

AGRICULTURAL IMPACT ASSESSMENT

SETTLEMENT AREA BOUNDARY EXPANSION

Dundalk Settlement Area Expansion
Township of Southgate

Date:

June 2020

Prepared for:

Flato Developments Inc.

Prepared by:

MacNaughton Hermsen Britton Clarkson Planning Limited (MHBC)

540 Binghamans Centre Drive, Suite 200

Kitchener, Ontario

T: 519.576.3650

F: 519.576.0121

Our File 15184Z

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Purpose of the Study	2
1.2 Description and Location	2
1.3 Requirements	3
2.0 PROCESS	7
3.0 STUDY AREA IDENTIFICATION	8
3.1 Primary Study Area.....	8
3.2 Secondary Study Area.....	9
4.0 BACKGROUND DATA COLLECTION	10
4.1 Site Visit	10
4.2 Census of Agriculture.....	11
4.3 Soil Capability Mapping.....	12
4.4 Land Tenure	12
4.5 Tile Drainage.....	13
4.6 Microclimate for Specialty Crop Production.....	13
5.0 Planning Policy Framework	18
5.1 Provincial Policy Statement (2020).....	18
5.2 County of Grey Official Plan (2019).....	20
5.3 Township of Southgate Official Plan (2006).....	24
6.0 ASSESSMENT OF IMPACTS.....	27
6.1 Reduction / Loss of Agricultural Land and Infrastructure.....	27
6.2 Fragmentation of Agricultural Lands.....	28
6.3 Agriculture Investment	28
6.4 Minimum Distance Separation.....	29
6.5 Impacts on Agricultural Traffic.....	30
7.0 PROPOSED MITIGATION MEASURES.....	34
8.0 SUMMARY & CONCLUSIONS.....	37
APPENDIX A MDS I Calculations	39

LIST OF FIGURES

Figure 1	Location Plan
Figure 2	Context Map
Figure 3	Parcel Size Analysis
Figure 4	CLI Soil Map
Figure 5	Land Ownership Map
Figure 6	Artificial Drainage Map
Figure 7	Grey County Official Plan Land Use Map
Figure 8	Township of Southgate Official Plan Land Use Map
Figure 9	Potential Expansion Comparison
Figure 10	Minimum Distance Separation I Map

1.0 INTRODUCTION

MacNaughton Hermsen Britton Clarkson Planning Ltd. (“MHBC”) has been retained by Flato Developments Inc. (‘Flato’) to complete an Agricultural Impact Assessment (“AIA”) for a proposed expansion of the Dundalk Settlement area in the Township of Southgate in the County of Grey. The site is hereinafter referred to as the “subject lands”. As identified on Figure 1, the subject lands are located to the west end of the existing Dundalk Settlement boundary and are situated north of Ida Street, west of Glenelg Street, and south of the Grey County Canadian Pacific Rail Trail. The subject lands, which are proposed to be included as part of the Dundalk Settlement boundary, have a total area of approximately 8.71 hectares (21.52 acres). This Agricultural Impact Assessment (“AIA”) has been prepared as technical background information for the evaluation of a proposed settlement boundary expansion on the subject lands.

An AIA is identified as a required technical study in the 2020 *Provincial Policy Statement* (“PPS”) for any proposed settlement area boundary expansion. The *Planning Act* requires that any decision affecting planning matters “be consistent with” the PPS. The PPS states that municipalities may expand a settlement boundary only at the time of a comprehensive review, and where it has been demonstrated that there are insufficient opportunities to accommodate anticipated growth within the existing boundary of the settlement area. The proposed expansion of the settlement boundary is being proposed through a privately initiated Official Plan Amendment through a Comprehensive Review under the Provincial Policy Statement.

MHBC Planning has been retained by Flato to prepare this AIA in accordance with the *Provincial Policy Statement*, as well as applicable policies of the County of Grey and Township of Southgate Official Plans. In addition, the preparation of this report is based on the Province’s *Draft Agricultural Impact Assessment Guidelines*, prepared by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), dated March 2018. The goal of this guideline document is to ensure that farmland, farm operations and supporting infrastructure, services and assets are sustained to support a prosperous agri-food sector and strong rural communities. This document provides guidance on when an AIA is required which, relative to the subject lands, and for the purposes of this exercise, includes settlement area boundary expansions. Further, this document provides guidance on the scope of work that should be undertaken in the preparation of an AIA for settlement area boundary expansions.

1.1 Purpose of the Study

The purpose of this AIA is to evaluate potential impacts to agriculture, from the proposed settlement boundary expansion, and identify mitigation measures to abate any potential impacts to the extent feasible. As such, and in accordance with the Draft Provincial AIA Guidelines, the assessment includes:

- A summary and description of the lands subject to expansion and an identification of the study area;
- An identification of the study methodology including an analysis of the existing agricultural land base and soil conditions;
- An analysis of existing surrounding agricultural operations and facilities;
- An analysis of the existing applicable policy framework, and an evaluation of how the proposed expansion is consistent with and conforms to provincial and municipal policies; and,
- An assessment of potential impacts on the surrounding agricultural system and recommendations on potential mitigation measures to minimize any impacts.

As part of this AIA, surrounding agricultural land uses, operations and structures on properties within 1.5 km of the expansion area have been documented to assess the potential impact of the proposed development on agricultural uses and/or operations. According to the *Draft Agricultural Impact Assessment Guidelines*, a 1.5 km radius provides an appropriate area to assess community and economic impacts and impacts to the Agricultural System. In addition, an evaluation of soil data through the Canada Land Inventory (CLI) was completed to document the existing soil conditions of the subject lands, and the surrounding rural lands to determine the soil capability and viability of crop production.

1.2 Description and Location

The subject lands are situated west of the Dundalk Settlement Area, located north of Ida Street, west of Glenelg Street and south of the Grey County Canadian Pacific Rail Trail and consist of the portion of lands immediately outside of the existing settlement boundary to the west. The subject lands, which are proposed to be included in the settlement boundary expansion, have a total area of 8.71 hectares (21.52 acres). The subject lands are identified municipally as 231 Glenelg Street, and are legally described as Part of Lots 227 and 228, Concession 2, SWTSR, in the Township of Southgate.

Flato's land holdings, relative to the proposed boundary expansion, encompass land within and outside of the Dundalk Urban Area. It is the intent of the Owner to bring the subject lands into the boundary of the Dundalk Urban Area to permit the future development of the lands for residential uses. Presently, the subject lands are comprised of agricultural fields used for the farming of typical cash crop production such as soy, corn and wheat, etc. and can be characterized as being generally flat to gently rolling. There are no structures currently located on the subject lands.

Presently, the lands comprised of the Owner's land holdings are not developed and consist of agricultural fields, including the lands located within the Dundalk Urban Area to the east of the subject lands. Approximately half of the Owner's land holdings, which surrounds the subject lands, consist of "Hazard Lands" which are identified in the Township's Official Plan as lands having inherent environmental hazards including floodplains, steep slopes, organic or unstable soils, poorly drained areas, evaluated non-provincially significant wetlands and other physical conditions which are severe enough to pose a risk to property or potential loss of life if the lands were developed. These lands are intended to contribute to the natural environment and are considered a natural heritage feature. The proposed expansion of the settlement boundary does not include the identified "Hazard lands" and consist solely of the lands that are agricultural. Immediately south of the "Hazard lands" and to the west of Glenelg Street are approximately five developed rural residential lots.

The subject lands are located in proximity to the Dundalk Urban Area, which provides a range of amenities typically found within a Settlement Area. The most recent development in proximity to the subject lands is a residential subdivision located to the northwest of the subject lands, immediately north of the Grey County Canadian Pacific Rail Trail. It is anticipated that future residential development of the lands will include the subject lands and the immediately adjacent lands to the east with frontage onto Glenelg Street, which is also under the ownership of Flato Developments. Located to the west of the subject lands are primarily agricultural fields and agricultural related uses with sporadic pockets of "Hazard" lands.

Please see Figure 2 for context of the surrounding land uses.

1.3 Requirements

As discussed, the approach taken for this AIA is to apply the provincial and municipal policy context as if a settlement expansion were being requested and, as such, an Agricultural Impact Assessment is required. In accordance with Policy 1.1.3.8 of the *Provincial Policy Statement*, a planning authority may identify a settlement area or allow the expansion of a settlement area boundary only at the time of a comprehensive review and only where it has been demonstrated that:

- a) Sufficient opportunities for growth are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon;
- b) The infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;
- c) In Prime Agricultural areas:
 - a. The lands do not comprise specialty crop areas;
 - b. Alternative locations have been evaluated, and;
 - i. There are no reasonable alternatives which avoid prime agricultural areas; and,

- ii. There is no reasonable alternatives on lower priority agricultural lands in prime agricultural areas.
- d) The new or expanding settlement area is in compliance with the minimum distance separation formulae; and,
- e) Impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.

The proposed expansion of the subject lands into the Dundalk Urban Area is to be conducted through a privately initiated Official Plan Amendment through a Comprehensive Review under the Provincial Policy Statement. With respect to this AIA report, Policy 1.1.3.8 d) and e) will be reviewed and an analysis will be completed to determine if the expansion of the subject lands is appropriate and does not impact the surrounding agricultural lands in the area.



**Figure: 1
Location Map**

Legend

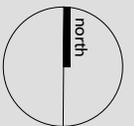
- Subject Lands
- Land Holding
- Primary Study Area
- Secondary Study Area
- Settlement Boundary*
- Parcels*

DATE: April 23, 2020

SCALE: 1:30,000

FILE: 15184X

DRN: JB



K:\15184X - DUNDALK EXPANSION\IRPT\LOCATION.DWG

Dundalk Expansion Area
Township of Southgate
Grey County

Source: Google Satellite Imagery
*Location/size is approximate only


MHBC

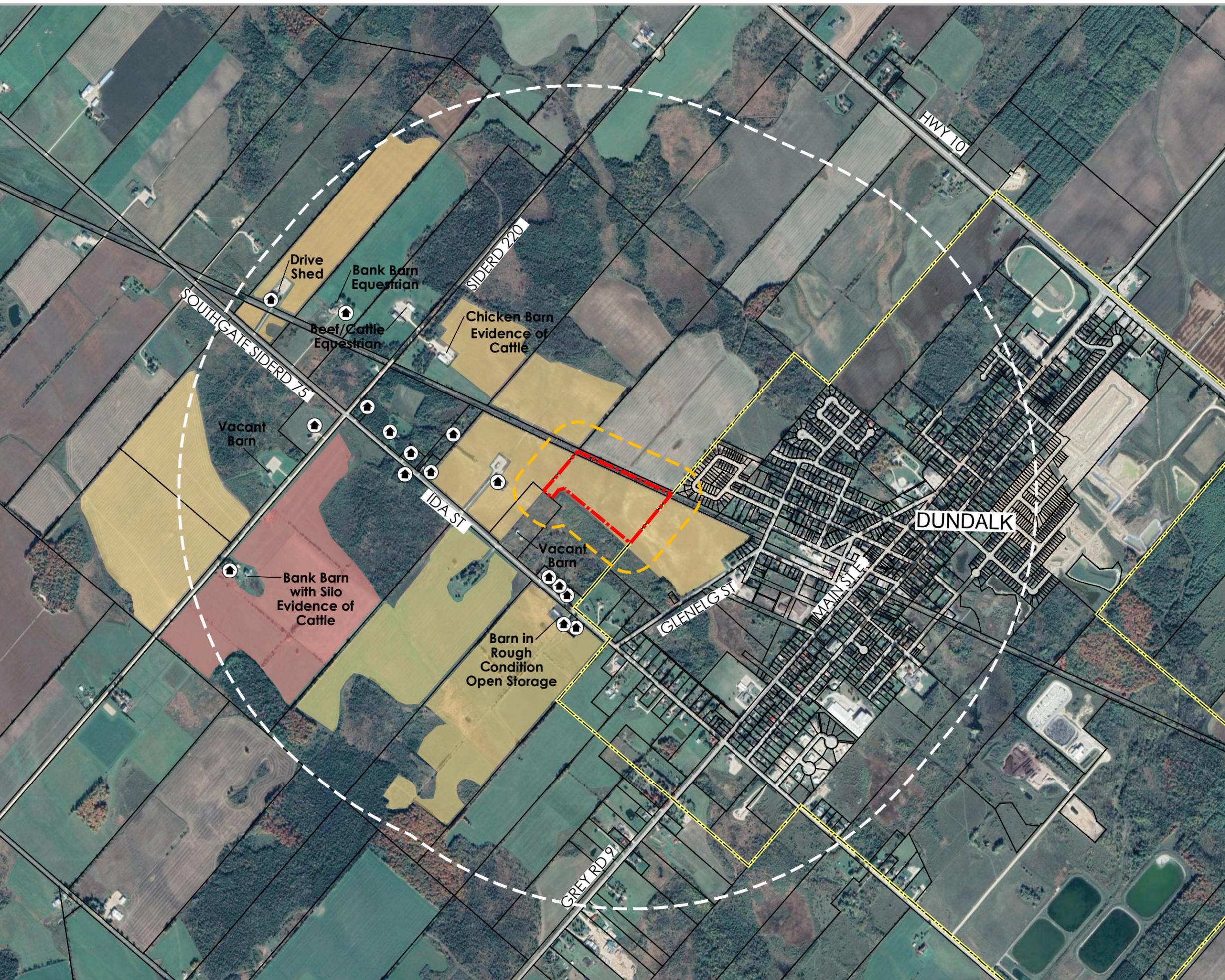
**PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE**

