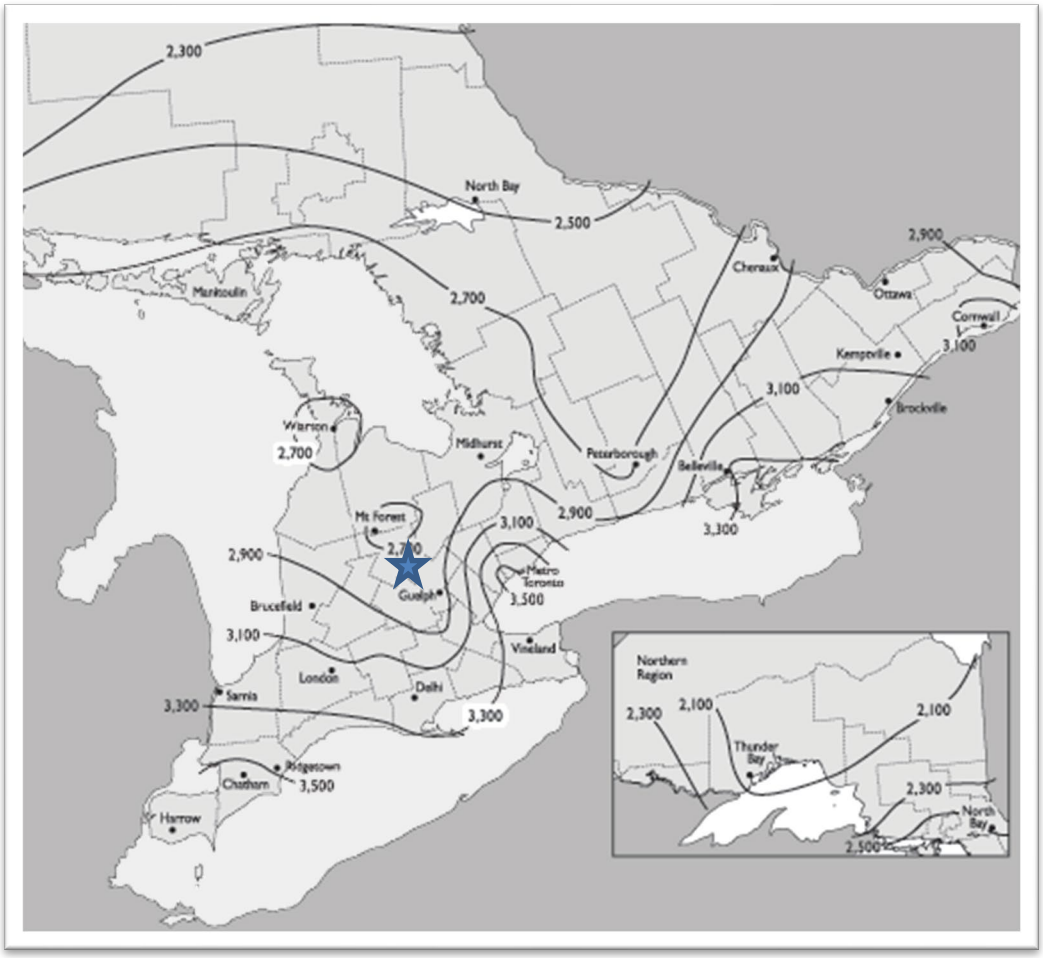
The PSA and SSA are located between the 2700 and 2900 Crop Heat Units isolines (CHU-M1) available for corn production in Ontario. The Crop Heat Units (CHU) index was originally developed for field corn and has been in use in Ontario for 30 years. The CHU ratings are based on the total accumulated crop heat units for the frost-free growing season in each area of the province. CHU averages range between 2500 near North Bay to over 3500 near Windsor. The higher the CHU value, the longer the growing season and greater are the opportunities for growing value crops.

Crop Heat Units for corn (based on 1971-2000 observed daily minimum and maximum temperature (OMAFRA, 2017)) map is illustrated on Figure 7. The approximate location of the PSA and SSA was marked with a blue star.

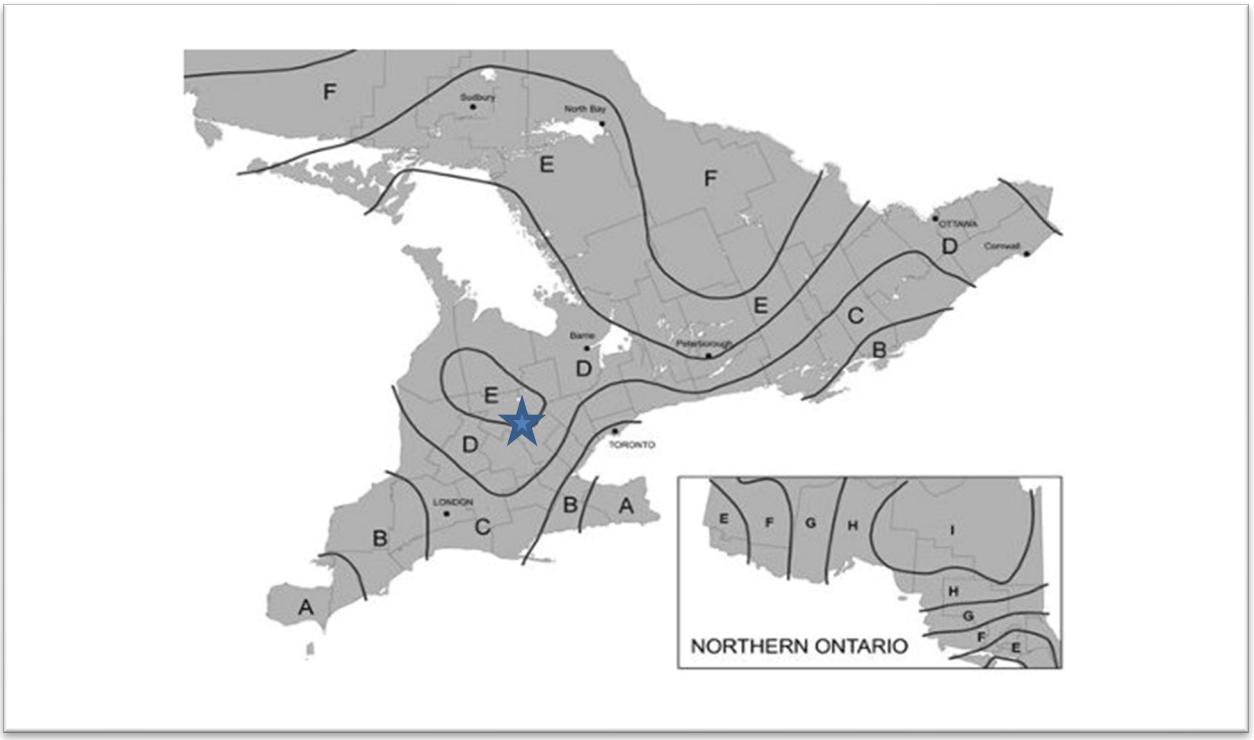
A review of OMAFRA Climate Zone Mapping revealed that the PSA and the SSA are located near the border between Zones D and E. Figure 8 from the OMAFRA website illustrates the Climate Zone Map of Ontario. The approximate location of the PSA and SSA was marked with a blue star.

Figure 7 Crop Heat Units Map



Source: Figure 1-1 Crop Heat Units – Agronomy Guide for Field Crops (Publication 811)

Figure 8 OMAFRA Climate Zone Map



Source: OMAFRA Climate Zone Mapping

Zone D has an average Frost-Free period of 130-165 days, an Average Date of Last Spring Frost of May 11, and an Average Date of First Fall Frost of October 1.

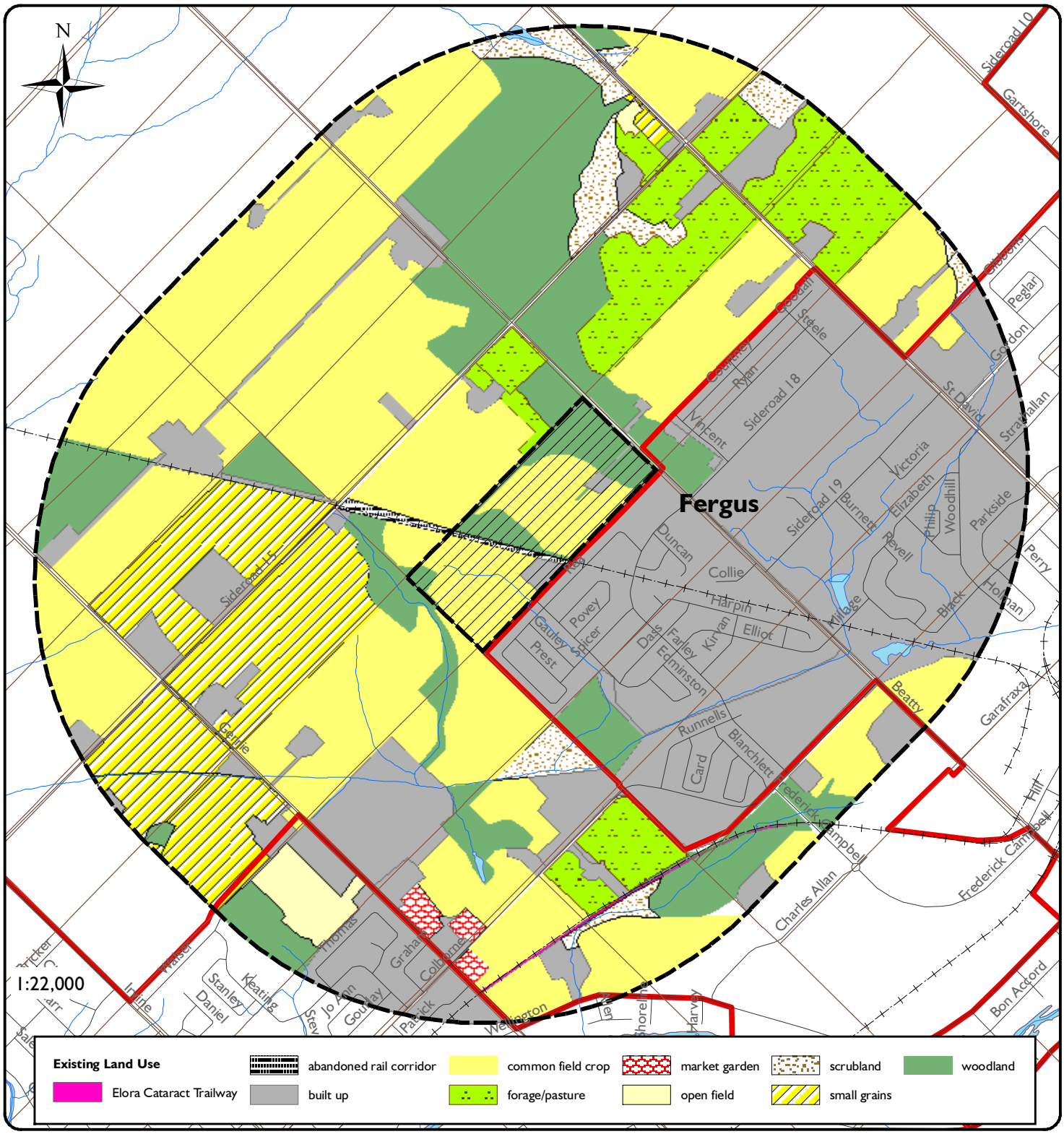
Zone E has an average Frost-Free period of 125-145, and Average Date of Last Spring Frost of May 17, and an Average Date of First Fall Frost of September 26.

4.2 LAND USE

The land use for both the PSA and the SSA was completed through a roadside reconnaissance survey (May 2, 2025), a review of recent aerial photography, Google Earth Imagery, Bing Imagery, Birdseye Imagery, the County of Wellington online imagery, and correlation to the OMAFA Land Use Systems mapping. Agricultural and non-agricultural land uses are illustrated in Figure 9.

The terms used in the Agricultural Land Use assessment were derived from the OMAFRA Agricultural Resource Inventory (ARI) 1983 Coverage. It should be noted that not all terms were relevant or used. Only the terms that were appropriate for this area were utilized. For the purposes of this AIA additional terms or more relevant terms such as 'common field crop' were used. As an example, 'common field crop' indicates crop production that includes corn and soybean. The ARI 1983 Coverage land use terms include:

- Built up



Legend

- Abandoned Railway (MNR)
- Roads (WC)
- Water Course (MNR)
- Lot Lines (MNR)
- Primary Study Area (PSA)
- Secondary Study Area (SSA) (1500 m)
- Settlements (WC)
- Water Body (MNR)

Figure 9

Existing Land Use

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- Cherries
- Corn System
- Extraction Pits and Quarries
- Grazing System
- Hay System
- Idle Agricultural Land (5 - 10 years)
- Idle Agricultural Land (> 10 years)
- Market Gardens/Truck Farms
- Mixed System
- Nursery
- Orchard
- Pasture System
- Recreation
- Reforestation
- Sod Farm
- Swamp/Marsh/Bog
- Unknown
- Vineyard
- Vineyard-Orchard
- Water
- Woodlands

Agricultural cropping patterns were identified and mapped. Corn and soybean crops were mapped as common field crops. Small grains are typically characterized as including winter wheat, barley, spring wheat, oats and rye. Forage/pasture crops may include mixed grasses, clovers and alfalfa as well as other areas used for pasture, haylage or hay.

The roadside reconnaissance survey identified these types of land uses including farm and non-farm uses (built up areas, commercial, and roads).

Non-farm (built up or disturbed areas) uses may include non-farm residential units, commercial, recreational, estate lots, services (utilities), industrial development and any areas that have been man-modified and are unsuitable for agricultural land uses (cropping).

It should be noted that the roadside reconnaissance survey is based on a line-of-sight assessment process. Therefore, dense brush, woodlands, and topography can prevent an accurate assessment of some fields. In those instances, measures are taken to try to identify the crop through conversations with landowners (if applicable) or review of aerial photography and online imagery. In some instances, no information is available. In those instances, the field polygon will be identified as 'unknown crop'.

Land use information was digitized in Geographic Information System (GIS – Arcmap/ARCGIS Pro) to illustrate the character and extent of the existing land use in both the PSA and the SSA. Area calculations for each land use polygon (area) were calculated within the GIS software and

exported as tabular data. The data is presented as follows. Land use designations and land use definitions are provided in Table 1.

Table 1 Typical Land Use Designations

Land Use Designation	Land Use Definitions
Built Up/Disturbed Areas	non-farm residential units, commercial, recreational, estate lots, services (utilities), industrial development, areas that have been man-modified and are unsuitable for cropping
Common Field Crop	corn, soybean
Forage/Pasture	mixed grasses, clovers, alfalfa, pasture, haylage, hay, paddocks, outdoor riding area
Market Garden	vegetables, garden crops
Open Field	unused field (<5 years)
Scrubland	unused field (>5 years) – woody vegetation regrowth
Small Grains	winter wheat, barley, spring wheat, oats, rye
Woodland	forested areas

4.2.1 EXISTING LAND USE – PSA

The PSA consisted of a variety of land uses including, but not limited to abandoned rail corridor, built-up/disturbed areas, common field crops, and woodland areas.

The PSA comprised land use of approximately 1.9 percent as abandoned rail corridor, 5.0 percent as built up/disturbed areas, 63.4 percent as common field crop, and 29.7 percent as woodland areas.

On review of the existing land use data it was observed that the predominant land use in the PSA included the production of common field crops. One small area of disturbed land was noted central along the southern boundary of the PSA. These disturbed lands appear to be associated with the construction of the urban area to the south and appeared to include piles of soil or fill material.

The proposed future development of the PSA will result in the loss of these lands for agricultural production.

4.2.2 EXISTING LAND USE – SSA

The SSA consisted of a variety of land uses including, but not limited to abandoned rail corridor, built-up/disturbed areas, common field crops, Elora Cataract Trailway, forage/pasture lands, market garden, scrubland, small grains, and woodland areas.

The SSA comprised land use of approximately 0.1 percent as abandoned rail corridor, 34.8

percent as built up/disturbed areas, 32.5 percent as common field crop, 0.1 percent as the Elora Cataract Trailway, 6.9 percent as forage/pasture lands, 0.4 percent as market garden, 0.9 for open field, 2.5 percent as scrublands, 8.8 percent as small grains, and 13.0 percent as woodland areas.

On review of the existing land use data, it was observed that the predominant land uses in the SSA include built up/disturbed areas, and common field crops.

Table 2 illustrates the percentage occurrence of the land uses for both the PSA and SSA.

Table 2 Land Use – PSA and SSA

Land Use Designation	PSA Percent Occurrence	SSA Percent Occurrence
Abandoned Rail Corridor	1.9	0.1
Built Up/Disturbed Areas	5.0	34.8
Common Field Crop	63.4	32.5
Elora Cataract Trailway	-	0.1
Forage/Pasture	-	6.9
Market Garden	-	0.4
Open Field	-	0.9
Scrubland	-	2.5
Small Grains	-	8.8
Woodland	29.7	13.0
Totals	100.0	100.0

The relatively high amount of land in non-agricultural land use in the SSA is typical of areas in close proximity to urban spaces (settlement areas of Salem/Elora and Fergus).

There will be no loss of agricultural land in the SSA as a result of the proposed development of the PSA.

4.3 AGRICULTURAL INVESTMENT

Agricultural investment is directly associated with the increase in capital investment to agricultural lands and facilities/buildings. In short, the investment in agriculture is directly related to the money used for the improvement of land through tile drainage or irrigation equipment, and through the improvements to the agricultural facilities/buildings (barns, silos, manure storage, sheds, processing, and storage).

As a result, the lands and facilities that have increased capital investment are often considered as having greater affinity for preservation than similar capability lands and facilities that are undergoing degradation and decline. Investment in agriculture is often readily identifiable through observations of the condition and type of the facilities, field observations and a review of OMAFRA artificial tile drainage mapping.

This AIA assessed the OMAFRA artificial tile drainage data and completed a review of the Ontario Ministry of the Environment, Conservation and Parks (OMECP) water well records database.

A number of water wells were noted in the PSA. The proposed development of the PSA will need to take those water wells into account. The proposed development of the PSA may impact adjacent waters in the SSA. It is recommended that an appropriate expert review the water well data and provide comment as necessary.

4.3.1 AGRICULTURAL BUILDINGS

Agricultural buildings (including buildings that may be capable of housing livestock), barns, storage and processing facilities were identified through a combination of aerial photographic interpretation, a review of online digital imagery (Google Earth Pro, Bing Mapping, Provincial and municipal online imagery, and Birds Eye Imagery), a review of Ontario Base Mapping and a roadside reconnaissance survey. The agricultural facilities or potential livestock facilities that were identified on mapping and imagery prior to conducting the roadside reconnaissance survey included buildings used for the active housing of livestock, barns that were empty and not used to house livestock, barns in poor structural condition, barns used for storage and any other large building that had the potential to house livestock.

Field investigations revealed the extent of the capability of the existing agricultural buildings and assisted in the determination of the use of buildings for livestock, cash crops, commercial or other activities. The roadside reconnaissance survey also revealed that some of the buildings identified from the preliminary mapping and imagery no longer existed (torn down), or were not agricultural, and used for other purposes (commercial/industrial) operations or activities.

Farms were identified as livestock or cash crop. Livestock operations were further differentiated to the type of livestock based on the livestock seen at the time of the roadside reconnaissance survey, through a review of on farm infrastructure (type of buildings, manure system, feed (bins, bales), and types of equipment) or through any signage associated with the respective agricultural operation.

It should be noted that the roadside survey is based on a line-of-sight assessment process. Therefore, dense brush, woodlands, and topography can prevent an accurate assessment of some buildings. In those instances, measures are taken to try to identify buildings through conversations with landowners (if applicable) or review of aerial photography and online imagery. In some instances, no information is available. In those instances, the building will be identified as ‘unknown building use or type’.
Agricultural activities such as livestock rearing usually involve an investment in agricultural facilities. Dairy operations require extensive facilities for the production of milk. Poultry and hog operations require facilities specific for those operations. Beef production, hobby horse and sheep operations usually require less investment capital (when compared to dairy operations or other high valve operations).

Some cash crop operations are considered as having a large investment in agriculture if they have facilities that include grain handling equipment such as storage, grain driers and mixing equipment that is used to support ongoing agricultural activities.

For the purposes of this AIA, all agricultural buildings that were identified in the PSA and the SSA were illustrated in Figure 10.

A total of 62 agricultural buildings were identified. There were no agricultural buildings within the PSA. All of the identified 62 agricultural buildings were observed in the SSA.

A listing of the agricultural buildings is provided in Appendix A.

Photographs and/or aerial photography/satellite imagery of the respective agricultural buildings is provided in Appendix B.

4.3.2 ARTIFICIAL DRAINAGE

An evaluation of artificial drainage in the PSA and within the SSA was completed through a review of online aerial photographic/aerial imagery interpretation and a review of the Ontario Ministry of Agriculture and Food (OMAF) Artificial Drainage System Mapping.

Visual evidence supporting the use of subsurface tile drains included observations of drain outlets to roadside ditches or surface waterways, and surface inlet structures (hickenbottom or French drain inlets).

Evidence in support of subsurface tile drainage on aerial photographs would be based on the visual pattern of tile drainage lines as identified by linear features in the agricultural lands and by the respective light and dark tones on the aerial photographs, often referred to as a 'herring bone' pattern. The light and dark tones relate to the moisture content in the surface soils at the time the aerial photograph was taken.

OMAFRA Artificial Drainage System Maps were downloaded from the Geohub website in April 2025 and were reviewed to determine if an agricultural tile drainage system had been registered anywhere in the PSA, or in the SSA. The OMAFRA Artificial Drainage System data illustrates the location and type of tile drainage systems. The type of tile drainage system is defined as either

Legend

- Field Access
- Water Wells (MOECP)
- Abandoned Railway (MNR)
- Roads (WC)
- Water Course (MNR)
- Lot Lines (MNR)
- Primary Study Area (PSA)
- Secondary Study Area (SSA) (1500 m)
- Settlements (WC)
- Water Body (MNR)

Artificial Tile Drainage (OMAFA)

- Random
- Systematic

Figure 10

Agricultural Investment

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MNR - Ministry of Natural Resources, MOECP - Ministry of the Environment, Conservation, and Parks,
OMAFA - Ontario Ministry of Agriculture, Food, and Agribusiness, WC - Wellington County

'random' or 'systematic'. A random tile drainage system is installed to drain only the low areas or areas of poor drainage within a field. A systematic tile drainage system refers to a method of installing drain tile at specific intervals across a field, in an effort to drain the entire field area. From a cost perspective, a systematic tile drainage system would be a greater cost, or investment in agriculture when compared to a random tile drainage system.

Figure 10 illustrates the OMAFA Artificial Drainage Systems Mapping for the PSA, SSA, and the adjacent surrounding areas.

The assessment of the OMAFA Artificial Drainage Systems Mapping revealed that there may be a small portion of systematic tile drainage along the northwestern portion of the PSA. It should be noted that many of the tile drainage systems presented in the OMAFA data do not have accurate boundaries, and often will cross property lines, roads, woodlands, or maybe located in urban areas. An example of tile drainage systems in the urban areas is presented in Figure 10 where both random and systematic tile drainage has been identified within the existing urban area of Fergus. With respect to tile drainage crossing boundaries, it appears in this instance that a drainage system from the parcel to the north may actually stop at the property boundary. As such, there would be no tile drainage system in the PSA.

The assessment of the OMAFA Artificial Tile Drainage data for the SSA revealed that there are a few small areas of random and systematic tile drainage located within the urban boundary of Fergus. Other systems were noted in the northern and western portions of the SSA.

Based on the OMAFA tile drainage mapping, the proposed development of the PSA will not reslt in the loss of artificial tile drainage (assuming that the boundary of the tile drainage on the parcel to the north is incorrect). There will be no impact to tile drainage systems in the SSA as a result of the proposed development of the PSA.

4.3.3 WATER WELLS

A review was completed of the MECP Water Well records to determine the extent of water wells in the PSA and the SSA. The review of water well records involved a download of the latest version of the Water Well Records Ontario.ca. The water well locations are identified in Figure 10. As illustrated in Figure 10, two water wells are located within the PSA. Numerous water wells were noted in the SSA.

The review of water well records was completed to determine the location and extent of water wells in the area, and to identify any potential concerns or impacts that may occur as a result of the proposed future development of the PSA. Generally, many livestock operations and some crop farms (nursery stock farms) use ground water for their livestock or crops, and any disruption to the water in terms of quality and/or quantity could have a significant impact to the operation.

There appears to be capital investment in water wells in the PSA and the SSA, as based on the review of the online water well record data. It is unknown if these wells are used in livestock production, or possibly irrigation purposes.

4.3.4 IRRIGATION

A review of online data and roadside reconnaissance survey did not identify any irrigation systems within the PSA or the SSA.

Visual evidence supporting the use of irrigation equipment would include the presence of the irrigation equipment (piping, water guns, sprayers, tubing/piping, etc), the presence of a body of water (pond, lake, water course) capable of sustaining the irrigation operation and lands that are appropriate for the use of such equipment (large open and level fields).

4.3.5 LANDFORMING

Landforming is the physical movement of soil materials to create more uniformly sloped lands for the ease of mechanized operations. The costs associated with landforming can be exorbitant, depending on the volume of soils moved.

No landforming for the purposes of enhancing an agricultural operation was noted in the review of online imagery or during the roadside reconnaissance survey for the PSA or the SSA.

4.4 MINIMUM DISTANCE SEPARATION (MDS1)

The Minimum Distance Separation formulae and implementation guidelines are a planning tool developed by OMAFRA to prevent land use conflicts and minimize nuisance complaints related to odour and to reduce land use incompatibility. MDS1 setbacks are calculated to separate uses so as to reduce incompatibility concerns about odour from livestock facilities. The OMAFRA document titled *The Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks* (Publication 853, Ontario Ministry of Agriculture, Food and Rural Affairs. 2016) was utilized for this MDS1 assessment.

Typically, the need for an MDS1 assessment is triggered by the *Provincial Planning Statement (PPS, 2024)* whereby new land uses in prime agricultural areas and on rural areas shall comply with the Minimum Distance Separation formulae. There is a requirement that the MDS1 guidelines shall be referenced in municipal official plans and zoning by-laws such that MDS1 setbacks are required in all designations and zones where livestock facilities and anaerobic digesters are permitted.

In order to confirm/establish the need for an MDS1 assessment, a review was completed of various provincial and municipal policies and documents. For this assessment the review included the *Provincial Planning Statement (PPS 2024),* and the *County of Wellington Official Plan (Office Consolidation June 2024)*.

A review of the OMAFRA document titled *The Minimum Distance Separation (MDS) Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks* (Publication 853, Ontario Ministry of Agriculture, Food and Rural Affairs. 2016) was completed.

It is stated under guideline #1:

> *In accordance with the Provincial Policy Statement, 2014, this MDS Document shall apply in prime agricultural areas and on rural lands.*

It is stated under guideline #2:

> *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.*

It is stated under guideline #34:

> *For the purposes of MDS I, proposed Type B land uses are characterized by a higher density of human occupancy, habitation or activity including, but not limited to:*
> *• new or expanded settlement area boundaries;*
> *• an official plan amendment to permit development, excluding industrial uses, on land outside a settlement area;*
> *• a zoning by-law amendment to permit development, excluding industrial uses or dwellings, on land outside a settlement area; and*
> *• the creation of one or more lots for development on land outside a settlement area, that results in four or more lots for development, which are in immediate proximity to one another (e.g., sharing a common contiguous boundary, across the road from one another, etc.), regardless of whether any of the lots are vacant.*
>
> *Because of the increased sensitivity of these uses, a new or expanding Type B land use will generate an MDS I setback that is twice the distance as the MDS I setback for a Type A land use. This is reflected in the value of Factor E which is 2.2 for Type B versus 1.1 for Type A.*

The proposed future development of the PSA would be characterized as a higher density of human occupancy, habitation or activity and would be considered as Type B land use.

It is stated under guideline #6:

> *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.

This AIA is based on the proposed future development of the PSA for a settlement area boundary expansion (higher density of human occupation); therefore, it is a Type B land use and requires an assessment of barns out to a distance of 1500 m from the PSA.

As required in the MDS1 Guidelines (MDS Guideline # 16 – Obtaining Required Information to Calculate the MDS Setbacks) every effort is to be made to contact landowners in an attempt to collect accurate and site-specific data for each of the agricultural buildings that have the potential to house livestock within the 1500 m buffer. In instances where the landowner was not available or unwilling to participate, data was collected through alternate means including the use of online imagery (Google Earth, Bing Imagery, Birdseye Imagery), the County of Wellington online mapping, and internet searches (including Facebook, business data sources, real-estate listings).

