Agricultural Impact Assessment

6235 Guelph Street, Centre Wellington

File no. 23405A

PREPARED FOR:
Elora BESS LP (Aypa Power)

September 6, 2024

Your Vision

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1.0 Introduction

1.1 Overview

MacNaughton Hermsen Britton Clarkson Planning Ltd. (MHBC) has been retained by Elora BESS LP (the 'Client') to complete an Agricultural Impact Assessment (AIA) for a proposed new Battery Energy Storage System ('BESS') on lands located at 6235 Guelph Street and legally described as Lot 11, Concession 3, Geographic Township of Nichol, Township of Centre Wellington, Wellington County (i.e. "the subject lands").

The subject lands comprise approximately 43 hectares (106 acres) with approximately 420 metres of frontage on 2nd Line and 1,000 metres of frontage on Guelph Street. Approximately 6 hectares (14 acres) will be leased from the land owner, with approximately 4 hectares (10 acres) actively housing the BESS. The BESS footprint will be setback approximately 182 metres from 2nd Line. This portion of the lands is proposed to be leased from the current owner; no severing of the lands is proposed. The operation is expected to have a lifespan of 25 years.

The subject lands are agricultural in use with a beef cattle farm. The subject lands include two residential dwellings, a drive shed, three livestock barns, several silos, and outdoor manure storage. A constructed drain (Municipal Drain 2) bisects the farm from northwest to southeast. The northeast half of the lands contain fields under crop production (June 13th, 2024) and the southwest half contains the farm unit and fenced pastureland.

Surrounding land uses generally include agricultural uses to the south, west, and northwest; environmental features (woodlands and wetlands) interspersed with farmland to the southeast; and a landscaping supply depot to the northeast (see **Figure 1**). The Fergus settlement area is located immediately north of the subject lands on the opposite side of 2nd Line.

Elora BESS LP intends to submit applications for Official Plan Amendment, Zoning By-law Amendment, and Site Plan Approval to permit the proposed BESS on a portion of the subject lands.

This report has been prepared to be consistent with the Provincial Policy Statement (PPS) regarding non-agricultural uses in prime agricultural areas and follows the province's Draft Agricultural Impact Assessment Guidelines, released in March 2018 by the Ministry of Agriculture, Food and Rural Affairs.

1.2 Battery Energy Storage Systems (BESS)

The Independent Electricity System Operator (IESO) is the Provincial grid operator that manages the power system and plans for future capacity and energy needs. The IESO has identified a significant need for new power supply in the Province. To meet this need, IESO is undergoing procurements of diverse non-storage and storage assets including the Long Term 1 Procurement (LT1). The proposed development of the Elora BESS has been awarded a contract by IESO through LT1.

Energy storage is a globally established technology that is seen as important to fulfill the reliability needs of the electricity system by helping to stabilize the power grid, withdrawing energy from the grid during off-peak hours when demand is low and injecting that energy back into the grid when it is needed most. Additionally, energy storage can help leverage existing fossil free energy generation assets while helping enable more renewables.

Battery Energy Storage Systems (BESS) employs lithium-ion batteries enclosed in interconnected, fully sealed, weather-proof modular enclosures that are managed and operated as a standalone facility. These modular enclosures resemble shipping containers; contain their own heating, ventilation, and air conditioning (HVAC) system; and are centrally controlled and individually temperature monitored. A BESS facility connects to the grid via underground cable connection to a nearby substation. Generally, BESS have a life of between 20-25 years; they can be considered an interim use. The proposed BESS will have 211 MW nameplate capacity with 4 hours of energy storage.

Once built, BESS require only routine maintenance and can be monitored remotely (no employees working on-site). As a result, traffic and onsite parking are minimal, and no water or sewage servicing is required (a water tank is proposed on site for fire safety purposes). Site lighting is also minimal, used only for security purposes. Noise generated by cooling fans will be maintained below the regulated levels as per NPC 300.

1.3 BESS Facility Siting

BESS have unique siting requirements; they cannot be located anywhere. To determine an optimal site for a BESS, Aypa undertook an 'Alternative Location Analysis for Elora BESS project site' which involved a regional and then site selection process (see **Figure 2**). The below outlines components considered in this methodology.

To determine the location of this site, our client first undertook a regional selection process. Stage 1 and Stage 2 involved a technical review of regional electrical transfer capability limitations and load flow analysis of various transmission lines. This analysis determines whether a transmission line has the capacity to accommodate a BESS. Stage 3 involved an Environmental Constrain Analysis and a Municipal Land Use Analysis, and Stage 4 involved submitting the top ranked sites to the IESO Deliverability Test assessment. The Township of Centre Wellington was selected from this process because it does not have any IESO transmission region or circuit restrictions, and a D6V line passes through the Township with available capacity to support the proposed BESS interconnection.

Following the regional selection process, our client undertook a review of potential sites along the D6V transmission line passing through the Township of Centre Wellington. This review included the following project sitting criteria (implementing the guidance of the IESO, Government Agencies, and Conservation Authorities):

- Direct access to D6V transmission line (project connection line must also not pass through natural heritage features or municipal roads);
- Transmission line distance to the project between 100 and 500 metres;
- Outside of Conservation Areas;
- Greater than 30 metre setback from natural heritage features;
- Greater than 150 metres from sensitive noise receptors;
- Outside of Specialty Crop areas;

- Direct access to a Municipal Road;
- Preliminary Geotechnical confirmation of base requirements;
- Priority avoidance of the following (if possible):
    - Agricultural Land
    - Watercourse crossings
    - Vegetation clearings
    - Wildlife habitat impact.

Based on this review, nine different sites were identified and evaluated with the subject lands (6235 Guelph Street) prevailing as the best option. The evaluated sites are municipally addressed as follows:

- Site 1 – 8615 Wellington Road 18;
- Site 2 – 6319 Sixth Line;
- Site 3 – 6328 Fifth Line;
- Site 4 – 6287 Second Line;
- Site 5 – 6332 Second Line;
- Site 6 – PIN 232600002003200;
- Site 7 – 6235 Guelph Street (subject lands);
- Site 8 – 7711 Second Line; and,
- Site 9 – 7244 Sideroad 10.

Figure 2 illustrates the locations of the alternative sites. Further analysis of the alternative sites is provided in Section 3.4 and Appendix A of this report.

1.4 Proposed Location of Elora BESS

Site Number 7 located at 6235 Guelph Street was ultimately selected as the preferred location, as it reasonably met Aypa's siting criteria. The entirety of the proposed Elora BESS facility will occupy approximately 6 hectares (14 acres) of the subject lands. Not all 6 hectares will accommodate the BESS facility. While 6 hectares total will be leased, only a portion of this (approximately 4 hectares) will be developed with the BESS infrastructure. The balance of the lands would be used for landscaping/buffering, stormwater management purposes, and will continue to be farmed. The proposal includes a front yard setback of approximately 182 metres, which will continue to be farmed to minimize the agricultural impact and will be landscaped along 2nd Line to create visual screening. There will also be a 9-metre setback to the abutting property to the north that will be landscaped. The nearest battery unit will be setback approximately 20 metres for fire safety purposes. A gravel driveway will be connected to 2nd line that will provide vehicular access. The portion of the project area to accommodate the BESS will be fenced, and the driveway will include a security gate at the entrance of the BESS facility. A substation will be located to the rear of the batteries, near the transmission corridor, which it will connect to.

The conceptual site plan is included as **Figure 3** which illustrates the following components:

- Approximately 200 batteries and 64 inverters;
- Addition of augmentation batteries over time (batteries will lose capacity, and augmentation batteries will be required to ensure capacity is maintained – noted in orange on the site plan);
- The substation area, which will occupy approximately 1 hectare (2.4 acres) to the rear of the project area;
- Water tank, to be located in front of the project area at the entrance gate; and,

- Stormwater management pond, to be located adjacent to 2nd Line and will be a dry type to reduce the required size.

1.5 Data Collection and Review

In preparing this report, the following background materials were reviewed:

- Provincial Policy Statement (2020);
- Wellington County Official Plan (February 2024 consolidation);
- Township of Centre Wellington Official Plan;
- Township of Centre Wellington Comprehensive Zoning By-law No. 2009-045 (February 2024 consolidation); and
- Guidelines for Permitted Uses in Ontario's Prime Agricultural Areas, Publication 851.

The Site Concept and Aypa's Regional Selection Process Methodology were also reviewed as part of the preparation of this Agricultural Impact Assessment.

In addition to the plans and reports that were specifically prepared in support of the application, the following materials were also reviewed:

- 2021, 2016, and 2011 Census of Agriculture and OMAFRA's Ontario business, agri-food, and farm data profile for Wellington County;
- Soil data resource information including Ontario Soil Survey reports and mapping, the provincial digital soil resource database, Canada Land Inventory Agricultural Capability mapping, Soil Suitability information and mapping (for specialty crops), and information from on-site investigations;
- Aerial photography (historic and recent) with effective user scale of 1:10,000 or smaller;
- OMAFRA's constructed and agricultural Artificial Drainage Mapping; and
- Parcel mapping/fabric of the area.

A land use survey was also conducted on June 13, 2024 with additional information gathered from Google Satellite Imagery to gain a better understanding of the agricultural operations and activities in both the primary and secondary study areas. A summary of the land use survey is provided in Section 2.0 of this report. The potential for impacts will vary and mitigation is dependent on the type and sensitivity of the agricultural activities identified in the primary and secondary study areas.

