

# Memo



**To:** Curtis Tighe, Town of Ingersoll  
Ron Versteegen, Oxford County

**From:** Justine Giancola, Dillon Consulting Limited (Dillon)  
Paolo Mazza, Dillon  
Anni-Claudine Buelles, Dillon

**Date:** January 9, 2024

**Subject:** South West Ingersoll Secondary Plan, Agricultural Impact Assessment Technical Memo

**Our File:** 22-4365

## 1.0 Introduction

### 1.1 Context

Ingersoll has a vibrant history as a small farming community on the banks of the Thames River. It is centrally located in southwest Ontario, accessible by Highway 401 and VIA Rail. It has a rich culture, quaint downtown, good employment opportunities and access to recreational and leisure activities, and is targeted for steady residential and employment growth. Of the 47,200 people and 21,100 job growth forecasted for Oxford County to 2046<sup>1</sup>, 5,850 people and 3,160 jobs are projected for Ingersoll. After factoring out growth that can be accommodated within the existing Built-up Area and the Urban designated greenfield lands, Hemson's Land Need Assessment identified a need for an additional 75 gross hectares for residential and 109 gross hectares for employment by 2039.

To help support long term growth, a boundary adjustment (effective January 2021) brought approximately 630 hectares of land from South-West Oxford into the Town of Ingersoll, which is the subject of this study. To support long term growth, Dillon Consulting Limited (Dillon), in partnership with Watson & Associates Economists Ltd. (Watson) and ARA Consulting Inc. (ARA) were retained by the Town of Ingersoll and Oxford County to undertake several technical studies and analysis required to support the settlement boundary expansion, confirm the community vision, manage land use compatibility, and guide development and infrastructure investment.

There are generally three areas that make up the Study Area, as described below and presented in **Figure 1-1**.

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<sup>1</sup> Growth forecast based on 2016 population and employment.

- **East Side of Ingersoll:** Approximately 59 hectares located north of Highway 401, east of Harris Street. Current uses include manufacturing (steel fabricator) agricultural uses, including existing livestock operation (dairy) and associated residential. Surrounding uses include residential to the north (Special Policy Area), Hall's Creek Environmental Protection Area and watercourse to the west, Highway 401 to the south and agricultural lands to the east.
- **West Side of Ingersoll:** Approximately 280 hectares located north of Highway 401, west of Ingersoll St S and the CAMI plant, south of the Thames River and east of the Five Points Provincially Significant Wetland. Current uses include a large storage lot to the south, CP Rail corridor to the north and a spur line bisecting the Study Area connecting the storage lot to the CP Rail corridor. There are agricultural uses west of Wallace Line and north of Thomas Rd, several woodlots as well as some residential uses along King Street West. Surrounding uses include industry to the east (with a Special Policy Area between Thomas and the CP Rail corridor), and agricultural uses (including livestock operations) and a logistics company to the west.
- **South Side of Ingersoll:** Approximately 280 hectares located south of Highway 401, north of Curry Road, east of Plank Line and west of Union Road. The land is currently predominately agricultural use, including livestock operations (chickens) with some associated residential. There is the Heslop Swamp Provincially Significant Wetland, watercourse and the CP Rail Line dissecting the Study Area, and a motel, storage facility and a large telecommunications tower towards Plank Line. Surrounding uses include industrial, agricultural uses and a golf course to the north of Highway 401, and agricultural uses to the east, south and west of the Study Area.

Effective January 1, 2021, the lands shown on **Figure 1-1** below, comprising approximately 630 ha, were brought into the Town of Ingersoll from the Township of South-West Oxford to provide additional opportunities for future industrial employment growth and, to a limited extent, residential and service commercial development. It is estimated that approximately 330 ha of these lands would be considered developable (i.e., not built, or subject to natural heritage and/or hazard constraints).

The most recent growth forecasts and land need analysis for the Town (Hemson, 2020), determined that the Town is expected to require additional land to accommodate their forecasted industrial employment and residential growth for the next 25-year planning period. As such, it is the Town's intent to expand the designated settlement boundary for the Town of Ingersoll (as identified as Schedule C-3 of the Official Plan) to incorporate the annexed lands so that they may be serviced and developed to accommodate future growth for the uses as generally noted above.

## 1.2

## Purpose of the Agricultural Impact Assessment

Provincial and County Official Plan policies both indicate that expansions to a designated settlement may only be considered through a 'comprehensive review' process. Further, the Official Plan policies require that comprehensive secondary planning and servicing strategies be undertaken in support of this process.

This AIA memo builds on the County's Minimum Distance Separation (MDS) analysis completed in 2016 and updated in 2023 as it relates to existing livestock facilities.

The AIA is based on the Draft Agricultural Impact Assessment (AIA) Guidance Document, 2018, prepared by the Ministry of Agriculture, Food and Rural Affairs (OMAFRA). This AIA includes a review of the following:

- Relevant Provincial and municipal policy documents and guidelines;
- Existing available data provided by Oxford County;
- Minimum Distance Separation (MDS) calculations performed for the South West Ingersoll Secondary Plan area comprising the Settlement Area Boundary Expansion, including a 1,500 m (buffer);
- Canada Land Inventory (CLI) – Soil Capability for Agriculture mapping; and
- Proposed land uses for the South West Ingersoll Secondary Plan (based on version presented at April 2023 Public Open House).

The AIA will be submitted as part of the South West Ingersoll Secondary Plan and Planning Justification Report in support of the Official Plan Amendment.

### 1.3

## AIA Study Identification

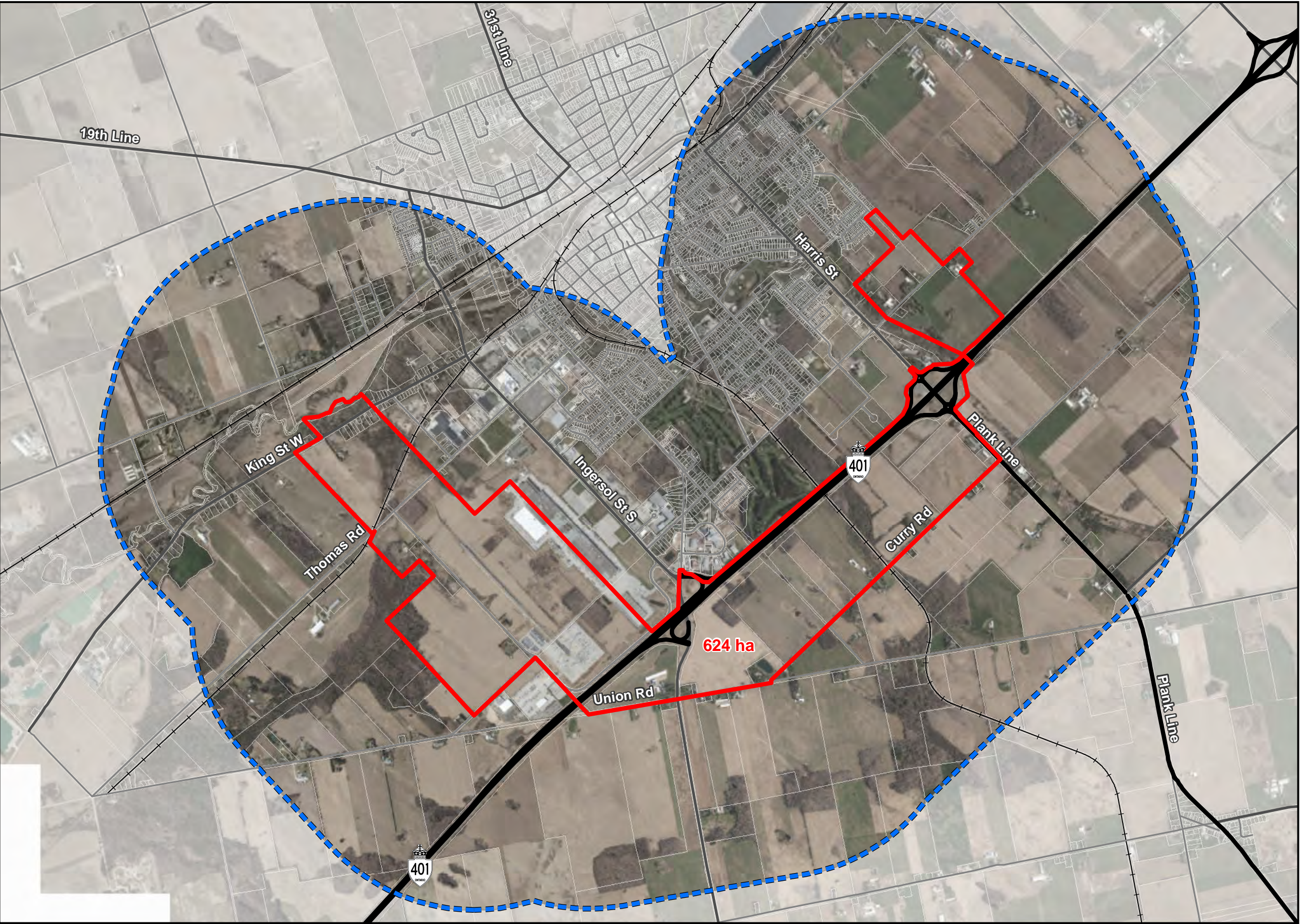
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In January 2021, approximately 630 gross hectares of land were brought in from South-West Oxford into the Town of Ingersoll as part of an urban boundary adjustment to accommodate long term growth to 2046. These lands are considered the Study Area for the purpose of the AIA. Based on the AIA Guideline Document, a Secondary Study Area has been identified, referred to as the MDS Investigation Distance. The MDS Investigation Distance includes all lands within 1,500 m of the Study Area. **Figure 1-1** illustrates these areas and their respective buffers.





