



CLARK  
CONSULTING SERVICES

# Agricultural Impact Assessment

Kawartha Downs Redevelopment AIA  
Township of Cavan Monaghan, County of Peterborough  
CCS Project No. 4922

May 17, 2021

Prepared for: Romspen Investment Corporation  
Prepared by: Clark Consulting Services

## 1. INTRODUCTION

Clark Consulting Services was asked to assist in the preparation of an Agricultural Impact Assessment (AIA) for lands owned by Kawartha Downs and Speedway within the Township of Cavan Monaghan, County of Peterborough. Kawartha Downs is proposing a revitalization project. An Agricultural Impact Assessment is part of the various studies required to assess the potential impact of the approval of the proposed development.

This Agricultural Impact Assessment (AIA) follows the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Draft Agricultural Impact Assessment (AIA) Guidance Document, March 2018. In the preparation of this AIA, CCS has completed a review of the following documents:

- the OMAFRA Draft AIA Guidance Document (March 2018);
- the Soils Report for Ontario County, Report No. 9;
- the Soils Report for Peterborough County, Report No. 45;
- mapping of the proposed uses within the subject lands;
- the Provincial Policy Statement (2020);
- the Official Plans of the County of Peterborough and the Township of Cavan Monaghan;
- the Zoning By-law of the Township of Cavan Monaghan;
- soils capability mapping and aerial imagery from the OMAFRA Agricultural Information Atlas;
- and,
- a review of information available through the Ontario Agricultural Systems Portal.

## 2. PURPOSE OF AN AGRICULTURAL IMPACT ASSESSMENT (AIA)

The Ontario Ministry of Agriculture, Food and Rural Affairs prepared a draft *Guidance Document for Agricultural Impact Assessments* in 2018, and this document is used as a guide in preparation of this

report. Provincial policy documents require an Agricultural Impact Assessment (AIA) for certain planning applications or actions where Ontario's farm operations and settlement areas coincide. An AIA is a mechanism to help evaluate planning proposals with a focus on managing conflicts between non-farm development and agricultural operations.

An Agricultural Impact Assessment is defined in the Greenbelt and Growth Plan as: "*A study that evaluates the potential impacts of non-agricultural development on agricultural operations and the Agricultural System and recommends ways to avoid or, if avoidance is not possible, minimize and mitigate adverse impacts*".

An Agricultural Impact Assessment:

- Identifies and assesses potential impacts from development on agriculture (including impacts to farmland, farm operations and the surrounding area);
- Recommends measures or strategies to avoid impacts (e.g. consider alternative locations where possible);
- Recommends measures to minimize or mitigate impacts (e.g. through design, use of buffers, etc.);
- Addresses site rehabilitation for agriculture, where applicable.

The Draft Agricultural Impact Assessment (AIA) Guidance Document (OMAFRA) provides valuable information in completing an AIA. Section 1.7 of the document recommends that individuals preparing AIAs confirm their qualification to complete the review and that they have no perceived or actual conflicts of interest in association with the AIA.

*Attachment A* to this report includes the CV of the reviewer, Bob Clark, his professional qualification, and a statement declaring he has no perceived or actual conflict of interest in the completion of this Assessment.

### **3. DESCRIPTION OF PROJECT**

The proposal involves the redevelopment of the three (3) subject land parcels. Portions of two of the subject parcels are currently used for agricultural production. This capability will be removed by the completion of the proposed changes. The Official Plans of the County of Peterborough and the Township of Cavan Monaghan designate the subject lands as Commercial Entertainment. The designation of the lands will not change as part of the planning process to permit the development as proposed.

The purpose of this review is to look at current agricultural practices and mapped soil capabilities on the subject lands and for the surrounding lands. This includes the documentation of current land uses, and where changes to current land uses are proposed we will review any potential impacts on agriculture in the immediate area.





The land parcels are identified as:

- **1382 County Road 28** - Part Lot 23, Concession 8, Cavan – 48.59 ha (120 ac)
- **1490 County Road 28** - Part Lot 23, Concession 8 – 18.07 ha (44.65 ac)
- **1683 Moore Drive** - Part Lot 22, Concession 8 – 41.49 ha (102.5 ac).

The lands are located south of Highway 115, west of County Road 28 and south of Moore Drive. A review of each parcel and a review of a buffer zone around the three parcels has been completed. This report is based on a proposed Draft Plan prepared by D.G. Biddle, dated 29/04/2022 and attached to this report as 'Attachment D'.

The methodology included a desk-top review of available aerial mapping, available soils mapping for the County of Durham and County of Peterborough, available soils capability found in Canada Land Inventory, a site visit on December 13, 2021 to view the parcels and extended review areas, and conversations with Township Staff, where required.

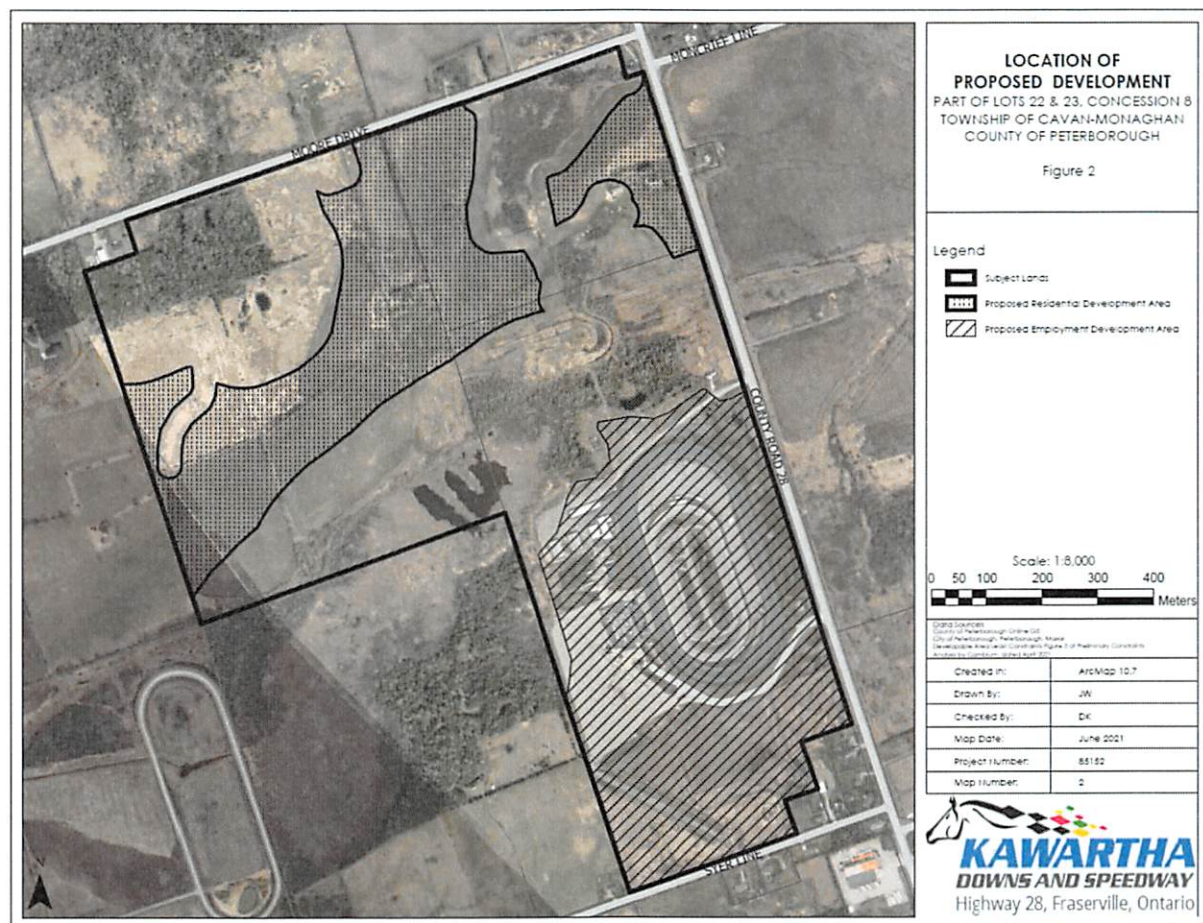


Figure 1 - Review Lands, Kawartha Downs Revitalization



## **4. POLICY REVIEW**

### **4.1. Provincial Policy Statement, 2020**

The Provincial Policy Statement 2020, Section 1.1.5.8, requires that new uses within rural lands should comply with the requirements of the Minimum Distance Separation (MDS) formulae.

In this case, the subject lands are designated 'Commercial Entertainment', 'Natural Core', and 'Natural Linkage' areas. The proposal includes the need for a planning application for a new land use on lands outside a Settlement Area boundary. A full and detailed review of MDS is included in this report as Section 9.

### **4.2. The Growth Plan for the Greater Golden Horseshoe**

The Growth Plan as amended in August, 2020 included the provision in Section 2.2.9 item 3c) states:

*"Subject to the policies of Section 4, development outside of settlement areas may be permitted on rural lands for:*  
*other rural land uses that are not appropriate in settlement areas provided they:*  
*i. are compatible with the rural landscape and surrounding local land uses;*  
*ii. will be sustained by rural service levels; and*  
*iii. will not adversely affect the protection of agricultural uses and other resource-based uses such as mineral aggregate operations."*

The reference to Section 4 provides the Policies for Protecting What is Valuable. This includes 4.2.6, which outlines the policy for the Agricultural System. The purpose of this Agricultural Impact Assessment is to assess the impact of the proposed development on the adjacent agricultural operations.

### **4.3. The County of Peterborough Official Plan**

The County of Peterborough Official Plan sets the land use framework for the Township of Cavan Monaghan. The Official Plan Section 4.2.3 says that new land uses on lands outside the Settlement Area of Fraserville shall comply with the Minimum Distance Separation formulae.

### **4.4. The Township of Cavan Monaghan Official Plan - January 2018**

The Township Official Plan contains policies for land use and land use changes for the subject lands and requires compliance with the Minimum Distance Separation formulae for certain planning





applications. The Official Plan designates the lands as Commercial Entertainment (Rural Employment), Prime Agricultural, Natural Linkage and Natural Core.

Section 3.27 Minimum Distance Separation (MDS) formulae says that "New land uses, including the creation of lots, and new or expanding livestock operations, shall comply with the Minimum Distance Separation I (MDS I) and the Minimum Distance Separation II (MDS II) Formulae contained in the publication Minimum Distance Separation (MDS) Document – Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks, Publication 853, Ministry of Agriculture, Food and Rural Affairs, as amended from time to time (the MDS Document)."

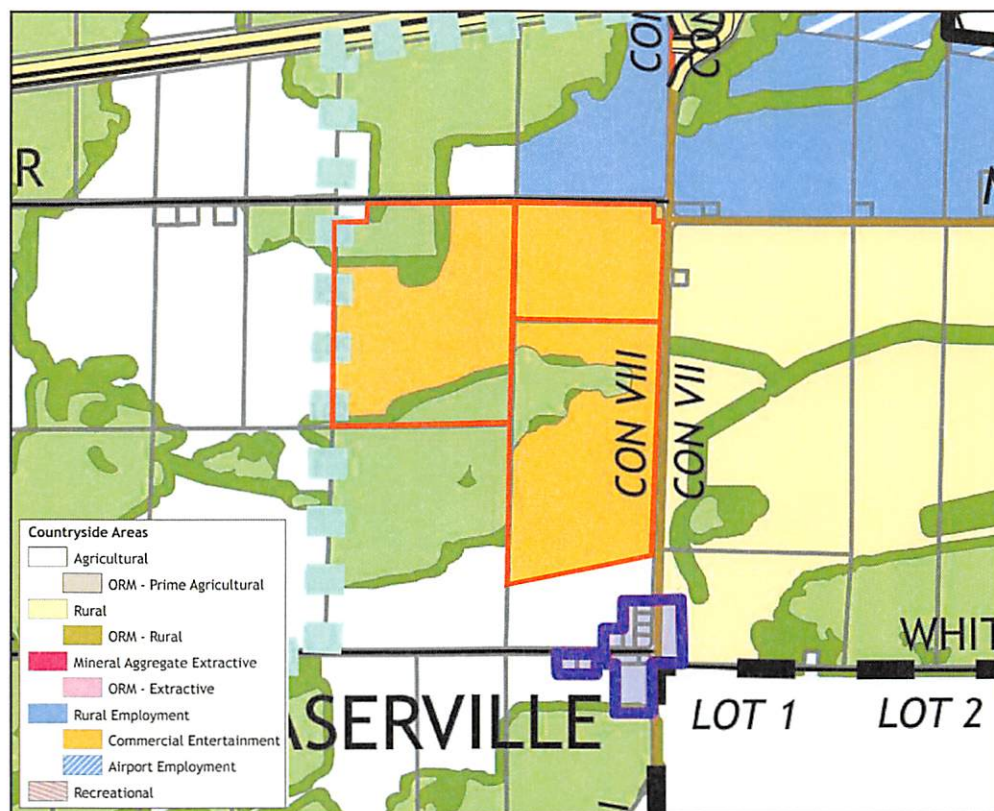


Figure 2 – Township of Cavan Monaghan Official Plan Excerpt

#### 4.5. The Township of Cavan Monaghan Zoning By-Law, 2018-58

The Township's Zoning By-law, 2018-58, places the subject lands within the following zone categories:

- Natural Linkage
- Natural Core
- Agricultural



- Entertainment Commercial.

Section 11, General Provision, part 11.22, says, "Notwithstanding any other yard or setback provisions of this By-law to the contrary, no residential, institutional, commercial, industrial or recreational use, located on a separate lot and permitted by this By-law shall be erected or altered unless it complies with the Minimum Distance Separation formula as established by the Province."