1.6 Purpose of the Study

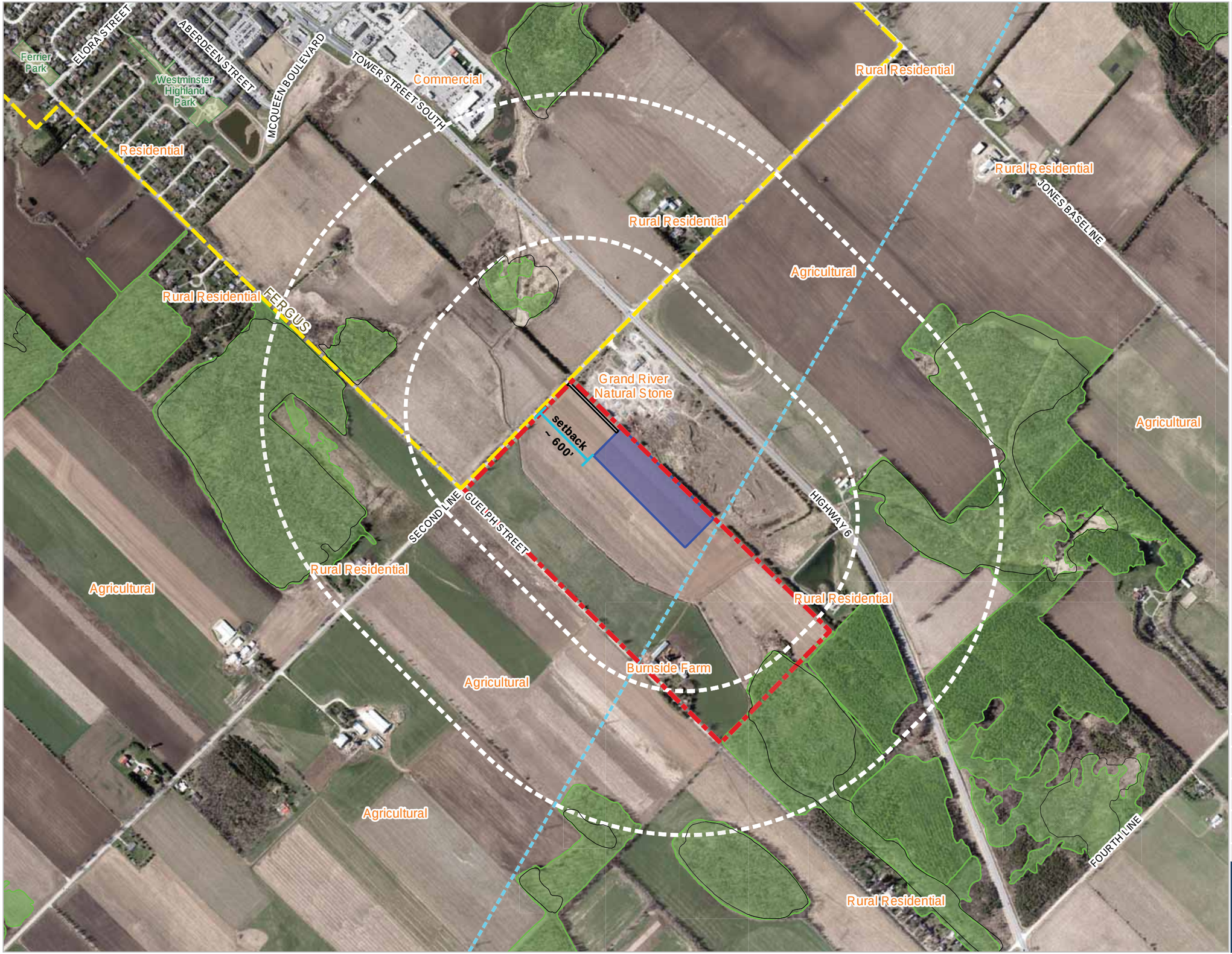
The purpose of this Agricultural Impact Assessment is to evaluate the alternative locations for the use in relation to policy 2.3.6.1 of the PPS as well as potential impacts on agriculture from the proposed BESS and to identify mitigation measures to abate these impacts to the extent feasible. Additionally, provided that BESS generally have a life of 25 years, this report is intended to provide information to support the preparation and implementation of an effective restoration plan following the end of the BESS operation.

As part of this AIA, surrounding agricultural land uses, operations and structures on properties within one kilometre of the subject lands have been documented to assess the potential impact from the proposed operation on the surrounding agricultural uses/operations and determine the extent of mitigation that may be required. Additionally, an evaluation of alternative locations was undertaken to determine whether the subject lands represent lower priority agricultural lands relative to other sites.

Baseline information about the soils provides an interpretation of the agricultural capability of the soil to produce various types of crops as well as provide useful information to assess impacts on soil resources.

Figure 1
Context Map

6235 Guelph St.
Township of Centre Wellington
Wellington County



LEGEND

- Subject Lands
- Project Area
- Potential Access Road
- Buffer (400m and 800m)
- Settlement Areas
- Park
- Significant Wooded Areas (Official Plan)
- D6V Transmission Line
- Grand Valley Conservation Authority

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Natural Heritage Map
Source: Ontario Ministry of Natural Resources and Forestry
https://www.ontario.ca/page/make-natural-heritage-area-map

Figure 2: Preliminary Siting Analysis Map

6235 Guelph Road
Lot 11, Concession 3, Geographic Township of Nichol, Centre Wellington, Wellington County

LEGEND

- The Township & County boundary
- D6V Transmission Line
- Areas not meeting environmental criteria
- Areas not meeting noise receptors proximity criteria
- Sites evaluated but not selected (refer to the following pages for details)
- Elora BESS project site selected

Project Siting Criteria:

- Direct access to D6V transmission line passing through CW Township (the project connection line not passing through natural heritage features or municipal roads)
- Transmission line distance 100-500m
- Outside of Conservation Areas
- Natural heritage features setback >30m
- Noise receptors proximity >150m
- No siting on Specialty Crops land
- Direct access to a Municipal Road
- Preliminary Geotech confirm the base requirements

Priority avoidance, where possible:

- Agricultural land
- Watercourse crossings
- Vegetation clearing
- Wildlife habitat impact

Source:
• Background Map: Ontario Ministry of Natural Resources

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Figure 3
Conceptual Site Plan

6235 Guelph St.
Township of Centre Wellington
Wellington County

LEGEND

- Parcel Boundary
- Project Boundary
- 24' Internal Road
- Proposed Fence
- Assumed Setback
- Substation Location

Notes:
- Measurements for building setbacks and street frontage are in metres and only approximate
- Basemap: 2022 Region of Waterloo Satellite Imagery

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2.0 Planning Policy Framework

Several key documents were reviewed as part of this Agricultural Impact Assessment to provide a comprehensive assessment of the policy framework from an agricultural perspective regarding the proposed BESS. The following is review of the land use policy framework related to the subject lands.

2.1 Provincial Policy Statement, 2020

The 2020 Provincial Policy Statement (PPS) was issued under Section 3 of the Planning Act and came into effect on May 1, 2020. The PPS establishes the policy foundation for regulating the development and use of land in the province and provides policy direction on matters of provincial interest related to land use planning and development. It provides a vision for land use planning in Ontario that encourages an efficient use of land, resources and public investment in infrastructure. The PPS strongly encourages development that will provide long-term prosperity, environmental health and social wellbeing. The 2020 PPS applies to planning decisions made on or after the effective date and applies to the consideration of the proposed Official Plan and Zoning By-law Amendment applications.

The PPS defines "Prime agricultural areas" as:

"*areas where prime agricultural lands predominate. This includes areas of prime agricultural lands in associated Canada Land Inventory Class 4 through 7 Lands, and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. Prime agricultural areas may be identified by the Ontario Ministry of Agriculture and Food using guidelines developed by the Province as amended from time to time. A prime agricultural area may also be identified through an alternative agricultural land evaluation system approved by the Province.*"

Further, the PPS defines Prime agricultural land as:

"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."

Based on a review of Canada Land Inventory mapping, the subject lands contain Class 1 soils, with a portion of Class 2 soils in the eastern portion of the lands and a portion of organic soil in the western portion of the site; the subject lands meet the PPS definition of prime agricultural lands. In accordance with Section 2.3.2 of the PPS, Wellington County designates prime agricultural lands within the County as 'Prime Agricultural', and the subject lands are within this designation

Further, the PPS defines specialty crop areas as:

"*areas designated using guidelines developed by the province, as amended from time to time. In these areas, specialty crops are the predominantly grown, such as tender fruits (peaches, cherries, and plums), grapes, other fruit crops, vegetable crops, greenhouse crops,*

and crops from agriculturally developed organic soil, usually resulting from:

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

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

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

The lands and surrounding areas have not been identified or designated as a specialty crop area by the province or the municipality and neither do the lands exhibit characteristics of a specialty crop production as defined by the PPS. Accordingly, the subject lands are not within a specialty crop area.

In prime agricultural areas, the PPS permits agriculture uses, agriculture-related uses and on-farm diversified uses. In accordance with the Provincial Policy all types, sizes and intensities of agricultural uses and normal farming practices are promoted and protected in prime agricultural areas.

Per Policy 2.3.6.1, the PPS only permits 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 provided for in policy 1.1.2 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.

Section 3.0 provides an evaluation of the project in the context of the above PPS tests for non-agricultural uses in prime agricultural areas.

Further, Policy 2.3.6.2 requires that impacts from any new or expanding non-agricultural uses on surrounding agricultural operations and lands be mitigated to the extent feasible. Section 7.0 of this report provides mitigation measures to help manage the interface of non-agricultural use with surrounding agricultural uses.

2.2 Provincial Policy Statement, 2024

The PPS 2024 was released on August 20th, 2024 and will take effect on October 20th, 2024. The new PPS integrates the Growth Plan and PPS into a single planning document that will apply province wide.

The new PPS introduces new policies that apply to energy storage systems. Specifically, energy storage systems are now included as a permitted use as on-farm diversified uses in prime agricultural areas.

The PPS now also provides a definition for 'energy storage system': *"…a system or facility that captures energy produced at one time for use at a later time to reduce imbalances between energy demand and energy production, including for example, flywheels, pumped hydro storage, hydrogen storage, fuels storage, compressed air storage, and battery storage."*

Once the PPS 2024 comes into effect, the proposed Elora BESS facility will be permitted on the subject lands as an on-farm diversified use, and no County Official Plan amendment will be required. Until October 20, 2024 the BESS facility is considered a non-agricultural use and an Official Plan amendment is required.

Policy 4.3.5.1 of the 2024 PPS, retains the same tests for non-agricultural uses in prime agricultural areas as Policy 2.3.6.1 of the PPS, 2020. As such, the analysis presented in Subsection 2.0 and Section 7.0 of this Report demonstrate the consistency of the proposed development with the PPS, 2024.

Additionally, this Agricultural Impact Assessment fulfils the requirement provided in Policy 4.3.5.2 of the PPS, 2024 that "*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*".

2.3 The Growth Plan for the Greater Golden Horseshoe

The 2020 A Place to Grow: Growth Plan for the Greater Golden Horseshoe ('A Place to Grow') came into effect on August 28, 2020. This Plan is the framework for implementing the Provincial Government's initiative to plan for growth and development in a way that supports economic prosperity, protects the environment, and helps the communities achieve a high quality of life. Any planning decisions made for lands in the Greater Golden Horseshoe growth plan area must conform to the policies of the Growth Plan. As noted above, the Growth Plan will be replaced by the new 2024 PPS on October 20, 2024. However, the following review is intended to demonstrate conformity with the Growth Plan that is currently in effect.

