



GUIDING SOLUTIONS IN THE
NATURAL ENVIRONMENT

Agricultural Assessment LC Development Group Property Markdale

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LC Development Group

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1. Introduction

Beacon Environmental Limited (Beacon) was retained to conduct an Agricultural Assessment for lands owned by LC Development Group and located at 775309 Highway 10, Markdale, in the County of Grey (**Figure 1**).

The whole of the subject property is generally situated within and slightly outside of the Primary Settlement Area boundary of Markdale. Presently, most of the subject property is used for agricultural crop purposes.

The Agricultural Assessment was requested to review a study area defined as that portion of the subject property outside of the areas designated as Primary Settlement Area, and Hazard Lands. The purpose of the Agricultural Assessment is to analyze the potential for the study area to be included in a Primary Settlement Area expansion.

2. Objectives of Study

The study commenced with a background assessment of the present agricultural characteristics of the study area. Background information including published documents and information from provincial agencies was gathered and reviewed at the outset of the project.

The specific objectives that have been completed as part of this Agricultural Assessment include the following:

- Provide an evaluation of the existing agricultural capability in the study area through background review and field investigations; and
- Identify and map any key agricultural features, attributes, and sensitivities of the study area.

3. Policy Context

The applicable municipal and provincial policies that are subject to review include:

- Provincial Policy Statement (2020);
- Municipality of Grey Highlands Official Plan (2017); and
- County of Grey Official Plan (June 2019).

3.1 Provincial Policy (2020)

The Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning and development including agriculture. The PPS establishes the policy framework for setting land use priorities in Ontario as well as regulating development.

The 2020 PPS modifies and updates many of the former policies from the 2005 and 2014 documents. In relation to agriculture, the 2020 PPS requires municipalities to designate *prime agricultural areas* at the municipal level. This means that municipalities must now more specifically distinguish between *prime agricultural areas* and rural areas that may contain lesser quality agricultural capabilities. Upper and lower tier Official Plans must now designate *prime agricultural areas* and rural areas separately and provide distinct policy direction for land uses in each of these designations.

Section 2.3.2 of the PPS requires that:

Planning authorities are encouraged to use an agricultural system approach to maintain and enhance the geographic continuity of the agricultural land base and the functional and economic connections to the agri-food network.

New to the PPS in 2020 is the definition of an Agricultural System as follows:

A system comprised of a group of inter-connected elements that collectively create a viable, thriving agricultural sector. It has two components:

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

The 2020 PPS also provides the following definitions, unchanged from the 2014 PPS:

Prime agricultural area: means areas where prime agricultural lands predominate. This includes areas of prime agricultural lands and 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.

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.

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

- *Soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both;*
- *Farmers skilled in the production of specialty crops; and*
- *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.*

Policy 2.3.2 references Provincial guidelines to assist in the identification of *prime agricultural areas*. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has provided technical guidance

for the identification of *prime agricultural areas* as outlined in the Foodland Guidelines (1978-1992), the Comprehensive Set of Policy Statements (1994), four Provincial Policy Statements (including the 2020 PPS), and a draft Land Evaluation and Area Review Guideline.

As noted above, the definition of *prime agricultural area* references Provincial guidelines. More notably, the definition carries forward the provision from the 2005 and 2014 PPS that prime agricultural areas may also be identified using an alternate agricultural land evaluation as supported by the Province.

3.2 County of Grey Official Plan (June 2019)

The County of Grey Official Plan (June 2019) provides several policies related to agriculture with examples provided below.

Section 5 (Cultivate Grey) provides planning objectives related to Grey County's countryside, and more specifically:

Policy 5.2 (Agricultural Land Use Type) states:

In the mid 1990's Grey County Council and staff worked with the Ministry of Agriculture, Food and Rural Affairs to develop an alternative land evaluation system for determining the highest priority agricultural lands. The Agricultural land use type is not just traditional Class 1, 2, or 3 agricultural land classifications, but also includes the larger blocks of good agricultural land under active production, generally in blocks of 160 hectares or larger, as shown on Schedule A. This is intended to prevent the fragmentation of active agricultural land and to reduce the potential for nuisance complaints and farm limitations posed by non-agricultural uses. Within this land use type, the agricultural land base and the long-term viability of agriculture and the agri-food sector will be maintained and enhanced.