In instances where landowners could not be contacted, the livestock potential was based on the most appropriate livestock for that particular livestock facility (ie: based on observed signage, manure piles, feed storage, building type/style, review of online data sources including historical imagery). The respective size of each farm property was determined from Municipal Assessment data (or the OMAFRA Agricultural Information Atlas website), further, the relative size of the potential livestock buildings (in sq m) was measured from online imagery sources. The use of these data sources will provide a potentially greater MDS1 calculated distance than if the data is collected from the landowner, due to the measurement of the entire building roof area (including eaves/overhang) and that the entire area measured is considered as potential livestock space (ie. assumes that the entire building area is only used for livestock and that there is no area for feed rooms, offices, tack rooms, etc).

MDS1 data was collected through observations made during a roadside reconnaissance survey completed on May 2, 2025. Data collected in this survey assisted with the visual assessment of any buildings capable of housing livestock, identification of animal types and number (if observed on the property or noted on signage on the property), and manure storage location. It should be noted that reconnaissance surveys are often limited by 'line of sight' restrictions. Topography and vegetation (density and/or height) may preclude an accurate assessment of individual agricultural buildings. With this in mind, recent aerial photography and online digital imagery were used to assist in the identification and assessment of any partially or totally concealed agricultural building.

MDS1 calculations are based on a cumulative design capacity of livestock buildings on a lot. MDS Guideline #19 states:

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.

MDS Guideline #19 indicates that the calculated MDS1 arc should be based on a combined design capacity of all livestock barns, even if unoccupied, on a property. The combined MDS1 calculation is then measured from the closest point of the PSA to the closest point of the livestock occupied portion of the agricultural building.

MDS1 calculations were completed for the agricultural buildings individually, or as a cumulative calculation of livestock for farms with more than one building capable of housing livestock. MDS1 calculations were completed based on the information provided by the landowner, or through the assessment of collected data. MDS1 calculations were completed using the OMAFRA online AgriSuite software.

The AgriSuite software calculates MDS1 based on the inputs for each agricultural building. Data input includes the respective farm location information, size of farm parcel, type of manure storage, type of livestock, numbers of livestock or barn area. The AgriSuite software completes an MDS1 calculation for an agricultural operation (single agricultural building (barn), or cumulative (agricultural buildings). The Agrisuite calculation defines a distance which is to be measured from the closest point of the agricultural building (and the manure storage) toward the closest point of the PSA. Each AgriSuite software agricultural building data sheet and calculated MDS1 value are presented in Appendix C.

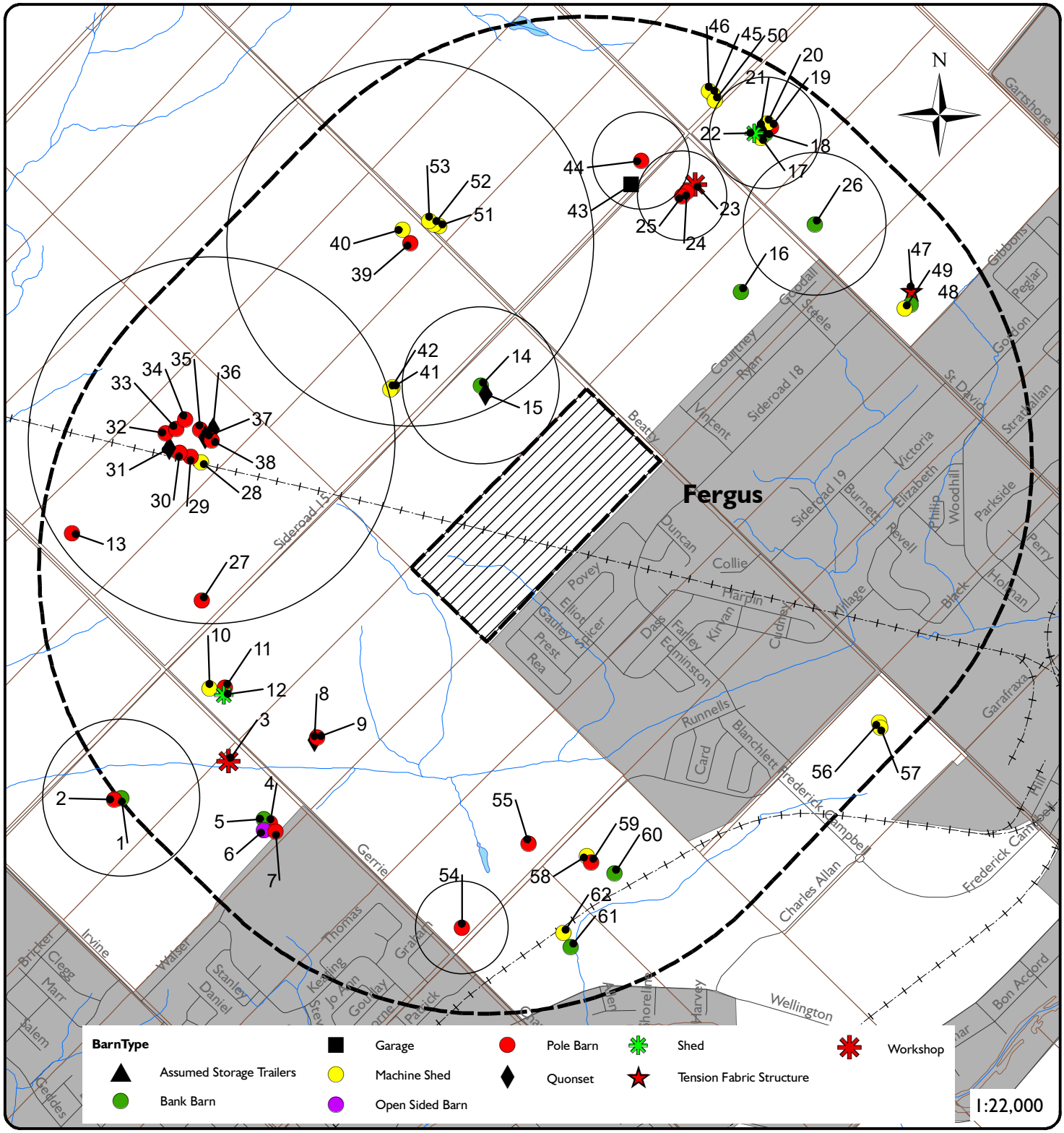
Table 3 provides an overview of the agricultural building number, type of building, building use, potential livestock, and the calculated MDS1 value from barn and manure storage.

Figure 11 illustrates the location of all agricultural buildings, the calculated MDS1 arcs for individual agricultural buildings, or the calculated cumulative design capacity MDS1 arc for lots with more than one agricultural building capable of housing livestock.

MDS1 distances from manure storages were not illustrated on Figure 11 due to unknown location of manure storage, or that the existing manure storage was not a permanent storage facility (temporary pile in a field).

The proposed development of the PSA is based on a settlement area boundary expansion. MDS1 calculations were completed for agricultural buildings within the SSA as a best practice to protect lands for agricultural use as long as possible during the development phases. A total of 8 buildings and one beef operation (Drost Cattle, buildings 28 - 39) were identified in the SSA housing livestock or having the potential to house livestock.

MDS1 calculations were completed for these agricultural buildings and the beef operation (Drost Cattle).



Legend

- Abandoned Railway (MNR)
- Roads (WC)
- Water Course (MNR)
- Lot Lines (MNR)
- Primary Study Area (PSA)
- Secondary Study Area (SSA) (1500 m)
- Settlements (WC)
- Water Body (MNR)
- Minimum Distance Separation (MDS1) Arc

Figure 11

Minimum Distance Separation (MDS1)

DBH Soil Services Inc.

May 2025

MNR - Ministry of Natural Resources, WC - Wellington County

Table 3 provides the calculated MDS1 values for these buildings/operations. It should be noted that Table 3 also provides the cumulative calculated MDS1 values where necessary.

As observed in Figure 11, there are no MDS1 arcs that impact the PSA.

As part of the MDS1 assessment, DBH Soil Services was informed of a report completed by Colville Consulting Inc. (CCI) as a letter dated June 21, 2024. The CCI report was completed as a Minimum Distance Separation (MDS1) study for a Settlement Area Boundary Expansion (SABE) for Centre Wellington. The CCI report was reviewed and cross referenced as part of this AIA.

On review of the CCI report, inconsistencies were noted. In some instances, MDS1 calculations were not completed for barns that appeared to have the capability to house livestock (as is required by the OMAFA MDS document), in other instances, the wrong livestock type was evaluated (eg. heavy frame horse for medium frame horse, etc). Further, the CCI report mapping illustrated a barn on two overlapping maps, with two different numbers. In instances where there were multiple agricultural buildings as part of a farm operation, the CCI report did not provide comment on which buildings were considered capable of housing livestock, nor identified the individual calculated area for each of the buildings. As a result, it was impossible to complete a thorough cross reference for comparison to the observations that were noted during the roadside reconnaissance survey completed for this AIA.

The MDS1 calculations presented in this AIA were completed for the animal type observed or the most appropriate for the specific farm operation.

Table 3 Minimum Distance Separation (MDS1)

Agricultural Building Number	Type of Building	Use	Type of Livestock	MDS1 Barn (m)	MDS1 Manure Storage (m)
1	Bank Barn	Livestock	Assumed Beef	316	316
14	Bank Barn	Unoccupied	Unoccupied Livestock Barn	318	NA
18	Bank Barn	Livestock	Horses	225	225
19	Pole Barn	Livestock	Horses		
25	Pole Barn	Livestock	Horses	180	180
26	Bank Barn	Unoccupied	Unoccupied Livestock Barn	287	NA
38 and 39	Beef Operation	Livestock	Beef	834*	834*
44	Pole Barn	Livestock	Goats	196	196
54	Pole Barn	Livestock	Horses	187	187

* Measurement based on (MDS Guideline #19 Cumulative design capacity of all livestock barns, even if unoccupied on a property)

With respect to the Drost Cattle operation (buildings 28 – 39), building type, size, manure storage, livestock type and numbers was provided by operation owner. It is noted that the Drost Cattle company comprised two main building complexes on their property.

MDS Guideline #19, indicates that the cumulative/combined MDS1 calculation should be measured from the closest point of the PSA to the closest point of the livestock occupied portion of the agricultural building. Due to the size of the PSA and the locations of the two main building complexes on the Drost Cattle operation, this AIA has presented the cumulative MDS calculated value from two of the Drost Cattle operation barns (buildings 38 and 39) which appear to contain livestock.

With respect to MDS1, it has been illustrated that there are no MDS1 impacts on the PSA.

4.5 FRAGMENTATION

Assessment data was evaluated to determine the characteristics and the degree of land fragmentation in the PSA and the SSA.

In order to evaluate land fragmentation, the most recent Assessment Roll mapping and Assessment Roll information from the County of Wellington (online digital data) was referenced on a property-by-property basis (for the PSA and the SSA) to determine the approximate location, shape and size of each parcel. The assessment of fragmentation looked at the numbers of and proximity of properties within the PSA and the SSA.

While a minimum size for an agricultural property is not specified in the *Provincial Planning Statement (PPS, 2024),* the PPS does state in Section 4.3.2.2 that:

> "In *prime agricultural areas*, all types, sizes and intensities of *agricultural uses* and *normal farm practices* shall be promoted and protected in accordance with provincial standards."

A review of the *County of Wellington Official Plan (Office Consolidation July 2024)* did not provide a specific minimum lot size for an agricultural property.

The review of the *Township of Centre Wellington Comprehensive Zoning By-law No. 2009-045 (Office Consolidation February 2024)* identified that the zoning for the PSA was provided on the Township of Centre Wellington Zoning By-law Schedule "A" and identified a minimum lot area of 10.0 ha (25.0 acres) for an Agricultural zoning.

Historically, Statistics Canada Census of Agriculture (2011) indicated that the average farm size in Ontario was 98.7 ha (244 acres). This average size is based on the number of Census farms divided by the acreage of those Census farms (Total Farm Area). The Total Farm Area is land owned or operated by an agricultural operation and includes cropland, summer fallow, improved and unimproved pasture, woodlands and wetlands, and all other lands (including idle land, and land on which farm buildings are located) (Statistics Canada, 2017). It should be noted that the

average farm size is based on farmland holdings, which may include more than one parcel (property). Further, the Census of Agriculture (2011) information indicated that the average farm size in Wellington County is 80.5 ha (198.8 acres).

Further, the historical Census of Agriculture (2016) data indicated that the average farm size in Ontario (for Census farms) was 100.8 ha (249) acres. Again, the Census of Agriculture (2016) average farm size is based on farmland holdings, which may include more than one parcel (property). The Census of Agriculture (2016) information indicated that the average farm size in Wellington County is 80.4 ha (198.6 acres).

The more recent Census of Agriculture (2021) data indicated that the average farm size in Ontario (for Census farms) was 98.3 ha (243 acres). Again, the Census of Agriculture (2021) average farm size is based on farmland holdings, which may include more than one parcel (property). Further, the Census of Agriculture (2021) information indicates that the average farm size in Wellington County is 81.0 ha (200.2 acres).

Figure 12 illustrates the complexity of the land fragmentation within the PSA and SSA.

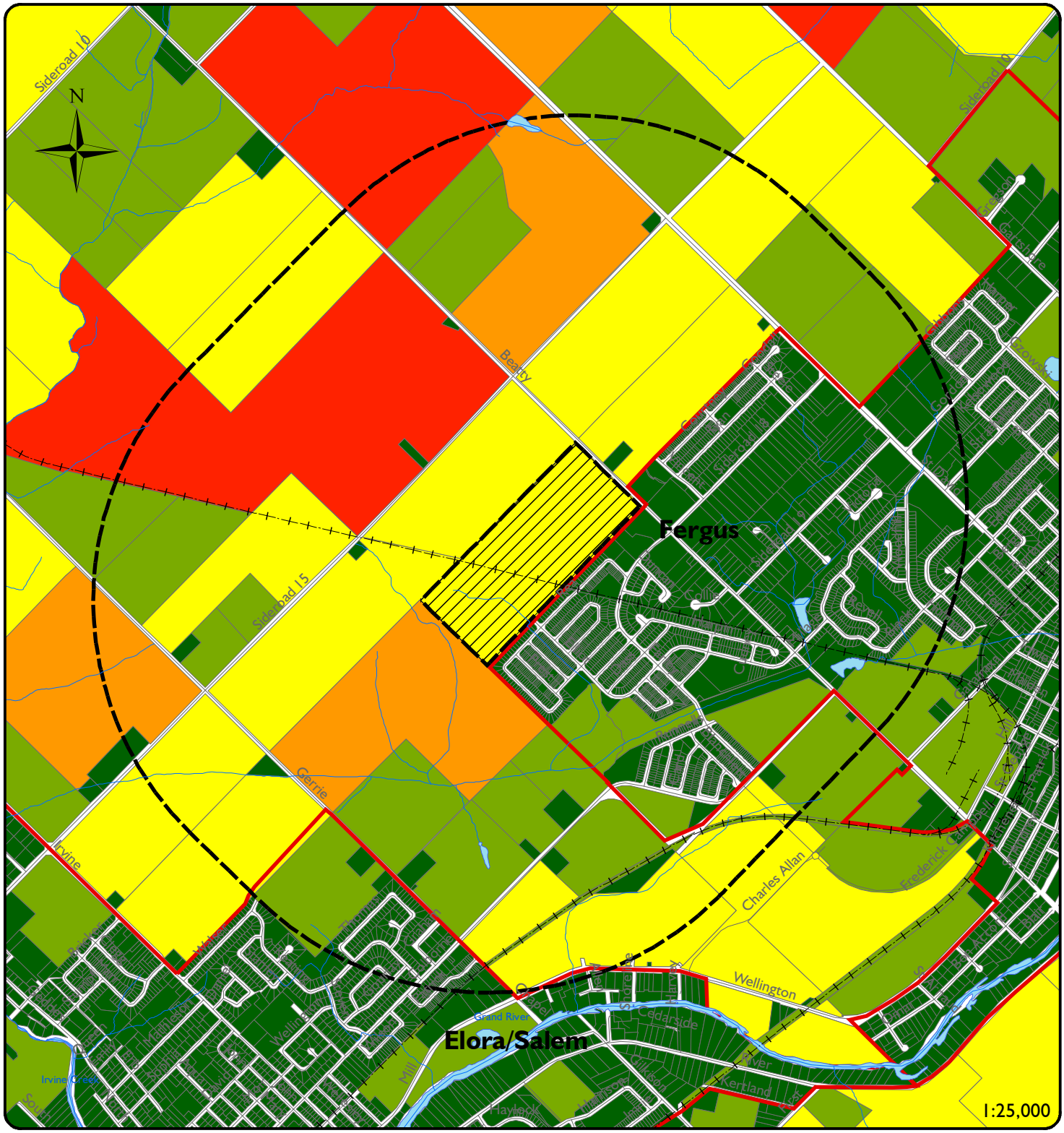
The Census data provides detailed information on Census farms (farms which provided census data). Census data is provided in the unit format of acres, with the splits in the data at 0.0 – 9.9, 10.0 – 69.9, 70.0 – 129.9, 130.0 – 179.9 and greater than 180.0 acres. For the purposes of this AIA, similar splits in acre data were used for the comparison.

Statistics Canada defines a Census Farm as:

> *a unit that produces agricultural products and reports revenues or expenses for tax purposes to the Canada Revenue Agency.*
> - *Agricultural products include the following:*
>   - *crops: grains, oilseeds, leguminous crops, potatoes, vegetables, fruits, berries, greenhouse products, mushrooms, sod, nursery products, Christmas trees, maple tree taps, hay and fodder crops, hemp, and other crops*
>   - *livestock: dairy and beef cattle (including feedlots), pigs, poultry and eggs (including hatcheries), turkeys, ducks, geese, sheep, goats, horses and other equines, bison*
>   - *Not included are forestry and logging, hunting and trapping, fishing and aquaculture, support activities for agriculture and post-harvest activities, horse boarding and riding lessons, and operations making products that are not for human consumption (e.g., genetic operations, insect farms for pet food).*

As illustrated in Figure 12, the PSA comprised a single parcel which was identified in the County of Wellington parcel data as having an area of approximately 44 ha (108.7 acres).

The SSA comprised numerous small parcels associated with the urban areas of Salem/Elora and Fergus, and areas of fragmentation associated with the lands along the abandoned rail corridor.



Legend

- Abandoned Railway (MNR)
- Roads (WC)
- Water Course (MNR)
- Primary Study Area (PSA)
- Secondary Study Area (SSA) (1500 m)
- Settlements (WC)
- Water Body (MNR)

Parcel Data - Range in Acres (WC)

- <9.9
- 10.0 - 69.9
- 70.0 - 129.9
- 130.0 - 179.9
- > 180.0

Figure 12

Fragmentation

DBH Soil Services Inc.

May 2025

MNR - Ministry of Natural Resources, WC - Wellington County

A GIS assessment of parcel data for the SSA identified that the SSA comprised 2370 parcels. The parcel count based on area range in acres is presented in Table 4.

The review of parcel data as a means of determining the existing fragmentation of the PSA and the SSA revealed that the SSA comprised numerous parcels of varying sizes. Table 4 provides the parcel count for all properties in the PSA and the SSA. Further, Table 4 provides a count of census farms in the County of Wellington as reflected in the 2021, 2016, and 2011 census data.

As illustrated in Table 4, the parcel count for the SSA indicates the presence of numerous small parcels, and fewer larger parcels. This type of fragmentation pattern is common in areas near urban boundaries. It is noted that there are large clusters of smaller parcels associated with the urban areas of the settlements of Salem/Elora and Fergus.

Table 4 Parcel Size and Parcel Count

Parcel Size Range (Acre)	PSA	SSA	County of Wellington (2021 Census)	County of Wellington (2016 Census)	County of Wellington (2011 Census)
0.0 – 9.9	0	2326	204	140	133
10.0 – 69.9	0	24	604	582	603
70.0 – 129.9	1	14	742	625	701
130.0 – 179.9	0	3	300	259	272
>180	0	3	767	742	802

The proposed development of the PSA will result in an increase in fragmentation in the PSA (settlement area boundary expansion) but will not result in the increase in fragmentation in the SSA.

4.6 PARCEL OR LAND SEVERANCE

A parcel or land severance is defined as an authorized separation of a piece of land to form a new lot or parcel of land.

The PSA is bound by the local road system on the east (Beatty Line North) woodlands and existing urban areas of Fergus, on the west and north by agricultural lands and woodlands, and on the south by the existing urban area of Fergus.

As a result, the PSA has well defined limits that do not cross parcel boundaries. Therefore, there is no opportunity for land severance in the SSA. No parcels will be severed in the SSA as a result of the proposed future development of the PSA.

4.7 SOILS AND CANADA LAND INVENTORY (CLI)

A review was completed of the soils and Canada Land Inventory (CLI) data base for the PSA and the SSA. The review was completed to determine the extent and location of the high capability soils. Digital soils data was retrieved from Ontario Geohub in April 2025.

The review included a download of the latest version of the soils data from the Ontario Geohub website and discussions with OMAFRA staff to determine if the downloaded data set is the latest iteration of the soils data.

Due to the continual updates to the soil survey complex datasets, it is prudent to verify or at least confirm that the soil series data and CLI information within the datasets is accurate across the County of Wellington. In an effort to confirm the correctness of the soils and the CLI data on a soil series basis, the dbase data file that is associated with the County of Wellington soil survey complex file was exported to excel to run a unique symbols list based on Soil Series, topography (slope), CLI class and CLI subclass.

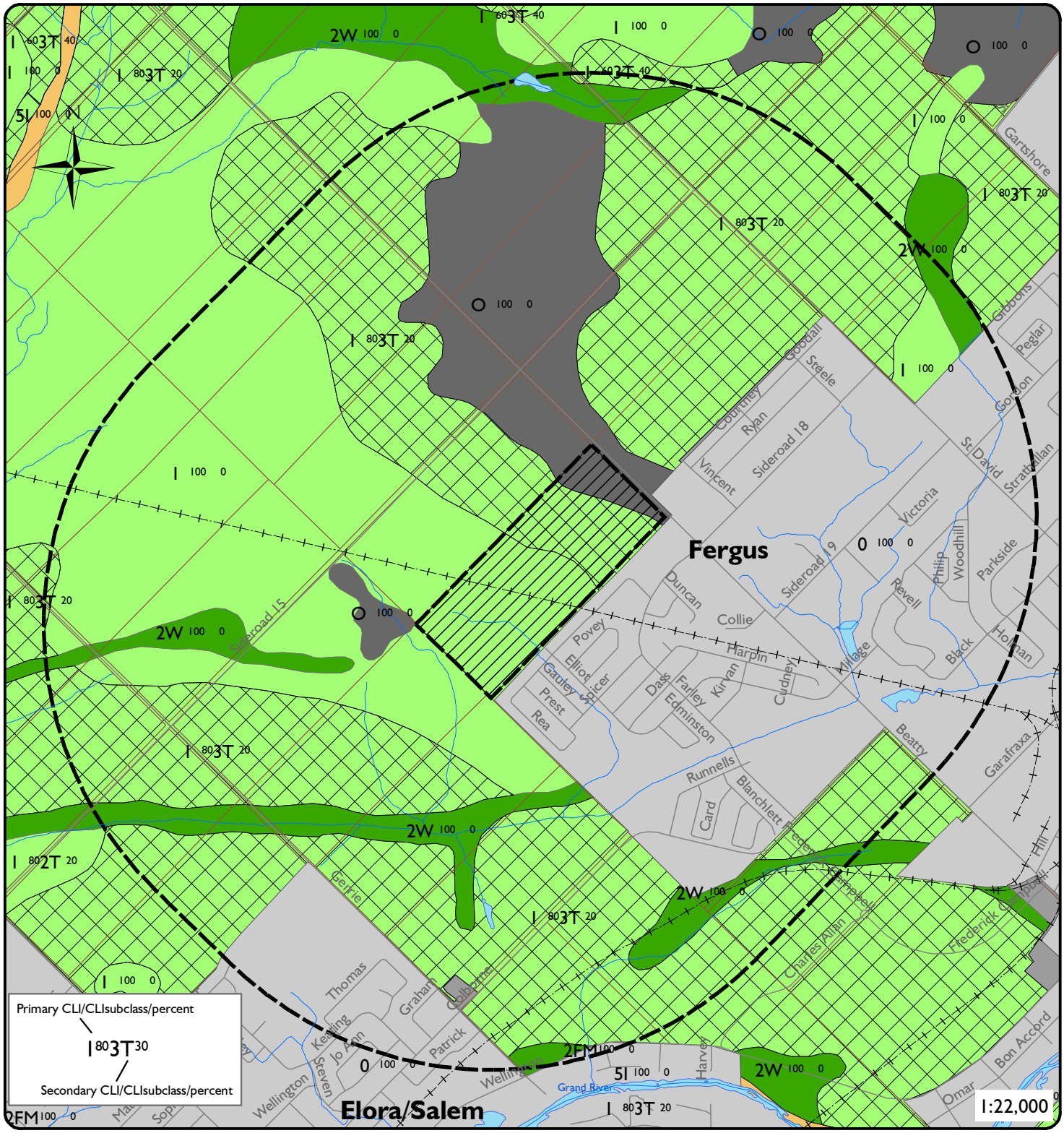
The County of Wellington soil data was used to create a unique symbols list (based on the SYMBOL1, SLOPE1, CLASS1, RANGE1, CLI1, CLI_1 and CLI_2 columns). The unique symbols list is provided in Appendix D. It was noted in the unique symbols list that there were many soil polygons with incorrectly classified Canada Land Inventory (CLI) classifications.

For the purposes of this AIA, the soil and CLI data presented is based on the County of Wellington soils data. OMAFRA is aware of the limitations of the soil data. Figure 13 illustrates the soil polygons with incorrectly classified CLI as a yellow crosshatch overlay. The incorrectly classified soil polygons are rated as a CLI class 1 but are identified as being on slopes of 5-9 or 9-15 percent. A review of the OMAFRA document *Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for the Application of the Canada Land Inventory in Ontario* identified that loamy soils on 5-9 percent slopes should be classified as CLI class 3T, while the loamy soils on the 9-15 percent slopes should be classified as CLI class 4T.

Image 1 (below) illustrates a table from the OMAFRA document that documents the percent slope and CLI classifications.

This review of CLI for the PSA and SSA would suggest that based on the incorrectly classified soils data, the PSA and SSA lands should be classified as poorer quality soils than what the OMAFA data and online mapping is suggesting.

If these soils are of poorer quality, then as per the PPS policies related to alternative sites (Section 4.10 of this AIA), the eastern portion of the PSA would be considered as lower capability lands (CLI class 3-5).



Legend

- Abandoned Railway (MNR)
- Water Course (MNR)
- Areas of CLI Inaccuracy
- Lot Lines (MNR)
- Primary Study Area (PSA)
- Secondary Study Area (SSA) (1500 m)
- Settlements (WC)
- Water Body (MNR)

Canada Land Inventory (CLI) (OMAFA)

- Not Mapped
- Class 1
- Class 2
- Class 3
- Class 4
- Class 5
- Class 6
- Organic Soil

MNR - Ministry of Natural Resources, OMAFA - Ontario Ministry of Agriculture, Food, and Agribusiness, WC - Wellington County

Figure 13

Canada Land Inventory (CLI)

DBH Soil Services Inc.

May 2025

Image 1

Table 9. 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

Table 10. Determination of Subclass T for Loamy, Clayey and Very Fine Clayey Soils

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

Source: OMAFRA Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario

4.7.1 SOIL CAPABILITY FOR AGRICULTURE

Basic information about the soils of Ontario is made more useful by providing an interpretation of the agricultural capability of the soil for various crops. The Canada Land Inventory (CLI) system combines attributes of the soil to place the soils into a seven-class system of land use capabilities. The CLI soil capability classification system groups mineral soils according to their potentialities and limitations for agricultural use. The first three classes are considered capable of sustained production of common field crops, the fourth is marginal for sustained agriculture, the fifth is capable for use of permanent pasture and hay, the sixth for wild pasture and the seventh class is for soils or landforms incapable for use for arable culture or permanent pasture.

Organic (O) or Muck (M) soils are not classified under this system. Disturbed Soil Areas are not rated under this system.

4.7.1.1 Canada Land Inventory (CLI) Class

The Ontario Ministry of Agriculture, Food and Rural Affairs document *Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario* defines the Canada Land Inventory (CLI) classification as follows:

"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."

4.7.1.2 Canada Land Inventory (CLI) Subclass

With respect to the soils and Canada Land Inventory (CLI) identified in the PSA and SSA, The Ontario Ministry of Agriculture, Food and Rural Affairs document *Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario* defines the Canada Land Inventory (CLI) subclassification as follows:

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.

Subclass W – Excess Water

The presence of excess soil moisture (other than that from inundation) may result from inadequate soil drainage, a high water table, seepage, or runoff from surrounding areas. This limitation only applies to soils classified as poorly drained or very poorly drained.

Disturbed soil areas (built up or developed areas) are considered as not rated within the Canada Land Inventory (CLI) classification system. Muck (organic soils) are not rated in the Canada Land Inventory (CLI) classification system.