The Growth Plan advocates for a balanced approach to the wise use and management of all resources, including those related to water, natural heritage, agriculture, cultural heritage, and mineral aggregates.

Policy 4.2.6 of the Growth Plan requires that the Province identify an Agricultural System for the Greater Golden Horseshoe and that prime agricultural areas, including specialty crop areas, be designated in accordance with mapping identified by the Province. These areas will be protected for their long-term agricultural use. The Growth Plan provides the following description of an agricultural system:

"*The system mapped and issued by the Province in accordance with this Plan, comprised of a group of inter-connected elements that collectively create a viable, thriving agricultural sector. It has two components:*

1. *An agricultural land base comprised of prime agricultural*

areas, including specialty crop areas, and rural lands that together create a continuous productive land base for agriculture;

2. *An agri-food network which includes infrastructure, services, and assets important to the viability of the agri-food sector."*

As shown in **Figure 4**, the subject lands are identified as Prime Agricultural Area on the Province's Agricultural Land Base mapping. Per policy 4.2.6.3, this mapping is not applied to the subject lands until it is implemented by the County of Wellington. The County is in the process of reviewing the Agricultural System Mapping and related policy but has not yet implemented it in their Official Plan. Until the Agricultural System Mapping is implemented, prime agricultural areas identified in upper-and single-tier official plans that were approved and in effect as of July 1, 2017, will be considered the agricultural land base for the purposes of this Plan. The subject lands are mapped within a prime agricultural area per the County Official Plan.

Policy 4.2.6.3 states that when agricultural uses and non-agricultural uses interface outside of settlement areas, land use compatibility will be achieved by avoiding or where avoidance is not possible, minimizing and mitigating adverse impacts on the Agricultural System. Where mitigation is required, measures should be incorporated as part of the non-agricultural uses, as appropriate, within the area being developed. Section 7.0 of this report provides mitigation measures to manage how the proposed non-agricultural use will interface with the surrounding agricultural uses.

2.4 County of Wellington Official Plan

The County of Wellington Official Plan provides direction over the next 20 years to the physical development of the County, its local municipalities and to the long-term protection of County resources.

The subject property is currently designated "Prime Agricultural" on Schedule B1. Until the new PPS comes into effect on October 24, 2024, and permits the BESS as an on-farm diversified use, the BESS facility is not permitted in the Prime Agricultural designation. At the time of writing this report, the BESS is considered a utility use in the Official Plan. The Official Plan provides that utility uses are not permitted in the "Prime Agriculture" designation, nor are they permitted as secondary uses (on-farm diversified uses). Therefore, an amendment to the Official Plan is required to add a site-specific policy permitting the BESS as a limited non-agricultural use in a prime agricultural area.

Like the PPS, the Official Plan permits limited non-residential uses in prime agricultural areas if the need for the use can be demonstrated and if there are no reasonable alternative locations which avoid prime agricultural areas with lower priority agricultural lands [Policy 4.3.3c)]. Additionally, compliance with minimum distance established for livestock operations is required.

Regarding an analysis of need, the Official Plan provides the following considerations:

- 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; and,
- Need for a variety of opportunities to encourage economic development and satisfy housing and business demand.

Regarding an assessment of alternative locations, the Official Plan provides the following criteria to be addressed:

- Impacts on agricultural land and operations;
- Location requirements of the proposed use;
- Degree of land fragmentation in the area; and,
- Canada Land Inventory classification.

Section 3.0 of this report provides an evaluation of the project in the context of the above assessment criteria for non-agricultural uses in prime agricultural areas.

2.5 Township of Wellington Official Plan

The County is a two-tier government structure with a County government and seven local municipalities. The County Official Plan sets out County-wide overarching land use designations, policies and objectives for growth and development. There are local municipal Official Plans in effect for two of the larger municipalities, including Centre Wellington.The Township of Centre Wellington Official Plan only applies to the Elora and Fergus Urban Centres; the Township Official Plan does not apply to the subject lands. The Township Official Plan Schedule A1 illustrates the approved Fergus Boundary expansion directly north of the subject lands.

2.6 Township of Centre Wellington Zoning By-law

The subject lands are zoned "Agricultural" in Zoning By-law 2009-045. The Zoning By-law does not permit utility uses in the agricultural zone. To facilitate the proposed development, an amendment is required to add a site-specific provision allowing for the establishment of the BESS on a portion of the property. Further discussion regarding the proposed zoning can be found in the Planning Justification Report.

Figure 4: GGH Agricultural Land Base Mapping

6235 Guelph Road
Lot 11, Concession 3, Geographic Township of Nichol, Centre Wellington, Wellington County

LEGEND

Potential Sites
- Subject Lands
- Potential Site
- Urban Centres

Agricultural Land Base GGH
- Specialty Crop Area
- Prime Agricultural Area
- Candidate Area
- D6V Transmisison Line

Source:
- Ministry of Natural Resources and Forestry (c) 2024
- Ministry of Municipal Affairs (c) 2024
(c) King's Printer for Ontario, 2024

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3.0 Non-Agricultural Uses in Prime Agricultural Areas

Consistent with the 2020 Provincial Policy Statement, and in conformity with the Official Plan, proposed non-agricultural uses within prime agricultural areas must demonstrate:

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 provided for in policy 1.1.2 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.*

This section provides an evaluation of the proposed Elora BESS as it relates to the above policy tests. Demonstration of need and assessment of alternatives will include a review of the criteria in the County Official Plan

3.1 Specialty Crop Area

As described above, the PPS defines specialty crop areas as:

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

- *d) Soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;*
- *e) Farmers skilled in the production of specialty crops; and*
- *f) A long-term investment of capital in areas such as crops, drainage, infrastructure and related facilities and services to produce, store, or process specialty crops."*

The lands and surrounding areas have not been identified or designated as a specialty crop area by the province or the municipality. The lands also do not exhibit characteristics of a specialty crop production as defined by the PPS. The soils

have not been identified to have specific suitability for specialty crops, nor is there a history of specialty crops being grown on the lands. Additionally, the portion of lands proposed to be utilized for the BESS facility does not contain evidence of long-term investment of capital. There is no tile drainage, constructed drain, or farm buildings within the portion of lands proposed for development. Accordingly, the subject lands are not within a specialty crop area.

3.2 Minimum Distance Separation Formula

The Provincial Policy Statement, 2020 and the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Minimum Distance Separation (MDS) Document – Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks Publication 853 (herein referred to as the MDS Guidelines) define infrastructure as *"Physical structures (**facilities** and corridors) that form the foundation for development. Infrastructure includes: sewage and water systems, septage treatment systems, stormwater management systems, waste management systems, electricity generation facilities, **electricity** transmission and **distribution systems,** communications/telecommunications, transit and transportation corridors and facilities, and oil and gas pipelines and associated facilities".*

MDS Guideline #3 specifically states that both MDS I and MDS II setbacks are not required for infrastructure. As such, the development of infrastructure, such as a BESS, would not constrain the future expansion or development of nearby livestock facilities.

Given that, once constructed, BESS facilities require only routine maintenance and can be monitored remotely (no employees working on-site), it is logical that there would not be any concern for land use conflict due to agriculture-related odour.

3.3 Demonstration of Needs

To permit non-agricultural uses in prime agricultural areas, the PPS, 2020 requires demonstration of *identified need within the planning horizon for additional land to accommodate the proposed use.* Additionally, the County Official Plan requires that proposed non-agricultural uses within prime agricultural area demonstrate need with consideration of the following elements:

- 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; and,
- Need for a variety of opportunities to encourage economic development and satisfy housing and business demand.

This subsection provides an evaluation of need with respect to these policies.

The IESO's 2024 Annual Planning Outlook[1] forecasts that Ontario's total electricity demand

[1] IESO. (2024). Reliability Outlook: An adequacy assessment of Ontario's electricity system. https://www.ieso.ca/en/Sector-Participants/Planning-and-Forecasting/Reliability-Outlook

will increase by 60 per cent over the next 25 years. Continuing to build a reliable, affordable and sustainable electricity system is critical. The IESO's Long-Term 1 Request for Proposals (LT1 RFP) is one of several mechanisms for supporting Ontario's electricity needs. The Elora BESS project was one of 10 battery energy storage facilities that IESO awarded a contract to.

BESS facilities support Ontario's clean electricity grid by drawing and storing energy off-peak when power demand is low and hydro and wind renewable generation is high. The IESO release the energy back to the system at times of higher demand, which is when natural gas generation plants across the rovince are dispatched by IESO. BESS provides increased flexibility and reduces the reliance on fossil fuel-based generation like natural gas.

Consistent access to electricity is an important component of modern life with benefits to public health and safety, economic development, transportation, and many other facets of our communities. The proposed PPS 2024 recognizes the emerging need for energy storage facilities in Ontario. Specifically, Policy 3.8.1 of the draft PPS proposes that planning authorities "*provide opportunities for the development of energy supply including electricity generation facilities and transmission and distribution systems, energy storage systems, district energy, and renewable energy systems and alternative energy systems, to accommodate current and projected needs*".

Increased energy and capacity can support growth and development, ensuring that there is consistent service availability for growing communities. This is especially important given that the province is experiencing rapid population growth, with projections

anticipating an increase in population of 43.6 per cent from 2022 to 2046[2]. Centre Wellington is anticipated to accommodate nearly half (44%) of Wellington County's population growth, with a projected annual population growth rate of 2.0% (between 2016 to 2051)[3]. Provided this, the proposed Elora BESS can help accommodate the energy needs of Centre Wellington, Wellington County, and the province, supporting opportunities for housing and economic growth and development.

With respect to public health and safety on a broad scale, energy storage provides an opportunity to support and leverage renewable energy generation and assists with decarbonizing. Additionally, energy storage provides more reliability to the electricity supply, including back-up power to communities, homes and businesses during emergencies which can be crucial to public safety.