# SOUTH WEST INGERSOLL 2021 AREA SECONDARY/SERVICING PLAN

FIGURE 1-1: STUDY AREA



**Study Area**

 Study Area

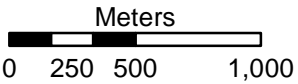
 Secondary Study Area



Map Prepared by: PFM/ZJB  
Dillon Consulting Limited  
Map Checked by: JG  
Dillon Consulting Limited

January 09, 2024

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## 2.0

# Policies and Guidelines

## 2.1

## Provincial and County Policies

### 2.1.1

### Provincial Policy Statement

The Provincial Policy Statement (PPS), issued under the authority of Section 3 of the Planning Act provides policy direction on matters of Provincial interest related to land use planning and development. Section 1 of the PPS outlines policies on “Building Strong Healthy Communities,” including where and how growth should occur to promote strong, livable, and healthy communities. Of relevance for this memo Section 1.1.3 of the PPS, which provides policy direction on the expansion of settlement area boundaries.

According to PPS policy 1.1.3.8, the expansion of a settlement area boundary may only occur as part of a comprehensive review process. As part of this review process, a settlement boundary expansion assessment must be completed. The assessment must:

- Demonstrate that the forecasted growth cannot be accommodated through the intensification and redevelopment of existing designated growth areas (Policy 1.1.3.8a).
- Determine that the existing or planned infrastructure and public services have sufficient capacity to accommodate the proposed expansion (Policy 1.1.3.8b).

In areas where a settlement area expansion includes prime agricultural areas, the lands must not include specialty crop areas and alternative locations must have been evaluated (Policy 1.1.3.8c).

Notwithstanding these provisions, PPS policy 2.3.5.1, also acknowledges that the removal of land from prime agricultural areas may occur for the purposes of Settlement Area Boundary Expansion in accordance with policy 1.1.3.8.

The new or expanding settlement area must follow the minimum distance separation formulae (Policy 1.1.3.8d). Any impacts from new or expanding settlement areas on agricultural operations must be mitigated to the extent feasible (Policy 1.1.3.8e).

### 2.1.2

### Oxford Official Plan

The current Official Plan was adopted by Oxford County Council on December 13, 1995. The contents of the Official Plan reflect the latest consolidation of Official Plan amendments, as of September 30, 2022. The Oxford County Official Plan identifies the county’s development strategy, policies related to growth management and land use, and supporting elements including agricultural policy. Policy 4.1 of the Oxford County Official Plan addresses the identification and designation of suitable areas for anticipated growth, while upholding the County objectives to safeguard key agricultural zones and environmental resources.

In the context of the Town of Ingersoll, the plan outlines minimum density requirements for residential development and establishes specific targets for residential intensification, which must be considered before approving new residential projects in designated growth areas. Policy 9.2.1 promotes a compact urban form and intensification to optimize existing services, enhance energy efficiency, and safeguard agricultural lands and natural areas.

## 2.2 Provincial Documents and Guidelines

### 2.2.1 Canada Land Inventory (CLI)

The 1998 Canada Land Inventory (CLI) is a dataset that identifies the potential of soil in specific areas to support agricultural production across Canada. Soils are grouped into seven different classes based on soil survey information, based on the following factors:

- Soils are well managed and cropped, using mechanized operational systems;
- Farm operators can economically enhance land areas needing improvement, and the classification is based on limitations or hazards after these enhancements. Land requiring improvements beyond the operator's economic capacity is classified according to its current condition;
- Excludes kinds of roads, size of farms, type of ownership, skill or resource of individual farm operators, hazard of crop damage by storms;
- Excludes soil suitability for trees, specialty crops, recreation, or wildlife; and
- Soil classes are based on intensity, rather than kinds, of their limitations for agriculture.

Soils that are classified as Class 1, Class 2, or Class 3 are considered prime agricultural lands under the CLI framework. **Table 2-1** below provides an overview of the soil classes.

**Table 2-1: Soil Classes of the Canada Land Inventory**

Soil Classes	Description
<b>Class 1</b>	Soils in this class have no significant limitations in use for crops.
<b>Class 2</b>	Soils in this class have moderate limitations that restrict the range of crops or require moderate conservation practices.
<b>Class 3</b>	Soils in this class have moderately severe limitations that restrict the range of crops or require special conservation practices.
<b>Class 4</b>	Soils in this class have severe limitations that restrict the range of crops or require special conservation practices.
<b>Class 5</b>	Soils in this class have very severe limitations that restrict their capability in producing perennial forage crops, and improvement practices are feasible.
<b>Class 6</b>	Soils in this class are capable only of producing perennial forage crops, and improvement practices are not feasible.
<b>Class 7</b>	Soils in this class have no capacity for arable culture or permanent pasture.
<b>Class 0</b>	Organic Soils (not placed in capability classes).

### 2.2.2

#### Draft Agricultural Impact Assessment (AIA) Guidance Document

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In March 2018, OMAFRA introduced the Draft Agricultural Impact Assessment (AIA) Guidance Document. The goal of this document to sustain farmland, farm operations, and related infrastructure for a thriving agri-food sector and robust rural community.

The AIA Guidance Document outlines best practices for mitigating impacts on farmland, farm operations, and the Agricultural System, aligning with Provincial land use plans. In this memo, the AIA Guidelines were consulted with respect to a secondary Study Area distance of 1,500 m to address land uses in the buffer area or MDS Investigation Distance of the Study Area.

### 2.2.3

#### Minimum Distance Separation Document (MDS)

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The Minimum Distance Separation (MDS) formulae is a land use planning tool developed by the Province to determine the setback distances between and surrounding land uses. MDS-I assists with establishing suitable setback distances, aiming to mitigate land use conflicts and minimize nuisance complaints associated with odours from agricultural sources. Guidance on the MDS formulae is documented in OMAFRA's MDS Document, 2017.

In accordance with policy 2.3.3.3 of the PPS, new land uses in prime agricultural areas and rural lands must adhere to MDS-I before approving proposed lot creation, re-zoning, or re-designation, as outlined in the MDS Document's implementation guidelines. When a setback is deemed necessary, measurements are taken as the shortest distance between proposed structures and either manure storages, anaerobic digesters, or the livestock-occupied sections of the barns.

The MDS Document is meant to be read in conjunction with the *Planning Act*, 1990, the *Building Code Act*, 1992, the *Nutrient Management Act*, 2002, the policies of the PPS, 2020 and other applicable laws and Provincial/Municipal plans.

### 2.2.4

#### Guidelines on Permitted Uses in Ontario's Prime Agricultural Areas

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Published in 2014, the Guidelines for Permitted Uses in Ontario's Prime Agricultural Areas focus on the significance of collaboration among municipalities, decision-makers, and farm operators in upholding Provincial Policy Statement (PPS) directives. These guidelines detail PPS policies concerning agriculture and non-agriculture uses on farms, the conversion of agricultural land for expanding settlement areas, and strategies to mitigate impacts from non-agricultural expansions. Intended to complement PPS policies, these guidelines align with the broader Provincial land use planning framework. The Guidelines reference three key PPS policy directions when planning for expansions.

Section 3.1.1 speaks to a preliminary assessment of the site in relation to PPS policy 2.3.2, which requires clear indication that the area shall be protected for long-term use for agriculture and PPS policy 1.1.3.8 which looks at how to best manage the growth across all areas. This leads into the next policy direction in Section 3.1.2, Alternative Locations, which considers several factors for potential lands in agriculturally identified areas to be re-designated for other uses.

Lastly, Section 3.1.3 provides policy direction related to expansions regarding Impact Mitigation. To satisfy PPS requirements in policies 1.1.3.8 and 2.3.6.2, locations must be strategically selected to minimize unintended and adverse consequences on the overall agricultural system. The Guidelines state that AIA's must do the following:

- Describe the agricultural area and uses;
- Identify all agricultural operations that may be impacted by a proposed development;
- Identify potential agricultural impacts including limitations on future farming options;
- Recommend how impacts can be avoided, reduced and mitigated; and
- Identify net impacts to agriculture.



## AIA Methodology and Process

### Methodology

The methodology to complete the AIA is based on OMAFRA's Draft AIA Guidance Document and includes background information and data collected for the South West Ingersoll Secondary Plan Study Area. Background information and data reviewed included:

- Relevant Provincial and municipal policy documents and guidelines;
- Existing available data provided by Oxford County;
- Minimum Distance Separation (MDS) calculations performed for the South West Ingersoll Secondary Plan area comprising the Settlement Area Boundary Expansion, including a 1,500 m (buffer);
- Canada Land Inventory (CLI) – Soil Capability for Agriculture mapping; and
- Proposed land uses for the South West Ingersoll Secondary Plan (based on what was presented at the April 2023 Public Open House).