The definition of Prime Agricultural Area in the Official Plan is all encompassing and is reproduced below:

PRIME AGRICULTURAL AREA means areas within the Agricultural land use type of this Plan. This includes: areas of prime agricultural lands and associated Canada Land Inventory Class 4-7 lands; and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture.

The study area is designated Rural in Schedule A (Land Use Types – Map 2) of the County of Grey Official Plan.

3.3 Municipality of Grey Highlands Official Plan (Approved 2017)

The Municipality of Meaford Official Plan (Office Consolidation November 2014) provides policies to "help guide economic, environmental and community building decisions that affect land use". Section 4.1.2 of the Official Plan provides principles and policies related to agricultural uses.

The study area is designated Rural in Schedule A (Land Use) of the Municipality of Grey Highlands Official Plan.

4. Methodology

4.1 Background Review

Background information including published documents and information from provincial agencies was gathered and reviewed at the outset of the project. This involved documentation for the study area from sources that included, but was not limited to the following:

- Ontario Ministry of Natural Resources and Forestry (MNR) Ontario Base Mapping;
- MNR Land Information Ontario Database;
- OMAFRA Soil Survey Complex (<https://www.ontario.ca/data/soil-survey>);
- OMAFRA AgMaps Geographic Information Portal (<http://www.omafra.gov.on.ca/english/landuse/gis/portal.htm>); and
- Colour, orthorectified, 2006 and 2010 aerial photography from First Base Solutions.

5. Agricultural Resources

5.1 Bedrock and Physical Geography

The study area lies over a complex of shale, sandstone, dolostone and siltstone (Ontario Geological Survey 2003). The physiography of the area is described in Chapman and Putman (1984) as the Horseshoe Moraines.

Most of the study area consists of primarily sand and gravel glaciofluvial ice-contact and glaciofluvial outwash deposits, and the most northern tip of the study area consists of flood plain deposits of gravel, sand, silt, clay and muck (Ontario Geological Survey 2003).

5.2 Topography and Drainage

The overland drainage from the study area is generally directed northwest toward the Rocky Saugeen River. The Ontario Base Map (OBM) reveals that the study area is gently sloped. Using slope class definitions found in the Field Manual for Describing Soils in Ontario, 4th Edition (Denholm and Schut, 1993), and OBM contours, most of the study area contains nearly level slopes to gentle slopes (i.e., 0.5% - 5.0%).

5.3 Climate

The analysis of climate was restricted to a review of existing published literature. Instrumentation was not employed to measure the climate of the study area.

5.3.1 Crop Heat Units

The Crop Heat Unit (CHU) measurement was originally designed for selecting corn varieties and can be used as a means of comparing the climactic conditions of different areas of the province. The CHU value of an area is based upon temperature and is detailed in a Factsheet 93-119 (Brown and Bootsma 1997) produced by OMAFRA. Specifically, crop heat units are determined using daily minimum and maximum air temperatures accumulated over the growing season. The CHU rating of an area is determined by the total accumulated crop heat units for the frost-free growing season in the various areas of the province (Brown and Bootsma 1997).

The CHU measurement system was revised in accordance with changing farming practices and crop varieties (OMAFRA 2011). Under the new CHU measurement system, the proportion of crop heat units in the study area is found to be slightly above 2700 CHU (**Figure 2**), consistent with moderately good farming opportunity. More specific measurements are not available for this method.



Figure 2. Crop Heat Units, (OMAFRA, 2011). Study Area Indicated by Arrow

5.4 Soils

Detailed soil surveys were not undertaken. Beacon depended upon the Soil Survey of Grey County (1954) as well as the Surficial Geology of Southern Ontario (Ontario Geological Survey 2003) for this assessment.

5.4.1 Regional Soil Types

The Soil Survey of Grey County prepared by the Experimental Farms Service, Canada Department of Agriculture & Ontario Agricultural College was published in 1954 and mapped the soils of the entire County. The County is in the most northern portion of Southwestern Ontario, extends north to Georgian Bay, and is bounded by Bruce County on the west, Wellington County to the south, and Simcoe and Dufferin Counties to the east.