Specific to local safety, BESS are not identified as a threat to human health. Rather, BESS can reduce air pollution from conventional power plants or emergency backup generators that burn fossil fuels by reducing the need for these resources. Lithium-ion batteries do contain flammable electrolytes that have the potential to catch fire. Reducing risk of fire is therefore an important consideration for both municipalities and project proponents. The BESS is designed with safety features to address these concerns, including cooling systems and real time temperature monitoring. BESS facilities are also required to have Fire Safety Plan and Emergency Response Plan as part of authorities having jurisdiction, including Centre Wellington

[2] Ontario. (July 19, 2023). Ontario population projections. https://www.ontario.ca/page/ontario-population-projections

[3] Watson & Associates Economists Ltd. (2022). Wellington County Phase 1 MCR Addendum Report: Urban Structure and Growth Allocations. https://www.wellington.ca/en/resident-services/resources/Planning/Official-Plan/Official-Plan-Review/Wellington-County-MCR-Phase-1-Final-Report-as-amended-January-31-2022.pdf

Fire Services. While fire risk has been greatly mitigated due to technological advancement, as a precaution the location of the proposed Elora BESS is well removed and buffered from any sensitive uses. This level of separation would be difficult to achieve in existing industrial areas with industrial zone permissions.

The Centre Wellington Zoning By-law does not recognize BESS facilities as they are a relatively new concept both locally and broadly. The most similar use would be 'Public Utility' which is permitted in the Service Industrial (M1) and General Industrial (M2) zone categories. While industrial lands are available in the Township of Centre Wellington (82 hectares of vacant employment lands in 2019[4]), BESS have specific siting requirements;

and they cannot be sited on any vacant industrial lot. BESS must connect to the existing grid, and to transmission lines with adequate carrying capacity to accommodate the withdrawal and injection of energy. A requirement for the proposed BESS facility is that it must connect to the D6V line that runs through the Township as it has the capacity to support the BESS interconnection. The only lands meeting this criterion are zoned for agricultural use and identified as Prime Agricultural Land.

Overall, the Province has recognized the need for BESS systems to provide reliability to the electricity sector. The new 2024 PPS recognizes BESS, with specific direction that planning authorities provide opportunities for these facilities. BESS facilities can support growth and development by ensuring that there is a reliable electricity system available for our growing communities. Additionally, public health and safety has been considered in the siting of the proposed Elora BESS facility.

3.4 Alternative Locations Analysis

To permit non-agricultural uses in prime agricultural areas, the 2020 PPS requires an evaluation of alternative locations that demonstrates: *(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.* OMAFRA's 'Evaluating Alternative Locations for Non-Agricultural Uses' guidance in Publication 851, outlines the following hierarchy to direct non-agricultural uses in rural areas:

1) Avoid specialty crop areas
2) If possible, avoid other prime agricultural areas
3) If 2) is not achievable, evaluate Lower Priority Agricultural Lands

Additionally, the County of Wellington Official Plan requires that the following criteria be addressed in the alternatives analysis:

- Impacts on agricultural land and operations;
- Location requirements of the proposed use;
- Degree of land fragmentation in the area; and,
- Canada Land Inventory classification.

[4] Watson & Associates Economists Ltd. (2022). Phase 2 MCR Report: Urban Land Needs Assessment Wellington County. https://www.wellington.ca/en/resident-services/resources/Planning/Official-Plan/Official-Plan-Review/Wellington-County-Phase-2-Final-MCR-Report-8.29.22.pdf

These criteria will be addressed within the hierarchy outlined by OMAFRA.

Avoid Specialty Crop Areas

The Province's Agricultural Systems mapping does not indicate the presence of any Specialty Crop Areas within Wellington County (see subsection 3.1 above for more detail). As such, the Elora BESS site and alternatives avoid Specialty Crop Areas.

Avoid Other Prime Agricultural Areas (if possible)

As described in the overview of the BESS siting process, the Elora BESS facility needs to be located with direct access to the D6V transmission line passing through the Township of Centre Wellington (within the rural area). The facility also needs to be separated from sensitive noise receptors and setback from natural heritage features (screening out lands designated/zoned Environmental Protection). Given these constraints, feasible sites along the D6V are designated Prime Agricultural and zoned Agricultural which comprise the County's Prime Agricultural Area (see **Figure 5**). Further, the potential sites all predominantly contain Canada Land Inventory Class 1-3 soils (see **Figure 6**). Due to the location requirements of the proposed use, it is not possible to avoid prime agricultural areas in the Township.

If Avoiding Prime Agricultural Areas is not Achievable, Evaluate Lower Prioerity Agricultural Lands

OMAFRA's guidance on 'Evaluating Alternative Locations for Non-Agricultural Uses', as derived from their 'Guidelines on Permitted Uses in Ontario's Prime Agricultural Areas', provides that the following areas may be considered lower priority agricultural lands within prime agricultural areas:

- **Areas along transportation corridors** where disturbances to agriculture would be minor
- **Areas adjacent to other non-agricultural uses** (e.g., settlement areas or other existing non-agricultural uses) to cluster non-agricultural uses and avoid scattered non-agricultural development
- **Areas zoned for non-agricultural uses**
- **Land not used, or underutilized, for agriculture**, such as:
    - Lower quality land based on Canada Land Inventory ratings (e.g. non-prime agricultural land classes 4 to 7, or, where all land is prime agricultural land, relatively lower quality land in the area)
    - Disturbed land (e.g., former abandoned aggregate sites or brownfield sites)
    - Highly fragmented areas (e.g. small parcels, non-agricultural uses present)
    - Relatively small area in active agricultural use

Additionally, OMAFRA's guidance recommends that the following areas be avoided for non-agricultural development:

- **large blocks of designated prime agricultural area or prime agricultural land**
- areas where major investments have been made into agriculture, such as:

- **elements of the agri-food network** including infrastructure, services and assets important to the viability of the agri-food sector (e.g., grain handling facilities, food processors, greenhouses, distribution centres, areas with drainage tile [priority for protection is systematic, random, no tiles])
- concentrations of **livestock facilities**
- **areas with perennial crops** having long establishment times

An evaluation of the nine sites identified in Aypa's Regional Selection Process indicates that the selected site represents lower priority agricultural land. This evaluation is outlined in **Table 1** below, shown in **Figure 7**, and provided in more detail in the Alternatives Analysis table in **Appendix A**.

To summarise the evaluation, Site 7 constitutes lower priority agricultural lands due to the following qualities:

- **Proximal to Provincial Highway 6 transportation corridor** – the subject lands are located approximately 230 metres west of Highway 6 which indicates existing fragmentation of the lands from the agricultural lands east of Highway 6.
- **Adjacent to a non-agricultural use** – a landscape depot is located between the subject lands and Highway 6. The BESS facility is proposed adjacent to this depot, in the northeast corner of the subject lands; the proposed facility will be clustered with the existing adjacent non-agricultural use. The Fergus Settlement Boundary is located just north of the subject lands indicating planned transition to non-agricultural uses just north of the site which will also limits the range of future agricultural uses in the area (for example, expansion of livestock operations due to encroachment of MDS setbacks).
- **Minimal major investments into agriculture** – the subject lands do not contain constructed tile drainage. Additionally, the lands are among the sites with the lowest number (5) of livestock facilities within 1,000 metres (distance based on MDS investigation distance). The BESS facility is proposed on the opposite corner of the site from the existing livestock buildings and pasture on the lands; the livestock facility can continue to operate despite the establishment of the BESS. Additionally, no other elements of the agri-food network such as grain handling facilities, food processors, greenhouses, and/or distribution centres are present on the lands or nearby. Based on this, the proposed use is not anticipated to diminish existing investments in agriculture on the subject lands or nearby.

There are no feasible alternative locations for the Elora BESS facility on lands that are not prime agricultural due to requirements for the site to be within 500 metres of the D6V transmission line, outside of natural features and conservation areas, 150 metres from sensitive noise receptors, and with direct access to a municipal road. Since prime agricultural lands cannot be avoided, the focus of the analysis turns to determining the lower agricultural priority sites.

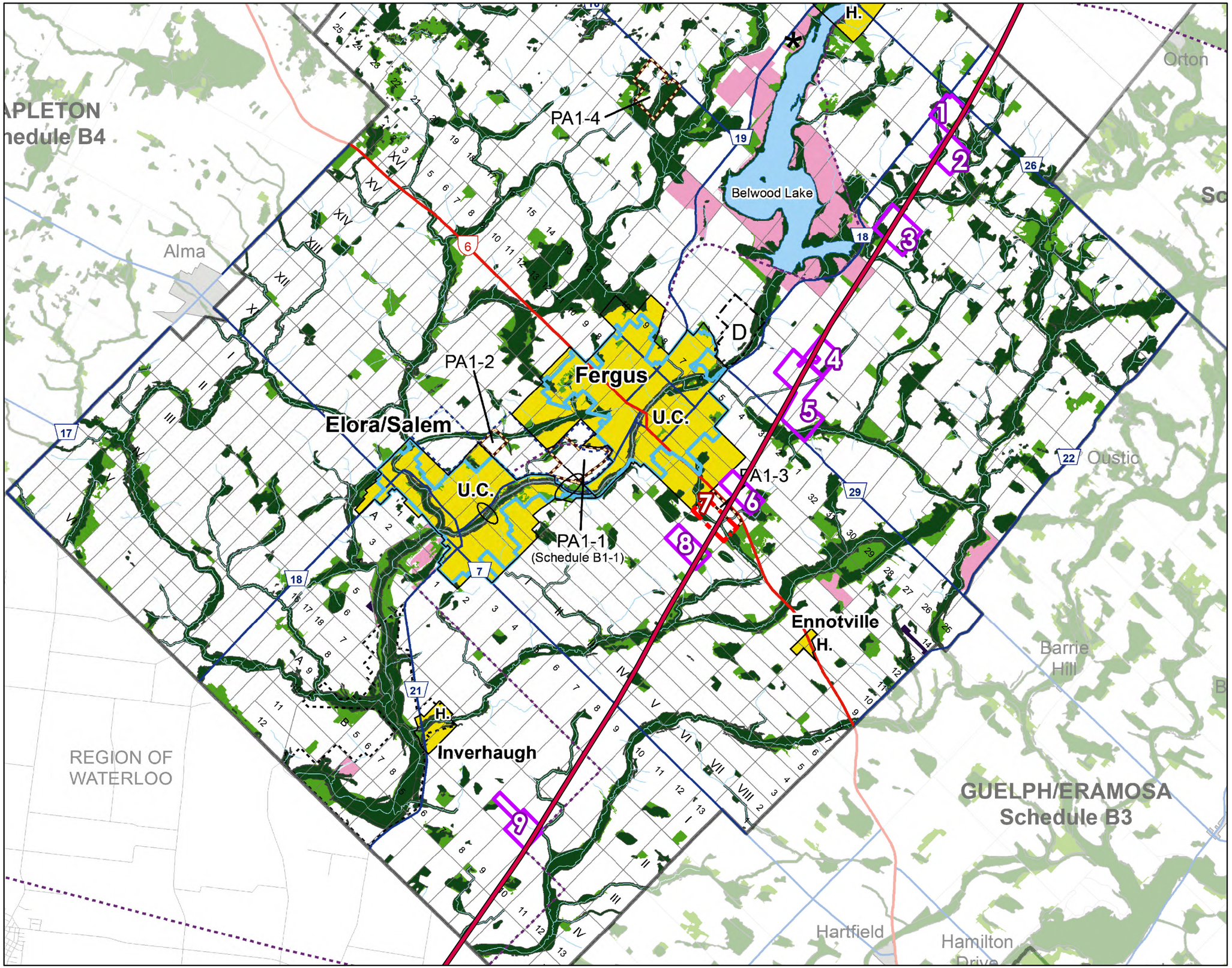
Sites 1, 2, and 3 have the lowest capability soils (Classes 3, 2, and 3 respectively) of the potential