200-540 BINGEMANS CENTRE DR. KITCHENER, ON, N2B 3X9
 P: 519.576.3650 F: 519.576.0121 | WWW.MHBCPLAN.COM

Figure : 2
Surrounding Land Uses

Dundalk Expansion Area
 Township of Southgate
 County of Grey

- Legend**
- Subject Lands
 - Primary Study Area
 - Secondary Study Area
 - Settlement Boundary*
 - Parcels*
 - ↑ Rural Residence
- Agricultural Land Use**
- Row Crops (corn/soy)
 - Hay/Fallow



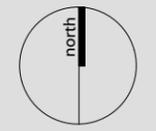
Sources:
 Google Satellite Imagery
 *Location/size is approximate only

DATE: April 24, 2020

SCALE: 1:15,000

FILE: 15184X

DRAWN: JB



K:15184X - Dundalk Expansion/Rpt/Surrounding Land Uses.dwg

2.0 PROCESS

The area of the subject lands includes 8.71 hectares (21.52 acres) of land located west of Glenelg Street, between Ida Street to the south and the Grey County Canadian Pacific Rail Trail to the north. The lands located immediately east of the subject lands are located within the Dundalk Urban Area.

As part of this assessment, a study area has been defined as a 1.5 km radius around the proposed expansion area. The study area has been documented to assess the potential impacts from the proposed development onto the surrounding agricultural system, and determine the extent of mitigation that may be required. The 1.5 km study area is in accordance with provincial guidelines for new land uses in prime agricultural areas (i.e. *Permitted Uses in Ontario's Prime Agricultural Areas* Document). In addition, as noted in the Draft Agricultural Impact Assessment Guidelines, the rationale for 1.5 km is the investigation distance typically associated with the provincial Minimum Distance Separation (MDS) Guidelines. Generally, the MDS Guidelines deal sufficiently with odour issues and therefore can be a good basis for investigating other impacts such as noise, traffic, etc. on the overall agricultural system.

In order to provide a preliminary evaluation of the study area lands, and further define the scope of the assessment, a site visit was conducted on March 20, 2020. Following this site visit, an inventory of existing agricultural land uses was prepared and a review of the 2016 Census of Agriculture data was taken to confirm that the agricultural uses within the study area was representative of the agricultural production patterns documented. Other relevant background information such as land tenure and agricultural improvements were also reviewed and documented as part of our assessment.

3.0 STUDY AREA IDENTIFICATION

The agricultural land use assessment completed as part of this AIA, included a study area comprised of 1.5 km surrounding the proposed expansion area, in accordance with provincial guidelines relative to agricultural uses. A plan identifying the agricultural uses within the study area is included as Figure 2 of this report. The inventory of existing agricultural land uses, cropping practices and structures is based on observations made during a site visit on March 20th, 2020, and a review of aerial photography. In addition, a review of the 2016 Census of Agriculture data was undertaken to confirm if the Study Area is representative of agricultural production patterns and livestock types in the broader region. The agricultural properties within the study area includes farmed agricultural land which generally consists of typical cash crops (i.e. wheat, corn, and soybean), livestock farms, small hobby farms, and rural residences located within and around the subject lands.

3.1 Primary Study Area

For the purposes of our review, the study area has been divided into two categories (primary and secondary study areas). The primary study area includes the subject lands and lands immediately adjacent within a radius of 120 metres from the subject lands. Whereas, the secondary study area includes lands within a 1.5 km radius of the subject lands.

The subject lands are located adjacent to the west end of the existing Dundalk urban area, west of Glenelg Street between the Grey County Canadian Pacific Rail Trail and Ida Street. Further west, past the subject lands are agricultural fields and pockets of natural heritage features. The primary study area land is identified as being located within a Rural Area and is characterized by predominantly agricultural land typically used for cash crop production, such as wheat, corn and soybeans. The County of Grey Official Plan differentiates rural designations and agricultural designations. The important difference is that lands designated "Agricultural" consist of large pockets of prime quality farmland, where agricultural land uses such as livestock, cash crop, and local food farming are the predominant uses. Lands designated as "Rural" by the Official Plan are considered a mix of farm, resource, forestry and recreational lands. The lands immediately adjacent to the subject lands to the south are considered "Hazard Lands" by the Official Plan which are characterized by floodplains, steep or erosion prone sloped, organic or unstable soils, and poorly drained areas. It is noted that the proposed subject lands are located within the "Rural" designation in its entirety and are not considered prime agricultural land.

The primary study area does not contain any livestock operations. The lands are comprised of agricultural fields, rural residential parcels, natural heritage features and the built-up area located within the boundaries of the Dundalk Urban Area. The subject lands do not contain any existing buildings or structures. There are no visible signs of extensive agricultural improvements on the lands. Within the Primary Study Area and outside of the Dundalk Urban Area, the only existing development in proximity to the subject lands are single detached residential dwellings sporadically located on adjacent parcels. Immediately north east of the subject lands and located within the boundary of the Dundalk Urban Area is

a residential subdivision that is partially developed. Further east is the built up area of Dundalk that consists of a range of uses including residential, commercial and employment uses, among others.

3.2 Secondary Study Area

The secondary study area includes land adjacent to and surrounding the primary study area, which are located within a 1.5 km radius of the subject lands. This area includes a significant portion of the Dundalk Urban Area and the agricultural, rural, natural heritage and residential uses surrounding the settlement area. Immediately adjacent to, and surrounding, the subject lands are primarily agricultural fields and agricultural related uses. To the immediate north are agricultural fields that are located immediately adjacent to the west end of the Dundalk Urban Area and a partially developed residential subdivision. To the east of the subject lands are vacant agricultural fields that are under the same ownership as the subject lands and are located within the Dundalk Settlement Area boundary. The lands south of the subject lands consist of “Hazard lands” and rural residential residences with frontage along Ida Street and Glenelg Street. The lands located west of the subject lands consist of agricultural fields and “Hazard lands”.

Based on a site visit conducted in March 2020, the lands located within the Secondary Study Area, with the exception of the lands within the boundary of the Dundalk Urban Area, are primarily vacant agricultural fields and “Hazard lands”. Agricultural livestock farms and rural residential dwellings are located sporadically throughout the Secondary Study Area.

Livestock operations were found to exist west of the subject lands along Sideroad 220, as well as along Ida Street to the south of the subject lands. As described further in Section 6, the agricultural lands within the study area are characterized by typical agricultural fields that primarily consist of traditional field crops.

4.0 BACKGROUND DATA COLLECTION

A variety of background data was collected and reviewed as part of the investigation completed for the proposed expansion of the subject lands into the Dundalk Urban Area. The background data collected and reviewed included provincial and municipal planning documents, provincial resource information, the site visit, and the most recent aerial photography available.

The information contained in this AIA is, in part, based on a site visit that was conducted on March 20, 2020, as well as a combination of existing data made available through public agencies and mapping of the province's Agricultural Information Atlas and the Agricultural System within Grey County.

4.1 Site Visit

A site visit was conducted on March 20, 2020 to view and document existing agricultural uses and activities on the subject lands, as well as the surrounding farm operations within a 1.5 km radius. The analysis of surrounding farm operations helped determine the nature of agricultural uses and whether existing agricultural infrastructure is capable of supporting livestock. Based on observations from the site visit, the surrounding land uses generally consists of a variety of large vacant agricultural parcels, rural residential dwellings and smaller fragmented lots, with some isolated "Hazard Lands" bounding the Dundalk Urban Area and settlement area uses. Crops in the area generally consist of typical field crops or pasture/fallow fields. The majority of the uses surrounding the subject lands consist of agricultural and accessory uses. The existing livestock facilities within the Secondary Study Area are well separated from the subject lands.

In addition to the site visit conducted in March 2020, the agricultural and non-agricultural land uses within and in proximity to the subject lands were reviewed to help understand existing agricultural uses and operations. Roadside observations were also conducted for lands within a 1.5 km radius of the proposed expansion lands.

It should be noted that the roadside observations undertaken as part of our data collection is based on a line of site process. Therefore, dense bush, woodlots, and varying topography can prevent an accurate assessment of some properties. In those instances, measures have been taken in an attempt to identify existing agricultural facilities and crops through the review of aerial photography.

4.2 Census of Agriculture

An agricultural trend review was completed to review current agricultural production and parcel size trends in the surrounding area and viability of farm sizes, with consideration of farmland preservation and alternate farm operations. Statistics Canada produces a regular Census of Agriculture depicting variables including number and type of farm crop; crop and land use area; management practices; number of livestock; machinery; farm capital and gross farm receipts. A review of the Census of Agriculture for Grey County and the Township of Southgate was undertaken in order to provide an overview of agricultural production patterns and parcel size. This assisted in confirming if current farming practices within the Study Areas are characteristic of the broader agricultural area.

Based on the Census data, it was determined that the total number of farms in Grey County (2,304 farms) and the Township of Southgate (377 farms) have both increased since 2011. In Grey County, an increase of 2.5% was experienced between 2011 and 2016. The Township experienced an increase by 5.45% of total number of farms. These increases do not portray similarities with what is occurring in Ontario overall as the Province experienced a slight decrease in the total number of farms by 4.63%, largely due to farm consolidations

The majority of farm uses in Grey County (35.7%) and the Township of Southgate (46.9%) consists of cattle ranching and farming. Other crop farming such as hay, fruit and vegetable combination farming, maple syrup and products productions, and other miscellaneous crop farming consists of 19.8% of total farming in Grey County and 14.5% of total farming in the Township of Southgate. The large amount of 'cattle ranching and farming' and 'other crop farming' productions is reflective of agricultural trends within surrounding Counties, Town's and Townships.

A large percentage of farms within Grey County (15.7%) and in the Township of Southgate (12.7%) also consist of "other animal production" such as apiculture, horse and other equine production and animal combination farming. Additionally, 'oil seed and grain farming' makes up 14.7% of farms in Grey County and 11.4% of farms in the Township of Southgate.