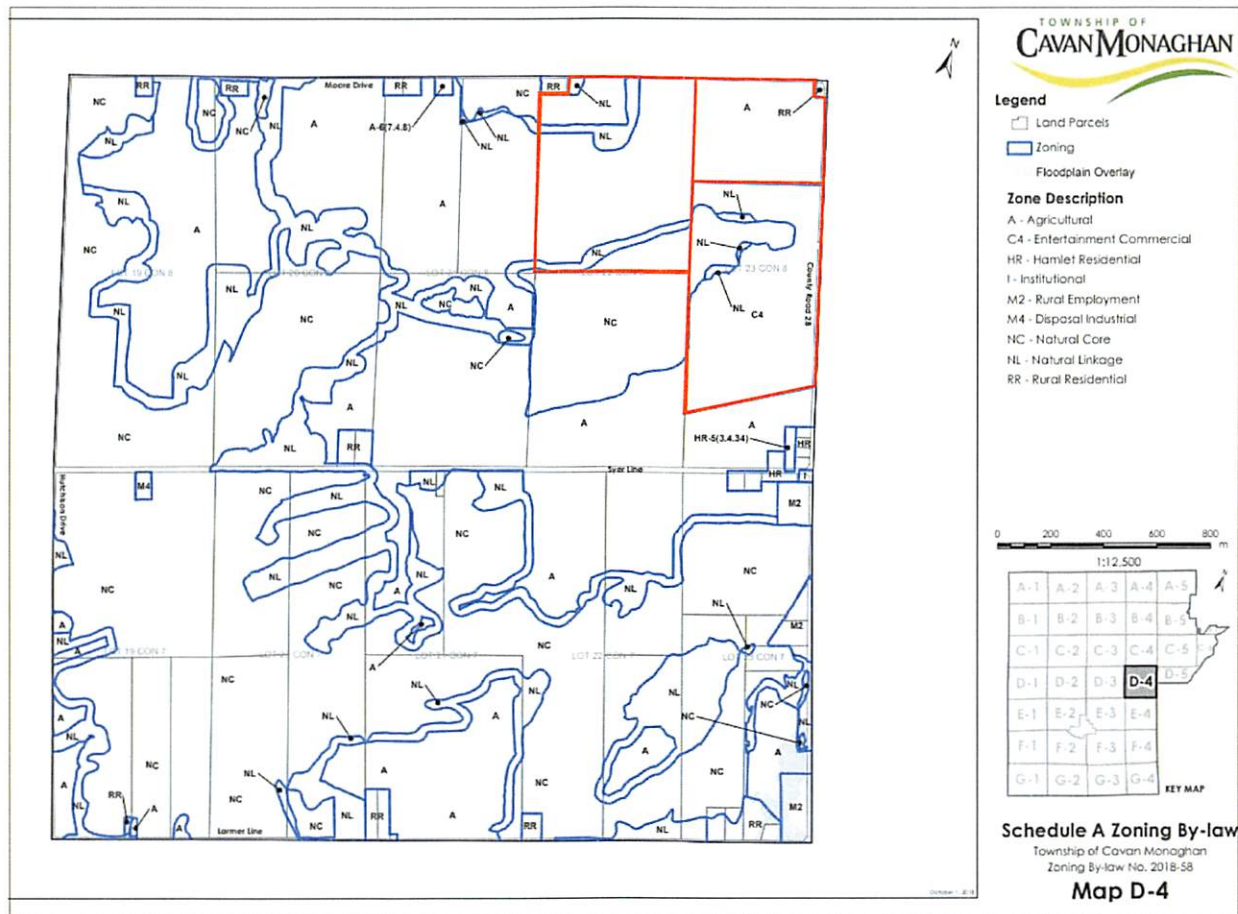


Figure 3 – Township of Cavan Monaghan Zoning By-law 2018-58 - Map D-4

## 5. AIA STUDY COMPONENTS

### 5.1.Process

In addition to the site visits, the review of the land use in the area, a review of planning documents, and a meeting with Municipal Planning Staff was held to provide information and context to the proposal and to provide up-to-date knowledge of local matters that should be addressed in the AIA.





## 5.2. History of Farming in the Township of Cavan Monaghan

The earliest European settlers were from the north of Ireland, with others from Britain and southern Ireland. The abundance of water played a major role in the early development of the area with mills supplying flour and feed, lumber and a great variety of other materials that spurred industry. Agriculture has formed a significant part of the local economy with original focus on general farming that has and continues to adjust to the changing times. The Township has a diverse range of agricultural operations, ranging from large cash crop operations and livestock facilities, to intensive farm operations growing horticultural and specialty foods. Urban influences have introduced on-farm diversified uses and recreational activities such as, the keeping of horses and special events.

## 5.3. Study Areas and Land Use Analysis

The review area has been assessed by analysis of available aerial imagery and by a “windshield review”, during the site visit of December 13, 2021. Land use has been categorized as Urban or Industrial Lands, Residential Lands, Agricultural Lands, Natural Lands and Roads. Where there were commercial or other miscellaneous uses, such as the hamlet of Fraserville, we have included these uses with the Residential Lands.

### 5.3.1. Kawartha Downs, Subject Lands – Current Land Use

The Primary Study Area comprises the entire subject lands (i.e. the three land parcels where the new development is proposed). This is an area of approximately 56.9 ha.

The Secondary Study Area includes lands that could potentially be impacted by the development. An area of 1,500 m from the subject lands was identified and forms the basis of the land review for potential impacts from the proposal. The rationale for 1,500 m as the investigation distance, is to capture land uses beyond the land parcels adjacent to the subject lands. This can be a good basis for investigating impacts such as noise and traffic. The Secondary Study Area is approximately 700 ha. This includes lands north of Highway 115 and east of County Road 28 within the Townships of Cavan Monaghan and Otonabee-South Monaghan.

## 6. AGRICULTURAL CAPABILITY, SOILS AND DRAINAGE

The Canada Land Inventory (CLI) is a comprehensive multi-disciplinary land inventory of rural Canada. *Figure 4 - Canada Land Inventory* is an excerpt showing the relevant part of the Township of Cavan Monaghan and CLI information with the location of the review parcels. There are seven classes used to rate agricultural land capability. Class 1 lands have the highest and Class 7 lands the lowest capability to support agricultural land use activities. Subclasses are used to identify specific



limiting factors within each class. The CLI mapping for the Township of Cavan Monaghan can be found within the Agricultural Information Atlas website, published and maintained by the Ontario Ministry of Agriculture, Food and Rural Affairs.

Soil information is published by Agriculture and Agri-Food Canada under the Canadian Soil Information Service (CanSIS) National Soil DataBase Structure. The original soil surveys were completed between 1914 and 1975 with an update to some of the reports being completed on an ongoing basis. The Township of Cavan Monaghan soils are found within the *"Soil Survey of Durham County"* published in 1946 as Report No. 9. Soils for the County of Peterborough are found in Report No. 45. The division between these two reports is County Road 28. The review area of 1,500 m from the boundary of the subject lands, including the soils in the area east of County Road 28.

The Provincial Policy Statement 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."*

It should be noted that in reviewing available soils mapping, the soils east of County Road 28 are shown as markedly different than the soils west of County Road 28. The soils east of the road are mapped out in the Soil Survey for Peterborough County and the soils west of the road are mapped in the Soil Survey of Durham County. During the site visit, it was noted that the lands east of County Road 28 are level to gently sloping and are vacant, used for pasture, hay, crops and included barns and training areas for horses. The lands west of 28 are more rolling. They include wet areas which separate the cultivated lands. There are also more developed lands.

The following table describes the soils, as mapped, and soil capabilities within each review parcel. As we examine the CLI value attributed to each soil type, we can see the wide variability of the soils found within the review areas (i.e. Otonabee soils are marked as Classes 1 and 4).





PARCEL	SOIL NAME	CLI CLASSIFICATION
Primary Review Area	Otonabee loam	1
	Guerin sandy loam	1
	Tecumseth sandy loam	2
	Muck	Organic
Secondary Review Area	Percy loam	1
	Guerin sandy loam	1
	Otonabee loam	1
	Tecumseth sandy loam	2
	Otonabee loam	4
	Granby sandy loam	4
	Brighton sandy loam	4
	Tioga sandy loam	4
	Dundonald sandy loam	4
	Bondhead sandy loam	4
	Granby sandy loam	5
	Bottom Land	5
	Muck	Organic

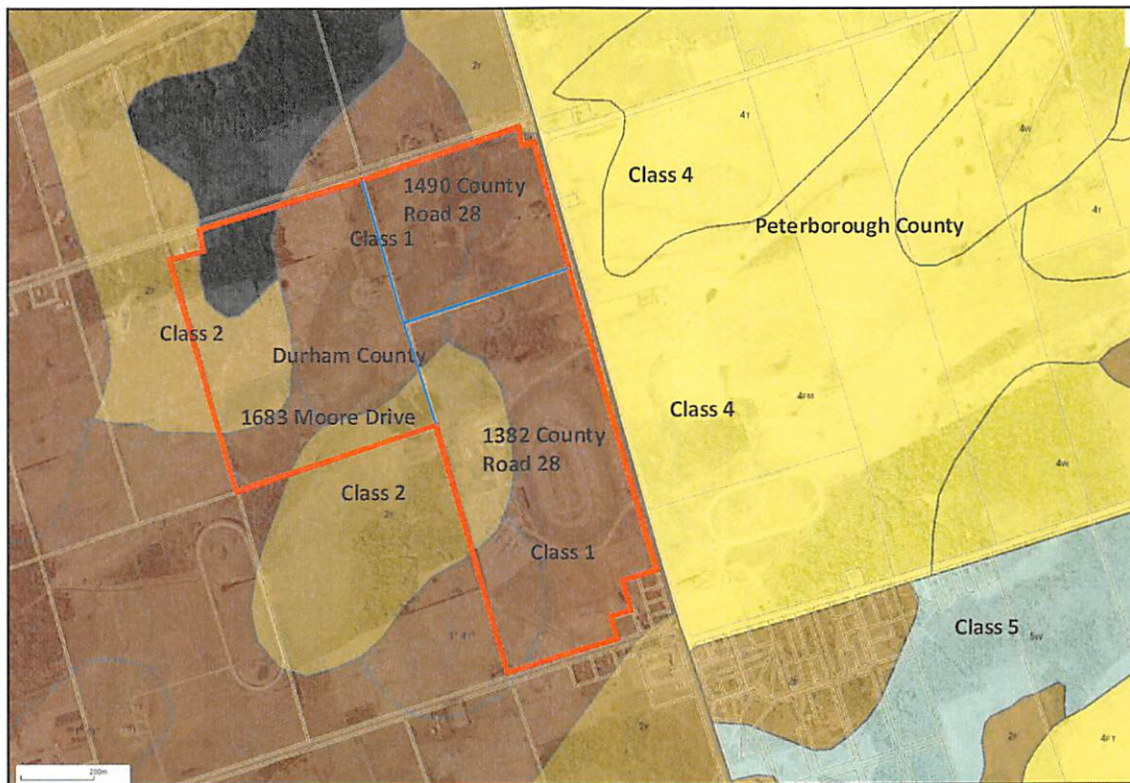


Figure 4 – Soils Mapping from Soil Surveys for Peterborough County and Durham County



## 6.1. Agricultural Tile Drainage

Installing tile drainage is a very common land improvement practice. Corrugated plastic tubing, clay or concrete drain tiles are installed beneath the surface of agricultural land to drain excess water from the root zone. The benefits of tile drainage for crop productivity, farm efficiency and even for reducing environmental impacts have been studied and are generally acknowledged by farmers.

The Agricultural Information Atlas has mapped tile drainage installed in fields within the Township. A review of the mapping shows there is an area of approximately 10 ha of systematic tiling in the southern part of Lot 21, Concession 8, Cavan. This appears to be the only area mapped as tile drained throughout the review area. During the site visit there was evidence that some new tiling had been done in a field east of County Road 28.

Throughout the review area, there are wet areas covered in trees or lying open. The open wet areas showed standing water.

## 6.2. Detailed Soil Study

A detailed Soil Study was carried out on the two land parcels at 1490 County Road 28 and 1683 Moore Drive. The Test Pit Logs for both parcels are presented as *Attachment B* to this report. The conclusions of the soil study show that there is variation within the soil types to the extent that the elevated lands rate as good quality agricultural lands. The sloping areas present concerns with erosion and the lower lands are generally poorly drained and, in most cases, cannot be cultivated. These lands may be classified as the same soil type but the variation places each area in a separate capability classification.

## 6.3. Detailed Soil Study – 1683 Moore Drive (Western Parcel)

CCS completed a detailed soil study of the first of two land parcels subject to the majority of the residential development, 1683 Moore Drive. The soils map (*Figure 5*) shows this parcel is entirely comprised of Class 1 soils. The detailed Soil Study shows the Class 1 soils occupy much less land (33 %) than the CLI mapping shows (100%). The unclassified areas are disturbed or occupied by structures and cannot be classified as to agricultural capability.

SOIL CLASS	LAND AREA	PERCENTAGE	SUB CLASS	SOIL TYPES
1	5.95 ha	33%		Guerin sandy loam Otonabee loam
3T	3.8 ha	21%	Slopes	Otonabee loam
3W	0.23 ha	1%	Poor Drainage	Guerin sandy loam
4W	7.3 ha	40%	Poor Drainage	Guerin sandy loam Otonabee loam
Unclassified	0.8	4%		





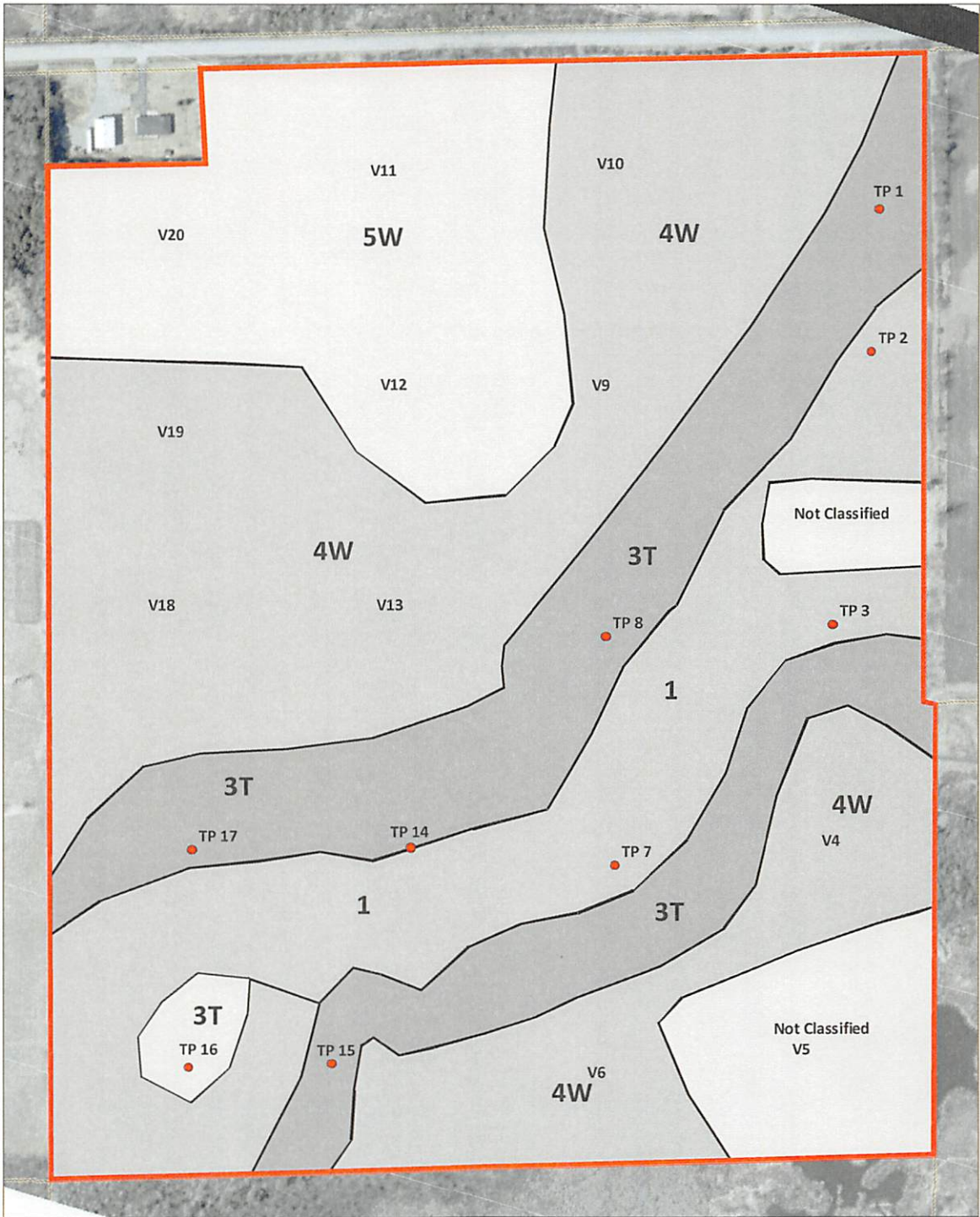


Figure 5 - Detailed Soils Mapping - 1683 Moore Drive



#### 6.4.Detailed Soil Study – 1490 County Road 28 (Eastern Parcel)

CCS completed a detailed soil study of the second of two land parcels subject to the majority of the residential development, 1490 County Road 28. The Soils Map (*Figure 6*) shows this parcel is comprised of Class 1, Class 2 and Muck soils. The detailed soil study shows the Class 1 soils occupy approximately 24.5 ha or 59% of the parcel. The soil study shows Class 1 soils occupy approximately much less land (33%) than the CLI mapping shows (100%).