Figure 13 – Canada Land Inventory (CLI) illustrates the OMAFRA digital soils data for the PSA and the SSA. The OMAFRA soils database has not removed or discounted soils from roads, railways, urban or developed areas.

Table 5 illustrates the soils data as derived by percent occurrence within the respective polygons and summarizes the relative percent area occupied by each capability class for the PSA and SSA.

Table 5 Canada Land Inventory – Percent Occurrence

Canada Land Inventory Class (CLI)	PSA Percent Occurrence	SSA Percent Occurrence
Class 1	89.3	69.2
Class 2	-	7.6
Class 3	5.4	11.0
Class 4	-	-
Class 5	-	2.3
Class 6	-	-
Class 7	-	-
Not Rated	-	4.1
Organic Soil	5.3	5.8
Totals	100.0	100.0

Based on the OMAFRA soils data the PSA comprised approximately 89.3 percent Canada Land Inventory (CLI) capability Class 1 – 3, with approximately 89.3 percent as Class 1 and 5.4 percent as Class 3. Approximately 5.3 percent of the PSA was identified as Organic Soils.

Again, based on the OMAFRA soils data the SSA comprised approximately 87.8 percent Canada Land Inventory (CLI) capability Class 1 – 3, with approximately 69.2 percent as Class 1, 7.6 percent as Class 2, 11.0 percent as Class 3, 2.3 percent as Class 5, 4.1 percent as Not Rated, and 5.8 percent as Organic Soils.

It is important to note that this assessment of soil capability and CLI is based on incorrect OMAFRA soils data. The actual soil capability may include poorer capability/quality soils.

The proposed development will result in the loss of the use of the PSA for agricultural production. The proposed development will not alter the soils or soil capability in the SSA.

4.8 AGRICULTURAL SYSTEMS PORTAL

A review of the OMAFRA Agricultural System Portal online resource for agricultural services/agricultural network (markets, abattoirs, renderers, livestock auctions, investment, warehousing and storage, wineries and breweries) noted that all of the PSA and much of the SSA were located in the Prime Agricultural Area of the provincial Agricultural Land Base Legacy Mapping as has been illustrated in Figure 3 of this AIA.

A review of the online Agricultural System Portal (OMAFRA) indicated that there were no registered farmers markets, pick your own operations, nurseries, frozen food manufacturing, refrigerated warehousing/storage, livestock assets, abattoirs, or other agricultural services in the PSA.

Figure 14 provides an illustration of the agricultural resources (OMAFRA Livestock, Fish and Poultry) for the PSA and the SSA. Figure 15 provides an illustration of the agricultural resources (OMAFRA Field Crop). Figure 16 provides an illustration of the Food and Beverage Manufacturing for the PSA and SSA.

The review of agricultural services and agricultural operations from the Agricultural Systems Portal for the PSA and the SSA revealed that there were no agricultural services registered in the PSA or the SSA. The review of Food and Beverage Manufacturing identified that Highland Lassies Cookies and Fancy that Cake companies were located in the SSA, in Fergus.

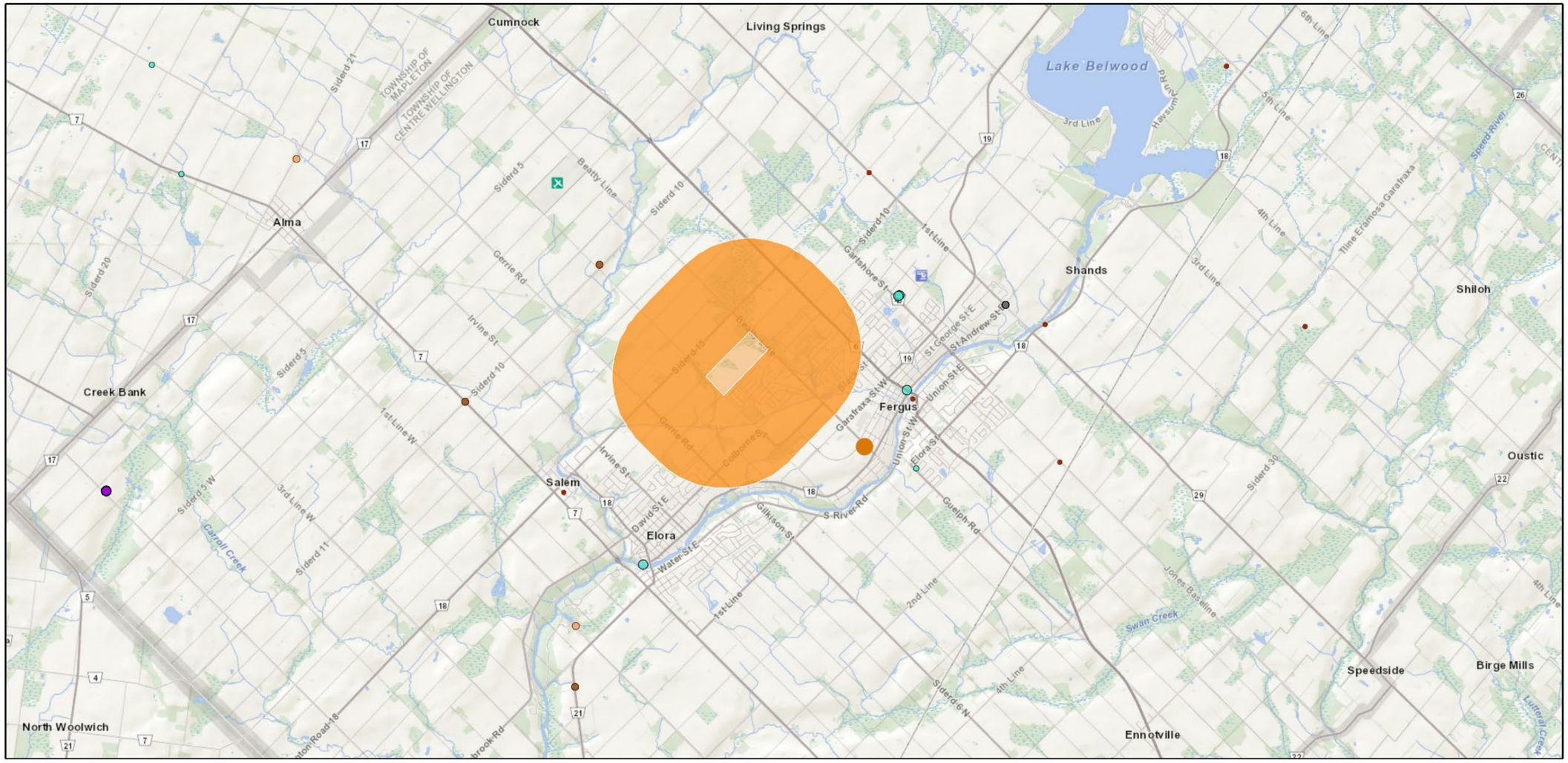
The closest transportation network (major roadway) is Highway 6 which is located to the east of the PSA.

As noted in Figures 14, 15 and 16, there were no agricultural services or food manufacturers identified in the PSA based on the OMAFRA Agricultural Systems Portal mapping and online data.

4.9 AGRICULTURAL SYSTEM AND AGRICULTURAL NETWORK

The PPS (2024) required the implementation of an agricultural system. The Agricultural System comprises two parts: Agricultural Land Base; and the Agri-Food Network. The Agricultural Land Base was evaluated through a review of Canada Land Inventory (CLI) in Section 4.7 of this AIA.

Figure 14 OMAFRA Agricultural Systems Mapping Livestock, Fish and Poultry



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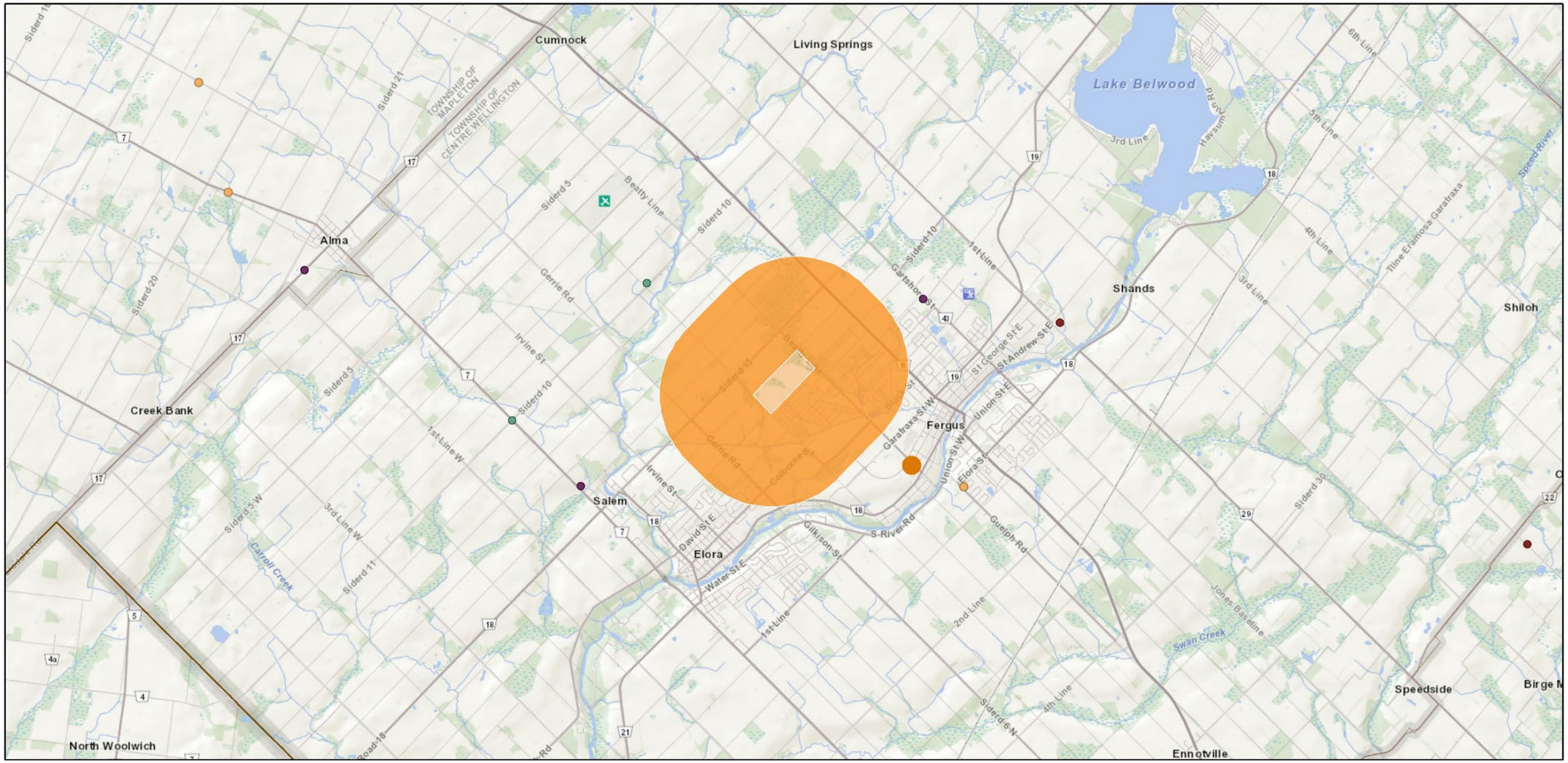
1:85,251

0 0.5 1 2 mi

0 1 2 4 km

- Secondary Study Area (SSA) (1.5 km)
- Primary Study Area (PSA)
- Aquaculture Operations 2022 (OMAFRA)
- Farm Product Merchant Wholesalers NAICS 4111 (ConnectON)
- Feed Mills 2023
- Dairy Product Manufacturing NAICS 3115 (ConnectON)
- Support Activities for Agriculture and Forestry NAICS 115110 (ConnectON)
- Support Activities for Animal Production NAICS 115210 (ConnectON)
- Agricultural Feed Merchant Wholesalers NAICS 41831 (ConnectON)
- Farm Product Warehousing and Storage NAICS 493130 (ConnectON)
- province_extent

Figure 15 Agricultural Systems Field Crops



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0 1 2 4 km

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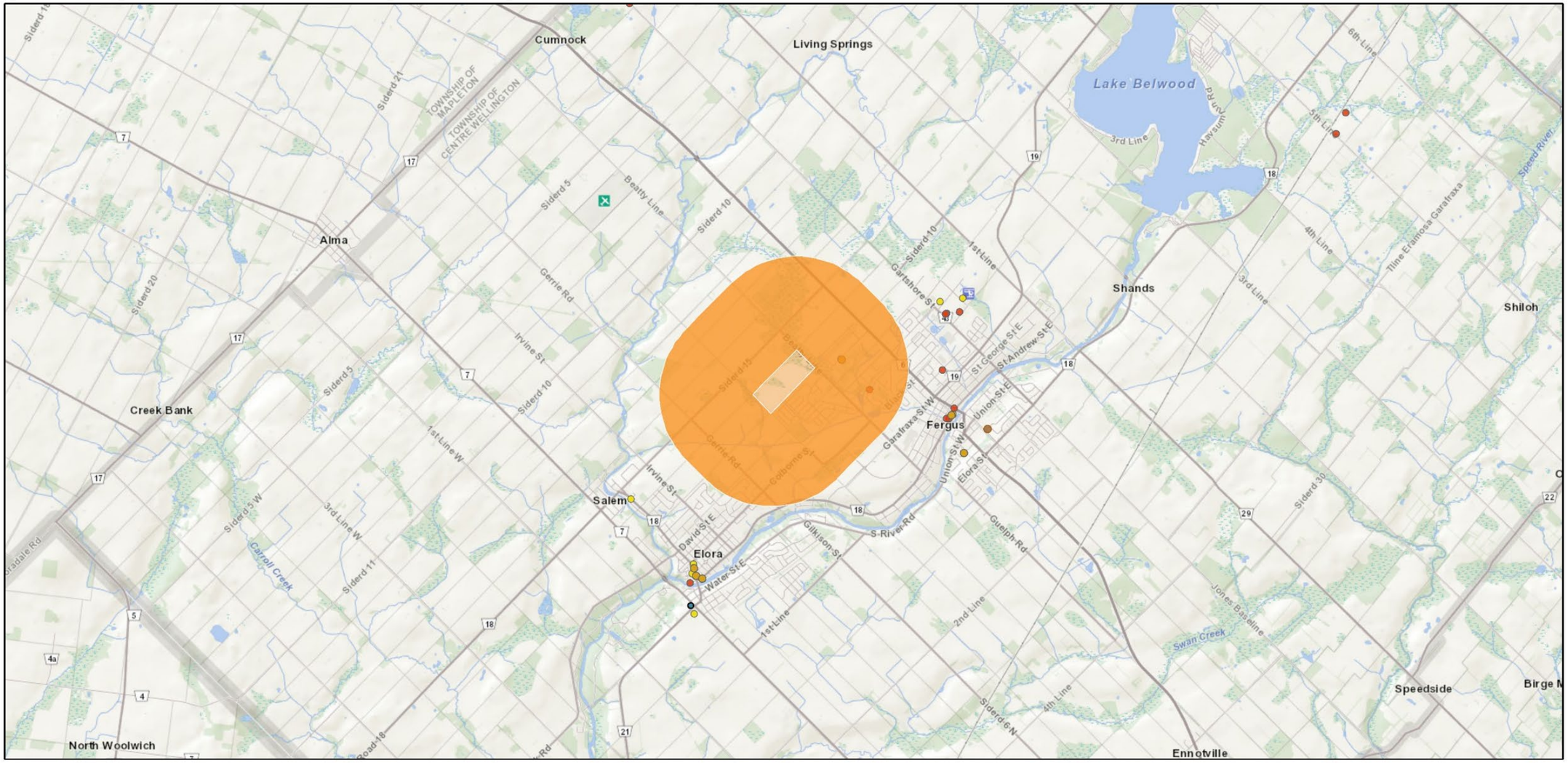
- Primary Study Area (PSA)
- Agricultural Implement Manufacturing NAICS 333110 (ConnectON)
- Oilseed and Grain Merchant Wholesalers NAICS 411120 (ConnectON)
- Seed Merchant Wholesalers NAICS 41832 (ConnectON)
- Support Activities for Crop Production NAICS 11511 (ConnectON)
- Feed Mills 2023 (OMAFRA)
- Lower And Single Tier Municipal Boundaries (LIO)
- Upper And District Tier Municipal Boundaries (LIO)
- province_extent

Figure 16 Agricultural Systems Food and Beverage Manufacturing



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0 1 2 4 km

- Secondary Study Area (SSA) (1.5 km)
- Primary Study Area (PSA)
- Animal Food Manufacturing NAICS 3111 (ConnectON)
- Bakeries and Tortilla Manufacturing NAICS 3118 (ConnectON)
- Beverage and Tobacco Manufacturing NAICS 312 (ConnectON)
- Food Manufacturing NAICS 311 (ConnectON)
- Frozen Food Manufacturing NAICS 3114 (ConnectON)
- Maple Syrup and Products Production NAICS 111994 (ConnectON)
- province_extent

This AIA has determined that both the PSA and the SSA comprised portions of Prime Agricultural Area and were comprised of a portions of high capability soil resources as based on the OMAFRA digital soils data. It is also noted that the provincial soils and CLI data contained inaccuracies with respect to the CLI. As a result, the CLI ratings for the PSA may be incorrect, and the soils may be of poor quality than what the provincial data suggests.

The Agricultural Network includes the services and infrastructure that are important components of the agricultural industry. Section 4.7 of this AIA provided comments on the agricultural services and infrastructure in the surrounding area. It was noted that there are no services or infrastructure in the PSA.

4.10 Evaluation of Alternative Locations

PPS 2024 Policy 2.3.2.1d states that:

"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;"

The PPS 2024 also provides the definition for Prime Agricultural Area:

agricultural lands and associated Canada Land Inventory Class 4 through 7 lands, and additional areas with a local concentration of farms which exhibit characteristics of ongoing agriculture. Prime agricultural areas may be identified by a planning authority based on provincial guidance or informed by mapping obtained from the Ontario Ministry of Agriculture, Food and Agribusiness and the Ontario Ministry of Rural Affairs or any successor to those ministries."

The PPS 2024 also provides a definition for Prime Agricultural Land:

"means specialty crop areas and/or Canada Land Inventory Class 1, 2, and 3 lands, as amended from time to time, in this order of priority for protection."

The PPS 2024 does not provide any additional methodology to assess the order of priority. Discussions with staff from OMAFA provide additional direction by referencing the OMAFA document *Guidelines on Permitted Uses in Ontario's Prime Agricultural Areas (Publication 851)*.

It has been established previously in this AIA (Section 3.6) that portions of the PSA are designated Prime Agricultural Area as defined in the *County of Wellington Official Plan (Office Consolidation July 2024)*.

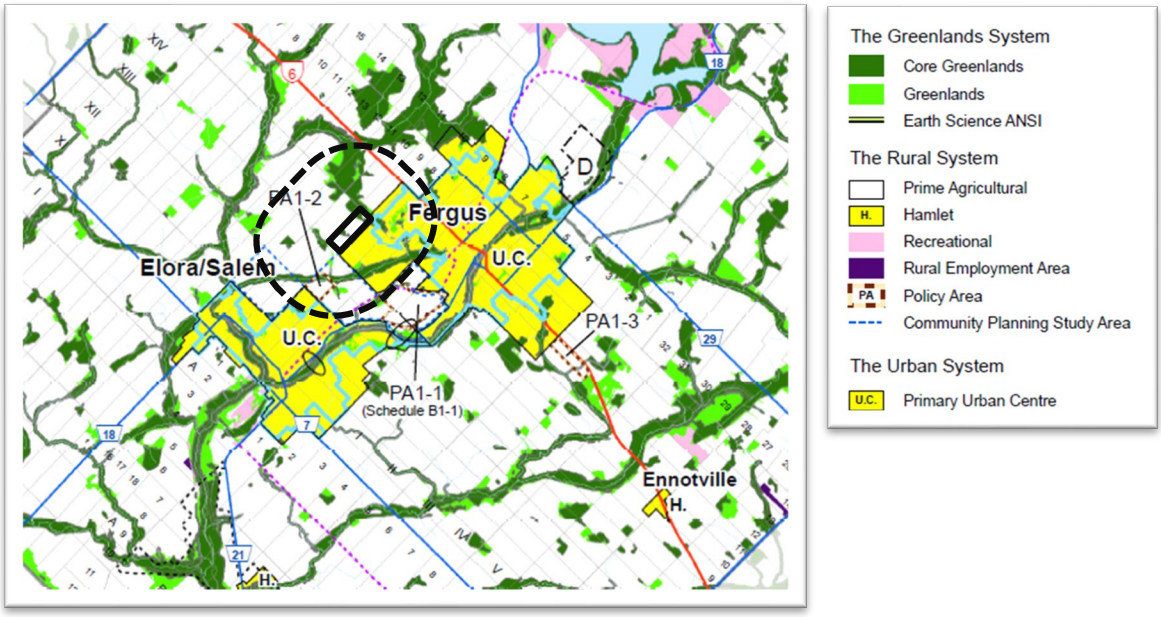
Figure 17 illustrates a portion of the *County of Wellington Official Plan (Office Consolidation July 2024) Schedule B1 – Land Use Centre Wellington.* The approximate location of the

PSA is denoted with a black outline, and the SSA is denoted with a dashed black outline. As noted in Figure 17, the majority of the land bordering the Elora/Salem and Fergus is comprised of Prime Agricultural Areas. Lands that were not identified as Prime Agricultural were identified as Core Greenlands or Greenlands. This would suggest that the PSA is a reasonable alternative location based on a review of the *County of Wellington Official Plan (Office Consolidation July 2024) Schedule B1 – Land Use Centre Wellington*.

Figure 18 illustrates the CLI classification on the lands surrounding Elora/Salem and Fergus. As evidenced by Figure 18, the majority of the lands in the surrounding area are primarily CLI Class 1 lands. This would suggest that the PSA is a reasonable alternative location based on a review of the provincial soils and CLI data. As was stated previously in this AIA, inconsistences were noted in the provincial CLI data which would suggest that much of the area surrounding Elora/Salem and Fergus may be incorrectly mapped.

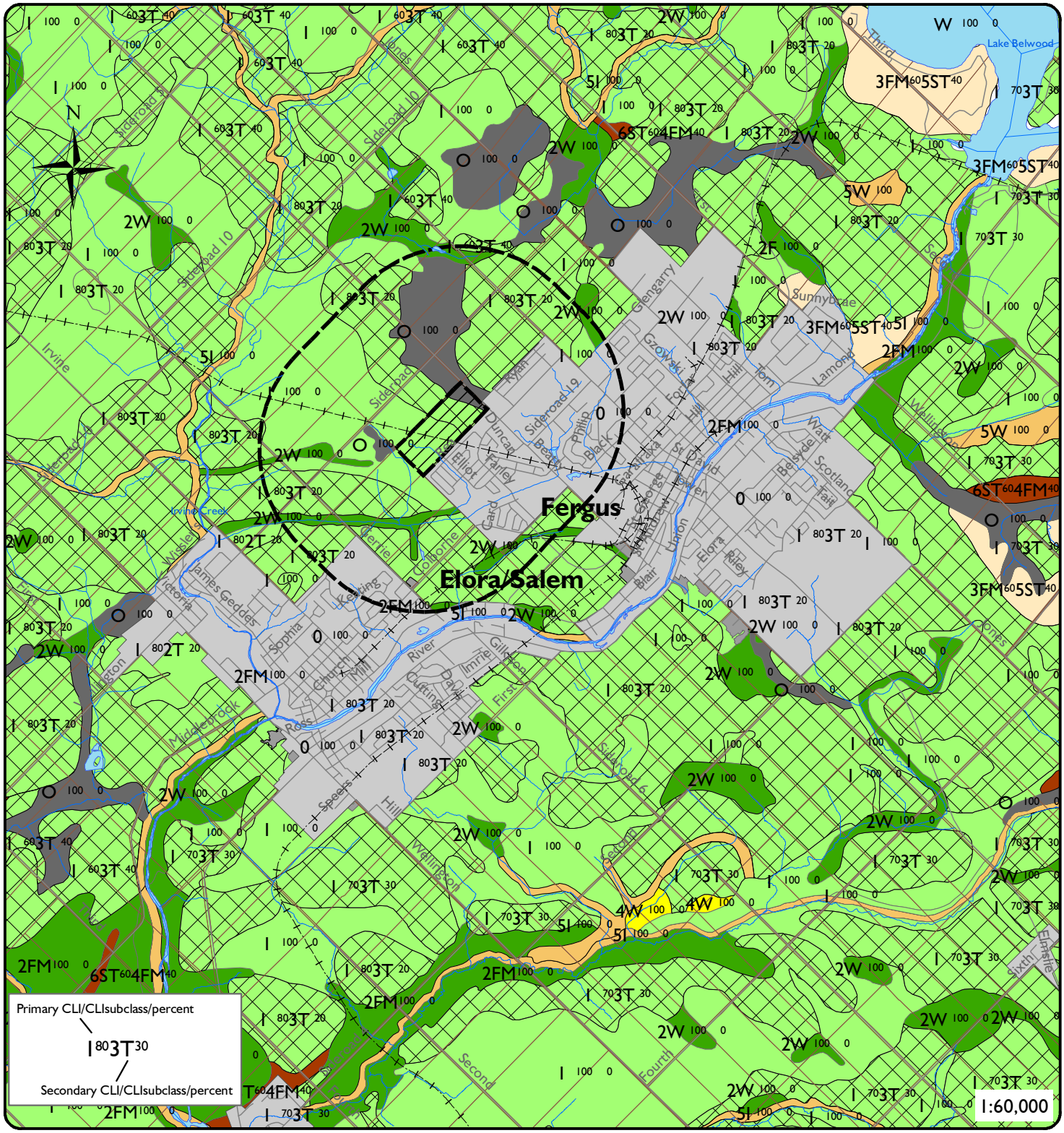
Based on the review of the *County of Wellington Official Plan (Office Consolidation July 2024) Schedule B1 – Land Use Centre Wellington* and the provincial soils/CLI data, the location of the PSA is considered as a reasonable alternative location.

Figure 17 County of Wellington Official Plan – Schedule B1



4.11 Agricultural Census Data

A review of the Census of Agriculture data (Census 2021 including 2016, 2011 and 2006 data) was completed to determine the agricultural characteristics of Centre Wellington and Wellington County, and to allow comparison to the agricultural characteristics in the PSA and SSA.



Legend

- Abandoned Railway (MNR)
- Water Course (MNR)
- Areas of CLI Inaccuracy
- Lot Lines (MNR)
- Primary Study Area (PSA)
- Secondary Study Area (SSA) (1500 m)
- Settlements (WC)
- Water Body (MNR)

Canada Land Inventory (CLI) (OMAFA)

- Not Mapped
- Class 1
- Class 2
- Class 3
- Class 4
- Class 5
- Class 6
- Organic Soil

MNR - Ministry of Natural Resources, OMAFA - Ontario Ministry of Agriculture, Food, and Agribusiness, WC - Wellington County

Figure 18
Alternative Location Evaluation
Canada Land Inventory
(CLI)

DBH Soil Services Inc.

May 2025

4.11.1 Centre Wellington

Table 6 provided Census 2021 data for agricultural land use in Centre Wellington and provided a comparison from the Provincial Census 2021 agricultural data to the 2016, 2011 and 2006 agricultural data. As indicated in the Census data, Centre Wellington comprised approximately 0.55 percent of the total area of farms in Ontario (Census 2021).

A review of Census 2021 data for Centre Wellington revealed that the total area in farms was 64,226 acres (Census Farms). Much of the farmed land was in crops with a total of 53,881 acres. The remaining lands were listed as summerfallow land, tame or seeded pasture, natural land for pasture, Christmas trees, woodland and wetland and all other land.

Table 6 Centre Wellington Census 2021 Data – Land Use

Item	Centre Wellington	Province	Percent of Province 2021	Percent of Province 2016	Percent of Province 2011	Percent of Province 2006
Land Use, 2021 Census (acres)						
Land in crops	53,881	9,051,011	0.60	0.61	0.71	0.65
Summerfallow land	24	13,964	0.17	0.19	0.44	0.27
Tame or seeded pasture	2,002	400,480	0.50	0.32	0.33	0.48
Natural land for pasture	1,006	626,366	0.16	0.13	0.22	0.18
Christmas trees, woodland & wetland	4,577	1,269,535	0.36	0.36	0.37	0.34
All other land	2,736	404,714	0.68	0.57	0.78	0.50
Total area of farms	64,226	11,766,071	0.55	0.53	0.61	0.55

Table 6 illustrated that fluctuations in acreage were noted in all land uses in Centre Wellington over the last 15 years with the general trend being an increase in acreage over the last 5 years (based on Census 2021 farm data).

Table 7 provided a more detailed inventory of agricultural lands, and it was evident from this data that Centre Wellington contributed a limited amount to the Provincial totals for production in major field crops (As based on Census farm data).