### Minimum Distance Separation

Minimum Distance Separation (MDS) setbacks are formulated to mitigate concerns arising from potential impacts of agricultural operations, with a specific emphasis on livestock facilities near residential and settlement areas. These regulatory measures are designed to shield sensitive land uses from potential nuisances, encompassing factors such as odors, noise, and traffic associated with agricultural activities.

The MDS formulas and guidelines consider land use sensitivity during the calculation of setback distances, categorizing land use into the following types:

- Type A Land Uses (Less Sensitive), characterized by lower human occupancy density, including industrial uses, and less densely populated areas.
- Type B Land Uses (More Sensitive), characterized by higher human occupancy density, including new or expanding settlement area boundaries, and deemed more sensitive to the potential impacts of livestock facilities.

Due to the increased sensitivity of Type B Land Uses, these uses will generate an MDS setback that is twice the distance of a MDS Type A Land Use. These calculations acknowledge the increased concerns associated with densely populated or expanding settlement regions.

In 2016, Oxford County conducted a detailed MDS analysis as part of the boundary adjustment process for South West Oxford. The analysis assumed that the majority of the area would be designated as future residential development. Therefore, the MDS analysis focused on Type B Land Uses for new or expanding settlement area boundaries. The analysis identified 46 properties with livestock barns and manure facilities. In 2023, Oxford County updated the MDS analysis by visually inspecting each property and comparing aerial photos from April 2015 and April 2020. Based on the review, no significant changes were observed except for two properties, sites #19 and 25.

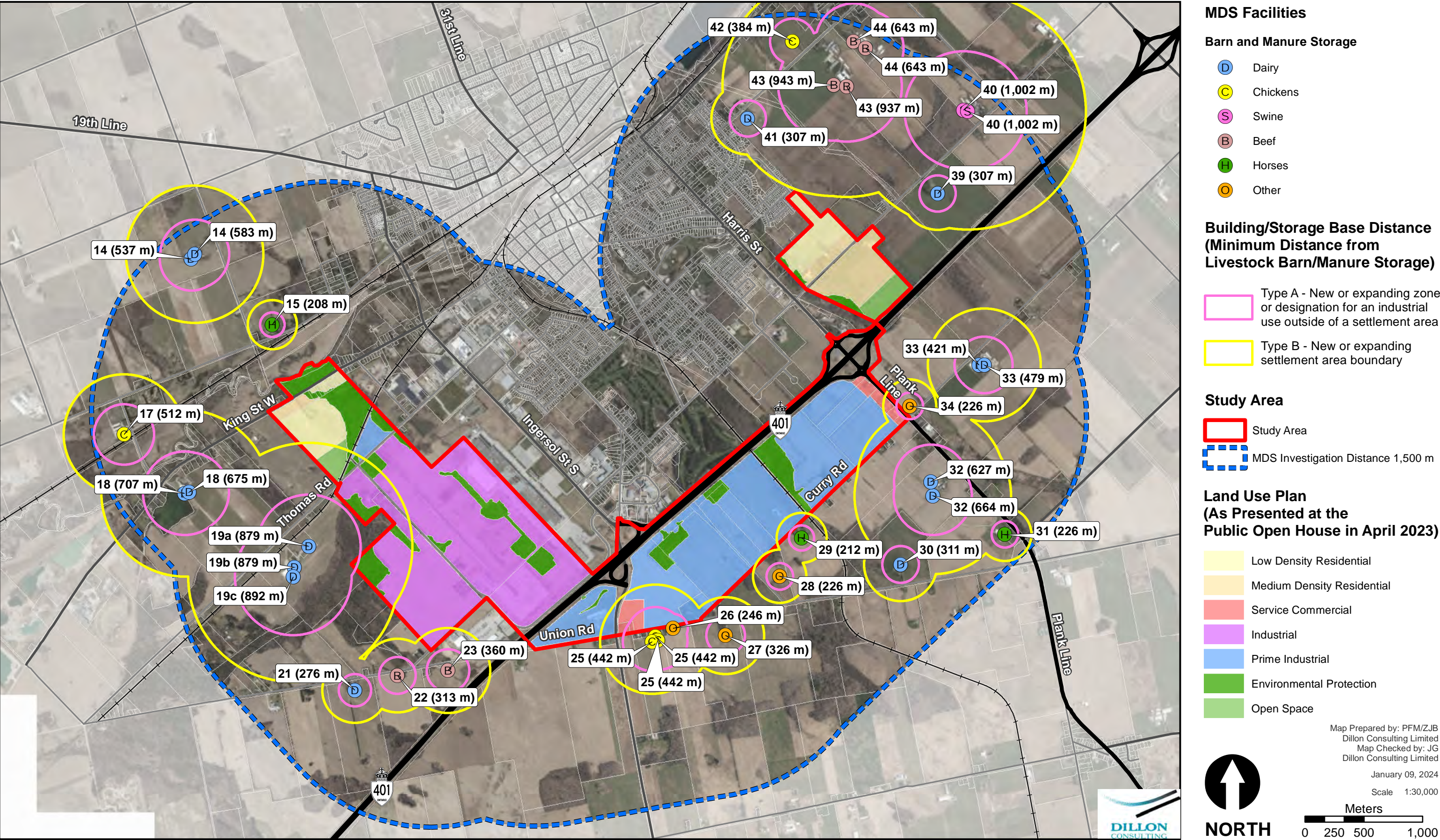
As part of the South West Ingersoll Secondary Plan exercise, Dillon reviewed the County's updated MDS analysis. The exercise included a review of 2020 aerial imagery. In addition, Dillon completed MDS analyses for Type B Land Uses and Type A Land Uses. **Figure 3-1** identifies the MDS investigation distance and facility types, overlaid with the Land Use Plan as presented during the Public Open House in April 2023. An updated inventory table has been compiled and included in **Appendix A**, detailing the characteristics of livestock barns and manure facilities in the Study Area. This table includes information such as barn size, livestock type, and manure system details.

A total of 24 properties were identified within the MDS investigation distance of 1,500 m. Discrepancies were noted, particularly for livestock facilities #19 and #25, where Dillon identified more barns and additional manure storage facilities compared to the County's findings. Dillon utilized AgriSuite software to regenerate MDS setback calculations for livestock facilities #19 and #25 based on the new findings. This involved considering multiple factors, such as the type of livestock, barn size, and the type of manure system and storage. **Appendix B** includes the detailed AgriSuite reports for livestock facilities #19 and #25, providing in-depth information on setback calculations. These reports outline the specific parameters used, considerations for livestock, barn size, and manure systems.



# SOUTH WEST INGERSOLL 2021 AREA SECONDARY/SERVICING PLAN

FIGURE 3-1: MINIMUM DISTANCE SEPARATION





## Overview of Existing Conditions

The purpose of this section is to provide a high-level overview of the existing conditions within the Study Area. Please note that the focus for the existing conditions review was the Study Area that encompasses the South West Ingersoll Secondary Plan area. The MDS Investigation Distance was used for the purpose of the MDS analysis to determine setbacks from existing livestock facilities.

### Physiography and Climate

The Town of Ingersoll is located in Southern Ontario between Lake Huron, Lake Ontario and Lake Erie. Ingersoll, is situated within Ecoregion 6E (Lake Simcoe-Rideau) and Ecoregion 7E (Lake Erie-Lake Ontario). The climate in both ecoregions has been classified in the Humid High Moderate Temperate Ecoclimatic Region. The mean annual temperature range is 4.9 to 9.4°C and the mean annual precipitation is 717 to 1,087 mm. The growing season lasts between is 205 to 243 days.<sup>2</sup>

### Canada Land Inventory

The majority of soils in the Study Area have a CLI Class 1 to 2 rating, which are considered Prime Agricultural Land. The Study Area includes the following:

- 504.0 ha (81%) of land with CLI Class 1 rating;
- 87.4 ha (14 %) of land with CLI Class 2 rating;
- 27.5 ha (4%) with a CLI Class 5 rating; and
- 4.9 ha (1%) with a CLI Class O rating.