5.4.2 Study Area Soil Types

The Soil Survey of Grey County (1954) identifies two soil types mapped within the study area (**Figure 3**): (1) the southeastern portion consists of soils developed on calcareous poorly sorted gravelly materials (Donnybrook Sandy Loam Series), and (2) soils developed from decomposed organic materials in depressional locations (Muck). Each of these soil series is briefly described below.

5.4.2.1 Donnybrook Sandy Loam Series

The Donnybrook Sandy Loam soil is developed on gravelly materials and as a result, is well to excessively drained soil. In general, this soil series is associated with topography that varies from irregular moderately sloping to irregular very steeply sloping land.

The Donnybrook Sandy Loam soils have a low inherent fertility, a low moisture holding capacity, and are susceptible to erosion. They can be used for certain crops such as hay and oats.

5.4.2.2 Muck Soil Series

The soils of the Muck series are mainly located in depressional areas with very poorly drained soils that are usually saturated for a large part of the year. Muck soils are not used for agriculture.

5.5 Canada Land Inventory

The Canada Land Inventory (CLI) is a comprehensive multi-disciplinary land inventory of rural Canada, covering over 2.5 million square kilometers of land and water. The CLI consists of a soil survey with rankings from 1 to 7, with Class 1 soil being the best agricultural land and Class 7 having no capability for agricultural activities. The CLI also provides sub-classes which specify the limitations of the soil (for example, excessive water, adverse climate, stoniness, and topography).

The CLI ranking is the classification of climate and soil capability for the production of common field crops (corn, soybeans, small grains, and forages). Class 1 soils have no significant limitations for



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agriculture, while Class 2 soils have moderate limitations that restrict the range of crops or require moderate conservation practices. Class 3 soils have moderately severe limitations that restrict the range of crops or require moderate conservation practices. Class 4 soils have severe limitations for use with crops. Class 5 soils have severe limitations that restrict capability to producing perennial forage crops, and improvement practices are feasible. The Class 5 limitations are so severe that the soils are not capable of use for sustained production of annual field crops.

The 1967 CLI Mapsheet 041a (<http://sis.agr.gc.ca/cansis/publications/maps/cli/250k/agr/index.html>) describes the study area as having a mixture of Class 1 and Class 3T soils.

The Canada Land Inventory Agricultural Capability mapping is provided by the Ontario Ministry of Agriculture, Food and Rural Affairs (<http://www.omafra.gov.on.ca/english/landuse/gis/portal.htm>). This mapping shows most of the study area to be in an area that consists of 40 %Class 4FM, and 60% Class 6TS soils. A small portion of the study area is identified in an area of organic soil.

The OMAFRA more recently, in cooperation with the MNRF, compiled a geo-spatial soils database for Southern Ontario (Soil Survey Complex v.5 – March 2017). The database consolidated the existing soil data mapped on a county basis. Similar to the Canada Land Inventory Agricultural Capability mapping noted above, the updated soil complex database contains other descriptive information including slope class, Canada Land Inventory (CLI) ranking, stoniness, drainage class and soil texture. This updated database suggests that the study area is contained within the northwest portion of a polygon that is identified as organic, and a polygon in the southeast portion identified as 60% Class 6 CLI rating with T and S limitation subclasses and 40% Class 6 rating with F and M limitation subclasses (**Figure 3**).

In Ontario, there are eleven subclasses defined as:

Code	CLI Sub-Class Description
C	Land subject to crop heat unit regimes of < 2300 (i.e. adverse Climate)
D	Adverse soil structure (i.e. Depth of rooting zone is restricted)
E	Loss of soil profile from Erosion
F	Low inherent soil Fertility
I	Subject to occasional flooding (Inundation) from adjacent streams or water bodies
M	Low inherent moisture holding capacity
P	Presence of surface stones > 15 cm diameter
R	Presence of consolidated bedrock within one metre of the soil surface
S	Presence of a combination of the Subclasses F and M, or, the presence of a combination of the Subclasses P and R, with a third limitation (e.g. 3FMT = 3ST or 5PRE = 5SE)
T	Presence of adverse Topography
W	Subject to excessive Water saturation in the soil profile

Tables 1 and 2 summarize the soil capability of the study area in the OMAFRA digital database (Soil Survey Complex v.5 – March 2017).

