

Ontario Ministry of Transportation (MTO)

Socio-economic, Designated Areas and Land Use Factors Report

*Hanlon Expressway / Wellington Road 34 Midblock
Interchange / G.W.P. 3059-20-00*

Date: June 2021

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Executive Summary

AECOM Canada Limited (AECOM) has been retained by the Ontario Ministry of Transportation (MTO) to undertake a Preliminary Design Review, Detailed Design (to a Design-Build-Ready status) under Class Environmental Assessment (EA) for Provincial Transportation Facilities (2000) for improvements to Highways 6 and 401 in the Township of Puslinch, Wellington County, and the City of Hamilton. The Project is being undertaken in several phases. This phase of the project includes the new Wellington Road 34 flyover structure at Hanlon Expressway, the new interchange on Hanlon Expressway midway between Wellington Road 34 and Maltby Road, and other associated connecting roadways. This first phase is referred to as the Hanlon Expressway / Wellington Road 34 Midblock Interchange project, and herein after is called 'the Project'.

The purpose of this Socio-Economic, Designated Areas and Land Use Factors Report is to review secondary sources including provincial and municipal policies to outline the various municipal land use policies in effect within the Study Area, the current land use and existing features, demographic data and the future planned land use and developments in and adjacent to the Study Area in order to identify the current socio-economic and land use conditions within the Study Area and the potential impacts of the Project on socio-economic and land use conditions. A review of the Provincial Policy Statement, 2020; Growth Plan for Greater Golden Horseshoe, 2019; City of Guelph Official Plan, 2018 and the Wellington County Official Plan, 2021 was undertaken.

The socio-economic, designated areas and land use factors-specific Study Area is located within Township of Puslinch, Wellington County and the City of Guelph, and includes all lands to be impacted by the proposed and existing infrastructure (Limits of Work) plus an additional buffer of 500 metres.

According to Wellington County Official plan (2021) and the City of Guelph Official Plan (2018), the lands within the Study Area include a variety of municipal designations, including Greenlands, Core Greenlands, Secondary Agricultural, Rural Employment Area, Industrial and Significant Natural Areas.

The Study Area currently consists of a mix of land uses, including agricultural & resource, natural area and open spaces, industrial & commercial, residential, institutional, utilities and transportation. The rural and natural areas are the dominant land use within the Study Area.

Demographic data for the Regional and local municipalities in which the Study Area falls (Wellington County, City of Guelph and Township of Puslinch) are provided in

Section 3. The data illustrate an area with diverse living and working conditions and continued growth in the coming decades.

Based on the planning policy context provided, the northern portion of the Study Area is anticipated to be developed with Industrial and Employment uses along the Hanlon Expressway. Puslinch Local Policy Areas PA7-1 and PA7-3 outline how two (2) large areas of Secondary Agricultural Land which fall partially within the Study Area will be developed in the future for a country estate residential area and an economic development area. City of Guelph and Wellington County Official Plan Policies and Zoning By-laws concerning industry and employment outline the anticipated development of lands along the Hanlon Expressway for large scale industrial purposes which benefit from the proximity to the highway infrastructure. An extension of Southgate Drive into the Study Area to serve this future industrial development is planned.

The Hanlon Expressway / Wellington Road 34 Midblock Interchange project may result in the loss of or direct impact to lands designated for particular uses in Wellington County including Rural Employment Area, Secondary Agriculture and Greenlands. Mitigation strategies are outlined in **Section 6** and will be further delineated through continued engagement with stakeholders.

The Project is a key step for both the City of Guelph and Wellington County in implementing the visions laid out in their planning documents for the Study Area. Improved safety and flow of traffic through the area will be important to enable the planned industrial and employment development in a way that does not exacerbate existing traffic issues.

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1. Introduction

AECOM Canada Limited (AECOM) has been retained by the Ontario Ministry of Transportation (MTO) to undertake a Preliminary Design Review, Detailed Design (to a Design-Build-Ready status) under Class Environmental Assessment (EA) for Provincial Transportation Facilities (2000) for improvements to Highways 6 and 401 in the Township of Puslinch, Wellington County, and the City of Hamilton (GWP 3042-14-00). The planned transportation improvements will provide a better connection between the Highways 6 and 401 corridors which will reduce road congestion, collision potential and associated costs and encourage the utilization of Hanlon Expressway (Highway 6 north of Highway 401) and support municipal planning initiatives.

Implementation of GWP 3042-14-00 will include the improvements along Hanlon Expressway north of Highway 401, and will be undertaken in several phases. This phase, henceforth referred to as the Hanlon Expressway / Wellington Road 34 Midblock Interchange project (GWP 3059-20-00), includes the new Wellington Road 34 flyover structure at Hanlon Expressway, the new interchange on Hanlon Expressway midway between Wellington Road 34 and Maltby Road, and other associated connecting roadways.

The Hanlon Expressway / Wellington Road 34 Midblock Interchange project (the Project) is the focus of this Socio-Economic, Designated Areas and Land Use Factors report.

1.1 Project Description

The Project (GWP 3059-20-00), includes the following key elements:

- New Midblock Interchange on Hanlon Expressway midway between Wellington Road 34 and Maltby Road, linking Wellington Road 34 on the west side of Hanlon Expressway to Concession Road 7 on the east side of Hanlon Expressway with Midblock Connection Road;
- Removal of two at-grade intersections on Hanlon Expressway at Wellington Road 34 and Maltby Road/Concession Road 4;
- New flyover of Hanlon Expressway at Wellington Road 34;
- New T-intersection at Maltby Road and Concession Road 7;
- New cul-de-sac on Concession Road 4 (west side of Hanlon Expressway);
- Reconstruction and realignment of Concession Road 7 to the east between Maltby Road and Wellington Road 34;

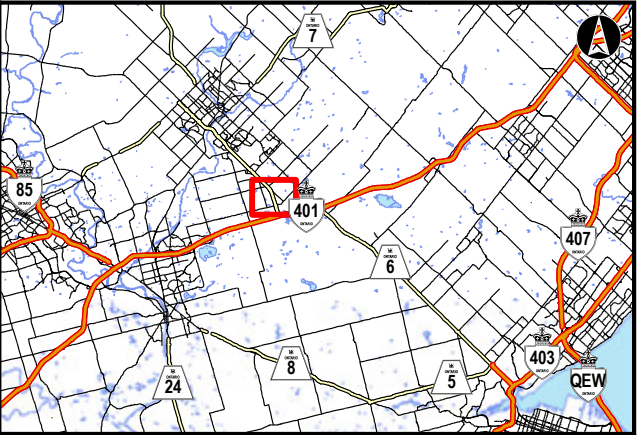
- Intersection improvements (new turning lanes) at Midblock Connection Road and Wellington Road 34, and Wellington Road 34 and Concession Road 7, resulting in road widenings at these intersections;
- New overhead sign structures associated with the interchange;
- Stormwater management facilities;
- Traffic signals and illumination at three intersections and signal provisions at one intersection;
- Partial illumination on Hanlon Expressway at off-ramps; and
- Various utility relocations to accommodate the improvements.

1.2 Purpose

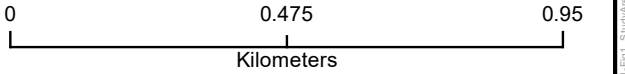
The purpose of this Socio-Economic, Designated Areas and Land Use Factors Report is to review secondary sources including provincial and municipal policies to outline the various land use policies relevant to the Study Area (as defined in **Section 1.3**), the current land use and existing features, demographic data and the future planned land use and developments in and adjacent to the Project in order to identify the current socio-economic and land use conditions within the Study Area. A high-level examination of land use conditions was undertaken consistent with the requirements of Section 3.5 of the Ministry of Transportation's Environmental Reference for Highway Design (2013) to support the assessment of any potential effects the Project may have on the socio-economic and land use conditions within the project study area and to identify appropriate mitigation measures. Should impacts, not anticipated at this preliminary level of design, be identified or should impacts be determined outside of the limits of work assessed within this report the Design Build Contractor, herein after called 'Design Builder' will be responsible for assessing the impacts and assigning appropriate mitigation where applicable to satisfy the requirements under the Class EA.

1.3 Study Area

The socio-economic, designated areas and land use factors-specific Study Area (the Study Area) is located within Township of Puslinch, Wellington County and the City of Guelph, and includes all lands and existing infrastructure that could be potentially impacted by the proposed highway construction (as described in **Section 1.1**) and associated activities / other works within the existing and proposed highway Right-of-Way (ROW). The Study Area includes the area of proposed disturbance (limits of work) plus an additional buffer of 500 metres (**Figure 1**). A buffer of 500 m around the limits of work captures all land uses that may experience direct or indirect impacts as a result of the project construction (e.g., temporary detours and noise and vibration) as well as indirect impacts resulting from the project implementation (e.g., changes in traffic routing, accessibility to lands etc.).



- Legend**
- Watercourse
 - Property Fabric
 - Municipal Boundary
 - Limits of Work
 - Socio-Economic and Land Use Factors 500m Area of Investigation (Study Area)



Hanlon Expressway / Wellington Road 34
Midblock Interchange

Socio-economic, Designated Areas and
Land Use Factors Study Area

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Figure 1

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1.4 Background Data

Background data was collected from relevant secondary sources to identify the existing and planned land use information within the Study Area. A review of the Provincial Policy Statement, 2020; Growth Plan for Greater Golden Horseshoe, 2019; City of Guelph Official Plan, 2018 and the Wellington County Official Plan, 2021 was undertaken. Please refer to **Section 8** for a complete list of documents and references reviewed for this Report.