SOIL CLASS	LAND AREA	PERCENTAGE	SUB CLASS	SOIL TYPES
1	8.0 ha	18%		Otonabee loam Guerin sandy loam
3T	9.46 ha	21%	Slopes	Otonabee loam Guerin sandy loam
4W	16.5 ha	37%	Poor Drainage	Otonabee loam Muck Tecumseth sandy loam Guerin sandy loam
5W	7.6 ha	17%	Poor Drainage	Otonabee loam Muck Guerin sandy loam Tecumseth sandy loam
Unclassified	0.8	4%		





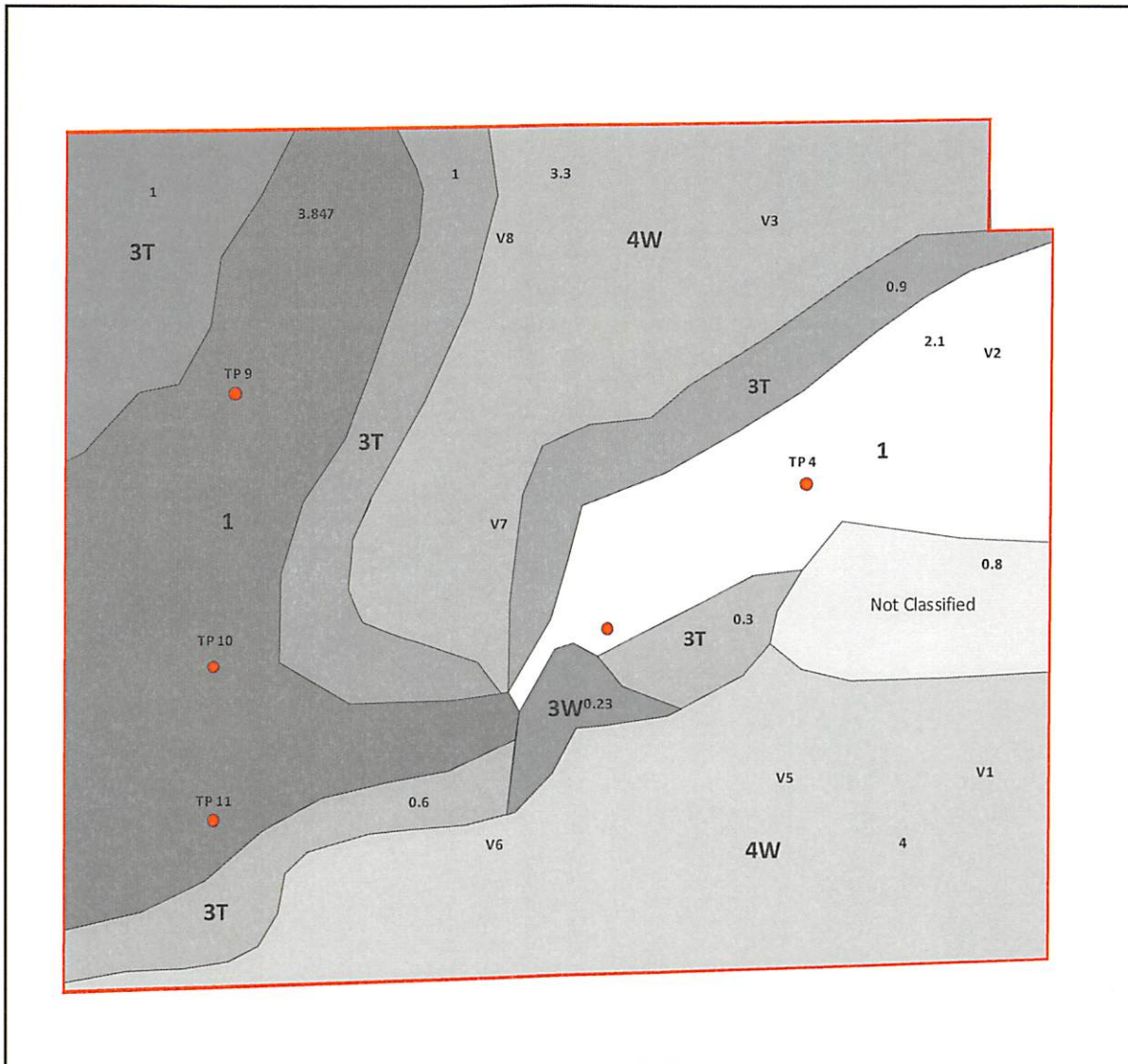


Figure 6 - Detailed Soils Mapping - 1490 County Road 28

### 6.5. Soil Study – 1382 County Road 28

The land parcel at 1382 County Road 28 is the largest of the three review parcels (48.59 ha). This parcel is shown as a majority of Class 1 soils. No detailed study was done on this parcel. The majority of the parcel is in part developed, and the majority of the remainder of the parcel is disturbed soils. No further review has been done on this parcel.



## 7. PHYSIOLOGY AND CLIMATE

At the time of the site visit (December 13, 2021), the majority of the cropland within the review area had been harvested. A review of the various climate zones within the review area has been made.

Farming corporations (family farm operations or cooperative companies) are owning and renting land to help make their operation of preparing land and seeding through to harvesting a more efficient process. Crop producers in Ontario rely upon corn and soybeans as staple grains for the preparation of feed products for livestock. Ontario also produces wheat, barley, and various oilseeds. As such it is not uncommon to see large areas of corn and beans while reviewing farmland across Ontario. Common field crops can be planted in a variety of soil types and capabilities. Within the review area, there are large tracts that are in a natural state and used as connective lands rather than productive agricultural lands.

A consideration for growing of corn in Ontario is to understand the heat units for the region you are in. The entire Township of Cavan Monaghan is within the same heat unit category of between 2,700 and 2,900. As such, there are no alternative lands within the Township within a lower heat unit category.

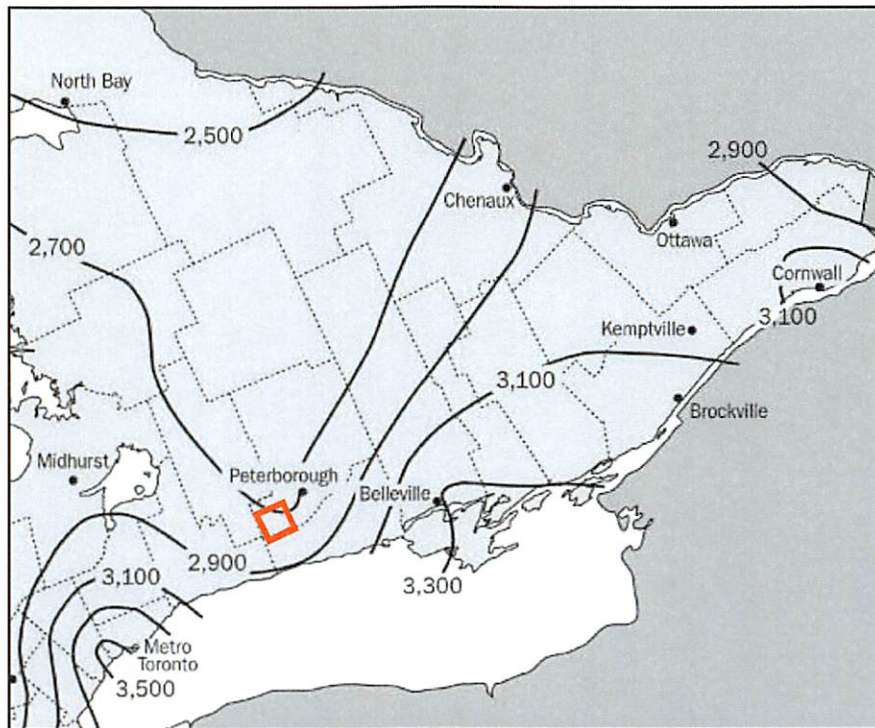


Figure 7 – Physiology and Climate





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## 8. DESCRIPTION OF LOCAL AGRICULTURAL ACTIVITIES AND INTENSITY

The Township of Cavan Monaghan has a typical Central Ontario rural focus. Agriculture plays an important role as is noted by the number of active dairy and beef farms, actively cropped fields and farm equipment sales and service dealers in and around the Township. The Township covers approximately 31,000 ha of land with about 3% of that set aside for urban or developed areas. A review of aerial photos shows a number of small to medium-sized woodlot areas and poorly drained wet areas. The majority of the remaining land is used for various types of agricultural activity.

The 2020 PPS Section 6 includes in its definition of "*Prime Agricultural Land*", as predominantly CLI Class 1, 2 and 3 lands. It also includes in its definition of "*Prime Agricultural Area*", Class 4-7 lands which exhibit an ongoing investment in agriculture.

## 9. MINIMUM DISTANCE SEPARATION FORMULAE (MDS)

The Ministry of Agricultural Food and Rural Affairs has established a process for determining appropriate separation distances for new non-farm uses (residential, industrial, commercial, etc.) in relation to farm uses. This process is referred to as an MDS I Review and requires the determination of the type and size of neighbouring farm livestock operations within a specific review area (750 m or 1,500 m, depending on the 'Type' of application submitted). The calculation generates a recommended separation distance between a farm use related to manure generation, storage or handling, and proposed neighbouring non-farm uses. This process is described in the Ministry's Publication 853, The Minimum Distance Separation (MDS) Document.

### 9.1. Review of Applicable MDS Guidelines

The applicable MDS Guidelines for the review of the Kawartha Downs proposal are identified as listed and described below. In some circumstances, the information has non-applicable information edited from the specific Guideline.

#### Guideline 2

The MDS I setback distances shall be met prior to the approval of:

- rezonings or redesignations in accordance with Implementation Guideline 10.

The information used to carry out an MDS I calculation must reflect the circumstances at the time that the Municipality deems the planning application to be complete.

#### Guideline 3

Certain proposed uses are not reasonably expected to be impacted by existing livestock facilities or anaerobic digesters and as a result, do NOT require an MDS I setback:

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- 
- livestock barns occupying an area less than 10 m<sup>2</sup>;
  - certain unoccupied livestock barns in accordance with Implementation Guideline 20;
  - field shade shelters;
  - kennels;
  - pastures;
  - veterinary clinics with housing for livestock.

**Guideline 6**

A separate MDS I setback shall be required to be measured from all existing livestock facilities and anaerobic digesters on lots in the surrounding area that are reasonably expected by an approval authority to be impacted by the proposed application.

As part of Municipal consideration of planning applications, all existing livestock facilities or anaerobic digesters within a 750 m distance of a proposed Type A land use, 1,500 m distance of a proposed Type B land use shall be investigated, and MDS I setback calculations undertaken where warranted.

**Guideline 10**

An MDS I setback is required for all proposed amendments to redesignate land to permit development in Prime Agricultural Areas and rural lands presently zoned or designated for agricultural use.

**Guideline 12**

An MDS I setback is required for proposed development or dwellings, even though there may be existing or approved development or dwellings nearby that do not conform to MDS I requirements. However, a reduced MDS I setback may be permitted provided there are four or more, non-agricultural uses, residential uses and/or dwellings closer to the subject livestock facility than the proposed development or dwellings and those four or more non-agricultural uses, residential uses and/or dwellings are:

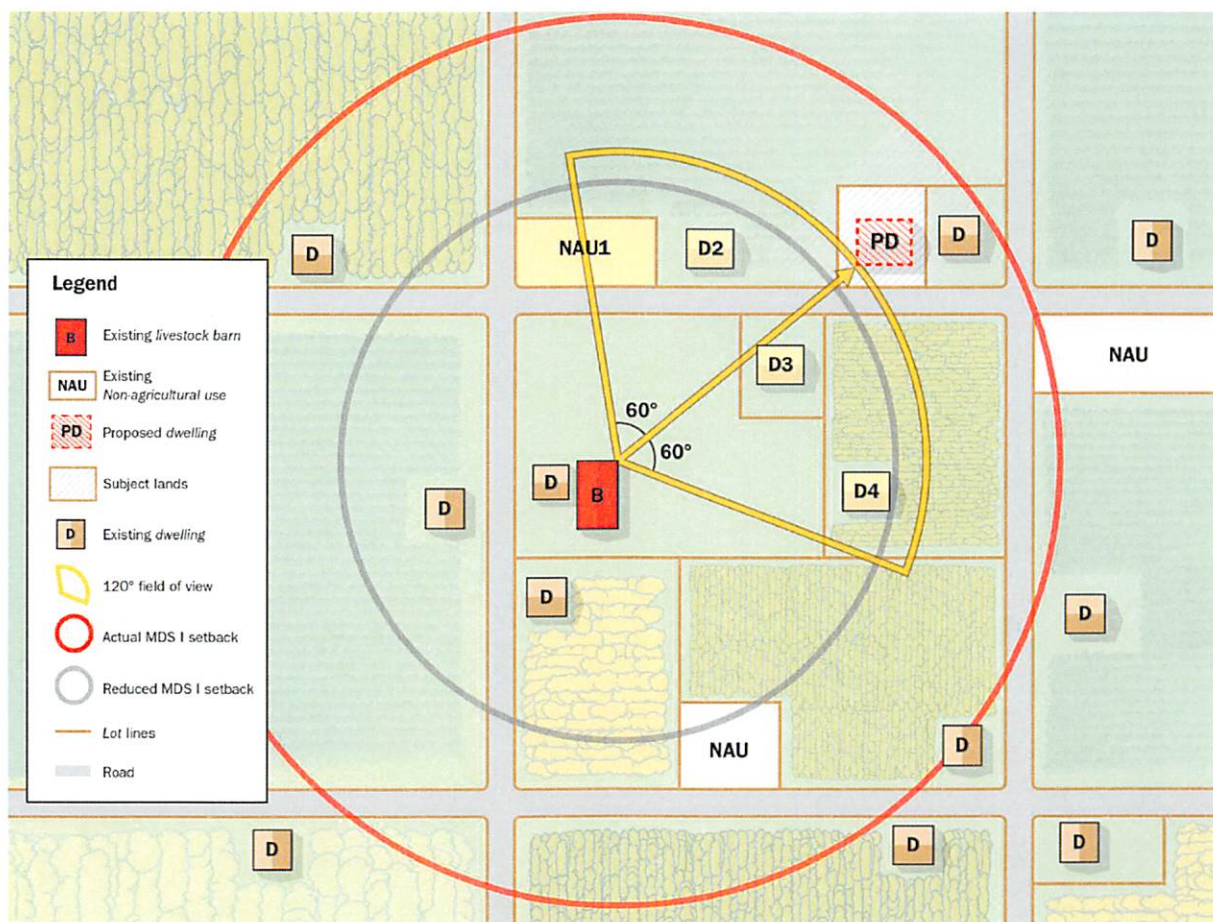
- located within the intervening area (120° field of view shown in *Figure 4* in Section 7 of this MDS Document), between the closest part of the proposed development or dwelling and the nearest livestock facility or anaerobic digester;
- located on separate lots;
- and of the same or greater sensitivity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

If all of the above conditions are met, the MDS I setback for the proposed development may be reduced such that it is located no closer to the livestock facility or anaerobic digester than the furthest of the four non-agricultural uses.