sites. Relative to Site 1, Site 7 is in an area of greater fragmentation, is surrounded by fewer active livestock operations (4 operations vs. 10) and is located adjacent to the Fergus settlement area boundary to the north and an existing non-agricultural use and Highway 6 to the east. In contrast, Site 1 is situated within an area of lowest fragmentation of the potential sites and is in proximity to the greatest number of active livestock facilities of all the potential sites. Relative to Site 2, Site 7 is in an area of greater fragmentation, is surrounded by fewer active livestock operations, and in proximity to areas of existing/future non-agricultural uses (Fergus settlement area and landscape depot) and a major transportation corridor (Highway 6). Relative to Site 3, Site 7 is in proximity to fewer active livestock operations, greater existing/planned non-agricultural uses, and a major transportation corridor. As such, through a holistic review of the criteria provided by OMAFRA to determine lower priority agricultural lands, Site 7 emerges as lower priority relative to Sites 1 and 3 being the sites with the lowest soil capability. Based on our evaluation, Site 7 stands out as the preferred lower agricultural priority location.

Table 1. Evaluation of Alternative Locations based on OMAFRA criteria										
Site	Proximal to transportation corridor (provincial highway/county roads <250 metres away)	Adjacent to other non-agricultural uses	Areas zoned for non-agricultural use	Dominant CLI Class	Highly fragmented area	Relatively small area in active agricultural use	Disturbed land	# of active livestock facilities within 1000 m (& on-site)	Perennial crops	Contains elements of agri-food network/ agricultural infrastructure
Site 1 – 8615 Wellington Rd 18	Y	N	N	3	N	N	N	10	N	N
Site 2 – 6319 Sixth Line	N	N	N	2	N	N	N	5	N	N
Site 3 – 6328 Fifth Line	N	N	N	3	Y	N	N	6	N	Y
Site 4 – 6287 Second Line	N	N	N	1	N	N	N	4	N	Y
Site 5 – 6332 Second Line	Y	Y	N	1	Y	N	N	11	N	Y
Site 6 – PIN 232600002003200	Y	N	N	1	Y	N	N	6	N	Y
Site 7 – 6235 Guelph Street	Y	Y	N	1	Y	N	N	5	N	N
Site 8 – 7711 Second Line	N	N	N	1	Y	N	N	7	N	Y
Site 9 – 7244 Sideroad 10.	N	N	N	1	Y	N	N	6	N	Y
**green shading denotes criteria that indicate lower priority agricultural lands per OMAFRA guidance on 'Evaluating Alternative Locations for Non-Agricultural Uses'*										

Figure 5: Wellington County Official Plan, Schedule B1: Land Use Plan – Potential Sites

6235 Guelph Road
Lot 11, Concession 3, Geographic Township of Nichol, Centre Wellington, Wellington County



LEGEND

Potential Sites
- Subject Lands
- Potential Site
- D6V Transmisison Line

The Greenlands System
- Core Greenlands
- Greenlands
- Earth Science ANSI

The Rural System
- Prime Agricultural
- Policy Area (PA)

The Urban System
- Primary Urban Centre (U.C.)

Other
- County Roads
- Provincial Highways
- Built Boundary
- Waterbody
- Watercourse

Source:
- County of Wellington (c) 2024
- Ministry of Natural Resources and Forestry (c) 2024
- Grand River Conservation Authority (c) 2024
(c) King's Printer for Ontario, 2024

Date:	July 2024
File:	23405A
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Figure 6: Canada Land Inventory Soils Map – Potential Sites

6235 Guelph Road
Lot 11, Concession 3, Geographic Township of Nichol, Centre Wellington, Wellington County

LEGEND

Potential Sites

- Subject Lands
- Potential Site

Soil Classification (CLI1)

- Unclassified
- Class 1
- Class 2
- Class 3
- Class 4
- Class 5
- Class 6
- Class 7
- Organic Soils
- Water
- Urban Centres
- D6V Transmisison Line

Source:
• Background Soils Map: Ontario Ministry of Natural Resources

Date:	July 2024
File:	23405A
Scale:	1:82,000
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Figure 7: Alternatives Analysis of Potential Sites

6235 Guelph Road
Lot 11, Concession 3, Geographic Township of Nichol, Centre Wellington, Wellington County

LEGEND

Potential Sites
- Subject Lands
- Potential Site

1 km Buffer
- Subject Lands
- Potential Site
- Livestock Facilities
- Urban Centres
- Property Parcels
- D6V Transmisison Line

Source:
• Background Map: Ontario Ministry of Natural Resources

Date:	July 2024
File:	23405A
Scale:	1:82,000
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4.0 Focused Study Area

Once the alternatives analysis was conducted, a more focused agricultural land assessment was carried out based on a study area comprised of a 'Primary Study Area' and 'Secondary Study Area'. The Primary Study Area is comprised of the subject lands. The Secondary Study Area encompasses a radius of 1.5 kilometers from the subject lands that has the potential to be directly and indirectly impacted by the proposed BESS.

A plan identifying the adjacent properties, existing crops, and existing barns within the study area is included as **Figure 8** of this report. The inventory of existing agricultural land uses, cropping practices and structures is based on observations made during a site visit completed on June 13th 2024, review of air photography and input from the current landowner. A review of 2021, 2016, and 2011 Census of Agriculture data was also undertaken to confirm if the Study Areas are representative of agricultural production patterns and livestock types in the broader region.

4.1 Primary Study Area

Based on the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) 'Draft Agricultural Impact Assessment (AIA) Guidance Document' (herein referred to as 'OMAFRA AIA Guidelines'), the primary study area when conducting an Agricultural Impact Assessment for non-agricultural uses comprises the area where the proposed use is considered. To better understand the potential impacts of the BESS facility on the agricultural operation of the lands, the primary study area has been extended to include the entirety of the subject lands.

Provincial mapping identifies the subject lands as containing predominantly Canada Land Inventory (CLI) Class 1 soils. Class 1 soils have no significant limitation in use for crops. Agricultural uses within the primary study area consist of typical cash crop, hay, and cattle (beef) production. In terms of agricultural structures, a barn is present within the southwestern corner of the subject lands. There is no visible sign of extensive agricultural improvements to the lands or structures (e.g. new fencing, tile drainage). The barn on the subject lands is in the opposite corner from the proposed site for the BESS facility. The hay field, pastureland, and barn can be maintained under active agricultural production during operation of the BESS facility. Much of the current corn field can continue under crop production as well, apart from the approximate 4 hectares where the BESS facility is proposed. No extensive land improvement investment such as tile drainage, irrigation or other specialized cropping practices or equipment were observed or are documented within the Primary Study Area.

4.2 Secondary Study Area

According to the OMAFRA AIA Guidelines, the secondary study area should include lands that will be potentially impacted by the development and should, at a minimum, include lands adjacent to the primary study area. The extent of the secondary study area varies depending on the scale and extent of the proposed use and on agriculture in the surrounding area. To be conservative, the secondary study area for this AIA includes lands within 1.5 kilometers of the proposed BESS site footprint.

As shown on **Figure 8**, the predominant land use within the secondary study area is agricultural (cash crops and livestock) to the south and west. Lands to the north are currently under agricultural production but have been recently introduced into the Fergus settlement area; these lands are not intended for agricultural use in the long term. Directly to the east of the subject lands is a landscape depot (Grand River Natural Stone). Surrounding crops include corn, soy, and hay. Several livestock operations are within the Secondary Study Area including several dairy operations to the west and several horse stables (southeast).

Based on the site visit, the agricultural lands within the Primary and Secondary Study Areas reflect typical agricultural cropping practices that are predominant throughout southern and central Ontario (soybean, corn rotation and forage production). No specialized cropping practices or equipment were observed or are documented within the Secondary Study Area. Based on OMAFRA'S AgMaps, tile drainage is present on many agricultural lots within the Secondary Study Area.

There is some large-scale livestock production in proximity to the study area, notably a poultry operation and dairy operation west of the subject lands and a dairy farm to the north-west. Both operations are confined to barns and well separated from the proposed facility. Additionally, what appears to be a new dairy facility is located southeast of the subject lands. There is also some smaller-scale livestock production to the east, and west; these operations are well setback and separated from the proposed facility. In addition to the farm operations referenced in **Figure 8**, there are several rural residential lots within the Secondary Study Area that were likely created through rural residential severances.

Overall, the Secondary Study Area is representative of normal livestock and cropping practices for this area.

4.3 Census of Agriculture & Ontario Business, Agri-Food and Farm Data Profile for Centre Wellington

The 2021, 2016, and 2011 Census of Agriculture and OMAFRA's Ontario business, agri-food, and farm data profile for Wellington County were reviewed to provide an overview of agricultural production patterns and parcel size in the County. Additionally, North American Industry Classification System (NAICS) data for 2011, 2016, and 2021 were utilized to determine trends in agricultural industry classification (farm types) within the County.

In terms of parcel size, in 2021 most farms (28.4%) were within the 70–129-acre farm size, followed by 23.1% of farms falling in the 69–160-acre range[5]. The amount of land in crop production has increased since 2011 from 18,785[6] acres to 20,431[7] acres, representing an increase in cropland of 8.1%.