2. Planning and Policy Context

The Province of Ontario, Wellington County and the City of Guelph have plans and policies that serve as important elements of the planning framework and provide insight into key provincial and municipal objectives as well as strategic land use and transportation development / initiatives. The following sections describe these planning considerations, including provincial policies and plans, municipal plans and initiatives, and other policy considerations.

2.1 Provincial Policies

Over the past two decades, the Province of Ontario has approved a series of initiatives, policies and plans that have changed the way planning and development is to occur within Ontario. Many of these address transportation and as such the delivery of transportation related developments should be consistent with these policies. The policies and plans relevant to the Project are described in the following sections.

2.1.1 Provincial Policy Statement 2020

The Provincial Policy Statement, 2020 (PPS) is issued under Section 3 of the *Planning Act, R.S.O. 1990, c. P.13*. It provides policy direction on matters of provincial interest related to land use planning and development, with the aim of securing the long-term prosperity, environmental health and social well-being of the Province and its residents. The PPS is premised on the efficient use of land and infrastructure, the protection of environmental resources and ensuring sufficient land is available for the development of future employment and residential uses.

The current PPS came into effect on May 1, 2020 to replace the previous PPS issued in 2014. The updated PPS reflects new land use planning systems, such as Ontario's Housing Supply Action Plan issued under the *More Homes, More Choice Act* 2019. The changes give municipalities greater flexibility in certain matters such as securing a greater range and mix of housing, integration of land use planning and transit supportive development and consultation with Indigenous Communities.

The planned transportation improvements will provide a better connection between the Highways 6 and 401 corridors which will reduce road congestion, collision potential and associated costs and encourage the utilization of Hanlon Expressway (Highway 6 north of Highway 401). The Project is consistent with the objectives of the PPS that call for transportation, transit and infrastructure facilities to be planned to meet current and

projected needs, providing for an efficient, cost-effective and reliable multi-modal transportation system that supports long-term economic prosperity.

2.1.2 A Place to Grow: Growth Plan for the Greater Golden Horseshoe 2019

A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019 (Growth Plan) is a long-term plan for Ontario designed to promote economic growth, increase housing supply, create jobs and build communities that make life easier, healthier and more affordable for people of all ages. As one of the most dynamic and fast-growing regions in North America, the Greater Golden Horseshoe is a destination for many people and businesses from other parts of Canada and around the world. To accommodate such growth, an integral part of the Growth Plan's vision is focused on investing in transportation infrastructure to support the regional transit network. Wellington County and the City of Guelph are considered part of the "outer ring" of the Greater Golden Horseshoe; these are the municipalities geographically located beyond the Greenbelt area. The Growth Plan does not distinguish a policy approach for municipalities in this outer ring.

The Growth Plan is to be implemented through municipal official plans; therefore, the policies of municipal and local official plans conform to the Growth Plan. Municipal land use policies relevant to the Study Area are outlined in **Section 2.3**.

2.2 Designated Areas

2.2.1 Provincial Land use and Environmental Planning Areas

The Growth Plan functions in tandem with three area specific plans: the Greenbelt Plan, the Niagara Escarpment Plan and the Oak Ridges Moraine Conservation Plan. Together, these plans build on the PPS and establish a land use planning framework for the Greater Golden Horseshoe that supports a thriving economy, a clean and healthy environment and social equity. The Study Area lies outside of above noted three Environmental Planning Areas and as such they are not considered further within this report.

2.2.2 Environmentally Sensitive Policy Areas

The majority of the Study Area overlaps with an area designated as the 'Paris and Galt Moraine Policy Area' in the Wellington County Official Plan. The purpose of this policy is to protect moraine processes and features in order to maintain, and where possible

restore and enhance, groundwater and surface water resources, and promote stewardship activities on the moraines that maintain, restore or enhance groundwater and surface water resources. Large scale developments within the Paris and Galt Moraine Policy Area are required to demonstrate that ground and surface water functions will be maintained, and where possible, restored and enhanced. See **Appendix A** for the location of the Study Area in relation with Paris and Galt Moraine Policy Area.

2.3 Municipal Plans and Policies

The two (2) municipal Official Plans which pertain to the Study Area are the Wellington County Official plan (2021) and the City of Guelph Official Plan (2018).

2.3.1 Wellington County Official Plan 2021

The Wellington County Official Plan, 2021 was reviewed to gather local land use policy context for the Study Area. The Wellington County Official Plan categorizes land use into three (3) broad categories: Urban, Rural and Greenland systems. Rural and Greenland systems are present within the Study Area, and are subdivided into land use designations which are described in the following sections and shown in **Figure 2**.

2.3.1.1 Rural System

The Rural System is primarily natural resource lands, and some other uses typically found in non-urban areas. The Rural System policies are intended to maintain the essential character of these areas and to ensure that the economic activities and employment opportunities which depend on Wellington's natural resources are maintained and enhanced. In this large and diverse area, opportunities exist for a variety of resource, employment and community uses which need to be considered. The land use designations of the Rural System include Prime Agricultural Areas, Secondary Agricultural Areas, Mineral Aggregate Areas, Seasonal and Recreational Use Areas, Rural Housing, Rural Employment Areas, Waste Management Sites and Special Use Areas.

Two (2) of the above noted designated land use types within the Rural System are located in the Study Area. These land use designations are further described in the sections below.

2.3.1.1.1 Secondary Agricultural Areas

Secondary Agricultural Areas are defined as lands within the Rural System which are determined to be non-prime agricultural areas but can sustain certain agricultural activities. Agriculture will continue to be the dominant use, but a range of other uses can also be allowed, such as small-scale commercial, industrial and institutional uses and public service facilities. Resource extraction is permitted in Secondary Agricultural Areas. This includes aggregate mining and water taking from groundwater sources.

2.3.1.1.2 Rural Employment Areas

Rural Employment Areas are lands set aside for industrial and limited commercial uses which would benefit from a rural location due to:

- the need for a relatively large site; or
- the need for access to major transportation routes; or
- the need to be close to rural resources.

These areas are intended to provide diversity to Wellington's land supply for business.

2.3.1.2 Greenlands System

The Greenlands System focuses on the protection of the natural heritage system. This system includes those features and areas which are part of Wellington's natural heritage or areas in which natural or human-made conditions may pose a threat to public safety. These often inter-related areas include:

- wetlands;
- environmentally sensitive areas;
- streams and valley lands;
- ponds, lakes and reservoirs;
- areas of natural and scientific interest;
- woodlands;
- fish and wildlife habitat;
- floodplains and hazardous lands; and
- threatened or endangered species.

The Greenlands System contains landscapes, resources and ecological systems that are essential to environmental and public health. The Greenlands System ensures that natural features and areas and their natural beauty will be retained for future generations. These areas also have an economic value related to tourism, forestry,

recreation, fishing and other resource products which are sustainable if properly managed. New development in the Greenland System requires various levels of environmental impact assessment to ensure accordance with provincial and federal requirements and often approval from the appropriate authorities, such as the Conservation Authority. The Wellington County Official Plan (2021) states that no development in this system will be approved unless Wellington County is satisfied that the Greenland and environmental impact assessment policies are met.

The Greenlands System is divided into Core Greenlands and Greenlands which are defined below.

2.3.1.2.1 Core Greenlands

Core Greenlands are certain areas within the Greenlands Systems which have greater sensitivity or significance and are protected by the policies of the Wellington Official Plan. The areas and features in the Core Greenlands designation include:

- wetlands including Provincially Significant Wetlands;
- habitat of endangered or threatened species and fish habitat; and
- hazardous lands.

2.3.1.2.2 Greenlands

Greenlands consist of all other significant natural heritage features including wildlife habitats, areas of natural and scientific interest (ANSIs), streams and valleylands, woodlands, environmentally sensitive areas (ESAs), ponds, lakes and reservoirs and natural links. These features are also intended to be afforded protections from development or site alterations which would have negative impacts. These features are often found within Core Greenlands. Where these features are located outside of Core Greenlands, they are identified as Greenlands.

2.3.2 City of Guelph Official Plan 2018

The City of Guelph Official Plan, 2018 (Guelph Official Plan) is focused on sustainability and establishes policies that have a positive effect on Guelph's social, economic, cultural and natural environment. The Guelph Official Plan strives to maintain a high quality of life for the residents of Guelph, reduce uncertainty concerning future development, and provides a basis for the Zoning By-law and other land use controls. The Guelph Official Plan designates land for particular uses. Only a small, northern portion of the Study Area crosses into the City of Guelph jurisdiction, and this area contains two (2) land use designations which are described in the following sections, and shown in **Figure 2**.

2.3.2.1 Industrial

Industrial areas permit manufacturing, fabricating and processing including complementary uses and are intended to ensure efficient utilization of existing industrial land and promote redevelopment of under-utilized, or obsolete sites.