The following diagram is taken from the Guidelines Document to illustrate how an MDS setback is reduced to the fourth non-farm use.



**Figure 4.** Implementation Guideline #12 — existing uses that do not conform to MDS.

### **Guideline 20**

Design capacity for an MDS I calculation shall include all unoccupied livestock barns on a lot in accordance with this Implementation Guideline.

- However, an MDS I setback is not required when: the floor area of the unoccupied livestock barn is  $<100 \text{ m}^2$ .

### **Guideline 33**

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

- industrial uses outside a Settlement Area;



- 
- open space uses;
  - building permit applications on existing lots outside a Settlement Area for dwellings, unless otherwise specified in a Municipality's Zoning By-law in accordance with Implementation Guideline 7.

#### **Guideline 34**

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

- new or expanded Settlement Area boundaries;
- an Official Plan Amendment to permit development, excluding industrial uses, on land outside a Settlement Area;
- a Zoning By-law Amendment to permit development, excluding industrial uses or dwellings, on land outside a Settlement Area; and
- the creation of one or more lots for development on land outside a Settlement Area, that results in four or more lots for development, which are in immediate proximity to one another (e.g. sharing a common contiguous boundary, across the road from one another, etc.), regardless of whether any of the lots are vacant.

Because of the increased sensitivity of these uses, a new or expanding Type B land use will generate an MDS I setback that is twice the distance as the MDS I setback for a Type A land use.

#### **Guideline 36**

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

It is also important to note that once an area is designated as a Development Area, new livestock facilities may be restricted from developing in proximity to the new Urban Boundary.

### **9.2. Gathering Barn and Livestock Facility Information**

The completion of a Minimum Distance Separation review requires a review of the proposal, an understanding of the proposed changes, a site visit to review barns, a full review of the MDS Implementation Guideline Document 853, and, if required, a discussion with the owners of identified livestock facilities and barns.

This review has been carried out during the time of public health restrictions due to COVID-19. CCS Staff did not enter farm property for the purpose of talking to barn owners. In order to understand the housing capacity of individual livestock facilities, CCS has relied upon a measurement of floor area from an aerial review of structures using Google Earth. In doing so, CCS understands that using





the full floor area as possible housing increases the actual housing capacity in most cases. Livestock facilities generally require area for feed storage, feed preparation, equipment storage, and space for movement and treatment of animals. By using the entire floor area as housing space we acknowledge that the MDS setbacks generated may be greater than they would be if we were to gather information directly from the owner.

### 9.3. Review of Identified Livestock Facilities

A review of available aerial imagery was made prior to the site visit. This was to identify possible livestock facilities within the review area. Each of these possible barn structures was identified during the site visit to determine if they are livestock facilities, and if so, the type and capacity of each facility. The information gathered is presented below as part of this MDS review.

The site visit identified that the review area is a mixed use of agricultural and non-farm uses. We have prepared a sketch showing the location of the identified barns and the location of non-farm residences, commercial or industrial uses, and other non-farm uses. Implementation Guideline 12 directs that where there are four or more non-farm uses between the barn and application lands, any MDS setback generated from that barn is reduced to the fourth non-farm use from the barn. In this case, there are a number of barns east of County Road 28 and south of Syer Line that may be reduced. These are shown in *Figure 8d* below.

The historic, current and future uses on the subject lands includes horse racing. As expected, the area surrounding Kawartha Downs is home to a large number of horse farms of various sizes. A number of horse training ovals and enclosed training arenas were seen. Cleared farmland is most commonly used for pasturing livestock, rather than crop production.

The following MDS review considers the various Guidelines set out by OMAFRA. The review area of 1,500 m is prescribed to focus the review on possible impact on existing barns that “*are reasonably expected by an approval authority to be impacted by the proposed application*” (Guideline 6).

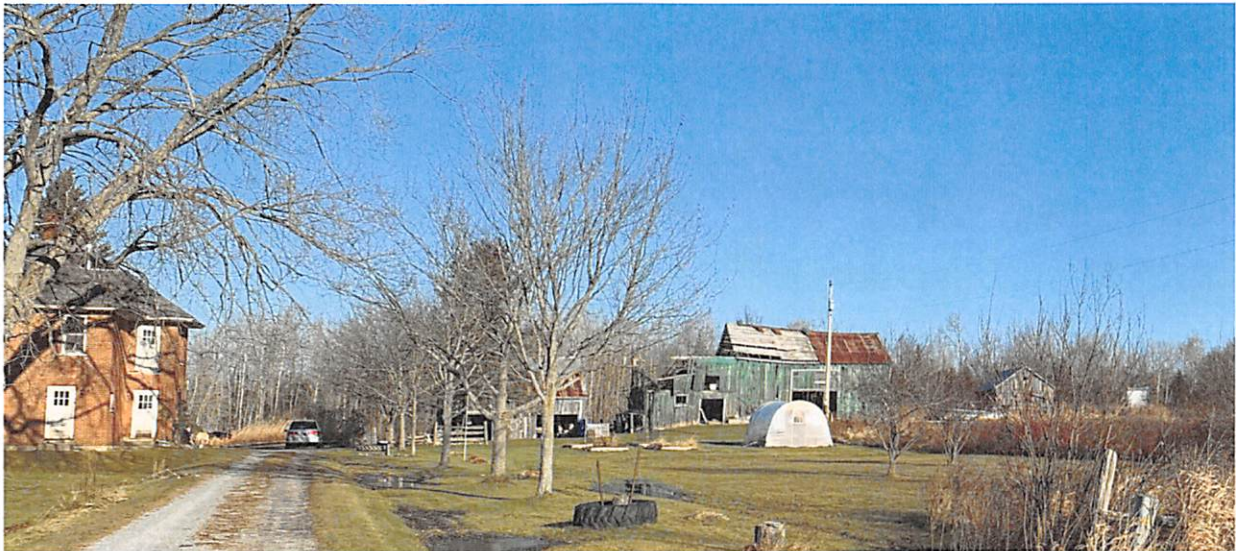
### 9.4. Details of Identified Livestock Facilities

#### **Barn 1**

Barn 1 is located on the property at 1680 Moore Drive. This 30 ha property has a number of older outbuildings in poor condition. A livestock facility should be a safe structure and provide the required amenities for a healthy place for livestock to live. These buildings are not suitable to house livestock. No MDS setback is generated from this barn.



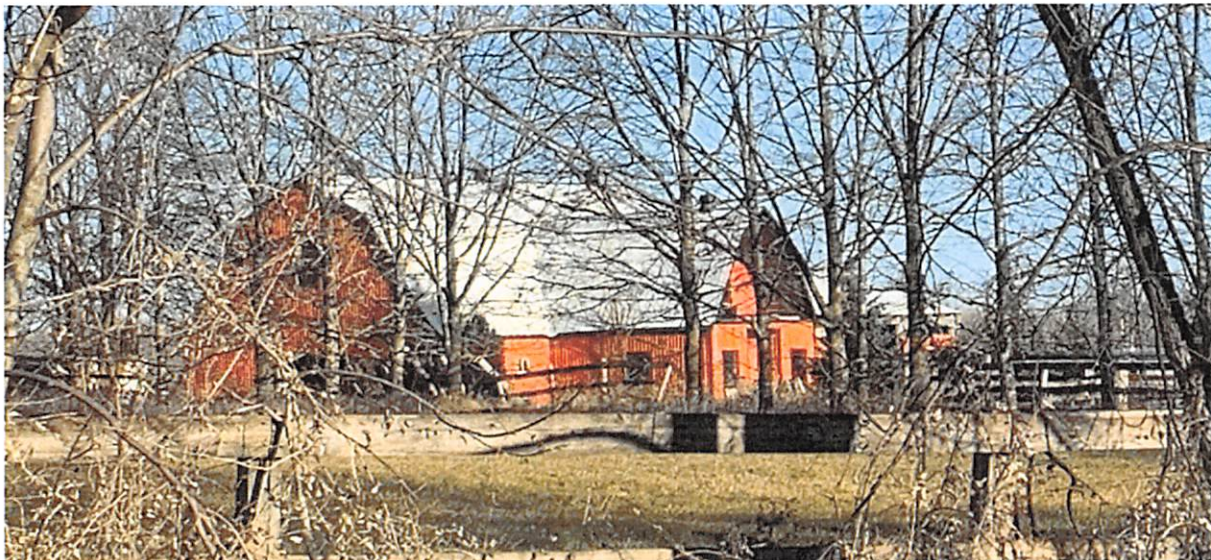




*Barn 1 at 1680 Moore Drive*

### ***Barn 2***

Barn 2 is located at 1590 Moore Drive, and is known as Cavan Ridge Standardbreds. The barn is a modern horse barn painted orange. The barn floor area is approximately 255 m<sup>2</sup>. A standardbred is a medium sized horse. Based on the floor area of the barn, it has a capacity of 11 horses. The MDS setback generated from this barn is 220 m with an actual distance from barn to subject lands of 324 m. A test setback of 35 horses generates a setback of 312 m, and so would still be less than the actual distance.



*Barn 2 at 1590 Moore Drive*





### ***Barn 3***

Barn 3 is a modern barn suitable for housing horses. A hoop style structure is used for storing hay. The barn is green and is a two-part structure. For capacity amount, we have used the floor area of the entire structure. It is expected that only the western portion is used for housing horses. Based on the above, an MDS setback of 240 m applies to this barn. The actual distance to the subject lands is 317 m.



*Barn 3 at 1569 Moore Drive*

### ***Barn 4***

Barn 4, Parliament Hill Stables, is located at 1558 Moore Drive, and is a barn suitable for housing horses. An arena is attached to the north side of the barn. The barn is suitable for housing medium sized horses and has a floor area of approximately 611 m<sup>2</sup>. The estimated housing is 26 horses. The MDS separation distance calculated is 286 m. The actual distance from the barn to the subject lands is 467 m.



*Barn 4 at 1558 Moore Drive*





### ***Barn 5***

Barn 5 is an original old beef barn with housing within the concrete walled foundation and storage above the housing area. The barn is of a style designed for beef cattle. There was no evidence of livestock during the site visit, however, the barn appears in very good shape and capable of housing animals. The floor area of the barn is approximately 190 m<sup>2</sup>. This provides enough space for 51 beef cattle, although it is very unlikely this barn has been used for as many cattle as 51 head. The MDS generated is 282 m, while the actual distance to the subject lands is 698 m.



*Barn 5 at 1522 Moore Drive*

### ***Barn 6***

Barn 6, at 1495 Moore Drive, is a steel roofed grey building. This appears to be an old single storey beef barn. This is probably suitable for housing up to 20 cattle, but for the purposes of this review, since the floor area is approximately 390 m<sup>2</sup>, we will calculate a setback based on a housing of 105 head of cattle. The MDS setback for this barn is 396 m while the actual distance to the subject lands is 854 m.



*Barn 6 at 1495 Moore Drive*





### ***Barn 7***

Barn 7, at 2625 Clifford Line, is a black painted wooden sided barn that is of the type suitable for housing large livestock. We have assumed this barn could house beef cattle. Based on the floor area, the barn could house up to 41 cattle, but in reality would probably house a maximum of 20 or so. Based on a housing of 41 beef cattle, the MDS setback is 298 m while the actual distance is 1,379 m to the closest point of the subject lands.



*Barn 7 at 2625 Clifford Line*

### ***Barn 8***

Barn 8, at 2600 Moncrief Line, is an old 'L' shaped building that is overgrown with trees and shrubs around the building. This is not being used for livestock and is unlikely to be capable of housing livestock. The actual distance to the barn from the subject lands is 459 m. If the barn was capable of housing livestock, and if it was used to house 100 beef cattle, the MDS setback would be 389 m. The entire barn floor area is approximately 550 to 600 m<sup>2</sup>. Assuming space for feed and storage, the upper limit of this barn's capacity is 148 cattle, with an associated MDS setback of 447 m.



*Barn 8 at 2600 Moncrief Line*





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**Barn 9**

Barn 9 is at 2549 Moncrief Line. Part of this structure has collapsed and is not suitable for housing livestock. Because of this, no MDS calculations have been made for this barn.

**Barn 10**

Barn 10 is located at 2476 Moncrief Line. This property is home of "*Ontario Elite Hunter*". This 16 ha farm includes a barn and hoop style arena. The barn total floor area is approximately 355 m<sup>2</sup>. This permits housing of up to 15 horses. The MDS setback is 239 m, while the actual distance to the subject lands is 991 m.

**Barn 11**

Barn 11 is located at 2449 Moncrief Line. This is a horse farm with a large training oval to the south of the barns. There are a number of outbuildings which appear to include stable space for horses and equipment storage. The total floor area for all four buildings is 800 m<sup>2</sup>. We have prepared a calculation based on using all of the floor areas within each building. The MDS setback is 345 m, while the actual distance to the subject lands is 1,065 m.

**Barn 12**

Barn 12 is located at 2380 Moncrief Line and is a green roofed older bank barn. This barn appears to be a beef barn with a floor area of 166 m<sup>2</sup>. A shelter structure is east of that barn and a newer horse barn is west of the beef barn, with a floor area of 224 m<sup>2</sup>. The calculated MDS for these barns is 303 m, with an actual distance to the subject lands of 1,301 m.



*Barn 12 at 2380 Moncrief Line*





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***Barn 13***

Barn 13 is located at 2361 Moncrief Line. The barn, south of the house, has a floor area of approximately 450 m<sup>2</sup> allowing the housing of 19 medium horses. Using this as the capacity basis for housing, the MDS setback is 257 m, while the actual distance to the subject lands is 1,410 m.

***Barn 14***

Barn 14 is located at 1331 County Road 28. This is a yellow painted structure suited to housing horses with a stable floor area of approximately 300 m<sup>2</sup>. The calculated MDS setback for this barn is 229 m. The actual distance to the closest part of the subject lands is 182 m meaning the MDS setback encroaches 47 m.

***Barn 15***

Barn 15 is located at 1667 Syer Line. This 21 ha farm has older wooden structures which may be used to shelter beef cattle. An estimate of 15 cattle was made for the MDS calculation. The MDS setback is 185 m, while the actual setback to the subject lands is 257 m.



*Barns at 1667 Syer Line*

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**Barn 16**

Barn 16 is located at 1631 Syer Line. This 60 ha farm has a grey metal roofed 'L' shaped barn that appears to be designed for beef cattle. Based on the floor area of the barn, the maximum housing of beef cattle is 81 head, and the MDS setback as calculated is 368 m while the actual distance to the subject lands is 543 m.



