

Regional Official Plan



Office Consolidation - October, 2024



OFFICE CONSOLIDATION
REGIONAL OFFICIAL PLAN
October 31, 2024

This is an Office Consolidation of the Regional Municipality of Waterloo Official Plan (Regional Official Plan). Regional Council originally adopted the Plan on June 16, 2009. It came into effect on June 18, 2015, following an order by the Ontario Municipal Board (now the Ontario Land Tribunal (Case No. PL110080).

1. Regional Official Plan Amendments

Since coming into effect in June 2015, the Regional Official Plan has been amended seven times, as follows:

- **Amendment No. 1 (Approved June 6, 2021)** - Rationalization of the Boundaries of the Countryside Line and the Baden and New Hamburg Township Urban Areas, Township of Wilmot.
- **Amendment No. 2 (Approved in part by the Ontario Land Tribunal on June 9, 2021, and March 3, 2022. Balance of appeal withdrawn on July 5, 2023)** - Identification of Urban Designated Greenfield Areas in the City of Cambridge and the Township of Woolwich.
- **Amendment No. 3 (Approved June 24, 2020)** - Rationalization of the Boundaries of the Countryside Line and the Wellesley Township Urban Area, Township of Wellesley.
- **Amendment No. 4 (Approved June 24, 2020)** - Rationalization of the Boundaries of the Countryside Line, Breslau Urban Area Boundary, and the Elmira and St. Jacobs Township Urban Areas, Township of Woolwich.
- **Amendment No. 5 (Approved June 30, 2021)** - Housekeeping and Update.
- **Amendment No. 6 (Approved April 11, 2023)** - An amendment to establish the planning framework for accommodating Waterloo Region's forecasted population and employment growth to 2051, in conformity with the Provincial Growth Plan for the Greater Golden Horseshoe, 2019.
- **Amendment No. 7 (Approved October 25, 2023)** – Site-Specific Amendment to Permit Alternative Individual Wastewater Treatment System at 63 Benjamin Street, New Dundee, Township of Wilmot.

This consolidated copy of the Regional Official Plan includes all the amendments up to October 31, 2024. It is provided for convenience only and is unofficial. In the case of a discrepancy between this copy of the Plan and any of the original approval documents, the original approval documents prevail. For legal purposes, please contact the Regional Clerks' office to access the official records.

Inoperative Policy Sections

When Regional Council originally adopted this Plan in June of 2009, it established a new policy mandating that any future expansions of the Urban Area or the Township Urban Areas, must occur within the Plan's designated Countryside Line. This policy was reaffirmed in 2022 following a review of the Plan to guide long-term growth in the region.

However, the Provincial government's enactment of Bill 162 (Get It Done Act, 2024) on May 16, 2024, retroactively modified Amendment No. 6 to expand the boundaries of the Urban Area and the Township Urban Areas in all the area municipalities, except the City of Waterloo, beyond what Regional Council had adopted. In some area municipalities, these expanded boundaries now align with the Countryside Line.

This Provincial modification effectively renders specific policies in this Plan, including Table 1 (Regional Population and Employment Forecasts) in Chapter 2, inoperative. The Region will address these policies during the next five-year review of this Plan. For reference, the affected sections are highlighted and labelled "inoperative" in this consolidated document. The affected sections include:

- **Portions of Section 1.6.4, except for Wilmot and Wellesley**
- **Table 1: Regional Population and Employment Forecasts**
- **Policy 2.C.1.1, except for Wilmot and Wellesley**
- **Policy 2.C.1.2, except for Wilmot and Wellesley**
- **Policy 2.C.1.3, except for Wilmot and Wellesley**
- **Policy 2.C.3.1**
- **Policy 2.C.3.3**
- **Policy 2.C.3.4**
- **Policy 2.E.2.1, except for Wilmot and Wellesley**
- **Policy 2.E.2.2, except for Wilmot and Wellesley**
- **Policy 2.E.2.3, except for Wilmot and Wellesley**
- **Policy 2.E.2.4**
- **Policy 6.C.10, except for Wilmot and Wellesley**

2. Resolution of Southwest Kitchener Policy Area

The establishment of the Countryside Line and Protected Countryside boundaries through Amendment No. 6 has addressed the planning issues previously identified within the Southwest Kitchener Policy Area. These issues were outlined in Chapters 2, 6, 7, and 8, and depicted on Maps 4, 6g, 7, and 7a.

While Amendment No. 6 and the Province's decision directly addressed Chapters 1, 2, and parts of Chapter 3, the redundant policies for the Southwest Kitchener Policy Area in Chapters 6, 7, and 8 could not be removed through this office consolidation. These outdated policies will be removed through a future housekeeping amendment.

Outstanding Appeals

Portions of this Regional Official Plan are currently under appeal with the Ontario Land Tribunal. These sections, marked as “deferred” within this consolidated document, are listed below.

- **Deferral No. 1:** The first two paragraphs of the lead-in text to Chapter 8 (Source Water Protection).
- **Deferral No. 2:** Policy 8.A.12 only insofar as it relates to the words “mineral aggregate operations” in subsection 8.A.12 (a).
- **Deferral No. 3:** Policy 8.A.14 only insofar as it relates to the words “mineral aggregate operations” in subsection 8.A.14 (a).
- **Deferral No. 4:** Policy 8.A.16 only insofar as it relates to the words “mineral aggregate operations” in subsection 8.A.16 (a).
- **Deferral No. 5:** The fourth and fifth paragraphs of the lead-in text to Chapter 9 (Mineral Aggregate Resources).
- **Deferral No. 6:** Policy 9.B.2 only insofar as it relates to the words “or to increase the depth of extraction”.
- **Deferral No. 7:** Policy 9.C.1 in its entirety.
- **Deferral No. 8:** Policy 9.C.2 in its entirety.
- **Deferral No. 9:** Policy 9.C.3 only insofar as it relates to the words “or increase the depth of extraction” in the lead-in to the policy.
- **Deferral No. 10:** Policy 9.C.9 in its entirety.

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Introduction

Territorial Acknowledgement

We acknowledge that Waterloo Region, including the three cities and four townships, is located on the traditional territory of the Haudenosaunee, Anishnaabe and Neutral People. We recognize the enduring presence of the Indigenous peoples with whom we share this land today, their achievements and their contributions to the community. We value their traditional knowledge about how to live sustainably on this land that we share and will borrow from future generations.

As a community, we are committed to engage in the continuous learning, building of relationships, and actions required to work towards reconciliation.

1.1 Waterloo Region – A Growing Regional Community

With a population of just over 600,000 people, Waterloo Region is currently the fourth largest urban area in Ontario and tenth largest in Canada. It is home to seven vibrant and thriving area municipalities - the Cities of Cambridge, Kitchener, and Waterloo and the Townships of North Dumfries, Wellesley, Wilmot, and Woolwich. These communities provide a unique blend of vibrant urban centres and historic towns and villages, which collectively make the region a great place to live, work and play.

Waterloo Region is also one of the fastest growing urban areas in the Province, projected to grow to 923,000 people by 2051. Internationally known for its leading-edge technology and advanced manufacturing industries and post-secondary educational institutions, Waterloo Region has earned its reputation as a forward-thinking centre of influence for commerce, culture, and innovation. It currently has one of the world's most dynamic tech sectors.

The region is home to two outstanding universities – the University of Waterloo and Wilfrid Laurier University – and a top-ranked college – Conestoga College. These world-class institutions, together with several other internationally renowned research centres, are key to the region's strong culture of knowledge, innovation and creativity.

Located in the heart of the Grand River watershed, Waterloo Region is centered along the Grand River and its major tributaries. The lands have been shaped over time by glaciers and other natural forces, leaving a landscape of forests, wetlands and grasslands. The region's biodiversity includes many significant habitats that support diverse vegetation and wildlife. These valuable natural areas have sustained Indigenous peoples for over 12,000 years, and continue to provide many essential ecosystem services, including water storage and filtration, cleaner air, and support pollinators, and carbon storage. They also support the region's resilience and our ability to adapt to climate change.

Waterloo Region contains some of Ontario's most important and productive farmland. This land sustains a diverse agricultural sector, which supports local food production and contributes to the strength of the regional economy. Protecting this farmland is essential for the long-term quality of life, economic vitality, and ecological integrity of the region.

Waterloo Region is also the largest community in Canada to rely primarily on local groundwater resources for its drinking water supply. Numerous municipal wells are located throughout the urban area where both local and regional recharge contribute to the sustainability of these groundwater resources. These resources are increasingly susceptible to changes in precipitation and extreme weather because of climate change, higher levels of impervious cover, and greater use of road salt and other de-icing agents in the winter. A clean and sustainable supply of water is essential to the existing and future health and prosperity of the region. This Plan provides for the long-term protection of the region's groundwater resources for future generations.

1.2 Regional Vision and Foundational Themes

Over the next 30 years, Waterloo Region will need to accommodate approximately 306,000 new residents and 168,000 new jobs. This Plan provides the framework for accommodating this growth in a manner that achieves the following vision adopted by Regional Council:

“Waterloo Region will be an inclusive, thriving, and sustainable region of connected urban and rural communities with global reach, fostering opportunities for current and future generations.”

This vision embraces the three foundational themes of social equity, a thriving community, and environmental sustainability as the cornerstones for the policies and future actions set out in this Plan. These three themes are fundamentally connected and must be achieved together. Seeing the connections between these three areas makes it possible to address problems in one area with holistic solutions that improve the other areas.

1.2.1 Building an Equitable Community

This Plan recognizes the inherent inequity and social injustice that many experience, and aims to improve and support the overall quality of life for all residents. Building an equitable community allows people of all ages, all abilities, and life experiences to thrive as full members of society, with a high quality of life and meaningful choices. An equitable community offers all residents access to high quality employment, goods, health care, education, recreation, mobility and other services to meet their needs. It also designs places where all residents, including children and youth, feel safe and have a sense of wellbeing and belonging. It also provides *infrastructure* and community services that significantly improve the wellbeing of, and minimize negative impacts on, marginalized groups.

The policies in this Plan strive to build communities where every person feels safe, valued, and cared for. The policies around planning processes seek to end systemic racism and facilitate equity and social justice by working towards reconciliation, anti-racism, anti-oppression, and systemic change through engagement with affected residents to create a better community for all.

A key aspect of creating a more equitable region involves planning to provide for a diverse range and mix of housing options, including *affordable* housing, to accommodate people at

all stages of life, and to accommodate the needs of all household sizes and incomes. In recent years, housing affordability has become a serious concern for more households across the region, particularly for those with low to moderate incomes. Some segments of the population, including seniors, Indigenous peoples, persons with disabilities, victims of domestic violence and new Canadians, face multiple challenges in finding and securing appropriate, affordable housing in our community.

This Plan seeks to increase housing choice through a broad set of policies that support the construction of a range and mix of housing, including *affordable* and *missing middle housing*. Taken together, these policies recognize that access to high quality, *affordable housing* is fundamental to improving social equity, and to the health and wellbeing of all residents. It also helps foster relationships and opportunities in communities, limits chronic stress, and allows families to support positive child development.

1.2.2 Building a Thriving Community

Building a thriving community means creating more compact, vibrant places where residents enjoy a high standard of living and an exceptional quality of life. It is a community where people want to live and are proud to call their home. It exhibits a unique sense of place and conserves its rich history and cultural heritage, while also embracing innovation, change and an increasingly diverse population. Residents have easy access to food, shelter, education, health care, and a variety of public parks and open spaces, and opportunities for recreation and entertainment. Buildings incorporate the highest urban design and green development standards that foster social connections, minimize energy use, and reduce greenhouse gas emissions.