2.3.2.2 Significant Natural Areas and Natural Areas

Significant Natural Areas have been identified to protect natural heritage features and functions. The Guelph Official Plan recognizes the stresses on natural areas and seeks to identify opportunities to mitigate against these influences through ongoing stewardship, monitoring and ecological management. The Significant Natural Area designation ensures long term protection of natural heritage and these lands are subject to policies which restrict development within the designated lands, their buffers and adjacent lands, unless an environmental assessment or environmental impact statement can demonstrate that there will be no negative impact on the natural heritage features or functions. Schedule 4A of the City of Guelph Official plan further delineates the nature of the Significant Natural Areas land use designation. Schedule 4A identifies that the Study Area, north of Maltby Road includes Provincially Significant Wetlands (PSWs). See **Appendix B**. PSWs and other natural areas do exist within the Study Area, outside of the City of Guelph. These features are discussed further in **Section 3.2**.

Table 1: Areas of Relevant Land Use Designations within the Study Area and the Limits of Work

Land Use Designation	Total Area within Socio-economic, designated and Land Use Factors Study Area (ha)	Area within Limits of Work (ha)
City of Guelph		
Significant Natural Area	2.6	0
Industrial	34.2	1.5
Wellington County		
Core Greenlands	147.7	14.5
Greenlands	26.4	2.7
Rural Employment Area	111.7	35.8
Secondary Agriculture	293.4	14.9

Source: City of Guelph Official Plan 2018 and Wellington County Official Plan 2021)

3. Demographic Context

Table 2 below summarizes the population and total private dwellings in the local and regional municipalities where the project Study Area is found (based on 2016 Statistics Canada census data).

Table 2: Population Numbers and Dwellings in the Project Study Area Municipalities

Municipality	Population	Total Private Dwellings
City of Guelph	131,794 (8.3% increase since 2011) (median age of 38.3)	52,090
Township of Puslinch	7,336 (4.4% increase since 2011) (median age of 49.5)	2,705
Wellington County	222,726 (6.9% increase since 2011) (median age of 40.3)	90,846

Source: Statistics Canada, 2016.

Table 3 summarizes the place of work status, mode of transportation to work, and the breakdown of industry (based on 2016 Statistics Canada Census Profiles). The 2016 statistics show that 77% of the respondents in the Guelph community, 90% of the respondents in Puslinch and 81% of respondents in Wellington County identified as driving a vehicle to work, other options such as passenger, public transit, walking, bicycle or other scored much lower making the remaining total 23% of replies for City of Guelph, only 10% of replies for Puslinch and 19% for Wellington County.

Table 3: Place of Work Status, Industry, and Mode of Transportation to Work

Municipality	Place of Work Status		Industry		Mode of Transportation	
City of Guelph	Worked at Home	4,460	Agriculture, Forestry, Fishing and Hunting	630	Car, Truck, Van as Driver	51,305
	Worked Outside Canada	275	Mining, Quarrying, and Oil and Gas Extraction	100	Car, Truck, Van as Passenger	4,775
	No Fixed Workplace Address	6,140	Utilities	305	Public Transit	4,695
	Worked at Usual Place	60,200	Construction	3,780	Walked	3,890
			Manufacturing	14,310	Bicycle	1,080
			Wholesale Trade	3,130	All Other Modes	595
			Retail Trade	7,710		
			Transportation and Warehousing	2,600		
			Information and Cultural Industries	1,300		
			Finance and Insurance	2,785		
			Real Estate and Rental and Leasing	1,190		
			Professional, Scientific and Technical Services	5,355		
			Management of Companies and Enterprises	105		
			Administrative and Support, Waste Management and Remediation Services	2,720		
			Health Care and Social Assistance	7,125		
			Educational Services	8,575		
			Arts, Entertainment and Recreation	1,550		
			Accommodation and Food Services	4,755		
			Other Services	2,995		
			Public Administration	3,440		
Township of Puslinch	Worked at Home	525	Agriculture, Forestry, Fishing and Hunting	135	Car, Truck, Van as Driver	3,130
	Worked Outside Canada	15	Mining, Quarrying, and Oil and Gas Extraction	10	Car, Truck, Van as Passenger	150
	No Fixed Workplace Address	550	Utilities	30	Public Transit	60
	Worked at Usual Place	2,925	Construction	395	Walked	90
			Manufacturing	525	Bicycle	10
			Wholesale Trade	225	All Other Modes	30
			Retail Trade	390		
			Transportation and Warehousing	190		
			Information and Cultural Industries	55		
			Finance and Insurance	190		
			Real Estate and Rental and Leasing	130		
			Professional, Scientific and Technical Services	370		
			Management of Companies and Enterprises	15		
			Administrative and Support, Waste Management and Remediation Services	200		
			Health Care and Social Assistance	305		
			Educational Services	295		
			Arts, Entertainment and Recreation	100		
			Accommodation and Food Services	205		
			Other Services	185		
			Public Administration	185		

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Municipality	Place of Work Status		Industry		Mode of Transportation	
Wellington County	Worked at Home	10,995	Agriculture, Forestry, Fishing and Hunting	4,505	Car, Truck, Van as Driver	87,365
	Worked Outside Canada	375	Mining, Quarrying, and Oil and Gas Extraction	205	Car, Truck, Van as Passenger	7,350
	No Fixed Workplace Address	11,635	Utilities	555	Public Transit	5,110
	Worked at Usual Place	96,460	Construction	8,445	Walked	5,970
			Manufacturing	22,215	Bicycle	1,345
			Wholesale Trade	5,565	All Other Modes	965
			Retail Trade	12,485		
			Transportation and Warehousing	4,825		
			Information and Cultural Industries	1,950		
			Finance and Insurance	4,480		
			Real Estate and Rental and Leasing	1,885		
			Professional, Scientific and Technical Services	8,200		
			Management of Companies and Enterprises	185		
			Administrative and Support, Waste Management and Remediation Services	4,875		
			Health Care and Social Assistance	11,460		
			Educational Services	12,115		
			Arts, Entertainment and Recreation	2,550		
			Accommodation and Food Services	7,230		
			Other Services	5,235		
			Public Administration	5,425		

Source: Statistics Canada, 2016.

4. Existing Land Use Conditions

The Study Area currently contains a blend of several different land uses. The following sections describe the existing conditions present in these land use areas which can be viewed in relation to the Study Area in **Figure 2**.

4.1 Agricultural & Resource Uses

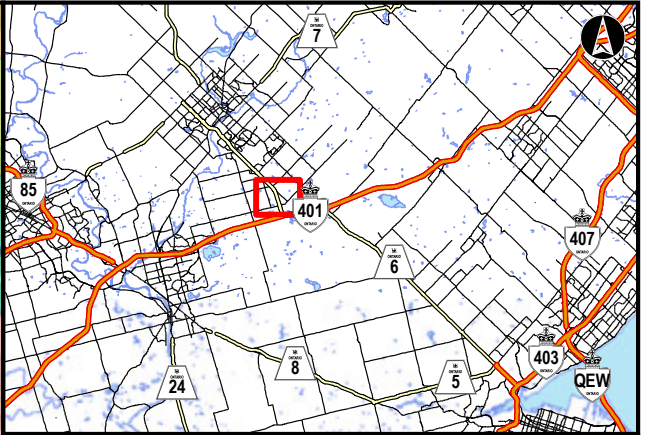
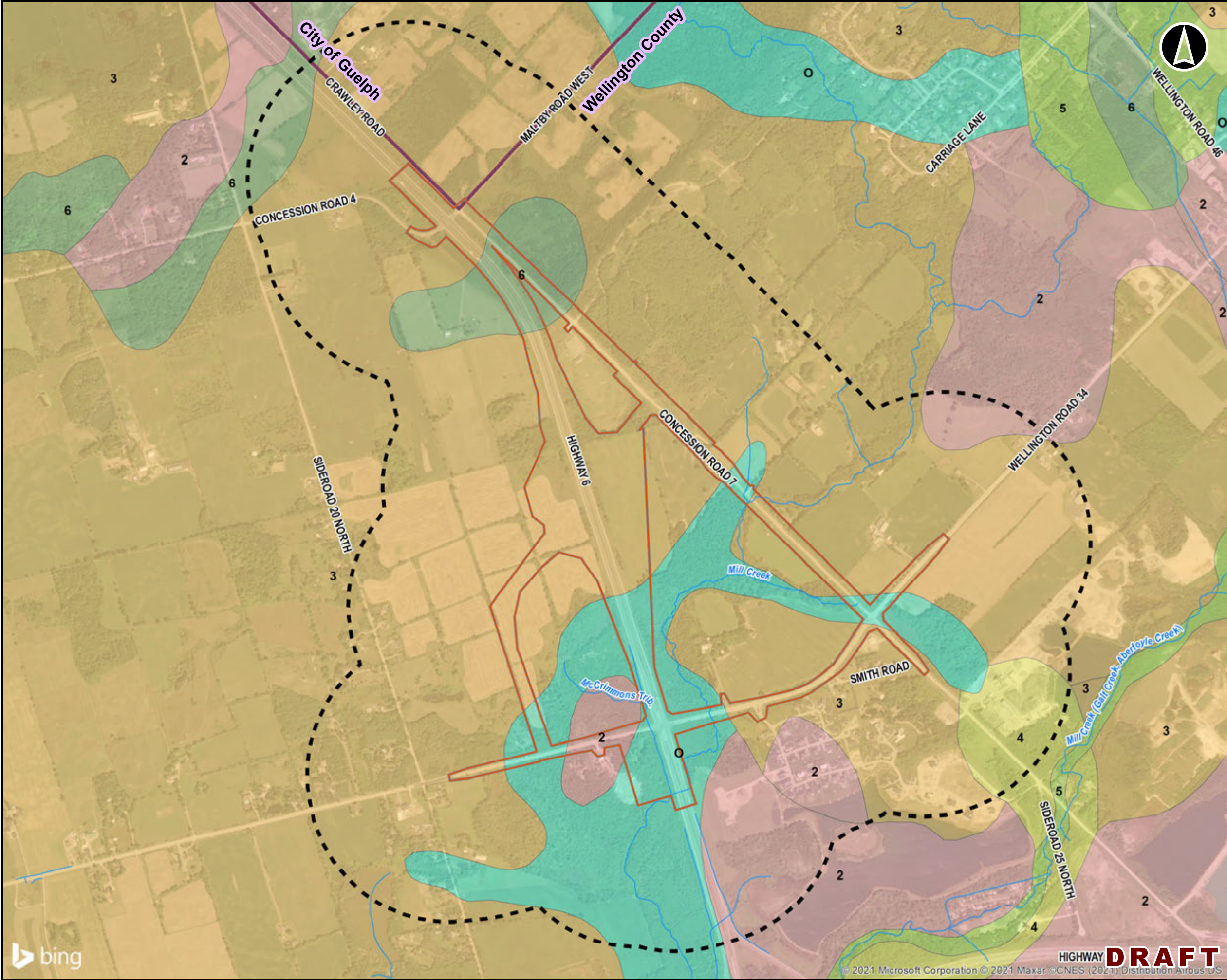
Agriculture is currently the primary land use within the Study Area. There are 293.4 ha of lands designated as Secondary Agriculture within the Study Area (see **Figure 2**). Furthermore, portions of the lands designated as Rural Employment Area are currently used for agricultural activities across the Study Area (approximately 69.1 ha based on Google earth imagery). Farming within the Study Area includes row crops and pasture land. The presence of linked farming operations within the Study Area was identified through consultation with local farmers and land owners and has been considered within this report.