Table 7 Centre Wellington Census 2021 Data – Crops

Item	Centre Wellington	Province	Percent of Province 2021	Percent of Province 2016	Percent of Province 2011	Percent of Province 2006
Major Field Crops, 2021 Census (acres)						
Winter wheat	9,199	1,144,406	0.80	0.80	0.97	0.70
Oats for grain	697	84,320	0.83	0.32	0.66	0.27
Barley for grain	549	68,756	0.80	0.97	1.36	1.21
Mixed grains	343	59,961	0.57	0.82	1.00	0.87
Corn for grain	13,481	2,202,465	0.61	0.61	0.72	0.85
Corn for silage	3,320	289,678	1.15	1.39	1.44	1.29
Hay	10,434	1,704,017	0.61	0.62	0.63	0.57
Soybeans	14,569	2,806,255	0.52	0.53	0.60	0.58

Item	Centre Wellington	Province	Percent of Province 2021	Percent of Province 2016	Percent of Province 2011	Percent of Province 2006
Potatoes	76	39,193	0.19	0.13	0.13	0.07
Major Fruit Crops, 2021 Census (acres)						
Total fruit crops	25	48,661	0.05	0.07	0.07	0.08
Apples	12	16,008	0.07	0.10	0.06	0.05
Sour Cherries	0	1,383	0.00	-	0.00	-
Peaches	1	4,608	0.02	0.00	-	-
Strawberries	9	2,633	0.34	-	0.52	-
Raspberries	1	438	0.23	0.44	0.44	-
Major Vegetable Crops, 2021 Census (acres)						
Total vegetables	60	127,893	0.05	0.05	0.11	0.08
Sweet corn	27	20,518	0.13	0.10	0.19	0.11
Tomatoes	3	14,614	0.02	0.02	0.11	0.03
Green peas	1	14,044	0.01	-	0.01	0.00
Green or wax beans	2	8,709	0.02	0.01	0.01	0.01

Table 7 also illustrated a percent of Province in Centre Wellington and provided a comparison from Provincial Census 2021 to the Provincial Census 2016, 2011 and 2006.

Table 7 illustrated an increase in acreage for potatoes since 2006. Table B also illustrated a decrease in acreage for corn for grain since 2006. Fluctuations were noted (as a percent of the Provincial totals) in winter wheat, oats and barley for grain, mixed grains, corn for silage, hay, and soybeans contributions since 2006.

With respect to fruit crops, Centre Wellington was a limited contributor to the Provincial totals for major fruit crops. Decreases were noted in acreage (as a percent of the Provincial totals) for total fruit crops. Centre Wellington produced 12 acres of apples, 9 acres of strawberries, and 1 acre each of pears, plums, peaches and raspberries.

Centre Wellington was not a significant contributor to the Provincial totals for production of vegetables. The Census data indicated fluctuations in Centre Wellington's contribution (as a percent of the Provincial totals) in all major vegetable crop production since 2006. Centre Wellington contributed 60 acres of total vegetables to the provincial totals in 2021.

Table 8 illustrated the Census 2021 data for livestock. Centre Wellington was a small contributor to the Provincial totals for livestock. In 2021, Centre Wellington's contribution to the Provincial totals included 2.01 percent for steers, 1.11 percent for total sheep and lambs, 1.10 percent for total cattle and calves, 0.97 for dairy cows, 0.55 for beef cows and 0.36 percent for total pigs. When compared to the Census 2016, 2011 and 2006 data, fluctuations were noted in all livestock inventories, with the exception of total cattle and calves and steers where there has been a slight increase over the last 15 years.

Centre Wellington was a small contributor of total hens and chickens and total turkeys to the Province in 2021. Fluctuations have been noted in total hens and chickens' inventories and total turkeys over the last 15 years.

Table 8 Centre Wellington Census 2021 Data – Livestock

Item	Centre Wellington	Province	Percent of Province 2021	Percent of Province 2016	Percent of Province 2011	Percent of Province 2006
Livestock Inventories, 2021 Census (number)						
Total cattle and calves	17,691	1,604,810	1.10	1.07	1.04	0.95
Steers	6,022	299,540	2.01	1.86	1.71	1.68
Beef Cows	1,230	224,194	0.55	0.47	0.62	0.61
Dairy Cows	3,168	327,272	0.97	1.21	1.15	1.02
Total Pigs	14,771	4,071,902	0.36	0.79	0.63	1.33
Total sheep and lambs	3,572	322,508	1.11	0.80	1.03	0.83
Poultry Inventories, 2021 Census (number)						
Total hens and chickens	1,518,260	53,802,772	2.82	2.96	1.09	1.61
Total turkeys	24,056	2,453,126	0.98	1.08	1.31	1.01

4.11.2 WELLINGTON COUNTY

A review of Census 2021 data for Wellington County revealed that the total area in farms is 523,903 acres (Census Farms). Much of the farmed land was in crops with a total of 436,390 acres. The remaining lands were listed as summerfallow land, tame or seeded pasture, natural land for pasture, Christmas trees, woodland, and wetland and all other land.

Table 9 provided Census 2021 data for agricultural land use in Wellington County and provided a percent comparison from the Provincial Census 2021 agricultural data to Census 2016, 2011 and 2006 agricultural data. As indicated in the Census data, Wellington County comprises approximately 4.82 percent of the land in crops for Census farms in Ontario (Census 2021).

In comparison to the Census 2016, 2011 and 2006 data, there were fluctuations in acreage of land in crops, summerfallow land, tame or seeded pasture, natural land for pasture and all other land since 2006. Increases in acreage were noted for Christmas trees, woodland and wetland acreage over the last 15 years.

Table 9 Wellington County Census 2021 Data – Land Use

Item	Wellington County	Province	Percent of Province 2021	Percent of Province 2016	Percent of Province 2011	Percent of Province 2006
Land Use, 2021 Census (acres)						
Land in crops	436,390	9,051,011	4.82	4.22	4.51	4.27
Summerfallow land	375	13,964	2.69	3.38	3.33	2.26

Tame or seeded pasture	14,319	400,480	3.58	2.68	2.67	2.77
Natural land for pasture	10,844	626,366	1.73	1.11	1.28	1.39
Christmas trees, woodland & wetland	44,694	1,269,535	3.52	2.94	2.99	2.50
All other land	17,281	404,714	4.27	3.68	3.71	3.13
Total area of farms	523,903	11,766,071	4.45	3.78	3.94	3.65

Table 10 provided a more detailed inventory of the major field crops in Wellington County and illustrated a percent of Province comparison from 2021 to 2016, 2011 and 2006. Wellington County contributed a significant amount to the Provincial totals for major field crops. Fluctuations were noted in all major field crops except for winter wheat, oats for grain and hay over the last 15 years. Overall, there has been a general increase in acreage of major field crops over the last 5 years.

Table 10 also provided Census data for major fruit crops and major vegetable crops. Wellington County contributed 62 acres of apples, 55 acres of strawberries and 5 acres of raspberries to the Provincial totals in 2021. (Census 2021).

Wellington County's contribution to the Provincial totals for major vegetable crops was limited. As illustrated in Table 10, Wellington County contributed 629 acres of total vegetables to the provincial totals 2021.

Table 10 Wellington County Census 2021 Data – Crops

Item	Wellington County	Province	Percent of Province 2021	Percent of Province 2016	Percent of Province 2011	Percent of Province 2006
Major Field Crops, 2021 Census (acres)						
Winter wheat	80,307	1,144,406	7.02	5.99	5.79	4.65
Oats for grain	4,365	84,320	5.18	4.76	3.60	2.02
Barley for grain	5,710	68,756	8.30	7.12	8.85	7.97
Mixed grains	5,633	59,961	9.39	9.86	11.27	8.92
Corn for grain	92,169	2,202,465	4.18	3.63	3.95	4.11
Corn for silage	29,650	289,678	10.24	9.54	10.31	9.28
Hay	83,411	1,704,017	4.89	4.31	4.31	3.90
Soybeans	116,923	2,806,255	4.17	3.50	3.74	3.79
Potatoes	128	39,193	0.33	0.26	0.32	0.81
Major Fruit Crops, 2021 Census (acres)						
Total fruit crops	166	48,661	0.34	0.32	0.32	0.51
Apples	62	16,008	0.39	0.47	0.40	0.76
Sour Cherries	2	1,383	0.14	-	0.13	-
Peaches	1	4,608	0.02	-	-	-
Grapes	1	18,432	0.01	-	-	-
Strawberries	55	2,633	2.09	0.99	1.89	2.24
Raspberries	5	438	1.14	1.76	1.22	1.56
Major Vegetable Crops, 2021 Census (acres)						
Total vegetables	629	127,893	0.49	0.39	0.70	0.72
Sweet corn	128	20,518	0.62	0.56	0.59	0.53
Tomatoes	14	14,614	0.10	0.11	0.27	0.09
Green peas	5	14,044	0.04	0.31	0.27	0.24
Green or wax beans	7	8,709	0.08	-	-	0.51

Table 11 provided the Census 2021 data for livestock for Wellington County. As indicated below, Wellington County had a significant contribution to the provincial totals

for livestock inventories in 2021. Fluctuations in contributions to Provincial totals have occurred for all livestock inventories except dairy cows since 2006. In 2021, Wellington County contributions to Provincial totals included 15.27 percent in steers, 9.39 percent in dairy cows, 9.35 percent in total cattle and calves and 8.95 percent in total sheep and lambs. Overall, there has been a general increase in contributions to livestock inventories over the last 5 years.

With respect to Wellington County's poultry inventories, Wellington County contributed 6,953,181 total hens and chickens and 176,261 turkeys to the provincial totals in 2021.

Table 11 Wellington County Census 2021 Data – Livestock

Item	Wellington County	Province	Percent of Province 2021	Percent of Province 2016	Percent of Province 2011	Percent of Province 2006
Livestock Inventories, 2021 Census (number)						
Total cattle and calves	150,093	1,604,810	9.35	8.07	8.17	6.84
Steers	45,748	299,540	15.27	12.59	14.50	0.96
Beef cows	9,398	224,194	4.19	3.34	3.67	3.65
Dairy cows	30,716	327,272	9.39	8.53	8.10	7.22
Total pigs	255,297	4,071,902	6.27	6.58	7.65	7.56
Total sheep and lambs	28,879	322,508	8.95	6.02	7.81	3.92
Poultry Inventories, 2021 Census (number)						
Total hens and chickens	6,953,181	53,802,772	12.92	13.43	12.17	9.90
Total turkeys	176,261	2,453,126	7.19	4.65	7.14	5.83

Table 12 provided a side-by-side comparison of Centre Wellington and Wellington County Census 2021 data for crops. Table G also provided this comparison as a percent calculation of the contribution from Centre Wellington to Wellington County (2021, 2016, 2011 and 2006).

As illustrated in Table 12, Centre Wellington made a significant contribution to the major field crops totals in Wellington County. There have been fluctuations in the percent contribution from Centre Wellington to Wellington County totals for all major field crops over the last 15 years with the exception of mixed grains, corn for grain and hay where there have been decreases in contribution. There have been increases in potato contributions since 2006.

With respect to major fruit crops, Centre Wellington's contribution to Wellington County's major fruit totals is significant with 100 percent contribution to peaches, a 20 percent contribution to raspberries, a 19.35 percent contribution to apples and a 16.36 contribution to strawberries in 2021.

As illustrated in Table 12, Centre Wellington's contribution to major vegetable crops in Wellington County includes 28.57 percent contribution of green or wax beans, 21.43 percent contribution to tomatoes, 21.09 percent contribution to sweet corn, and 20.00 percent contribution to green peas in 2021.

Table 12 Comparison of Township and County Census 2021 Data - Crops

Item	Centre Wellington	Wellington County	Percent of Wellington County 2021	Percent of Wellington County 2016	Percent of Wellington County 2011	Percent of Wellington County 2006
Major Field Crops, 2021 Census (acres)						
Winter wheat	9,199	80,307	11.45	13.40	16.73	10.88
Oats for grain	697	4,365	15.97	6.72	18.29	13.55
Barley for grain	549	5,710	9.61	13.56	15.39	15.20
Mixed grains	343	5,633	6.09	8.28	8.89	9.79
Corn for grain	13,481	92,169	14.63	16.69	18.11	20.69
Corn for silage	3,320	29,650	11.20	14.52	14.02	13.86
Hay	10,434	83,411	12.51	14.36	14.55	14.76
Soybeans	14,569	116,923	12.46	15.22	16.12	15.36
Potatoes	76	128	59.38	49.45	39.50	8.77
Major Fruit Crops, 2021 Census (acres)						
Total fruit crops	25	166	15.06	20.86	21.18	14.59
Apples	12	62	19.35	21.62	15.87	7.19
Sour Cherries	0	2	-	-	-	-
Peaches	1	1	100.00	-	-	-
Grapes	0	1	-	-	-	-
Strawberries	9	55	16.36	-	27.42	-
Raspberries	1	5	20.00	25.00	36.36	-
Major Vegetable Crops, 2021Census (acres)						
Total vegetables	60	629	9.54	12.43	15.95	11.07
Sweet corn	27	128	21.09	18.75	32.00	20.39
Tomatoes	3	14	21.43	17.65	43.18	31.58
Green peas	1	5	20.00	-	2.44	1.92
Green or wax beans	2	7	28.57	-	-	1.64

Table 13 provided a comparison of Centre Wellington and Wellington County Census (2021) data for livestock inventories. A review of the Census data indicates that there have been fluctuations in Centre Wellington's contribution to all of Wellington County's livestock totals with the exception of total sheep and lambs where there have been decreases since 2006.

Centre Wellington contributed 1,518,260 chickens and 24,056 turkeys to Wellington County's total poultry inventories in 2021.

Table 13 Comparison of Township and County Census 2021Data – Livestock

Item	Centre Wellington	Wellington County	Percent of Wellington County 2021	Percent of Wellington County 2016	Percent of Wellington County 2011	Percent of Wellington County 2006
Livestock Inventories, 2021 Census (number)						
Total cattle and calves	17,691	150,093	11.79	13.26	12.75	13.86
Steers	6,022	45,748	13.16	14.77	11.78	15.33
Beef cows	1,230	9,398	13.09	14.08	16.82	16.61
Dairy cows	3,168	30,716	10.31	14.18	14.15	14.06
Total pigs	14.771	255,297	5.79	12.02	8.19	17.64
Total sheep and lambs	3,572	28,879	12.37	13.22	13.23	21.09
	1,518,260	53,802,772	2.82			

Item	Centre Wellington	Wellington County	Percent of Wellington County 2021	Percent of Wellington County 2016	Percent of Wellington County 2011	Percent of Wellington County 2006
Poultry Inventories, 2021 Census (number)				22.06	8.93	16.29
Total hens and chickens						
Total turkeys	24,056	2,453,126	0.98	23.20	18.29	17.34

The proposed development of the PSA will have minimal impact on the overall agricultural production in the Township of Centre Wellington of in Wellington County.

5 RESOURCE ALLOCATION AND CONFLICT POTENTIAL

Land use planning decisions involve trade-offs among the competing demands for land. The fundamental base used for the evaluation of agricultural lands is land quality, i.e. CLI soil capability ratings. Within the rural/urban interface, there are a number of other factors which contribute to the long-term uncertainty of the economic viability of the industry and these, in turn, are reflected in the lack of investments in agricultural facilities, land and infrastructure and changes to agricultural land use patterns in these areas. Several of these factors include, but are not limited to, the presence of rural non-farm residents, land fragmentation, intrusions of non-agriculture land uses, non-resident ownership of lands and inflated land values. This section summarizes the impact of these factors on agriculture in the area.

5.1 IMPACTS, ASSESSMENT AND COMPATABILITY WITH SURROUNDING LAND USES

The identification and assessment of potential impacts is paramount to determining potential mitigation measures to either eliminate or offset the impact to the extent feasible. The following list includes potential impacts to agriculture that were identified in the OMAFRA 2018 draft AIA Guidance Document, and includes other impacts identified by farmers and landowners. This list is a basis for documenting potential impacts within AIAs and can be modified as necessary to suit the local agricultural community, operations, and services. The determination of impacts due to the proposed future development of the PSA related to this list of potential impacts to infrastructure development projects on agricultural lands may include the following:

- Interim or permanent loss of agricultural lands
- Fragmentation of agricultural lands and operations
- The loss of existing and future farming opportunities
- The loss of infrastructure, services, or assets
- The loss of investments in structures and land improvements
- Disruption or loss of functional drainage systems
- Disruption or loss of irrigation systems
- Changes to soil drainage
- Changes to surface drainage
- Changes to landforms
- Changes to hydrogeological conditions
- Disruption to surrounding farm operations
- Effects of noise, vibration, dust
- Potential interim compatibility concerns
- Traffic concerns
- Changes to adjacent cropping due to light pollution

It should be noted that this AIA report should be read in conjunction with any and all other discipline reports in an effort to provide an adequate evaluation of the above-mentioned potential impacts.

The agricultural character of both the PSA and the SSA has been documented in this AIA. It has been determined that the PSA comprised portions of active agricultural land uses, disturbed areas, and woodlands. It was also determined that the SSA comprised portions of active agricultural land uses (including livestock, and cash crop operations), built areas (urban land uses), commercial enterprises, rural residential use, recreational uses, woodlands, and scrublands.

It has been documented in this AIA that the SSA included portions of the built areas of Salem/Elora and Fergus.

These types of fragmentation (and business/commercial intrusions) are a clear indication of an area impacted by non-agricultural uses. These types of uses provide an indication of lands that are in transition from an agricultural land base to a more rural environment. The large number of small parcels and commercial/industrial lands provide an indication as to the lack of long-term intensions for agriculture in those portions of the SSA.

With respect to the potential impacts as listed on the previous page of this report, and the proposed future development of the PSA lands, Table 14 provides some context as to the extent of the potential impacts.

Table 14 Potential Impacts

Potential Impact	Impacts Associated with the Proposed Future Development of the PSA Lands Before Mitigation
Interim or permanent loss of agricultural lands	There will be a permanent loss of the use of agricultural lands within the PSA. There will be no loss of agricultural lands in the SSA. The impact is applicable for both the construction and the future use of the PSA.
Fragmentation, severing or land locking of agricultural lands and operations	This project is a proposed future development of the PSA lands which will fragment the land base. The impact is applicable for both the construction and the future use of the PSA. There will be no severing or landlocking of agricultural lands or operations in either the PSA or the SSA.
The loss of existing and future farming opportunities	There will be a loss of existing and future farming opportunities on the portions of the PSA lands which were utilized for agricultural production.

Potential Impact	Impacts Associated with the Proposed Future Development of the PSA Lands Before Mitigation
	The impact is applicable for both the construction and the future use of the PSA. There will be no net loss of existing or future farming operations in the SSA.
The loss of infrastructure, services or assets	There will be no loss of infrastructure or services as a result of the project in the PSA or the SSA.
The loss of investments in structures and land improvements	There will be no net loss of investment in agricultural buildings in the PSA. There will be no net loss of tile drainage in the PSA. The impact is applicable for both the construction and the future use of the PSA. There will be no loss of investments or land improvements in the SSA.
The loss of use of ground water wells	There exists the potential for impact from the loss of the use of ground water wells due to lack of quantity and/or quality of water in the PSA. The impact is applicable for the construction and future use of the project. There will be no loss of use of water wells in the SSA.
Disruption or loss of functional drainage systems	There will be no net loss of artificial tile drainage on the PSA, and there is no net loss or disruption to artificial tile drainage systems in the SSA. The impact is applicable for the construction and future use of the PSA.
Disruption or loss of irrigation systems	There is no net loss of irrigation systems in the PSA or the SSA.
Changes to soil drainage	There will be no net change in soil drainage in the SSA as a result of future development of the PSA lands.
Changes to surface drainage	There will be no net change in surface drainage within the SSA as a result of future development of the PSA lands.

Potential Impact	Impacts Associated with the Proposed Future Development of the PSA Lands Before Mitigation
Changes to landforms	There will be no changes to landforms (with respect to agriculture) in the SSA as a result of future development of the PSA lands.
Changes to hydrogeological conditions	Any potential changes in hydrogeological conditions would need to be addressed under separate cover in future stages of the project.
Disruption to surrounding farm operations	There will be limited disruption for surrounding/adjacent farms. The impact is applicable for both the construction and the future use of the PSA.
Effects of noise, vibration, dust	There should be limited potential for additional vibration and dust during the construction of the future development of the PSA lands. The impact is applicable for both the construction and the future use of the PSA.
Potential compatibility concerns	There should be limited potential for compatibility concerns with the proposed future development of the PSA and the adjacent agricultural lands in the SSA as the PSA will be an expansion of an urban area.
Traffic concerns	It is noted that this project is the future development of the PSA lands which will result in an increase in human occupancy. Increased traffic will occur as a result of an increase in human occupancy. A traffic study will address those concerns.
Changes to adjacent cropping due to light pollution	There is potential for changes in cropping due to light pollution, as it is assumed that the proposed future development of the PSA will include lighting. Any use of lighting should take into consideration the impact on adjacent agricultural lands. The impact is applicable for both the construction and the future use of the PSA.

5.2 TRAFFIC, TRESPASS AND VANDALISM

Specific to agriculture, increased vehicle traffic along roadways can lead to safety issues with respect to the movement of slow moving, long, wide farm machinery and, as well, interrupt or alter farm traffic flow patterns.

It may be necessary to reduce conflicts by designing roads and traffic controls to accommodate the heavy, wide, slow-moving farm equipment (e.g. wide shoulders, no curbs, reduced speed limits, and if traffic circles (roundabouts) are to be used, then they need to accommodate large slow moving farm equipment. Discussions with farm groups in various parts of Ontario have indicated that roundabouts in agricultural areas are a poor consideration due to difficulties maneuvering large tractors pulling multiple trailers through tight turns. Further, due to the slow speed of farm equipment, roundabouts do not allow adequate time for the equipment to move with the flow of traffic. Comments from the farm groups suggest that traffic lights or stop signs (hard stops) would better serve the farm community and farm traffic by forcing traffic to stop and allowing controlled access to the local road system.

Trespassing and vandalism are more often a concern with specialty crop operations and livestock operations. The location of the proposed future development of the PSA is not located in a provincially designated specialty crop area. The Minimum Distance Separation (MDS1) assessment identified the location of potential livestock facilities in the SSA. A review of the MDS1 data indicated that most of the livestock operations are fairly removed from the PSA and are located across roads, woodlots, streams, or other separation features.

Therefore, the proposed development of the PSA lands will have limited impact with respect to trespassing and vandalism on adjacent agricultural operations.

5.3 AGRICULTURAL INFRASTRUCTURE

The review of the OMAFRA Agricultural System Portal was completed to identify the presence of any registered livestock assets and services (renderers, meat plants, abattoirs), refrigerated warehousing and storage, frozen food manufacturing, farm markets, wineries, or cideries within the PSA. None of these features were identified within the PSA.

The proposed development of the PSA will not impact any registered agricultural assets and services (renderers, meat plants, abattoirs), refrigerated warehousing and storage, frozen food manufacturing, farm markets, wineries, or cideries.

5.4 MITIGATION MEASURES

The PPS 2024 defines an Agricultural Impact Assessment as:

Agricultural impact assessment: means the evaluation of potential impacts of non-agricultural uses on the agricultural system. An assessment recommends ways to avoid or if avoidance is not possible, minimize and mitigate adverse impacts.

With respect to this AIA, the following sections provide comments with regard to the avoidance, minimization, and mitigation of any potential adverse impacts.

5.4.1 AVOIDANCE

Any change in land use within or adjacent to an identified or designated prime agricultural area will result in the potential for impacts to the adjacent agricultural area. The severity of the potential impacts is related to the type and size of the change in land use, and the degree of agricultural activities and operations in the surrounding area.

The first method of addressing potential impacts is to avoid the potential impact. The proposed future development of the PSA will be a permanent use in an agricultural area. As a result, there will be agricultural lands lost. This cannot be avoided.

5.4.2 MINIMIZING IMPACTS

When avoidance is not possible, the next priority would be to minimize impacts to the extent feasible. Mitigation measures should be developed to lessen the potential impacts. The minimization of impacts can often be achieved during the design process and through proactive planning measures that provide for the separation of incompatible land uses.

5.4.3 MITIGATING IMPACTS

Potential mitigation measures may include:

- The use of berms, vegetated features, or fencing, where feasible, between the different types and intensities of land uses to reduce the potential for trespassing and potential vandalism. These types of buffers reduce impacts by preventing trespassing and associated problems such as litter and vandalism.
- The use of buffers between agriculture and transportation/urban uses may combine a separation of uses, vegetation/plantings, windbreaks, and berms. Vegetated buffers should include the use of deciduous and coniferous plants, with foliage from base to crown to mitigate against dust, light trespass, and litter.
- The use of salt management plans to reduce the amount of salt required for de-icing (liquid de-icers, broad casting and selective broad casting).
- The use of plantings/vegetation as screens and buffers to reduce visual impacts. Consideration of plantings/vegetation barriers within the PSA as visual screening where appropriate.
- Design new structures and side road improvements to be compatible with farm equipment.

- Further assessment of potential impacts to existing groundwater and surface water monitoring and providing new well or water access to those potentially impacted by groundwater disruption in future stages of the project.
- Restore tile drainage systems in the SSA that may be impacted by the proposed future development of the PSA (if necessary).
- Restore impacts to irrigation systems (if necessary).
- Create a traffic plan that identifies closures and open routes to minimize impacts to local traffic during construction.
- Maintain local roads to allow access for the movement of oversized agricultural equipment.
- Due to the locations and numbers of water wells in the PSA and the SSA, it will be important to either preserve the existing wells or properly engineer the closing/capping of any water well, where necessary, to prevent potential groundwater contamination.
- Field entrances and farm access that may be impacted by the proposed future development of the PSA will be relocated and/or accommodated to the extent possible.
- Phased development may be utilized to allow for agricultural production to continue in undeveloped areas of the PSA while other areas are built out in a comprehensive method.
- Place lower impact development (low occupancy uses) adjacent to farmland and operations.
- Design principles which accommodate agriculture to reduce negative impacts can minimize conflicts, noise, dust and odours through consideration of barriers, setbacks, buffers, road design and reduced speed limits.
- Road design to direct traffic away from farming areas.
- Increase depth of lots along the urban-agricultural boundary to create greater separation distances.

6 SUMMARY AND CONCLUSIONS

DBH Soil Services Inc was retained to complete an Agricultural Impact Assessment (AIA) Report for a parcel located at 6586 Beatty Line North in the Township of Centre Wellington, in Wellington County. The parcel immediately abuts a portion of the northern boundary of the settlement area of Fergus. This AIA will contribute to an Official Plan Amendment (OPA) for a settlement area boundary expansion of Fergus.

For the purposes of this AIA, 6586 Beatty Line North was identified as the Primary Study Area (PSA). A Secondary Study Area (SSA) of 1500 m beyond the boundaries of the PSA was used for the characterization of the agricultural community and the assessment of potential impacts both on and in the immediate vicinity of the PSA. The 1500 m SSA was defined in the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) *Draft Agricultural Impact Assessment Guidance Document (March 2018)* as is required for a settlement area boundary expansion.

A summary of the results of this AIA are presented below:

- **Geographical Limits**

  The PSA is located in the Guelph Drumlin Field, while the SSA is located within the Guelph Drumlin Field and the Stratford Till Plain physiographic regions.

  The Guelph Drumlin Field physiographic region is described as an area centered on the City of Guelph and north of the Paris moraine that contains more than 300 drumlins of all sizes. The drumlins are generally oval in shape and are not closely spaced, leaving more low ground between the drumlins.

  The Stratford Till Plain physiographic region is described as an area of ground moraine (broad clay plain) extending from London to Listowel.

  The PSA and the SSA are a complex mix of topography with gently undulating areas generally used for agricultural production, and steeper slopes along incised stream channels.

  The PSA and SSA are located between the 2700 and 2900 Crop Heat Units isolines (CHU-M1) available for corn production in Ontario.

  A review of OMAFRA Climate Zone Mapping revealed that the PSA and the SSA are located near the border between Zones D and E. Zone D has an average Frost-Free period of 130-165 days, an Average Date of Last Spring Frost of May 11, and an Average Date of First Fall Frost of October 1. Zone E has an average Frost-Free period of 125-145, and Average Date of Last Spring Frost of May 17, and an Based on the OMAFRA soils data the PSA comprised approximately 89.3 percent

Canada Land Inventory (CLI) capability of Class 1 – 3, with approximately 89.3 percent as Class 1 and 5.4 percent as Class 3. Approximately 5.3 percent of the PSA was identified as Organic Soils.

Based on the OMAFRA soils data the SSA comprised approximately 87.8 percent Canada Land Inventory (CLI) capability of Class 1 – 3, with approximately 69.2 percent as Class 1, 7.6 percent as Class 2, 11.0 percent as Class 3, 2.3 percent as Class 5, 4.1 percent as Not Rated, and 5.8 percent as Organic Soils.