Achieving a thriving community also means supporting and investing in Waterloo Region's three Urban Growth Centres, and the smaller Township Urban Growth Centres. Investing in these areas will help ensure their continued growth and revitalization as community focal points, and locations for public institutions, community services, and for the arts, music and other cultural activities. Whether urban or rural, thriving communities promote public health and individual well-being. They are supported by modern, well-maintained, sustainable, and resilient *infrastructure* that are adaptive to the *impacts of a changing climate*.

A foundation of a thriving community is a strong, diverse and competitive economic base. The policies in this Plan seek to strengthen the region's economy by supporting its traditional manufacturing and emerging knowledge-based sectors. They also ensure that the region maintains a suitable employment land base in strategic locations to enable local businesses to grow and flourish, and leverage partnerships to attract and retain talent.

Supporting a thriving community also requires a strong commitment to fiscal responsibility. The Region and its area municipalities can achieve significant cost savings by ensuring that existing *infrastructure* is optimized before new *infrastructure* is built, and by considering the full life cycle costs of any required new *infrastructure*. This principle is integrated into the policies of this Plan and applies to all forms of *infrastructure*.

1.2.3 Building a Sustainable Community

A sustainable region accommodates growth while sustaining a robust and diverse natural environment and protecting water resources, is resilient to the *impacts of a changing climate*, and meets its minimal energy needs without using fossil fuels. A sustainable region stewards the natural environment by maintaining, enhancing, and restoring biodiversity and local ecosystem health. It also has a strong culture of conservation to protect, enhance and wisely use the valuable natural resources for current and future generations.

Building a sustainable community also means protecting the region's productive farmland, which is a finite, non-renewable resource. As providers of fresh locally grown food, area farmers play an important role in the health and food security of the community. This Plan provides for the protection of the region's *prime agricultural areas*. Protecting these areas will support the long-term viability of the agricultural sector as the region grows.

A sustainable region also proactively builds resiliency by protecting people, wildlife, nature, and property from increases in heat, precipitation, and extreme weather that result from human-caused greenhouse gases in the atmosphere. A sustainable region is efficient and produces clean energy locally, and meets energy needs without using fossil fuels. It is a region comprised of *15-minute neighbourhoods* that are compact, vibrant, and where people can meet their daily needs within a 15-minute trip by *walking, cycling, and rolling*.

This Plan's vision for sustainability is also reflected through policies that aim to provide a full range of mobility options for people of all ages and abilities at all times of year, with a comprehensive network of safe, seamless *infrastructure* for active modes of transportation. A sustainable region has addressed its reliance on automobiles for local travel, and most trips are made by *walking, cycling, and rolling*. For trips that cannot be taken using low energy and active modes of transportation, zero-emission vehicles are used, supported by convenient charging and refuelling infrastructure.

1.3 Purpose of the Regional Official Plan

The Regional Official Plan sets out Waterloo Region's framework for growth and development to the year 2051. It seeks to implement Regional Council's long-term vision for an inclusive, thriving, and sustainable community. It contains the policies to help guide decision-making on the environment and climate action, land use planning, *infrastructure* investments, economic development, and many other important issues. Under the Provincial Planning Act, all future *infrastructure* and land use planning decisions made by the Region and its seven area municipalities must conform to the policies in this Plan.

This Plan will help prepare Waterloo Region for the challenges and opportunities that the future will bring. It provides clear direction for how and where the community will grow and change, while protecting its valuable assets for future generations – the Grand River and its major tributaries, the critical groundwater sources, diverse natural areas, productive agricultural lands, and unique *cultural heritage resources*. This approach to growth supports sustainability and a culture of conservation, and ensures Waterloo Region grows in a way that supports economic prosperity, protects the environment, and helps maintain a

high quality of life for everyone.

The policies in this Plan recognize that land use planning in Waterloo Region is a shared responsibility between the Region and its area municipalities. Citizens are best served by effective partnerships and collaboration between the Region and its seven area municipalities. Through the policies of this Plan, the Region will collaborate with the area municipalities to coordinate the more detailed planning through implementation of area municipal official plans.

The Plan has been prepared pursuant to the Planning Act and other relevant provincial legislation.

1.4 Approach to Preparing the Plan

1.4.1 Building on Past Successes

In 2003, Regional Council adopted a Regional Growth Management Strategy (RGMS) to manage the significant population and employment growth pressures facing the region two decades ago. Built on a vision for a sustainable and liveable regional community, the RGMS advanced a more balanced approach to growth management that fundamentally changed the way planning would occur within the region. Two of the most innovative policy directions from the RGMS that have been successfully implemented include the establishment of the Countryside Line, and the construction of the Stage 1 ION light rail transit system, which was launched in June 2019.

The policies in this Plan seek to build on these and other past successes, to further enhance the planning framework for where and how the region will grow to 2051.

1.4.2 Supporting Indigenous Relationships and Reconciliation

Since the adoption of the 2015 Regional Official Plan, the Region has made a commitment to reconciliation with Indigenous peoples. The Region acknowledges that First Nations, Métis and Inuit have Aboriginal and treaty rights under Section 35 of the Constitution Act, 1982. Indigenous peoples have a unique relationship with the land and its resources and traditional knowledge. This historical relationship helps inform the planning decisions being made today.

The Region recognizes its responsibility to consult and engage with First Nations, Métis and Inuit on planning matters that may affect their rights and interests, and the unique role that Indigenous peoples have had and will continue to have in the growth and development of this region.

Looking ahead, the Region will continue to work to build constructive and cooperative relationships, share knowledge and build understanding, and seeks ways to work together in coordinated or in parallel ways.

1.4.3 Realizing Transformational Climate Action

Climate change is a global problem with local causes and local solutions. Since the adoption of the 2015 Regional Official Plan, the Region has committed to transformational climate action through several key decisions, specifically:

- Setting a long-term community greenhouse gas reduction target of 80 percent by the year 2050;
- Declaring a climate emergency;
- Collaboratively creating and endorsing the TransformWR community climate action strategy, through the ClimateActionWR collaboration between the Region, the area municipalities, and local community organizations; and
- Creating the Climate Change Policy Direction Paper as part of the Regional Official Plan Review, to outline the land use planning changes needed to change how we move, how we live and work, and how we build.

The 2051 planning horizon of this Plan covers the three most critical decades of Waterloo Region's energy transition, during which it will implement the TransformWR strategy to transition the community off fossil fuels. This will occur by transforming our community to use less energy and use clean energy, while building an equitable, prosperous, resilient low-carbon community.

This Plan recognizes that land use planning plays a key role in addressing climate change, and in achieving transformational change. Planning for long-term, sustainable growth and development is essential, since decisions about *infrastructure* and land uses directly affect our energy use that creates greenhouse gas emissions and our vulnerability to the *impacts of a changing climate* for centuries to come. As a result, this Plan represents a key document for laying the groundwork for local action on climate change.

1.4.4 Implementing Provincial Policy Directions

This Plan implements the policy directions set out in the Provincial Policy Statement (2020), and all relevant Provincial Plans including the Growth Plan for the Greater Golden Horseshoe Area (2019), and the Greenbelt Plan (2017). The key Provincial policy directions implemented in this Plan include:

- accommodating Waterloo Region's forecasted population and employment growth to the 2051 planning horizon;
- establishing a hierarchy of urban areas, and of supporting nodes and corridors within them, including Urban Growth Centres, Major Transit Station Areas, Regional Intensification Corridors, and other Local Centres and Intensification Corridors;
- integrating climate change considerations into planning and managing growth;
- setting a region-wide intensification target that requires a minimum of 61 percent of new residential development occur annually within the *delineated built-up area*;

- adopting an *intensification*-first approach to development and community-building;
- building *15-minute neighbourhoods* with convenient access to a broad mix of uses;
- prioritizing *walking, cycling, and rolling*, or taking transit over automobile trips;
- identifying and protecting *employment areas*;
- requiring a phased approach to accommodating growth in *designated greenfield areas*; and,
- protecting natural areas, including the Grand River and its tributaries.

This Plan includes a comprehensive set of policies in each Chapter that are consistent with the Provincial Policy Statement and conform to Provincial Plans.

1.5 Guiding Principles

The policies of this Plan regarding how land is developed, how *infrastructure* investments are made, and how resources are managed and protected are based on the following key principles:

- Support the achievement of *15-minute neighbourhoods* designed to support healthy and active living and meet people's needs for daily living throughout an entire lifetime;
- Consider the wellbeing and belonging of all residents, including children and youth, and work towards only making investments that benefit everyone;
- Prioritize *intensification* and higher densities in *strategic growth areas* to make efficient use of land and *infrastructure* and prioritize *walking, cycling, and rolling*, and taking transit over automobile trips;
- Provide flexibility to capitalize on new economic and employment opportunities as they emerge, while providing certainty for traditional industries, including resource-based sectors;
- Support a range and mix of housing options, including *additional residential units*, and *affordable* and *missing middle housing*, to serve all sizes, incomes, and ages of households in all residential areas;
- Improve the integration of land use planning with planning and investment in *infrastructure* and *public service facilities*, including integrated service delivery through community hubs, by all levels of government;
- Protect and enhance natural heritage areas, including the Grand River and its tributaries, hydrologic, drinking water and landform systems, features, and functions;
- Support and enhance the long-term viability and productivity of agriculture by protecting *prime agricultural areas* and the *agri-food network*;
- Conserve and promote *cultural heritage resources* to support the social, economic, and cultural well-being of all communities, including Indigenous peoples;
- Integrate climate change considerations into planning and managing growth such as

planning for more resilient communities and infrastructure – that are adaptive to the impacts of a changing climate – and moving towards environmentally sustainable communities by incorporating approaches to reduce greenhouse gas emissions.

1.6 Overview of Regional Planning Framework

The policies in this Plan establish a broad regional structure to provide the long-term framework for where and how the region will grow to 2051, and how to implement Regional Council's vision for an inclusive, thriving, and sustainable Waterloo Region. This regional structure (shown on Map 1) consists of four broad components, which are further detailed in the chapters of this Plan:

1.6.1 The Urban System

The Region's Urban System is composed of a hierarchy of urban areas, and of the *strategic growth areas* within and supporting these urban areas, planned to accommodate the majority of the Region's population and employment growth to 2051. This hierarchy is structured around four broad elements:

- Urban Areas;
- Urban Growth Centres;
- Regional Intensification Corridors; and,
- Township Urban Areas.

Each of these areas vary in size, diversity of uses, intensity of development, and their planned role in accommodating forecasted growth within each of the Region's seven area municipalities. Taken together, the Urban System outlined in this Plan provides the foundational framework to guide and prioritize the Region's infrastructure investments and planning policies to support its growth forecast to 2051 and beyond.

1.6.2 The Agricultural System

The Region's *Agricultural System* includes a group of two interconnected policy components: the agricultural land base, consisting of *prime agricultural areas* and *rural lands* that together create a continuous, productive land base for agriculture, and an *agri-food network* that includes *infrastructure*, services and assets important to the viability of Waterloo Region's agri-food sector. The *Agricultural System* is connected both functionally and economically to the broader agricultural land base and agri-food sector beyond the boundaries of the region. This Plan seeks to enhance the long-term viability of agriculture by maintaining the geographic continuity of the agricultural land base, and supporting the economic connections to the *agri-food network*.

The Region's *Agricultural System* is also supported by a series of smaller *rural settlement area* and Rural Employment Areas generally serviced by *partial services* or by *individual on-site sewage services* and *individual on-site water services*. These areas provide a variety of cultural and economic opportunities that serve the needs of rural residents and area businesses. Although these areas are not required to accommodate forecasted

growth, the policies of this Plan support the continued vitality and regeneration of these areas.

1.6.3 The Protected Countryside

The Protected Countryside identifies a continuous band of productive agricultural lands and valuable *environmentally sensitive landscapes* surrounding the north, west and south sides of the Urban Area designation. Lands within this area contain a large concentration of *prime agricultural areas* and *key natural heritage features*, such as *woodlands*, *wetlands*, streams and portions of the Grand River Valley that provide habitat for a range of plants and wildlife. These features and areas collectively provide essential ecosystem services that increase our resilience to climate change.