The Canadian Land Inventory defines soil capability in Seven (7) Classes. A description of each soil capability class is provided in **Table 4**. The lands within the Study Area mainly consist of soils with Class 3 Soil Capability (moderately severe limitations) with pockets of Class 2 (moderate limitations), Class 4 (severe limitations), Class 6 (very severe limitations) and Organic Soils (aligning with some of the Core Greenlands). Please refer to **Figure 3** for Soil Classification within the Study Area.

Table 4: Soil Capability Classes

Soil Capability Class	Definition
Class 1	Soils have no significant limitations in use for crops.
Class 2	Soils have moderate limitations that reduce the choice of crops or require moderate conservation practices.
Class 3	Soils have moderately severe limitations that reduce the choice of crops or require special conservation practices.
Class 4	Soils have severe limitations that restrict the choice of crops, or require special conservation practices and very careful management, or both
Class 5	Soils have very severe limitations that restrict their capability of producing perennial forage crops and improvement practices are feasible. The limitations are so severe that the soils are not capable of use for sustained production of annual field crops.
Class 6	Soils are unsuited for cultivation but are capable of use for unimproved permanent pasture.
Class 7	Soils have no capability for arable culture or permanent pasture. This class includes marsh, rockland and soil on very steep slopes.

Source: Ontario Ministry of Agriculture, Food and Rural Affairs Website, 2021.

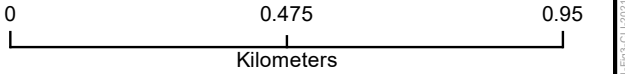


Legend

- Watercourse
- Municipal Boundary
- Socio-Economic and Land Use Factors 500m Area of Investigation (Study Area)

Soil Capability for Agriculture

- Class 2
- Class 3
- Class 4
- Class 5
- Class 6
- Organic Soils



Hanlon Expressway / Wellington Road 34
Midblock Interchange

Soil Capability		
Mar, 2021	1:13,000 <small>* when printed 11"x17"</small>	Datum: NAD 1983 UTM Zone 17N Source: MNRF, MMAH, AECOM, MTO
P#: 60541071	V#: 001	Figure 3
AECOM		

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Much of the Secondary Agricultural lands in the southeast portion of the Study Area, south of Wellington Road 34, east of Hanlon Expressway and north of Highway 401 are used by aggregate extraction and water taking operations. These lands make up a large special policy area known as the Puslinch Local Policy Area PA7-1, which is intended to provide locations for economic activity and employment (see **Section 5** for further details).

4.2 Natural Area and Open Spaces

Portions of the Study Area have been designated as natural areas in the relevant municipal plans. These include Wellington County Greenlands and City of Guelph Significant Natural Areas (Refer to **Section 2.3.1.4** of this report for more information on these designations). These lands are concentrated in the vicinity of the intersection of Hanlon Expressway and Wellington Road 34 where Mill Creek runs, with smaller pockets scattered throughout the Study Area.

The following vegetation communities have been identified within the Study Area:

- deciduous forests;
- deciduous, coniferous, mixed and thicket swamps;
- cultural plantations, woodlands, thickets and meadows; and,
- marshes and open water communities.

Portions of the Study Area include lands that are designated as part of the provincial Natural Heritage System. These include the Mill Creek Puslinch Provincially Significant Wetland (PSW) Complex, and Deer Wintering Habitat (see **Figure 4**).

For further details on natural environment features within the Study Area refer to the Terrestrial Ecosystem Existing Conditions and Impact Assessment Report (AECOM, 2021a) available under a separate cover.

4.3 Industrial & Commercial Use

The Study Area includes 111.7 ha of lands designated as Rural Employment Areas (**Figure 2**) located along the Hanlon Expressway and Concession Road 7, north of Wellington Road 34 in which limited Industrial and Commercial land uses are permitted (**Figure 2**). Currently these lands encompass farmlands, a woodlot and a mini-putt and driving range (Club 6). A paving facility (Capital Paving Facility) is located south of Wellington Road 34, east of Concession Road 7 in Puslinch Local Policy Area PA7-1. Crossing the border of Wellington County to the City of Guelph just north of Maltby Road along Hanlon Expressway, the lands within the Study Area are designated for Industrial uses; however, these lands have not been developed and are currently partially covered by woodlots, or are used for agricultural purposes.

4.4 Residential Uses

Several dwellings are found within the Wellington County portion of the Study Area. These are all single detached dwellings as permitted under the Wellington Official Plan policies for Secondary Agricultural Areas. Two (2) dwellings are found north of Maltby Road, east of Hanlon Expressway, on lands identified as Industrial area in the Guelph Official Plan. Specific Zoning By-law provisions have been made to permit residential uses on these lands (City of Guelph Comprehensive Zoning By-law, 2019).

Puslinch Local Policy Area PA7-3 falls partially within the southeast portion of the Study Area on lands designated as Secondary Agricultural. The area is identified in the Wellington County Official Plan as the Heritage Lake Retirement Community. Policy PA7-3 outlines specific development permissions to occur following the extraction of aggregate material and the rehabilitation of the subject land. One of these development permissions was for country residential units to be developed. At present, 20-30 such dwellings have been developed within the portion of PA7-3 which falls within the Study Area.

Comparing the existing residential land use in the Study Area with Google Earth imagery from 2005, there appear to have been no remarkable changes in residential land patterns within the Study Area, except for within the Puslinch Local Policy Area PA7-3. Given that the existing Official Plan policies of City of Guelph and Wellington County do not include residential areas within the Study Area the residential land use pattern is unlikely to intensify substantially.

4.5 Institutional Uses

There is one medical institution within the Study Area, the Bastos Natural Family Centre, located on Sideroad 20N. No other institutional uses were identified within the Study Area.

4.6 Utilities

There are several utilities have been identified within the Study Area. The following Utilities have been identified as potentially conflicting with the Project:

- Hydro One Transmission and Distribution along Concession Road 7 (towers and poles);
- Hydro One Distribution and Telecommunications along Wellington Road 34;
- Guelph Hydro (existing intersection of Wellington Road 34 and Highway 6);
- Telecommunications (Bell and Rogers aerial/underground fibre cable); and
- Enbridge Gas along west side of Concession Road 7.

4.7 Transportation

The Transportation network in the Study Area is dominated by automobile transport. The Hanlon Expressway is a divided four-lane expressway in the Study Area running from North to South. Smaller two-lane roads (Crawley Road/Concession Road 7 parallel to the Hanlon Expressway, and Maltby Road/Concession 4 and Wellington Road 34 east to west) provide access to the farms, residences and businesses in the Study Area. The residential development in the southeastern portion of the Study Area is served by private streets. The portions of Wellington Road 34 and Concession Road 7 in the southwest portions of the Study Area are particularly frequented by heavy truck traffic in relation to the resource extraction activities occurring in Puslinch Local Policy Area PA7-1. These roads provide access to the Hanlon Expressway and the Highway 401 beyond that.

The area is not served by any public transit and does not include any pedestrian or cycling facilities. School bus companies were consulted with throughout the design process and although no concerns with school bus routes have been identified to date within the GWP 3059-20-00 limits the consultation will continue into detail design.