Table 1. Agricultural Capability Classes of the Donnybrook Sandy Loam Soil Series (Soil Survey Complex v.5 – March 2017)

CLI Capability Rating	Agricultural Capability Class	Agricultural Capability Subclass 1	Agricultural Capability Subclass 2	Drainage Class	A horizon Soil Texture
Class 6 (60%)	Soils in this class are unsuited for cultivation but are capable of use for unimproved permanent pasture.	(T) Presence of adverse Topography	(S) Presence of a combination of the Subclasses F and M, or, the presence of a combination of the Subclasses P and R, with a third limitation (e.g. 3FMT = 3ST or 5PRE = 5SE)	Well Drained	Sandy Loam
Class 4 (40%)	Soils in this class have severe limitations that restrict the choice of crops, or require special conservation practices and very careful management, or both.	(F) Low inherent soil Fertility	(M) Low inherent moisture holding capacity	Well Drained	Sandy Loam

Table 2. Agricultural Capability Classes of the Muck Soil Series (Soil Survey Complex v.5 – March 2017)

CLI Capability Rating	Agricultural Capability Class	Agricultural Capability Subclass 1	Agricultural Capability Subclass 2	Drainage Class	A horizon Soil Texture
Class O (100%)	No significant limitations listed	None	None	Very Poor	Organic

It is important to note that the study area does not contain prime agricultural land (Canada Land Inventory Class 1, 2, and 3 lands), and neither the study area, the subject property, nor the surrounding lands are identified by the Province as Specialty Crop Areas.

5.6 Municipal Drainage

Municipal drains have been a fixture of rural Ontario's infrastructure since the 1800s. Most municipal drains were constructed to improve the drainage of agricultural land by serving as the discharge point for private agricultural tile drainage systems. Tile drainage is both agronomically and economically beneficial for reasons including better growing conditions, improved soil structure, better trafficability,

reduced energy consumption, more timely planting and harvest, and improved yields for a variety of crops.

OMAFRA maintains records of artificial drainage in Ontario. The Land Information Ontario (LIO) online database was accessed for the most up to date records of artificial drainage within and adjacent to the study area. There are no Agricultural/Municipal drains recorded within or adjacent to the study area. The web-based mapping service from OMAFRA (AgMaps) was consulted and there are no systematic drainages located within or adjacent to the study area.

5.7 Agricultural Land Use and Infrastructure

A desktop survey was undertaken to identify agricultural land uses within and surrounding the study area.

5.7.1 Study Area

A review of aerial photography available on Google Earth, as well as First Base Solutions, ranging from 2006 to 2021 indicates that most of the study area has been continuously used for agricultural purposes, likely hay. Additionally, the aerial photography does not show any indication of the study area containing livestock operations, nor was there any indication of recent upgrades or related investment into the existing agricultural infrastructure.

5.7.2 Surrounding Use

There is a mix of land uses in the area surrounding the study area, consistent with the regional land uses. The primary land uses to the southeast of the study area include the Primary Settlement Area of Markdale with associated residential, industrial, and commercial components, as well as a golf course and cemetery. The primary land use directly south of the study area is the Chapman's Ice Cream commercial operation. To the northeast of Markdale, the lands are designated Agricultural. The area within the general location of the study area also consists of some forest and wetland areas, as well as the riparian area associated with the Rocky Saugeen River.

The Agricultural Resources Inventory or ARI (OMAFRA 2015) provides an overview and reference of the use of agricultural land in Ontario. Regarding agricultural use, the ARI evaluated the mix of crops and classifies the study area as a mixture of hay and grain systems, and idle agricultural land.

6. Assessment

Land use planning decisions attempt to balance the competing demands for land. Generally, the evaluation of agricultural lands includes capability ratings, the existing investments in agricultural facilities, land and infrastructure and changes to agricultural land use patterns, the presence of rural non-farm residents and their integration, land fragmentation, intrusions of non-agriculture land uses, and non-resident ownership of lands.

The following analysis considers agricultural resources, agricultural infrastructure, fragmentation, municipal drainage, and land use conflict.