The Protected Countryside also contains several groundwater recharge areas including portions of the Waterloo and Paris-Galt Moraines, which sustain some of the richest sources of groundwater in the Grand River watershed and account for most of the region's water supply. The Protected Countryside policies aim to protect these valuable assets permanently from urban development, while providing for the continued use of the lands for agriculture, environmental and other appropriate rural uses.

1.6.4 The Countryside Line

As shown on Map 1, this Plan delineates a Countryside Line around portions of the Urban Area and Township Urban Areas across the area municipalities. The Countryside Line represents the long-term growth boundary between the existing Urban Area and Township Urban Area boundaries and the countryside. If required, any future expansions of the Urban Area and Township Urban Area boundaries must be within the Countryside Line. Where the Countryside Line coincides with the Protected Countryside, the Countryside Line will be considered a permanent boundary.

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1.7 Guide to Reading the Plan

This Plan consists of policies, schedules, definitions, and figures. It also includes non-policy contextual commentary at the start of each chapter and subsection to provide background and describe the purpose of the policies.

The Plan is to be read in its entirety and the relevant policies are to be applied to each situation. The language of each policy, including the implementation policies in Chapter 10, will assist decision-makers in understanding how the policies are to be interpreted and implemented. While some policies refer to other policies for ease of use, these cross references do not take away from the need to read the Plan as a whole. The order in which the policies appear is not intended to imply any policy priority.

Policies in this Plan that use the word “will” express a mandatory course of action. Where the words “encourage” or “may” are used in a policy, the Region requires consideration be given to the policy, but not necessarily compliance in all instances. Such policies provide direction and support for achieving the vision of an inclusive, thriving and sustainable

Waterloo Region. None of the policies are intended to formally commit Regional Council to provide funding for their implementation. Funding decisions will be made by Regional Council on a case-by-case basis.

Italicized terms in this Plan are defined in the Glossary. Defined terms are intended to capture both the singular and plural of forms of these terms. For non-italicized terms, the normal meaning of the word applies.

Where the term “Region” is used, it refers to the Corporation of the Regional Municipality of Waterloo. Where the term “region” is used, it refers to the geographic area comprising Waterloo Region.

The horizon for land use planning in this Plan is 2051. While certain policies have specific target dates, the goals and policies of this Plan are intended to be achieved within the horizon of this Plan. In applying the policies of this Plan, decision-makers should also recognize that the results of any given planning decision could often have a lasting effect on the region. As a result, decision-makers should consider the effect of their planning decisions in the context of a period well beyond 30 years.

2. Where and How to Grow

This Chapter establishes an urban system that provides the long-term framework for where and how the Region's cities and townships will accommodate new growth to 2051. This system is composed of a hierarchy of urban areas planned to accommodate various levels of *intensification* and densities of development. Within some *delineated built-up areas*, growth will be accommodated with more intense growth and development with a mix of medium and high density built forms. In the remaining areas, growth will be accommodated with *gentle density* and other context sensitive *intensification* in the form of infill and *additional residential units*. In *designated greenfield areas* and *employment areas*, new development will be planned to meet or exceed the minimum density targets outlined in this Chapter.

A key objective of this Chapter is to accommodate forecasted growth by building *15-minute neighbourhoods*. These are compact, well-connected places where people can meet their daily needs for goods, services, and employment within a 15-minute trip from home by *walking, cycling, and rolling*, and where other needs can be met by using direct, frequent, and convenient transit. For neighborhoods to function in this way, they need to be designed with a diverse mix of land uses and provide a full range of housing to accommodate a range of incomes and household sizes. They also require development densities with enough people living and working in the area to support a broad range of services.

Building *15-minute neighbourhoods* supports several important community-building objectives. They promote individual health and well-being by providing an opportunity for people to be physically active on a regular basis, throughout their day. They provide access to high quality public parks and urban greenlands, and opportunities for recreation. They also provide greater access to local, healthy and affordable food by providing good access to local grocery stores and community gardens.

From a climate change perspective, *15-minute neighbourhoods* provide an important foundation for achieving transformational climate action. More compact and well-connected urban areas reduce the energy our community needs for transportation and the greenhouse gas emissions associated with them, by minimizing the need for automobile travel, and allowing goods to be moved more efficiently. They also provide a better balance of jobs and housing in local communities across the region, helping to reduce the need for long distance commuting. Taken together, *15-minute neighbourhoods* reduce greenhouse gas emissions, decrease air pollution, and support the region's transition off fossil fuels.

Community-building must serve and benefit all residents of the region in ways that will build a just and equitable community. In an equitable community, every resident knows they belong and can thrive, grow and fully contribute. Such a community expands opportunities to those most in need of them, regardless of age, race, abilities, income, gender, religion, or sexual orientation. For example, building communities in a manner that prioritizes *walking, cycling, and rolling*, and taking transit provides high quality, affordable mobility for all persons. While this is important for everyone, it is especially important for those who do not have access to an automobile, who are too young or old to drive, who have disabilities that prevent them from driving, or who would otherwise have to choose between paying for

an automobile and meeting their basic needs. This approach promotes social equity because full participation in the community and access to employment, services, and recreation does not depend on owning or having access to a personal automobile, and the overall cost of living is reduced.

A fundamental principle of the Regional urban system policies is to better integrate land use and transportation planning decisions in the cities and townships. Communities that focus on moving people and goods primarily by trucks and automobiles generally create a dispersed, auto-oriented built form, while making them reliant on high-energy use and vulnerable to high costs and supply shocks. By contrast, communities that focus on growth and development around an efficient mobility network of sidewalks, cycling paths and transit routes use less energy for transportation and create a more *compact built form* and vibrant *public realm*. The policies in this Chapter seek to implement this important principle and promote the development of communities that are equitable, thriving and sustainable.

Objectives:

- Build vibrant *15-minute neighbourhoods* with a broad mix of land uses where people can meet their daily needs for goods, services, and employment within a 15-minute trip by *walking, cycling, and rolling*, and where other needs can be met by taking direct, frequent, and convenient transit;
- Promote an *intensification*-first approach to development and community-building that focuses on making better use of existing *infrastructure* and *public service facilities*, and on protecting the region's valuable water, agricultural and natural heritage systems;
- Advance transformational climate action by supporting a more energy-efficient, *compact built form* that will enable a modal shift to most trips being made by *walking, cycling, and rolling*;
- Mitigate and adapt to climate change, improve resilience and reduce greenhouse gas emissions, and contribute to environmental sustainability;
- Integrate and respect Indigenous values, history and cultures in planning for growth and change through respect, trust, and meaningful dialogue;
- Plan in a manner that improves social equity and overall quality of life, including human health, for people of all ages, abilities and incomes;
- Strive to prioritize the voices of children and youth when making decisions around regional investments and operations; and,

- Conserve and promote *cultural heritage resources* to support the social, economic, and cultural well-being of all communities, including First Nations, Métis, Inuit, and other local Indigenous peoples.

2.A Managing Population and Employment Growth

Waterloo Region is among the fastest growing communities in Canada. According to the growth forecasts in the Growth Plan for the Greater Golden Horseshoe, Waterloo Region is forecast to grow to 923,000 people and 470,000 jobs by 2051. This represents an increase of about 50 percent and 56 percent respectively between 2021 and 2051. This high growth rate is an indication of the region's strong economic outlook, excellent quality of life and exceptional academic ecosystem that includes world-renowned post-secondary institutions. It also reflects the region's close economic ties to the Greater Golden Horseshoe, which remains an economic powerhouse for Ontario and Canada.

With an aging population, most of the region's future population and employment growth will occur through net migration. Over the forecast period, net migration to the region may account for about 75 percent of total population growth. By 2051, a significant share of new residents to the region will have been born outside Canada, further enhancing the vibrancy and cultural diversity of the community.

The region is also home to many people who identify as Indigenous. These Indigenous peoples form an important part of the community's rich cultural tapestry and unique heritage. This Plan embraces the region's diversity as a source of strength and seeks to build communities in a way that fosters listening, communication and meaningful relationships with Indigenous people.

Over the next 30 years, the demographic composition of the region's households will continue to evolve and change, with an increasing trend toward smaller, more non-family households, especially those composed of the young and the elderly who are increasingly living alone, and a growing share of non-permanent residents. These demographic changes and associated shifting housing needs will require the construction of a diverse range and mix of housing to serve all sizes, incomes, and ages of households.

The policies in this Plan also ensure that the pace, scale and phasing of future development is aligned with the timing of infrastructure delivery in a fiscally sustainable manner, particularly as new greenfield communities are developed.

Objective:

- Manage future population and employment growth by integrating land use planning with planning and investment in *infrastructure* and *public service facilities*, including service delivery through community hubs.
- Integrate climate change considerations into planning and managing growth, including planning for more resilient communities and *infrastructure*, and environmentally

sustainable communities by advancing the community's energy transition off fossil fuels and reducing greenhouse gas emissions.

- 2.A.1 The Region and the area municipalities will use the population and employment forecasts in Table 1 as the basis for planning and managing growth to 2051, including determining future transportation requirements, calculating *municipal water and wastewater systems* servicing needs, and planning for the delivery of a wide variety of *public service facilities* and programs.

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**Table 1:
Regional Population and Employment Forecasts**

	Population		Employment	
	2021	2051	2021	2051
Cambridge	146,000	214,900	77,900	120,700
Kitchener	269,100	409,200	111,000	170,500
North Dumfries	11,300	19,600	7,000	12,200
Waterloo	127,300	185,000	74,800	114,900
Wellesley	11,900	13,600	5,500	6,600
Wilmot	22,700	29,500	8,600	12,200
Woolwich	28,700	51,200	17,300	33,000
Region	617,000	923,000	302,000	470,000

Notes

- Population figures in this table show census-based population plus four percent under coverage. As such, it does not include university and college students who temporarily reside in the Region (either in student residences or other accommodation) to study at post-secondary institutions.
- All population and employment in this table represent mid-year figures.

- 2.A.2 Notwithstanding Policy 2.A.1, the Region and the area municipalities may undertake integrated planning for *infrastructure* and *public service facilities* beyond the horizon of this Plan, provided that planning for *infrastructure* will not predetermine the form, pattern, or extent of an Urban Area or Township Urban Area boundary expansions.
- 2.A.3 The Region and the area municipalities will allocate the forecasted growth in Table 1 based on the following:
- the vast majority of growth will be directed to the key structural components of the Regional urban system described in Section 2.B;

- (b) growth will be limited in *rural settlement areas* in accordance with the policies of Chapter 6;
 - (c) development will be generally directed away from *hazardous lands* in accordance with the policies of Chapter 7; and
 - (d) the establishment of new *settlement areas* is prohibited.
- 2.A.4 The Region and the area municipalities will undertake integrated planning to phase and coordinate the forecasted growth in Table 1, which will:
- (a) implement the Regional urban system in accordance with the policies in Section 2.B;
 - (b) address climate change considerations, including planning for more environmentally sustainable, resilient communities and *infrastructure* by advancing the community's energy transition off fossil fuels and reducing greenhouse gas emissions;
 - (c) be supported by planning for *infrastructure* and *public service facilities* by considering the full life cycle costs of these assets and developing options to pay for these costs over the long-term in accordance with the policies in Chapter 5;
 - (d) provide direction for an urban form that will optimize *infrastructure*, particularly along the ION light rail transit and other transportation corridors, to support the achievement of *15-minute neighbourhoods* through a more *compact built form* in accordance with all the applicable policies of this Plan;
 - (e) achieve the environmental, agricultural, and source water protection and conservation objectives of this Plan in accordance with the policies in Chapters 6, 7, and 8; and
 - (f) be implemented through capital budgets, master plans, area municipal official plan policies and designations, secondary plans, and updated zoning by-laws, and other supporting documents.
- 2.A.5 Area municipalities will not restrict the amount or timing of development in an Urban Area or Township Urban Area on the basis that the growth forecasts in Table 1 could be exceeded, provided that integrated planning for *infrastructure* and *public service facilities* would ensure that any proposed developments would not exceed existing or planned capacity.
- 2.A.6 The Region, in collaboration with the area municipalities, will review the population and employment forecasts contained in Table 1 at least once every five years, or in conjunction with any reviews undertaken by the Province. If necessary, any

revisions to these forecasts, including area municipal allocations, will require an amendment to this Plan as part of a *municipal comprehensive review*.