*Barn 16 at 1631 Syer Line*

**Barn 17**

Barn 17 is located at 1554 Syer Line. This is a 42 ha farm with grey metal roofed structures and a large horse training oval. Based on an estimated floor area of 486 m<sup>2</sup>, the barn can house 21 medium sized horses. The MDS setback is 305 m, while the actual distance to the subject lands is 715 m.



*Barn 17 at 1554 Syer Line*



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***Barn 18***

Barn 18 located at 1508 Syer Line and is on a 41 ha farm. The structures on this property are difficult to view from the roadside, so we have used an analysis of aerial imagery to determine an appropriate MDS setback. The farm includes a dwelling and three main structures. Fenced paddocks can be seen adjacent to a barn. The floor area of three structures is 300 m<sup>2</sup>. The MDS setback for this barn is 257 m, while the actual distance to the subject lands is 861 m.

***Barn 19***

Barn 19 is located at 2351 Moncrief Line, and is a 11 ha farm property with two outbuildings and a training track. The buildings are set away from Moncrief Line and are difficult to assess. An assumption was made that these may house horses, as is typical in this area, and using aerial imagery, the buildings' floor area totals 480 m<sup>2</sup>. The MDS setback generated from this property is 252 m, while the actual distance to the subject lands is 1,382 m.

***Barn 20***

Barn 20 is located at 1453 Moore Drive. The structures on this 81.5 ha property are difficult to see from the roadside. An analysis of aerial imagery shows the farm includes a dwelling and metal roofed outbuildings. Two structures appear to have been used for livestock. The combined floor area of these is approximately 480 m<sup>2</sup>. If these buildings were designed for beef cattle, we can attribute a maximum housing of 129 cattle. The MDS setback generated from these buildings is 426 m. The actual distance from the buildings to the subject lands is 1,360 m.

**9.5. Summary of Calculated MDS Setbacks**

Section 9 of this report presents the findings that the review of the various barns and livestock facilities identified during the analysis of lands up to 1,500 m beyond the boundaries of the subject lands. No high intensity livestock farming operations, or factory farms, were noted within or beyond the 1,500 m review limit. The following tables and maps show the MDS findings, and shows the Barn or Farm ID, the calculated MDS setback and the actual distance from the closest part of the barns reviewed, to the closest part of the subject lands.





### Moore Drive Area

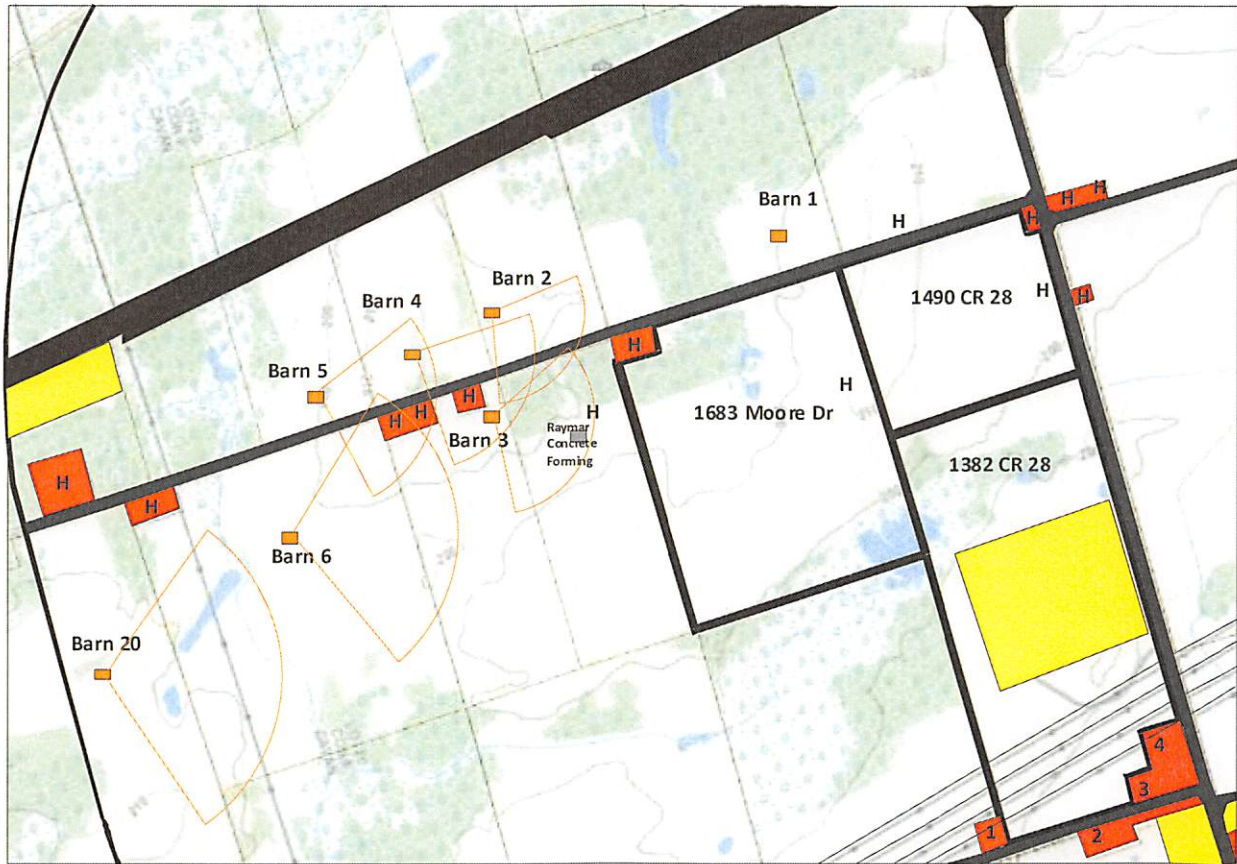


Figure 8a - Map of Barns and MDS Setbacks, Moore Drive Area

BARN ID	BARN ADDRESS	CALCULATED MDS SETBACK	ACTUAL DISTANCE TO SUBJECT LAND	COMPLIANCE
1	1680 Moore Drive	0	120	Y
2	1590 Moore Drive	220	324	Y
3	1569 Moore Drive	240	317	Y
4	1558 Moore Drive	286	467	Y
5	1522 Moore Drive	282	698	Y
6	1495 Moore Drive	396	854	Y
20	1453 Moore	426	1360	Y



East of County Road 28 Area

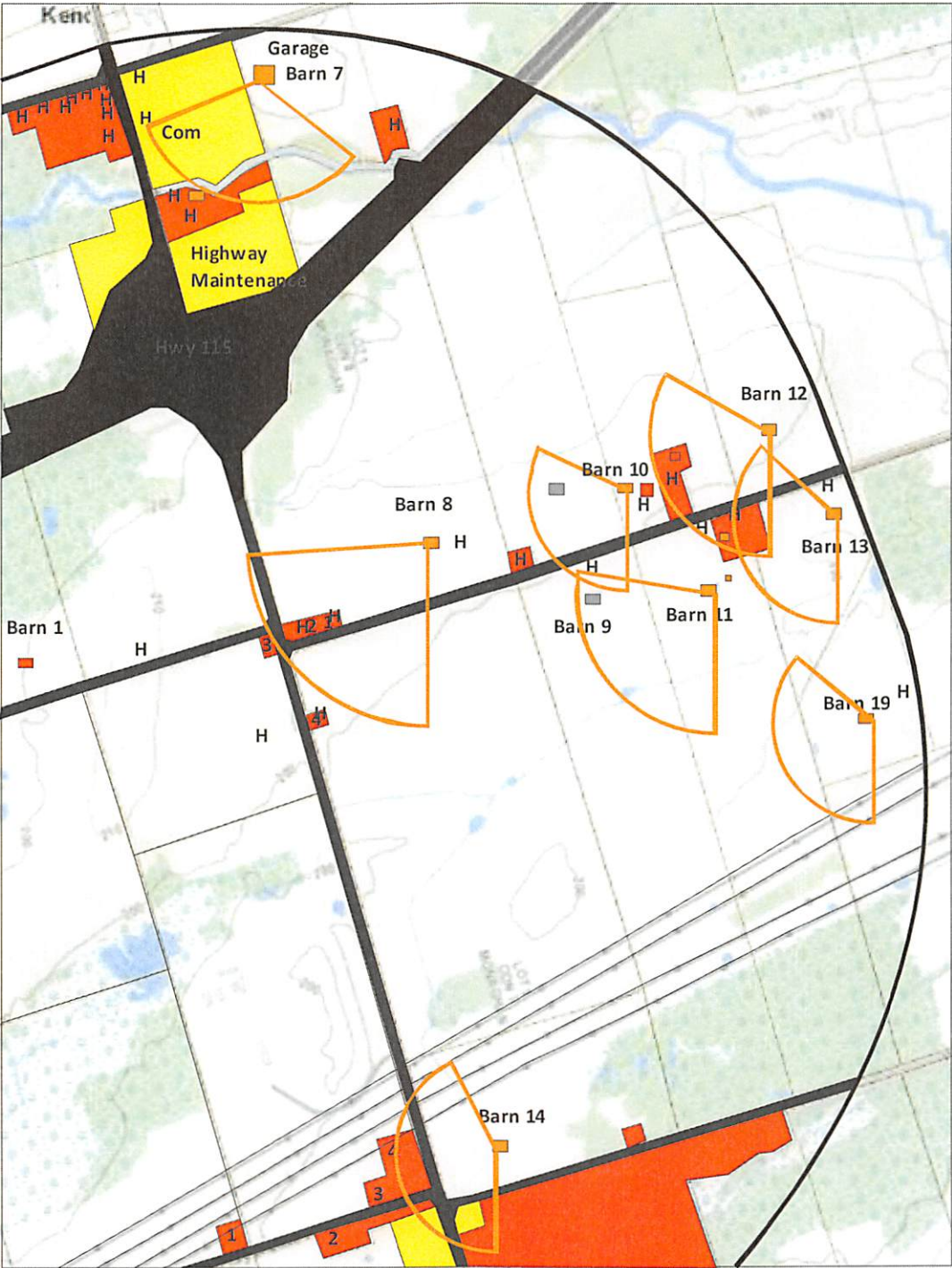


Figure 8b - Map of Barns and MDS Setbacks, East of County Road 28 Area





BARN ID	BARN ADDRESS	CALCULATED MDS SETBACK	ACTUAL DISTANCE TO SUBJECT LAND	COMPLIANCE
7	2625 Clifford	298	1379	Y
8	2600 Moncrief	447	450	Y
9	2549 Moncrief	0	775	Y
10	2476 Moncrief	239	991	Y
11	2449 Moncrief	345	1065	Y
12	2380 Moncrief	303	1301	Y
13	2361 Moncrief	257	1410	Y
<b>14</b>	<b>1331 County Road 28</b>	<b>229</b>	<b>182</b>	<b>N</b>
19	2351 Moncrief	252	1382	Y

Barn 14, 1331 County Road 28, is a yellow-sided horse facility. The MDS setback, based on the measurement of floor area, is 229 m, while the actual distance to the subject lands is 182 m. This barn generates an MDS setback greater than the actual separation distance between the barn and subject lands. The area of encroachment is a grassed natural area and is not an area proposed for development. Based on this review of Minimum Distance Separation, the proposal does not impact existing livestock facilities.