In terms of parcel size, the majority of farms in the County and Township are within the 28-52 hectare farm size (25% in Grey County and 23% in the Township of Southgate) followed by the 4-28 hectare farm size (23% in Grey County and 19% in the Township of Southgate). In Ontario, the farm parcel size characteristics are slightly different as the majority of farms are within the 4 to 28 hectare farm size (25% in Ontario), whereas farm parcel sizes in Ontario between 28-52 acres represent only 22% of total Ontario farms. Figure 3 provides a summary of parcel sizes in the Township of Southgate.

Farm parcel sizes surrounding and outside the Dundalk Settlement Area are predominantly a mix of parcel sizes in the 4-28 hectare or 28-52 hectare ranges, with the exception of a small area to the south of Dundalk along Grey Road 9, which is highly fragmented with smaller parcels.

Based on our site visit and assessment of the agricultural uses in the area, the agricultural activities within both the primary and secondary study areas are indicative of the broader agricultural trends in Grey County and the Township of Southgate.

4.3 Soil Capability Mapping

Soil Capability for Agricultural mapping made available through Land Information Ontario, or OMAFRA's Agricultural Information Atlas was reviewed. The Canada Land Inventory (CLI) system uses soil attributes to create a seven class system of land use capabilities. Class 1, 2 and 3 soils are capable of sustained common field crop production. According to the Canada Land Inventory Soils Map produced by the Province (Figure 4), the subject lands are comprised of Class 1 soils as is most of the land within the primary and secondary study areas. The mapping also identifies Organic Soil existing within the Secondary Study Area, primarily west of the subject lands. The Class 1 soil types are considered prime agricultural soils and are well drained with good nutrient and water holding capacity.

The majority of the lands bounding the Dundalk Urban Area are classified as Class 1 soils. Class 2 soils are also identified on many properties surrounding the Dundalk Urban Area and are generally aligned with those lands identified as "Hazard Lands" by the County of Grey Official Plan and the Township of Southgate Official Plan. According to the description of Hazard Lands within the Grey County Official Plan, these lands typically include floodplains, steep or erosion prone slopes, organic or unstable soils, and poorly drained areas. New development shall generally be directed away from Hazard lands.

4.4 Land Tenure

In order to determine the characteristics of land ownership for the subject lands and within the secondary study area, land tenure was evaluated. In order to evaluate land tenure, data on land ownership was collected using the online Geowarehouse system. In addition, available online data was used through the Geographic Information System (GIS) to provide approximate location and shapes of each property. Land owner information is illustrated on the Land Ownership Map (please see Figure 5).

A review of the ownership information illustrates a variety of Owner-Operator combinations including: Tenant Farmed and Local Owner/Operator. The various properties within the secondary study area and how each property has been categorized into the above groups are based on the ownership information collected. The data collected from the ownership information provides an overall understanding of the types of ownership in the area and can provide a sense of the type of agricultural investment that could be expected on each property. Local Owner/Operators would typically reflect the owners that desire to live and work in the immediate area. Tenant Farms are those properties that are owned by larger businesses or under a separate company name. These owners often reflect properties purchased for speculation development.

Based on our review of this data, it appears that the majority of parcels bounding the Dundalk Settlement Area are locally owned and operated by local residents. These observations may indicate that the likelihood of increased agricultural investment on these lands may be higher as the owner of the land is

also the operator of the farm. The subject lands are not owned and operated by a local owner/operator and the intent is for the future development of the lands for Settlement Area land uses. As such, future agricultural investment on the subject lands will likely not occur.

4.5 Tile Drainage

An evaluation of artificial drainage on the subject lands and within the secondary study area was completed through the review of the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Artificial Drainage System Mapping.

OMAFRA Artificial Drainage System maps were reviewed from Land Information Ontario open data to determine if an agriculture tile drainage system had been registered for the subject lands or secondary study area. Figure 6 illustrates the OMAFRA Artificial Drainage Systems Mapping for both the subject lands and secondary study area. The subject lands are identified as containing systematic tile drainage. Additionally, a number of properties within the secondary study area contain systematic or random tile drainage systems as well.

4.6 Microclimate for Specialty Crop Production

Climate data was obtained from the OMAFRA document titled “Agronomy Guide for Field Crops – Publication 811 (June 2009)” and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Factsheet – Crop Heat Units for Corn and Other Warm Season Crops in Ontario, 1993. The subject lands are located within the 3100-3300 average accumulated Crop Heat Units (CH-MI) available for corn production in Ontario. The Crop Heat Units (CHU) index was originally developed for field corn and has been in use in Ontario for 30 years. The CHU ratings are based on the total accumulated crop heat units for the frost free growing season in each area of the province. CHU averages range between 2500 near North Bay to over 3500 near Windsor. The higher the CHU value, the longer the growing season and greater are the opportunities for growing value crops.

The subject lands are located within approximately 2,700 average accumulated Crop Heat Units (CHU-MI) and as such, the agricultural lands are not subject to special climatic conditions. Given the typical climatic conditions, there are limited opportunities for growing specialty crops, and therefore, the properties have not been identified as a specialty crop area in the County or local Official Plans and do not meet the criteria as identified by the Province.

Figure : 3
Parcel Size Analysis

Dundalk Expansion Area
Township of Southgate
Grey County

Legend

- Subject Lands
- Township of Southgate
- Settlement Areas
- Parcels*

Parcels outside of Settlement Areas*

- 0 - 10 ha (43.9%)
- 10.1 - 40 ha (23.2%)
- 40.1+ ha (32.9%)