2.B Urban System

The urban system provides the foundational framework for where and how the Region's cities and townships will accommodate their forecasted population and employment growth to 2051. This system consists of a hierarchy of urban areas, and of supporting nodes and corridors within them, linked together by an integrated, *multimodal* transportation system that prioritizes *walking, cycling, and rolling*, and taking transit over automobile trips. The urban system consists of seven key structural components: the Urban Area; Urban Growth Centres; Major Transit Station Areas; Regional Intensification Corridors; Local Centres and Intensification Corridors; Township Urban Areas, and Township Urban Growth Centres.

This section establishes the policies for directing growth and development within the key structural components of the Region's urban system. It also sets out the role of each element in accommodating forecasted growth, and provides direction for a more *compact built form* that will enable the region's energy transition off fossil fuels, optimize *infrastructure*, particularly along transit and transportation corridors to support the achievement of equitable, thriving and sustainable communities.

In addition to these structural components, development in the urban system is further guided by three interrelated land use policy areas: *delineated built-up areas*; *designated greenfield areas*; and *employment areas*. These policy areas provide additional direction for new development within those specific areas.

Over 60 percent of the region's new residential growth will occur within the *delineated built-up areas* of the cities and townships through *intensification*. Much of this growth will be directed to a series of *strategic growth areas* serviced by transit, and the balance will occur in existing neighbourhoods through *gentle density* and a broader range of *missing middle housing* options.

Urban Growth Centres and Major Transit Station Areas located along Regional Intensification Corridors will prioritize *intensification* and higher densities to make efficient use of land and *infrastructure* and support transit viability. Over time, these areas will gradually connect to and support a broader network of Local Centres and Intensification Corridors, and Township Urban Growth Centres to create a continuous and seamless mobility network focused on *walking, cycling, and rolling*, and transit. All of these growth areas will make better use of land and *infrastructure*, and help transition Waterloo Region into an energy-efficient, low-carbon community.

Although most of the Region's future growth will occur in *delineated built-up areas* through *intensification*, some new development will also be accommodated within *designated greenfield areas*. Future development in both of these policy areas will contribute to the creation of *15-minute neighbourhoods* with a broad mix of land uses where people can meet their daily needs for goods, services, and employment within a 15-minute trip by

walking, cycling, and rolling, and where other needs can be met by using direct, frequent, and convenient transit.

Maintaining a balanced supply of employment lands is fundamental to the region's future business growth and economic prosperity. Accordingly, this Chapter designates a number of *employment areas* throughout the region and contains policies protecting them for employment uses over the long-term.

Implementing the policies of this Section will provide clarity and greater certainty as to where and how future development should occur.

Objective:

- Support the development of an efficient and sustainable urban system based on a hierarchy of urban areas, and of supporting nodes and corridors within them, linked together by an integrated, *multimodal* transportation system that prioritizes *walking, cycling and rolling*, and taking transit over automobile trips.

2.B.1 Urban System Policies

2.B.1.1 The Region and the area municipalities will direct the majority of the forecasted population and employment growth in Table 1 to the following key structural components of the Regional urban system:

- (a) the Urban Area and Township Urban Areas as shown on Map 1;
- (b) *strategic growth areas* as shown on Map 2, where the highest levels of growth and development will generally be directed based on the following hierarchy;
 - (i) Downtown Cambridge, Downtown Kitchener, and Uptown Waterloo Urban Growth Centres;
 - (ii) Major Transit Station Areas;
 - (iii) Regional Intensification Corridors;
 - (iv) Local Centres and Intensification Corridors; and
 - (v) Township Urban Growth Centres.
- (c) *delineated built-up areas* as shown on Map 2 outside of *strategic growth areas* through *gentle density* and a broader range of *missing middle housing* options;
- (d) *designated greenfield areas* as shown on Map 2; and
- (e) *employment areas* as shown on Map 3.

2.B.1.2 Area municipalities will develop a High Performance Development Standard to be applied to applications for *site plan* approval and plans of subdivision to

address climate change mitigation and energy performance consistent with the following minimum criteria:

- (a) a tiered approach with a mix of mandatory and voluntary energy performance measures that would be secured during *site plan* and plan of subdivision application approval processes, with the use of plans, reports and agreements;
- (b) a requirement for the submission of an Energy Modelling Report as part of the submission package for applications for *site plan* approval or plans of condominium proposing larger buildings. The Energy Modelling Report will be based on hourly energy usage, and will identify the energy conservation measures proposed and any applicable assumptions made in modeling the energy performance of the building; and
- (c) where an application for *site plan* approval is within an approved secondary plan area, plan of subdivision, or vacant land plan of condominium with an associated Neighbourhood Energy Plan, the Energy Modeling Report required in subsection (b) will reference and be consistent with the Neighbourhood Energy Plan.

2.B.1.3 Area municipalities will require proposals for large-scale development proceeding by way of a secondary plan, plan of subdivision, vacant land plan of condominium or *site plan* to be supported by the following supporting plans:

- (a) a Mobility Plan demonstrating how the neighborhood will be built to accommodate the long-term modal shift to most trips being made by *walking, cycling, and rolling*, and to enable the provision of frequent, direct, and convenient transit service; and
- (b) a Neighbourhood Energy Plan, which will include consideration of energy generation, distribution, and storage.

2.C Urban Area

The Urban Area designation broadly identifies where the majority of the region's future growth will occur. This designation contains the *infrastructure* capacity and *public service facilities* to support major growth, including an extensive *multimodal* transportation system, modern and well-maintained *municipal water and wastewater systems*, and a broad range of social and public health services. It is also well-served by the existing Regional transit system, which is intended to be further enhanced through future expansions of the ION light rail transit system and ongoing improvements to the region's mobility networks focused on *walking, cycling, and rolling*.

For all these reasons, lands within the Urban Area have the greatest potential and capacity to accommodate growth, and serve as the primary focal areas for investment in *public service facilities*, as well as commercial, recreational, cultural and entertainment uses.

Objectives:

- Maintain the Countryside Line to contain and direct long-term urban growth, and protect valuable natural features and areas and agricultural lands;
- Achieve *transit-supportive* development and *15-minute neighbourhoods* throughout the Urban Area with a diverse mix of land uses, housing types and open spaces in proximity to each other; and
- Support the development of a vibrant Urban Area characterized by more compact development patterns that support climate change mitigation and adaptation, and provide a diversity of opportunities for living, working, recreation and entertainment.
- Achieve *net-zero operational carbon* performance for all new buildings, while minimizing *embodied carbon* and building energy needs, supporting the energy transition off fossil fuels, and increasing the overall energy resiliency in the community.

2.C.1 The Countryside Line

2.C.1.1 The Countryside Line is designated as shown on Maps 1 and 7. The Countryside Line represents the long-term urban growth boundary between the existing Urban Area and Township Urban Areas and the Countryside, if an urban boundary expansion is justified in accordance with Policies 2.C.3.1 and 2.C.3.4. Where the Countryside Line coincides with the Protected Countryside designation shown on Maps 1 and 7, the Countryside Line will be considered a permanent boundary.

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2.C.1.2 The Townships of North Dumfries, Wellesley, Wilmot and Woolwich may propose a one-time adjustment of the boundaries of their respective Countryside Line applicable to a Township Urban Area, to be implemented through a further amendment to this Plan, provided that the adjustment:

- takes into consideration existing property configurations, patterns of existing land use, natural and constructed features, and will not extend or promote strip development;
- results in a net decrease or equivalent amount of land remaining within the Countryside Line; and
- would support long-term development on lands more efficiently and cost-effectively compared to the lands to be removed from the Countryside Line, and that the adjustment will better support the Regional urban system described in this Plan.

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2.C.1.3 Area municipalities, in collaboration with the Region, may identify the municipality's preferred priority locations for future growth and development

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within the Countryside Line. The intent of this policy is to provide strategic guidance for the sequencing of long-term growth and development of lands within the Countryside Line, to be taken into consideration if an urban expansion is justified for the affected area municipality as part of the next *municipal comprehensive review* of this Plan.

2.C.2 Urban Area Policies

2.C.2.1 The Urban Area is designated as shown on Map 1. This designation contains the primary urban areas of the Cities of Cambridge, Kitchener and Waterloo, and also extends into portions of the Township of Woolwich. The lands included within this designation are intended to accommodate the largest share, almost 90 percent, of the Region's population and employment growth within the planning horizon of this Plan, and will be planned and developed in accordance with the policies of this Chapter and other applicable policies in this Plan.

2.C.2.2 Area municipalities will develop official plan policies and implementing zoning by-laws, and other planning documents or programs to ensure that development occurring within the Urban Area is planned and developed in a manner that:

- (a) implements the Regional urban system described in this Plan;
- (b) advances the community's transition into an energy-efficient, resilient, low-carbon community by:
 - (i) promoting a more *compact built form* that enables a modal shift to most trips being made by *walking, cycling, and rolling*;
 - (ii) contributing to the creation of *15-minute neighbourhoods*;
 - (iii) reducing air pollution and achieving the greenhouse gas emission reduction targets of this Plan;
 - (iv) improving resilience to extreme heat, increased precipitation, increased frequency of extreme weather events and other impacts of a changing climate;
 - (v) integrating *green infrastructure* and appropriate *low impact development*;
 - (vi) promoting building designs and orientations that maximize renewable energy generation and conservation, including the use of *alternative and/or renewable energy systems*, and the creation of *net-zero operational carbon* buildings;
 - (vii) ensuring that any new development requiring *site plan* or plan of subdivision approval under the Planning Act meets the requirements

of the area municipality's High Performance Development Standards adopted in accordance with Policy 2.B.1.2 of this Plan;

- (viii) maximizing tree canopy for shaded areas and community greening within *delineated built-up areas* and *designated greenfield areas*; and
- (ix) supporting, and, where enabled, requiring all new buildings to be built to achieve *net-zero operational carbon*, and to implement measures to minimize *embodied carbon* and building energy needs, support the energy transition off fossil fuels, and increase energy resiliency;
- (c) is serviced by a *municipal water and wastewater system*, except where specified in accordance with Policy 2.J.8;
- (d) protects the natural environment, including the Grand River and its tributaries, and surface water and groundwater resources in accordance with the policies in Chapter 7 and 8;
- (e) provides a diverse range and mix of housing options, including *additional residential units* and *affordable* housing, to accommodate people at all stages of life, and to accommodate the needs of all household sizes and incomes, in accordance with all the applicable policies of this Plan;
- (f) conserves *cultural heritage resources* and supports the adaptive reuse of *built heritage resources* in accordance with the policies in Chapter 3;
- (g) avoids development and land use patterns that may pose a risk to public health, safety and the environment;
- (h) improves accessibility for persons of all ages and abilities and at all times of year by addressing built form barriers which restrict their full participation in society;
- (i) ensures the development of high quality urban form through site design and urban design standards that create an attractive and vibrant *public realm*;
- (k) considers the wellbeing and belonging of all children and youth; and
- (j) expands residents' convenient access to:
 - (i) a range of transportation options, including to a mobility network that is safe, comfortable and convenient for *walking, cycling, and rolling* for people of all ages and abilities and at all times of year;
 - (ii) *public service facilities*, co-located and integrated in community hubs;

- (iii) an appropriate supply of safe, publicly-accessible urban greenlands, open spaces, parks, trails, and other opportunities for recreation in accordance with the policies in Chapter 3; and
- (iv) healthy, local, and affordable food options in neighbourhoods, supported through urban agriculture and a thriving food system built on local farming, and food production and processing that feeds much of the community in accordance with the policies in Chapter 3;

2.C.3 Expansions and Adjustments to the Urban Area

2.C.3.1 Expansions to the Urban Area boundary may only occur through a *municipal comprehensive review* of this Plan and are only permitted onto lands located within the Countryside Line as shown on Maps 1 and 7, where it is demonstrated that:

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- (a) based on the minimum *intensification* and density targets in this Plan and a land needs assessment undertaken in accordance with the Provincial methodology, sufficient opportunities to accommodate forecasted growth to the horizon of this Plan are not available through *intensification* and in the *designated greenfield area*:
 - i) within the Region, and
 - ii) within the applicable area municipality;
- (b) the proposed expansion will make available sufficient lands not exceeding the horizon of this Plan, based on the analysis provided for in Policy 2.C.3.1 (a), while minimizing land consumption; and
- (c) the timing of the proposed expansion and the phasing of development within the *designated greenfield area* will not adversely affect the achievement of the minimum *intensification* and density targets in this Plan, as well as the other policies of this Plan.