6.1 Agricultural Resources

A desktop survey of the study area was undertaken to examine the existing agricultural information. Most of the study area is presently used for agricultural purposes, likely hay crops. The most northern tip remains forested. The study area is designated Rural in Schedule A (Land Use Types – Map 2) of the County of Grey Official Plan, and Rural in Schedule A (Land Use) of the Municipality of Grey Highlands Official Plan.

There is a mix of land uses in the land surrounding the study area, consistent with the regional land uses, including a settlement area (Markdale) with associated residential, industrial, and commercial components, a golf course, and different agricultural practices. The expansion of the Primary Settlement Area boundary of Markdale is consistent with adjacent land uses and will not consume specialty crop or prime agricultural land.

6.2 Agricultural Infrastructure

Agricultural investment is directly related to the improvement of land through tile drainage or irrigation equipment, and through the improvements to agricultural infrastructure (barns, manure storage, sheds). Agricultural fields and facilities that have increased capital investment are generally more worthy of preservation and are readily identifiable through visual inspection of the facilities.

Livestock rearing requires an investment in agricultural facilities, dairy operations require a relatively large investment in maintaining facilities to produce milk, and poultry and hog operations require specific production facilities that involve capital investment. Conversely, beef production, hobby horse and sheep operations generally require less infrastructure, and therefore, less investment. A large investment in infrastructure can occur for certain cash crops as well, as some facilities include large storage and drying equipment.

Within the study area there was no indication of recent upgrades or related investment into the existing agricultural infrastructure.

6.3 Fragmentation

The conversion of farmed lands to residential, recreational, or commercial land can have a variety of effects, including fragmentation of the landscape. Development of the study area would remove ~4 ha of farmed land.

Fragmentation of farmlands generally reduces the economic viability of the lands by reducing the efficiency of which lands can be farmed and increasing the operating costs for other farms, particularly if the fragmentation results in several small and separated parcels.

The area to the north and west of the study area includes woodland and valleyland associated with the Rocky Saugeen River. There is also a small parcel of land just beyond the southwest limits of the

property that contained a small municipal landfill that has now been closed for 47+ years. The area to the east of the study area is designated as Primary Settlement Area. The Primary Settlement Area expansion to include the study area would not reduce the efficiencies of farmed lands in the area.

6.4 Municipal Drainage

The LIO online database has no records of any Agricultural/Municipal drains adjacent to or within the study area. Similarly, there are no agricultural drains shown on the web based AgMap service from OMAFRA. There does not appear to be any recent improvements to the local drainage.

6.5 Land Use Conflict

The level of compatibility between differing land uses obviously varies. As a rule, uses that have few 'people' interfacing with agriculture enhance compatibility. Land use conflict can be described on a micro (neighbour to neighbour) level and a macro (urban form) level. Micro conflicts can include dust, odours, noise, chemicals, etc., while macro conflict can include pollutants in water sources, flooding, and livestock noise.

As noted previously, the primary land uses surrounding the study area include a Primary Settlement Area (Markdale) with associated residential, industrial, and commercial components, as well as a golf course and cemetery. The development of the study area for intensive residential use should not pose an increased potential conflict for land use compatibility based on an analysis of nearby agricultural operations.

6.5.1 Minimum Distance Separation

Land use planning principles promote the grouping together of compatible land uses, while providing distance between unlike or incompatible land uses. Minimum Distance Separation (MDS) formulae were developed to be used as a basis for reducing and minimizing nuisance complaints due to odour from livestock facilities and to reduce land use incompatibility in relation to livestock operations. The MDS is a land use planning tool that determines a recommended separation distance between a livestock barn or manure storage and another land use. The objective of MDS is to minimize nuisance complaints due to odour and thereby reduce potential land use conflicts.

MDS is made up of two separate, but related formulae (MDS I and MDS II). MDS I provides the minimum distance separation between proposed new development and existing livestock facilities and/or permanent manure storages located in areas where the keeping of livestock is permitted. MDS II provides the minimum distance separation between proposed new, enlarged, or remodelled livestock facilities and/or permanent manure storages and existing or approved development located in areas where the keeping of livestock is permitted.