It is important to note that this assessment of soil capability and CLI is based on incorrect OMAFRA soils data. The actual soil capability may include poorer capability/quality soils.

- **Agricultural Policy**

A review of the boundaries of the Provincial Land Base Legacy Mapping determined that all of the PSA and much of the SSA lands comprise Prime Agricultural Areas. Non-agricultural lands (settlements) were identified in the SSA and included portions of Elora/Salem and Fergus.

A review of the Greenbelt Plan (2017) mapping indicated that no portions of the PSA or the SSA were located in the Greenbelt Plan Area. No portions of the PSA or the SSA were located in the Oak Ridges Moraine Conservation Plan (2017) area or the Niagara Escarpment Plan (2017) area.

A review of the *County of Wellington Official Plan (Office Consolidation July 2024)* Schedule B1 Land Use Centre Wellington revealed that the PSA was comprised of lands designated as Prime Agricultural, and Core Greenlands. The SSA was comprised of lands designated as Prime Agricultural, Core Greenlands, Greenlands, and Primary Urban Centre.

A review of the *Township of Centre Wellington Comprehensive Zoning By-law No. 2009-045 (Office Consolidation February 2024)* identified that the zoning for the PSA was identified as Agricultural (A) and Environmental Protection (EP).

The SSA review identified that the SSA comprised areas zoned as Agricultural (A), Environmental Protection (EP), Residential (R1), Commercial (C), Institutional (IN), Open Space (OS), and Industrial (M).

No portions of the PSA or the SSA were within any provincially or municipally designated specialty crop area.

- **Agricultural Land Use**

The PSA comprised land use of approximately 1.9 percent as abandoned rail

corridor, 5.0 percent as built up/disturbed areas, 63.4 percent as common field crop, and 29.7 percent as woodland areas.

The SSA comprised land use of approximately 0.1 percent as abandoned rail corridor, 34.8 percent as built up/disturbed areas, 32.5 percent as common field crop, 0.1 percent as the Elora Cataract Trailway, 6.9 percent as forage/pasture lands, 0.4 percent as market garden, 0.9 for open field, 2.5 percent as scrublands, 8.8 percent as small grains, and 13.0 percent as woodland areas. .

The predominant land use in the PSA was the production of common field crops.

- **Agricultural Investment**

A total of 62 agricultural buildings were identified within the PSA and SSA. There were no agricultural buildings within the PSA. All of the identified 62 agricultural buildings were observed in the SSA.

There is no investment in artificial tile drainage in the PSA.

Systematic and random tile drainage were noted on various lands within the SSA.

There is no investment in landforming for agricultural purposes in either the PSA or the SSA.

Minimum Distance Separation 1 (MDS1) calculations were completed for this AIA, MDS1 calculations were completed as a best practice to protect lands for agricultural use as long as possible during the development phases.

A review of the online Agricultural System Portal (OMAFRA) indicated that there were no registered nurseries, specialty farms (crop or livestock), frozen food manufacturing, refrigerated warehousing/storage, livestock assets or abattoirs in the PSA.

There are no registered agricultural services within the PSA.

The closest transportation network (major roadway) is Highway 6 located to the east of the PSA.

- **Land Fragmentation**

The proposed settlement area boundary expansion on the PSA will result in fragmentation in the PSA.

The SSA comprised numerous small parcels (Salem/Elora and Fergus). There will be no additional fragmentation in the SSA as a result of the proposed development

of the PSA

The foregoing represents a comprehensive AIA with the purpose of evaluating the PSA and SSA to document the existing agricultural character and to determine any potential impacts to agriculture as a result of the proposed future development of the PSA.

This AIA has documented that the PSA was part of an area of land that had been deemed appropriate for a Settlement Area Boundary Expansion under OPA 119 (Version 1, April 2023) which included Provincial modifications without local input. In December 2023 Bill 150 reversed most of those Provincial modifications (OPA 119 Version 2), while Bill 162 included some Provincial modifications with scoped municipal input (OPA 119 Version 3). The third and final version of the OPA 119 (May 26, 2024) does not include any modifications to expand the urban boundaries of Fergus or Elora/Salem.

This AIA has identified that the PSA is located in a Prime Agricultural Area, as are most lands within Centre Wellington. Any settlement area boundary expansion of Fergus or Salem/Elora will result in the loss of Prime Agricultural land. As mentioned previously in this AIA, the review of the OMAFA soils database for CLI on the PSA and SSA identified inconsistencies with respect to the classification of CLI and slope. These inconsistencies would suggest that the PSA and SSA lands should be classified as poorer quality soils than what the OMAFA data and online mapping is suggesting.

This AIA completed an assessment of MDS1 as was required by provincial and municipal policy. The assessment of MDS1 identified that the PSA is not impacted by any MDS1 arcs. Therefore, the project is consistent with provincial and municipal policy.

Centre Wellington is characterised by its large agricultural community and amount of designated prime agricultural land. The expansion of urban boundaries will have an impact on designated prime agricultural lands. As has been demonstrated in the preceding sections of this report, any expansion of the urban boundary of Fergus or Salem/Elora will consume prime agricultural land. The loss of prime agricultural lands cannot be avoided.

Given the geographical location of the PSA lands and the close proximity to the settlements of Salem/Elora and Fergus, and that these lands were previously designated as settlement area boundary expansion lands, it is the conclusion of this study that the proposed future development of the PSA would have minimal impact on the surrounding agricultural activities within the SSA.

Sincerely
DBH Soil Services Inc.

Dave Hodgson, P. Ag
President

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APPENDIX A

Agricultural Building List

Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
1	7581 15 Sideroad, Centre Wellington, ON, N0B 1S0	23260000210020	Yes	Bank Barn	No		No		No	No	Owned by Cachet Developments, known as Elora Sands -plans for residential subdivision, buildings appear empty	No		No	No	Retired	MDS1 calculation required (using building measurement, livestock beef)
2	7581 15 Sideroad, Centre Wellington, ON, N0B 1S0	23260000210020	Yes	Pole Barn	Yes		No		No	No		No		No	No	Retired	No MDS1 calculation required
3	6596 Gerrie Rd, Centre Wellington, ON, N0B 1S0	23260000210025	Yes	Workshop	No		No		No	No	P & S Electric	No		No	No	Commercial	No MDS1 calculation required
4	6574 Irvine St, Centre Wellington, ON, N0B 1S0	23260000210030	Yes	Pole Barn	Yes	grain bin/bins, capped silo/silos	No		No	No		No		No	No	Retired dairy	No MDS1 calculation required
5	6574 Irvine St, Elora, ON, N0B 1S0	23260000210030	Yes	Bank Barn	No	with extension/extensions	No		No	No		No		No	No	Retired dairy	No MDS1 calculation required
6	6574 Irvine St, Elora, ON, N0B 1S0	23260000210030	Yes	Open Sided Barn	Yes		No		No	No	Open sided building	No		No	No	Retired dairy	No MDS1 calculation required
7	6574 Irvine St, Elora, ON, N0B 1S0	23260000210030	Yes	Pole Barn	Yes	with extension/extensions	No		No	No		No		No	No	Retired dairy	No MDS1 calculation required
8	6583 Gerrie Rd, Centre	23260000210440	Yes	Quonset	No	overgrown vegetation	No		No	No		No		No	No	Cash Crop Operation	No MDS1 calculation required

Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
	Wellington, ON, N0B 1S0																
9	6583 Gerrie Rd, Centre Wellington, ON, N0B 1S0	23260000210440	Yes	Pole Barn	Yes	overgrown vegetation	No		No	No	Assumed removed	No		No	No	Cash Crop Operation	No MDS1 calculation required
10	6611 Gerrie Rd, Centre Wellington, ON, N0B 1S0	23260000210450	Yes	Machine Shed	Yes	capped silo/silos, grain bin/bins, feed tower	No		No	No	Last name on mailbox "Walter" Farm equipment stored in tension fabric structure Gerber Landscaping, several tension fabric structures behind buildings used for equipment storage	No		No	No	Cash Crop Operation	No MDS1 calculation required
11	6611 Gerrie Rd, Centre Wellington, ON, N0B 1S0	23260000210450	Yes	Pole Barn	Yes		No		No	No	Line of sight restriction	No		No	No	Cash Crop Operation	No MDS1 calculation required
12	6611 Gerrie Rd, Centre Wellington, ON, N0B 1S0	23260000210450	Yes	Shed	Yes		No		No	No	Line of sight restriction	No		No	No	Main barn removed 2006 – 2009 Cash Crop Operation	No MDS1 calculation required
13	6683 Gerrie Rd, Centre Wellington, ON, N0B 1S0	23260000230800	Yes	Pole Barn	No	grain bin/bins	No		No	No	5 bays, assumed not used for livestock	No		No	No	Associated with Drost Cattle	No MDS1 calculation required

Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
14	7715 Sideroad 15, Centre Wellington, ON, N1M 2W3	23260002104600	Yes	Bank Barn	No	with extension/extensions, uncapped silo/silos, run-in shed/sheds, fencing designed for livestock	No		No	No		No		No	No	Hobby Farm	MDS1 calculation required (using building measurement, unoccupied barn)
15	7715 Sideroad 15, Centre Wellington, ON, N1M 2W3	23260000210460	Yes	Quonset	Yes		No		No	No		No		No	No	Hobby Farm	No MDS1 calculation required
16	6585 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000210980	Yes	Bank Barn	Yes	with extension/extensions, uncapped silo/silos, fencing designed for livestock	No		Yes	No		No		No	No	Cash Crop Operation	Ted and Marlene Buczek Got the Besta Farm Hay for sale No MDS1 calculation required – due to proximity to urban area
17	6611 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000230060	Yes	Machine Shed	Yes	with extension/extensions, run-in shed/sheds, fencing designed for livestock, paddock/paddocks	Yes		No	Yes		Yes		No	No	Active Horse Operation	No MDS1 calculation required
18	6611 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000230060	Yes	Bank Barn	Yes	with extension/extensions, run-in shed/sheds, fencing designed for livestock, paddock/paddocks	Yes		No	Yes		Yes	Horses	No	No	Active Horse Operation	MDS1 calculation required (using building measurement, horses)
19	6611 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000230060	Yes	Pole Barn	Yes		Yes	Horses	No	Yes		Yes		No	No	Active Horse Operation	MDS1 measurement required (using building measurement, livestock – horses, combined

Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
																	calculation with bldg 18)
20	6611 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000230060	Yes	Machine Shed	Yes		No		No	Yes		No		No	No	Active Horse Operation	No MDS1 calculation required
21	6611 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000230060	Yes	Assumed Storage Trailers	Yes		No		No	Yes		No		No	No	Active Horse Operation	No MDS1 calculation required
22	6611 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000230060	Yes	Shed	Yes		Yes		No	Yes		No		No	No	Active Horse Operation	No MDS1 calculation required
23	6602 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000210970	Yes	Workshop/ Storage Barn	Yes	run-in shed/sheds, fencing designed for livestock	No		No	No	Private property signs Beware of dogs signs	No		No	No	Active Horse Operation	No MDS1 calculation required
24	6602 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000210970	Yes	Pole Barn	Yes		No		No	No	Big door on side	No		No	No	Active Horse Operation	No MDS1 calculation required
25	6602 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000210970	Yes	Pole Barn	Yes	paddock/paddocks, run-in sheds	Yes	Horses	No	Yes		Yes	Horses	Yes	No	Active Horse Operation	MDS1 calculation required (using building measurement, livestock – horses)
26	6581 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000230050	Yes	Bank Barn	No	grain bin/bins	No		No	No	Shed in the trees - Horse trailer	No		No	No	Retired Beef Operation	MDS1 calculation required – (building capable of housing livestock, using building measurement, unoccupied barn)

Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
																	CC – appears to be cash crop – no MDS1
27	7660 Sideroad 15, Fergus, ON, N1M 2W3	23260000230811		Pole Barn	Yes	with extension/extensions, fencing designed for livestock	No		No	No		No		No	No	Not Applicable	No MDS1 calculation required
28	6684 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Machine Shed	Yes		No		Yes	Yes	Drost Cattle Inc Line of sight restriction of farm	No		No	No	Beef Operation	No MDS1 calculation required. Information provided by farmer. Feed Storage
29	6684 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Pole Barn	Yes	with extension/extensions	No		Yes	Yes	Drost Cattle Inc Line of sight restriction of farm	No		No	No	Beef Operation	No MDS1 calculation required. Information provided by farmer. Equipment storage
30	6684 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Pole Barn	Yes	with extension/extensions	No		Yes	Yes	Drost Cattle Inc. Line of sight restriction of farm	No		No	No	Beef Operation	No MDS1 calculation required. Information provided by farmer. Hay Equipment storage.
31	6684 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Quonset	Yes		No		Yes	Yes	Drost Cattle Inc. Line of sight restriction of farm	No		No	No	Beef Operation	No MDS1 calculation required. Information provided by farmer. Straw storage
32	6684 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Pole Barn	Yes		No		No	No	Drost Cattle Inc. Line of sight restriction of farm	No		No	No	Beef Operation	No MDS1 calculation required. Information provided by farmer. Solid manure storage
33	6684 Beatty Line	23260000230500	Yes	Pole Barn	Yes		No		No	No	Drost Cattle Inc.	No		No	No	Beef Operation	MDS1 calculation required.

Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
	N, Centre Wellington, ON, N1M 2W3										Line of sight restriction of farm						Information provided by Farmer. 1000 head feeder barn. Using CC MDS1 Calculations CC –MDS calculations completed based on 1000 head feeders as livestock (as per MDS sheet information confirmed with farm operator)
34	6684 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Pole Barn	Yes		No		No	No	Drost Cattle Inc. Line of sight restriction of farm	No		No	No	Beef Operation	No MDS1 calculation required. Information provided by farmer. Solid manure storage.
35	6684 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Pole Barn	Yes	with extension/extensions	No		No	No	Drost Cattle Inc. Line of sight restriction of farm	No		No	No	Beef Operation	MDS1 calculation required Using CC MDS1 Calculations CC – MDS1 based on 750 head feeder cattle as livestock (as per MDS sheet information confirmed with farm operator)
36	6684 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Quonset	Yes		No		No	No	Drost Cattle Inc. Line of sight restriction of farm Possible manure storage	No		No	No	Beef Operation	No MDS1 calculation required. Information provided by farmer. Solid manure storage.
37	6684 Beatty Line	23260000230500	Yes	Quonset	Yes		No		No	No	Drost Cattle Inc.	No		No	No	Beef Operation	No MDS1 calculation required.

Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
	N, Centre Wellington, ON, N1M 2W3										Line of sight restriction of farm Possible manure storage						Information provided by farmer. Solid manure storage.
38	6684 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Pole Barn	Yes		No		No	No		No		No	No	Beef Operation	MDS1 calculation required. Using CC MDS1 Calculations CC – based on 500 feeder beef cattle as livestock (as per MDS sheet information confirmed with farm operator)
39	6688 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Pole Barn	No	with extension/extensions, capped silo/silos	No		No	Yes	Drost Cattle	Yes		Yes	No	Beef Operation	MDS1 calculation required (two barns connected – treated as one barn). Farm identified a total of 400 beef feeders in these buildings
40	6688 Beatty Line N, Centre Wellington, ON, N1M 2W3	23260000230500	Yes	Machine Shed	No		No		No	Yes	Drost Cattle	No		No	No	Beef Operation	No MDS1 calculation required. Information provided by farmer. Machine shed.
41	7708 Sideroad 15, Centre Wellington, ON, N1M 2W3	23260000230480	Yes	Machine Shed	Yes		No		No	No		No		No	No	Not Applicable	No MDS1 calculation required
42	7708 15 Sideroad, Centre Wellington, ON, N1M 2W3	23260000230480	Yes	Machine Shed	Yes		No		No	No		No		No	No	Not Applicable	No MDS1 calculation required

Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
43	7784 Sideroad 15, Centre Wellington, ON, N1M 2W3	23260000230470	Yes	Garage	Yes	paddock/paddocks, fencing designed for livestock, www.hoppyfields.com **This link used during the reconnaissance survey may no longer be available	No		No	No	Hoppy Fields Farms					Active Agricultural Operation (Community Supported Agriculture (CSA) Market	No MDS1 calculation required
44	7784 Sideroad 15, Centre Wellington, ON, N1M 2W3	23260000230470	Yes	Pole Barn	Yes	run-in shed/sheds	Yes	Goats, Chickens, Turkeys, Ducks	No	No	CSA – offering vegetables, flowers and eggs	Horses, Goats	No	No		Active Agricultural Operation (Community Supported Agriculture (CSA)) Market	MDS1 calculation required (using building measurement, livestock – goats)
45	6631 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000230070	Yes	Machine Shed	Yes		No		No	No		No		No	No	Cash Crop Operation	No MDS1 calculation required
46	6631 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000230070	Yes	Machine Shed	Yes		No		No	No		No		No	No	Cash Crop Operation	No MDS1 calculation required
47	968 St David Street North, Centre Wellington, ON, N1M 2W3	23260000230030		Tension Fabric Structure	No	Used for feed storage	N		N	N		No		No	No	Cash Crop Operation	No MDS1 calculation required
48	968 St David Street North,	23260000230030	Yes	Bank Barn	No	Uncapped silo	N		N	N		No		Yes	No	Cash Crop Operation	No MDS1 calculation required

Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
	Centre Wellington, ON, N1M 2W3																
49	968 St David Street North, Centre Wellington, ON, N1M 2W3	232600000230030	Yes	Machine Shed	No		N		N	N		No		No	No	Cash Crop Operation	No MDS1 calculation required
50	6631 Hwy 6, Centre Wellington, ON, N1M 2W3	23260000230070	Yes	Machine Shed	Yes		No		No	No		No		No	No	Cash Crop Operation	No MDS1 calculation required
51	6673 Beatty Line North, Centre Wellington, ON N1M 2W3	232600000230465	Yes	Machine Shed	No		No		No	No		No		No	No	Not Applicable	No MDS1 calculation required
52	6673 Beatty Line North, Centre Wellington, ON N1M 2W3	232600000230465	Yes	Machine Shed	No		No		No	No		No		No	No	Not Applicable	No MDS1 calculation required
53	6673 Beatty Line North, Centre Wellington, ON N1M 2W3	232600000230465	Yes	Machine Shed	No		No		No	No		No		No	No	Not Applicable	No MDS1 calculation required

Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
54	7646 Colborne Street, Elora ON N0B 1S0	232600000021040	Yes	Pole Barn	No	With extension, Gerries Garden Centre	No		No	No		No	Unkown	Yes	Yes	Commercial Operation/Hobby Farm	MDS1 calculation required (using building measurement, assumed livestock – horses)
55	7672 Colborne Street, Fergus, ON N1M 2W3	2326000002103905	Yes	Pole Barn	Yes		No		No	No		No		No	No	Hobby Farm	No MDS1 calculation required
56	6470 Beatty Line North, Centre Wellington, N1M 2W3	232600000021057	Yes	Machine Shed	Yes		No		No	No	Yard Weasels	No		No	No	Commercial Operation	No MDS1 calculation required
57	6470 Beatty Line North, Centre Wellington, N1M 2W3	232600000021057	Yes	Machine Shed	Yes		No		No	No	Yard Weasels	No		No	No	Commercial Operation	No MDS1 calculation required
58	7669 Colborne Street, Centre Wellington, N0B 1S0	232600000021038	Yes	Machine Shed	No		No		No	No	North Aboyne Farm (perhaps no longer D.G.Graham Ltd.	No		No	No	Retired	No MDS1 calculation required
59	7669 Colborne Street, Centre Wellington, N0B 1S0	232600000021038	Yes	Pole Barn	No	With extension D.G. Graham Ltd (land surveying, land use planning, geographic information systems	No		No	No		No		No	No	Retired	No MDS1 calculation required
60	7669 Colborne Street,	232600000021038	Yes	Bank Barn	No	With extension	No		No	No		No		No	No	Retired	No MDS1 calculation required

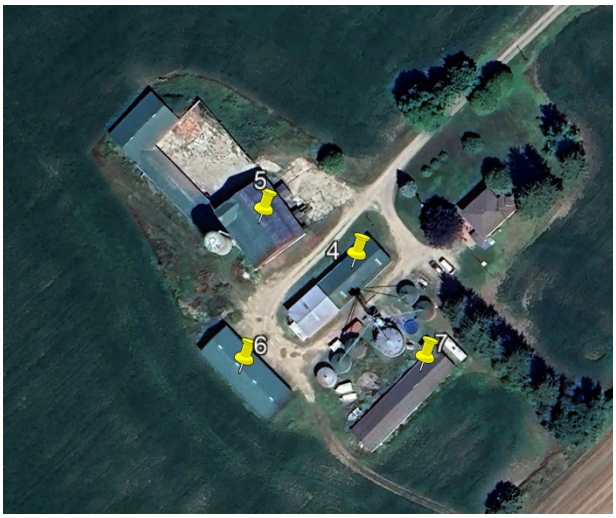
Property Information: 2025-21			Online Imagery Survey								Roadside Reconnaissance Survey					Assumptions	
Agricultural Building Number	Address	Roll Number	Residential Unit	Type of Building	"Line of Sight" Restriction	Additional Details	Evidence of Livestock	Type of Livestock	Evidence of Feed Storage	Evidence of Manure Storage	Findings	Visual Evidence of Livestock	Type of Livestock	Visual Evidence of Feed Storage	Visual Evidence of Manure Storage	Type of Operation	MDS1 Considerations
	Centre Wellington, ON, N0B 1S0																
61	6489 Gerrie Road, Centre Wellington, ON, N0B 1S0	23260000021036	Yes	Bank Barn	Yes	Capped silo, grain bin	No		No	No						Assumed retired	No MDS1 calculation required
62	6489 Gerrie Road, Centre Wellington, ON, N0B 1S0	23260000021036	Yes	Machine Shed	Yes		No		No	No		No		No	No	Assumed retired	No MDS1 calculation required

APPENDIX B

Agricultural Building Photographs

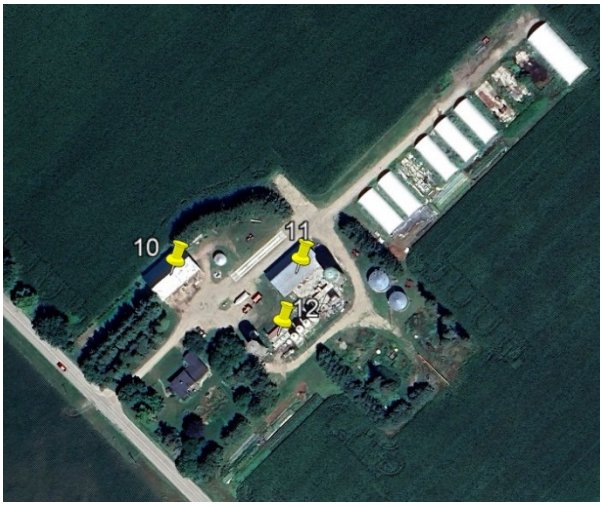
Agricultural Buildings 1 and 2

Agricultural Building 3



Agricultural Buildings 4, 5, 6 and 7

Agricultural Buildings 8 and 9

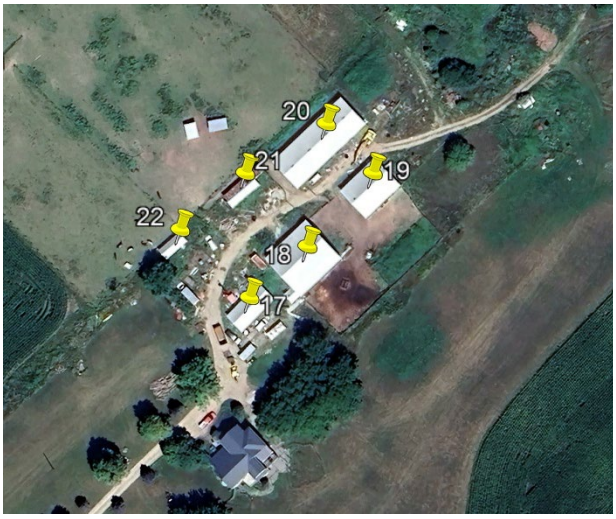


Agricultural Buildings 10, 11 and 12

Agricultural Building 13

Agricultural Buildings 14 and 15

Agricultural Building 16



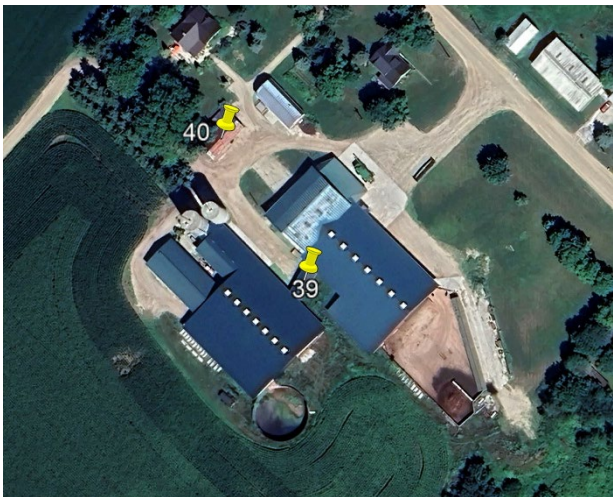
Agricultural Buildings 17, 18, 19, 20, 21 and 22

Agricultural Buildings 23, 24 and 25

Agricultural Building 26

Agricultural Building 27

Agricultural Buildings 28 - 38



Agricultural Buildings 39 and 40

Agricultural Buildings 41 and 42

Agricultural Buildings 43 and 44

Agricultural Buildings 45, 46 and 50

Agricultural Buildings 51, 52 and 53

Agricultural Building 54

Agricultural Building 55

Agricultural Buildings 56 and 57

Agricultural Buildings 58, 59 and 60

Agricultural Buildings 61 and 62

APPENDIX C

Minimum Distance Separation (MDS 1) Agrisuite Sheets

Ontario

AgriSuite

2025-21 Beatty Road Fergus AIA

General information

Application date
May 27, 2025

Municipal file number

Proposed application
New or expanding settlement area boundary

Applicant contact information
Herthana Siva
Sorbara Group of Companies
3700 Steeles Avenue West, Suite 800
Vaughan, ON
L4L 8M9

Location of subject lands
County of Wellington
Township of Centre Wellington
NICHOL
Concession 14 , Lot 17
Roll number: 2326000002104700

Calculations

Building 1

Farm contact information

Cachet Developments
7581 15 Sideroad
Centre Wellington, ON
N0B 1S0

Location of existing livestock facility or anaerobic digestor

County of Wellington
Township of Centre Wellington
NICHOL
Concession 12 , Lot 16
Roll number: 2326000021002000

Total lot size

39.5 ha

Livestock/manure summary

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

Confirm Livestock/Manure Information (Building 1)

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 B (design capacity)	292.51
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)	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

Building 14

Farm contact information

7715 Sideroad 15
Centre Wellington, ON
N1M 2W3

Location of existing livestock facility or anaerobic digestor

County of Wellington
Township of Centre Wellington
NICHOL
Concession 14 , Lot 16
Roll number: 2326000021046000

Total lot size

35 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	462 m²	23.1 NU	462 m²

Confirm Livestock/Manure Information (Building 14)

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

Unoccupied Barn or Unused Storage (Building 14)

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	23.1 NU
Potential design capacity	23.1 NU

Factor A (odour potential)	1	Factor B (design capacity)	206.2
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)	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

Building 18 and 19

Farm contact information

6611 Hwy 6
Centre Wellington, ON
N1M 2W3

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 16 , Lot 16
Roll number: 2326000023006000

Total lot size
39 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	15	15 NU	348 m²
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	9	9 NU	209 m²

Confirm Livestock/Manure Information (Building 18 and 19)
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 **24 NU**

Potential design capacity **24 NU**

Factor A (odour potential) **0.7**
Factor D (manure type) **0.7**
Factor B (design capacity) **208**
Factor E (encroaching land use) **2.2**

Building base distance 'F' (A x B x D x E)
(minimum distance from livestock barn) **225 m (738 ft)**

Actual distance from livestock barn **NA**

Storage base distance 'S'
(minimum distance from manure storage) **225 m (738 ft)**

Actual distance from manure storage **NA**

Building 25

Farm contact information

6602 Hwy 6
Centre Wellington, ON
N1M 2W3

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 15 , Lot 16
Roll number: 2326000021097000

Total lot size
41 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	10	10 NU	232 m²

Confirm Livestock/Manure Information (Building 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 **10 NU**

Potential design capacity **10 NU**

Factor A (odour potential) **0.7**
Factor B (design capacity) **166.66**
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) **180 m (591 ft)**

Actual distance from livestock barn **NA**

Storage base distance 'S' (minimum distance from manure storage) **180 m (591 ft)**

Actual distance from manure storage **NA**

Building 26

Farm contact information

6581 Hwy 6
Centre Wellington, ON
N1M 2W3

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 13 , Lot 15
Roll number: 2326000023081100

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	315 m²	15.8 NU	315 m²

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

Unoccupied Barn or Unused Storage (Building 26)
The calculated setback is based on assumptions for an unoccupied barn or unused storage that may not reflect the actual design capacity.