2.C.3.2 The Region, in collaboration with the area municipalities, will determine the feasibility and location of an Urban Area boundary expansion justified through Policy 2.C.3.1 based on the comprehensive application of all of the policies in this Plan, including the following:

- (a) there is sufficient capacity in existing or planned *infrastructure* and *public service facilities*;
- (b) the *infrastructure* and *public service facilities* needed would be environmentally sustainable and financially viable over the full life cycle of these assets, and the additional facilities would improve the efficiency of Regional and/or area municipal *infrastructure* as a whole;

- (c) the proposed expansion would be informed by applicable *municipal water and wastewater systems* master plans or equivalent and stormwater master plans or equivalent, as appropriate;
- (d) the proposed expansion, including the associated *municipal water and wastewater systems*, and stormwater servicing, would be planned and demonstrated to avoid, or if avoidance is not possible, minimize and mitigate, any potential negative impacts on watershed conditions and the water resource system, including the quality and quantity of water in accordance with the policies of Chapter 7;
- (e) *key hydrologic areas* and the Natural Heritage System for the Growth Plan should be avoided where possible;
- (f) *prime agricultural areas* should be avoided where possible. To support the *Agricultural System*, alternative locations across the Region will be evaluated, prioritized and determined based on avoiding, minimizing and mitigating the impact on the *Agricultural System* and in accordance with the following:
 - (i) reasonable alternatives that avoid *prime agricultural areas* are evaluated; and
 - (ii) where *prime agricultural areas* cannot be avoided, lower priority agricultural lands are used;
- (g) the Urban Area to be expanded is in compliance with the *minimum distance separation formulae*;
- (h) any adverse impacts on the *agri-food network*, including agricultural operations, from expanding Urban Areas would be avoided, or if avoidance is not possible, minimized and mitigated as determined through an *agricultural impact assessment*;
- (i) the policies of Sections 2 (Wise Use and Management of Resources) and 3 (Protecting Public Health and Safety) of the Provincial Policy Statement are applied;
- (j) the proposed expansion would meet any applicable requirements of any applicable source protection plan and the policies of Chapter 8; and;
- (k) the proposed expansion is of a sufficient size to be developed as a *15-minute neighbourhood* by itself, or can be integrated with existing developments to contribute to the creation of a *15-minute neighbourhood*.

2.C.3.3 Notwithstanding Policy 2.C.3.1, the Region may consider an amendment to this Plan to adjust an Urban Area boundary outside of a *municipal comprehensive review*, provided:

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- a) the affected lands are located within the Countryside Line shown on Maps 1 and 7;
- (b) there would be no net increase in land within the Urban Area of the affected area municipality;
- (c) it is demonstrated that the lands to be added to the Urban Area can be developed more efficiently and cost-effectively than the lands to be removed from the Urban Area, and that the adjustment will better support the Regional urban system described in this Plan;
- (d) the lands to be removed from the Urban Area boundary are currently vacant, unbuilt but developable land, and will be re-designated as *prime agricultural area* or *rural lands*, as appropriate;
- (e) the adjustment would support the area municipality's ability to meet its *intensification* and density targets allocated to it in this Plan;
- (f) the location of any lands added to the Urban Area will satisfy the applicable requirements of Policy 2.C.3.2; and
- (g) the Urban Area to which lands would be added is serviced by *municipal water and wastewater systems* and there is sufficient capacity in the *municipal water and wastewater system* to service the lands.

2.C.3.4 Notwithstanding Policies 2.A.1 and 2.C.3.1, the Region, in consultation with the area municipalities, may consider a one-time amendment to this Plan to expand an Urban Area boundary in advance of the next *municipal comprehensive review*, provided:

Inoperative,
see page ii)

- (a) the lands to be added to the Urban Area are within the Countryside Line and will be planned to meet or exceed the minimum density target set out in Policy 2.G.1.2 (b), or Policy 2.H.1.7 (d), as appropriate;
- (b) the location of any lands added to the Urban Area will satisfy the applicable requirements of Policy 2.C.3.2;
- (c) the Urban Area has sufficient reserve capacity in the *municipal water and wastewater system* to service the lands;
- (d) the additional lands and associated forecasted growth will be fully accounted for in the land needs assessment associated with the next *municipal comprehensive review*;

- (e) the expansion is limited to a maximum of 40 hectares per area municipality; and
- (f) the amendment is required to address a special circumstance or immediate Provincial or Regional issue, such as to support the provision of *affordable* housing, job creation or economic development, or other high-priority matter of public interest, that cannot wait until the next *municipal comprehensive review*.

2.D Strategic Growth Areas

Strategic growth areas are nodes, corridors and other areas that will accommodate most of the planned *intensification* in the region. Nodes, including Urban Growth Centres, Major Transit Station Areas, Local Centres, and Township Urban Growth Centres, will be planned as areas of more intense density, use and activity. They are compact clusters of uses that can range in scale and intensity of development, such as the downtown cores of the cities and townships, mixed-use communities, and post-secondary educational campuses or other higher-density uses both large and small.

Corridors, including Regional Intensification Corridors and Local Intensification Corridors, share similar characteristics as nodes, but are oriented along existing or planned *frequent transit* service or *higher order transit* routes. They represent key routes between *strategic growth areas*, creating a continuous and integrated mobility network for *walking, cycling, and rolling*, and taking transit across the region. Existing corridors will be reinforced through infill and redevelopment, and supported with strategic investments in enhanced transit service and protected *infrastructure* for *walking, cycling and rolling*.

Each node and corridor will have its own unique sets of characteristics related to levels of development, ridership patterns or relationship to other areas of activity within a transit system. The highest densities and scale of development will generally be directed toward the Downtown Cambridge, Downtown Kitchener and Uptown Waterloo Urban Growth Centres, followed by a series of 27 Major Transit Station Areas. Regional Intensification Corridors form the backbone on the Region's transit system, including the existing Stage 1 and planned Stage 2 ION light rail transit connecting the core areas of the Cities of Cambridge, Kitchener and Waterloo, and other *strategic growth areas* located across the region. These corridors will be the focus for new medium and high-density development and make it easier to travel to key destinations across the region without personal automobiles.

Local Centres, Local Intensification Corridors, and Township Urban Growth Centres are generally smaller in scale and scope than Urban Growth Centres, Major Transit Station Areas and Regional Intensification Corridors, but play a strong supporting role in the broader Regional urban system hierarchy. They provide neighbourhood focal points for a range of uses and activities, including *missing middle housing*, in areas served by existing or planned transit services. Over time, these areas will enhance connectivity within and

between the cities and townships, and help transition existing residential areas into vibrant *15-minute neighbourhoods*.

The policies in this Section are grounded in the principle of *transit-supportive* development. This principle broadly supports the clustering of uses and activities to growth areas that support *walking, cycling, and rolling* and that have existing or planned transit services. As the density of people and jobs across the region continues to increase, the distances between uses and destinations will gradually decrease over time. This will help realize this Plan's vision to create equitable, thriving and sustainable communities, and achieve other important benefits.

This Plan recognizes the different starting points, local conditions and growth potential of each of the *strategic growth areas* identified on Map 2. Not all areas will achieve the same mix of uses, or will reach their full development potential at the same time. Initially, some areas may not be able to provide a broad mix of uses, services and higher densities outlined in this Chapter. Over the long-term, however, this Plan envisions that all *strategic growth areas* will meet or exceed the density targets of this Plan, and create better places for people of all ages and abilities to get to where they want to go by *walking, cycling, and rolling*, and taking transit, at all times of the year.

Objectives:

- Focus *intensification* and higher densities in *strategic growth areas* to make efficient use of land and *infrastructure* and support transit viability; and
- Align and prioritize planning and investments in *infrastructure* and public service facilities to support *intensification* in *strategic growth areas*.

2.D.1 Urban Growth Centres Policies

- 2.D.1.1 Urban Growth Centres are identified on Maps 1 and 2 and delineated as shown on Figures 1 to 3. These areas identify the primary business, civic, commercial and cultural centres of the Cities of Cambridge, Kitchener and Waterloo.
- 2.D.1.2 Area municipalities, in collaboration with the Region, will ensure that Urban Growth Centres are planned:
- (a) as focal points for investment in regional *public service facilities*, as well as commercial, recreational, cultural and entertainment uses;
 - (b) to accommodate and support the transit network at the regional scale and provide connection points for inter- and intra-regional transit;
 - (c) to serve as high-density major employment centres that will attract provincially, nationally, or internationally significant employment uses;
 - (d) to accommodate significant population and employment growth;

- (e) to achieve, by 2031 or earlier, a minimum density target of:
 - (i) 200 residents and jobs combined per hectare for each of the Downtown Kitchener and Uptown Waterloo Urban Growth Centres; and
 - (ii) 150 residents and jobs combined per hectare for the Downtown Cambridge Urban Growth Centre; and
- (f) to be consistent with the relevant *transit-supportive* development policies in Section 2.D.6;

2.D.1.3 The Region, in collaboration with the area municipalities, will support the growth and continued revitalization of each Urban Growth Centre by guiding and leveraging *infrastructure* investments in such areas as:

- (a) a *multimodal* transportation system that prioritizes *walking, cycling, and rolling*, and taking transit over automobile trips;
- (b) Regional *municipal water and wastewater systems*;
- (c) Regional *public service facilities*; and
- (d) participation in area municipal and Regional *Community Improvement Plans* and other programs that support the goals and objectives of this Plan, and area municipal Official Plans, for the respective Urban Growth Centres.

2.D.2 Major Transit Station Areas Policies

2.D.2.1 Major Transit Station Areas are identified on Map 2 and further delineated on Figures 4a to 9d of this Plan. These station areas identify lands along the Stage 1 and planned Stage 2 ION light rail transit route that are typically located within a 500 to 800 metre radius of the transit stop, representing about a 10-minute walk.