4.8 Other Land Use Considerations

Other land uses that were considered and found to be absent throughout the Study Area by review of existing background information includes:

- recreational trails;
- heritage resources (as determined by the Cultural Heritage Assessment, AECOM 2021 available under separate cover); and
- community facilities (i.e., hospitals, community centres, schools etc.).

The background review also identified no Emergency Medical Services within the Study Area, however it did identify Puslinch Fire Station #30 along Wellington Road 34 less than 1 km from the eastern edge of the Study Area (7404 Wellington Road 34, Guelph). Due to the proximity of this Fire Station and due to ongoing consultation with Puslinch Township and area EMS stakeholders who travel through the Study Area impacts to EMS routes and response times are considered within this assessment.

5. Future/Planned Land Uses

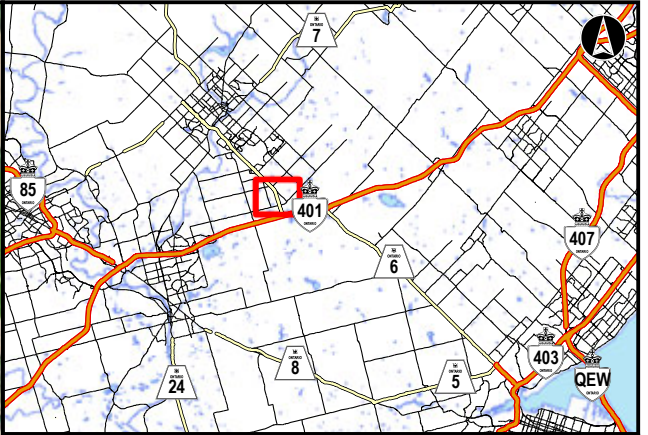
This chapter provides a summary of the future changes in land use within the Study Area that may interact with the Project. Considerable growth is anticipated within the municipalities in the Study Area. The Growth Plan 2019 provides a population projection of 203,000 people in the City of Guelph and 116,000 jobs in the year 2051. Wellington County will grow to a resident population of 160,000 and jobs will grow to 70,000 by 2051 (data specific to the Township of Puslinch were unavailable). There have been amendments in the municipalities' Official Plans in order to implement the recommendations of the growth and population component of the Official Plans and to bring the Official Plans into conformity with the Growth Plan 2019. A summary of the significant municipal plans and Official Plan amendments within the Study Area are provided in the following sections.

5.1 Puslinch Local Policy Areas

Local policies and policy areas have been identified in Puslinch to direct or restrict development in some areas, where appropriate. The following policy areas are identified on the Study Area (see **Figure 5**):

5.1.1 Puslinch Economic Development Area - Puslinch Local Policy Area PA7-1 – Wellington County (Township of Puslinch)

PA7-1 is intended to provide locations for economic activity and employment. Areas of existing or future extractive uses that are within PA7-1 should be considered for industrial, commercial, institutional and/or recreational activities or natural areas as after-uses when the extractive or aggregate-related activities have either ceased or are incorporated into an after-use. The portion of PA7-1 that overlaps with the Study Area is currently used for aggregate extraction. When these aggregate extraction operations conclude in the future, development of uses in line with the PA7-1 policies (i.e., industrial, commercial, institutional and/or recreational activities or natural areas) can be anticipated on those lands. See **Figure 5** for the location of PA7-1 Policy Area.



- Legend**
- Watercourse
 - Municipal Boundary
 - Socio-Economic and Land Use Factors 500m Area of Investigation (Study Area)
 - Special Policy
 - Site Specific Zoning By-law Exemption
 - Wooded

0 0.475 0.95
Kilometers

Hanlon Expressway / Wellington Road 34
Midblock Interchange

Special Policy Areas

Apr, 2021

1:13,000

Datum: NAD 1983 UTM Zone 17N
Source: MNR, MMAH, AECOM, MTO

P#: 60541071

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AECOM

Figure 5

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5.1.2 Heritage Lake Retirement Community - Puslinch Local Policy Area PA7-3 – Wellington County (Township of Puslinch)

PA7-3 has been identified as the proposed Heritage Lake Retirement Community. Residential units created under this section contribute to and are anticipated by the rural portion of the local municipality growth strategy. After the extraction of aggregate material and rehabilitation of the subject and adjacent lands, the permitted uses for this area may include:

- country residential uses developed as a condominium;
- open space and recreational facilities; and
- other accessory uses devoted exclusively to this residential development.

As noted in **Section 4.4**, 20-30 such country residential dwellings have been developed within the portion of PA7-3 which falls within the Study Area. Approximately 10 more lots appear to be available for building within the Study Area. See **Figure 5** for the location of Policy Area PA7-3.

5.2 Hanlon Expressway Industrial Lands – City of Guelph

A central concept of the Hanlon Expressway Industrial Lands is to create a strategic industrial employment area to accommodate permitted employment uses that require large contiguous blocks of land and that depend upon efficient goods movement and access provided by the Hanlon Expressway to Highway 401. A section of the Study Area north of Maltby Road encompasses the southernmost extent of the Hanlon Expressway future Industrial Lands which are as of yet undeveloped (see **Figure 2**).

5.3 Extension of Southgate Drive

Southgate Drive is a road running parallel to the Hanlon Expressway and servicing much of the industrial developments in the Hanlon Expressway Industrial Lands area. Currently the road terminates just north of the Study Area. However, City of Guelph Official Plan Schedule 2 shows that the road is planned continue southward through the Study Area and intersect with Maltby Road. Guelph Official Plan (s. 5.13) identifies intersection improvements at Maltby Road and Southgate Drive within the Study Area (see **Appendix C**). The road is likely to be implemented as the planned industrial development continues southward toward Maltby Road.

5.4 Rural Employment Area – Wellington County (Township of Puslinch)

The lands designated as Rural Employment Area in the Wellington Official Plan are partially zoned FD3 “Future Development” in the Township of Puslinch Zoning By-law (2018). The following developments could be anticipated in these lands as per Wellington County’s Rural Employment Area Policies: manufacturing, processing, fabrication and assembly of raw materials or repair, servicing, distribution and storage of materials.

The Township of Puslinch Local Policy (Policy 9.8.3- Puslinch Industrial Policy) outlines how detailed planning will take place in co-ordination with the City of Guelph to ensure that a comprehensive concept plan is in place that “provides an appropriate connection between the City’s industrial lands to the north and the proposed interchange on the Hanlon Expressway”. The policy further describes that the lands to the east of the Hanlon Expressway will be developed first and directs that lands adjacent to the Hanlon Expressway will be restricted in terms of open storage of goods.

5.5 Zoning By-law IND(sp53) – Township of Puslinch

A portion of the lands described above as Rural Employment Lands in the Wellington Official Plan are zoned as IND(sp53) according to the Township of Puslinch Comprehensive Zoning By-law (2018). See **Figure 5** for the location of INDsp53 within the Study Area. This site-specific exemption outlines a variety of permitted uses on the land, as follows:

- Building contractor’s establishment
- Business office or professional office
- Dry industrial uses
- Medical office
- Research establishment/laboratory
- Self-storage facility
- Service trades
- Tree nursery/garden centre
- Veterinarian’s clinic (no keeping of animals outdoors)
- Administration office
- Showroom
- Wholesale outlet

6. Impact Assessment

A high-level overview of the Study Area within a Socio-economic, Designated Areas and Land Use Factors context was completed in order to identify the current socio-economic and land use conditions within the Study Area, and the potential impacts of the Project on the existing and planned/future land uses, and the local communities within the Study Area.

The Study Area mostly falls within Wellington County (Township of Puslinch) where there are a mix of land uses, including agriculture, natural areas and open spaces, resource extraction, commercial/industrial, and residential.

A portion of the Study Area falls within the City of Guelph in an area primarily designated for industrial uses, with two small portions identified as natural areas. These lands are currently used as agricultural lands or covered with natural wooded areas.

A large portion of the Study Area includes significant natural features including Mill Creek Puslinch PSW, and significant wildlife habitats including habitat of some Species at Risk, and deer wintering area.

The potential effects of the Project on the land use features, along with proposed mitigation measures to avoid/reduce effects are summarized in the following sections:

6.1 Agricultural & Resource Uses

6.1.1 Potential Impacts

The Project will result in the loss of some lands currently used for agriculture. There is a potential that the agricultural viability of the remaining farmlands will be limited due to land severances and consequent reduction in parcel size, potential irregular parcel shapes and access issues. However, the bulk of agricultural impacts will be on lands that are designated for Rural Employment Areas in the Wellington Official Plan. As a result of the project, approximately 14.8 ha of lands designated Secondary Agricultural and approximately 20 ha of additional lands which appear to be used for Agricultural purposes but are designated Rural Employment Areas will be used for project components including the Mid-Block Interchange ramps, the future Midblock Connection Road and the realignment of Concession Road 7.

The future Midblock Connection Road bisects the agricultural fields west of Hanlon Expressway. In order to ensure continued access between the fields, a field entrance will be provided on Midblock Connection Road. Soil disturbance associated with construction activities may result in erosion and the transport of sediments from the work area to surrounding receiving systems including farmlands.

A Contamination Overview Study Report prepared for this Project (AECOM, 2021b) available under a separate cover, identifies the area with low to medium and high potential for contamination associated with agricultural lands within the Study Area.