Average Parcel Size: 24.1 ha

Notes

- * Location is approximate
- Basemap: Esri World Topographic Map

DATE: April 24, 2020

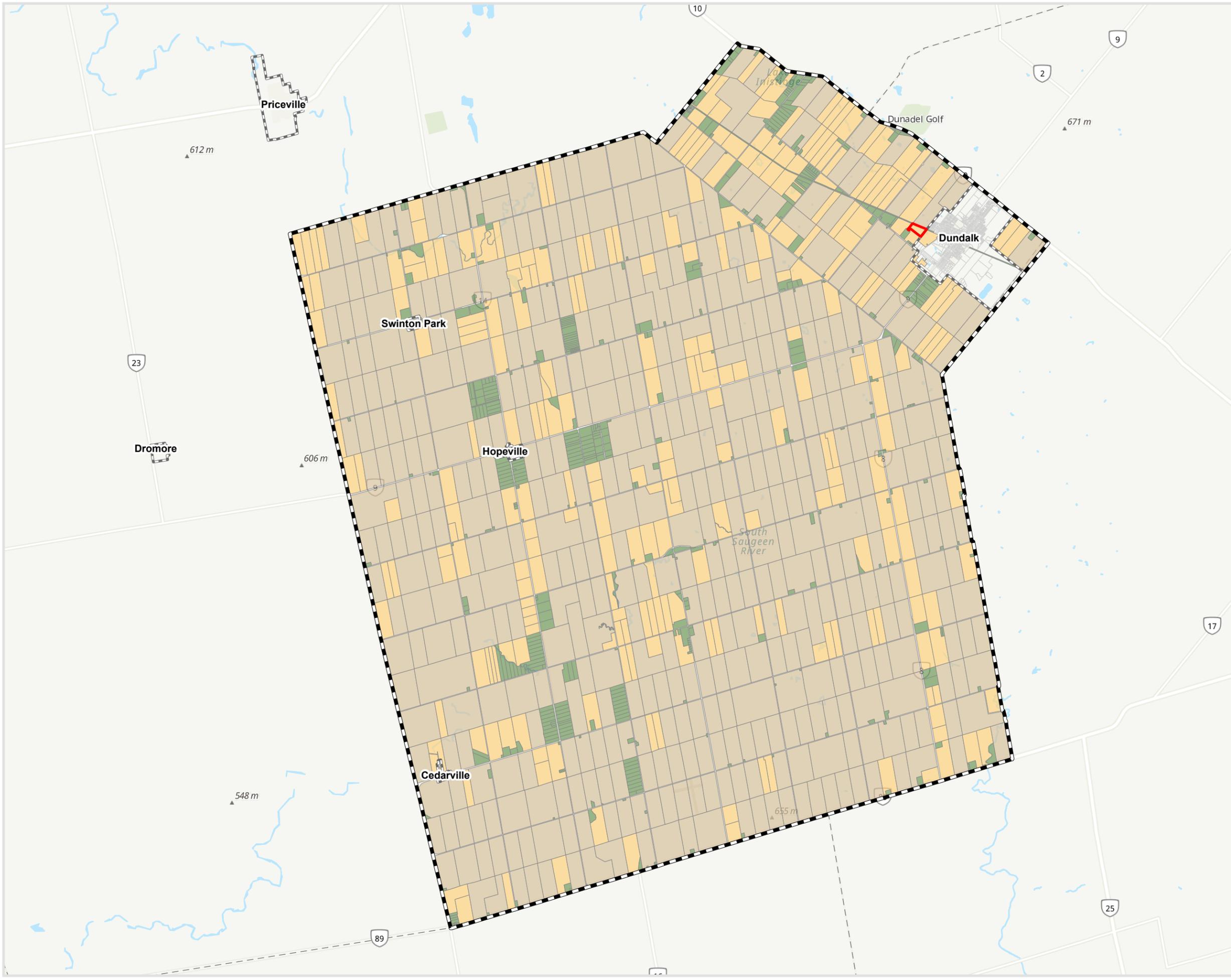
SCALE: 1:100,000

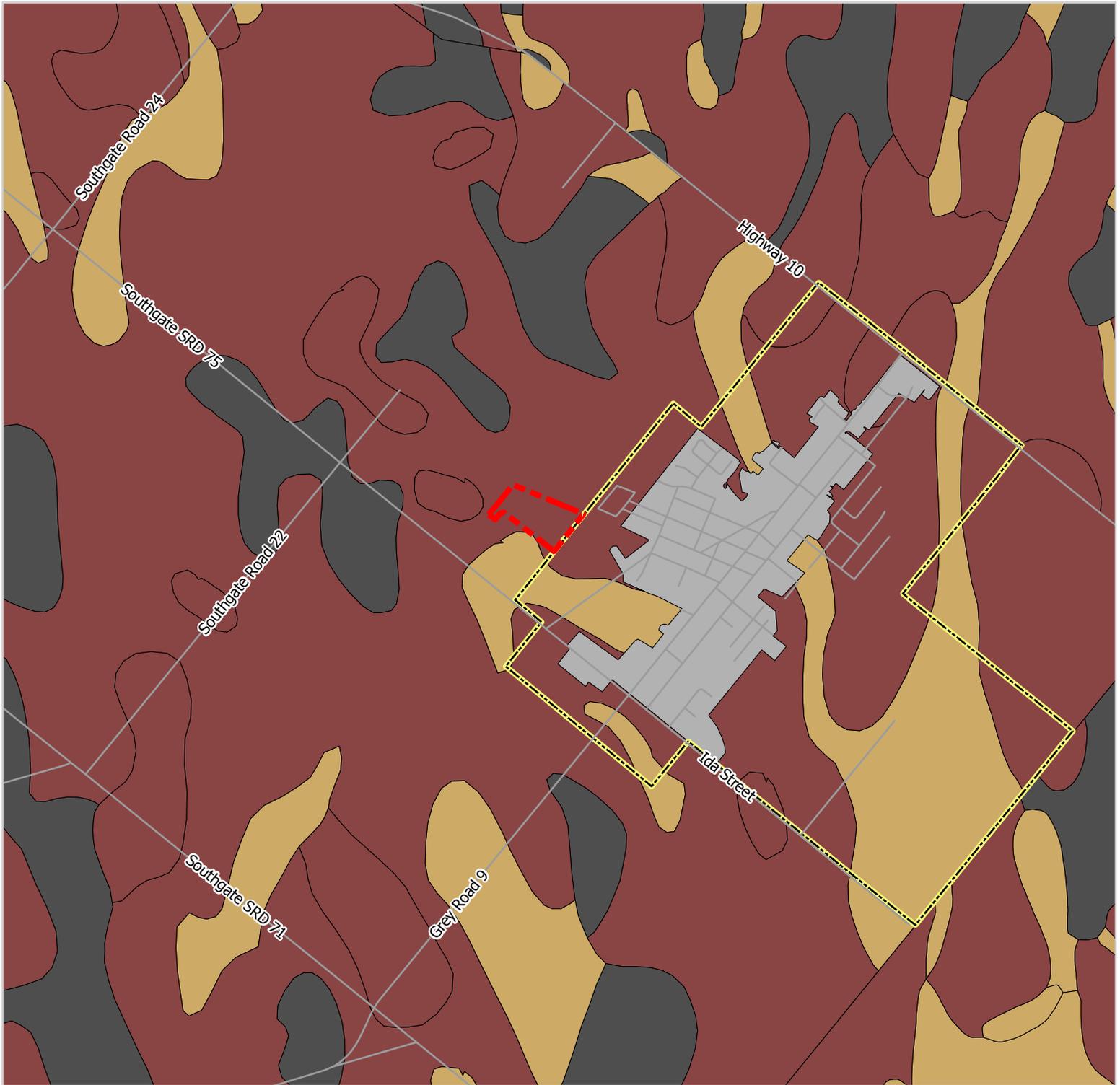
FILE: 15184X

DRAWN: JB



Document Path: K:\15184X - Dundalk Expansion\ReportAg Mapping.aprx





**Figure : 4
Canada Land
Inventory Soils**

Dundalk Expansion Area
Township of Southgate
Grey County

Legend

-  Subject Lands
 -  Settlement Boundary
 -  Roads
- | Soil Class | |
|---|---------|
|  | Class 1 |
|  | Class 2 |
|  | Organic |
|  | Other |

Source: Land Information Ontario (LIO) Open data

Date: April 23, 2020

Scale: 1:30,000

File: 15184X

Drawn: JB

Document Path: K:\15184X - Dundalk Expansion\Rpt\Ag Mapping.aprx

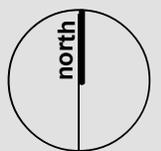


Figure : 5
Land Ownership Map

Dundalk Expansion Area
Township of Southgate
County of Grey

Legend

- Subject Lands
- Primary Study Area
- Secondary Study Area
- Settlement Boundary*
- Parcels*
- Tenant Farmed
- Local Owner/Operator

Number	Address	Ownership	Area (ha)
1	772410 HIGHWAY 10	T. FREY MANUFACTURING LTD.	40.89
2	772350 HIGHWAY 10	COBEAN, TERI LOU BRYCE	38.79
3	LT 225 CON 1	MCKEOWN FARMS INC.	53.26
4	772288 HIGHWAY 10	2570970 ONTARIO INC	40.23
9	752467 SOUTHGATE SRD 75	BAUMAN, NAOMI; BAUMAN, ENOCH	25.07
8	752447 SOUTHGATE SRD 75	STAMPER, SCHERI BARBARA; STAMPER, GEORGE WILLIAM	26.86
7	220279 SOUTHGATE ROAD 22	TUBE-SIDE INC.	20.80
6	220270 SOUTHGATE ROAD 22	CUTWAY INC.	42.55
10	752353 IDA STREET	BAUMAN, NAOMI; BAUMAN, ENOCH	15.40
5	752353 IDA STREET	BAUMAN, NAOMI; BAUMAN, ENOCH	37.38
11	220183 Southgate Road 22	BAUMAN, NAOMI; BAUMAN, ENOCH	38.69
12	PT LT 218-220 CON 3	BAUMAN, ENOCH	29.65
13	220148 SOUTHGATE ROAD 22	REDMOND, MICHAEL JOHN; REDMOND, PAUL WILLIAM	71.99
14	752334 IDA STREET	BAUMAN, VELINA; BAUMAN, CHRISTIAN	47.93
15	752290 IDA STREET	LEESON, JOHN CHARLES	47.94
16	LT 228 CON 3	BEATTY, THOMAS FREDERICK THOMPSON	21.86
17	752240 IDA STREET	CUNNINGTON, DONALD NEIL; CUNNINGTON, TAMMY LEE	20.68
18	PT LT 230 CON 3	2173188 ONTARIO INC	9.40

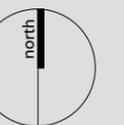
Sources:
Google Satellite Imagery
*Location/size is approximate only

DATE: April 24, 2020

SCALE: 1:20,000

FILE: 15184X

DRAWN: JB



K:\15184X - Dundalk Expansion\Rpt\Land Ownership Mapping.dwg



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNBS/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure : 6
Agricultural Drainage

Legend

-  Proposed Expansion Area
-  Settlement Boundary
-  Roads
-  Agricultural Tile Drainage
Random
-  Systematic
-  Constructed Drains
Open or Unknown
-  Closed/Tiled

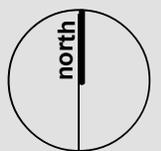
Date: April 23, 2020

Scale: 1:30,000

File: 15184X

Drawn: JB

Document Path: K:\15184X - Dundalk Expansion\Rpt\Ag Mapping.aprx



Dundalk Expansion Area
Township of Southgate
Grey County

Source: Land Information Ontario (LIO) Open data



5.0 Planning Policy Framework

A number of key policy documents were reviewed as part of this Agricultural Impact Assessment in order to provide a comprehensive assessment of the policy framework from an agricultural perspective regarding the proposed expansion. The following is a review of the agricultural policy framework related to the proposed expansion of the subject lands into the Dundalk Settlement Area.

5.1 Provincial Policy Statement (2020)

The Provincial Policy Statement (PPS) establishes province-wide standards for how we use lands and resources and guides decision-making on key land use issues across Ontario. The PPS is issued under the authority of Section 3 of the Planning Act. The 2020 PPS was released on February 28, 2020 and replaces the 2014 PPS. The 2020 PPS came into effect on May 1, 2020.

The subject lands are located outside the boundary of the Greater Golden Horseshoe and as a result, the policies of the Places to Grow – Growth Plan for the Greater Golden Horseshoe will not be applicable in reviewing the proposed expansion of the subject lands into the Dundalk Urban Area. As a result, the policies of the PPS (2020) are the only applicable provincial policies to be reviewed to determine the appropriateness of the subject lands to be included within the settlement area.

Policy 1.1.3.1 of the PPS states that Settlement areas shall be the focus of growth and development, and their vitality and regeneration shall be promoted. The Dundalk Settlement Area is intended to contribute to the growth within the Township of Southgate over time. According to the Township of Southgate Official Plan, the greater majority of growth in the Township is to be directed toward the urban community of Dundalk.

Policy 1.1.3.8 of the PPS states the following:

"A planning authority may identify a settlement area or allow the expansion of a settlement area boundary only at the time of a comprehensive review and only where it has been demonstrated that:

- a) Sufficient opportunities to accommodate growth and to satisfy market demand are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon;*
- b) The infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;*
- c) In prime agricultural areas:*
 - 1. The lands do not comprise specialty crop areas;*
 - 2. Alternative locations have been evaluated, and*

- i. There are no reasonable alternatives which avoid prime agricultural areas; and*
 - ii. There are no reasonable alternatives on lower priority agricultural lands in prime agricultural areas;*
- d) The new or expanding settlement area is in compliance with the minimum distance separation formulae; and*
- e) Impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.*

In undertaking a comprehensive review, the level of detail of the assessment should correspond with the complexity and scale of the settlement boundary expansion or development proposal.

As discussed, the proposal was evaluated under the policy framework of a settlement expansion. In response to the above, the proposed development represents an opportunity to accommodate growth over the identified planning horizon in a manner that can utilize and expand on the existing and planned infrastructure within this area of the Township. It should be noted that the Village of Dundalk is fully serviced with municipal services and the subject lands will utilize these services. Further, the location of the subject lands immediately adjacent to the settlement area boundary, would provide for a logical extension of the settlement area.

According to the County of Grey and Township of Southgate Official Plan mapping, the subject lands and land surrounding Dundalk are designated "Rural" and are not identified as being designated "Agricultural" or "Special Agriculture". Furthermore, the Province's Agricultural System Portal mapping system does not identify any Specialty Crop designation on the subject or surrounding lands. As a result, the subject lands and surrounding area are not considered a Prime Agricultural Area or a specialty crop area within the provincial or local planning instruments. Therefore, policy 1.3.8 c) of the PPS is not applicable.

As it relates to compliance with the Ministry of Agriculture Food and Rural Affairs' (OMAFRA) Minimum Distance Separation (MDS) formulae, an analysis of the potential impacts from the proposed urban expansion on surrounding livestock operations, has been completed. As further identified within Section 6 of this report, new non-farm land uses are required to meet the Minimum Distance Separation I ("MDS I") formula as provided in "The Minimum Distance Separation Implementation Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks, Publication 853 of the Ontario Ministry of Agriculture, Food and Rural Affairs, 2016.

There are a number of existing or potential livestock operations within the Secondary study area. Based on our MDS calculations, the proposed expansion of the subject lands complies with MDS 1 from all surrounding existing or potential livestock operations.

Agricultural and livestock operations surrounding the subject lands will not be significantly impacted by the proposed development on the subject lands. Given the location of the subject lands and surrounding agricultural and livestock operations in proximity to the existing settlement area, the proposed development will not affect the surrounding operations any more than the impacts already experienced by existing non-agricultural uses in the area. However, in order to mitigate any potential adverse impacts

from the proposed development, it is recommended that measures be incorporated as part of the future development of the lands. These proposed measures are further discussed in Section 7 of this report.

The subject lands do not currently contain any form of intensive agricultural operation or livestock facility and has not shown any signs of significant agricultural investment on the lands other than systematic tile drainage, which given the proximity to hazard lands consisting of organic soils, the tile drainage was likely implemented to address drainage issues on the subject lands. Protection of any existing agricultural and livestock operations in proximity to the subject lands will be promoted and a series of mitigation measures can be implemented to limit the impacts on the surrounding agricultural uses.

Furthermore, Section 1.1.5 of the PPS provides policy relating directly to rural lands. According to Policy 1.1.5.2, rural lands are permitted to be developed for residential development, including lot creation that is locally appropriate. Flato is proposing the expansion of the subject lands into the Dundalk Urban Area in order to develop the lands in the future for residential development. Given the proximity of the subject lands to the Settlement Area and the appropriate separation from existing livestock operations, the lands can be considered to be an appropriate location to accommodate future development. The proposed expansion of the subject lands into the Dundalk Urban Area is consistent with Section 1.1.5 of the PPS.

In summary, the expansion of Dundalk Settlement Area on the subject lands is consistent with the agricultural/rural policies of the PPS.

5.2 County of Grey Official Plan (2019)

The County of Grey Official Plan was adopted by Grey County Council on October 25, 2018 and was granted approval on June 6, 2019 by the Province of Ontario. The Plan provides a policy basis to assist in growth management of the County and is intended to meet the needs of each community going forward on a twenty-year planning horizon.

The subject lands are designated "Rural" in the County's Official Plan as identified on Figure 7. The majority of lands surrounding the Village of Dundalk Urban Area are also designated "Rural" or "Hazard Lands". The lands immediately adjacent to the subject lands to the south are designated "Hazard Lands".