2.D.2.2 Area municipalities will undertake detailed planning and establish official plan policies and zoning by-laws to ensure that Major Transit Station Areas are planned and designed in a manner that:

- (a) achieves the minimum density targets set out in Table 2;
- (b) is *transit-supportive*, supports planned transit service levels, and prioritizes access to the station area and connections to any nearby *major trip generators* by providing:

- (i) connections to regional and provincial transit services to support transit service integration; and
- (ii) mobility networks for *walking, cycling, and rolling*, including sidewalks, bicycle lanes, and secured bicycle parking;
- (c) provides for a diverse mix of uses, including *additional residential units* and *affordable* housing, where residential uses are permitted, to support existing and planned transit service levels;
- (d) fosters collaboration between public and private sectors, such as joint development projects;
- (e) provides alternative development standards, such as reducing or eliminating minimum automobile parking standards, or providing maximum parking standards, for uses near transit routes, to maximize *intensification* opportunities and minimize surface parking areas;
- (f) prohibits land uses and built form that would adversely affect the achievement of the minimum density targets set out in Table 2;
- (g) protects existing significant employment uses by ensuring land use compatibility with adjacent new development;
- (h) supports the implementation of inclusionary zoning by identifying:
 - (i) the authorized uses of land in the station area and of buildings or structures on lands in the area; and
 - (ii) the minimum densities that are authorized with respect to buildings and structures on lands in the station area; and
- (i) is consistent with the relevant *transit-supportive* development policies of Section 2.D.6.

Table 2
Minimum Densities of Major Transit Station Areas

Major Transit Station Area Name	Location	Minimum Density Targets*
City of Waterloo		
Conestoga	Figure 4a	160
Northfield	Figure 4b	160
Research and Technology	Figure 4c	160
University of Waterloo	Figure 4d	160

Laurier-Waterloo Park	Figure 5a	95
Waterloo Public Square and Willis Way	Figure 5b	160
Allen Street	Figure 5c	160
City of Kitchener		
Grand River Hospital	Figure 5d	160
Central Station	Figure 6a	160
Victoria Park and Kitchener City Hall	Figure 6b	160
Queen plus Frederick	Figure 6c	160
Kitchener Market	Figure 6d	160
Borden	Figure 7a	160
Mill	Figure 7b	160
Block Line	Figure 7c	80
Fairway	Figure 7d	160
Sportsworld	Figure 8a	160
City of Cambridge		
Preston	Figure 8b	160
Pinebush	Figure 8c	160
Cambridge Centre Mall	Figure 8d	160
Can-Amera	Figure 9a	160
Delta	Figure 9b	120
Main	Figure 9c	160
Downtown Cambridge	Figure 9d	160

* Minimum density target is calculated in terms of people and jobs combined per gross hectare measured over the entire station area.

2.D.2.3 The Region will support the implementation of the Major Transit Station Areas policies of this Plan by:

- (a) continuing to invest in future enhancements or expansions to the *multimodal* transportation system that prioritize *walking, cycling, and rolling*, and taking transit over automobile trips;
- (b) participating in area municipal *Community Improvement Plans* and associated financial incentive programs, and other appropriate implementation tools to facilitate *transit-supportive* development; and
- (c) providing area municipalities with technical expertise and information to help co-ordinate the design of Major Transit Station Areas with the planning

of the Grand River Transit bus network, including any future *higher order transit* corridors, to ensure the creation of a more integrated transit network.

- 2.D.2.4 Area municipalities are encouraged to plan lands adjacent to or near a Major Transit Station Area to support *transit-supportive* development, prioritize *walking, cycling, and rolling*, taking transit over automobile trips, and provide for a broad mix of uses and activities.
- 2.D.2.5 Area municipalities are encouraged to initiate station area planning for Major Transit Station Areas to:
- (a) articulate a clear vision for the station area to guide area municipal decision-making in terms of capital expenditures, *infrastructure* design and community needs;
 - (b) apply industry, Provincial and Regional best practices, design guidelines and development standards to create an urban form that prioritizes *walking, cycling, and rolling*, and taking transit over automobile travel;
 - (c) provide clear direction to development proponents about appropriate scale and form of building, open space and streets;
 - (d) create the planning and regulatory framework that can be formally adopted by the area municipal Council and integrated into the official plan and zoning by-laws required in Policy 2.D.2.2; and
 - (e) identify and implement strategies for automobile dependent areas that enable the transition over time to more *transit-supportive* places that enable most trips to be made by *walking, cycling, and rolling*;
- 2.D.2.6 For the purposes of implementing the use of inclusionary zoning by the area municipalities, all Major Transit Station Areas delineated on Figures 4a to 9d are recognized as Protected Major Transit Station Areas in accordance with Section 16(16) of the Planning Act.
- 2.D.2.7 The Region will support the use of inclusionary zoning by the area municipalities as a means of requiring *affordable* housing in Major Transit Station Areas by:
- (a) providing technical assistance to area municipalities in establishing and implementing inclusionary zoning policies and by-laws;
 - (b) collaborating with area municipalities in data sharing, monitoring and reporting on *affordable* housing acquired through inclusionary zoning, and in conducting reviews and the required updates to Assessment Reports in accordance with Provincial requirements; and,

- (c) working together with area municipalities, developers and non-profit organizations on administration to support the long-term affordability of any *affordable* housing units built in a Major Transit Station Area.

2.D.2.8 None of the policies in Section 2.D should be interpreted to mean that every property located within a Major Transit Station Area identified in this Plan is necessarily appropriate for major *intensification*. The appropriate scale and form of any development on lands within the boundaries of these areas will be subject to the relevant area municipal planning policies and approval processes.

2.D.3 Regional Intensification Corridor Policies

2.D.3.1 Regional Intensification Corridors are identified conceptually on Map 2. These corridors identify lands along the existing Stage 1 and planned Stage 2 ION light rail transit corridor, or other major Regional roads with existing or planned *frequent transit* service, that have significant potential for *intensification* and linking new higher-density mixed-use developments with transit *infrastructure*.

2.D.3.2 Area municipalities, in consultation with the Region, will refine and delineate the boundaries of the Regional Intensification Corridors shown on Map 2 in their official plan based on the following criteria:

- (a) a reasonable and direct walking distance between the Regional Intensification Corridor street frontage and adjacent lands;
- (b) contiguous parcels that are desirable and appropriate locations for *intensification* and high-density, mixed-use development; and
- (c) compatibility with, and transition to, adjacent adjoining lands, and incorporation of boundaries for Major Transit Station Areas delineated on Figures 4a to 9d.

2.D.3.3 Area municipalities, in consultation with the Region, will establish minimum density targets for all Regional Intensification Corridors that:

- (a) are measured in people and jobs per hectare;
- (b) support *transit-supportive* development with a more *compact built form*;
- (c) reflect opportunities for the *intensification* and support the transition of any surrounding neighbourhoods into *15-minute neighbourhoods*;
- (d) recognize the diversity of uses along the corridor and reflects the local context; and
- (e) will be implemented through official plan policies and designations, and zoning by-laws.

- 2.D.3.4 Area municipalities will establish policies in their official plans with implementing zoning by-laws to ensure that Regional Intensification Corridors are planned in a matter that:
- (a) accommodates *intensification* and higher-density mixed uses in a more *compact built form*;
 - (b) prioritizes *walking, cycling, and rolling*, and taking transit over automobile trips;
 - (c) provides for an appropriate range of main street uses, such as retail, cultural, institutional, residential, personal services, offices and other uses;
 - (d) prohibits reverse lotting and positions new buildings as close as possible to address the street edge while ensuring adequate space for sidewalks and a street planting zone;
 - (e) requires new buildings to be a minimum of two storeys;
 - (f) locates the highest densities and encourages a greater mix of uses close to transit stops within Major Transit Station Areas;
 - (g) provides an appropriate transition of use, intensity and scale from higher-density development to any surrounding low density areas;
 - (h) prohibits land uses and built form that would adversely affect the achievement of the minimum density targets set out in Policy 2.D.3.3; and,
 - (i) is consistent with the relevant *transit-supportive* development policies of Section 2.D.6.
- 2.D.3.5 As part of the next update to the Region's Transportation Master Plan, the Region, in collaboration with the area municipalities, will examine the potential for establishing a new ION *rapid transit* route along the east-west Regional Intensification Corridor shown on Map 2 that would:
- (i) provide a direct link from the Region's transit system to the Region of Waterloo International Airport; and
 - (ii) serve as a key transit corridor connecting the west side of the City of Kitchener to the East Side Lands Employment Area in the Township of Woolwich, and City of Cambridge via the Fountain Street corridor.
- 2.D.3.6 The Region will support the implementation of the Regional Intensification Corridors policies of this Plan by:

- (a) continuing to invest in future enhancements or expansions to the *multimodal* transportation system that prioritize *walking, cycling, and rolling*, and taking transit over automobile trips;
- (b) developing a coordinated economic development strategy aimed at communicating the benefits and opportunities of developing within Regional Intensification Corridors to national, regional and local investors;
- (c) participating in area municipal *Community Improvement Plans* and associated financial incentive programs, and other appropriate implementation tools to facilitate *transit-supportive* development along Regional Intensification Corridors;
- (d) aligning ongoing Regional and area municipal economic development efforts with a focus on targeting investment in Regional Intensification Corridors; and
- (e) rebalancing the street in favour of *walking, cycling, and rolling*, and transit using approaches such as narrowing traffic lanes, widening sidewalks, and adding protected bicycle lanes, when planning and undertaking public works within the right-of-way of a Regional Intensification Corridor.

2.D.4 Local Centres, Local Intensification Corridors, and Township Urban Growth Centres Policies

- 2.D.4.1 Area municipalities will identify and delineate Local Centres, Local Intensification Corridors, and Township Urban Growth Centres in their Official Plans, and establish official plan policies with implementing zoning by-law regulations for these areas that address the following:
- (a) accommodate a level of intensification reflective of local context and consistent with existing or planned transit services;
 - (b) support the achievement of *15-minute neighbourhoods* with an appropriate scale and form that serve the surrounding community;
 - (c) is consistent with the relevant *transit-supportive* development policies of Section 2.D.6;
 - (d) provide a consistent setback and frontage to encourage a continuous building form adjacent to the street right-of-way; and
 - (e) connect efficiently with, and contribute to, the vitality of the surrounding area by providing safe and convenient access for *walking, cycling and rolling*.

2.D.5 General Intensification Policies

- 2.D.5.1 Area municipalities will establish policies in their official plans and implementing zoning by-laws, to permit *missing middle housing* on a residential lot located within an Urban Area or Township Urban Area.
- 2.D.5.2 Area municipalities may identify other major opportunities for *intensification* in their official plans that may include infill, *redevelopment*, *brownfield sites*, the expansion or conversion of existing buildings, or *greyfields*.
- 2.D.5.3 Where the boundaries of a *strategic growth area* delineated in this Plan or an area municipal official plan overlap, the higher applicable minimum density targets will apply to the area of overlap.

2.D.6 Transit-Supportive Development Policies

- 2.D.6.1 In addition to the general development policies described in this Chapter, the Region and the area municipalities will apply the following *transit-supportive* development criteria in reviewing and evaluating *development applications* or *site plans*, within *strategic growth areas* and other *intensification* areas identified by the area municipality:
 - (a) creates an interconnected, *multimodal* street pattern that prioritizes *walking, cycling, and rolling*, and taking transit over automobile trips, and supports vibrant mixed-use developments;
 - (b) supports a more *compact built form* that locates the majority of *transit-supportive* uses within a comfortable walking distance of a transit stop or Major Transit Station Area;
 - (c) provides an appropriate mix of land uses, including a range of food destinations, local services and amenities to meet peoples' daily needs for living;
 - (d) promotes medium and higher-density development as close as possible to the transit stop to support higher frequency transit service and optimize transit rider convenience;
 - (e) supports a high quality *public realm* to enhance the identity of the area and create gathering points for social interaction, community events and other activities; and
 - (f) provides access from various transportation modes to the transit facility, including consideration of pedestrian, bicycle parking, and where applicable, passenger transfer and commuter pick-up/drop off areas.