6.1.2 Mitigation Measures

- During detailed design, the alignment design shall balance the property requirement and severance effects on agricultural lands to the greatest possible extent.
- The access to the viable severances shall be maintained.
- A landscape plan will be completed and will include vegetative barriers made of native species that will protect the exposed edge vegetation from impacts due to exposures to salt spray.
- During construction, measures will be taken to avoid disruptions to agricultural infrastructure such as field tiles, drainage ditches, culverts, and field entrances. Where such disruptions are unavoidable, the disruptions will be restored to the pre-disturbance condition or better, where feasible.
- The Design Builder shall adhere to the requirements provided in Contract Document for preparation of an Erosion Sediment Overview Risk Assessment (ESORA) and a two-part Main and Supplemental Erosion Sediment Control Plan (ESCP) during detailed design to address the ESC issues during construction and post construction as outlined in Drainage and Hydrology Draft Report (AECOM, 2021c), provided under a separate cover.
- The identification of potential contaminated properties and ongoing adherence to Ontario Regulations will need to be adhered to regarding the proper excavation, transport, and storage of excess soils throughout construction.

6.2 Natural Area and Open Spaces

6.2.1 Potential Impacts

There is a potential for some loss of, or direct impact to lands designated as Greenlands and Core Greenlands in the Wellington County Official Plan as 2.7 ha of Greenlands

and 14.5 ha of Core Greenlands lie within the Limits of Work. As well, indirect impacts to significant natural areas including Mill Creek Puslinch PSW and significant wildlife habitats are anticipated to occur due to the Project. The potential impacts on natural features and significant areas have been reviewed in detail in Terrestrial Ecosystems Existing Conditions and Impact Assessment Report (AECOM, 2021a) and Fish and Fish Habitat Existing Conditions and Impact Assessment Report (AECOM 2021d), available under two separate covers.

A summary of anticipated impacts to Natural Areas and Open Spaces include:

- Loss or damage to vegetation communities and plants;
- Dust, fill and sediment deposition within vegetation communities and plants including significant natural features;
- Potential impacts due to erosion and sedimentation on significant natural features and watercourses;
- Introduction or spread of invasive species.

6.2.2 Mitigation Measures

- Mitigation measures for significant natural features such as Mill Creek Puslinch PSW and the significant wildlife habitats within the Study Area have been identified within the Terrestrial Ecosystems Existing Conditions and Impact Assessment Report (AECOM, 2021a), and Fish and Fish Habitat Existing Conditions and Impact Assessment Report (AECOM 2021d), available under two separate covers.

6.3 Industrial & Commercial Use

6.3.1 Potential Impacts

Currently, there are few industrial and commercial uses within the Study Area and the anticipated impact of the Project is expected to be limited. Some businesses such as the Club 6 driving range may experience temporary changes in access during construction; however, the changes will be temporary, and access will be maintained throughout construction and reinstated at project completion.

The resource extraction operations within the Study Area and beyond to the southeast in Puslinch Local Policy Area PA7-1 may experience temporary detours during construction as well as changes to truck routing during and after construction.

Loss of 35.8 ha of lands designated as Rural Employment Area in the Wellington County Official Plan will occur to accommodate the new interchange (includes the 20 ha discussed above which appear to be used for agricultural purposes). These lands are currently undeveloped and in use as agriculture lands, or woodlots.

In general, the overall impact to businesses is expected to be positive as traffic flow will be improved and congestion reduced. This interchange is an important part of the plans that both the City of Guelph and Wellington County have for the currently undeveloped industrial and employment lands in the Study Area. The increased traffic flow and ease of access to the Hanlon and 401 Highway will be important features of these industrial areas.

The Wellington County and Township of Puslinch have raised concerns over the limitations associated with access from the Rural Employment Area lands located to the west of the Hanlon Expressway. The existing infrastructure would have likely had future development of these lands access the Hanon Expressway and the City of Guelph from the existing Maltby Road and Hanlon Expressway Intersection. Construction of the new Midblock interchange does not preclude access from the designated Industrial/Employment lands; however, any future development to the west of the Hanlon Expressway within the Rural Employment Area will be considered by MTO based on traffic generation and access road design criteria. This information would be completed by a developer at time of development and reviewed by MTO under the development application guidelines prior to instating access to the Midblock Connection Road.

6.3.2 Mitigation Measures

- Should heavy trucks need to be detoured during construction the detour routes will be kept to roads classified for heavy truck traffic.
- Access to private entrances shall be maintained at all times unless prior arrangements have been made with the property owner.
- Ongoing consultation with businesses within the Study Area throughout detail design and construction stages shall be undertaken to ensure they are informed of the project plans, construction staging including detour routes and access restrictions, per commitments provided in Contract Document for continuous consultation with the industrial and commercial stakeholders affected by the project components.
- Ongoing consultation with Puslinch Township and Willington County shall be undertaken throughout detail design and construction, regarding the access of the Rural Employment Area lands and future access to the Midblock Connection Road.

6.4 Residential Uses

6.4.1 Potential Impacts

Potential impacts to local residents and residential properties include impacts to driveways/property access, interference with safe flow of traffic and impacts on travel time during construction; however, these effects are all temporary in nature (see below for mitigation measures).

There is also a potential to impact the residential water wells within the Study Area. A water well survey will be undertaken to assess pre-construction conditions of wells within 300 m of the Project Limits of work to meet requirements under the Conditions of Approval set by the Ministry of Environment, Conservation and Parks. Water wells within 300 m of the Limits of Work will continue to be monitored throughout and after construction to identify and rectify any impacts as a result of construction. The ongoing Groundwater Assessment will further identify potential impacts and mitigation to groundwater within the project area (AECOM, 2021e) available under a separate cover.

Given that the existing Official Plan policies of City of Guelph and Wellington County do not include residential areas within the Study Area the residential land use pattern is unlikely to intensify substantially.

Emergency response time within the Study Area is expected to be impacted by construction staging, and as a result of the new road configuration. Consultation with Township of Puslinch and local emergency service providers (MTO, April 2021) identified that closing access to the Hanlon Expressway directly from Wellington Road 34 may add up to approximately 2.5 km to travel north on Concession Road 7 and then southbound on the Hanlon Expressway to reach Wellington Road 34 and AECOM traffic modelling confirmed that this would result in a potential 1.8 to 2.4 minutes additional minutes for emergency vehicles travelling this route depending on the level of congestion and obstructions along the route at the time of the emergency. Emergency access gates from Wellington Road 34 to the southbound Hanlon have been considered to mitigate this concern but the addition of gated access does not address the concern of response time given the time it would take to open and close these access gates in an emergency scenario and the construction of these access roads would also have considerable environmental impacts to sensitive areas. The Design Builder will continue consultation with the Emergency services throughout detail design and construction to communicate impacts to response times and routes and address these concerns, where possible, in detail design. Should the change in response time be considered unreasonable to the local EMS teams, a possible solution could be to transfer the impacted areas (areas that will be impacted by increased response times) to an adjacent municipality or another station with lower response times.

6.4.2 Mitigation Measures

- The Design Builder shall adhere to the requirements provided in the Contract Document for public traffic protection; per SP 100F08M 'Protection of Public Traffic'.
- The Design Builder shall notify the emergency service providers prior to construction and in advance of lane closures and re-opening; per NSSP: Operational Constraint-Emergency Service Notification.
- Access to private entrances shall be maintained at all times unless prior arrangements have been made with the property owner; per NSSP 'Private Entrances'.
- See Groundwater Assessment Report for proposed mitigation for potential impacts on residential water wells (AECOM, 2021e) available under a separate cover.
- The Design Builder shall adhere to the requirements provided in the Contract Document to avoid/minimize potential impacts on residential water wells within the Study Area.
- The Design Builder shall adhere to the requirements provided in the Contract Document for dust control so that it does not affect traffic, enter surface waters, or escape beyond the right-of-way to cause a nuisance to residents, business or utilities; per OPSS 100 'General Conditions of Contract' GC 7.07 specifics.
- The Design Builder shall adhere to the requirements provided in the Contract Document to control material, equipment and construction operations to avoid and minimize direct physical damage, sediment, noise, vibration, dust, chemical, and other emissions, and interference with local use, access and passage; per NSSP 'Operational Constraints (Environmental) - General Environmental Protection'.
- Continued consultation with emergency service providers shall be undertaken during detailed design and prior to construction regarding impacts to response times and services routes.

6.5 Institutional Uses

Only one institutional use was identified within the Study Area (Bastos Natural Family Centre). No impacts are anticipated to its institutional function. Access and detouring issues for local businesses related to construction are detailed above under 'Commercial and Industrial Uses'.

6.6 Utilities

6.6.1 Potential Impacts

Construction of the Project will impact various utilities within the Study Area, as outlined in **Section 4**.

6.6.2 Mitigation Measures

- The Design Builder shall avoid/minimize potential disruption to local residents and businesses existing utilities

6.7 Transportation

6.7.1 Potential Impacts

Construction activities associated with Mid-Block Interchange may create temporary disruptions to roads within the Study Area and may temporarily disrupt traffic flow. Temporary negative effects may include lane reductions, rolling closures and/or off-peak closures. However, the impacts to transportation during construction will be temporary.