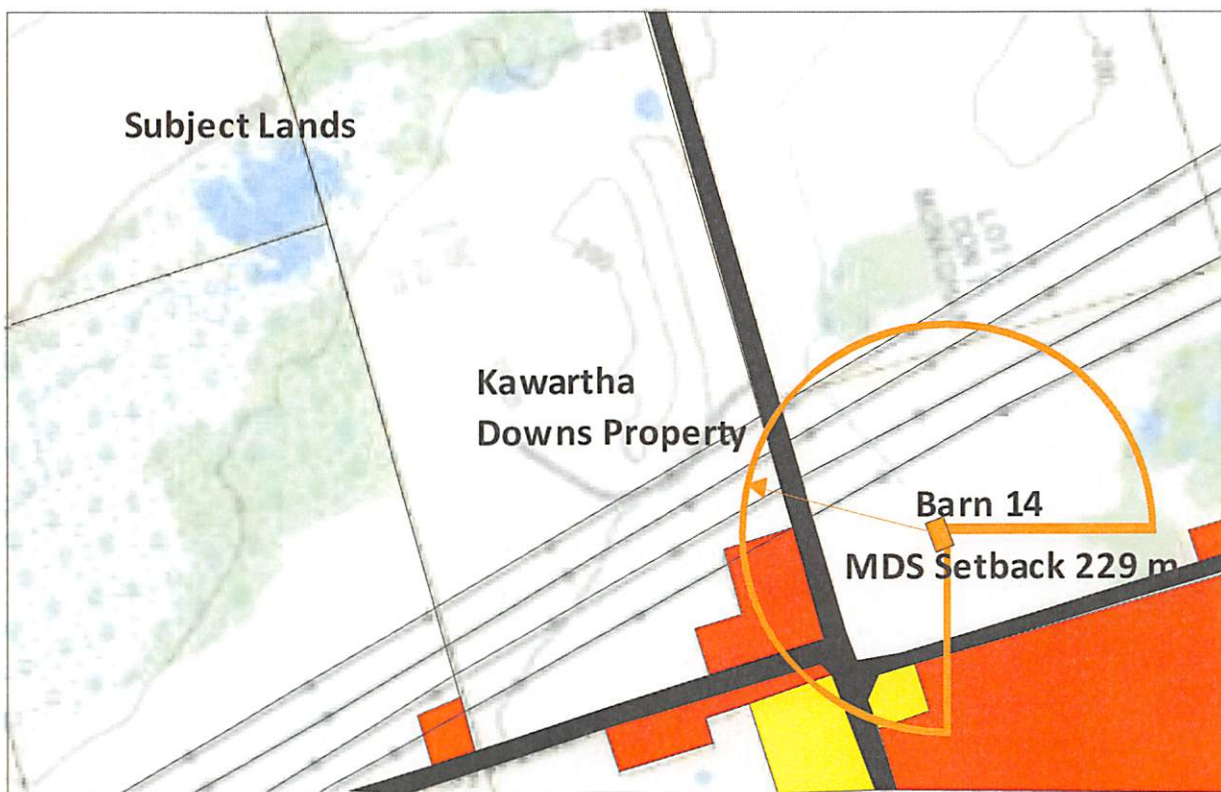


Figure 8c – MDS Sketch for Barn 14





### Syer Line Area

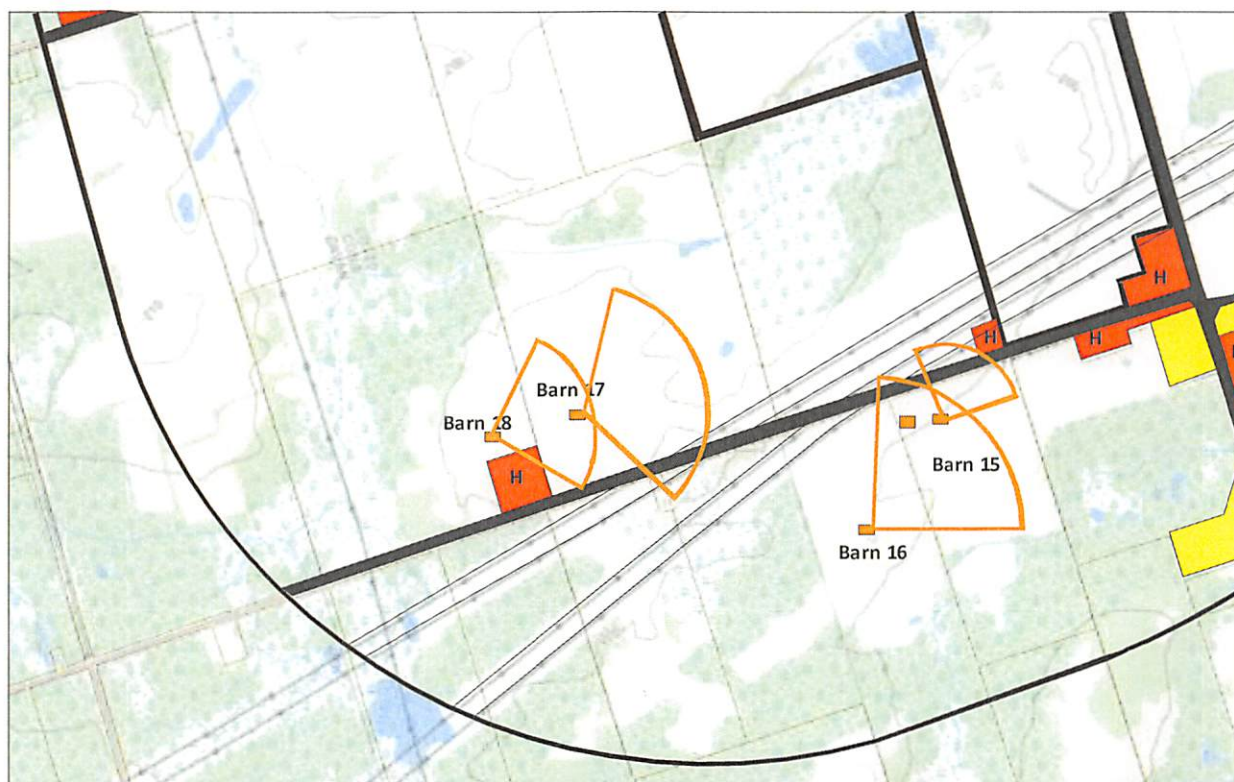


Figure 8d – Map of Barns and MDS Setbacks, Syer Line Area

Barn ID	Barn Address	Calculated MDS Setback	Actual Distance to Subject Land	Compliance
15	1667 Syer	185	257	Y
16	1631 Syer	368	543	Y
17	1554 Syer	305	715	Y
18	1508 Syer	257	861	Y

## 9.6.SUMMARY OF MDS REVIEW RESULTS ON PROPOSAL

A review of Minimum Distance Separation has been made and CCS has identified barns and possible livestock facilities within an area of 1,500 m from the subject lands. Twenty farm locations were identified, and 18 of those locations have barns which may be livestock facilities. Two farm locations have barns that are in poor condition. A visual examination from the roadside shows these barns are in a deteriorated condition with missing roof and wall boards and in the process of collapse. For these two farms, we have not considered that these barns are livestock facilities.

The remaining 18 farms have one or more barns that may be considered livestock facilities. Some of



these are actively occupied and some are vacant. The calculated MDS setbacks for each of these barns is less than the actual distance from the closest part of the barns, to the closest part of the subject lands with the exception of Barn 14. Barn 14 generates a setback greater than the actual separation distance.

All other barns within the review area, either generate no MDS setback or generate a setback less than the actual distance to the subject lands. CCS finds that the proposal meets the requirements of MDS.

## **10. ANALYSIS OF THE REQUIREMENTS OF THE PROVINCIAL POLICY STATEMENT**

The land use changes proposed have been examined and a review of the four criteria prescribed in the Provincial Policy Statement, 2020, has been made.

### ***Specialty Crop Areas***

Specialty Crop Areas are defined as areas designated using guidelines developed by the Province. These areas predominantly grow crops such as tender fruits, grapes, other fruit crops, vegetable crops, greenhouse crops and crops from agriculturally developed organic soils. There are no Specialty Crop Areas identified in the vicinity of the area under review in this Study.

### ***Alternatives That Would Avoid Prime Agricultural Lands***

A review of the Official Plans for both the County and the Township indicates that the subject lands are not Prime Agricultural Lands with the exception of the southern portion of the lot on 1382 County Road 28. This land parcel is currently developed with the southern portion in grass. No changes are proposed for this southern portion. Surrounding lands are designated Prime Agricultural, lands within the Natural Heritage System, Rural Lands and Hamlet Lands. The proposal does not propose changes to Prime Agricultural Lands.

### ***Alternative Areas on Lower Priority Agricultural Lands***

There are no changes proposed on lands designated for agriculture.

### ***Compliance with MDS and Possible Impact on Adjacent Agricultural Operations***

An inventory of livestock facilities has been made and Minimum Distance Separation calculations have been prepared. This shows that one barn, Barn 14, generates an MDS setback greater than the actual distance to the subject lands. The encroachment area involves lands that are not proposed for further development. The proposal complies with the requirements of MDS.





## 11. SUBJECT LAND PARCELS – EVALUATION OF CHANGES AND IMPACTS

### 11.1.1382 County Road 28 – Kawartha Downs

<b><i>Proposed Land Use Change</i></b>	The proposed changes to these lands do not change agricultural uses on the property.
<b><i>Agricultural Capability and Current Use</i></b>	The agricultural capability of this land parcel is minimal since the property is fully developed, with the exception of the southern part of the property.
<b><i>MDS Compliance</i></b>	Barn 14 at 1331 County Road 28 generates an MDS setback greater than the actual setback to the property. No changes are proposed to be made within the encroachment area.
<b><i>Impact on Adjacent Agricultural operations</i></b>	Adjacent agricultural use is largely pasture and hay/crop use. These operations exist adjacent to the current uses including the race tracks and casino which attract a large number of public visitors. The proposal includes changes on this property which may increase the numbers of people visiting the property. Based on our review, it appears the farming operations have adapted to the activities on the subject lands, and some may benefit from these benefits by the number of horse farms in the local area.
<b><i>Alternative Lands Available</i></b>	There are no alternative land parcels for the current proposal.



### 11.2.1490 County Road 28

<b><i>Proposed Land Use Change</i></b>	The designation of these lands is not to be changed. The uses proposed for this property will remove agricultural use.
<b><i>Agricultural Capability and Current Use</i></b>	The agricultural capability of these lands is mixed with lands in a natural state and lands currently cultivated and used for common field crops. The lands currently in a natural state will not change, but the lands used for field crops will be developed as part of the proposed changes.
<b><i>MDS Compliance</i></b>	The livestock facilities in the immediate area generate MDS setbacks less than the actual distance to the property, so the proposal will not impact neighbouring livestock facilities.
<b><i>Impact on Adjacent Agricultural operations</i></b>	The MDS Study shows the proposed changes will not negatively impact neighbouring livestock facilities. Local agricultural use of open fields is a mix of pasture, horse training and cropping (hay or field crops). There is no indication the changes as proposed, will negatively impact the current agricultural uses on neighbouring lands.
<b><i>Alternative Lands Available</i></b>	There are no alternative land parcels for the current proposal.





### 11.3.1683 Moore Drive



<b><i>Proposed Designation Change</i></b>	The designation of these lands is not to be changed. The uses proposed for this property will remove agricultural use.
<b><i>Agricultural Capability and Current Use</i></b>	The agricultural capability of these lands is mixed with lands in a natural state and lands currently cultivated and used for common field crops. The lands currently in a natural state will not change, but the lands used for field crops will be developed as part of the proposed changes.
<b><i>MDS Compliance</i></b>	The livestock facilities in the immediate area generate MDS setbacks less than the actual distance to the property, so the proposal will not impact neighbouring livestock facilities.
<b><i>Impact on Adjacent Agricultural operations</i></b>	The MDS study shows the proposed changes will not negatively impact neighbouring livestock facilities. Local agricultural use of open fields is a mix of pasture, horse training and cropping (hay or field crops). There is no indication the changes as proposed will negatively impact the current agricultural uses on neighbouring lands.
<b><i>Alternative Lands Available</i></b>	There are no alternative land parcels for the current proposal.

#### 11.4. Assessment of Impacts

In considering the potential impacts of the proposal for the expansion of event facilities and a residential development, all part of the Kawartha Downs Revitalization, we have examined the expected changes to the subject land parcels. The three subject land parcels are designated as Commercial Entertainment (Rural Employment). The designation of these lands as such indicates that Council expects these lands will be developed, perhaps as part of an expansion of Kawartha Downs. Currently two of the three parcels are used for agricultural purposes, i.e. growing of common field crops. The landform of these two parcels is an elevated area with gentle steeply sloping lands to wet drainage areas and surface ponding. These wetness constraints reduce the capability of these parcels for the purpose of growing crops. Currently only about 35 % of the land area on these two parcels is available for cropping. The area of land cropped is approximately 21 ha. The average yield of corn in Ontario is about 440 bushels per hectare. This means the 21 ha available for growing may grow approximately 9,240 bushels of corn. At a price of around \$7.00 per bushel this equates to approximately \$64, 680. In many places in Ontario, beef cattle are finished on a ration of forage and corn, and typically consume up to 80 bushels of corn during finishing. The loss of over 9,000 bushels of corn equates to the amount of corn 115 to 120 beef cattle would need to finish. This impact is viewed as minor.

The review of the requirements of the Minimum Distance Separation formulae has shown that there will be no impact to local livestock facilities in the local area following approval of the proposed changes.

There is potential for impact due to an increase in traffic. The local farming community co-exists with traffic from Provincial Highway 115, County Road 28 and the Federal Peterborough Regional Airport. The majority of livestock facilities in the area are for horses, and many of these have





developed because of their proximity to Kawartha Downs. With the revitalization of Kawartha Downs, it may be that the new development will become a benefit to the local farms. A vibrant race track requires a consistent supply of quality hay and other feed and bedding.

The establishment of buffers between adjacent livestock facilities and new development is often considered, however in this case, it appears that there are no active livestock facilities adjacent to the new development.

## 12. CONCLUSIONS

The preparation of an Agricultural Impact Assessment (AIA) is a mechanism to assist the understanding of the interface of farming and non-farming uses. Where conflicting uses meet head on, mitigation measures may help lessen the impacts to the farming community.

The development proposals presented, as part of the Kawartha Downs Revitalization, are to be on land currently designated in local planning documents for Commercial Entertainment, which means it is the intent of local Councils that these lands be developed and used for purposes other than active agriculture.

A review of livestock facilities in the local area reveals a number of active horse operations, and these may exist because of their proximity to Kawartha Downs. The review of MDS shows that no livestock barns should be negatively impacted by the proposed development. Common field crops are grown on two of the three parcels under review. An estimate of crop yield from these two parcels shows that a modest amount of grain crops may be grown. It is expected that the development of these parcels will remove arable lands from these parcels. This may result in the loss of the potential to produce approximately 9,240 bushels of corn.

Following a full review of the current uses and proposed uses of the subject lands, the current uses of neighbouring lands, and possible impacts new development may have on the local farming community, it is our opinion that negative impacts on the local farming community will be modest and that because of the nature of the revitalization, there may be a positive spin-off for the local farms which have developed in this area partially because of their proximity to a horse racing facility.

Sincerely,



Bob Clark, P.Eng., P.Ag., MCIP, RPP, OLE  
Principal Planner



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**FIGURES (ILLUSTRATED WITHIN THE REPORT)**

- Figure 1 - Review Lands, Kawartha Downs Revitalization
- Figure 2 - Township of Cavan Monaghan Official Plan Excerpt
- Figure 3 - Township of Cavan Monaghan Zoning By-law 2018-58, Map D-4
- Figure 4 - Soils Mapping from Soil Surveys for Peterborough County and Durham County
- Figure 5 - Detailed Soils Mapping - 1683 Moore Drive
- Figure 6 - Detailed Soils Mapping - 1490 County Road 28
- Figure 7 - Physiology and Climate
- Figure 8a - Map of Barns and MDS Setbacks, Moore Drive Area
- Figure 8b - Map of Barns and MDS Setbacks, East of County Road 28 Area
- Figure 8c - MDS Sketch for Barn 14
- Figure 8d - Map of Barns and MDS Setbacks, Syer Line Area

**ATTACHMENTS**

- A - Curriculum Vitae of Robert K. Clark**
- B - Test Pit Logs for Western and Eastern Parcel**
- C - MDS Calculation Sheets**
- D - Proposed Draft Plan, D.G. Biddle, 29/04/2022**

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## **ATTACHMENT A**

### **Curriculum Vitae - Robert K. (Bob) Clark**

*Mr. Clark has no perceived or actual conflicts of interest in preparing this AIA.*  
*Mr. Clark maintains membership in good standing with the Ontario Institute of Agrologists (P.Ag.).*





#### Education

1972

Master of Science,  
Resource Development and  
Resource Economics,  
University of Guelph

1970

Bachelor of Science (Eng.)  
Water Resources Engineering,  
University of Guelph

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## ROBERT K. CLARK

Bob's career in the field of planning spans 40 years. He approaches each project with creativity and a strong intent to meet and exceed the client's expectations. The Planning Field is changing rapidly to address the changing needs of our communities. While financial viability remains an important consideration in all projects, increasingly, sustainability, impact on the environment, the health of the community and the individual are key aspects of successful projects. Clark Consulting Services was created to give Bob the freedom to take on projects that he found interesting and challenging as well as work in an atmosphere guided by the principles of honesty and integrity.