The most common type of crop production in the County of Wellington is oilseed and grain farming (26.9%), predominantly soybean farming (37.1%), other grain farming (31.0%), corn farming (18.6%), and wheat farming (12.5%). This industry has grown over the last 10 years with a 46.7% increase in the number of oilseed and grain farms from 2011 to 2021.

[5] Table 32-10-0232-01 Farms classified by total farm area, Census of Agriculture, 2021

[6] Table 32-10-0406-01 Land use, Census of Agriculture, 2011 and 2016, inactive

[7] Table 32-10-0249-01 Land use, Census of Agriculture, 2021

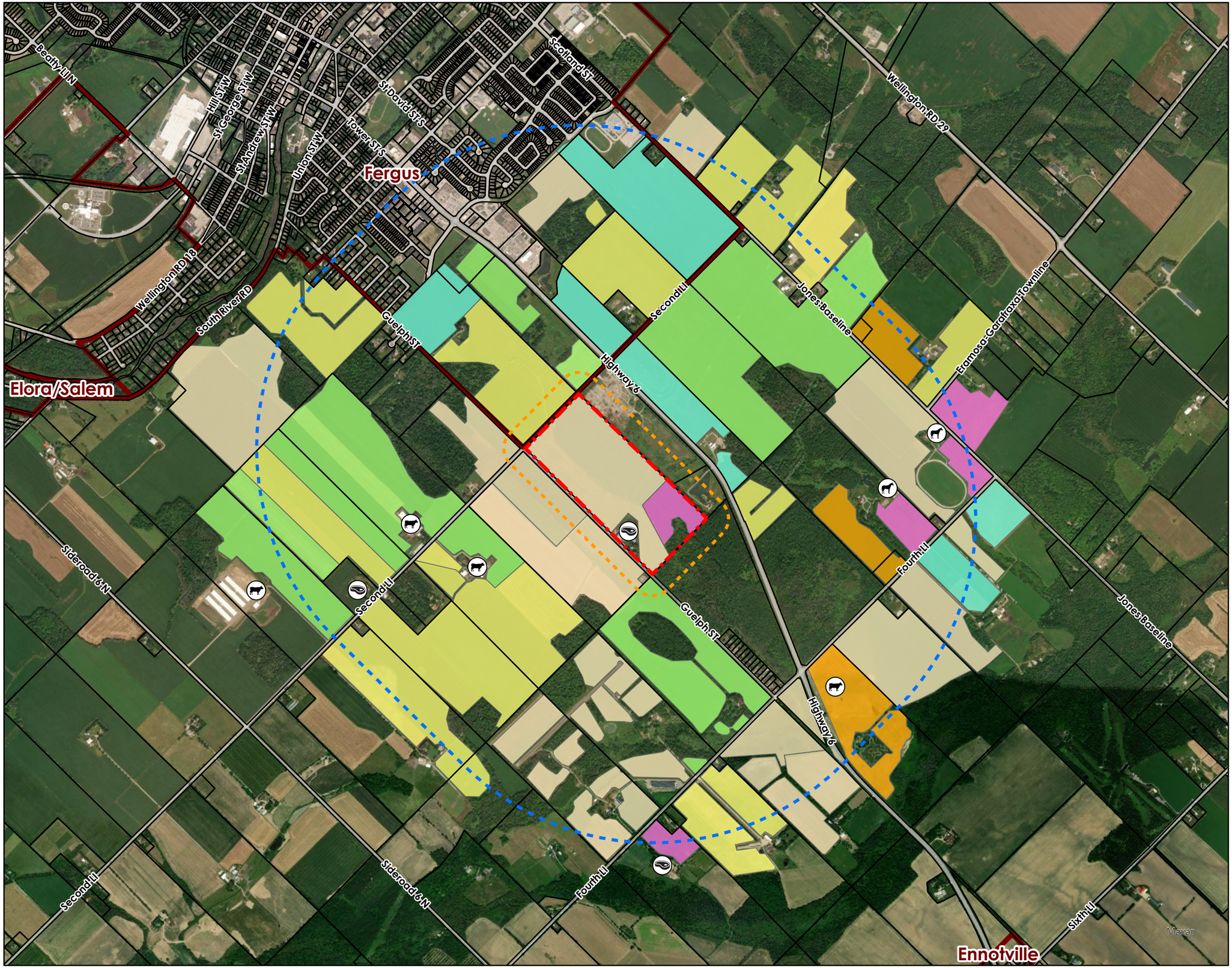
The next most common farm type in the County is other crop farming which constituted 8.1% of total farms in 2021, 62.3% of which was hay farming, and 27.4% miscellaneous crop farming. Other crop farming has experienced a 16.0% decline in the number of farms over the last 10 years. Overall, the large amount of oilseed and grain farming and identification of several hay fields within the primary and secondary study area is reflective of agricultural patterns throughout the Wellington County. The proposed BESS facility is not poised to contribute to the trend of reduction in number of farms under hay production; the portion of the subject lands currently under hay production is not proposed for removal.

In terms of livestock, cattle ranching and farming comprised 33.5% of farms (of which 57.4% of farms were beef cattle and 42.6% dairy cattle) in Wellington County. Using these metrics, cattle farming has exhibited a 10.4% increase over the last 10 years. Six cattle farming operations were observed within the study area, including one beef cattle operation on the subject lands. The existing cattle operation on the subject lands is not proposed to be removed because of the BESS facility. Other animal farming comprised 12% of farms within the County, primarily horse and other equine production (53.2%) followed by animal combination farming (32.8%). Two active equine farms were observed within the study area. No combination animal farming was observed.

Based on the site visits, the agricultural activities within the Primary and Secondary Study Areas appear to be indicative of broader agricultural trends in Wellington County. The surrounding crops include typical cash crops such as soybean, corn, and wheat, as well as hay. Surrounding livestock includes dairy cattle, beef cattle, poultry, and horses. Both the Primary and Secondary Study Areas are representative of normal agricultural production for this area and do not consist of specialized farming practices or specialty crops.

Figure 8: Agricultural Land Use

6235 Guelph Road
Lot 11, Concession 3, Geographic Township of Nichol, Centre Wellington, Wellington County



LEGEND

- Wellington_Parcels_July2024
- Subject Lands
- Primary Study Area (120m)
- Secondary Study Area (1.5km)
- Settlement Boundary
- Corn farming
- Fallow
- Hay farming
- Soybean farming
- Wheat farming
- Pasture
- Beef cattle ranching and farming, including feedlots
- Dairy cattle and milk production
- Horse and other equine production

Source:
• Land use information based on site visit June, 2024

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5.0 Assessment of Impacts to Agriculture

5.1 Reduction/Loss of Agricultural Land and Infrastructure

The Elora BESS is proposed on approximately 4 hectares (10 acres) of land currently in agricultural production (cash crops) with an average soil capability of CLI Class 1 soils. There is no removal of agricultural structures proposed, nor will the use occur on lands with artificial agricultural drainage; no loss of agricultural structures, land improvements, infrastructure, services, or assets is associated with the proposed BESS. The type and nature of the agricultural uses on the subject lands are typical of Wellington County, as confirmed through a review of 2021 and 2016 Census of Agriculture and OMAFRA's Ontario business, agri-food, and farm data profile for Wellington County. The portion of land that will accommodate the BESS facility currently has corn planted, which is common for the area.

5.2 Fragmentation of Agricultural Lands

Agriculture uses and activities benefit from being adjacent to the other agricultural operations and if lands are fragmented, there is potential to negatively impact farming practices on the isolated farm parcels. The proposed Elora BESS will not result in creating isolated agricultural lands as it is an interim use and will be returned to agricultural production following the end of BESS life. In the interim, the BESS facility is proposed to be sited towards the northeast corner of the site adjacent to the landscape depot and the Fergus settlement area boundary.

5.3 Compatibility Impacts

The proposed BESS facility does not pose significant compatibility concerns to normal farm practices. Once constructed, there will be minimal activity at the site apart from routine maintenance, and nuisance complaints are therefore not anticipated. Similarly, issues with vandalism and trespassing are not expected as the site will be secured via 24/7 surveillance and monitoring as well as a security gate at the facility entrance. Education to reduce these risks has been recommended, such as through training for construction and maintenance personnel and the erection of signage at the site entrance to warn against trespassing and encourage considerate behaviour towards farm equipment on roadways.

5.4 Economic and Community Impacts

The portion of the lands to be leased does not contain infrastructure or services that are important to the surrounding farm community. Additionally, the proposed facility is only an interim use and, as described above, will not

result in fragmentation of the agricultural land base to the detriment of the farming community. The site also does not produce a commodity that the surrounding agricultural community or agri-tourism industry depends on; rather, corn fields are common within the study areas and the broader County. Overall, no economic nor community impacts are anticipated due to the minor, temporary reduction in agricultural land where the BESS facility is proposed to be sited.

5.5 Noise Impacts

A Noise Study has been prepared by Stantec Consulting Ltd. (July 8, 2024) to evaluate noise impacts and to recommend mitigation measures. The study concludes that with the noise attenuation measures in place for the Inverters, the project is expected to comply with the applicable noise limits as per NPC-300.

6.0 Mitigatin Measures

The PPS 2020 (Policy 2.3.6.2) requires that impacts from any new or expanding non-agricultural uses on surrounding agricultural operations and lands be mitigated to the extent feasible. Additionally, the Growth Plan (Policy 4.2.6) states that when agricultural uses and non-agricultural uses interface outside of settlement areas, land use compatibility will be achieved by avoiding or where avoidance is not possible, minimizing and mitigating adverse impacts on the Agricultural System

6.1 Avoidance

The PPS 2020 (Policy 2.3.6.2) requires that impacts from any new or expanding non-agricultural uses on surrounding agricultural operations and lands be mitigated to the extent feasible. Additionally, the Growth Plan (Policy 4.2.6) states that when agricultural uses and non-agricultural uses interface outside of settlement areas, land use compatibility will be achieved by avoiding or where avoidance is not possible, minimizing and mitigating adverse impacts on the Agricultural System

6.2 Minimizing Impacts

The following table incorporates Table 3 (*Minimize and Mitigate Impacts*) found in section 3.2.2 of the Province's *Draft Agricultural Impact Assessment Guidelines*. The purpose of this table is to provide a summary of how the proposed project minimizes or mitigates impacts on surrounding agricultural uses.