Section 2.1 of the County Official Plan relates to growth projections prepared for the County. These growth projections intend to help plan communities by anticipating what services and infrastructure will be required to support new growth, as well as to help determine whether additional lands are required to be identified as a Settlement Area land use type. According to Table 1 found in Section 2.1 of the Official Plan, the Township of Southgate has experienced annual growth in population and it is expected that an increase in population by approximately 1.2% will be observed through to 2038. Based on these projections, the Village of Dundalk is presently or may in the near future experience land shortages. In order to introduce new lands into the Settlement Area to address the land shortages, an expansion can be considered as part of a comprehensive review. A number of criteria are to be considered when evaluating a proposed expansion. The applicable criteria are found in Section 3.4.2 of the County Official Plan.

According to Section 3.4.2, the County may identify a settlement area or allow the expansion of a settlement area designation only at a time of a comprehensive review or an updated comprehensive review and only where it has been demonstrated that the appropriate tests are met. With respect to this Agricultural Impact Assessment, the relevant tests relating to agriculture were reviewed and responded to. These include the following:

Section 3.4.2.1 – Settlement Area Expansion tests	Response
<p>d) Expansion will be considered primarily in the Rural land use type; and where it can be demonstrated that no alternative exists, expansion into other land use types may be permitted. No expansion will be permitted into Special Agricultural land use type areas. In the case of Agricultural land use type areas, it must be demonstrated that there are no reasonable alternatives which would avoid prime agricultural areas, and no alternatives exist on lower priority agricultural lands;</p>	<p>The subject lands are designated “Rural” by the County of Grey Official Plan. An expansion is not being proposed into any other land use type other than the “Rural” designation. The lands bounding the Dundalk Urban Area are primarily designated “Rural”, with small pockets of lands identified as “Hazard Lands” also existing in the area. As such, expansion of the Dundalk Urban Area in any direction will result in the removal of Rural lands.</p> <p>According to available Provincial and local mapping, the subject lands are not identified or designated for Specialty Crop.</p>
<p>f) Impacts on agricultural operations adjacent or close to settlement area expansions are mitigated to the extent feasible and expansion of the new or expanding settlement area is in compliance with the provincial minimum distance separation formulae;</p>	<p>The subject lands are located immediately adjacent to the western end of the Dundalk Settlement Area. A review of existing agricultural and livestock operations were assessed and evaluated. Minimum Distance Separation (MDS) was calculated and it was determined that the subject lands are well outside of any required minimum distance setback from surrounding occupied or unoccupied livestock operations. The development of the subject lands for Settlement Area land uses would not have an impact on surrounding livestock operations. Appropriate mitigation measures to address any potential future adverse impacts on surrounding agriculture or livestock operations can be incorporated as part of the future development of the lands. Appropriate mitigation measures can be found in Section 7 of this report.</p>

The lands surrounding the Dundalk Settlement Area are all identified and designated as “Rural” lands or “Hazard Lands”. All expansion options surrounding the existing settlement area would involve “Rural” lands with similar soil characteristics. Livestock operations in proximity to the subject lands have been

determined through MDS calculations to have negligible impact from the future development of Settlement Area land uses on the subject lands. In order to ensure the protection of the surrounding agricultural farming operations from any adverse impacts from a future settlement area expansion, it is recommended that additional mitigation measures be undertaken. An assessment of applicable mitigation measures is reviewed in Section 7 of this report.

Section 3.4.2.2 b) states that where settlement area designation expansions are needed to meet projected development needs, the decision on direction or location of settlement area expansions must be based on assessing land availability, where "Rural" land use types are the preferred lands for expansion, and if there are no reasonable alternatives, "Agricultural land use types can be considered". An Agricultural Impact Assessment should be undertaken that evaluates the potential impacts on agriculture, including agricultural operations, agricultural uses, and prime agricultural areas and recommends ways to avoid or, if avoidance is not possible, minimize and mitigate adverse impacts. The policies of the Official Plan do not permit expansion into Special Agricultural land use types.

This AIA has been prepared to evaluate the subject lands to determine if they are appropriate for expansion into the Dundalk Urban Area. As mentioned previously in this report, the subject lands are designated "Rural" by the County Official Plan and are appropriate for expansion in this regard. As the lands bounding the Dundalk Urban Area consist primarily of "Rural" lands, any future expansion will result in the use of rural lands. There is no alternative land use type that could be expanded onto in any direction. Mitigation measures that can be incorporated as part of the future development of the subject lands are identified in Section 7 of this report.

In summary, the proposed settlement area expansion on the subject lands conforms to the relevant agricultural settlement area expansion policies of the County Official Plan.

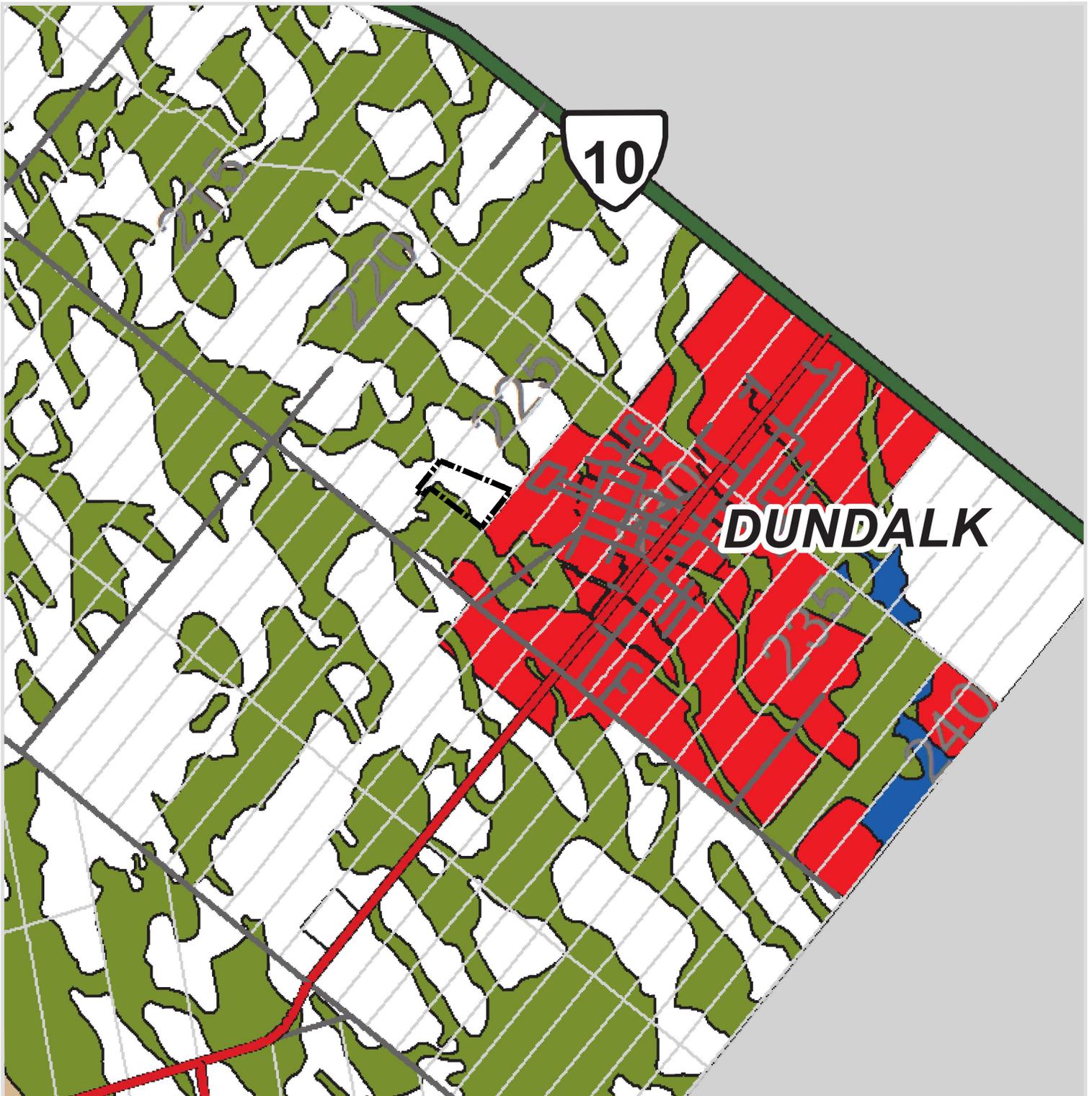


Figure: 7
Land Use Types
 Map 2 to Schedule A - The County of Grey Official Plan, 2019

Legend

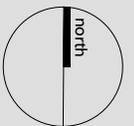
-  Subject Lands
-  Provincial Highway
-  County Road
-  Local Road
-  Rural
-  Primary Settlement Area *
-  Hazard Lands
-  Provincially Significant Wetlands and Significant Costal Lands

DATE: April 23, 2020

SCALE: 1:30,000

FILE: 15184X

DRN: JB



K:15184X - DUNDALK EXPANSION\IPTGCG OP LAND USE.DWG

Dundalk Expansion Area
 Township of Southgate
 Grey County

MHBC PLANNING
 URBAN DESIGN
 & LANDSCAPE
 ARCHITECTURE
 200-540 BINGEMANS CENTRE DR. KITCHENER, ON. N2B 3X9
 P: 519.576.3650 F: 519.576.0121 | WWW.MHBCPLAN.COM

5.3 Township of Southgate Official Plan (2006)

The Township of Southgate Official Plan was adopted by the Council of the Township of Southgate on February 15, 2006 and approved by the County of Grey on August 10, 2006. The Official Plan establishes goals, objectives and land uses, transportation and servicing policies to direct the physical growth of the Township into the future. It is intended that this Plan serve as a lead to municipal decision-makers in preparing implementing local zoning, undertaking public works and in assessing the propriety of development applications.

The subject lands are designated as “Rural” on Map 1 to Schedule A of the Township of Southgate Official Plan (Figure 8). The “Rural” designation as shown on Map 1 of the Official Plan applies to lands that are forest covered, exhibit good to marginal soils and are not considered prime agricultural lands according to Policy 5.2 of the Official Plan. Lands within the Township that are designated as “Agriculture” are considered to be the prime agricultural lands within the Municipality. The “Rural” designation currently permits a range of agriculture and agriculture related uses, small scale commercial and industrial uses, recreational uses and limited non-farm land uses including social and institutional uses. According to County policy regarding expansion of settlement areas, an expansion will be considered primarily in the Rural land use type.

Section 10.9.1 of the Township of Southgate Official Plan relates to Settlement Area Expansions. This policy states that Settlement Area designations may be expanded to accommodate new growth only under certain circumstances. For the purpose of this AIA report, the following circumstances apply:

a) At the time of a comprehensive review;	A privately initiated Official Plan Amendment is being prepared through a Comprehensive Review under the Provincial Policy Statement.
d) In the Agricultural designation, where it has been demonstrated that there are no reasonable alternatives which avoid expansion into the Agricultural Designation.	The subject lands are not designated “Agricultural”. All available expansion options for the Dundalk Urban Area does not include lands designated as “Agricultural”. The only available lands for expansion of the Settlement Area are those that are designated “Rural” under the Township of Southgate Official Plan.
e) It has been demonstrated that impacts from expanding settlement area on agricultural operations which are adjacent or close to the settlement area designation are mitigated to the extent feasible.	The subject lands are located immediately adjacent to the western end of the Dundalk Settlement Area. A review of existing agricultural and livestock operations were assessed and evaluated. Minimum Distance Separation (MDS) requirements were calculated and it was determined that the subject

	<p>lands are well outside of any required minimum distance setback from occupied and unoccupied livestock operations. The development of the subject lands for Settlement Area land uses would not have an impact on surrounding livestock operations. Appropriate mitigation measures to address any potential future adverse impacts on surrounding agriculture or livestock operations can be incorporated as part of the future development of the lands. Appropriate mitigation measures can be found in Section 7 of this report.</p>
--	---

Urban expansion onto the subject lands would not have adverse impacts on any existing farming operations in the immediate area, given that a number of existing non-farm uses already exist in proximity to the subject lands. The removal of the subject lands from the “Rural” designation to accommodate future Settlement Area land uses would still allow agricultural operations to remain an integral part of the agri-food system. Future development of the subject lands would allow surrounding farming operations to remain in use at their full potential.