Setback summary

Existing manure storage	- Not Specified -
Design capacity	15.8 NU
Potential design capacity	15.8 NU

Factor A (odour potential)	1	Factor B (design capacity)	185.83
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)	287 m (942 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

Building 44

Farm contact information

Hoppy Fields Farms
7784 Sideroad 15
Centre Wellington, ON
N1M 2W3

Location of existing livestock facility or anaerobic digestor

County of Wellington
Township of Centre Wellington
NICHOL
Concession 15 , Lot 15
Roll number: 2326000023047000

Total lot size

58 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Goats, Does & bucks (for meat; includes unweaned offspring)	115	14.4 NU	160 m²

Confirm Livestock/Manure Information (Building 44)

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	**14.4 NU**
Potential design capacity	**14.4 NU**

Factor A (odour potential)	**0.7**	Factor B (design capacity)	**181.26**
Factor D (manure type)	**0.7**	Factor E (encroaching land use)	**2.2**

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	196 m (643 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	196 m (643 ft)
Actual distance from manure storage	NA

Building 54

Farm contact information

Gerries Garden Centre
7646 Colborne Street
Elora, ON
N0B 1S0

Location of existing livestock facility or anaerobic digestor

County of Wellington
Township of Centre Wellington
NICHOL
Concession 13 , Lot 18
Roll number: 232600002104000

Total lot size

17 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	12	12 NU	279 m²

Confirm Livestock/Manure Information (Building 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	**12 NU**
Potential design capacity	**12 NU**

Factor A (odour potential)	**0.7**	Factor B (design capacity)	**173.33**
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)	**187 m (614 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**187 m (614 ft)**
Actual distance from manure storage	**NA**

Buildings 28 - 39

Farm contact information

Drost Cattle
6684 Beatty Line N and 6688 Beatty Line N
Centre Wellington, ON
N1M 2W3

Location of existing livestock facility or anaerobic digestor

County of Wellington
Township of Centre Wellington
NICHOL
Concession 14 , Lot 14
Roll number: 2326000023050000000

Total lot size

150 ha

Notes

Bldgs from 6684 Beatty Line N and 6688 Beatty Line N. All bldgs associated with Drost Cattle. Property owner emailed to confirm MDS data. No response. Using CC MDS1 data confirmed with farm operator.

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

Confirm Livestock/Manure Information (Buildings 28 - 39)

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

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**

Revised Bldgs 28-39

Farm contact information
Tom Drost
Drost Cattle
6684 Beatty Line North
Wellington, ON
N1M 2W3

Location of existing livestock facility or anaerobic digestor
County of Wellington
Township of Centre Wellington
NICHOL
Concession 13, 14 , Lot 12, 13, 14
Roll number: 23260000230500

Total lot size
150 ha

Notes
Buildings 33, 35, 38, 39

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Feeders (7 - 16 months), Confinement Bedded Pack	1000	333.3 NU	4645 m²
Solid	Beef, Feeders (7 - 16 months), Confinement Bedded Pack	750	250 NU	3484 m²
Solid	Beef, Feeders (7 - 16 months), Confinement Bedded Pack	500	166.7 NU	2323 m²
Solid	Beef, Feeders (7 - 16 months), Confinement Bedded Pack	400	133.3 NU	1858 m²

Setback summary

Existing manure storage	**V2. Solid, outside, covered**
Design capacity	**883.3 NU**
Potential design capacity	**883.3 NU**

Factor A (odour potential) **0.8**
Factor B (design capacity) **676.84**
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)	**834 m (2736 ft)**
Actual distance from livestock barn	**NA**
Storage base distance 'S' (minimum distance from manure storage)	**834 m (2736 ft)**
Actual distance from manure storage	**NA**

Preparer signoff & disclaimer

Preparer contact information
David Hodgson
DBH Soil Services Inc.
ON
dhodgson@dbhsoilservices.ca

Signature of preparer

David Hodgson , President

Date (mmm-dd-yyyy)

Note to the user

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

APPENDIX D

Unique Soil Symbols and Canada Land Inventory (CLI) List

SOIL_NAME1	SYMBOL1	SLOPE1	CLASS1	RANGE1	STONINES	CLI1	CLI1_1	CLI1_2
BOTTOM LAND	B.L.	3.50	C	2 - 5	1	1		
BOTTOM LAND	B.L.	1.20	B	0.5 - 2	0	O		
BOTTOM LAND	B.L.	7.00	D	5 - 9	4	6	R	
BOTTOM LAND	B.L.	7.00	D	5 - 9	0	2	F	M
BOTTOM LAND	B.L.	1.20	B	0.5 - 2	1	2	W	
BOTTOM LAND	B.L.	3.50	C	2 - 5	1	2	F	M
BOTTOM LAND	B.L.	1.20	B	0.5 - 2	1	4	W	
BOTTOM LAND	B.L.	3.50	C	2 - 5	2	2	F	M
BOTTOM LAND	B.L.	7.00	D	5 - 9	0	1		
BRADY SANDY LOAM	Bs	1.20	B	0.5 - 2	1	2	W	
BRADY SANDY LOAM	Bs	1.20	B	0.5 - 2	1	4	W	
BRADY SANDY LOAM	Bs	1.20	B	0.5 - 2	0	O		
BRADY SANDY LOAM	Bs	12.00	E	9 - 15	1	1		
BRADY SANDY LOAM	Bs	1.20	B	0.5 - 2	0	2	W	
BRADY SANDY LOAM	Bs	7.00	D	5 - 9	0	1		
BRADY SANDY LOAM	Bs	3.50	C	2 - 5	1	2	F	M
BRADY SANDY LOAM	Bs	1.20	B	0.5 - 2	0	5	W	
BRADY SANDY LOAM	Bs	22.50	F	15 - 30	2	6	S	T
BRADY SANDY LOAM	Bs	3.50	C	2 - 5	0	2	F	M
BRADY SANDY LOAM	Bs	3.50	C	2 - 5	1	1		
BRADY SANDY LOAM	Bs	12.00	E	9 - 15	3	6	S	T
BRADY SANDY LOAM	Bs	12.00	E	9 - 15	3	3	F	M
BRADY SANDY LOAM	Bs	22.50	F	15 - 30	3	3	F	M
BRADY SANDY LOAM	Bs	7.00	D	5 - 9	1	1		
BRADY SANDY LOAM	Bs	1.20	B	0.5 - 2	1	2	F	
BRADY SANDY LOAM	Bs	7.00	D	5 - 9	0	2	F	M
BRADY SANDY LOAM	Bs	22.50	F	15 - 30	3	6	S	T
BRANT FINE SANDY	Btf	1.20	B	0.5 - 2	0	O		
BRANT FINE SANDY	Btf	3.50	C	2 - 5	1	2	F	M
BRANT FINE SANDY	Btf	12.00	E	9 - 15	3	6	S	T
BRANT FINE SANDY	Btf	3.50	C	2 - 5	0	1		
BRANT FINE SANDY	Btf	1.20	B	0.5 - 2	0	4	W	
BRANT FINE SANDY	Btf	7.00	D	5 - 9	1	1		
BRANT FINE SANDY	Btf	12.00	E	9 - 15	2	6	S	T
BRANT FINE SANDY	Btf	1.20	B	0.5 - 2	1	2	W	
BRISBANE LOAM	Bl	1.20	B	0.5 - 2	0	O		
BRISBANE LOAM	Bl	7.00	D	5 - 9	1	1		
BRISBANE LOAM	Bl	3.50	C	2 - 5	1	2	F	M
BRISBANE LOAM	Bl	1.20	B	0.5 - 2	1	2	W	
BRISBANE LOAM	Bl	7.00	D	5 - 9	0	1		

BRISBANE LOAM	Bl	3.50	C	2 - 5	1	1		
BRISBANE LOAM	Bl	1.20	B	0.5 - 2	3	5	P	
BRISBANE LOAM	Bl	12.00	E	9 - 15	3	3	F	M
BRISBANE LOAM	Bl	3.50	C	2 - 5	2	2	F	M
BRISBANE LOAM	Bl	12.00	E	9 - 15	3	6	S	T
BRISBANE LOAM	Bl	3.50	C	2 - 5	0	2	F	M
BRISBANE LOAM	Bl	-9.00	N	N	N	W		
BRISBANE LOAM	Bl	1.20	B	0.5 - 2	0	5	W	
BRISBANE LOAM	Bl	12.00	E	9 - 15	3	4	S	T
BRISBANE LOAM	Bl	22.50	F	15 - 30	3	6	S	T
BRISBANE LOAM	Bl	1.20	B	0.5 - 2	0	2	W	
BRISBANE LOAM	Bl	-9.00	N	N	0	5	I	
BROOKSTON LOAM	Bnl	12.00	E	9 - 15	1	6	S	T
BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	1	2	F	
BROOKSTON LOAM	Bnl	12.00	E	9 - 15	1	1		
BROOKSTON LOAM	Bnl	3.50	C	2 - 5	1	1		
BROOKSTON LOAM	Bnl	12.00	E	9 - 15	0	1		
BROOKSTON LOAM	Bnl	3.50	C	2 - 5	0	1		
BROOKSTON LOAM	Bnl	7.00	D	5 - 9	1	1		
BROOKSTON LOAM	Bnl	12.00	E	9 - 15	2	3	F	M
BROOKSTON LOAM	Bnl	7.00	D	5 - 9	4	6	R	
BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	3	5	P	
BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	1	2	W	
BROOKSTON LOAM	Bnl	12.00	E	9 - 15	3	6	S	T
BROOKSTON LOAM	Bnl	3.50	C	2 - 5	1	2	F	M
BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	1	4	W	
BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	0	O		
BROOKSTON LOAM	Bnl	12.00	E	9 - 15	2	6	S	T
BROOKSTON LOAM	Bnl	7.00	D	5 - 9	1	2	F	M
BROOKSTON LOAM	Bnl	12.00	E	9 - 15	1	3	F	M
BROOKSTON LOAM	Bnl	22.50	F	15 - 30	3	6	S	T
BROOKSTON LOAM	Bnl	-9.00	N	N	N	W		
BROOKSTON LOAM	Bnl	7.00	D	5 - 9	0	1		
BROOKSTON LOAM	Bnl	-9.00	N	N	0	5	I	
BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	2	6	P	W
BROOKSTON LOAM	Bnl	22.50	F	15 - 30	2	6	S	T
BROOKSTON LOAM	Bnl	12.00	E	9 - 15	1	2	F	M
BROOKSTON LOAM	Bnl	22.50	F	15 - 30	2	3	F	M
BROOKSTON LOAM	Bnl	37.50	G	30 - 45	3	6	S	T
BROOKSTON LOAM	Bnl	3.50	C	2 - 5	2	2	F	M
BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	0	5	W	
BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	0	1		
BROOKSTON LOAM	Bnl	7.00	D	5 - 9	0	2	F	M
BROOKSTON LOAM	Bnl	3.50	C	2 - 5	1	2	F	
BROOKSTON LOAM	Bnl	7.00	D	5 - 9	2	3	T	

BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	1	1		
BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	0	4	W	
BROOKSTON LOAM	Bnl	1.20	B	0.5 - 2	0	2	W	
BROOKSTON LOAM	Bnl	3.50	C	2 - 5	3	5	P	
BROOKSTON LOAM	Bnl	22.50	F	15 - 30	1	3	F	M
BROOKSTON SILT	Bns	7.00	D	5 - 9	1	1		
BROOKSTON SILT	Bns	3.50	C	2 - 5	1	1		
BROOKSTON SILT	Bns	3.50	C	2 - 5	2	2	F	M
BROOKSTON SILT	Bns	12.00	E	9 - 15	3	6	S	T
BROOKSTON SILT	Bns	-9.00	N	N	N	0		
BROOKSTON SILT	Bns	1.20	B	0.5 - 2	0	O		
BROOKSTON SILT	Bns	1.20	B	0.5 - 2	1	2	F	
BROOKSTON SILT	Bns	7.00	D	5 - 9	0	1		
BROOKSTON SILT	Bns	3.50	C	2 - 5	0	1		
BROOKSTON SILT	Bns	1.20	B	0.5 - 2	2	5	P	
BROOKSTON SILT	Bns	1.20	B	0.5 - 2	1	2	W	
BROOKSTON SILT	Bns	12.00	E	9 - 15	2	1		
BROOKSTON SILT	Bns	22.50	F	15 - 30	3	3	F	M
BROOKSTON SILT	Bns	12.00	E	9 - 15	4	6	R	
BROOKSTON SILT	Bns	1.20	B	0.5 - 2	0	2	W	
BROOKSTON SILT	Bns	12.00	E	9 - 15	1	1		
BROOKSTON SILT	Bns	12.00	E	9 - 15	0	1		
BROOKSTON SILT	Bns	1.20	B	0.5 - 2	0	2	F	
BROOKSTON SILT	Bns	1.20	B	0.5 - 2	0	5	W	
BROOKSTON SILT	Bns	-9.00	N	N	0	5	I	
BUILT UP AREA	BU	3.50	C	2 - 5	0	1		
BUILT UP AREA	BU	1.20	B	0.5 - 2	1	4	W	
BUILT UP AREA	BU	7.00	D	5 - 9	1	1		
BUILT UP AREA	BU	1.20	B	0.5 - 2	1	2	W	
BUILT UP AREA	BU	3.50	C	2 - 5	1	2	F	M
BUILT UP AREA	BU	12.00	E	9 - 15	1	1		
BUILT UP AREA	BU	3.50	C	2 - 5	1	1		
BUILT UP AREA	BU	1.20	B	0.5 - 2	0	5	W	
BUILT UP AREA	BU	22.50	F	15 - 30	2	3	F	M
BUILT UP AREA	BU	1.20	B	0.5 - 2	0	2	W	
BUILT UP AREA	BU	7.00	D	5 - 9	1	2	F	M
BURFORD LOAM	Bg	37.50	G	30 - 45	2	6	S	T
BURFORD LOAM	Bg	12.00	E	9 - 15	1	1		

BURFORD LOAM	Bg	1.20	B	0.5 - 2	2	5	P	
BURFORD LOAM	Bg	3.50	C	2 - 5	1	1		
BURFORD LOAM	Bg	7.00	D	5 - 9	1	1		
BURFORD LOAM	Bg	1.20	B	0.5 - 2	0	O		
BURFORD LOAM	Bg	1.20	B	0.5 - 2	1	2	W	
BURFORD LOAM	Bg	22.50	F	15 - 30	2	3	F	M
BURFORD LOAM	Bg	-9.00	N	N	0	5	1	
BURFORD LOAM	Bg	3.50	C	2 - 5	1	2	F	M
BURFORD LOAM	Bu	1.20	B	0.5 - 2	1	2	W	
BURFORD LOAM	Bg	12.00	E	9 - 15	0	1		
BURFORD LOAM	Bg	7.00	D	5 - 9	0	1		
BURFORD LOAM	Bg	1.20	B	0.5 - 2	1	4	W	
BURFORD LOAM	Bg	3.50	C	2 - 5	0	2	F	M
BURFORD LOAM	Bg	3.50	C	2 - 5	0	1		
BURFORD LOAM	Bg	3.50	C	2 - 5	2	2	F	M
BURFORD LOAM	Bg	12.00	E	9 - 15	3	6	S	T
BURFORD LOAM	Bg	1.20	B	0.5 - 2	0	2	W	
BURFORD LOAM	Bg	22.50	F	15 - 30	3	6	S	T
BURFORD LOAM	Bg	1.20	B	0.5 - 2	0	5	W	
BURFORD LOAM	Bg	-9.00	N	N	N	0		
BURFORD LOAM	Bg	37.50	G	30 - 45	3	6	S	T
BURFORD LOAM	Bg	1.20	B	0.5 - 2	0	4	W	
BURFORD LOAM	Bg	3.50	C	2 - 5	3	5	P	
BURFORD LOAM	Bg	12.00	E	9 - 15	2	3	F	M
BURFORD LOAM	Bg	7.00	D	5 - 9	3	3	F	M
BURFORD LOAM	Bg	7.00	D	5 - 9	2	6	S	T
BURFORD LOAM	Bg	12.00	E	9 - 15	2	1		
BURFORD LOAM	Bg	22.50	F	15 - 30	1	3	F	M
BURFORD LOAM	Bg	7.00	D	5 - 9	3	6	S	T
BURFORD LOAM	Bg	1.20	B	0.5 - 2	1	1		
BURFORD LOAM	Bg	7.00	D	5 - 9	2	2	F	M
CALEDON FINE	Cg	7.00	D	5 - 9	1	1		
CALEDON FINE	Cg	1.20	B	0.5 - 2	1	2	W	
CALEDON FINE	Cg	1.20	B	0.5 - 2	0	O		
CALEDON FINE	Cg	7.00	D	5 - 9	2	2	F	M
CALEDON FINE	Cg	-9.00	N	N	0	5	1	
CALEDON FINE	Cg	3.50	C	2 - 5	1	2	F	M
CALEDON FINE	Cg	1.20	B	0.5 - 2	0	5	W	
CALEDON FINE	Cg	7.00	D	5 - 9	0	1		
CALEDON FINE	Cg	37.50	G	30 - 45	3	6	S	T
CALEDON FINE	Cg	12.00	E	9 - 15	3	6	S	T

CALEDON FINE	Cg	1.20	B	0.5 - 2	0	2	W	
CALEDON FINE	Cg	3.50	C	2 - 5	1	1		
CALEDON FINE	Cg	12.00	E	9 - 15	1	1		
CALEDON FINE	Cg	3.50	C	2 - 5	0	2	F	M
CALEDON FINE	Cg	1.20	B	0.5 - 2	1	2	F	
COLWOOD FINE	Cof	1.20	B	0.5 - 2	1	2	W	
COLWOOD FINE	Cof	7.00	D	5 - 9	4	3	F	M
COLWOOD FINE	Cof	1.20	B	0.5 - 2	2	4	W	
COLWOOD FINE	Cof	7.00	D	5 - 9	3	6	S	T
COLWOOD FINE	Cof	12.00	E	9 - 15	2	1		
COLWOOD FINE	Cof	3.50	C	2 - 5	1	1		
COLWOOD FINE	Cof	3.50	C	2 - 5	1	2	F	M
COLWOOD FINE	Cof	7.00	D	5 - 9	1	1		
COLWOOD SILT	Cos	7.00	D	5 - 9	1	1		
COLWOOD SILT	Cos	1.20	B	0.5 - 2	1	2	W	
COLWOOD SILT	Cos	1.20	B	0.5 - 2	0	O		
COLWOOD SILT	Cos	1.20	B	0.5 - 2	0	5	W	
COLWOOD SILT	Cos	3.50	C	2 - 5	0	4	W	
COLWOOD SILT	Cos	1.20	B	0.5 - 2	0	2	W	
COLWOOD SILT	Cos	3.50	C	2 - 5	0	2	F	
COLWOOD SILT	Cos	7.00	D	5 - 9	0	1		
COLWOOD SILT	Cos	-9.00	N	N	0	5	I	
DONNYBROOK	Dk	3.50	C	2 - 5	1	2	F	M
DONNYBROOK	Db	3.50	C	2 - 5	1	1		
DONNYBROOK	Db	12.00	E	9 - 15	3	6	S	T
DONNYBROOK	Db	12.00	E	9 - 15	1	1		
DONNYBROOK	Db	1.20	B	0.5 - 2	1	2	W	
DONNYBROOK	Db	-9.00	N	N	N	0		
DONNYBROOK	Db	7.00	D	5 - 9	1	2	F	M
DONNYBROOK	Db	1.20	B	0.5 - 2	0	O		
DONNYBROOK	Db	-9.00	N	N	N	W		
DONNYBROOK	Db	7.00	D	5 - 9	2	1		
DONNYBROOK	Db	1.20	B	0.5 - 2	1	2	F	

DONNYBROOK	Db	-9.00	N	N	0	5	I	
DONNYBROOK	Db	7.00	D	5 - 9	I	I		
DONNYBROOK	Db	1.20	B	0.5 - 2	I	I		
DONNYBROOK	Db	3.50	C	2 - 5	0	I		
DONNYBROOK	Db	1.20	B	0.5 - 2	3	6	P	W
DONNYBROOK	Db	3.50	C	2 - 5	I	2	F	M
DONNYBROOK	Db	1.20	B	0.5 - 2	0	2	W	
DONNYBROOK	Db	22.50	F	15 - 30	3	6	S	T
DONNYBROOK	Db	3.50	C	2 - 5	4	6	R	
DONNYBROOK	Db	22.50	F	15 - 30	2	3	F	M
DONNYBROOK	Db	7.00	D	5 - 9	0	I		
DONNYBROOK	Db	12.00	E	9 - 15	0	I		
DONNYBROOK	Db	1.20	B	0.5 - 2	I	6	R	
DONNYBROOK	Db	3.50	C	2 - 5	2	2	F	M
DONNYBROOK	Db	1.20	B	0.5 - 2	2	4	W	
DONNYBROOK	Db	12.00	E	9 - 15	I	3	F	M
DONNYBROOK	Db	12.00	E	9 - 15	I	2	W	
DONNYBROOK	Db	1.20	B	0.5 - 2	3	5	P	
DONNYBROOK	Db	1.20	B	0.5 - 2	I	4	W	
DONNYBROOK	Db	12.00	E	9 - 15	0	6	S	T
DONNYBROOK	Db	12.00	E	9 - 15	I	6	S	T
DONNYBROOK	Db	1.20	B	0.5 - 2	0	5	W	
DONNYBROOK	Db	1.20	B	0.5 - 2	0	6	R	
DUMFRIES LOAM	Dl	1.20	B	0.5 - 2	I	2	W	
DUMFRIES LOAM	Dl	1.20	B	0.5 - 2	0	O		
DUMFRIES SANDY	Dl	37.50	G	30 - 45	3	6	S	T
DUMFRIES SANDY	Dl	7.00	D	5 - 9	0	I		
DUMFRIES SANDY	Dl	22.50	F	15 - 30	2	3	F	M
DUMFRIES SANDY	Dl	7.00	D	5 - 9	I	I		
DUMFRIES SANDY	Dl	1.20	B	0.5 - 2	I	2	W	
DUMFRIES SANDY	Dl	-9.00	N	N	0	5	I	
DUMFRIES SANDY	Dl	12.00	E	9 - 15	0	I		
DUMFRIES SANDY	Dl	3.50	C	2 - 5	0	I		
DUMFRIES SANDY	Dl	1.20	B	0.5 - 2	I	4	W	

DUMFRIES SANDY	DI	1.20	B	0.5 - 2	0	O			
DUMFRIES SANDY	DI	-9.00	N	N	N	W			
DUMFRIES SANDY	DI	1.20	B	0.5 - 2	3	5	P		
DUMFRIES SANDY	DI	1.20	B	0.5 - 2	0	4	W		
DUMFRIES SANDY	DI	1.20	B	0.5 - 2	0	2	F		
DUMFRIES SANDY	DI	3.50	C	2 - 5	1	1			
DUMFRIES SANDY	DI	1.20	B	0.5 - 2	3	6	P	W	
DUMFRIES SANDY	DI	12.00	E	9 - 15	3	6	S	T	
DUMFRIES SANDY	DI	1.20	B	0.5 - 2	0	2	W		
DUMFRIES SANDY	DI	7.00	D	5 - 9	2	2	F	M	
DUMFRIES SANDY	DI	3.50	C	2 - 5	1	2	F	M	
DUMFRIES SANDY	DI	1.20	B	0.5 - 2	1	1			
DUMFRIES SANDY	DI	12.00	E	9 - 15	1	1			
FARMINGTON LOAM	Fl	7.00	D	5 - 9	0	2	F	M	
FARMINGTON LOAM	Fl	3.50	C	2 - 5	0	1			
FARMINGTON LOAM	Fl	12.00	E	9 - 15	1	1			
FARMINGTON LOAM	Fl	1.20	B	0.5 - 2	1	2	W		
FARMINGTON LOAM	Fl	7.00	D	5 - 9	0	1			
FARMINGTON LOAM	Fl	-9.00	N	N	0	5	1		
FARMINGTON LOAM	Fl	1.20	B	0.5 - 2	0	O			
FARMINGTON LOAM	Fl	1.20	B	0.5 - 2	0	2	W		
FARMINGTON LOAM	Fl	1.20	B	0.5 - 2	1	4	W		
FARMINGTON LOAM	Fl	7.00	D	5 - 9	1	1			
FARMINGTON LOAM	Fl	3.50	C	2 - 5	1	1			
FARMINGTON LOAM	Fl	12.00	E	9 - 15	3	6	S	T	
FOX SANDY LOAM	Fs	3.50	C	2 - 5	1	1			
FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	1	2	W		
FOX SANDY LOAM	Fs	7.00	D	5 - 9	1	1			
FOX SANDY LOAM	Fs	22.50	F	15 - 30	3	6	S	T	
FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	3	1			
FOX SANDY LOAM	Fs	-9.00	N	N	N	0			
FOX SANDY LOAM	Fs	-9.00	N	N	0	5	1		
FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	3	6	P	W	
FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	0	O			
FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	1	4	W		
FOX SANDY LOAM	Fs	12.00	E	9 - 15	1	1			
FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	0	5	W		
FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	0	2	W		
FOX SANDY LOAM	Fs	3.50	C	2 - 5	0	1			
FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	1	2	F		

FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	0	4	W	
FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	0	2	F	M
FOX SANDY LOAM	Fs	12.00	E	9 - 15	2	1		
FOX SANDY LOAM	Fs	22.50	F	15 - 30	3	3	F	M
FOX SANDY LOAM	Fs	1.20	B	0.5 - 2	2	2	W	
FOX SANDY LOAM	Fs	7.00	D	5 - 9	4	6	R	
GILFORD LOAM	Gil	1.20	B	0.5 - 2	0	2	W	
GILFORD LOAM	Gil	1.20	B	0.5 - 2	0	O		
GILFORD LOAM	Gil	7.00	D	5 - 9	1	1		
GILFORD LOAM	Gil	1.20	B	0.5 - 2	1	2	F	
GILFORD LOAM	Gil	3.50	C	2 - 5	0	1		
GILFORD LOAM	Gil	3.50	C	2 - 5	1	1		
GILFORD LOAM	Gil	12.00	E	9 - 15	2	6	S	T
GILFORD LOAM	Gil	7.00	D	5 - 9	0	1		
GILFORD LOAM	Gil	1.20	B	0.5 - 2	1	2	W	
GILFORD LOAM	Gil	12.00	E	9 - 15	1	1		
GILFORD LOAM	Gil	-9.00	N	N	0	5	I	
GILFORD LOAM	Gil	22.50	F	15 - 30	3	6	S	T
GILFORD LOAM	Gil	1.20	B	0.5 - 2	0	5	W	
GILFORD LOAM	Gil	1.20	B	0.5 - 2	3	5	P	
GILFORD LOAM	Gil	12.00	E	9 - 15	3	6	S	T
GILFORD LOAM	Gil	3.50	C	2 - 5	2	2	F	M
GILFORD LOAM	Gil	1.20	B	0.5 - 2	1	4	W	
GILFORD LOAM	Gil	3.50	C	2 - 5	1	4	W	
GILFORD LOAM	Gil	22.50	F	15 - 30	3	3	F	M
GILFORD LOAM	Gil	12.00	E	9 - 15	0	1		
GILFORD LOAM	Gil	12.00	E	9 - 15	3	3	F	M
GILFORD LOAM	Gil	3.50	C	2 - 5	1	2	F	M
GILFORD LOAM	Gil	3.50	C	2 - 5	1	2	F	
GILFORD LOAM	Gil	22.50	F	15 - 30	2	3	F	M
GILFORD LOAM	Gil	12.00	E	9 - 15	3	5	S	T
GRANBY SANDY	Grs	7.00	D	5 - 9	1	1		
GRANBY SANDY	Grs	3.50	C	2 - 5	1	1		
GRANBY SANDY	Grs	1.20	B	0.5 - 2	0	O		
GRANBY SANDY	Grs	3.50	C	2 - 5	1	2	F	M
GRANBY SANDY	Grs	1.20	B	0.5 - 2	1	2	W	
GRANBY SANDY	Grs	37.50	G	30 - 45	4	6	S	T
GRANBY SANDY	Grs	-9.00	N	N	N	0		
GRANBY SANDY	Grs	12.00	E	9 - 15	1	3	F	M
GRANBY SANDY	Grs	3.50	C	2 - 5	0	2	F	M
GRANBY SANDY	Grs	1.20	B	0.5 - 2	1	4	W	