Table 2: Summary of Net Impacts

Objective	Mitigation Measure	Description
Minimize the loss of agricultural land	Select areas with less agricultural land and lower priority agricultural lands	The lands are primarily comprised of Class 1 soils. All the potential sites are located on lands designated for agricultural use (Prime agricultural lands). As a result, it is not possible to locate the BESS on lands not identified as Prime Agricultural within the Township of Centre Wellington.
	Restoration of agricultural land in project area	The proposed BESS is an interim land use – the lands will be restored to an agricultural condition following the conclusion of the BESS operation. At the end of BESS operation, the facility will be decommissioned and dismantled, and the site restored. All site decommissioning would occur within the security fence. The security fence will be the last component to be removed. Demolition debris will be placed in temporary on-site storage area(s) pending final transportation and disposal/recycling according to the established procedures. This will include but not be limited to: Dismantling and removal of all aboveground equipment (batteries, inverters, transformers, and other related structures and

		equipment.) Excavation and removal of below ground cabling, break-up and removal of concrete pads and foundations as feasibly possible. Batteries, along with the racks, wiring, and other ancillary equipment, will either be repurposed/repowered or dismantled and recycled according to all applicable local, provincial, and federal laws and regulations.
	Rehabilitation of agricultural land	Rehabilitation grading will occur within one year following operation decommissioning to reduce erosion. Organic matter may need to be added to the soil to improve soil structure, prior to the establishment of field crops.
Minimize the fragmentation of agricultural land	Maintain farm parcels	The proposed BESS will not result in creating isolated agricultural lands, as the lands are intended to be returned to an agricultural condition. The BESS facility is being leased from the current landowners and will not be severed from the larger farm parcel.
Minimize impacts on farmland and agricultural operations	Minimum Distance Separation	MDS I and II setbacks are not required for infrastructure.
	Select compatible land uses; put lower impact	The proposed BESS is low impact and is not anticipated

	development adjacent to farmland and operations	to have an impact on surrounding crop production.
	Design to support agriculture (e.g. help farms to continue to operate; help prevent and reduce trespassing and vandalism)	Conflicts between the proposed BESS and the surrounding agricultural land uses will be minimized through the implementation of physical and visual barriers (vegetative berms) along the road frontage and the shared northern property line. The proposed BESS is not anticipated to generate traffic impacts during the operation lifespan – the facility can be remotely monitored and only requires routine maintenance. The BESS operation is proposed to be fenced and monitored 24/7.
Minimize and mitigate changes in water quality or quantity	Control post-development run-off and enhance water quality control	A preliminary stormwater management plan has been prepared that ensures necessary water controls will be in place. Any contaminated water will be treated on-site, and a dry pond is proposed that will accumulate and control all runoff. A more detailed stormwater management strategy will be prepared at the site plan approval stage. No impacts to water quality or quantity are expected.
Mitigating impacts during construction or operations (e.g. noise)	Adjust operational procedures to accommodate agriculture in the area	There are no specialty crops in the primary or secondary study area.

		The large livestock operation within the primary study area is owned by the property owner of the subject lands and separated by greater than 300 metres from the proposed BESS siting. With the incorporation of the recommended noise mitigation measures recommended in the Noise Feasibility Study, no impacts to large livestock operations existing within the primary or secondary study area are anticipated.
	Vegetative berms	Physical and visual barriers (vegetative berms) along the road frontage and the shared northern property line are proposed.
	Maintain, restore or construct farm infrastructure	The subject lands do not have any farm infrastructure proposed to be removed for the BESS operation. The existing barns, manure storage, dwellings, and pasture lands are to be retained, and livestock operations can continue during the life of the BESS operation. Additionally, much of the cropland will be maintained, aside from the approximate 4 hectares proposed to host the BESS operation.
Mitigate ongoing impacts from new development	Implement measures that can be in place post	The BESS site is planned to be restored to agricultural use.

	development to support compatibility with agriculture	Any vegetation used in screening will consist of native species to ensure compatibility with agriculture and the surrounding environment.
Education to achieve greater compatibility between agricultural and non-agricultural uses	Education and awareness	This is an opportunity to educate the public on the facility and how such a facility can be compatible with agricultural lands. Some examples include agricultural education provided to all construction and maintenance personnel, scheduled community educational visits, or informative boards located outside of the secured area.

7.0 Recommendations

Based on our analysis, the following recommendations are made to reduce the impacts of the proposed BESS facility on the surrounding agricultural uses and operations in the primary and secondary study area:

1. All the recommendations of the technical reports should be implemented to minimize and prevent impacts to adjacent and surrounding agricultural uses and operations.
2. During construction of the facility, agricultural education should be provided to all construction and maintenance personnel to encourage respectful behaviour towards the agricultural community and treatment of agricultural land. For example, encourage consideration of farm equipment on roadways and request that vehicles and equipment be kept off adjacent cropland. Signage to this effect should be erected at site entrances as soon as possible and maintained for the life of the facility.
3. Topsoil and subsoil stripped during construction shall be stockpiled in berms for use during rehabilitation. Stripping areas shall be limited to what is required for the operation.
4. Soil will be handled under suitable conditions, minimizing handling and working in wet weather to prevent degradation of soil structure and soil nutrients. Additionally, travel over soils and rehabilitated areas shall be minimized to reduce compaction. Ripping / tilling the soil will occur, where necessary, to alleviate soil compaction and shall avoid the mixing of soil materials / layers during the process.
5. Batteries, battery storage containers, and all other related structures and equipment shall be removed from the site within one year of the conclusion of operations.
6. Any gravel imported to the site for the development of gravel pads to site the storage containers shall be removed from the site within one year of the conclusion of operations.
7. Grading and establishment of field crops (such as wheat, soy, corn, hay) shall ideally occur immediately and at a maximum of one year following conclusion of operations to reduce erosion, add organic matter to the soil and improve soil structure. If required, a vegetation cover (such as perennial crops) shall be established within the agricultural rehabilitation area to reduce erosion, add organic matter to the soil and improve soil structure, prior to the establishment of field crops.

8.0 Summary

The proposed Elora BESS is not anticipated to have a negative impact on the long-term agricultural uses and operations on the subject lands and within the primary and secondary study areas. This opinion recognizes the following:

- The Elora BESS is proposed on approximately 4 hectares (10 acres) of land currently in agricultural production (cash crops) with an average soil capability of CLI Class 1 soils.
- There is no removal of agricultural structures proposed, nor will the use occur on lands with artificial agricultural drainage; no loss of agricultural structures, land improvements, infrastructure, services, or assets is associated with the proposed project.
- The subject lands are not within a specialty crop area.
- MDS does not apply to BESS uses.
- There is no reasonable alternative location in the Township which avoids with prime agricultural lands or on lower priority agricultural lands while meeting the locational criteria for this BESS facility.
- The BESS facility is an interim use; the subject lands will be rehabilitated back to an agricultural condition with the same average soil capability that currently exists.
- Impacts from noise will be mitigated through implementation of prescribed technical requirements/ recommendations.
- Implementation of the recommended best practices in this Report will ensure a successful construction, operation and rehabilitation process

Respectfully submitted,

MHBC

Pierre Chauvin, BSc (Agr.) MA, MCIP, RPP
Partner

Chelsea Brooks, MA, MSc (Plan)
Intermediate Planner

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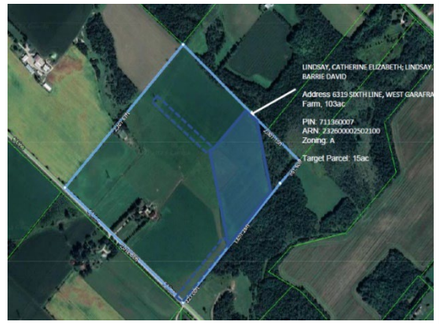
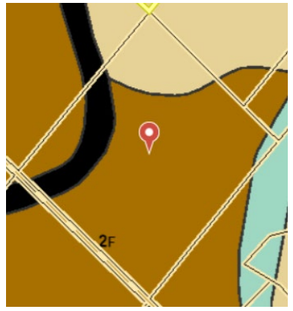
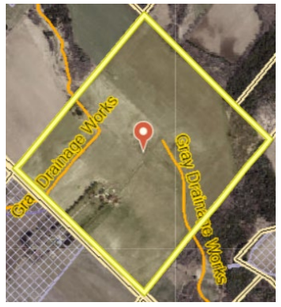
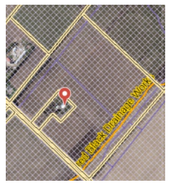
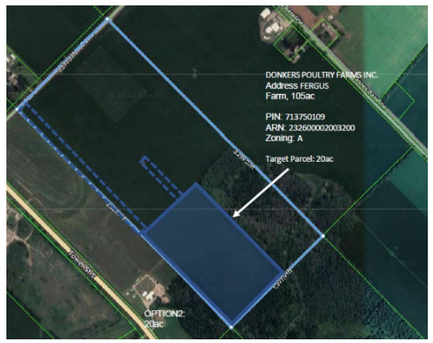
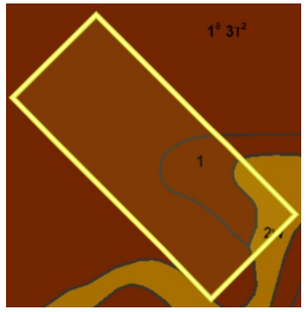
Appendix A: Alternatives Analysis

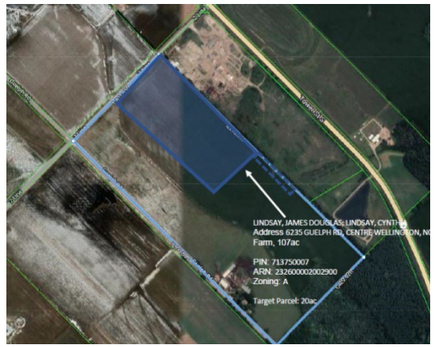
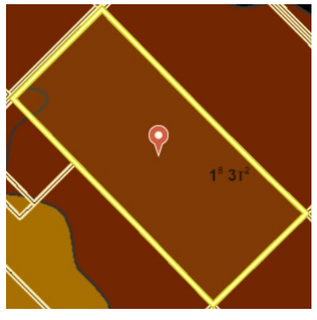
APPENDIX A