Given the proximity of the subject lands to the existing settlement area, as well as the partially developed residential subdivision located immediately adjacent the subject lands on its north-eastern side, urban development on the subject lands appears to be a logical transition. Presently, the subject lands contain no significant signs of agricultural improvements, with the exception of systematic tile drainage infrastructure. The proposed expansion of the subject lands into the Dundalk Urban Area would not be considered incompatible for the area and would allow the ongoing operation of surrounding agricultural uses without adverse impacts.

In summary, the proposed settlement area expansion on the subject lands conforms to the relevant agricultural settlement area expansion policies of the Township Official Plan.

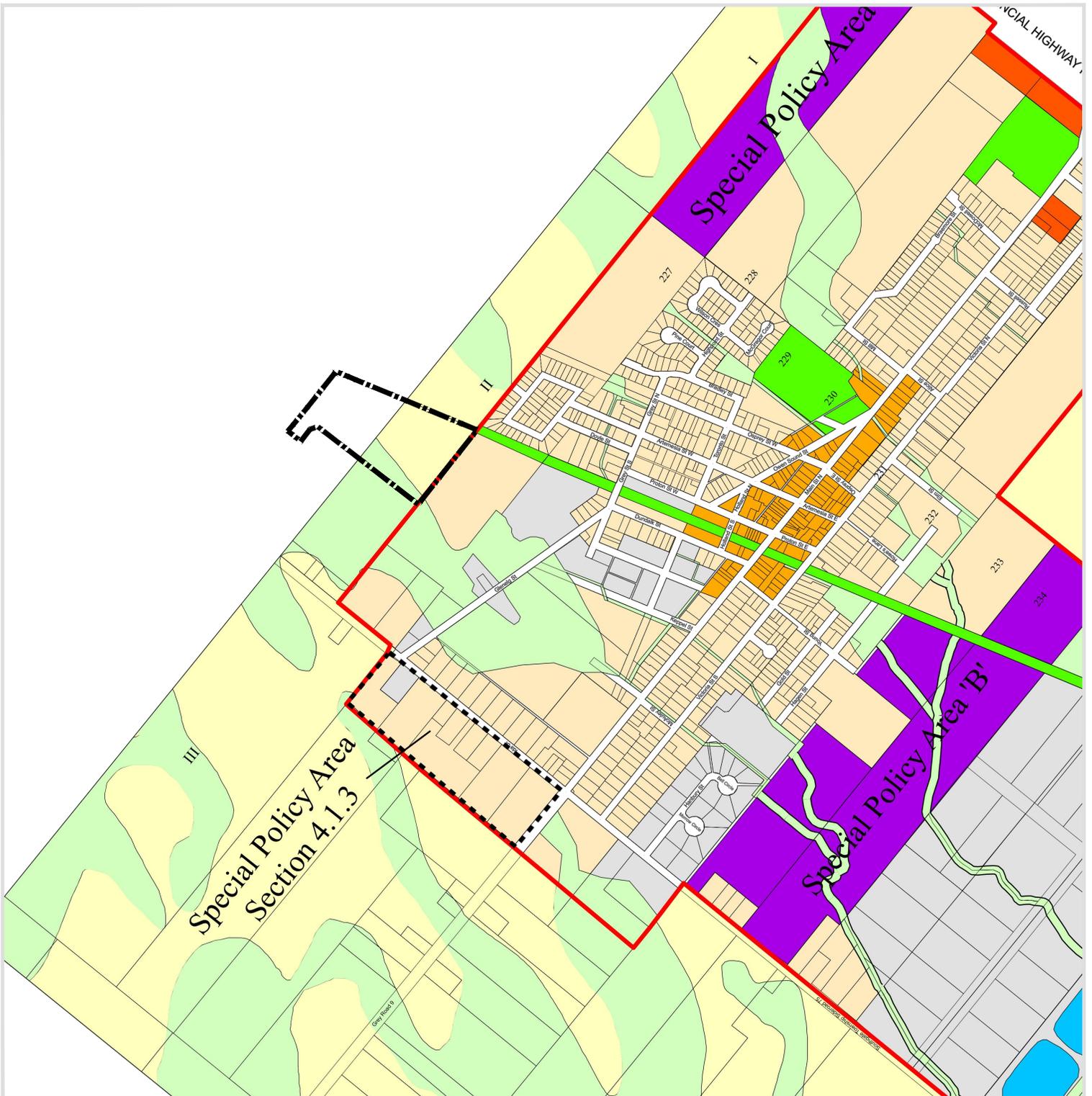
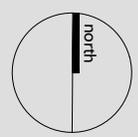


Figure: 8
Land Use: Dundalk
 Map 1 to Schedule A Township of Southgate Official Plan, 2009

Legend	
	Subject Lands
	Neighbourhood Area
	Downtown Commercial
	Arterial Commercial
	Industrial
	Public Space
	Special Policy Area
	Agriculture
	Rural
	Village Community
	Inland Lakes
	Space Extensive Industrial/Commercial
	Hazard Lands
	Mineral Aggregate Extraction
	Wetlands
	Major Open Space

DATE:	April 23, 2020
SCALE:	1:15,000
FILE:	15184X
DRN:	JB



K15184X - DUNDALK EXPANSION I/RPT/SG OP LAND USE.DWG

Dundalk Expansion Area
 Township of Southgate
 Grey County

**PLANNING
 URBAN DESIGN
 & LANDSCAPE
 ARCHITECTURE**

200-540 BINGEMANS CENTRE DR. KITCHENER, ON. N2B 3X9
 P: 519.576.3650 F: 519.576.0121 | WWW.MHBCPLAN.COM

6.0 ASSESSMENT OF IMPACTS

Impacts associated with the reduction / loss of agricultural land and / or infrastructure, agricultural land fragmentation, road traffic, and other agricultural operations as a result of the proposed settlement area expansion on the subject lands have been assessed and are reviewed in the following sections.

6.1 Reduction / Loss of Agricultural Land and Infrastructure

As previously noted, the total area of the subject lands is equal to 8.71 hectares (21.52 acres) and are presently located immediately adjacent to the western end of the Dundalk Urban Area. The lands to the immediate east of the subject lands are within the boundaries of the Settlement Area and form part of the Owner's land holdings. Presently, the subject lands are comprised of an agricultural field that is used for the production of typical cash crops (wheat, soybean etc.). There are currently no existing buildings or structures on the subject lands. There are no extensive agricultural improvements on the subject lands in terms of fencing or agriculture-related infrastructure. The only improvement that has been identified is the implementation of systematic tile drainage. As a result, the loss of existing agricultural infrastructure/investment is marginal. The type and nature of the agricultural uses on the subject lands are fairly typical of this area and cropping practices throughout central/southern Ontario, as confirmed through a review of 2016 Census of Agriculture data.

There are no natural heritage features on the subject lands. The only natural heritage features are those associated with the "Hazard Lands" located adjacent the subject lands to the south. The expansion of the Settlement Area will not incorporate any of the lands designated as "Hazard Lands". The subject lands are not identified or designated as "Special Agriculture" and are not considered within a Prime Agricultural Area by the County and local Official Plan's. Although the subject lands are identified as containing Class 1 soil characteristics, the majority of lands surrounding the Dundalk Urban Area consist of similar soil characteristics. There are properties in the surrounding area that consist of Class 2 soils. Class 2 soils typically have moderate limitations that reduce the choice of crops or require moderate conservation practices, whereas Class 1 soils have no significant limitations in use for crops. It should also be noted that the Class 2 soils surrounding the Dundalk Urban Area are consistent with those lands that have been identified as "Hazard Lands" within the Grey County and Township of Southgate Official Plans. Development on lands designed "Hazard Lands" is generally not permitted.

Therefore, the resulting loss of 8.71 hectares of productive agricultural lands for typical cash crop production is considered to be a negligible loss of land particularly in the context of the existing agricultural resources within the County of Grey and the Township of Southgate.

6.2 Fragmentation of Agricultural Lands

The subject lands are presently located adjacent to existing farmland to the west and east, however, the lands to the east are within the boundary of the Settlement Area and are expected to be developed for Settlement Area land uses in the future. The agricultural lands to the immediate west appear to be farmed for typical cash crops. Generally, parcels in the immediate area surrounding the subject lands consists of smaller sizes when compared to parcel sizes within the Secondary Study Area and that do not include lands within the Settlement Area boundary. Parcels immediately surrounding the subject lands (particularly east of Sideroad 220 and south of the former rail line) are fragmented, whereas other agricultural parcels bounding the Settlement Area predominantly consist of larger contiguous parcels.

Urban expansion on the subject lands will result in the permanent conversion of approximately 8.71 hectares of active agricultural land to an alternative land-use. Considering the extensive amount of prime agricultural land available in the County, this 8.71 hectares of cultivated land represents a small loss in agricultural land that is permitted by provincial and municipal planning policy. As can be seen in Figure 9, parcel sizes immediately bounding the Dundalk Urban Area are generally larger than the subject lands, with the majority of parcels being between 20 and 75 hectares in size.

6.3 Agriculture Investment

Agricultural investment is directly associated with increased investment in agricultural lands and facilities. Essentially, this refers to the money and resources that is being invested in agricultural operations for improvements in such things as drainage, irrigation, and improvements to the facilities directly (barns, silos, sheds, storage).

Typically, lands and facilities that experience increased investments are often considered as having a greater tendency of preservation of agricultural operations in comparison to lands and facilities that appear to be left in decline and in a state of deterioration. The investment in agriculture is often readily identifiable through observations of the condition and type of facilities, field observations and a review of other background material.

Existing agricultural facilities located on the subject lands were identified through a combination of aerial photography, a review of digital imagery (Google Earth and Google Images), a review of Ontario Base Mapping and roadside observations. The subject lands do not contain any existing buildings or structures. Based on our site investigation, the subject lands do not appear to contain any form of irrigation equipment or other specialized structures or equipment required to grow crops. There was also no visual evidence of extensive fencing or structures to support livestock.

The subject lands are identified as containing systematic tile drainage. The need for the tile drainage on the lands may be attributed with the imperfect drainage and organic soils associated with abutting "Hazard Lands" to the south.

Additionally, the Owner of the subject lands presently own the lands located adjacent the subject lands to the east and within the boundary of the Settlement Area. The intent is to develop these lands within the Settlement Area for residential uses. There is no intent from the Owner to invest in agricultural related uses for the subject lands. As a result, based on roadside observations and the review of aerial imagery, there is no significant investment into the agricultural operation on the subject lands.

6.4 Minimum Distance Separation

As it relates to compliance with the Ministry of Agriculture Food and Rural Affairs' (OMAFRA) Minimum Distance Separation (MDS) formulae, an analysis of the potential impacts from the proposed development on surrounding livestock operations has been completed to minimize potential impacts and conflicts between non-farm and farm land uses. Within Rural and Prime Agricultural Areas, new non-farm land uses are required to meet the Minimum Distance Separation I ("MDS I") formula as provided in "The Minimum Distance Separation Implementation Document: Formulae and Guidelines for Livestock Facility and Anaerobic Digester Odour Setbacks, Publication 853 of the Ontario Ministry of Agriculture, Food and Rural Affairs, 2016. The MDS I formulae applies to all existing livestock facilities and empty livestock facilities. An empty livestock facility means a facility that is no longer used to house livestock but appears to be reasonably capable of housing livestock. The MDS I formulae is not applied to facilities that are in poor or deteriorating conditions and is determined to not be suitable for housing livestock.