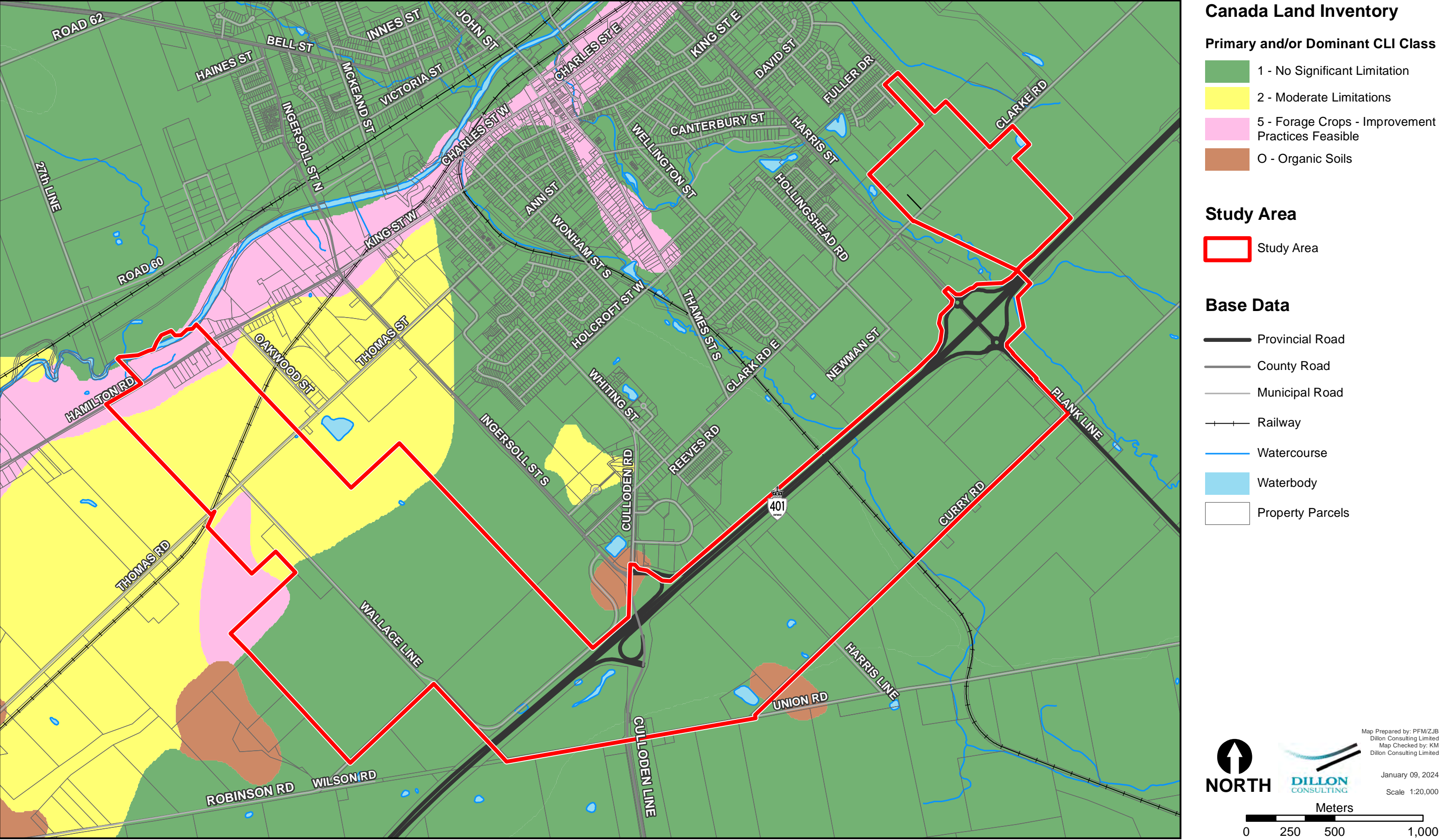
**Figure 4-1** provides an overview of the CLI Soil Classes within the Study Area. Understanding the soil characteristics in conjunction with livestock distribution can provide insights into the suitability of the land for agricultural activities.

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<sup>2</sup> Crins, J. et. Al. (2009). The Ecosystems of Ontario – Part 1: Ecozones and Ecoregions. Ministry of Natural Resources, <https://www.ontario.ca/page/ecosystems-ontario-part-1-ecozones-and-ecoregions>

# SOUTH WEST INGERSOLL 2021 AREA SECONDARY/SERVICING PLAN

FIGURE 4-1: CANADA LAND INVENTORY



#### 4.3 Agricultural Land Base

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As noted above, the Study Area is characterized by rich agricultural soils. The Prime Agricultural Area comprises approximately 591.4 (95 %) of land. The PPS definition of prime agricultural lands is 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.

#### 4.4 Desktop Review of Existing Livestock Operations

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A desktop review of livestock facilities within the Study Area and MDS Investigation Distance was completed, using the data provided by Oxford County. Based on a Type B Land Use scenario, a total of 9 livestock facilities are located within the MDS Investigation Distance of 1,500 m whose arc overlaps with the Study Area, including dairy, beef cattle, poultry, horses and unknown facility types. A total of 15 livestock facilities are located within the MDS Investigation Distance of 1,500 m but do not overlap with the Study Area, including dairy, veal, beef cattle, poultry, swine, horses and unknown facility types.

#### 4.5 Natural Heritage

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The Study Area is located south of the Town of Ingersoll, within the Upper Thames River Subwatershed. The majority of lands within the Study Area include expansive prime agricultural land, and several woodlands and Natural Heritage System features. Based on data provided by Oxford County, Natural Heritage Features include floodplains, wetlands, woodlands, meadow/ticket, and significant valleylands.

#### 4.6 Existing Land Uses

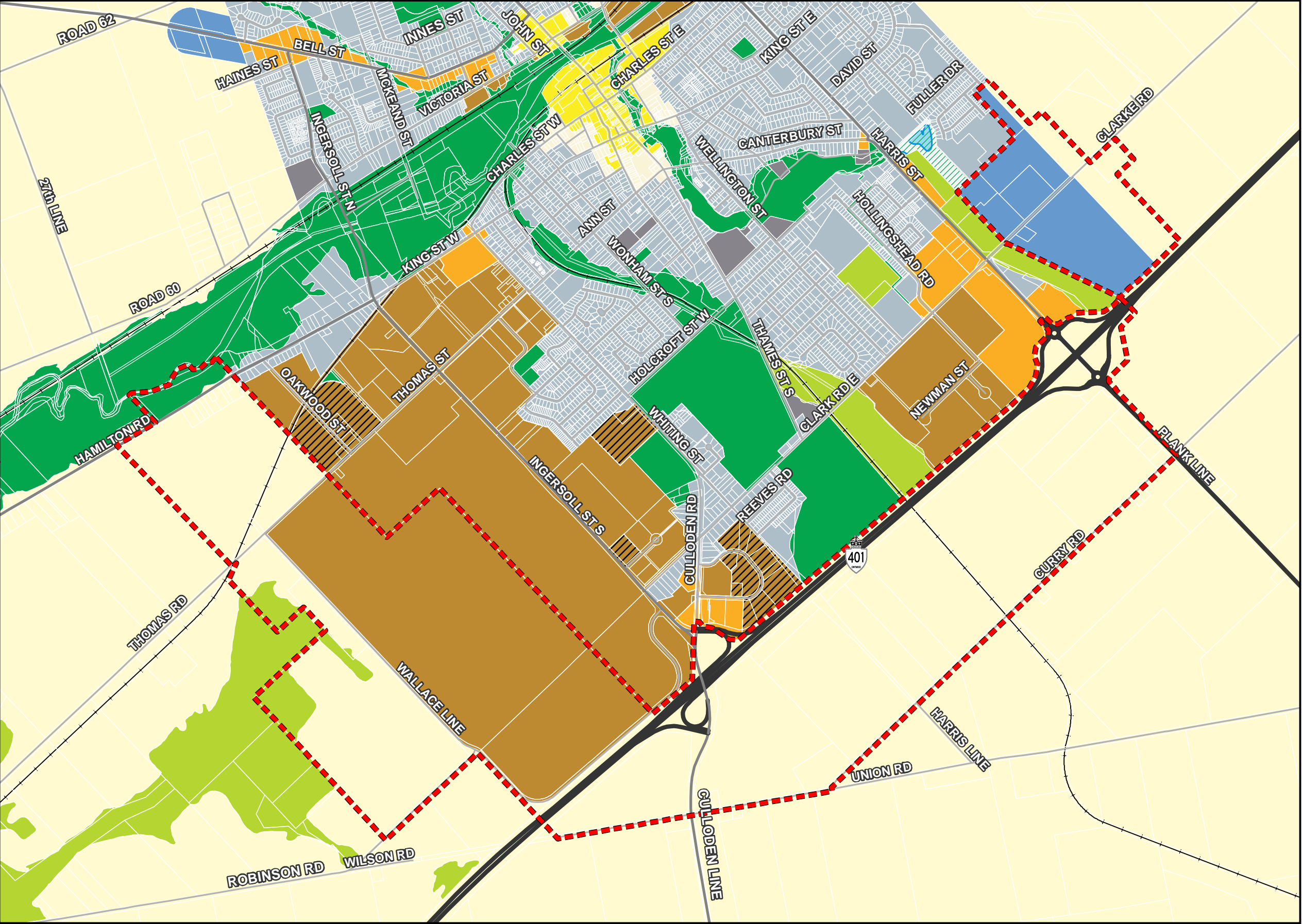
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The County of Oxford Official Plan outlines the existing and planned future land uses for South West Ingersoll. The Study Area is currently designated Future Urban Growth, Agricultural Reserve and some Environmental protection as shown on **Figure 4-2**. In addition, in February 2023, 274171 Wallace Line was redesignated from Agricultural Reserve to Industrial, and zoned Special General Industrial Zone MG- 9.



# SOUTH WEST INGERSOLL 2021 AREA SECONDARY/SERVICING PLAN

## FIGURE 4-2: OXFORD COUNTY OFFICIAL PLAN - EXISTING LAND USE DESIGNATIONS



**Legend**

Study Area

**County of Oxford Official Plan**

- Agricultural Reserve
- Central Business District
- Community Facility
- Entrepreneurial District
- Environmental Protection
- Environmental Protection Policy Area 9.2.4.4.1
- Future Urban Growth
- Industrial
- Industrial Site Specific Policy Area
- Open Space
- Residential
- Service Commercial

**NORTH**

Meters  
0 250 500 1,000

DILLON CONSULTING

Map Prepared by: PFM/ZJB  
Dillon Consulting Limited  
Map Checked by: KM  
Dillon Consulting Limited  
January 09, 2024  
Scale 1:20,000

File Location: K:\2022\224365\Product\Client\20240108\_AIA\Figure 4-2 County OP.mxd

## Road Network

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The existing road network in and around the Study Area includes 4 Local Roads, 2 Collector Roads, 5 Arterial Roads, and 2 Provincial Freeways. The existing road network has been included on **Figure 4-1** in this memo.