GRANBY SANDY	Grs	1.20	B	0.5 - 2	0	5	W	
GRANBY SANDY	Grs	1.20	B	0.5 - 2	1	1		
GRANBY SANDY	Grs	3.50	C	2 - 5	2	2	F	M
GRANBY SANDY	Grs	12.00	E	9 - 15	3	6	S	T
GRANBY SANDY	Grs	3.50	C	2 - 5	0	1		
GRANBY SANDY	Grs	12.00	E	9 - 15	2	6	S	T
GRANBY SANDY	Grs	12.00	E	9 - 15	2	3	F	M
GRANBY SANDY	Grs	12.00	E	9 - 15	1	1		
GRANBY SANDY	Grs	-9.00	N	N	0	5	I	
GRANBY SANDY	Grs	7.00	D	5 - 9	4	6	R	
GRANBY SANDY	Grs	1.20	B	0.5 - 2	0	2	W	
GRANBY SANDY	Grs	22.50	F	15 - 30	1	4	T	
GRANBY SANDY	Grs	7.00	D	5 - 9	0	1		
GRANBY SANDY	Grs	1.20	B	0.5 - 2	1	2	F	
GUELPH LOAM	Gl	7.00	D	5 - 9	1	1		
GUELPH LOAM	Gl	3.50	C	2 - 5	1	2	W	
GUELPH LOAM	Gl	3.50	C	2 - 5	0	2	F	M
GUELPH LOAM	Gl	1.20	B	0.5 - 2	0	O		
GUELPH LOAM	Gl	-9.00	N	N	0	5	I	
GUELPH LOAM	Gl	3.50	C	2 - 5	0	5	I	
GUELPH LOAM	Gl	3.50	C	2 - 5	0	1		
GUELPH LOAM	Gl	3.50	C	2 - 5	1	1		
GUELPH LOAM	Gl	3.50	C	2 - 5	0	2	F	
GUELPH LOAM	Gl	1.20	B	0.5 - 2	0	5	W	
GUELPH LOAM	Gl	12.00	E	9 - 15	1	1		
GUELPH LOAM	Gl	1.20	B	0.5 - 2	1	2	W	
GUELPH LOAM	Gl	7.00	D	5 - 9	2	5	P	
GUELPH LOAM	Gl	7.00	D	5 - 9	4	6	R	
GUELPH LOAM	Gl	12.00	E	9 - 15	3	6	S	T
GUELPH LOAM	Gl	7.00	D	5 - 9	0	1		
GUELPH LOAM	Gl	1.20	B	0.5 - 2	3	5	P	
GUELPH LOAM	Gl	3.50	C	2 - 5	1	2	F	M
GUELPH LOAM	Gl	12.00	E	9 - 15	2	3	F	M
GUELPH LOAM	Gl	1.20	B	0.5 - 2	1	4	W	
GUELPH LOAM	Gl	1.20	B	0.5 - 2	1	2	F	
GUELPH LOAM	Gl	1.20	B	0.5 - 2	0	2	W	
GUELPH LOAM	Gl	22.50	F	15 - 30	3	6	S	T
GUELPH LOAM	Gl	7.00	D	5 - 9	3	6	S	T
GUELPH LOAM	Gl	1.20	B	0.5 - 2	0	4	W	
GUELPH LOAM	Gl	-9.00	N	N	N	W		

GUELPH LOAM	Gl	-9.00	N	N	N	0		
GUELPH LOAM	Gl	12.00	E	9 - 15	2	1		
GUELPH LOAM	Gl	1.20	B	0.5 - 2	1	3	F	M
GUELPH LOAM	Gl	1.20	B	0.5 - 2	1	1		
GUELPH LOAM	Gl	22.50	F	15 - 30	3	3	F	M
GUELPH LOAM	Gl	7.00	D	5 - 9	1	3	F	M
GUELPH LOAM	Gl	7.00	D	5 - 9	2	6	S	T
GUELPH LOAM	Gl	1.20	B	0.5 - 2	0	2	F	
GUELPH LOAM	Gl	1.20	B	0.5 - 2	2	4	W	
GUELPH LOAM	Gl	22.50	F	15 - 30	1	4	T	
GUELPH LOAM	Gl	22.50	F	15 - 30	3	1		
GUELPH LOAM	Gl	22.50	F	15 - 30	2	3	F	M
GUELPH SANDY	Gsl	3.50	C	2 - 5	1	2	F	M
GUELPH SANDY	Gsl	7.00	D	5 - 9	1	1		
GUELPH SANDY	Gsl	12.00	E	9 - 15	3	6	S	T
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	0	5	W	
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	0	2	W	
HARRISTON LOAM	Hl	3.50	C	2 - 5	0	1		
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	0	O		
HARRISTON LOAM	Hl	12.00	E	9 - 15	3	6	S	T
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	1	1		
HARRISTON LOAM	Hl	7.00	D	5 - 9	1	1		
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	2	5	P	
HARRISTON LOAM	Hl	12.00	E	9 - 15	1	1		
HARRISTON LOAM	Hl	3.50	C	2 - 5	1	1		
HARRISTON LOAM	Hl	3.50	C	2 - 5	1	2	F	M
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	1	4	W	
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	2	4	W	
HARRISTON LOAM	Hl	22.50	F	15 - 30	3	3	F	M
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	3	5	P	W
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	1	2	W	
HARRISTON LOAM	Hl	7.00	D	5 - 9	0	1		
HARRISTON LOAM	Hl	3.50	C	2 - 5	0	2	F	M
HARRISTON LOAM	Hl	3.50	C	2 - 5	2	2	F	M
HARRISTON LOAM	Hl	-9.00	N	N	0	5	I	
HARRISTON LOAM	Hl	12.00	E	9 - 15	2	3	F	M
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	1	2	F	M
HARRISTON LOAM	Hl	12.00	E	9 - 15	1	4	W	
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	0	2	F	
HARRISTON LOAM	Hl	1.20	B	0.5 - 2	2	2	F	
HARRISTON LOAM	Hl	3.50	C	2 - 5	2	1		
HARRISTON SILT	Hs	-9.00	N	N	0	5	I	
HARRISTON SILT	Hs	3.50	C	2 - 5	1	1		

HARRISTON SILT	Hs	1.20	B	0.5 - 2	0	O		
HARRISTON SILT	Hs	12.00	E	9 - 15	1	1		
HARRISTON SILT	Hs	7.00	D	5 - 9	1	1		
HARRISTON SILT	Hs	3.50	C	2 - 5	1	2	F	M
HARRISTON SILT	Hs	12.00	E	9 - 15	2	1		
HARRISTON SILT	Hs	1.20	B	0.5 - 2	0	2	F	
HARRISTON SILT	Hs	1.20	B	0.5 - 2	1	2	W	
HARRISTON SILT	Hs	-9.00	N	N	N	0		
HARRISTON SILT	Hs	1.20	B	0.5 - 2	1	1		
HARRISTON SILT	Hs	1.20	B	0.5 - 2	0	2	W	
HARRISTON SILT	Hs	1.20	B	0.5 - 2	0	5	W	
HARRISTON SILT	Hs	7.00	D	5 - 9	4	6	R	
HARRISTON SILT	Hs	-9.00	N	N	N	W		
HARRISTON SILT	Hs	12.00	E	9 - 15	2	6	S	T
HARRISTON SILT	Hs	22.50	F	15 - 30	3	3	F	M
HARRISTON SILT	Hs	1.20	B	0.5 - 2	1	4	W	
HARRISTON SILT	Hs	7.00	D	5 - 9	0	1		
HARRISTON SILT	Hs	3.50	C	2 - 5	0	1		
HARRISTON SILT	Hs	3.50	C	2 - 5	0	4	W	
HARRISTON SILT	Hs	12.00	E	9 - 15	1	2	F	M
HARRISTON SILT	Hs	22.50	F	15 - 30	2	3	F	M
HARRISTON SILT	Hs	1.20	B	0.5 - 2	1	6	P	W
HARRISTON SILT	Hs	7.00	D	5 - 9	3	3	F	M
HARRISTON SILT	Hs	3.50	C	2 - 5	0	2	F	M
HARRISTON SILT	Hs	12.00	E	9 - 15	3	6	S	T
HARRISTON SILT	Hs	3.50	C	2 - 5	2	2	F	M
HARRISTON SILT	Hs	1.20	B	0.5 - 2	1	2	F	
HARRISTON SILT	Hs	1.20	B	0.5 - 2	2	4	W	
HARRISTON SILT	Hs	12.00	E	9 - 15	1	6	S	T
HARRISTON SILT	Hs	1.20	B	0.5 - 2	2	2	W	
HARRISTON SILT	Hs	1.20	B	0.5 - 2	0	1		
HILLSBURGH FINE	Hif	3.50	C	2 - 5	0	2	F	M
HILLSBURGH FINE	Hif	22.50	F	15 - 30	3	6	S	T

HILLSBURGH FINE	Hif	12.00	E	9 - 15	0	1		
HILLSBURGH FINE	Hif	1.20	B	0.5 - 2	0	2	F	
HILLSBURGH FINE	Hif	12.00	E	9 - 15	3	1		
HILLSBURGH FINE	Hif	1.20	B	0.5 - 2	1	2	W	
HILLSBURGH FINE	Hif	7.00	D	5 - 9	3	6	S	T
HILLSBURGH FINE	Hif	7.00	D	5 - 9	1	1		
HILLSBURGH FINE	Hif	1.20	B	0.5 - 2	1	4	W	
HILLSBURGH FINE	Hif	3.50	C	2 - 5	1	1		
HILLSBURGH FINE	Hif	1.20	B	0.5 - 2	0	O		
HILLSBURGH FINE	Hif	7.00	D	5 - 9	0	1		
HILLSBURGH FINE	Hif	22.50	F	15 - 30	2	3	F	M
HILLSBURGH FINE	Hif	12.00	E	9 - 15	4	6	R	
HILLSBURGH FINE	Hif	3.50	C	2 - 5	0	1		
HILLSBURGH FINE	Hif	12.00	E	9 - 15	0	6	S	T
HILLSBURGH FINE	Hif	22.50	F	15 - 30	1	4	T	
HILLSBURGH FINE	Hif	1.20	B	0.5 - 2	0	2	W	
HILLSBURGH FINE	Hif	12.00	E	9 - 15	3	6	S	T
HILLSBURGH FINE	Hif	1.20	B	0.5 - 2	0	5	W	
HILLSBURGH SANDY	His	1.20	B	0.5 - 2	0	2	W	
HILLSBURGH SANDY	His	1.20	B	0.5 - 2	1	4	W	
HILLSBURGH SANDY	His	3.50	C	2 - 5	1	2	F	M
HILLSBURGH SANDY	His	1.20	B	0.5 - 2	1	2	W	
HURON CLAY LOAM	Huc	3.50	C	2 - 5	1	1		
HURON LOAM	Hul	7.00	D	5 - 9	1	1		
HURON LOAM	Hul	12.00	E	9 - 15	1	1		
HURON LOAM	Hul	1.20	B	0.5 - 2	1	2	W	
HURON LOAM	Hul	1.20	B	0.5 - 2	0	O		
HURON LOAM	Hul	22.50	F	15 - 30	1	3	F	M
HURON LOAM	Hul	3.50	C	2 - 5	0	1		
HURON LOAM	Hul	12.00	E	9 - 15	2	6	S	T
HURON LOAM	Hul	3.50	C	2 - 5	1	1		
HURON LOAM	Hul	1.20	B	0.5 - 2	0	2	W	
HURON LOAM	Hul	37.50	G	30 - 45	3	6	S	T
HURON LOAM	Hul	1.20	B	0.5 - 2	2	2	W	
HURON LOAM	Hul	3.50	C	2 - 5	1	2	F	M
HURON LOAM	Hul	1.20	B	0.5 - 2	0	5	W	
HURON LOAM	Hul	3.50	C	2 - 5	0	2	F	M

HURON LOAM	Hul	3.50	C	2 - 5	2	2	F	M
HURON LOAM	Hul	7.00	D	5 - 9	3	6	S	T
HURON LOAM	Hul	22.50	F	15 - 30	2	3	F	M
HURON LOAM	Hul	22.50	F	15 - 30	2	6	S	T
HURON LOAM	Hul	-9.00	N	N	N	W		
HURON LOAM	Hul	1.20	B	0.5 - 2	1	4	W	
HURON LOAM	Hul	12.00	E	9 - 15	2	3	F	M
HURON LOAM	Hul	1.20	B	0.5 - 2	0	2	F	
HURON LOAM	Hul	7.00	D	5 - 9	0	1		
HURON LOAM	Hul	12.00	E	9 - 15	3	6	S	T
HURON LOAM	Hul	3.50	C	2 - 5	1	2	W	
HURON LOAM	Hul	12.00	E	9 - 15	1	6	S	T
HURON LOAM	Hul	22.50	F	15 - 30	3	3	F	M
HURON LOAM	Hul	12.00	E	9 - 15	3	3	F	M
HURON LOAM	Hul	37.50	G	30 - 45	2	6	S	T
HURON LOAM	Hul	1.20	B	0.5 - 2	2	5	P	
HURON LOAM	Hul	1.20	B	0.5 - 2	1	1		
HURON LOAM	Hul	1.20	B	0.5 - 2	2	6	P	W
HURON LOAM	Hul	1.20	B	0.5 - 2	1	5	P	
HURON SILT LOAM	Hus	22.50	F	15 - 30	3	3	F	M
HURON SILT LOAM	Hus	7.00	D	5 - 9	1	1		
HURON SILT LOAM	Hus	12.00	E	9 - 15	1	3	F	M
HURON SILT LOAM	Hus	1.20	B	0.5 - 2	0	O		
HURON SILT LOAM	Hus	12.00	E	9 - 15	3	6	S	T
HURON SILT LOAM	Hus	7.00	D	5 - 9	0	1		
HURON SILT LOAM	Hus	1.20	B	0.5 - 2	1	2	F	
HURON SILT LOAM	Hus	7.00	D	5 - 9	2	6	S	T
HURON SILT LOAM	Hus	-9.00	N	N	0	5	I	
HURON SILT LOAM	Hus	1.20	B	0.5 - 2	1	2	W	
HURON SILT LOAM	Hus	22.50	F	15 - 30	2	3	F	M
HURON SILT LOAM	Hus	1.20	B	0.5 - 2	0	2	W	
HURON SILT LOAM	Hus	3.50	C	2 - 5	2	2	F	M
HURON SILT LOAM	Hus	3.50	C	2 - 5	0	1		
HURON SILT LOAM	Hus	12.00	E	9 - 15	1	1		
HURON SILT LOAM	Hus	22.50	F	15 - 30	2	6	S	T
HURON SILT LOAM	Hus	7.00	D	5 - 9	3	6	S	T
HURON SILT LOAM	Hus	12.00	E	9 - 15	0	1		
HURON SILT LOAM	Hus	1.20	B	0.5 - 2	0	4	W	
HURON SILT LOAM	Hus	3.50	C	2 - 5	0	2	F	
HURON SILT LOAM	Hus	7.00	D	5 - 9	0	2	F	M
HURON SILT LOAM	Hus	3.50	C	2 - 5	1	1		
HURON SILT LOAM	Hus	7.00	D	5 - 9	1	2	F	M
HURON SILT LOAM	Hus	-9.00	N	N	N	W		
KILLEAN LOAM	Kl	1.20	B	0.5 - 2	1	2	W	
KILLEAN LOAM	Kl	12.00	E	9 - 15	1	1		

KILLEAN LOAM	Kl	1.20	B	0.5 - 2	3	1		
KILLEAN LOAM	Kl	3.50	C	2 - 5	0	1		
KILLEAN LOAM	Kl	1.20	B	0.5 - 2	1	2	F	
KILLEAN LOAM	Kl	1.20	B	0.5 - 2	0	O		
KILLEAN LOAM	Kl	7.00	D	5 - 9	0	1		
KILLEAN LOAM	Kl	1.20	B	0.5 - 2	1	4	W	
KILLEAN LOAM	Kl	22.50	F	15 - 30	2	6	S	T
KILLEAN LOAM	Kl	7.00	D	5 - 9	1	1		
KILLEAN LOAM	Kl	-9.00	N	N	0	5	I	
LILY LOAM	Lyl	3.50	C	2 - 5	1	1		
LILY LOAM	Lyl	1.20	B	0.5 - 2	0	O		
LILY LOAM	Lyl	7.00	D	5 - 9	1	1		
LILY LOAM	Li	3.50	C	2 - 5	1	1		
LILY LOAM	Lyl	12.00	E	9 - 15	1	3	F	M
LILY LOAM	Lyl	12.00	E	9 - 15	1	1		
LILY LOAM	Lyl	22.50	F	15 - 30	3	6	S	T
LILY LOAM	Lyl	-9.00	N	N	0	5	I	
LILY LOAM	Lyl	1.20	B	0.5 - 2	0	2	F	
LILY LOAM	Lyl	7.00	D	5 - 9	0	1		
LILY LOAM	Lyl	1.20	B	0.5 - 2	1	2	W	
LILY LOAM	Lyl	3.50	C	2 - 5	0	2	F	M
LISTOWEL LOAM	Lil	1.20	B	0.5 - 2	0	O		
LISTOWEL LOAM	Lil	1.20	B	0.5 - 2	1	2	W	
LISTOWEL LOAM	Lil	3.50	C	2 - 5	0	2	F	M
LISTOWEL LOAM	Lil	12.00	E	9 - 15	1	1		
LISTOWEL LOAM	Lil	1.20	B	0.5 - 2	0	2	W	
LISTOWEL LOAM	Lil	7.00	D	5 - 9	1	1		
LISTOWEL LOAM	Lil	12.00	E	9 - 15	1	3	F	M
LISTOWEL LOAM	Lil	3.50	C	2 - 5	1	1		
LISTOWEL LOAM	Lil	22.50	F	15 - 30	2	6	S	T
LISTOWEL LOAM	Lil	37.50	G	30 - 45	3	6	S	T
LISTOWEL LOAM	Lil	1.20	B	0.5 - 2	0	5	W	
LISTOWEL LOAM	Lil	1.20	B	0.5 - 2	1	2	F	
LISTOWEL LOAM	Lil	22.50	F	15 - 30	3	6	S	T
LISTOWEL LOAM	Lil	7.00	D	5 - 9	0	1		
LISTOWEL LOAM	Lil	3.50	C	2 - 5	0	1		
LISTOWEL LOAM	Lil	12.00	E	9 - 15	2	1		
LISTOWEL LOAM	Lil	1.20	B	0.5 - 2	2	5	P	
LISTOWEL LOAM	Lil	3.50	C	2 - 5	1	2	F	M
LISTOWEL LOAM	Lil	1.20	B	0.5 - 2	1	6	R	
LISTOWEL LOAM	Lil	12.00	E	9 - 15	3	6	S	T
LISTOWEL LOAM	Lil	1.20	B	0.5 - 2	1	4	W	
LISTOWEL LOAM	Lil	-9.00	N	N	N	W		
LISTOWEL LOAM	Lil	1.20	B	0.5 - 2	1	1		
LISTOWEL LOAM	Lil	3.50	C	2 - 5	3	6	R	

LISTOWEL LOAM	Lil	3.50	C	2 - 5	4	6	R	
LISTOWEL LOAM	Lil	-9.00	N	N	0	5	I	
LISTOWEL LOAM	Lil	7.00	D	5 - 9	2	I		
LISTOWEL LOAM	Lil	12.00	E	9 - 15	3	3	F	M
LISTOWEL SILT	Lis	12.00	E	9 - 15	3	6	S	T
LISTOWEL SILT	Lis	1.20	B	0.5 - 2	0	O		
LISTOWEL SILT	Lis	-9.00	N	N	0	5	I	
LISTOWEL SILT	Lis	12.00	E	9 - 15	I	I		
LISTOWEL SILT	Lis	1.20	B	0.5 - 2	2	5	P	
LISTOWEL SILT	Lis	3.50	C	2 - 5	I	I		
LISTOWEL SILT	Lis	3.50	C	2 - 5	0	I		
LISTOWEL SILT	Lis	1.20	B	0.5 - 2	I	2	W	
LISTOWEL SILT	Lis	7.00	D	5 - 9	I	I		
LISTOWEL SILT	Lis	-9.00	N	N	N	0		
LISTOWEL SILT	Lis	1.20	B	0.5 - 2	I	2	F	
LISTOWEL SILT	Lis	1.20	B	0.5 - 2	0	2	W	
LISTOWEL SILT	Ls	3.50	C	2 - 5	2	4	F	M
LISTOWEL SILT	Lis	1.20	B	0.5 - 2	0	5	W	
LISTOWEL SILT	Lis	12.00	E	9 - 15	3	3	F	M
LISTOWEL SILT	Lis	37.50	G	30 - 45	3	6	S	T
LISTOWEL SILT	Lis	3.50	C	2 - 5	0	2	F	M
LISTOWEL SILT	Lis	7.00	D	5 - 9	3	3	F	M
LISTOWEL SILT	Lis	7.00	D	5 - 9	0	I		
LISTOWEL SILT	Lis	12.00	E	9 - 15	2	6	S	T
LISTOWEL SILT	Lis	1.20	B	0.5 - 2	3	5	P	
LISTOWEL SILT	Lis	3.50	C	2 - 5	I	2	F	M
LISTOWEL SILT	Lis	22.50	F	15 - 30	3	6	S	T
LONDON LOAM	Ll	7.00	D	5 - 9	I	I		
LONDON LOAM	Ll	1.20	B	0.5 - 2	0	2	W	
LONDON LOAM	Ll	1.20	B	0.5 - 2	0	O		
LONDON LOAM	Ll	12.00	E	9 - 15	0	I		
LONDON LOAM	Ll	-9.00	N	N	N	W		
LONDON LOAM	Ll	1.20	B	0.5 - 2	I	2	W	
LONDON LOAM	Ll	12.00	E	9 - 15	3	6	S	T
LONDON LOAM	Ll	3.50	C	2 - 5	0	I		
LONDON LOAM	Ll	-9.00	N	N	0	5	I	
LONDON LOAM	Ll	3.50	C	2 - 5	I	4	W	

LONDON LOAM	LI	3.50	C	2 - 5	1	1		
LONDON LOAM	LI	1.20	B	0.5 - 2	2	6	P	W
LONDON LOAM	LI	7.00	D	5 - 9	4	6	R	
LONDON LOAM	LI	1.20	B	0.5 - 2	1	1		
LONDON LOAM	LI	22.50	F	15 - 30	2	3	F	M
LONDON LOAM	LI	12.00	E	9 - 15	1	1		
LONDON LOAM	LI	3.50	C	2 - 5	1	2	F	M
LONDON LOAM	LI	12.00	E	9 - 15	1	3	F	M
LONDON LOAM	LI	1.20	B	0.5 - 2	1	4	W	
LONDON LOAM	LI	1.20	B	0.5 - 2	3	5	P	
LONDON LOAM	LI	1.20	B	0.5 - 2	1	2	F	
LONDON LOAM	LI	7.00	D	5 - 9	0	2	F	M
LONDON LOAM	LI	1.20	B	0.5 - 2	3	6	P	W
LONDON LOAM	LI	1.20	B	0.5 - 2	0	5	W	
LONDON LOAM	LI	22.50	F	15 - 30	3	6	S	T
LONDON LOAM	LI	1.20	B	0.5 - 2	0	2	F	
LONDON LOAM	LI	7.00	D	5 - 9	0	3	F	M
LONDON LOAM	LI	1.20	B	0.5 - 2	1	2	F	M
LONDON LOAM	LI	1.20	B	0.5 - 2	3	6	S	T
LONDON LOAM	LI	7.00	D	5 - 9	0	1		
LONDON LOAM	LI	22.50	F	15 - 30	1	3	F	M
LONDON LOAM	LI	22.50	F	15 - 30	1	4	T	
MUCK	M	7.00	D	5 - 9	1	1		
MUCK	M	1.20	B	0.5 - 2	1	2	W	
MUCK	M	1.20	B	0.5 - 2	0	O		
MUCK	M	1.20	B	0.5 - 2	0	2	W	
MUCK	M	3.50	C	2 - 5	1	1		
MUCK	M	22.50	F	15 - 30	3	6	S	T
MUCK	M	3.50	C	2 - 5	1	2	F	M
MUCK	M	12.00	E	9 - 15	3	6	S	T
MUCK	M	12.00	E	9 - 15	3	3	F	M
MUCK	M	1.20	B	0.5 - 2	1	4	W	
MUCK	M	22.50	F	15 - 30	3	3	F	M
MUCK	M	-9.00	N	N	0	5	I	
MUCK	M	12.00	E	9 - 15	1	1		
MUCK	M	12.00	E	9 - 15	0	1		
MUCK	M	1.20	B	0.5 - 2	0	2	F	M
MUCK	M	1.20	B	0.5 - 2	0	5	W	
MUCK	M	1.20	B	0.5 - 2	3	5	P	
MUCK	M	12.00	E	9 - 15	2	3	F	M
MUCK	M	3.50	C	2 - 5	0	1		
MUCK	M	-9.00	N	N	N	0		
MUCK	M	7.00	D	5 - 9	0	1		
MUCK	M	1.20	B	0.5 - 2	0	2	F	
MUCK	M	7.00	D	5 - 9	1	2	F	M

MUCK	M	22.50	F	15 - 30	2	3	F	M
MUCK	M	3.50	C	2 - 5	2	2	F	M
MUCK	M	3.50	C	2 - 5	0	5	I	
MUCK	M	12.00	E	9 - 15	2	I		
MUCK	M	37.50	G	30 - 45	3	6	S	T
MUCK	M	-9.00	N	N	N	W		
MUCK	M	12.00	E	9 - 15	I	3	F	M
MUCK	M	1.20	B	0.5 - 2	I	2	F	
MUCK	M	22.50	F	15 - 30	I	3	F	M
MUCK	M	3.50	C	2 - 5	4	6	R	
MUCK	M	1.20	B	0.5 - 2	I	I		
MUCK	M	1.20	B	0.5 - 2	I	6	S	T
MUCK	M	7.00	D	5 - 9	2	6	S	T
MUCK	M	7.00	D	5 - 9	2	I		
MUCK	M	22.50	F	15 - 30	2	6	S	T
MUCK	M	3.50	C	2 - 5	3	2	F	M
MUCK	M	1.20	B	0.5 - 2	2	4	W	
MUCK	M	1.20	B	0.5 - 2	3	6	P	W
MUCK	M	1.20	B	0.5 - 2	0	I		
MUCK	M	7.00	D	5 - 9	3	6	S	T
MUCK	M	7.00	D	5 - 9	0	2	F	M
MUCK	M	3.50	C	2 - 5	0	2	F	M
MUCK	M	22.50	F	15 - 30	I	4	T	
MUCK	M	7.00	D	5 - 9	4	6	R	
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	2	4	W	
PARKHILL LOAM	Pal	3.50	C	2 - 5	2	I		
PARKHILL LOAM	Pal	12.00	E	9 - 15	I	I		
PARKHILL LOAM	Pal	3.50	C	2 - 5	2	2	F	M
PARKHILL LOAM	Pal	3.50	C	2 - 5	I	I		
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	0	2	W	
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	I	2	W	
PARKHILL LOAM	Pal	-9.00	N	N	N	0		
PARKHILL LOAM	Pal	7.00	D	5 - 9	I	I		
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	0	O		
PARKHILL LOAM	Pal	3.50	C	2 - 5	I	2	F	M
PARKHILL LOAM	Pal	-9.00	N	N	0	5	I	
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	I	4	W	
PARKHILL LOAM	Pal	3.50	C	2 - 5	0	I		
PARKHILL LOAM	Pal	7.00	D	5 - 9	2	2	F	M
PARKHILL LOAM	Pal	12.00	E	9 - 15	I	3	F	M
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	0	2	F	
PARKHILL LOAM	Pal	7.00	D	5 - 9	2	6	S	T
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	I	2	F	
PARKHILL LOAM	Pal	12.00	E	9 - 15	3	6	S	T
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	I	I		