The MDS I formulae was applied to four properties within the secondary study area that were in proximity to the subject lands, in accordance with MDS Guideline #6. MDS Guideline #6 notes that a separate MDS 1 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. Further, as part of municipal consideration of planning or building permit applications, all existing livestock facilities or anaerobic digesters within a 1500 m distance of a proposed Type B land use shall be investigated and MDS 1 setback calculations undertaken where warranted. Settlement area expansions are considered a Type B land use in accordance with the MDS Guidelines.

The surrounding livestock facilities that were used in the preparation of MDS calculations are identified on Figure 10 and are described as follows:

- 220270 Sideroad 220, located north of Ida Street and west of the subject lands is identified on the Land Ownership Map as No. 6 and is associated with Tube Side Inc (Chicken and Broilers). During the site visit, there was evidence of livestock being kept on the property. In addition, through site observations, the structures on the property appeared to be in good physical condition.
- 752447 Side Road 75, located west of Sideroad 220, is identified on the Land Ownership Map as No. 8 and is associated with a rural residential property that contains a bank barn with livestock (i.e. cattle). During the site visit, there was evidence of livestock being kept on the property. The bank barn appeared to be in good physical condition.

- 220183 Sideroad 220, located south of Sideroad 75 and on the western side of Sideroad 220 is identified on the Land Ownership Map as No. 11 and appeared to contain a vacant barn. There did not appear to be any evidence of livestock on the lands. The barn appeared to be in fair condition.
- 220148 Sideroad 220, located south of Ida Street and on the eastern side of Sideroad 220 is identified on the Land Ownership Map as No. 13. This property was identified as containing a bank barn with a silo. Evidence of cattle livestock was seen during the site visit conducted in March 2020. The bank barn and silo appeared to be in good physical condition.

The factors used to determine the MDS I setback requirements for these facilities include: the type of livestock; the maximum capacity of the barn for livestock; the type of manure system and the type of land use. As noted above, for the proposed settlement boundary expansion area, the type of land use would be considered to be a Type B land use as the lands are proposed for future residential uses. The majority of the agricultural lands outside of the Settlement Area and in proximity to the subject lands that are close enough to warrant a minimum distance separation calculation did not appear to contain evidence of livestock operations.

In order to obtain the necessary information required to input into the MDS I formulae, data collected during the field observations were recorded and available aerial photographs were interpreted. Building capacity was estimated using building dimensions calculated using aerial photography (i.e. Google Earth). Unless otherwise observed, the type of livestock assumed in each facility was beef cattle as this type of livestock is fairly common in the area and typical for the type of barns identified in the study area. All four MDS I setback calculations completed for the livestock operations within proximity to the subject lands meet the setback requirements, and as such, the proposed settlement area expansion on the subject lands would comply with the minimum distance separation formulae. Please see Figure 10 and the MDS worksheets generated by OMAFRA's software in Appendix A.

6.5 Impacts on Agricultural Traffic

Access to the subject lands is anticipated to be from Glenelg Street to the east of the subject lands. The lands would be granted access through the lands immediately adjacent the subject lands to the east which are under the same ownership. Future development of the lands for residential uses will result in the extension of a future local road to the subject lands. Glenelg Street is identified as a two-lane local road providing a north-south connection between Ida Street to the south and Grey Street South to the north, which provides connections to other local roads within the Dundalk community. Ida Street provides access to County Highway 230, which eventually leads to Highway 10 north of the Dundalk Settlement Area.

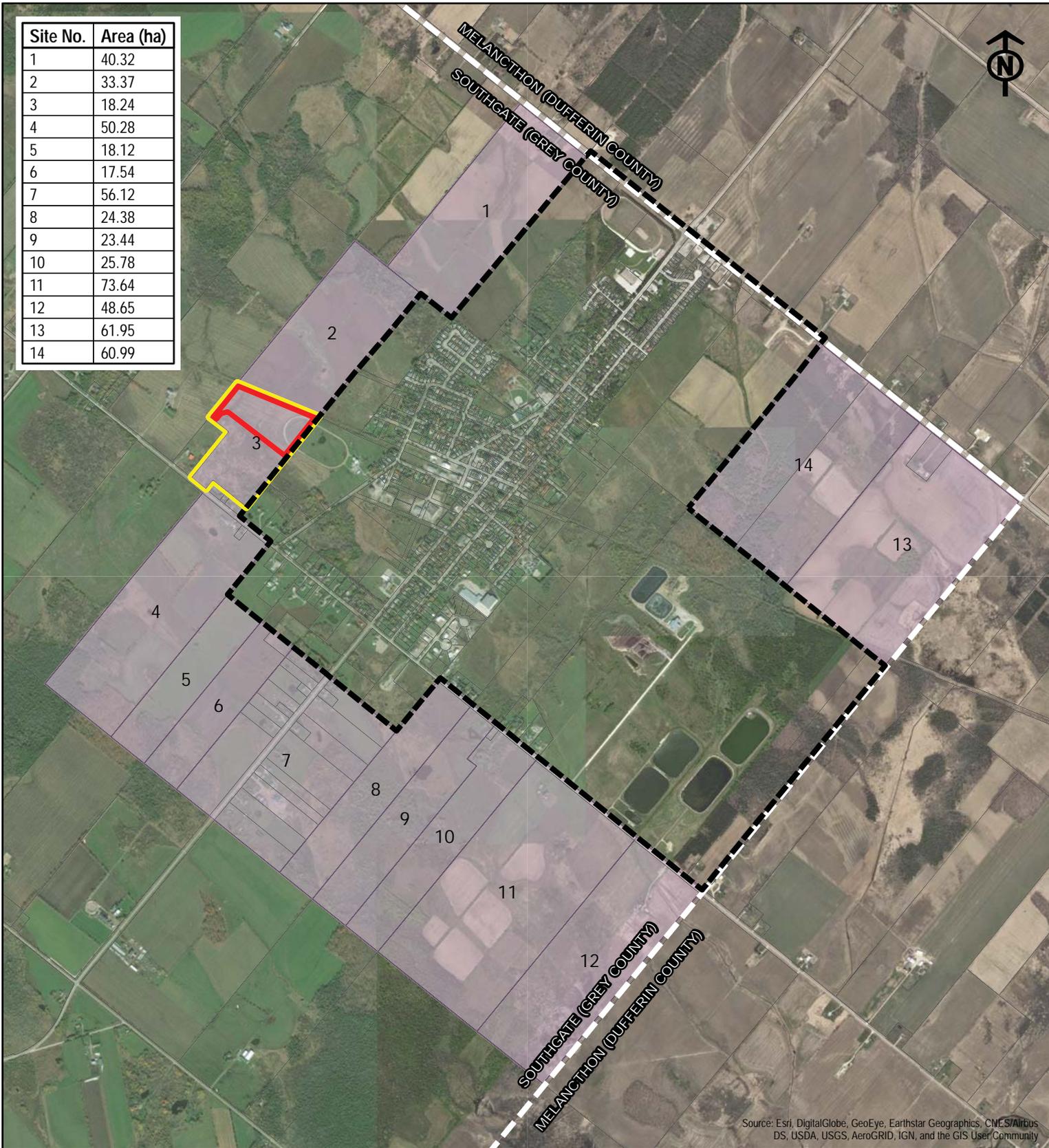
Glenelg Street is not anticipated to carry high volumes of traffic and is meant generally for the local traffic of the residents and visitors in that area of the settlement. Agricultural traffic on these arterial roads is not anticipated to be high as this type of traffic will not be using local roads within the Settlement boundary and will instead use the local roads outside of the Settlement boundary. As a result, it is not anticipated that future traffic from development on the subject lands would conflict with agricultural traffic in the area.

This opinion further recognizes that neighbouring property owners have been accustomed to the traffic in the area. Agricultural traffic in the area will likely be found on streets such as Ida Street, Sideroad 75 and

Sideroad 220. These streets contain the existing livestock operations that will produce much of the agricultural traffic in proximity to the subject lands.

In conclusion, the future development of the subject lands will have marginal impacts on agricultural traffic in the area.

Site No.	Area (ha)
1	40.32
2	33.37
3	18.24
4	50.28
5	18.12
6	17.54
7	56.12
8	24.38
9	23.44
10	25.78
11	73.64
12	48.65
13	61.95
14	60.99



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

**FIGURE 9
POTENTIAL EXPANSION
COMPARISON**

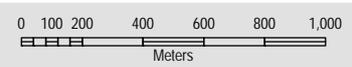
231 Glenelg Street
Part of Lots 227 & 228
Concession 2, SWTSR
Township of Southgate

LEGEND

-  Site Boundary
-  Lands Outside of Settlement Boundary
-  Dundalk Settlement Boundary (Grey OP)
-  Potential Expansion Areas

DATE Mar. 24, 2020

SOURCES Land Information Ontario
Township of Southgate
County of Grey
ESRI Imagery



15184X - Developable Lands





Figure: 10
MDS I

Legend

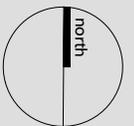
- Subject Lands
- Settlement Boundary*
- Parcels*
- MDS I Setbacks

DATE: April 23, 2020

SCALE: 1:35,000

FILE: 15184X

DRN: JB



K:\15184X - DUNDALK EXPANSION\RP\TMD\SDS.DWG

Dundalk Expansion Area
Township of Southgate
Grey County

Source: Google Satellite Imagery
*Location/size is approximate only

MHBC PLANNING
URBAN DESIGN
& LANDSCAPE
ARCHITECTURE
200-540 BINGEMANS CENTRE DR. KITCHENER, ON, N2B 3X9
P: 519.576.3650 F: 519.576.0121 | WWW.MHBCPLAN.COM

7.0 PROPOSED MITIGATION MEASURES

The following table is consistent with Table 3 (Minimize and Mitigate Impacts) found in Section 3.2.2 of the Province's *Draft Agricultural Impact Assessment Guidelines*. The purpose of this table is to provide a summary of how the proposed expansion of the subject lands could minimize or mitigate impacts on surrounding agricultural uses through the implementation of appropriate mitigation measures.