## Assessment of Impacts

The data previously gathered and assembled in **Section 4** provides a baseline for the assessment of potential agricultural impacts for the Study Area. The criteria that were considered in the evaluation include the following:

- MDS arc, Type A Land Uses (Less Sensitive) and Type B Land Uses (More Sensitive);
- Livestock Facilities by Type; and
- Proposed South West Ingersoll Secondary Plan Land Use Designations (based on version from April 2023 Public Open House).

The information below is based on a high-level desktop analysis of the MDS analysis completed by the County of Oxford in 2016 and 2023, and Dillon in 2023.

Proposed new non-farmland uses are required to meet the MDS I formula as outlined in OMAFRA's MDS Document, 2017. Based on a Type B Land Use scenario, **Figure 3-1** depicts the spatial distribution of each barn and manure facility, symbolized by livestock type and the resulting MDS arc. This visualization aids in identifying areas where MDS requirements are met or areas that may require further attention. The figure also includes the proposed land use designation under the South West Ingersoll Secondary Plan to identify the potential level of impact on agricultural operations. **Table 5- 1** summarizes the results for the MDS Type B scenario.

**Table 5-1: MDS I Analysis for Type B Land Uses (More Sensitive)**

MDS arc #	MDS Type B Arc Overlapping with Study Area	Proposed Secondary Plan Land Use (April 2023)	Proposed Adjacent Secondary Plan Land Use (April 2023)
No. 14 - Dairy & Veal	None	None	None
No. 15 - Horse Ranch	None	None	None
No. 17 - Poultry	None	None	None
No. 18 - Dairy	None	None	None
No. 19 - Dairy	Yes	Low Density Residential, Industrial, Prime Industrial, Open Space, Environmental Protection	Low Density Residential, Industrial, Prime Industrial, Open Space, Environmental Protection
No. 21 - Dairy	None	None	None
No. 22 - Beef Cattle	None	None	None
No. 23 - Beef Cattle	Yes	Prime Industrial	Prime Industrial
No. 25 - Poultry	Yes	Service Commercial, Prime Industrial	Prime Industrial
No. 26 - Unknown	Yes	Service Commercial, Prime Industrial	Prime Industrial
No. 27 - Unknown	Yes	Prime Industrial	Prime Industrial
No. 28 - Unknown	Yes	Prime Industrial	Prime Industrial



No. 29 - Horses	Yes	Prime Industrial	Prime Industrial, Environmental Protection
No. 30 - Dairy	None	None	None
No. 31 - Horses	None	None	None
No. 32 - Dairy	Yes	Service Commercial, Prime Industrial	Prime Industrial
No. 33 - Dairy Farm with Veal	None	None	None
No. 34 - Unknown	Yes	Service Commercial, Prime Industrial	Prime Industrial
No. 39 - Dairy	None	None	None
No. 40 - Swine	None	None	None
No. 41 - Dairy	None	None	None
No. 42 - Poultry	None	None	None
No. 43 - Beef	None	None	None
No. 44 - Beef	None	None	None

To support residential and employment growth within the Study Area, the lands are proposed to be redesignated Low Density Residential, Medium Density Residential, Service Commercial, Prime Industrial, Industrial, Open Space, and Environmental Protection. Based on a MDS Type B scenario, 9 of the 24 MDS arcs overlap with the Study Area. The MDS Type B arc for livestock facility #19 includes the lands proposed as Low Density Residential based on the April 2023 version of the Proposed Land Use Plan for South West Ingersoll. As such, a modification to the Land Use Plan is required. The other Type B MDS arcs expand into proposed Service Commercial, Industrial, Prime Industrial and Environmental Protection land use designations. Given that these lands would not be permitted to include sensitive land uses within the South West Ingersoll Secondary Plan, the analysis was repeated using a MDS Type A Land Use scenario for less sensitive uses. The results in **Table 5-2** represent a closer alignment of compliance with setback regulations for non-sensitive uses in proximity to existing livestock facilities.

**Table 5-2: MDS I Analysis for Type A Land Uses (Less Sensitive)**

<b>MDS Arc #</b>	<b>MDS Type A Arc Overlapping with Study Area</b>	<b>Proposed Secondary Plan Land Use (April 2023)</b>	<b>Proposed Adjacent Secondary Plan Land Use (April 2023)</b>
No. 19 - Dairy	Yes	Environmental Protection	Environmental Protection
No. 23 - Beef Cattle	None	None	None
No. 25 - Poultry	Yes	Service Commercial, Prime Industrial	Service Commercial, Prime Industrial
No. 26 - Unknown	None	None	None
No. 27 - Unknown	None	None	None
No. 28 - Unknown	None	None	None
No. 29 - Horses	None	None	None
No. 32 - Dairy	None	None	None
No. 34 - Unknown	Yes	Service Commercial	Service Commercial

Based on the analysis, livestock facilities #19, 25, and 34 overlap with the Study Area to a limited extent. Generally, no concerns have been identified for livestock operation facility #19 based on a MDS Type A Land Use scenario, which only impacts the south-western boundary of the South West Ingersoll Secondary Plan area where lands are proposed to be designated Environmental Protection.

MDS Type A Land Use scenario arcs for livestock facilities #25 and 34 overlap the Study Area along the south and south-east boundary of the Secondary Plan area respectively. For facility #25, the portion of the MDS arc that extends into the Study Area includes 6.7 hectares proposed to be designated Service Commercial and Prime Industrial, with the designation also applying to adjacent land uses. Facility #34 MDS arc has limited overlap (0.6 hectares) within the Study Area and the proposed and adjacent land use designation is Service Commercial.

It should be noted that the MDS analysis is based on aerial photo interpretation of visible livestock facilities. Confirmation on the exact headcount of cattle would require confirmation from farmers.

## Mitigation Measures

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Potential compatibility concerns arise with new urban growth expanding into agricultural areas. Potential impacts include odour, noise, dust, and other typical agriculturally-derived nuisance impacts.<sup>3</sup> According to the OMAFRA Draft AIA Guidance Document, 2018, the evaluation of potential impacts of the new non-agricultural land uses should also include methods to avoid or minimize impacts to agricultural land and provide recommendations to prevent impacts to adjacent non-agricultural lands.

Avoidance of impacts would constitute not expanding the settlement area boundary into one or more of the MDS arcs that have been considered as part of this memo. Avoidance is the first priority to protect agricultural land uses. If avoidance is not possible, a range of possible mitigation measures exist that should be considered as part of the more detailed planning for the expansion area, which are outlined in **Table 6-1**.

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<sup>3</sup> **Table 6-1** provides an overview of potential mitigation measures to minimize impacts on agricultural operations in close proximity to the settlement area, as well as adjacent sensitive non-agricultural land uses (e.g., housing).



**Table 6-1: Potential Impacts and Suggested Mitigation Measures**

<b>Potential Impacts</b>	<b>Suggested Mitigation Measures</b>
<b>Odour</b>	<ul style="list-style-type: none"> <li>• Conduct MDS interviews, building measurements, and calculations at time of building permit application, and adhere to calculated MDS setbacks.</li> </ul>
<b>Noise</b>	<ul style="list-style-type: none"> <li>• Plantings of trees and bushes along the boundary between urban and agricultural land uses in a buffer zone; may require municipal easement to be obtained.</li> <li>• Conduct livestock MDS interviews, building measurements, and calculations at time of building permit application, and adhere to calculated MDS setbacks.</li> </ul>
<b>Dust</b>	<ul style="list-style-type: none"> <li>• Plantings of trees and bushes along the boundary between urban and agricultural land uses in a buffer zone; may require municipal easement to be obtained.</li> <li>• Conduct MDS interviews, building measurements, and calculations at time of building permit application, and adhere to calculated MDS setbacks.</li> </ul>
<b>Other: Light, vibration, smoke</b>	<ul style="list-style-type: none"> <li>• Conduct MDS interviews, building measurements, and calculations at time of building permit application, and adhere to calculated MDS setbacks.</li> </ul>
<b>Agricultural equipment movement and safety</b>	<ul style="list-style-type: none"> <li>• Caution traffic signs posted to indicate areas of slow moving equipment.</li> <li>• Road improvement program to include extra wide paved shoulders along identified routes of frequent agricultural equipment movement.</li> <li>• Public education reminders during growing season.</li> </ul>
<b>Temporary Measures for Potential Impacts</b>	<ul style="list-style-type: none"> <li>• Temporary constructed buffers, designed with 50% porosity and of sufficient height may be acceptable<sup>4</sup> before the vegetation in the buffer can be established and no sprays are being used on the adjacent agricultural land.</li> </ul>
<b>Permanent Measures for Potential Impacts</b>	<ul style="list-style-type: none"> <li>• High speed internet service to farming operations is critical for current agriculture practices, for many integrated operations on site and for marketing purposes. Community support for the extension of IT servicing to the remaining agricultural areas will be needed.</li> <li>• Agricultural Land Trusts, although more complicated to initiate, serve to protect the sustainability of farming operations whereas policy changes protect only the land and not its farming heritage and continuance.</li> </ul>

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<sup>4</sup> Temporary constructed buffers must be submitted to the Region/applicable municipalities for approval as an alternative design, and must meet the same design criteria as permanent vegetation, to ensure effectiveness.