To determine MDS 1 from potential and existing livestock facilities, the OMAFRA Publication 853 was reviewed and used as our basis for evaluating livestock facilities. The Implementation Guidelines are provided by OMAFRA and outline the requirements that need to be considered as part of the application and calculation of the MDS Formulae.

Additionally, the MDS document provides direction for determining when a barn is a livestock facility, including key elements to consider if a barn is structurally sound and reasonably capable of housing livestock. These key elements include the barn's foundation, walls, roof, internal structure, location, size and shape, last use as a livestock facility, era, current use and presence of related buildings on site.

The MDS Implementation Guideline #6 indicates that "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", and Implementation Guideline #34 lists Type B Land Uses as a higher density of human occupancy, habitation or activity including, "new or expanded settlement area boundaries."

The proposed Type B Land Use required an MDS I investigation within 1,500 m of the study area. Under different circumstances, an in-person interview would be conducted at any agricultural operation with the potential for a livestock facility or area of permanent manure storage. Because of the existing COVID-19 restrictions, no in-person interviews were conducted for this assessment. A reconnaissance (drive-by) survey was completed on April 30, 2021 to document the existing agricultural uses associated with an MDS assessment. Prior to the drive-by, potential farm operations were identified during the desktop review of recent aerial photography using GIS. Data documented for the MDS analysis includes the identification of land use, identification of barns or any building capable of housing livestock, identification of animal types, number of animals and barn location with respect to other land uses.

Following the background analysis, and the drive-by reconnaissance, there were no existing livestock facilities or anaerobic digesters documented within 1,500 m of the study area.

6.5.2 Right to Farm

Agricultural practices may result in discomfort or inconveniences in areas adjacent to farming operations. The *Farming and Food Production Protection Act* (2002) protects farms from nuisance complaints made by neighbours, provided they are following normal farm practices. As defined in the Act, a normal farm practice is one that:

- Is conducted in a manner consistent with proper and acceptable customs and standards as established and followed by similar agricultural operations under similar circumstances; or
- Makes use of innovative technology in a manner consistent with proper advanced farm management practices.

The bulk of farm nuisance complaints are about odours emanating from manure handling and storage. However, examples of other nuisance complaints might include light from greenhouses at night, vibration from trucks, fans, or boilers, smoke from burning tree pruning, or other organic wastes, flies from manure, spilled feed, noise from crop drying fans, irrigation pumps, dust from field tillage equipment, or truck traffic.

Due to the location and intensity of the surrounding farm operations, disruption to farm practices surrounding the study area is unlikely.

7. Conclusions

Beacon was retained to conduct an Agricultural Assessment for lands owned by LC Development Group and located at 775309 Highway 10, Markdale, in the County of Grey.

A desktop survey of the study area was undertaken to examine the existing agricultural information. Parts of the study area are presently used for agricultural purposes, likely hay crops, and the study area is designated Rural in Schedule A (Land Use Types – Map 2) of the County of Grey Official Plan, and Rural in Schedule A (Land Use) of the Municipality of Grey Highlands Official Plan.

There is a mix of land uses in the broader area surrounding the study area, consistent with the regional land uses. These land uses include a Primary Settlement Area (Markdale) with associated residential, industrial, and commercial components, a golf course, and different agricultural practices. The area to the north and west of the study area includes woodland and valleyland associated with the Rocky Saugeen River. The proposed Primary Settlement Area expansion would not reduce the efficiencies of farmed lands in the area.

To the northeast of the Markdale settlement area, the lands are designated Agricultural. The proposed Primary Settlement Area expansion will not consume specialty crop agricultural land, nor will it consume prime agricultural land.

Within the study there was no indication of recent upgrades or related investment into the existing agricultural infrastructure. There does not appear to be any recent improvements to the local drainage. Therefore, no recent or significant agricultural investments or infrastructure would be impacted by the proposed Primary Settlement Area expansion.

Based on the desktop analysis and reconnaissance investigation, the study area is outside of the minimum distance required from any livestock barns and would therefore comply with the MDS requirements.

Finally, due to the location and intensity of the existing local farm operations, disruption to farm practices resulting from the proposed Primary Settlement Area expansion is unlikely.

Beacon appreciates the opportunity to provide you with this Agricultural Assessment. If there are questions or concerns, please contact the undersigned.

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