The overall impact on transportation is expected to be positive. The planned transportation improvements will provide a better connection between the Highways 6 and 401 corridors which will reduce road congestion, collision potential and associated costs and encourage the utilization of Hanlon Expressway (Highway 6 north of Highway 401) which will support municipal planning initiatives.

6.7.2 Mitigation Measures

- The Design Builder shall adhere to traffic control requirements provided in Contract Document to minimize effects to road users.
- The Design Builder will continue ongoing consultation with EMS, local residents and businesses, school bus companies and the municipal stakeholders regarding traffic staging, detours and other temporary impacts to traffic throughout construction.

7. Conclusion

The broader municipalities that the Study Area falls within (the City of Guelph and Wellington County) are expected to grow in residents and jobs over the coming decades according to the Growth Plan for the Greater Golden Horseshoe (2019). Development is to be expected within the Study Area as several areas are currently underdeveloped (i.e., planning permissions exist for an intensity of use greater than their current use).

MTO has initiated this project and the accompanying Class EA Study to address the increasing demand and capacity issues on the existing road system within the Study Area. The interchange serves the significant growth and economic development in the region by providing the appropriate infrastructure connection among settlement areas and improving the movement of goods, while providing a safer commute over a shorter period of time. The project is a key step for both the City of Guelph and Wellington County in implementing the visions laid out in their planning documents within the Study Area. Improved safety and flow of traffic through the area will be important to enable the planned industrial and employment development in a way that does not exacerbate existing traffic issues.

8. References

AECOM, 2021a:

Terrestrial Ecosystem Existing Conditions and Impact Assessment Report, Hanlon Expressway/ Wellington Road 34 Mid-Block Interchange (G.W.P. 3059-20-00).

AECOM, 2021b:

Contamination Overview Study, Hanlon Expressway/ Wellington Road 34 Mid-Block Interchange (G.W.P. 3059-20-00).

AECOM, 2021c:

Drainage and Hydrology Draft Report, Highway 6/Hanlon Expressway Mid-Block Interchange (G.W.P. 3059-20-00).

AECOM, 2021d:

Fish and Fish Habitat Existing Conditions and Impact Assessment Report, Highway 6/Hanlon Expressway Mid-Block Interchange (G.W.P. 3059-20-00).

AECOM, 2021e:

Groundwater Assessment Report, Highway 6/Hanlon Expressway Mid-Block Interchange (G.W.P. 3059-20-00).

City of Guelph, 2018:

City of Guelph Official Plan, Office Consolidation 2018.

City of Guelph, 2019:

City of Guelph Zoning By-law.

Ministry of Agriculture, Food and Rural Affairs, 2020:

Classifying Prime and Marginal Agricultural Soils and Landscapes: Guidelines for Application of the Canada Land Inventory in Ontario, Last Modified January 2020.

Ministry of Economic Development, 2019:

Employment and Infrastructure, A Place to Grow, Growth Plan for Greater Golden Horseshoe.

Ministry of Municipal Affairs and Housing, 2017:

Greenbelt Plan.

Ministry of Municipal Affairs and Housing, 2020:
Provincial Policy Statement.

Ministry of Transportation, 2013:
Environmental Reference for Highway Design.

Statistics Canada, 2016:
Census Profile, 2016 Labour Census. Available online at:
<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=3523008&Geo2=CD&Code2=3523&SearchText=Guelph&SearchType=Begin&SearchPR=01&B1=All&TABID=1&type=0>. Accessed March 2021.

Township of Puslinch, 2018:
Comprehensive Zoning By-law.

Wellington County, 2021:
Wellington County Official Plan, Office Consolidation 2021.

Appendix A

**Study Area in the Context of Wellington
County Official Plan Schedule B7 Puslinch**

Where Significant Drinking Water
Threat Policies Apply

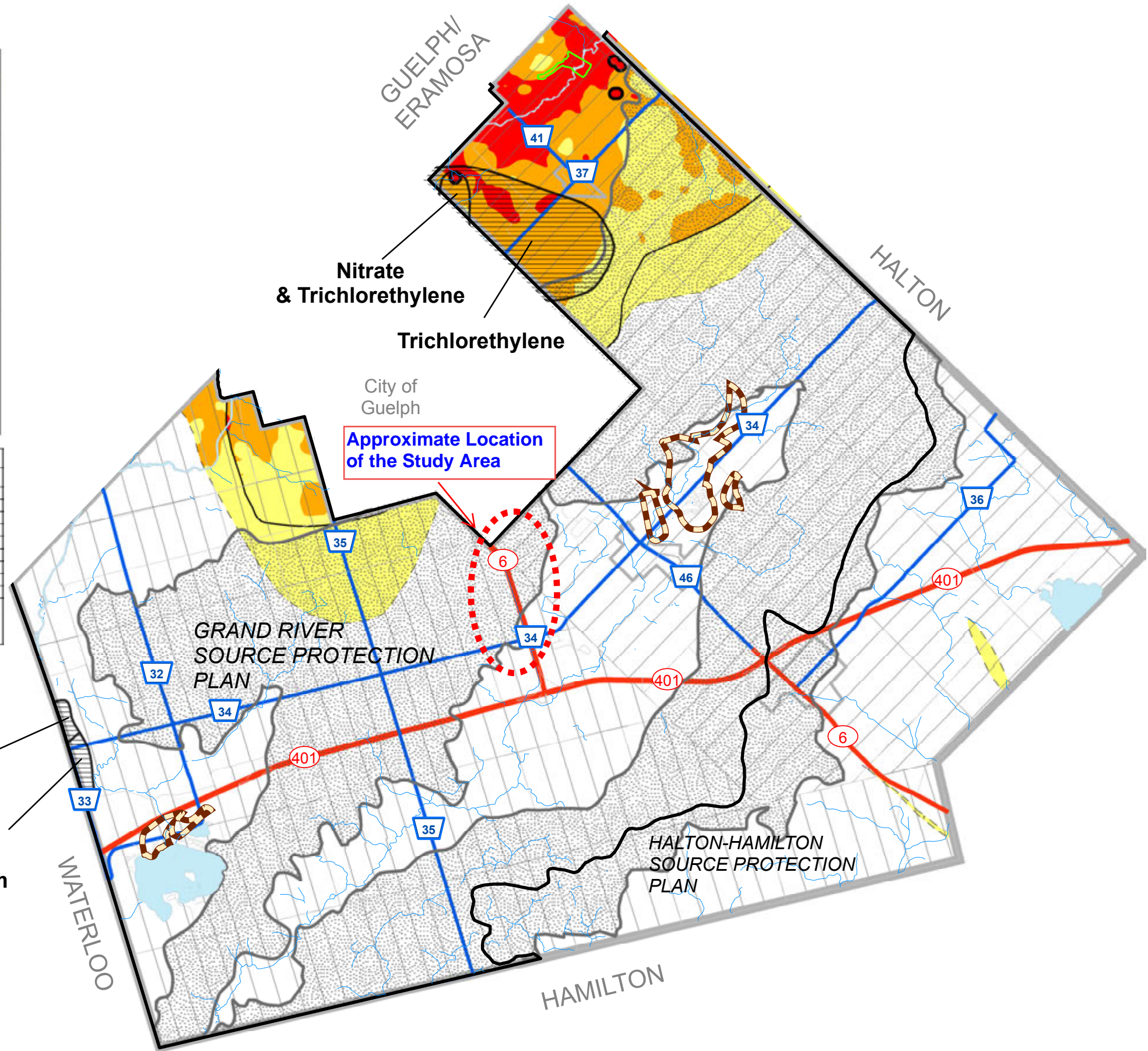
Significant Drinking Water Threat Policy Categories	Vulnerability Scores on Map		
	10	8	2,4,6
1. Waste Disposal			
2. Sewage Systems			
3, 4. Agricultural Source Material			
6, 7. Non-Agricultural Source Material*			
8, 9. Commercial Fertilizer*			
10, 11. Pesticide			
12, 13. Road Salt*			
14. Storage of Snow			
15. Fuel			
16. DNAPLs			
17. Organic Solvents			
18. Aircraft De-icing			
21. Livestock Area			
Local Oil Pipelines			
Threat			

Note: This table provides a summary of the activities listed in the Clean Water Act (2006) that apply as Prescribed Drinking Water Threats (PDWT). For details refer to the text of the Source Protection Plan and the Ministry of the Environment Drinking Water Threats Tables.

*Application of Commercial Fertilizer, Non-Agricultural Source Material, and Road Salt may not be a significant drinking water threat in some areas due to the % managed land, livestock density, and/or % impervious surface calculations for these areas. See the text of the Source Protection Plans for further details.

Significant Drinking Water Threat Policy Categories	Identified Issue			
	Chloride	Nitrate	Sodium	TCE
1. Waste Disposal		✓		✓
2. Sewage Systems	✓	✓	✓	✓
3, 4. Agricultural Source Material		✓		
6, 7. Non-Agricultural Source Material		✓		
8, 9. Commercial Fertilizer		✓		
12, 13. Road Salt	✓		✓	
14. Storage of Snow	✓	✓	✓	
16. DNAPLs				✓
21. Livestock Area		✓		

Note: This table provides a summary of the activities listed in the Clean Water Act (2006) that apply as Prescribed Drinking Water Threats (PDWT) in the Issues Contributing Area(s) shown on this map. For details refer to the text of the Source Protection Plan and the Ministry of the Environment Drinking Water Threats Tables.