## Conclusions

The Study Area is primarily comprised of Class 1, 2, and 3 land which are identified as Prime Agricultural Lands under the PPS. These lands are required as part of the Settlement Area Boundary Expansion to help support the long-term growth of the Town of Ingersoll.

Proposed areas identified as Low Density Residential and Medium Density Residential are located in the north-east and north-west of the South West Ingersoll Secondary Plan area. Some refinements to the April 2023 Land Use Plan are needed to remove Residential permissions from MDS arcs for livestock operation #19 under a Type B Land Use scenario. Given the remaining lands are not intended to permit sensitive land uses, Type A analysis should be relied upon to confirm further refinements needed.

Based on the Type A Land Use scenario, there are three existing livestock operations (livestock facilities #19, 25 and 34) that have MDS I setback requirements that slightly encroach into the Study Area. No refinements to the settlement boundary have been identified based on livestock operation facility #19, where lands are proposed to be designated Environmental Protection and not available for development.

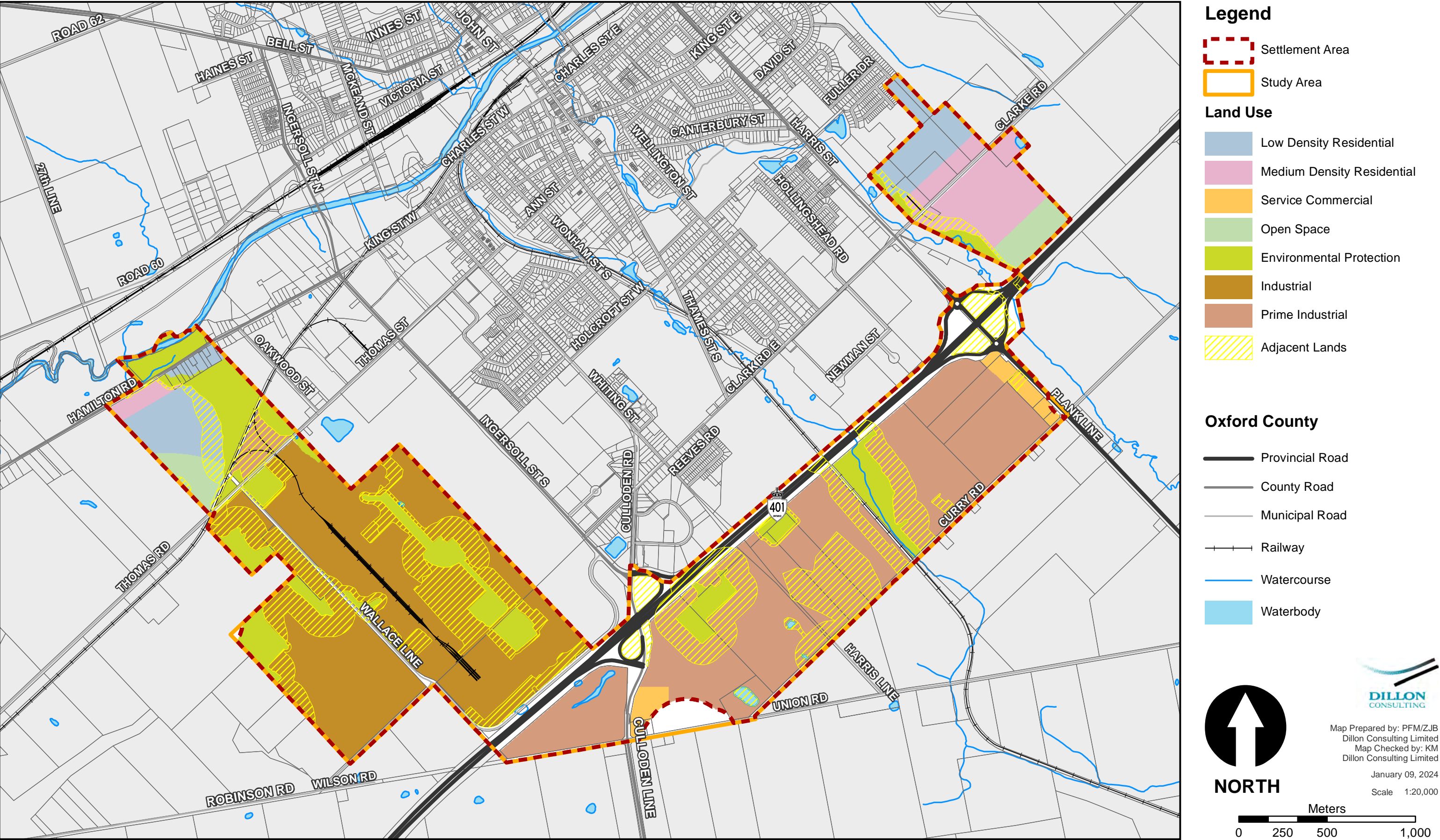
The primary method for safeguarding agricultural land uses is to refrain from extending the settlement area boundary into an MDS arc. Based on the analysis, the MDS arc of livestock facilities #25 and 34 (Type A land use scenario) overlap with the Study Area to a limited extent along the south and south-east boundary of the Secondary Plan area respectively. Oxford County and the Town of Ingersoll should consider adjusting the settlement area boundary to meet the requirements under the PPS.

**Figure 7-1** presents a refined Land Use Plan based on the adjustments outlined here within. Based on these refinements, the lands brought in through the settlement area boundary expansion would meet the MDS formula.

It is important to note that, depending on specific circumstances, additional MDS analysis and investigation may be required to address unique characteristics or evolving conditions in the area.

# SOUTH WEST INGERSOLL 2021 AREA SECONDARY/SERVICING PLAN

FIGURE 7-1: RECOMMENDED LAND USE PLAN



# Appendix A

## Ingersoll Area Livestock Barn Inventory Table



# INGERSOLL Area Livestock Barn Inventory

(as Compiled from recent site visits and municipal Building Permit records) Dillon Edits in Green

#	Location	PIN #	Type of Operation	Size/Details	MDS Arc
1	Part Lot 7, Con. 3 (N.O.) 194338 19 <sup>th</sup> Line Zorra Twp	00180-0274	Abattoir (Field Gate Organics)	Meat processing plant with outdoor waste storage facility	N/A – MDS is not applied to <b>abattoir's</b> <span style="color: green;">Beyond 1,500 m from study area; records not included in analysis</span>
2	Part Lot 7, Con. 2 (N.O.) 643433 Road 64 Zorra Twp	00183-0026	Dairy, with outside manure storage (concrete bunker)	Older Bank Barn with milking centre; Barn size (est.) - 650 sq.m.	Barn – 336 m Storage – 336 m <span style="color: green;">Beyond 1,500 m from study area; records not included in analysis</span>
3	Part Lot 8, Con. 2 (N.O.) 643523 Road 64 Zorra Twp	00183-0032	Cash crop with livestock(?)	Older Bank Barn with demo'd silo (may no longer be operating with livestock) Barn is approximately 150 sq.m.	<span style="color: red;">241 m</span> <span style="color: green;">Beyond 1,500 m from study area; records not included in analysis</span>
4	Part Lot 9, Con. 3 (N.O.) 643542 Road 64 Zorra Twp	00180-0009	West farm complex, with livestock facilities	Older Bank Barns with several silos (no pastures). Large barn is approximately 500 sq.m. Small barn is approximately 400 sq.m.	<span style="color: red;">428 m</span> <span style="color: green;">Beyond 1,500 m from study area; records not included in analysis</span>
5	Part Lot 10, Con. 3 (N.O.) 314677 31 <sup>st</sup> Line Zorra Twp	00180-0009	East farm complex, with livestock facilities	Older Bank Barn with several silos (no pastures). Approximately 650 sq.m.	Demolished <span style="color: green;">Beyond 1,500 m from study area; records not included in analysis</span>
6	Part Lot 11, Con. 2 (N.O.) 314752 31 <sup>st</sup> Line Zorra Twp	00183-0041	Horse ranch	Main Barn = 375 sq.m. Outside uncovered dry storage.	201 m <span style="color: green;">Beyond 1,500 m from study area; records not included in analysis</span>