2.E Township Urban Areas

The region contains several fully serviced *settlement areas* located throughout the Townships of North Dumfries, Wellesley, Wilmot and Woolwich. These communities, designated as Township Urban Areas in this Plan, vary in population, level of economic activity, and intensity and diversity of uses. Historically, each Township Urban Area grew around a traditional village core area with a unique character and distinct sense of place. Today, these thriving communities have evolved to become the main centres for their respective municipalities. They also play a key supporting role in the broader regional urban system by providing for opportunities for living and working in the townships. Moving forward, the policies of this Plan support the continued growth of these areas as vibrant, *15-minute neighbourhoods* with a broad range of opportunities for living, working, recreation and entertainment.

Objective:

- Support the development of thriving, livable, vibrant, and productive Township Urban Areas that foster community health and individual well-being;
- Strengthen the economic vitality of the region's four Townships by directing most of their population and employment growth to the Township Urban Areas; and
- Promote *gentle density* and other context sensitive *intensification* to facilitate the transition of existing communities into vibrant *15-minute neighbourhoods*.

2.E.1 Township Urban Area Policies

- 2.E.1.1 Township Urban Areas are designated as shown on Map 1. This designation contains the central urban areas of the Townships of North Dumfries, Wellesley, Wilmot and Woolwich that are not part of the city Urban Area. The lands included within this designation are intended to serve as the focus for growth outside of the Urban Area within the planning horizon of this Plan.
- 2.E.1.2 Area municipalities will develop official plan policies and implementing zoning by-laws, and other planning documents or programs, to ensure that development occurring within Township Urban Area is planned and developed in conformity with the same development criteria as for Urban Areas outlined in in Section 2.C.2.2, and other applicable policies in this Plan.
- 2.E.1.3 The Townships may delineate Local Centres or Township Urban Growth Centres within Township Urban Areas, that meet the following criteria:
 - (a) identify the area of the primary commercial cores;
 - (b) recognize the potential for *intensification* to accommodate additional population and employment growth; and

- (c) provide for local or Regional *public service facilities* for residents within the Township Urban Area and the surrounding rural and agricultural areas.

2.E.1.4 The Region, in collaboration with the area municipalities, will support the growth and continued revitalization of any Township Urban Growth Centres identified in accordance with Policy 2.E.1.3 by guiding and leveraging *infrastructure* investments in such areas as:

- (a) a *multimodal* transportation system that prioritizes *walking, cycling, and rolling*, and taking transit over automobile trips;
- (b) Regional *municipal water and wastewater systems*;
- (c) Regional *public service facilities*; and
- (d) participation in area municipal and Regional *Community Improvement Plans* and other programs that support the goals and objectives of this Plan, and plans for the respective Township Urban Growth Centres.

2.E.2 Expansions and Adjustments to Township Urban Areas

2.E.2.1 Expansions to a Township Urban Area boundary may only occur through a *municipal comprehensive review* of this Plan, and are only be permitted onto lands located within the Countryside Line as shown on Maps 1 and 7, and will be subject to the same requirements as for Urban Areas set out in Policy 2.C.3.1 and 2.C.3.2.

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see page ii)

2.E.2.2 Notwithstanding Policy 2.E.2.1, the Region may consider an amendment to this Plan to adjust a Township Urban Area boundary outside of a *municipal comprehensive review*, provided the adjustment would:

Inoperative,
see page ii)

- (a) satisfy each of the requirements as for Urban Areas set out in Policy 2.C.3.3; and
- (b) not exchange any lands between different Township Urban Areas.

2.E.2.3 Notwithstanding Policy 2.E.2.1, the Region, in consultation with the area municipalities, may consider a one-time amendment to this Plan to expand a Township Urban Area boundary in advance of the next *municipal comprehensive review* subject to the same requirements as for Urban Areas described in Policy 2.C.3.4.

Inoperative,
see page ii)

2.E.2.4 As part of the next municipal comprehensive review of this Plan, the Region, in collaboration with the Township of North Dumfries, will give priority consideration to expanding the boundary of the Ayr Township Urban Area to include the lands shown on Figure 17, subject to the following:

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see page ii)

- (a) the need for the urban boundary expansion in the Township of North Dumfries has been justified in accordance with Policy 2.C.3.1;
- (b) the lands added to the Ayr Township Urban Area satisfy the applicable requirements of Policy 2.C.3.2; and
- (c) the Ayr Township Urban Area has sufficient reserve capacity in the *municipal water and wastewater system* to service the lands.

2.F Intensification Targets in Delineated Built-Up Areas

The Growth Plan for the Greater Golden Horseshoe has defined the limits of the Region's developed Urban Area and Township Urban Areas as of June 16, 2006. Lands within this *delineated built-up area* will be used to implement and measure minimum *intensification* targets for each area municipality. These targets are a key component of this Plan's vision to create more compact development patterns, promote energy efficiency, provide a greater variety of housing options, and better integrate of transit and land use planning.

New residential development occurring within the *delineated built-up area* will be counted towards the achievement of the *intensification* target set out in this Plan. Lands that lie outside the *delineated built boundary*, but within the Urban Area and Township Urban Areas, are subject to the policies and density targets in this Plan for *designated greenfield areas*.

While *strategic growth areas* will play the primary role in achieving the *intensification* targets of this Plan, *intensification* will also occur more broadly within existing neighbourhoods through *gentle density*. Although some of the building stock in these neighbourhoods is still too recent to expect widespread change over the planning horizon of this Plan, this Plan envisions the transition of these areas into vibrant *15-minute neighbourhoods*. This transition will occur gradually over time as new opportunities arise for infill, *redevelopment*, *additional residential units*, new *missing middle housing* options, development of vacant and/or underutilized lots, and the expansion or conversion of existing buildings.

Directing more growth and change to *delineated built-up areas* will also improve the energy efficiency of the existing built form, helping the region's transition to fossil fuel-free energy and reducing its vulnerability to the *impacts of a changing climate*. This approach supports the Region's goal of advancing transformational climate action by reducing energy needs and enabling clean energy.

Objectives:

- Meet or exceed the minimum *intensification* targets of this Plan to make better use of land and *infrastructure*, and transition Waterloo Region into an energy- efficient, low-carbon community; and

- Support the gradual transition of existing neighbourhoods into *15-minute neighbourhoods* that are denser, have a broad mix of land uses where people can meet their daily needs for goods, services, and employment within a 15-minute trip by *walking, cycling, and rolling*, and where other needs can be accessed using direct, frequent, and convenient transit.
- 2.F.1 The *delineated built-up area* is shown on Map 2. This area identifies all lands within the *delineated built boundary* of the Urban Area and the Township Urban Areas as of June 16, 2006. The *delineated built boundary* was issued by the Province as part of the Growth Plan for the Greater Golden Horseshoe, and will remain fixed in place to measure the minimum *intensification* targets of this Plan.
- 2.F.2 Area municipalities, in collaboration with the Region, will develop and adopt a strategy to meet or exceed the minimum *intensification* targets set out in Table 3, and *intensification* more broadly throughout *delineated built-up areas*, which will:
- (a) further refine and implement the role and function of each of the area municipality's *strategic growth areas* consistent with the urban system policies described in Section 2.B, to support achievement of the *intensification* target and recognize them as a key focus for new growth development;
 - (b) identify the appropriate type and scale of development in each of the area municipality's *strategic growth areas* and transition of built form to adjacent areas;
 - (c) enable *intensification* more broadly throughout the area municipality's *delineated built-up area* through *gentle density* and other *missing middle housing* options;
 - (d) ensure lands are zoned and development is designed in a manner that supports the achievement of *15-minute neighbourhoods*;
 - (e) support the gradual transition of existing neighbourhoods into *15-minute neighbourhoods* that are denser, more energy efficient, and liveable;
 - (f) guide and prioritize planning and investment in efficient and modern *infrastructure* and *public service facilities* that will support *intensification*; and
 - (g) be implemented through the area municipality's official plan policies designations, updated zoning by-laws, secondary plans, and other supporting documents.

Table 3
Minimum Annual Intensification Targets by Area Municipality

Area Municipality	Minimum Target	Total Minimum Units in The Built Up Area 2022 - 2051
Cambridge	65%	16,655
Kitchener	60%	31,660
North Dumfries	18%	540
Waterloo	83%	19,740
Wellesley	14%	100
Wilmot	35%	830
Woolwich	20%	1,620
Waterloo Region	61%	71,150

2.F.3 Where development occurs on properties designated under the Ontario Heritage Act, the *intensification* targets in Table 3 are encouraged to be met through context-sensitive infill that conserves cultural heritage attributes. This development will consider Statements of Cultural Heritage Value and be consistent with any applicable Heritage Conservation District guidelines.

2.G Designated Greenfield Areas

Although this Plan directs most of the region's future growth to *delineated built-up areas* through *intensification*, new development will also be directed to *designated greenfield areas* to accommodate some of the Region's forecasted growth. This section sets out policies to guide how the Region's new greenfield communities will be planned and designed to support the achievement of *15-minute neighbourhoods* that are equitable, thriving and sustainable.

New greenfield communities will be compact and efficient to meet the vision and objectives of this Plan. They will be designed as *15-minute neighbourhoods* that enable people to live car-free or "car-lite" (i.e., households with fewer vehicles than workers) by offering convenient access to a diverse mix of jobs, housing, schools, cultural, and recreational opportunities, and local shops and food destinations. They also provide access to high quality, pedestrian accessible open spaces, parks and greenspaces to all members of the community in an inclusive and equitable way.

New greenfield communities will be thoughtfully designed, well-connected places that prioritize *walking, cycling, and rolling*, and taking transit over automobile trips. All of these features will reduce our energy needs, help the region transition off fossil fuels, and move towards to a resilient, low carbon community.

Most of the region's existing *designated greenfield areas* were not originally planned and designed to function as *15-minute neighbourhoods*. Many of these greenfield communities will be approaching 50 years old by 2051, and will require upgrades to parks, trails, roads, community centres and other physical and *community infrastructure*. These upgrades and

associated planning updates would provide an opportunity to retrofit and rebuild some greenfield communities to become vibrant *15-minute neighbourhoods*. This transition will occur gradually over time through *gentle density* in the form of infill, *missing middle housing*, and *additional residential units*.

Objectives:

- Build more compact greenfield communities to reduce the rate at which land is consumed;
- Plan and design *designated greenfield areas* to function as *15-minute neighbourhoods* that feature a diverse mix of land uses, including residential and employment uses, and convenient access to local stores, services, and public service facilities; and
- Provide for a balance of jobs and housing in greenfield communities across the region to need for long distance commuting.

2.G.1 Designated Greenfield Areas Policies

- 2.G.1.1 *Designated greenfield areas* are designated as shown on Map 2. This designation identifies lands within the Urban Area and Township Urban Areas, but outside the *delineated built-up area*, that are required to accommodate a portion of the Region's forecasted population and employment growth to 2051.
- 2.G.1.2 Area municipalities, in collaboration with the Region, will ensure that new development taking place in *designated greenfield areas* will be planned, designated, zoned and designed to:
- (a) function as *15-minute neighbourhoods* with a broad mix of land uses where people can meet their daily needs for goods, services and employment within a 15-minute trip by *walking, cycling and rolling*, and where other needs can be met by using direct, frequent and convenient transit;
 - (b) promote a more *compact built form* by meeting or exceeding the minimum density targets set out in Table 4;
 - (c) prioritize *walking, cycling, and rolling*, and taking transit over automobile trips by establishing a network of continuous sidewalks, trails and bicycle lanes that provide direct, safe, comfortable and well-maintained access to a variety of destinations for people of all ages and abilities and at all times of the year;
 - (d) establish a street network with frequent connections and pathways to surrounding areas, a high degree of internal connectivity, and adopt a *complete streets* approach that ensures the needs and safety of all road users are considered and appropriately accommodated;

- (e) implement land use patterns, building orientations to maximize solar gain, and urban design standards that support *net-zero operational carbon* buildings, including those related to energy efficiency and demand reductions, and enable community energy planning, *renewable energy system* and *alternative energy systems*, including district energy systems, in appropriate locations;
- (f) incorporate appropriate *green infrastructure*, *low impact development*, and urban heat island mitigation measures to adapt to the *impacts of a changing climate*;
- (g) provide access to high-quality parks, greenspaces, and *public service facilities* to all members of the community in an inclusive and equitable way in accordance with the policies in Chapter 3;
- (h) within the Township Urban Areas, provide a development pattern and road network that supports the integration of transit services, where planned to be available in the future; and
- (i) are serviced by a *municipal water and wastewater system*.