Objective	Mitigation Measure	Description
Minimize the loss of agricultural land	Select an area that provides the most logical form of expansion for the Settlement Area.	The proposed development is located immediately adjacent to the Dundalk Settlement Area and is proximal to a partially developed residential subdivision to the north east. Immediately east of the subject lands are lands under the same ownership and within the Settlement Area. These lands are intended to be developed for residential uses and will provide a logical extension of the future development to the subject lands. This area of the Dundalk Urban Area is significantly built-up with a range of residential, commercial and employment uses and contains existing infrastructure that could be extended to service the subject lands. The subject lands represent a logical extension of the Settlement Area given the existing development in the area.
Minimize the loss of agricultural land	Phase Development	Future development of the subject lands can be phased in a manner that will accommodate required growth, while supporting agricultural production in undeveloped areas, if applicable.
Minimize the fragmentation of agricultural land	Maintain Farm parcels	The proposed development will maintain the same shape as the existing parcels the subject lands encompass. Surrounding lands are already highly fragmented by natural areas and other non-agricultural uses.
Minimize impacts on farmland and agricultural operations.	Edge Planning	It is recommended that edge planning along the interface of the proposed development and agricultural lands in the surrounding area be implemented as much as possible. Design elements such as road design, vegetative and fencing buffers, setback provisions and increased lot depths can allow for the necessary separation of uses from

		agricultural uses to the west.
	Minimum Distance Separation (MDS)	The proposed expansion complies with the calculated MDS setbacks.
	Design future development to support agriculture.	It is recommended that physical and visual barriers through “farm-friendly” subdivision design using fencing, setbacks and vegetative buffers be implemented. Access points to major roadways should also be situated away from farming properties to minimize conflicts and congestion.
Minimize and mitigate changes in water quality	Implement a groundwater monitoring program	The proposed development will be on full municipal services and as such no groundwater taking is proposed. Therefore, no impacts on surrounding wells are anticipated. However, appropriate development conditions could be implemented to require monitoring and/or restoration of water supply to neighbouring wells that are found to be impacted by development on the subject lands.
Mitigate Impacts during construction or operations.	Adjust operation procedures to accommodate agriculture in the area	Consideration can be given to modifying construction operating hours and methods to reduce impacts on agricultural operations in proximity to the expansion areas. Consideration should also be given to the use of equipment on methods to suppress dust created during construction.
Mitigate ongoing impacts from new development	Implement measures that can be in place post development to support compatibility	It is recommended that the use of best salt management practices for roads, sidewalks and other paved surfaces in the subdivision be used to avoid adverse impacts on neighbouring farms and natural heritage areas to the south. In addition, the use of non-invasive plant species for landscaping should be used as much as possible.
Educate to achieve a greater compatibility between agricultural and non-agricultural	Education and Awareness	Warning clauses should be included into conditions of approval and Purchase and sale agreements that advise future home owners of the surrounding agricultural operations and potential noise and odour that could result from these operations. In order to avoid trespassing, vandalism, and other concerns, consideration should be given to distributing

uses.		<p>education and awareness brochures to future homeowners about potential impacts both financially and with respect to the surrounding agricultural resources that could result from non-agricultural uses in proximity to agricultural activities.</p> <p>The use of signage between different properties to indicate private property and no trespassing can also be considered.</p>
-------	--	--

The table above identifies mitigation measures that could be incorporated to protect the surrounding agricultural lands within the vicinity of the proposed expansion area. With respect to the study area and the subject lands, mitigation measures that are feasible include the possible use of vegetative buffers and fencing to provide separation and physical barriers from surrounding farming operations and natural heritage features.

The use of edge planning techniques should be incorporated to ensure that surrounding farm operations are protected and that the future expansion and potential shifts in production associated with the operations are permitted to proceed. Warning clauses should be incorporated into future approval conditions and purchase and sale agreements to ensure that those who choose to live and work on the subject lands are aware of the operations in the surrounding area and of the importance of protecting the agricultural lands/operations.

Best management practices for the use of salt should be incorporated to help mitigate potential adverse impacts on surrounding lands, and the use of non-invasive plant species should be implemented in all landscaping.

Finally, the physical design (e.g. road access, setbacks, lot and building orientation) of future development on the lands should consider appropriate mitigation measures to avoid any adverse impacts to surrounding farming operations and natural heritage uses.

8.0 SUMMARY & CONCLUSIONS

The purpose of this Agricultural Impact Assessment was to evaluate the potential impacts of a proposed expansion of the Dundalk Settlement Area on existing agricultural and livestock operations in the area. The proposed expansion area was evaluated within the context of the existing Provincial Policy Statement and the local municipal documents including the Grey County Official Plan and Township of Southgate Official Plan with respect to policies relating to settlement expansion. In addition, the scope of the assessment included site observations, an analysis of soil capability, minimum distance separation calculations and additional secondary sources.

Through this comprehensive review, it is concluded that the expansion of the Dundalk Settlement Area onto the subject lands is not anticipated to impact the ability of sustaining the long term agricultural uses and operations on the surrounding lands and within the Secondary Study Area. The subject lands are identified as being designated "Rural" and are not considered a Prime Agricultural Area. As demonstrated through the AIA, it is our opinion that the subject lands would be appropriate from an agricultural impact perspective for the expansion of the Dundalk Settlement Area. Although there will be a permanent loss of 8.71 hectares of "Rural" land, impacts on surrounding agricultural operations within the study area will be negligible and can be mitigated.

Therefore, it is our opinion that the proposed expansion is consistent with the applicable agricultural PPS policies, and conforms to the applicable agricultural policies the County of Grey Official Plan and the Town of Southgate Official Plan policies.

This opinion recognizes the following:

- Provincial and local planning policies support the expansion of settlement boundaries on Rural Lands subject to their compliance of the applicable tests. Based on a review of the surrounding agricultural lands bounding the Dundalk Settlement Area, it is determined that "Rural" lands are unavoidable when considering an expansion to the existing limits of the settlement boundary;
- Lands immediately adjacent to the subject lands to the east are located within the Settlement boundary and are subject to Settlement Area land use permissions. A partially developed residential subdivision is located adjacent to the subject lands to the north east. As such, the subject lands is a logical expansion of the settlement area;
- Surrounding lands are currently comprised of a mix of agricultural and non-agricultural uses, natural heritage features, and the Dundalk Settlement Area, which generally isolates and fragments the subject lands from the broader agricultural system;
- Although, there has been some investment in tile drainage on the subject lands, there has been no further investment in agricultural facilities or structures on the subject lands. The proposed expansion does not affect any other surrounding agricultural related uses that form part of the agricultural system.

- The loss of 8.71 hectares of agricultural land would have negligible impact on the overall agri-food network in the Township of Southgate. Agricultural operations in the County and Township have continued to grow since 2011 and based on review of the existing operations in the area, there are significantly larger operations in the area that contain significantly higher forms of agricultural investment in comparison to the subject lands;
- Considering the extensive amount of prime agricultural land available in the County, this 8.71 hectares of cultivated land represents a small loss in agricultural land that is contemplated by provincial and municipal planning policy;
- Impacts on agricultural traffic in the area would not be affected by development of the subject lands;
- Compliance with MDS guidelines has been met; and,
- Impacts on surrounding agricultural operations and lands will be mitigated with the implementation of proposed mitigation measures such as buffering, edge planning techniques, best management practices and education.

Respectfully submitted,

MHBC



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



Michael Campos, BES
Planner

APPENDIX A | MDS I Calculations

Minimum Distance Separation I

Worksheet 1

Prepared By: Pierre Chauvin, BSc(Agr), MA, MCIP, RPP, Partner, MHBC Planning

Description: Ion Martin Farm

Application Date: Friday, March 20, 2020

Municipal File Number:

Proposed Application: New or expanding settlement area boundary
Type B Land Use

Applicant Contact Information
Flato Developments

Location of Subject Lands
County of Grey, Township of Southgate

Roll Number: 4207 

Calculation Name: *Farm 1*

Description:

Farm Contact Information
Not Specified

Location of existing livestock facility or anaerobic digester
County of Grey, Township of Southgate
EGREMONT

Roll Number: 4207 

The barn area is an estimate only and is intended to provide users with an indication of whether the number of livestock entered is reasonable.

Manure Type	Type of Livestock/Manure	Existing Maximum Number	Existing Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Chickens, Broilers	1,326 ft ²	5.0	1,326 ft ²

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

Existing Manure Storage: V3. Solid, outside, no cover, >= 30% DM

Design Capacity (NU): 5.0

Potential Design Capacity (NU): 5.0

Factor A (Odour Potential)	Factor B (Size)	Factor D (Manure Type)	Factor E (Encroaching Land Use)	=	Building Base Distance 'F' (minimum distance from livestock barn)	Storage Base Distance 'S' (minimum distance from manure storage)
0.7	X	150	X	2.2	162 m (531 ft)	162 m (531 ft)
						TBD

Calculation Name: *Farm 2*

Description: 752447 Side Road 75

Farm Contact Information
752447 Side Road 75
Dundalk, ON, Canada

Location of existing livestock facility or anaerobic digester
County of Grey, Township of Southgate
EGREMONT, Concession: , Lot:

Roll Number: 4207 

The barn area is an estimate only and is intended to provide users with an indication of whether the number of livestock entered is reasonable.

Minimum Distance Separation I

Worksheet 1

Prepared By: Pierre Chauvin, BSc(Agr), MA, MCIP, RPP, Partner, MHBC Planning

Manure Type	Type of Livestock/Manure	Existing Maximum Number	Existing Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Beef, Feeders (7 - 16 months), Confinement Bedded Pack	53	17.7	2,650 ft ²

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

Existing Manure Storage: V3. Solid, outside, no cover, >= 30% DM

Design Capacity (NU): 17.7

Potential Design Capacity (NU): 17.7

Factor A (Odour Potential)	Factor B (Size)	Factor D (Manure Type)	Factor E (Encroaching Land Use)	Building Base Distance 'F' (minimum distance from livestock barn)	Storage Base Distance 'S' (minimum distance from manure storage)
0.8	X 192.22	X 0.7	X 2.2	= 237 m (777 ft)	(actual distance from livestock barn)
					TBD
					(actual distance from manure storage)
					TBD

Calculation Name: *Farm 3*

Description: 220183 Side Road 220 (Empty Barn)

Farm Contact Information

220183 Side Road 220
, ON, Canada

Location of existing livestock facility or anaerobic digester

County of Grey, Township of Southgate
EGREMONT, Concession: , Lot:

Roll Number: 4207 

The barn area is an estimate only and is intended to provide users with an indication of whether the number of livestock entered is reasonable.

Manure Type	Type of Livestock/Manure	Existing Maximum Number	Existing Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Beef, Feeders (7 - 16 months), Confinement Bedded Pack	39	13.0	1,950 ft ²

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

Existing Manure Storage: V3. Solid, outside, no cover, >= 30% DM

Design Capacity (NU): 13.0

Potential Design Capacity (NU): 13.0

Factor A (Odour Potential)	Factor B (Size)	Factor D (Manure Type)	Factor E (Encroaching Land Use)	Building Base Distance 'F' (minimum distance from livestock barn)	Storage Base Distance 'S' (minimum distance from manure storage)
0.8	X 176.66	X 0.7	X 2.2	= 218 m (714 ft)	(actual distance from livestock barn)
					TBD
					(actual distance from manure storage)
					TBD

Calculation Name: *Farm 4*

Description: 220148 Side Road 220

Farm Contact Information

220148 Side Road 220
, ON, Canada

Location of existing livestock facility or anaerobic digester

County of Grey, Township of Southgate
PROTON, Concession: , Lot:

Roll Number: 4207 

The barn area is an estimate only and is intended to provide users with an indication of whether the number of livestock entered is reasonable.

Minimum Distance Separation I

Worksheet 1

Prepared By: Pierre Chauvin, BSc(Agr), MA, MCIP, RPP, Partner, MHBC Planning

Manure Type	Type of Livestock/Manure	Existing Maximum Number	Existing Maximum Number (NU)	Estimated Livestock Barn Area
Solid	Beef, Feeders (7 - 16 months), Confinement Bedded Pack	68	22.7	3,400 ft ²

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

Existing Manure Storage: V3. Solid, outside, no cover, >= 30% DM

Design Capacity (NU): 22.7

Potential Design Capacity (NU): 22.7

Factor A (Odour Potential)	Factor B (Size)	Factor D (Manure Type)	Factor E (Encroaching Land Use)	=	Building Base Distance 'F' (minimum distance from livestock barn)	
0.8	X 205.33	X 0.7	X 2.2		253 m (830 ft)	TBD
						Storage Base Distance 'S' (minimum distance from manure storage)
						253 m (830 ft)
						TBD

Preparer Information

Pierre Chauvin, BSc(Agr), MA, MCIP, RPP
 Partner
 MHBC Planning
 540 Bingemans Centre Drive
 Suite 200
 Kitchener, ON, Canada N2B 3X9
 Phone #1: (519)576-3650
 Phone #2: (519)580-4912
 Fax: (519)576-0121
 Email: pchauvin@mhbcplan.com

Signature of Preparer: _____ Date: _____
 Pierre Chauvin, BSc(Agr), MA, MCIP, RPP, Partner

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.