7	Part Lot 11, Con. 3 (N.O.) 314686 31 <sup>st</sup> Line Zorra Twp	00180-0045	Cash crop operation with old bank barn & silos	Older bank barn - No pasture or yard for livestock. Approximately 800 sq.m.	360 m Beyond 1,500 m from study area; records not included in analysis
8	Part Lot 12, Con. 2 (N.O.) 643741 Road 64 Zorra Twp	00183-0058	Cash crop operation with old bank barn (no silo)	Older bank barn may have been demolished - no pasture or yards for livestock	Demolished Beyond 1,500 m from study area; records not included in analysis
9	Part Lot 13, Con. 2 (N.O.) 334742 33 <sup>rd</sup> Line Zorra Twp	00182-0006	Poultry	2-storey Poultry barn (with silo) - may be defunct	336 m Beyond 1,500 m from study area; records not included in analysis
10	Part Lot 14, Con. 2 (N.O.) 643845 Road 64 Zorra Twp	00182-0010	Horses	Old bank barn with outside pasture & paddocks. Approximately 330 sq.m.	194 m Beyond 1,500 m from study area; records not included in analysis
11	Part Lot 12, Con. 3 (N.O.) 334655 33 <sup>rd</sup> Line Zorra Twp	00180-0149	Cash crop with old bank barn (& silo)	Small pasture in front of barn - no livestock in pasture. Approximately 380 sq.m.	323 m Beyond 1,500 m from study area; records not included in analysis
12	Part Lot 13, Con. 3 (N.O.) 334568 33 <sup>rd</sup> Line Zorra Twp	00182-0082	Dairy & chickens (broilers)	Older bank barn (500 sq.m.) & 1-storey chicken barn (250 sq.m.).	371 m Beyond 1,500 m from study area; records not included in analysis
13	Part Lot 8, Con. 4 (N.O.) 623497 Road 62 Zorra Twp	00180-0288	Cash crop with new barn, silos and steel grain bins	Older bank barn (580 sq.m.) Newer (1998) insulated barn (815 sq.m.) – not livestock	368 m Beyond 1,500 m from study area; records not included in analysis
14	Part Lot 6, Con. 4 (N.O.) 274515 27 <sup>th</sup> Line Zorra Twp	00179-0040	Dairy & veal (42.6 ha farm w/2 homes 37 ha tillable).	Milking centre (c. 2013). 2 dairy barns with outside storage. West barn is approx. 1,250 sq.m. East barn is approx. 470 sq.m.	Barns – 537 m Storage – 583 m

15	Part Lot 7, Con. 4 (N.O.) 603427 Road 60 Zorra Twp	00176-0273	Horse ranch	Main barn is 420 sq.m.	208 m
16	Part Lt 6, Con. 4 (N.O.) 603395 Road 60 Zorra Twp	00179-0062	Cash crop with older bank barn	Bank Barn = 492 sq.m. no pasture or manure facility	Demolished No Barn Identified; Record removed
17	Part Lot 4 Con. 5 (N.O.) 254347 25 <sup>th</sup> Line Zorra Twp	00149-0019	Poultry (chicken broilers) / (22.4 ha farm w/ home & 9.2 ha tillable)	4 x 1-storey barns 2 x 1,022 sq.m. (MPAC DATA) 2 x 980 sq.m.	512 m
18	Part Lots 26 & 27, B.F.C. (W.O.) 583398 Hamilton Rd SWOX Twp	00148-0011	Dairy (Holsteins) with milking centres w/ large manure open tank	3,300 sq.m. (No changes)	Barn – 675 m Storage – 707 m
19	Part Lot 26, Con. 1 (W.O.) 563440 Thomas Rd & 563438 Thomas Rd SWOX Twp	00148-0071 & 00148-0077	Dairy (Holsteins) 2 large barns on adjoining lots under same owner	2,300 sq.m for each barn (2,380 m2 expansion of dairy barn and 1,910.9 m2 manure pit construction in 2018)	<del>412 m &amp; 412 m</del> Type A Land Use <ul style="list-style-type: none"> <li>Barns = 440 m (New)</li> <li>Manure Pit: = 492 m (New)</li> </ul> Type B Land Use <ul style="list-style-type: none"> <li>Barns = 879 m (New)</li> <li>Manure Pit: = 892 m (New)</li> </ul>
20	Part Lot 27, Con. 1 (W.O.) 403319 Robinson Rd SWOX Twp	00148-0069	Cash crop w/ older bank barn	300 sq.m. (Bank barn demolished)	<del>301 m</del> No Barn Identified; Record removed
21	Part Lot 26, Con. 1 (Dereham) 403288 Robinson Rd SWOX Twp	00001-0012	Cash crop w/ older bank barn; 74.1ha farm but only 1 of 2 farm complexes evaluated. Dairy farm most likely (milking centres & grain silos)	625 sq.m. (No changes)	276 m

22	Part Lot 25, Con. 1 (Dereham) 403372 Robinson Rd SWOX Twp	00001-0013	Beef Cattle - no milking centres - with several grain silos.	345 sq.m. (No changes)	313 m
23	Part Lot 24, Con. 1 (Dereham) 403410 Wilson Rd SWOX Twp	00001-0014	Beef Cattle - no milking centres - with several grain silos.	530 sq.m. (No changes)	360 m
24	Part Lots 23 & 24, Con. 2 (W.O.) 293905 Culloden Line SWOX Twp	00147-0093	Dairy (milking centres) and Poultry (Chicken Broilers)	Dairy – 1,400 sq.m. 3 Broiler Barns = 850 +1,650 + 700 sq.m. (3,200 sq.m.) (Within Town boundary)	<del>Barns = 539 m</del> <del>Storage = 539 m</del> Within Urban Area; Records Removed
25	Part Lot 21, Con. 1 (Dereham) 403562 Union Rd SWOX Twp	00002-0004	Poultry - Broiler barn (c. 1999) Appears to have horse paddock/pasture in front of barn.	1154 sq.m. (New poultry barn 1,260.5 m <sup>2</sup> & manure silos constructed in 2015)	<del>336 m</del> Type A Land Use • Barns = 250 (new) • Storage= 250 (New) Type B Land Use • Barns = 442 (new) • Storage= 442 (New)
26	Part Lot 21, Con. 1 (Dereham) 403560 Union Rd SWOX Twp	00002-0003	Older bank barn and 2 silos	315 sq.m. (Residential zoned property)	246 m
27	Part Lot 20, Conc. 1 (Dereham) 403630 Union Rd SWOX Twp	00002-0009	Older bank barn with 2 silos	790 sq.m. (No changes)	326 m
28	Part Lot 21, Con. 3 (W.O.) 313952 Harris Line SWOX Twp	00147-0067	Old bank barn with silo	230 sq.m. (No changes)	226 m
29	Part Lot 20, Con. 3 (W.O.) 523766 Curry Rd SWOX Twp	00147-0069	Cash crop and Horses; Older bank barn	175 sq.m. (No changes)	212 m



			Property linked to Property #32 listed below		
30	Part Lot 20, Con. 3 (W.O.) 403783 Union Rd SWOX Twp	00147-0077	Dairy (with milking centres)	900 sq.m. (No changes)	311 m
31	Part Lot 19, Con. 3 (W.O.) 333961 Plank Line SWOX Twp	00147-0079	Cash crop and horses (with track)	590 sq.m. (No changes)	226 m
32	Part Lots 19 - 21, Con. 3 (W.O.) 523866 Curry Rd SWOX Twp	00147-0072	Dairy farm with cash crop, involves multiple merged parcels and numerous buildings in several older farm complexes. Property linked to Property #29 listed above	2,480 sq.m (2 barns)  300 sq.m. bank barn on north section (nearest to Curry Rd).  Manure Storage (no changes)	Barns – 627 m Storage 664 m
33	Part Lots 16 - 18, Con. 3 (W.O.) 523978 Curry Rd SWOX Twp	00145-0029	Dairy farm with veal	2 large barns @ 2200 sq.m. & 1200 sq.m. (veal?) Liquid Manure Storage (no changes)	Barns – 421 m Storage – 479 m
34	Part Lot 17 - 18, Con. 2 (W.O.) 334094 Plank Line SWOX Twp	00145-0042	Older bank barn (c. 1954)	234 sq.m. (No changes)	226 m
35	Part Lot 17 - 18, Con. 2 (W.O.) 543926 Clark Rd SWOX Twp	001245-0047	contains two older bank barns (c. 1900 & 1920)	300 sq.m. and 120 sq.m. (Within Town boundary)	<del>Barns – 303 m</del> Within Urban Area; Records Removed
36	Part Lot 18, Con. 1 (W.O.) 334256 Plank Line and 345 Harris St SWOX Twp	00144-0049	larger older bank barn with numerous additions	approx.. 600 sq.m. (Within Town boundary)	<del>307 m</del> Within Urban Area; Records Removed
37	Part Lot 18, Con. 1 (W.O.) 543943 Clark Rd SWOX Twp	00144-0050	small horse ranch with new barns (c. 1998)	approx.. 700 sq.m. (Within Town boundary)	<del>237 m</del> Within Urban Area; Records Removed

38	Part Lot 17, Con 2 (W.O.) 543976 Clark Rd SWOX Twp	00145-0051	dairy farm with open manure tank	1500 sq.m. (approx.) (Within Town boundary)	<del>Barn – 449 m</del> <del>Storage – 449 m</del> Within Urban Area; Records Removed
39	Part Lot 16, Con. 2 (W.O.) 544046 Clark Rd SWOX Twp	00145-0086	old bank barn (dairy with milking centre)	450 sq.m. (No changes)	307 m
40	Part Lot 15, Con. 1 (W.O.) 544125 Clark Rd SWOX Twp	00144-0585	Large swine operation	5 barns Barn 1 – 1,550 sq.m. Bar 2 - 1,350 sq.m. Barn 3 – 1,100 sq.m. Bar 4 – 1,000 sq.m. Bar 5 – 250 sq.m. Storage – 3 liquid (No changes)	Barns – 1,002 m Storage - 1,002 m
41	Part Lots 17-18, Con. 1 (W.O.) 563974 Karn Rd SWOX Twp	00144-0027	Dairy farm (with milking centre)	450 sq.m. (No changes)	307 m
42	Part Lots 16-17 B.F.Con. (W.O.) 564047 Karn Rd SWOX Twp	00144-0151	Poultry (Chicken Broilers)	Chicken Barn - 850 sq.m. Beef barn (?) - 330 sq.m. (No changes)	384 m
43	Part Lots 16-17, Con. 1 (W.O.) 564058 Karn Rd SWOX Twp	00144-0338	Beef cattle feed lot	Appears to be 4 livestock barns and 3 outdoor manure storage pit (liquid and dry). North barn 1 – 725 sq.m. North barn 2 – 1,700 sq.m. South barn 1 – 1,300 sq.m. South barn 2 – 5,000 sq.m. (Approximate 1,330 m2 addition to livestock barn between 2015 & 2020)	Barns – 937 m Storage – 943 m
44	Part Lot 15, Con. 1 (W.O.) 544090 Karn Rd SWOX Twp	00144-0017	Dairy/Beef Farm	Barn 1 – 250 sq.m. Barn 2 – 1,050 sq.m. Barn 3 – 690 sq.m.	Barns – 643 m Storage – 643 m