Schedule B7
Puslinch
Township



Legend

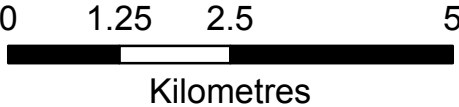
- Source Protection Plan Boundary
- Paris Galt Moraine Policy Area
- Wellhead Protection Area
 - A
 - B
 - C

Vulnerability Score

- 10
- 8
- 2,4,6

- Issues Contributing Area
- Paris Galt Moraine Policy Area
- Intake Protection Zone
- Private Communal System Policy Area

NOTE: These areas can be viewed in greater detail at:
<http://www.wellington.ca/en/discover/maps.asp>
Click on the "Sourcewater Protection" button.



Printed: May 12, 2016.

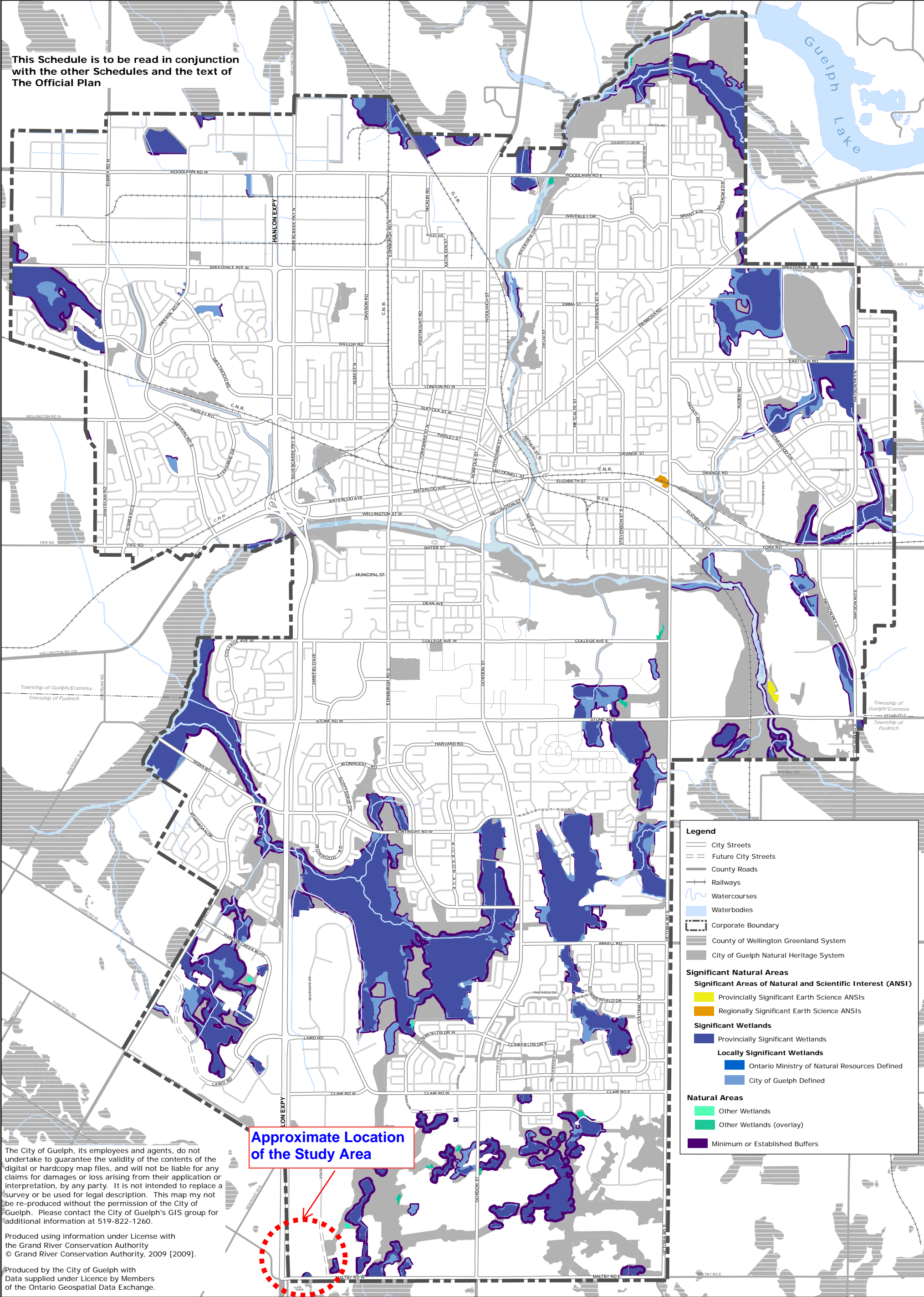
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Sources:
County of Wellington, 2016.
Ministry of Natural Resources, 2016.

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Appendix B

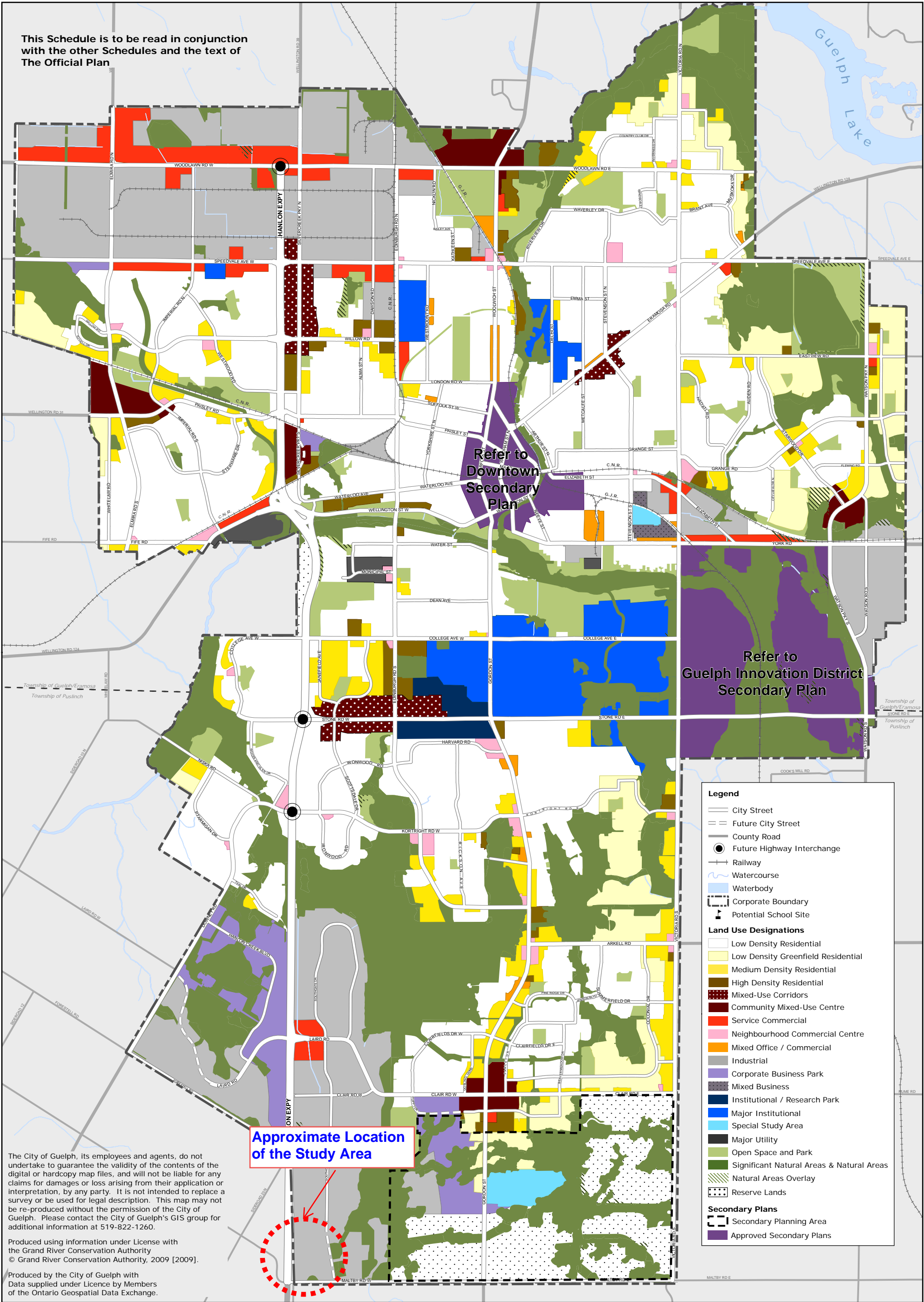
**Study Area in the Context of City of Guelph
Official Plan Schedule 4A Natural Heritage
System ANSIs and Wetlands**



Appendix C

**Study Area in the Context of City of Guelph
Official Plan Schedule 2 Land Use Plan**

This Schedule is to be read in conjunction with the other Schedules and the text of The Official Plan



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1 0.5 0 1 KM

Projection: UTM 17N NAD83
Produced by the City of Guelph
Planning Services
March 2018 Consolidation

CITY OF GUELPH OFFICIAL PLAN

SCHEDULE 2: LAND USE PLAN