SITE	DESIGNATION & ZONE	CLI SOIL CLASS	AGRICULTURAL IMPROVEMENTS	OTHER
Site 1 - 8615 Wellington Road 18 (Lot 5, Concession 7) 	Official Plan designation: Prime Agricultural Zoning: Agricultural, Environmental Protection	Predominantly Class 3 soils with pockets of Organic soils along the eastern and western property lines 	Tile Drainage Present: No Constructed Drain Present: Yes – Gray Drainage Works crosses through western corner of lands 	**Proximal to major transportation corridor*:** Yes. Within 250 metres of the County Road 18 and County Road 26 intersection. **Adjacent to other non-agricultural uses**:** No. **Highly Fragmented Area***:** No. • Average lot size within 1000m = 24.97 hectares • Number of lots within 1000m = 38 **# of active livestock facilities within 1000m (including on site)****:** 10 1. 8615 Wellington County Rd 18 (beef) 2. 8672 Wellington County Rd 18 (unconfirmed – screened from road but aerial photos indicate presence of livestock, but aerial photos indicate presence of livestock) 3. 6412 6th Line (beef) 4. 6319 6th Line (beef) 5. 6317 Wellington Rd 26 (unconfirmed – screened from road but aerial photos indicate presence of livestock) 6. 8707 Wellington County Rd 18 (beef) 7. 8716 Wellington County Rd 18 (poultry) 8. 6439 Wellington County Rd 26 (poultry) 9. 6428 Wellington County Rd 26 (poultry) 10. 8765 Wellington County Rd 18 (equine)

Site 2 - **6319 Sixth Line** 	Official Plan designation: Prime Agricultural Zoning: Agricultural, Environmental Protection	Predominantly Class 2 with some Class 3 soils identified in the northern corner of the site, and organic soils identified along the constructed drain through the western corner of the site 	Tile Drainage Present: No Constructed Drain Present: Yes – Gray Drainage Works crosses through western corner and a segment terminates in the central portion of lands 	**Proximal to major transportation corridor*:** No. **Adjacent to other non-agricultural uses**:** No. **Highly Fragmented Area***:** No. • Average lot size within 1000m = 23.27 hectares • Number of lots within 1000m = 44 **# of active livestock facilities within 1000m (including on site)****:** 5 1. 8615 Wellington County Rd 18 (beef) 2. 6317 Wellington Rd 26 (unconfirmed – screened from road but aerial photos indicate presence of livestock) 3. 6319 6th Line (beef) 4. 8545 Wellington County Rd 18 (equine) 5. 8707 Wellington County Rd 18 (beef)
Site 3 – **6328 Fifth Line** 	Official Plan designation: Prime Agricultural Zoning: Agricultural, Environmental Protection	Predominantly Class 3 soils, with small pockets of Class 1 soils in the western and southern corners of the site 	Tile Drainage Present: Yes – in portion of lands near north corner of the site Constructed Drain Present:  No	**Proximal to major transportation corridor*:** No. **Adjacent to other non-agricultural uses**:** No. **Highly Fragmented Area***:** Yes. • Average lot size within 1000m = 16.65 hectares • Number of lots within 1000m = 60 **# of active livestock facilities within 1000m (including on site)****:** 6 1. 6328 Fifth Line (beef) 2. 6279 Fifth Line (equine) 3. 6237 Fifth Line (beef) 4. 6290 Fourth Line (beef) 5. 6289 Fourth Line (eggs) 6. 8545 Wellington County Rd 18 (equine)

Site 4 – 6287 Second Line 	<u>Official Plan designation:</u> Prime Agricultural Watercourse, Core Greenlands <u>Zoning:</u> Agricultural, Environmental Protection	Class 1 	<u>Tile Drainage Present</u>: Yes – present over entirety of the site <u>Constructed Drain Present:</u> Yes – Fred Black Drainage Works along southeastern property line 	**Proximal to major transportation corridor*:** **Adjacent to other non-agricultural uses**:** **Highly Fragmented Area***:** No. • Average lot size within 1000m = 24.37 hectares • Number of lots within 1000m = 36 **# of active livestock facilities within 1000m (including on site)****:** 4 1. 6287 Second Line (unconfirmed but aerial photos indicate presence of livestock, but aerial photos indicate presence of manure storage) 2. 6305 Second Line (poultry) 3. 6268 Third Line (dairy) 4. 8169 Wellington County Road 18 (Beef)
Site 5 – 6332 Second Line 	<u>Official Plan designation:</u> Prime Agricultural <u>Zoning:</u> Agricultural, Environmental Protection	Predominantly Class 1 soils with a section of Class 5 soils east to west through centre of the site, a section of Class 6 east to west in the south of the site, and a section of organic soil in the southern corner of the site	<u>Tile Drainage Present</u>: Yes – present over northern half of the site <u>Constructed Drain Present:</u> Yes – Fred Black Drainage Works bisects the site 	**Proximal to major transportation corridor*:** Yes. Wellington County Rd 29. **Adjacent to other non-agricultural uses**:** Yes. • SCS Metals Limited to the southwest **Highly Fragmented Area***:** Yes. Influenced by proximity to Fergus urban area. • Average lot size within 1000m = 14.04 hectares • Number of lots within 1000m = 97 **# of active livestock facilities within 1000m (including on site)****:** 11 1. 6305 Second Line (poultry) 2. 6287 Second Line (unconfirmed but aerial photos indicate presence of livestock, but aerial photos indicate presence of manure storage) 3. 8169 Wellington County Road 18 (Beef) 4. 6367 Wellington County Rd 29 (poultry) 5. 8115 Wellington County Rd 18 (equine) 6. 6327 Wellington County Rd 29 (beef) 7. 8122 Eramosa Garafraxa Townline (equine) 8. 6268 Third Line (dairy) 9. 996-6279 Jones Baseline (livestock)

				10. 8175 Eramosa-Garafraxa Townline 11. 6188 Second Line (livestock)
Site 6 – PIN 232600002003200 	Official Plan designation: Prime Agricultural Zoning: Agricultural, Environmental Protection	Predominantly Class 1 soils, with a small pocket of Class 2 soils in the eastern corner of the site 	Tile Drainage Present: Yes – present over majority of the site. Constructed Drain Present: Yes – Municipal Drain 11 and 12 cross in the eastern corner of the site. 	**Proximal to major transportation corridor*:** Yes. Approximately 183 metres east of Provincial Highway 6. **Adjacent to other non-agricultural uses**:** No. **Highly Fragmented Area***:** Yes. • Average lot size within 1000m = 17.76 hectares • Number of lots within 1000m = 53 **# of active livestock facilities within 1000m (including on site)****:** 6 1. 6268 Jones Baseline (beef) 2. 6162 Jones Baseline (equine) 3. 7800 4th Line (equine) 4. 8017 Townline Eramosa Garafraxa (beef) 5. 6235 Guelph Street (beef) 6. 996-6279 Jones Baseline (livestock)

Site 7 – 6235 Guelph Street 	Official Plan designation: Prime Agricultural Watercourse, Core Greenlands Zoning: Agricultural, Environmental Protection	Predominantly Class 1 soils, with a portion of Class 2 soils in the eastern portion of the lands and a portion of organic soil in the western portion of the site 	Tile Drainage Present: No Constructed Drain Present: Yes – Municipal Drain 2 bisects the site from the northwest to the southeast 	**Proximal to major transportation corridor*:** Yes. • Provincial Highway 6 located approximately 242 metres east of the lands **Adjacent to other non-agricultural uses**:** Yes. • Fergus settlement area boundary to the north • Grand River Natural Stone landscape depot to east **Highly Fragmented Area***:** Yes. • Average lot size within 1000m = 15.75 hectares • Number of lots within 1000m = 66 **# of active livestock facilities within 1000m (including on site)****:** 5 1. 6235 Guelph Street (beef) 2. 7714 2 Line (beef) 3. 7711 2 Line (dairy) 4. 7694 2 Line (dairy) 5. 7800 Fourth Line (equine)
Site 8 – 7711 Second Line 	Official Plan designation: Prime Agricultural Zoning: Agricultural, Environmental Protection	Class 1 soil 	Tile Drainage Present: Yes – over entirety of site Constructed Drain Present: Yes – Municipal Drain 4 present in eastern corner of site 	**Proximal to major transportation corridor*:** No. **Adjacent to other non-agricultural uses**:** No. **Highly Fragmented Area***:** Yes. • Average lot size within 1000m = 18.15 hectares • Number of lots within 1000m = 55 **# of active livestock facilities within 1000m (including on site)****:** 7 1. 6235 Guelph Street (beef) 2. 7714 2 Line (beef) 3. 7711 2 Line (dairy) 4. 7694 2 Line (dairy) 5. 7652 2 Line (poultry) 6. 7669 2 Line (beef) 7. 6313 Sideroad 6 N (Poultry)

<table>
<tr>
<td>Site 9 – 7244 Sideroad 10

 
</td>
<td><u>Official Plan designation:</u>

Prime Agricultural

<u>Zoning:</u>

Agricultural</td>
<td>Predominantly Class 1 soils with a pocket of Class 2 soils in the southern corner

  </td>
<td><u>Tile Drainage Present</u>: Yes – over majority of the site

<u>Constructed Drain Present:</u>
No

  </td>
<td>Proximal to major transportation corridor*:

Adjacent to other non-agricultural uses**:

Highly Fragmented Area***: No.
• Average lot size within 1000m = 25.95 hectares
• Number of lots within 1000m = 53

# of active livestock facilities within 1000m (including on site)****:
6
1. 7244 Sideroad 10 (beef)
2. 6132 6 Line (beef)
3. 6046 6 Line (beef)
4. 6130 Fourth Line E (livestock)
5. 6159 Fourth Line E (livestock)
6. 6102 Sixth Line E (chicken)</td>
</tr>
<tr>
<td colspan="5">*Proximal to major transportation corridor – determined by whether Provincial Highways or County Roads are located within 250 metres of the site’s property boundaries
**Adjacent to other non-agricultural uses – determined by whether any adjacent parcels contain uses not permitted in the agricultural zone
***Highly Fragmented Area – determined by observing size and number of parcels within 1000m to the subject lands. Areas with little fragmentation would have a larger average lot size (historic lot sizes vary from 40ha to 87ha based on township survey patterns) and fewer number of parcels within 1km. 1km was chosen as the study distance based on OMAFRA’s recommended study area for AIAs.
****Number of active livestock facilities within 1000m (including on site) – determined based on whether there was indication of livestock present in farm buildings within 1000m of the property boundaries of potential sites, observed through review of aerial imagery and site visits.</td>
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