PARKHILL LOAM	Pal	22.50	F	15 - 30	1	4	T	
PARKHILL LOAM	Pal	-9.00	N	N	N	W		
PARKHILL LOAM	Pal	7.00	D	5 - 9	0	2	F	M
PARKHILL LOAM	Pal	7.00	D	5 - 9	0	1		
PARKHILL LOAM	Pal	3.50	C	2 - 5	1	2	F	
PARKHILL LOAM	Pal	3.50	C	2 - 5	0	2	F	M
PARKHILL LOAM	Pal	22.50	F	15 - 30	3	6	S	T
PARKHILL LOAM	Pal	7.00	D	5 - 9	4	6	R	
PARKHILL LOAM	Pal	7.00	D	5 - 9	1	2	F	M
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	3	6	P	W
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	0	5	W	
PARKHILL LOAM	Pal	7.00	D	5 - 9	1	3	F	M
PARKHILL LOAM	Pal	22.50	F	15 - 30	1	3	F	M
PARKHILL LOAM	Pal	22.50	F	15 - 30	2	3	F	M
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	3	5	P	
PARKHILL LOAM	Pal	3.50	C	2 - 5	0	2	F	
PARKHILL LOAM	Pal	1.20	B	0.5 - 2	2	5	P	
PARKHILL LOAM	Pal	12.00	E	9 - 15	2	3	F	M
PARKHILL LOAM	Pal	7.00	D	5 - 9	3	6	S	T
PARKHILL SILT LOAM	Pas	-9.00	N	N	0	5	I	
PARKHILL SILT LOAM	Pas	3.50	C	2 - 5	0	1		
PARKHILL SILT LOAM	Pas	12.00	E	9 - 15	1	1		
PARKHILL SILT LOAM	Pas	3.50	C	2 - 5	1	1		
PARKHILL SILT LOAM	Pas	1.20	B	0.5 - 2	0	2	F	
PARKHILL SILT LOAM	Pas	1.20	B	0.5 - 2	1	2	W	
PARKHILL SILT LOAM	Pas	7.00	D	5 - 9	1	6	S	T
PARKHILL SILT LOAM	Pas	7.00	D	5 - 9	1	1		
PARKHILL SILT LOAM	Pas	1.20	B	0.5 - 2	0	O		
PARKHILL SILT LOAM	Pas	7.00	D	5 - 9	3	6	S	T
PARKHILL SILT LOAM	Pas	1.20	B	0.5 - 2	3	5	P	
PARKHILL SILT LOAM	Pas	12.00	E	9 - 15	1	3	F	M
PARKHILL SILT LOAM	Pas	12.00	E	9 - 15	0	1		
PARKHILL SILT LOAM	Pas	1.20	B	0.5 - 2	1	1		
PEAT	P	12.00	E	9 - 15	3	6	S	T
PEAT	P	22.50	F	15 - 30	3	3	F	M
PEAT	P	1.20	B	0.5 - 2	1	2	W	
PEAT	P	7.00	D	5 - 9	1	1		
PEAT	P	1.20	B	0.5 - 2	0	5	W	
PEAT	P	12.00	E	9 - 15	1	1		
PEAT	P	12.00	E	9 - 15	3	3	F	M
PERTH LOAM	PI	7.00	D	5 - 9	1	1		
PERTH LOAM	PI	1.20	B	0.5 - 2	1	2	W	
PERTH LOAM	PI	12.00	E	9 - 15	3	6	S	T
PERTH LOAM	PI	3.50	C	2 - 5	1	1		
PERTH LOAM	PI	12.00	E	9 - 15	1	1		

PERTH LOAM	Pl	-9.00	N	N	0	5	I	
PERTH LOAM	Pl	-9.00	N	N	N	W		
PERTH LOAM	Pl	1.20	B	0.5 - 2	0	O		
PERTH LOAM	Pl	22.50	F	15 - 30	2	3	F	M
PERTH LOAM	Pl	3.50	C	2 - 5	0	2	F	M
PERTH LOAM	Pl	3.50	C	2 - 5	2	2	F	M
PERTH LOAM	Pl	1.20	B	0.5 - 2	3	5	P	
PERTH LOAM	Pl	7.00	D	5 - 9	0	I		
PERTH LOAM	Pl	22.50	F	15 - 30	3	3	F	M
PERTH LOAM	Pl	1.20	B	0.5 - 2	0	2	W	
PERTH LOAM	Pl	7.00	D	5 - 9	2	6	S	T
PERTH LOAM	Pl	3.50	C	2 - 5	0	I		
PERTH LOAM	Pl	22.50	F	15 - 30	3	6	S	T
PERTH LOAM	Pl	3.50	C	2 - 5	I	2	F	M
PERTH LOAM	Pl	-9.00	N	N	N	0		
PERTH LOAM	Pl	12.00	E	9 - 15	3	3	F	M
PERTH LOAM	Pl	1.20	B	0.5 - 2	I	I		
PERTH LOAM	Pl	1.20	B	0.5 - 2	0	5	W	
PERTH LOAM	Pl	22.50	F	15 - 30	2	I		
PERTH LOAM	Pl	7.00	D	5 - 9	0	2	F	M
PERTH LOAM	Pl	12.00	E	9 - 15	3	2	F	
PERTH LOAM	Pl	22.50	F	15 - 30	4	5	T	
PERTH LOAM	Pl	3.50	C	2 - 5	4	2	F	M
PERTH SILT LOAM	Ps	1.20	B	0.5 - 2	0	5	W	
PERTH SILT LOAM	Ps	12.00	E	9 - 15	0	2	F	M
PERTH SILT LOAM	Ps	3.50	C	2 - 5	2	2	F	M
PERTH SILT LOAM	Ps	1.20	B	0.5 - 2	I	2	W	
PERTH SILT LOAM	Ps	1.20	B	0.5 - 2	0	2	W	
PERTH SILT LOAM	Ps	3.50	C	2 - 5	0	I		
PERTH SILT LOAM	Ps	-9.00	N	N	0	5	I	
PERTH SILT LOAM	Ps	7.00	D	5 - 9	I	I		
PERTH SILT LOAM	Ps	1.20	B	0.5 - 2	0	O		
PERTH SILT LOAM	Ps	3.50	C	2 - 5	0	2	F	M
PERTH SILT LOAM	Ps	12.00	E	9 - 15	I	I		
PERTH SILT LOAM	Ps	1.20	B	0.5 - 2	0	2	F	
PERTH SILT LOAM	Ps	3.50	C	2 - 5	I	I		
STREAM COURSE	SC	7.00	D	5 - 9	I	I		
STREAM COURSE	SC	12.00	E	9 - 15	2	3	F	M
STREAM COURSE	SC	37.50	G	30 - 45	3	6	S	T
STREAM COURSE	SC	1.20	B	0.5 - 2	0	O		
STREAM COURSE	SC	1.20	B	0.5 - 2	I	2	W	
STREAM COURSE	SC	3.50	C	2 - 5	0	2	F	M
STREAM COURSE	SC	3.50	C	2 - 5	I	I		
STREAM COURSE	SC	12.00	E	9 - 15	3	6	S	T
STREAM COURSE	SC	3.50	C	2 - 5	0	I		

STREAM COURSE	SC	22.50	F	15 - 30	3	6	S	T
STREAM COURSE	SC	7.00	D	5 - 9	0	1		
STREAM COURSE	SC	3.50	C	2 - 5	1	2	F	M
STREAM COURSE	SC	1.20	B	0.5 - 2	0	2	W	
STREAM COURSE	SC	1.20	B	0.5 - 2	1	1		
STREAM COURSE	SC	1.20	B	0.5 - 2	1	2	F	
STREAM COURSE	SC	1.20	B	0.5 - 2	0	2	F	
STREAM COURSE	SC	7.00	D	5 - 9	0	3	F	M
STREAM COURSE	SC	-9.00	N	N	0	5	I	
STREAM COURSE	SC	12.00	E	9 - 15	2	6	S	T
STREAM COURSE	SC	-9.00	N	N	N	W		
STREAM COURSE	SC	12.00	E	9 - 15	1	1		
STREAM COURSE	SC	7.00	D	5 - 9	4	6	R	
TEESWATER SILT	Tes	1.20	B	0.5 - 2	0	2	W	
TEESWATER SILT	Tes	1.20	B	0.5 - 2	1	2	W	
TEESWATER SILT	Tes	1.20	B	0.5 - 2	0	5	W	
TEESWATER SILT	Tes	12.00	E	9 - 15	1	1		
TEESWATER SILT	Tes	1.20	B	0.5 - 2	2	6	P	W
TEESWATER SILT	Tes	1.20	B	0.5 - 2	0	O		
TEESWATER SILT	Tes	7.00	D	5 - 9	1	1		
TEESWATER SILT	Tes	3.50	C	2 - 5	1	1		
TEESWATER SILT	Tes	3.50	C	2 - 5	0	1		
TEESWATER SILT	Tes	7.00	D	5 - 9	0	1		
TEESWATER SILT	Tes	-9.00	N	N	0	5	I	
TOLEDO CLAY	Tc	7.00	D	5 - 9	0	1		
TOLEDO CLAY	Tc	3.50	C	2 - 5	1	1		
TOLEDO CLAY	Tc	1.20	B	0.5 - 2	1	2	W	
TOLEDO CLAY	Tc	3.50	C	2 - 5	1	2	F	M
TOLEDO CLAY	Tc	12.00	E	9 - 15	1	3	F	M
TOLEDO CLAY	Tc	-9.00	N	N	0	5	I	
TOLEDO CLAY	Tc	12.00	E	9 - 15	1	1		
TUSCOLA SILT LOAM	Tus	7.00	D	5 - 9	3	6	S	T
TUSCOLA SILT LOAM	Tus	1.20	B	0.5 - 2	1	2	W	
WATER	ZZ	1.20	B	0.5 - 2	0	O		
WATER	ZZ	1.20	B	0.5 - 2	0	2	W	
WATER	ZZ	22.50	F	15 - 30	3	3	F	M
WATER	ZZ	3.50	C	2 - 5	1	2	F	M
WATER	ZZ	3.50	C	2 - 5	1	1		
WATER	ZZ	7.00	D	5 - 9	1	1		

WATER	ZZ	12.00	E	9 - 15	1	1		
WATER	ZZ	12.00	E	9 - 15	3	6	S	T
WATER	ZZ	1.20	B	0.5 - 2	1	2	W	
WATER	ZZ	22.50	F	15 - 30	3	6	S	T
WATER	ZZ	1.20	B	0.5 - 2	0	5	W	
WATER	ZZ	-9.00	N	N	N	W		

APPENDIX E

DAVE HODGSON CURRICULUM VITAE

DBH Soil Services Inc
217 Highgate Court
Kitchener Ontario N2N 3N9

phone: (519) 578-9226
email: dhodgson@dbhsoilservices.ca

DAVID B. HODGSON, B.Sc., P. Ag.
PRESIDENT – Senior Pedologist/Agrologist

EDUCATION

- B.Sc. (Agriculture), 1983-1987; University of Guelph, Major in Soil Science
- Agricultural Engineering, 1982-1983; University of Guelph.
- Materials Science Technology, 1981-1982; Northern Alberta Institute of Technology (NAIT), Edmonton, Alberta.

AREAS OF PROFESSIONAL EXPERIENCE

2000 to Present — **Senior Pedologist/President. DBH Soil Services Inc., Kitchener, Ontario.**
Mr. Hodgson provides expertise in the investigation, assessment and resource evaluation of agricultural operations/facilities and soil materials. Dave is directly responsible for the field and office operations of DBH Soil Services and for providing advanced problem solving skills as required on an individual client/project basis. Dave is skilled at assessing soil and agricultural resources, determining potential impacts and is responsible for providing the analysis of and recommendations for the remediation of impacts to soil/agricultural/environmental systems in both rural and urban environments.

1992 to 2000 — **Pedologist/Project Scientist. Ecologistics Limited, Waterloo, Ontario.**
As pedologist (soil scientist), Mr. Hodgson provided expertise in the morphological, chemical and physical characterization of insitu soils. As such, Mr. Hodgson was involved in a variety of environmental assessment, waste management, agricultural research and site/route selection studies.
Dave was directly responsible for compiling, analysis and management of the environmental resource information. Dave is skilled at evaluating the resource information utilizing Geographic Information System (GIS) applications.

Dave was also involved the firms Environmental Audit and Remediation Division in the capacity of: asbestos identification; an inspector for the remediation of a pesticide contaminated site; and an investigator for Phase I and Phase II Audits.

SELECT PROJECT EXPERIENCE

Environmental Assessment Studies

- Agricultural Component of the Highway 401 Widening Milton to Wellington County Boundary, 2023 – ongoing.
- Agricultural Component of the Highway 6 Widening Hamilton 2022 – ongoing.
- Agricultural Component of the Bradford Bypass (Highway 400 to 404 link) 2021 – ongoing.
- Agricultural Component of the Green for Life (GFL) Environmental, Moose Creek, Eastern Ontario Waste Handling Facility (EOWHF) Expansion, 2020 – 2023.
- Agricultural Component of the Greater Toronto Area West (GTAW) Highway 413 Corridor Assessment, 2019 – ongoing.
- Peer Review of the Walker Environmental Group (WEG) Inc. Southwestern Landfill Proposal, Ingersoll, 2013 – 2021.
- Agricultural Component for the High-Speed Rail Kitchener to London –Terms of Reference, 2018,
- Agricultural Component of the Mount Nemo Heritage District Conservation Study – City of Burlington, 2014 – 2015.
- Agricultural Component of the Greater Toronto Area West (GTAW) Highway Corridor Assessment – Phase 2, 2014 – 2016.

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- Peer Review of the Agricultural Component of the Walker Group Landfill – Ingersoll, 2013 – 2015.
- Agricultural Component of the Highway 407 East Extension Design and Build Phase, 2012 – 2013.
- Agricultural Component of the Beechwood Road Environmental Centre (Landfill/Recycling) – Napanee, 2012 – 2013.
- Agricultural Component of the Clean Harbors Hazardous Waste Landfill Lambton County 2009 – 2015.
- Agricultural Component of the Highway 401 widening Cambridge to Halton Region 2009 – 2012.
- Agricultural Component of the Upper York Sanitary Sewer Study, York Region, 2009 – 2013.
- Agricultural Component of the Greater Toronto Area West Corridor Environmental Assessment Study 2007 – 2013 (Phase 1).
- Agricultural Component of the Niagara to GTA Planning and Environmental Assessment Study, 2007 – 2013.
- Agricultural Component of the Highway 401 widening, Chatham, 2006 - 2007.
- Agricultural Component of the Trafalgar Road study, Halton Region, 2005.
- Agricultural Component of the Highway 404 Extension North, 2004.
- Agricultural Component of the Highway 404 – 400 Bradford Bypass, 2004.
- Agricultural Component of the Highway 407 East Extension, 2002 – 2010.

Agricultural Impact Assessment/Minimum Distance Separation Studies

- Cambridge South AIA, 2024.
- AECOM Peel Sewer AIA, 2024.
- Port Hope North Settlement Area Boundary Expansion AIA, 2024
- Fergus Oaks, Fergus Settlement Area Boundary Expansion AIA, 2024.
- Jordan Settlement Area Boundary Expansion AIA, 2024.
- Town of New Tecumseth AIA Assistance, 2024
- Whistle Bare Road, North Dumfries Minimum Distance Separation (MDS1 Assessment), 2024.
- Balsam Road, Pickering Minimum Distances Separation (MDS1) Assessment, 2024.
- Port Hope West Urban Boundary Expansion Scoped Agricultural Impact Assessment (including MDS1), 2023.
- Port Hope East Urban Boundary Expansion Scoped Agricultural Impact Assessment (including MDS1), 2023.
- Town of King Battery Energy Storage System (BESS) Agricultural Impact Assessment, 2023.
- City of London Agricultural Impact Assessment (including MDS1), 2023.
- Caledonia Secondary Plan Scoped Agricultural Impact Assessment (including MDS), 2023.
- Inglewood Well Agricultural Impact Assessment, 2023.
- Orangeville Battery Energy Storage System (BESS) Agricultural Impact Assessment, 2023.
- County Road 109 Realignment Agricultural Impact Assessment, 2023.
- Thornbury Acres Agricultural Impact Assessment (including MDS1), 2022 – 2023.
- Highway 6 Widening Hamilton Agricultural Impact Assessment, 2022 – ongoing.
- Whistle Bare Pit Agricultural Impact Assessment, 2022.
- Middletown Road Agricultural Impact Assessment (including MDS1), 2022.
- Claremont, Durham Region Minimum Distance Separation (MDS1), 2022.
- Grand Valley Settlement Area Boundary Expansion 2022 - ongoing.
- Hagersville Minimum Distance Separation (MDS1), 2022.
- East River Road Minimum Distance Separation (MDS1), County of Brant, 2022.
- Brampton Brick Norval Quarry, Agricultural Impact Assessment, 2022 – ongoing.
- Northfield Drive Minimum Distance Separation (MDS1), Waterloo Region, 2021
- Bradford Bypass Highway 400- 404 Link, Agricultural Impact Assessment, 2021 – ongoing.
- Wilfrid Laurier Milton Campus, Agricultural Impact Assessment (including MDS1), 2021 – 2023.
- Town of Lincoln Road Realignment, Agricultural Impact Assessment, 2021 – 2023.
- Britannia Secondary Plan, Agricultural Impact Assessment (including MDS1), Milton, 2021 – 2023.
- Reesor Road Minimum Distance Separation (MDS1), Markham, 2021.
- Maclean School Road Minimum Distance Separation (MDS1), County of Brant, 2021.
- Petersburgh Sand Pit, Agricultural Impact Assessment, 2021 – 2022.

- Milton, CRH Quarry Expansion, Agricultural Impact Assessment, 2020 – 2022.
- Grimsby, Specialty Crop Area Redesignation, Agricultural Impact Assessment, 2020 - 2022.
- Halton Hills, Premier Gateway Phase 2 Employment Lands Secondary Plan, Agricultural Impact Assessment (including MDS1), 2020 - 2021.
- Milton Education Village Secondary Plan, Agricultural Impact Assessment (including MDS1), 2020 - 2021.
- Woodstock, Pattullo Avenue Realignment, Agricultural Impact Assessment, 2020 - 2021.
- Smithville, West Lincoln Master Community Plan, Agricultural Impact Assessment (including MDS1), AECOM, 2019 – 2022.
- Kirby Road Agricultural Impact Assessment, HDR, Vaughan, 2019 – 2021.
- Elfrida Lands, City of Hamilton, Agricultural Impact Assessment Update, WSP, 2019 – 2021.
- Dorsay Development – Durham Region High Level Agricultural Assessment, 2019.
- Stoney Creek Landfill AIA Update – GHD, 2019.
- Town of Wilmot, Agricultural Impact Assessment (AIA) Aggregate Pit Study (Hallman Pit), 2018, on-going.
- Courtice Area Southeast Secondary Plan (Clarington) Agricultural Impact Assessment (AIA) (including MDS1), 2019,
- Town of Halton Hills, Minimum Distance Separation (MDS 1), August 2018,
- Cedar Creek Pit/Alps Pit (North Dumfries), Agricultural Impact Assessment (AIA), 2018 – 2021,
- Belle Aire Road (Simcoe County) Agricultural Impact Assessment (AIA) Study (including MDS1), 2019,
- Vinemount Quarry Extension (Niagara) Agricultural Impact Assessment (AIA) Study, December 2017.
- Grimsby – Agricultural Impact Assessment Opinion, November 2017.
- City of Hamilton, Urban Core Developments – Agricultural Capability Assessment, February 2017.
- Township of North Dumfries – Minimum Distance Separation (MDS 1), February 2017.
- Township of Erin, County of Wellington – Minimum Distance Separation 1(MDS1 Study), 2016.
- Halton Hills Employment Area Secondary Plan, Halton, 2015 - 2016.
- Peer Review of Agricultural Impact Assessment, Oro-Medonte Township, 2015.
- Greenwood Construction Aggregate Pit, Mono Township, 2014 - 2015.
- Innisfil Mapleview Developments, Town of Innisfil – Minimum Distance Separation (MDS 1), 2014.
- Loyalist Township – Minimum Distance Separation (MDS 1 & 2), 2014.
- Rivera Fine Homes, Caledon – Minimum Distance Separation (MDS 1), 2014.
- Town of Milton PanAm Velodrome – Minimum Distance Separation (MDS) 2012 – 2013.

Soil Surveys/Soil Evaluations

- Soil Survey and Canada Land Inventory Evaluation, Peterborough, 2024.
- Soil Survey and Canada Land Inventory Evaluation, Essex, 2024.
- Mississippi Mills Soil Survey Peer Reviews (4 parcels), 2024.
- Ontario Stone, Sand & Gravel Association Case Study Rehabilitated Pits, 2023 – ongoing.
- Soil Survey and Canada Land Inventory Evaluation, Neubauer Pit, 2023.
- Soil Survey and Canada Land Inventory Evaluation, David Pit, 2023.
- Soil Survey and Canada Land Inventory Evaluation, Pinehurst Road, 2023.
- Soil Survey and Canada Land Inventory Evaluation, Paris Plains Church Road Site, 2022.
- Soil Survey and Canada Land Inventory Evaluation, Mulmur Site, 2022.
- Soil Survey and Canada Land Inventory Evaluation, Port Colborne Site, 2022.
- Soil Survey and Canada Land Inventory Evaluation, Pike Site, 2022.
- Soil Survey and Canada Land Inventory Evaluation, New Dundee Road Site, 2022.
- Soil Survey and Canada Land Inventory Evaluation, Gehl Farm, 2022
- Soil Sampling, City of Kitchener, 2021 – 2022.
- Soybean Cyst Nematode Soil Sampling, Enbridge, 2021.
- Soil Survey and Canada Land Inventory Evaluation, Max Becker Enterprises, City of Kitchener, 2021
- Soil Survey and Canada Land Inventory Evaluation, Max Beck Enterprises, City of Kitchener, 2021 – 2022.
- Soil Survey and Canada Land Inventory Evaluation, Burlington, Nelson Quarry, 2020-2021.

- City of Kitchener, City Wide Soil Studies, 2020-ongoing.
- Soil Survey, Fallowfield Drive, City of Kitchener Development Manual Study, 2020 - ongoing.
- Soil Survey, Williamsburg Estates, City of Kitchener Development Manual Study, 2020 - 2021.
- Soil Survey, South Estates, City of Kitchener Development Manual Study, 2020 - 2021.
- Soil Survey and Canada Land Inventory Evaluation, Burlington, Nelson Quarry, 2019.
- Soil Survey and Canada Land Inventory Evaluation, Maryhill Pit, 2019.
- Soil Survey and Canada Land Inventory Evaluation, Glen Morris Pit, Lafarge Canada, 2018,
- Soil Survey and Canada Land Inventory Evaluation, Brantford Pit Extension, Lafarge Canada, 2018,
- Soil Survey and Canada Land Inventory Evaluation, Pinkney Pit Extension, Lafarge Canada, May 2018,
- Soil evaluation and opinion, King-Vaughan Road, March 2018,
- Soil Sampling, Upper Medway Watershed, Agriculture and Agri-Food Canada. December 2017 – June 2018.
- Soil Survey and Canada Land Inventory Evaluation, Hillsburgh Pit Extension, SBM St Marys, December 2017.
- Soil Survey and Canada Land Inventory Evaluation, Erin South Pit Extension, Halton Crushed Stone, December 2017.
- City of Kitchener, City Wide Urban Soil Assessments, 2016 – On-going.
- Soil Survey and Canada Land Inventory Evaluation, Solar Feed-In Tariff (FIT) Program Study, 2016.
    - Bruce County (15 sites)
    - Grey County (4 sites)
- Soil Survey and Canada Land Inventory Evaluation, Wasaga Beach area, County of Simcoe, 2016.
- Soil Survey and Canada Land Inventory Evaluation Study, MHBC Bradford, Simcoe County, 2016.
- Soil Survey and Canada Land Inventory Evaluation, Solar Feed-In Tariff (FIT Program Study), Carbon Foot Print Offsetters, Durham Region, 2015.
- Soil Survey and Canada Land Inventory Evaluation, Solar Feed-In Tariff (FIT Program Study), Abundant Solar Energy (12 Sites – Peterborough, Madoc, Havelock, Belleville), 2015.
- Soil Survey and Canada Land Inventory Evaluation, Solar Feed-In Tariff (FIT Program Study), City of Hamilton, 2015.

Municipal Comprehensive Review and Mapping Studies (MCR)

- Bruce County 2022 – 2023.
- Simcoe County, 2020 - ongoing.
- Northumberland County, 2020 - ongoing.
- Halton Region, 2019 - 2022.

Land Evaluation and Area Review Studies (LEAR)

- Land Evaluation and Area Review (LEAR) presentation for Lanark County Council, 2024.
- Land Evaluation and Area Review (LEAR) Town of Amaranth, 2023 – ongoing.
- Mapping Audit Bruce County. Assessment of Prime and Non-Prime Agricultural Lands, 2022.
- Mapping Audit Northumberland County. Comparison of Regional and Provincial Prime Agricultural Area Mapping – 2021 - ongoing.
- Mapping Audit Simcoe County. Comparison of Regional and Provincial Prime Agricultural Area Mapping – 2021 - ongoing.
- Mapping Audit Halton Region. Comparison of Regional and Provincial Prime Agricultural Area Mapping – 2019 - 2022.
- Land Evaluation and Area Review (LEAR) – Soils Component, in Association with AgPlan Ltd, Kanata/Munster. December 2017 – July 2018.
- Land Evaluation and Area Review (LEAR) – Soils Component, Prince Edward County, 2016 – 2017.
- Land Evaluation and Area Review (LEAR) – Soils Component, Peel Region, 2013 - 2014.
- Land Evaluation and Area Review (LEAR), Minto Communities, Ottawa, 2012 – 2013.
- GIS and LE component of Land Evaluation and Area Review (LEAR), York Region 2008 – 2009.
- Land Evaluation and Area Review (LEAR), Mattamy Homes, City of Ottawa – Orleans, 2008 – 2009.
- GIS for Manitoba Environmental Goods and Services (EG&S) Study. 2007 – 2008.
- GIS and LE component of Land Evaluation and Area Review (LEAR), Halton Region 2007 - 2008.

- GIS and LE component of Land Evaluation and Area Review (LEAR), City of Hamilton, 2003 – 2005.

Expert Witness

- Ontario Land Tribunal (OLT) Hearing/mediation, Thornbury Estates, 2024.
- Ontario Land Tribunal (OLT) Hearing, Haldimand County, 2024.
- Ontario Land Tribunal (OLT) Hearing preparation, Burlington Quarry, 2024.
- Ontario Land Tribunal (OLT) Hearing preparation, Cemetery Lands Bradford, 2024.
- Local Planning Appeal Tribunal (LPAT) Hearing, Greenwood Aggregates Limited, Violet Hill Pit Application, 2020.
- Ontario Municipal Board (OMB) Hearing, Burl's Creek Event Grounds 2018-2019.
- Town of Mono Council Meeting, Greenwood Aggregates Violet Hill Pit, January 2018.
- Ontario Municipal Board (OMB) Hearing, Burl's Creek Event Grounds, Simcoe County, 2015 – 2016.
- Ontario Municipal Board (OMB) Hearing, Town of Woolwich, Gravel Pit, 2012 – 2013.
- Ontario Municipal Board (OMB) Hearing, Mattamy Homes – City of Ottawa, 2011 – 2012.
- Ontario Municipal Board (OMB) Hearing, Town of Colgan, Simcoe County, 2010.
- Presentation to Planning Staff on behalf of Mr. MacLaren, City of Ottawa, 2005.
- Ontario Municipal Board (OMB) Hearing, Flamborough Severance, 2002.
- Preparation for an Ontario Municipal Board Hearing, Flamborough Golf Course, 2001.
- Ontario Municipal Board (OMB) Hearing, Stratford RV Resort and Campground – Wetland Delineation Assessment, 2000.
- Ontario Municipal Board (OMB) Hearing, Watcha Farms, Grey County, Agricultural Impact Assessment – Land Use Zoning Change, 1999-2000.
- Ontario Municipal Board (OMB) Hearing, Town of St. Vincent Agricultural Impact Assessment – Land Use Zoning Change, 1999 – 2000.
- Halton Agricultural Advisory Committee (HAAC), Halton Joint Venture Golf Course Proposal - Agricultural Impact Assessment for Zoning Change, 1999-2000
- Halton Agricultural Advisory Committee (HAAC), Sixteen Mile Creek Golf Course Proposal – Agricultural Impact Assessment for Zoning Change, 1999.
- Ontario Municipal Board (OMB) Hearing, Town of Flamborough, Environs Agricultural Impact Assessment for Zoning Change – Golf Course Proposal, 1999.
- Ontario Municipal Board (OMB) Hearing, Stratford RV Resort and Campground – Agricultural Impact Assessment, 1998.

Monitoring Studies

- Ontario Stone, Sand, and Gravel Association (OSSGA) Rehabilitation Study, 2023 – ongoing.
- Enbridge Soil Sampling for Soybean Cyst Nematode, various sites Lambton County, 2022
- Union Gas/Enbridge Gas 20" Gas Pipeline Construction Monitoring – Kingsville – 2019 - 2020.
- Union Gas/Enbridge Gas – Gas Pipeline Construction Monitoring for Tree Clearing. Kingsville Project. February/March 2019.
- CAEPLA – Union Gas 36" Gas Pipeline Construction Monitoring and Post Construction Clean Up – Agricultural Monitoring Panhandle Project. 2017 – 2018.
- CAEPLA – Union Gas 36" Gas Pipeline Construction Clearing Panhandle Project (Dawn Station to Dover Station) – Agricultural Monitoring, 2017 (Feb-March).
- City of Kitchener, Soil Sampling and data set analysis, 2017 – On-going.
- GAPLO – Union Gas 48" Gas Pipeline (Hamilton Station to Milton) Construction Soil and Agricultural Monitoring, 2016 – 2017.
- GAPLO – Union Gas 48" Gas Pipeline (Hamilton –Milton) Clearing – Agricultural Monitoring, 2016.

Publications

D.E. Stephenson and D.B. Hodgson, 1996. Root Zone Moisture Gradients Adjacent to a Cedar Swamp in Southern Ontario. In Malamoottil, G., B.G. Warner and E.A. McBean., *Wetlands Environmental Gradients, Boundaries, and Buffers*, Wetlands Research Centre, University of Waterloo. Pp. 298.