#### Professional Qualifications and Associations

Canadian Institute of Planners (MCIP)  
Ontario Professional Planning Institute (RPP)  
Ontario Institute of Agrologists (P.Ag.)  
Professional Engineers of Ontario (P.Eng.)  
Association of Ontario Land Economists

#### Professional Background

1994-Present – Clark Consulting Services  
Principal Planner, President

#### Expert Testimony

Qualified by the OMB to give expert testimony in the fields of:

- Land Use Planning
- Agricultural Land Evaluation
- Municipal Finance
- Land Economics
- Environmental Impact Assessment

## CURRICULUM VITAE







## CURRICULUM VITAE

**Selected Experience**

**Agricultural Impact Assessment**

- Fenton Falls Baptist Church
- Cotton Ag Impact Assessment
- Brown Planning Justification including Agricultural Impact Assessment
- May Agricultural Assessment
- Fier Review of Agricultural Viability for planning applications, City of Oshawa
- White Tail Golf Course, City of Kawartha Lakes
- Snug Harbour, City of Kawartha Lakes
- Murray Hills Subdivision former Murray Township

**Agricultural Land Assessments/Analyses (Project Manager and Senior Professional Agriologist/Pedologist on all projects)**

- Agricultural Lands Review, United Counties of Stormont, Dundas and Glengarry
- City of Kingston - Agricultural Study
- Stormont Dundas and Glengarry: Review of Prime Agricultural Area for Official Plan Update
- Capital Region Resource Recovery Centre, Agricultural Land Assessment (as part of Environmental Assessment)
- Russell and Boundary Road Sites
- Vale Agricultural Land Assessment Prince Edward County
- Dakota Agricultural Assessment, City of Quinte West
- Desjardins, Agricultural Assessment, Township of Elizabethtown Valley
- Sils Agricultural Assessment, City of Quinte West
- Lafayette Agricultural Assessment, Stormont, Dundas and Glengarry
- McQuillan Land Assessment, Haliburton Township
- Pepper/Hamilton Township
- Espie Agricultural Assessment Beckwith Township
- White Tail Golf Course Agricultural Assessment and Professional Evidence OMB
- Wesleyville Land Assembly, Municipality of Port Hope
- Baulch Road Land Review, Municipality of Port Hope
- Midtown Corridor Hamilton Township Land Evaluation
- Cavan Millbrook North Monaghan OF Prime Agricultural Land Evaluation
- Hamilton Township OF Prime Agricultural Land Evaluation
- Frontenac Islands OF Prime Agricultural Land Evaluation
- Campbellford Seymour Agricultural Land Evaluation
- Slaney Township OF Agricultural Land Evaluation
- South Frederickburg OF Agricultural Land Evaluation
- Agricultural Land Use Analysis, Former Township of Hope



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## CURRICULUM VITAE

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**Official Plans, Official Plan Updates and Amendments**  
Township of Cavan-Millbrook-North Monaghan, Township of Haldimand, Township of Hamilton, Township of Smith, Township of Lockiel, Township of Chertokendunburgh, Town of Brighton, Township of Burleigh and Anstruther, Township of Sidney, Township of Frontenac Islands, Township of Hope, Town of Gananoque.

**Recreational Studies**  
Riverwalk-Minden, Georgian Trail, Township of Collingwood, Recreation Master Plan, Township of Cavan, Beavermead Park Redevelopment Plan, City of Peterborough, Rail Corridor Study, County of Victoria, Pangman Conservation Area Master Plan, Lake Simcoe Region Tourism Study, ESI - St. Sandford Fleming College, provided Social-Economic Impact Assessment for the Millennium Trail Master Plan, County of Prince Edward.

**Environmental Impact Study/Statement**  
Based on experience and training as a water resource engineer and pedologist, Mr. Clark has prepared Environmental Impact Studies/Statements for situations in which the primary issues relate to site grading, drainage and building location. Examples include:  
-Lash Cottage addition (minor variance)  
-Hog Island EIS (consent application)  
-Eberle Farm lot creation ORMC

**Environmental Assessment**  
-Public Works Garage, Class EA, Town of Gananoque,  
-Wilson Island Bridge (Socio-economic Assessment), County of Northumberland,  
Environmental Impact Assessment, private owners including Michael Lash, Elthrey/Buttery Lands, Vanden Hoek site, Three Strand Development Group – Communal Sewage System.

**Development Charges Studies**  
Township of Murray, Township of Hamilton, Township of Smith, Township of Manvers, Town of Brighton, Township of Alvinck, Township of Haldimand, Township of Somerville, Township of Woodville, Townships of Anson, Hinton, Minden, Village of Ormeau, Township of Galway, Cavanish & Harvey, Township of Fenton, Township of Verulam, Township of Emily, Village of Fenton Falls, Township of Smith-Ennismore, Township of Cavan-Millbrook-North Monaghan, Village of Bobcaygeon, Township of Brighton, Township of Centre Hastings, Town of Greater Napanee, County of Victoria, Township of Cranston, Municipality of Campbellton/Seymour, Village of Colborne, City of Kawartha Lakes, The Township of Frontenac Islands, The Township of Alvinck/Haldimand, Municipality of Trent Hills, Township of Rideau Lakes, Township of Asphodel Norwood, County of Peterborough, Municipality of Trent Lakes.

**Agricultural Land Assessments for Solar Installations**  
-Agricultural Land Capability Assessment for Potential Solar Farm Installations to meet requirements of OPA FIT Program, (over 340 projects to date)



**Secondary Plans**  
Fraserville Secondary Plan - Township of Cavan-Millbrook-North Monaghan; South Sidney Secondary Plan, Township of Sidney; Alean District Area Study - City of Kingston; Shasta Secondary Plan - Town of Westminister, Ballmore-Creighton Heights Community Plan, Township of Hamilton, Southwestern Industrial Sector Plan, Township of Hamilton, Jackson Creek West Secondary Plan, City of Peterborough.

**Growth Strategy Studies**  
Township of Hamilton, Township of Markham, Township of Hamilton, Village of Stirling, Village of Codrington, Township of Smith.

**Municipal Financial Impact Assessments**  
Sandy Point Recreation Development, Harvey Township, Reference Plan Development, Cavan Township, Township of Markham, Township of North Monaghan.

**Zoning By-Laws/By-Law Amendments**  
Township of Cavan-Millbrook-North Monaghan; Township of Frontenac Islands; Township of Percy, Township of Altwick, Town of Campbellford, Town of Brighton, Village of Madoc, Town of Picton.

**Aggregate Resource Planning**  
Review of Aggregate Potential for Official Plans and Zoning By-Laws  
Howe Island Gravel Pit - review of proposal; prepare report to Council with planning documents; provide professional opinion evidence at OMB Hearing; Stonescap II Quarry Appeal - review of proposed quarry, preparation of planning review, attendance at OMB Hearing; Codrington Pit Proposal - review of proposed pit, advice to adjacent land owner, monitor approvals

**Recent Renewable Energy Projects**  
Planning Approvals, Wolfe Island Wind Farm, Township of Frontenac Islands; Gas fired Peaking Plant Location study; Epcor, SkyPower; Solar Farm; Algonquin Power - Wind Farm

**Watershed Plans**  
South Sidney Watershed, Lower Trent Region Conservation Authority; Storm Water Management Plan, Town of Delhi; Oshawa Creek Watershed Master Plan, City of Oshawa.

**Waterfront Studies**  
Town of Deseronto, Town of Deep River, City of Kingston.  
Tourism Development Studies  
Ministry of Industry and Tourism, Tourism Development Strategy Trenton Cornwall and Renfrew - Kingston Zones, County of Northumberland Tourism Planning Study.

## CURRICULUM VITAE



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**ATTACHMENT B**  
**Test Pit Logs for Western and Eastern Parcels**

*Test Pit Logs*  
*Western Parcel - 1683 Moore Drive*

Project: Kawartha Downs Revitalization Plan - Western Parcel  
CCS: 4922  
Soil Dig Date: December 13, 2021

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**Test Pit No. 1**

Surface Condition: Cultivated land with slope to western wet area on both sides of lane.  
A Horizon: 0-6" dark brown sandy loam with stones  
B Horizon: 6-20" light brown sand  
C Horizon: 20"+ grey clay with stones  
Soil Type: Otonabee Loam  
Soil Capability for Agriculture: 1/3T/4W

**Test Pit No. 2**

Surface Condition: Cultivated high area with slope down to laneway and west of lane.  
A Horizon: 0-8" dark brown sandy loam with stones  
B Horizon: 8-24" light brown sand  
C Horizon: 24"+ grey clay with stones  
Soil Type: Otonabee Loam  
Soil Capability for Agriculture: 1/3T/4W

**Test Pit No. 3**

Surface Condition: High area south of house with slope down to wet area to south.  
A Horizon: 0-8" dark brown sandy loam with stones  
B Horizon: 8-36" light brown sand  
C Horizon: 36"+ grey clay with stones  
Soil Type: Otonabee Loam  
Soil Capability for Agriculture: 1/3T/4W

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**Visual No. 4**

Surface Condition: Slope down to wet area to south.  
Soil Type: Otonabee Loam  
Soil Capability for Agriculture: 3T/4W

**Visual No. 5**

Surface Condition: Lagoons.  
Soil Capability for Agriculture: Not classified.

**Visual No. 6**

Surface Condition: Slope down to wet area to south.  
Soil Capability for Agriculture: 3T/4W

**Test Pit No. 7**

Surface Condition: High area with slope down to wet area to south.  
A Horizon: 0-8" dark brown sandy loam with stones  
B Horizon: 8-24" light brown sand  
C Horizon: 24"+ grey clay with stones  
Soil Type: Otonabee Loam  
Soil Capability for Agriculture: 1/3T/4W

**Test Pit No. 8**

Surface Condition: Slope down to wet area to north and west.  
A Horizon: 0-8" dark brown loam with stones  
B Horizon: 8-24" light brown sand  
C Horizon: 24"+ grey clay with stones  
Soil Type: Otonabee Loam  
Soil Capability for Agriculture: 1/3T/4W

**Visual No. 9**

Surface Condition: Wet area with slope up to south and east.  
Soil Capability for Agriculture: 5W/4W/3T  
Soil Type: Otonabee Loam/Muck

**Visual No. 10**

Surface Condition: Wet area.  
Soil Capability for Agriculture: 4W  
Soil Type: Otonabee Loam/Muck



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**Visual No. 11**

Surface Condition: Wet treed area.  
Soil Capability for Agriculture: 5W  
Soil Type: Muck

**Visual No. 12**

Surface Condition: Wet area with trees.  
Soil Capability for Agriculture: 4W/3T  
Soil Type: Muck/Tecumseth Sandy Loam

**Visual No. 13**

Surface Condition: Wet area.  
Soil Capability for Agriculture: 4W  
Soil Type: Tecumseth Sandy Loam

**Test Pit No. 14**

Surface Condition: Cultivated area.  
A Horizon: 0-8" dark brown loam with stones  
B Horizon: 8-24" light brown sand  
C Horizon: 24"+ grey clay with stones  
Soil Type: Otonabee Loam/Guerin Sandy Loam  
Soil Capability for Agriculture: 1/3T

**Test Pit No. 15**

Surface Condition: Cultivated area with slope down to wet area to south.  
A Horizon: 0-8" dark brown loam with stones  
B Horizon: 8-24" light brown sand  
C Horizon: 24"+ grey clay with stones  
Soil Type: Otonabee Loam/Guerin Sandy Loam  
Soil Capability for Agriculture: 1/3T/4W

**Test Pit No. 16**

Surface Condition: Cultivated area with slope down to south.  
A Horizon: 0-12" dark brown loam with stones  
B Horizon: 12-24" light brown sand  
C Horizon: 24"+ grey clay with stones  
Soil Type: Guerin Sandy Loam  
Soil Capability for Agriculture: 1/3T





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**Test Pit No. 17**

Surface Condition: Slope down to wet area to north.  
A Horizon: 0-8" dark brown loam with stones  
B Horizon: 8-24" light brown sand  
C Horizon: 24"+ grey clay with stones  
Soil Type: Guerin Sandy Loam  
Soil Capability for Agriculture: 1/3T

**Visual No. 18**

Surface Condition: Wet area with trees.  
Soil Capability for Agriculture: 4W  
Soil Type: Tecumseth Sandy Loam

**Visual No. 19**

Surface Condition: Wet area with trees.  
Soil Capability for Agriculture: 4W/5W  
Soil Type: Muck/Tecumseth Sandy Loam

**Visual No. 20**

Surface Condition: Wet area with trees.  
Soil Capability for Agriculture: 5W  
Soil Type: Muck



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*Test Pit Logs*  
*Eastern Parcel - 1490 County Road 28*

Project: Kawartha Downs Revitalization Plan - Eastern Parcel  
CCS: 4922  
Soil Dig Date: December 13, 2021

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**Visual No. 1**

Surface Condition: Grassed area south of buildings – surface water visible.  
Soil Type: Guerin Sandy Loam  
Soil Capability for Agriculture: 4W

**Visual No. 2**

Surface Condition: Cultivated area north of buildings.  
Soil Type: Guerin Sandy Loam  
Soil Capability for Agriculture: 1

**Visual No. 3**

Surface Condition: Treed wet area with slope up to south.  
Soil Type: Guerin Sandy Loam  
Soil Capability for Agriculture: 4W/3W/1

**Test Pit No. 4**

Surface Condition: High area with slope down to wet area to north and south.  
A Horizon: 0-4" dark brown sandy loam with stones  
B Horizon: 4-34" light brown sand  
C Horizon: 34"+ grey clay with stones  
Soil Type: Otonabee Loam  
Soil Capability for Agriculture: 1/3T/4W

**Visual No. 5**

Surface Condition: Treed and grass area with visible surface water.  
Soil Capability for Agriculture: 4W

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**Visual No. 6**

Surface Condition: Treed area with slope up to cultivated area  
Soil Capability for Agriculture: 4W/3W

**Visual No. 7 & 8**

Surface Condition: Treed area with slope up to cultivated area.  
Soil Capability for Agriculture: 4W/3T

**Test Pit No. 9**

Surface Condition: High area with slope down to wet area to east and cultivated land to west.  
A Horizon: 0-8" dark brown sandy loam with stones  
B Horizon: 8+ grey clay with rock  
Soil Type: Otonabee Loam  
Soil Capability for Agriculture: 1/3T

**Test Pit No. 10**

Surface Condition: High area with slope down to wet lands to east.  
A Horizon: 0-8" dark brown sandy loam with stones  
B Horizon: 8-24" light brown sand  
C Horizon: 24"+ grey clay with stones  
Soil Type: Otonabee Loam  
Soil Capability for Agriculture: 1/3T

**Test Pit No. 11**

Surface Condition: High area with slope down to wet lands to south.  
A Horizon: 0-8" dark brown sandy loam with stones  
B Horizon: 8-36" light brown sand  
C Horizon: 36"+ grey clay with stones  
Soil Type: Otonabee Loam  
Soil Capability for Agriculture: 1/3T/4W



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**ATTACHMENT C**  
**MDS Calculation Sheets, MDS I Type B**



## MDS I Kawartha Downs

## General information

Application date  
December 21, 2021

Municipal file number

Proposed application  
New or expanding zone or designation for a  
commercial use outside of a settlement area

Applicant contact information   
ON

Location of subject lands  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
CAVAN  
Concession 8 , Lot 22  
Roll number: 150901003022400

Notes  
Subject lands include three parcels within Lots 22 and 23, Concession 8 Cavan. Additional Roll Numbers - 150901003022200 and 150901003022100. Addresses include 1382 and 1490 County Road 28, and 1683 Moore Drive.