				Barn 4 – 1,000 sq.m. Barn 5 – 1,200 sq.m. Storage (No changes)	
45	Part Lot 14, Con. 1 (W.O.) 564180 Karn Rd SWOX Twp	00144-0007	Dairy farm with milking centres	2 bank barns approx. 600 sq.m. (No changes)	372 m Beyond 1,500 m from study area; records not included in analysis
46	Part Lot 14, B.F. Con. (W.O.) 584164 Beachville Rd SWOX Twp	00144-0098	Dairy farm with milking centres	640 sq.m. (No changes)	335 m Beyond 1,500 m from study area; records not included in analysis
Z					

## **Appendix B**

### **AgriSuite Reports for Sites #19 and #25**



SW Ingersoll SP - Type A

General information

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<b>Application date</b> Jul 4, 2023	<b>Municipal file number</b>	<b>Proposed application</b> New or expanding zone or designation for an industrial use outside of a settlement area
<b>Applicant contact information</b> Town of Ingersoll ON	<b>Location of subject lands</b> County of Oxford Town of Ingersoll OXFORD (ON THAMES) Concession 1 WEST , Lot 26 Roll number: 0077	


Calculations

563440 Thomas Rd, Ingersoll

<b>Farm contact information</b> Farm Location Town of Ingersoll 563440 Thomas Rd Ingersoll, ON	<b>Location of existing livestock facility or anaerobic digester</b> County of Oxford Town of Ingersoll OXFORD (ON THAMES) Concession 1 WEST , Lot 26 Roll number: 0071	<b>Total lot size</b> 56.18 ha
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**Livestock/manure summary**

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Dairy, Milking-age Cows (dry or milking) Large Frame (545 - 658 kg) (eg. Holsteins), 3 Row Free Stall	482	688.6 NU	4702 m²
Liquid	Dairy, Milking-age Cows (dry or milking) Large Frame (545 - 658 kg) (eg. Holsteins), 3 Row Free Stall	235	335.1 NU	2288 m²

 **Confirm Livestock/Manure Information (563440 Thomas Rd, Ingersoll)**  
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

**Setback summary**

Existing manure storage	M1. Liquid, outside, no cover, straight-walled storage		
Design capacity	1023.7 NU		
Potential design capacity	1023.7 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	712.68
Factor D (manure type)	0.8	Factor E (encroaching land use)	1.1

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	440 m (1444 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	496 m (1627 ft)
Actual distance from manure storage	NA

Preparer signoff & disclaimer

**Preparer contact information**  
Paolo Mazza  
Dillon Consulting Limited  
130 Dufferin Ave  
Suite 1400  
London, ON  
519-438-1288  
pmazza@dillon.ca

Signature of preparer

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Paolo Mazza , GIS Analyst

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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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SW Ingersoll SP - Type B

General information

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<b>Application date</b> Jul 4, 2023	<b>Municipal file number</b>	<b>Proposed application</b> New or expanding settlement area boundary
<b>Applicant contact information</b> Town of Ingersoll ON	<b>Location of subject lands</b> County of Oxford Town of Ingersoll OXFORD (ON THAMES) Concession 1 WEST , Lot 26 Roll number: 0077	


Calculations

563440 Thomas Rd, Ingersoll

<b>Farm contact information</b> Farm Location Town of Ingersoll 563440 Thomas Rd Ingersoll, ON	<b>Location of existing livestock facility or anaerobic digester</b> County of Oxford Town of Ingersoll OXFORD (ON THAMES) Concession 1 WEST , Lot 26 Roll number: 0071	<b>Total lot size</b> 56.18 ha
------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------

**Livestock/manure summary**

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Liquid	Dairy, Milking-age Cows (dry or milking) Large Frame (545 - 658 kg) (eg. Holsteins), 3 Row Free Stall	482	688.6 NU	4702 m²
Liquid	Dairy, Milking-age Cows (dry or milking) Large Frame (545 - 658 kg) (eg. Holsteins), 3 Row Free Stall	235	335.1 NU	2288 m²

 **Confirm Livestock/Manure Information (563440 Thomas Rd, Ingersoll)**  
The livestock/manure information has not been confirmed with the property owner and/or farm operator.

**Setback summary**

Existing manure storage	M1. Liquid, outside, no cover, straight-walled storage		
Design capacity	1023.7 NU		
Potential design capacity	1023.7 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	712.68
Factor D (manure type)	0.8	Factor E (encroaching land use)	2.2

Building base distance 'F' (A x B x D x E) (minimum distance from livestock barn)	879 m (2884 ft)
Actual distance from livestock barn	NA
Storage base distance 'S' (minimum distance from manure storage)	892 m (2926 ft)
Actual distance from manure storage	NA

Preparer signoff & disclaimer

**Preparer contact information**  
Paolo Mazza  
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130 Dufferin Ave  
Suite 1400  
London, ON  
519-438-1288  
pmazza@dillon.ca

Signature of preparer

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Paolo Mazza , GIS Analyst

---

Date (mmm-dd-yyyy)

**Note to the user**

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SW Ingersoll SP - Type A

General information

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<b>Application date</b> Jul 4, 2023	<b>Municipal file number</b>	<b>Proposed application</b> New or expanding zone or designation for an industrial use outside of a settlement area
<b>Applicant contact information</b> Town of Ingersoll ON	<b>Location of subject lands</b> County of Oxford Town of Ingersoll OXFORD (ON THAMES) Concession 1 WEST , Lot 26 Roll number: 0077	



Calculations

403562 Union Rd, Ingersoll

Farm contact information ⓘ  
ON

Location of existing livestock facility or anaerobic digester  
County of Oxford  
Town of Ingersoll  
OXFORD (ON THAMES)  
Concession 1 WEST , Lot 25  
Roll number: 0004

Total lot size  
21.12 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Broiler breeder layers (males/females transferred in from grower barn), Cages	10129	101.3 NU	1223 m²
Solid	Chickens, Broiler breeder layers (males/females transferred in from grower barn), Cages	10918	109.2 NU	1319 m²

⚠

Confirm Livestock/Manure Information (403562 Union Rd, Ingersoll)

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	210.5 NU		
Potential design capacity	300 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	463.8
Factor D (manure type)	0.7	Factor E (encroaching land use)	1.1

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

250 m (820 ft)

Actual distance from livestock barn

NA

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

250 m (820 ft)

Actual distance from manure storage

NA

Preparer signoff & disclaimer

Preparer contact information  
Paolo Mazza  
Dillon Consulting Limited  
130 Dufferin Ave  
Suite 1400  
London, ON  
519-438-1288  
pmazza@dillon.ca

Signature of preparer

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Paolo Mazza , GIS Analyst

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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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SW Ingersoll SP - Type B

General information

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<b>Application date</b> Jul 4, 2023	<b>Municipal file number</b>	<b>Proposed application</b> New or expanding settlement area boundary
<b>Applicant contact information</b> Town of Ingersoll ON	<b>Location of subject lands</b> County of Oxford Town of Ingersoll OXFORD (ON THAMES) Concession 1 WEST , Lot 26 Roll number: 0077	

Calculations

403562 Union Rd, Ingersoll

Farm contact information ⓘ  
ON

Location of existing livestock facility or anaerobic digester  
County of Oxford  
Town of Ingersoll  
OXFORD (ON THAMES)  
Concession 1 WEST , Lot 25  
Roll number: 0004

Total lot size  
21.12 ha

Livestock/manure summary

Manure Form	Type of livestock/manure	Existing maximum number	Existing maximum number (NU)	Estimated livestock barn area
Solid	Chickens, Broiler breeder layers (males/females transferred in from grower barn), Cages	10129	101.3 NU	1223 m²
Solid	Chickens, Broiler breeder layers (males/females transferred in from grower barn), Cages	10918	109.2 NU	1319 m²

⚠ Confirm Livestock/Manure Information (403562 Union Rd, Ingersoll)  
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	210.5 NU		
Potential design capacity	210.5 NU		
Factor A (odour potential)	0.7	Factor B (design capacity)	409.68
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)

442 m (1450 ft)

Actual distance from livestock barn

NA

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

442 m (1450 ft)

Actual distance from manure storage

NA

Preparer signoff & disclaimer

Preparer contact information  
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Signature of preparer

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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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