## Calculations

## Barn 10

Farm contact information  
Amy West  
Ontario Elite Hunter Sales  
2476 Moncrief Line  
Fraserville, ON

Location of existing livestock facility or anaerobic  
digester  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
MONAGHAN  
Concession 8 , Lot 2  
Roll number: 150903000103000

Total lot size  
16 ha

## Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	15	15.3 NU	355 m <sup>2</sup>



## Confirm Livestock/Manure Information (Barn 10)

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

## Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM	
Design capacity	15.3 NU	
Potential design capacity	30.6 NU	
Factor A (odour potential)	0.7	Factor B (design capacity) 221.12
Factor D (manure type)	0.7	Factor E (encroaching land use) 2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)		239 m (784 ft)
Actual distance from livestock barn		991 m (3251 ft)
Storage base distance 'S' (minimum distance from manure storage)		239 m (784 ft)
Actual distance from manure storage		991 m (3251 ft)



**Barn 11**

**Farm contact information**  
a a  
2449 Moncrief Line  
Fraserville, ON

**Location of existing livestock facility or anaerobic digester**  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
MONAGHAN  
Concession 2, Lot 7  
Roll number: 150903000100601

**Total lot size**  
40 ha

**Livestock/manure summary**

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	34	34.4 NU	800 m <sup>2</sup>

**Confirm Livestock/Manure Information (Barn 11)**

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

**Setback summary**

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM	
Design capacity	34.4 NU	
Potential design capacity	103.3 NU	
Factor A (odour potential)	0.7	Factor B (design capacity) 319.38
Factor D (manure type)	0.7	Factor E (encroaching land use) 2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)		345 m (1132 ft)
Actual distance from livestock barn		1065 m (3494 ft)
Storage base distance 'S' (minimum distance from manure storage)		345 m (1132 ft)
Actual distance from manure storage		1065 m (3494 ft)

**Barn 12**

**Farm contact information**  
a a  
2380 Moncrief Line  
Fraserville, ON

**Location of existing livestock facility or anaerobic digester**  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
MONAGHAN  
Concession 8, Lot 3  
Roll number: 150903000103700

**Total lot size**  
19.7 ha

**Livestock/manure summary**

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Yard/Barn	45	14.9 NU	166 m <sup>2</sup>
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	10	9.6 NU	224 m <sup>2</sup>

**Confirm Livestock/Manure Information (Barn 12)**

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

### Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	24.5 NU		
Potential design capacity	49.1 NU		
Factor A (odour potential)	0.76	Factor B (design capacity)	258.12
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			303 m (994 ft)
Actual distance from livestock barn			1301 m (4268 ft)
Storage base distance 'S' (minimum distance from manure storage)			303 m (994 ft)
Actual distance from manure storage			1301 m (4268 ft)

### Barn 13

Farm contact information	Location of existing livestock facility or anaerobic digester	Total lot size
a a		9.3 ha
2361 Moncrief Line	County of Peterborough	
Fraserville, ON	Township of Cavan-Millbrook-North Monaghan	
	MONAGHAN	
	Concession 7, Lot 3	
	Roll number: 150903000101000	

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	19	19.4 NU	450 m²



#### Confirm Livestock/Manure Information (Barn 13)

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

### Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM		
Design capacity	19.4 NU		
Potential design capacity	38.7 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	237.48
Factor D (manure type)	0.7	Factor E (encroaching land use)	2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)			257 m (843 ft)
Actual distance from livestock barn			1410 m (4626 ft)
Storage base distance 'S' (minimum distance from manure storage)			257 m (843 ft)
Actual distance from manure storage			1410 m (4626 ft)

### Barn 14

Farm contact information  
a a  
1331 County Road 28  
Fraserville, ON

Location of existing livestock facility or anaerobic digester  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
MONAGHAN  
Concession 7 , Lot 1  
Roll number: 150903000100300

Total lot size  
22.2 ha

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	13	12.9 NU	300 m²



#### Confirm Livestock/Manure Information (Barn 14)

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

#### Setback summary

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

Design capacity 12.9 NU

Potential design capacity 25.8 NU

Factor A (odour potential) 0.7

Factor D (manure type) 0.7

Factor B (design capacity) 211.68

Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn)

229 m (751 ft)

Actual distance from livestock barn

182 m (597 ft)

Storage base distance 'S'  
(minimum distance from manure storage)

229 m (751 ft)

Actual distance from manure storage

208 m (682 ft)

#### Barn 15

Farm contact information  
a a  
1667 Syer Line  
Fraserville, ON

Location of existing livestock facility or anaerobic digester  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
CAVAN  
Concession 7 , Lot 22  
Roll number: 150901003014100

Total lot size  
21 ha

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Yard/Barn	15	5 NU	56 m²



#### Confirm Livestock/Manure Information (Barn 15)

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

#### Setback summary

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



Design capacity 5 NU

Potential design capacity 5 NU

Factor A (odour potential) 0.8

Factor D (manure type) 0.7

Factor B (design capacity) 150

Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn) 185 m (607 ft)

Actual distance from livestock barn 257 m (843 ft)

Storage base distance 'S'  
(minimum distance from manure storage) 185 m (607 ft)

Actual distance from manure storage 257 m (843 ft)

#### Barn 16

##### Farm contact information

a a  
1631 Syer Line  
ON

Location of existing livestock facility or anaerobic digester  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
CAVAN  
Concession 7, Lot 22  
Roll number: 150901003014200

Total lot size  
60 ha

##### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Yard/Barn	81	26.9 NU	300 m <sup>2</sup>



##### Confirm Livestock/Manure Information (Barn 16)

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

##### Setback summary

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

Design capacity 26.9 NU

Potential design capacity 80.7 NU

Factor A (odour potential) 0.8

Factor D (manure type) 0.7

Factor B (design capacity) 298.53

Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn) 368 m (1207 ft)

Actual distance from livestock barn 543 m (1781 ft)

Storage base distance 'S'  
(minimum distance from manure storage) 368 m (1207 ft)

Actual distance from manure storage 543 m (1781 ft)

#### Barn 17

Farm contact information  
a a  
1554 Syer Line  
Fraserville, ON

Location of existing livestock facility or anaerobic digester  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
  
CAVAN  
Concession 8 , Lot 21  
Roll number: 150901003017900

Total lot size  
41.74 ha

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	21	20.9 NU	486 m <sup>2</sup>



#### Confirm Livestock/Manure Information (Barn 17)

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

#### Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM	
Design capacity	20.9 NU	
Potential design capacity	62.8 NU	
Factor A (odour potential)	0.7	Factor B (design capacity) 282.47
Factor D (manure type)	0.7	Factor E (encroaching land use) 2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)		305 m (1001 ft)
Actual distance from livestock barn		715 m (2346 ft)
Storage base distance 'S' (minimum distance from manure storage)		305 m (1001 ft)
Actual distance from manure storage		715 m (2346 ft)

#### Barn 18

Farm contact information  
a a  
1508 Syer Line  
Fraserville, ON

Location of existing livestock facility or anaerobic digester  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
CAVAN  
Concession 8 , Lot 20  
Roll number: 150901003018000

Total lot size  
41 ha

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	13	12.9 NU	300 m <sup>2</sup>



#### Confirm Livestock/Manure Information (Barn 18)

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

#### Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM
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Design capacity 12.9 NU

Potential design capacity 38.8 NU

Factor A (odour potential) 0.7

Factor D (manure type) 0.7

Factor B (design capacity) 237.52

Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn) 257 m (843 ft)

Actual distance from livestock barn 861 m (2825 ft)

Storage base distance 'S'  
(minimum distance from manure storage) 257 m (843 ft)

Actual distance from manure storage 861 m (2825 ft)

#### Barn 19

Farm contact information  
a a  
2351 Moncrief Line  
Fraserville, ON

Location of existing livestock facility or anaerobic digester  
Total lot size  
11 ha  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
MONAGHAN  
Concession 7 , Lot 3  
Roll number: 150903000100901

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	18	18.4 NU	427 m <sup>2</sup>



#### Confirm Livestock/Manure Information (Barn 19)

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

#### Setback summary

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

Design capacity 18.4 NU

Potential design capacity 36.8 NU

Factor A (odour potential) 0.7

Factor D (manure type) 0.7

Factor B (design capacity) 233.52

Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn) 252 m (827 ft)

Actual distance from livestock barn 1382 m (4534 ft)

Storage base distance 'S'  
(minimum distance from manure storage) 252 m (827 ft)

Actual distance from manure storage 1382 m (4534 ft)

#### Barn 2



Farm contact information  
Julia and Ron Pogue  
Cavan Ridge Standardbreds  
1590

Moore Drive  
Fraserville, ON  
705-939-6359

Location of existing livestock facility or anaerobic  
digester  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan

CAVAN  
Concession 9, Lot 21  
Roll number: 150901004000300

Total lot size  
13.5 ha

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	11	11 NU	255 m <sup>2</sup>



#### Confirm Livestock/Manure Information (Barn 2)

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

#### Setback summary

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

Design capacity 11 NU

Potential design capacity 22 NU

Factor A (odour potential) 0.7

Factor D (manure type) 0.7

Factor B (design capacity) 204

Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn)

220 m (722 ft)

Actual distance from livestock barn

324 m (1063 ft)

Storage base distance 'S'  
(minimum distance from manure storage)

220 m (722 ft)

Actual distance from manure storage

364 m (1194 ft)

#### Barn 20

Farm contact information  
a a  
1453 Moore Drive  
Fraserville, ON

Location of existing livestock facility or anaerobic  
digester  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
CAVAN  
Concession 8, Lot 19  
Roll number: 150901003022900

Total lot size  
81.5 ha

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Yard/Barn	129	43.1 NU	480 m <sup>2</sup>



#### Confirm Livestock/Manure Information (Barn 20)

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

#### Setback summary

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

Design capacity 43 NU  
Potential design capacity 129.1 NU

Factor A (odour potential) 0.8  
Factor D (manure type) 0.7

Factor B (design capacity) 345.32  
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn) 426 m (1398 ft)

Actual distance from livestock barn 1360 m (4462 ft)

Storage base distance 'S'  
(minimum distance from manure storage) 426 m (1398 ft)

Actual distance from manure storage 1360 m (4462 ft)

### Barn 3

Farm contact information  
a a  
1569 Moore Drive  
Fraserville, ON

Location of existing livestock facility or anaerobic digester  
Total lot size 19.7 ha  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
CAVAN  
Concession 8, Lot 21  
Roll number: 150901003022600

### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	15	15.5 NU	360 m <sup>2</sup>



### Confirm Livestock/Manure Information (Barn 3)

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

### Setback summary

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

Design capacity 15.5 NU

Potential design capacity 31 NU

Factor A (odour potential) 0.7  
Factor D (manure type) 0.7

Factor B (design capacity) 222  
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn) 240 m (787 ft)

Actual distance from livestock barn 317 m (1040 ft)

Storage base distance 'S'  
(minimum distance from manure storage) 240 m (787 ft)

Actual distance from manure storage 317 m (1040 ft)

### Barn 4

<b>Farm contact information</b>	<b>Location of existing livestock facility or anaerobic digester</b>	<b>Total lot size</b>
a a		12.5 ha
Parliament Hill Stables	County of Peterborough	
1558 Moore Drive	Township of Cavan-Millbrook-North Monaghan	
Fraserville, ON	CAVAN	
	Concession 9 , Lot 21	
	Roll number: 150901004000400	

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Horses, Medium-framed, mature; 227 - 680 kg (including unweaned offspring)	26	26.3 NU	611 m²



#### Confirm Livestock/Manure Information (Barn 4)

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

#### Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM	
Design capacity	26.3 NU	
Potential design capacity	52.6 NU	
Factor A (odour potential)	0.7	Factor B (design capacity) 265.24
Factor D (manure type)	0.7	Factor E (encroaching land use) 2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)		286 m (938 ft)
Actual distance from livestock barn		467 m (1532 ft)
Storage base distance 'S' (minimum distance from manure storage)		286 m (938 ft)
Actual distance from manure storage		467 m (1532 ft)

#### Barn 5

<b>Farm contact information</b>	<b>Location of existing livestock facility or anaerobic digester</b>	<b>Total lot size</b>
a a		11 ha
1522 Moore Drive	County of Peterborough	
Fraserville, ON	Township of Cavan-Millbrook-North Monaghan	
	CAVAN	
	Concession 9 , Lot 20	
	Roll number: 150901004000500	

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Yard/Barn	51	17 NU	190 m²



#### Confirm Livestock/Manure Information (Barn 5)

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

#### Setback summary

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM
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Design capacity 17 NU  
Potential design capacity 34.1 NU

Factor A (odour potential) 0.8  
Factor D (manure type) 0.7

Factor B (design capacity) 228.16  
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn) 282 m (925 ft)

Actual distance from livestock barn 698 m (2290 ft)

Storage base distance 'S'  
(minimum distance from manure storage) 282 m (925 ft)

Actual distance from manure storage 698 m (2290 ft)

#### Barn 6

Farm contact information  
a a  
1495 Moore Drive  
Fraserville, ON

Location of existing livestock facility or anaerobic digester Total lot size  
44 ha  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
CAVAN  
Concession 8, Lot 20  
Roll number: 150901003022800

#### Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Yard/Barn	105	35 NU	390 m²
Liquid	- Not Specified -	0	0 NU	NA



#### Confirm Livestock/Manure Information (Barn 6)

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

#### Setback summary

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

Design capacity 35 NU

Potential design capacity 104.9 NU

Factor A (odour potential) 0.8  
Factor D (manure type) 0.7

Factor B (design capacity) 321.12  
Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E)  
(minimum distance from livestock barn) 396 m (1299 ft)

Actual distance from livestock barn 854 m (2802 ft)

Storage base distance 'S'  
(minimum distance from manure storage) 396 m (1299 ft)

Actual distance from manure storage 854 m (2802 ft)

#### Barn 7

**Farm contact information**

a a  
2625 Clifford Line  
Fraserville, ON

Location of existing livestock facility or anaerobic  
digester  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
MONAGHAN  
Concession 8 , Lot 1  
Roll number: 150903000102900

Total lot size  
26.35 ha

**Livestock/manure summary**

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	- Not Specified -	0	0 NU	NA
Solid	Beef, Backgrounders (7 - 12.5 months), Yard/Barn	41	13.5 NU	151 m²

**Confirm Livestock/Manure Information (Barn 7)**

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

**Setback summary**

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM	
Design capacity	13.5 NU	
Potential design capacity	40.6 NU	
Factor A (odour potential)	0.8	Factor B (design capacity) 241.24
Factor D (manure type)	0.7	Factor E (encroaching land use) 2.2
Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)		298 m (978 ft)
Actual distance from livestock barn		1379 m (4524 ft)
Storage base distance 'S' (minimum distance from manure storage)		298 m (978 ft)
Actual distance from manure storage		1370 m (4495 ft)

**Barn 8****Farm contact information**

a a  
2600 Moncrief Line.  
Fraserville, ON

Location of existing livestock facility or anaerobic  
digester  
County of Peterborough  
Township of Cavan-Millbrook-North Monaghan  
MONAGHAN  
Concession 8 , Lot 1  
Roll number: 150903000102000

Total lot size  
40.8 ha

**Livestock/manure summary**

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Beef, Backgrounders (7 - 12.5 months), Yard/Barn	148	49.3 NU	550 m²

**Confirm Livestock/Manure Information (Barn 8)**

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

**Setback summary**

Existing manure storage	V3. Solid, outside, no cover, >= 30% DM	
Design capacity	49.3 NU	
Potential design capacity	148 NU	
Factor A (odour potential)	0.8	Factor B (design capacity) 362.18
Factor D (manure type)	0.7	Factor E (encroaching land use) 2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	447 m (1467 ft)
Actual distance from livestock barn	450 m (1476 ft)
Storage base distance 'S' (minimum distance from manure storage)	447 m (1467 ft)
Actual distance from manure storage	450 m (1476 ft)

#### Preparer signoff & disclaimer

Preparer contact information  
HUGH STEWART  
Clark Consulting Services  
52 John Street  
Port Hope, ON  
L1A 2Z2  
905-885-8023  
hugh@clarkcs.com

Signature of preparer



HUGH STEWART, Planner

December 22, 2021

Date (mmm-dd-yyyy)

#### Note to the user

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



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**ATTACHMENT D**  
**Proposed Draft Plan, D.G. Biddle, 29/04/2022**