Table 4
Minimum Density Targets for Designated Greenfield Areas by Area Municipality

Area Municipality	Minimum Density Target*
Cambridge	59
Kitchener	65
North Dumfries	51
Waterloo	54
Wellesley	48
Wilmot	43
Woolwich	53
Waterloo Region	59

* Density measured in residents and jobs combined per gross hectare of land.

2.G.1.3 The minimum density targets set out in Table 4 will be calculated over the entire *designated greenfield area* of the region and each respective area municipality, excluding the following:

- (a) *natural heritage features and areas*, *natural heritage systems* and floodplains, provided *development* is prohibited in these areas in accordance with the policies of Chapter 7;
- (b) rights-of-way for:

- i) electricity transmission lines;
 - ii) energy transmission pipelines;
 - iii) freeways, as defined by and mapped as part of the Ontario Road Network; and
 - v) railways;
 - (c) *employment areas*; and
 - (d) cemeteries.
- 2.G.1.4 Area municipalities will establish policies in their official plans, or other planning documents, to ensure that new development within *designated greenfield areas* is phased in a manner that:
- (a) provides for the logical and orderly progression of development;
 - (b) achieves the delivery of *15-minute neighbourhoods* in accordance with the policies of this Plan;
 - (c) ensures that the pace, scale and phasing of development is aligned with the delivery of *infrastructure* and *public service facilities* in a financially sustainable manner at the Regional and/or area municipal level; and
 - (d) will not adversely affect the achievement of the minimum *intensification* and density targets in this Plan, as well as the other policies of this Plan;
- 2.G.1.5 Area municipalities will establish policies in their official plans, or other planning documents, to support the gradual transition of existing *designated greenfield areas* to become vibrant *15-minute neighbourhoods* through *gentle density* in the form of infill, *missing middle housing*, and *additional residential units*.

2.H Employment Areas

Waterloo Region has a vibrant and diverse employment base, with significant manufacturing, food and beverage, automotive, aerospace, finance and insurance, and technology sectors. While traditional sectors such as manufacturing continue to play an important role, the region's economy is transitioning more towards the service and knowledge-based sectors, providing opportunities for a range of new and expanding businesses to locate and grow in the region.

To accommodate the Region's forecasted employment growth, this Plan seeks to ensure a continuous and immediately available supply of land within *employment areas* for a broad

range of other employment uses. Supporting the region's *employment areas* also plays a key role in mitigating climate change by reducing the need for long distance commuting.

Providing and protecting a diverse range, size and mix of *employment areas* for employment uses ensures a competitive economic environment and provides employment opportunities close to residents working within these sectors.

As part of the Region's commitment to transformational climate action, including transitioning to an energy-efficient, low carbon community, this Plan also provides direction for the more efficient use of existing *employment areas* and vacant and underutilized employment lands, and increasing employment densities.

Objectives:

- Accommodate forecasted employment growth using a balanced and phased approach to the provision and development of *employment areas* within the *delineated built-up area* and *designated greenfield areas*;
- Provide a diverse mix and range of accessible employment opportunities throughout Waterloo Region to build economic resilience, to be flexible in responding to changing employment needs, and to maintain a competitive advantage in attracting and retaining people, jobs and investment;
- Promote *intensification* and increased densities in both new and existing *employment areas* to support a more compact and connected urban form; and
- Prioritize the provision, maintenance and staging of the necessary Regional *infrastructure* to support current and projected employment needs.

2.H.1 Employment Area Policies

- 2.H.1.1 *Employment areas* are designated as shown on Map 3. This designation is intended to identify and protect strategically located areas over the long-term for business and economic activities including, but not limited to, manufacturing, warehouses, offices, research and development and associated retail and ancillary facilities.
- 2.H.1.2 *Provincially significant employment zones* are identified as an overlay on Map 3. These zones are a subcategory of the Region's *employment areas*, and were identified by the Province for the purpose of long-term planning for job creation and economic development. The Province may provide specific direction for planning in these employment zones to be implemented through a future amendment to this Plan and economic development strategies.
- 2.H.1.3 The Region and the area municipalities will collaborate with the Province as required to identify any additional *provincially significant employment zones* to help maintain and enhance the Greater Golden Horseshoe's position in the

global economy.

- 2.H.1.4 Area municipalities will direct *major offices* and appropriate major institutional development to Urban Growth Centres, Major Transit Station Areas or other *strategic growth areas* with existing or planned *frequent transit* service.
- 2.H.1.5 Area municipalities will direct retail and office uses to locations that support *walking, cycling, and rolling*, and have existing or planned transit.
- 2.H.1.6 In planning for employment, the Region and the area municipalities will minimize vehicle parking and facilitate the development of mobility networks for *walking, cycling, and rolling*, and a *transit-supportive* built form.
- 2.H.1.7 Area municipalities should designate and preserve lands within any *employment areas* located adjacent to or near major goods movement facilities and corridors, including major highway interchanges, as areas for manufacturing, warehousing and logistics, and appropriate associated uses and ancillary facilities.
- 2.H.1.8 Area municipal official plans and zoning by-laws will plan for all *employment areas* designated in this Plan by:
 - (a) prohibiting residential uses and prohibiting or limiting other *sensitive land* uses that are not ancillary to the primary employment use;
 - (b) prohibiting *major retail* uses or establishing a size or scale threshold for any *major retail* uses that are permitted and prohibiting any *major retail* uses that would exceed that threshold;
 - (c) providing an appropriate interface between *employment areas* and adjacent non-employment areas to maintain land use compatibility;
 - (d) where an *employment area* is located within or adjacent to a Major Transit Station Area, planning to accommodate the minimum density targets of this Plan for the Major Transit Station Area while maintaining the long-term viability of any surrounding employment uses within the *employment area*; and
 - (e) ensuring that development occurring within *employment areas* will meet or exceed a minimum density target of 35 jobs per hectare to be measured as an average over the entire region-wide *employment area* designation.
- 2.H.1.9 Notwithstanding Policy 2.H.1.8 (b), area municipal official plans and zoning by-laws may permit *service commercial* and ancillary retail uses in an *employment area* provided the proposed uses:
 - (a) are ancillary to the primary employment uses within the *employment area* as defined in the area municipal official plan or zoning by-law;

- (b) are directed to *employment area gateways* identified in the area municipal official plan;
 - (c) maintain the planned employment function and viability of the *employment area*; and
 - (d) provide an appropriate transition and buffering measures to maintain compatibility with any adjacent *sensitive land uses*.
- 2.H.1.10 Area municipalities will plan to ensure that development of *sensitive land uses*, *major retail* uses or *major office* uses will, in accordance with Provincial guidelines, avoid, or where avoidance is not possible, minimize and mitigate adverse impacts on industrial, manufacturing or other uses that are particularly vulnerable to encroachment, in accordance with Section 2.I.1 of this Plan.
- 2.H.1.11 Area municipalities will ensure that *employment areas* are planned and designed to:
 - (a) conform to all policies in this Plan, including those related to climate change and energy efficiency;
 - (b) incorporate high levels of energy efficiency, *green infrastructure* and, where appropriate, *low impact development* techniques;
 - (c) conserve water and other natural resources;
 - (d) be designed to facilitate the transition of the employment use from fossil fuels to encourage the use of alternative energy systems and/or renewable energy systems; and
 - (e) make efficient use of existing employment lands, including vacant and underutilized employment lands, by supporting complementary employment uses and increased employment densities where appropriate.
- 2.H.1.12 The Region, in collaboration with the area municipalities, may permit conversion of lands within existing *employment areas* to non-employment uses only through a *municipal comprehensive review* of this Plan where it has been demonstrated that:
 - (a) there is a need for the conversion;
 - (b) the lands are not required over the horizon of this Plan for the employment purposes for which they are designated;

- (c) the affected area municipality will maintain sufficient employment lands to accommodate the forecasted employment growth allocated to in Table 1 of this Plan;
 - (d) the proposed uses will not adversely affect the overall viability of the *employment area*, or the achievement of the minimum *intensification* and density targets and other policies in this Plan; and
 - (e) there are existing or planned *infrastructure* and *public service facilities* to accommodate the proposed uses.
- 2.H.1.13 Any change to an area municipal official plan to permit new or expanded opportunities for *major retail* in an *employment area* may only occur in accordance with Policy 2.H.1.12.
- 2.H.1.14 The Region supports and encourages area municipalities to identify and designate local employment lands outside of the *employment areas* designated on Map 3, and to develop policies to protect these lands for employment uses over the long-term.
- 2.H.1.15 Where a *development application* is submitted to redevelop any local employment lands located outside of the *employment areas* designated on Map 3, the Region encourages the area municipality to retain space for a similar number of jobs to remain accommodated on the site.
- 2.H.1.16 The Region and the area municipalities will plan to support the retail sector by promoting *compact built form* and *intensification* of retail and service uses and areas, and encouraging the integration of those uses with other land uses to support the achievement of *15-minute neighbourhoods*.
- 2.H.1.17 The Region and the area municipalities will plan to support existing *office parks* by:
- (a) improving connectivity with transit and mobility networks for *walking, cycling, and rolling*;
 - (b) providing for an appropriate mix of amenities and open space to serve the workforce;
 - (c) planning for *intensification* of employment uses;
 - (d) ensuring that the introduction of any non-employment uses, if appropriate, would be limited and would not negatively impact the primary function of the area; and
 - (e) developing approaches to *transportation demand management* that reduce reliance on single-occupancy vehicle use.

- 2.H.1.18 The Region, in consultation with the area municipalities, the Province, and other appropriate stakeholders, will support a coordinated approach to planning for large areas with high concentrations of employment that cross municipal boundaries and are *major trip generators*, on matters such as transportation demand management and economic development.
- 2.H.1.19 The Region, in collaboration with the area municipalities, will regularly monitor *employment areas* in accordance with Section 10.G of this Plan to:
- (i) determine if an adequate supply of land continues to exist to accommodate the employment forecasts shown in Table 1; and
 - (ii) assess whether the planned minimum density target set out in Policy 2.H.1.8 (d) is being achieved and/or should be modified at the time of the next *municipal comprehensive review* of this Plan.
- 2.H.1.20 The Region and the area municipalities will facilitate the *intensification* of lands for employment uses, particularly on sites that support *walking, cycling and rolling* and are served by existing or planned transit services, through any available financial incentive programs, and the provision and staging of physical *infrastructure* and *public service facilities* that supports the Regional urban system policies of this Chapter.
- 2.H.1.21 Where it is not feasible to *conserve a cultural heritage resource* intact in an *employment area*, the Region and the area municipalities will encourage the reuse or adaptive reuse of the resource for employment uses, in accordance with Policy 3.G.19 of this Plan.
- 2.H.1.22 The Region, in collaboration with the Province, area municipalities, local utility providers, and the Waterloo Region Economic Development Corporation will work to identify and plan for suitable “mega-sites” to support new large-scale, strategic employment uses that complement the regional economy. Such sites typically range between 200 and 400 hectares in size and support large-scale manufacturing operations.

2.H.2 East Side Lands Employment Area

- 2.H.2.1 The East Side Lands Employment Area is designated as shown on Map 3. Lands within this *employment area* are intended to accommodate new large-lot manufacturing or business park uses serviced by a *municipal water and wastewater system* in close proximity to *major good movement facilities and corridors*, including the Region of Waterloo International Airport.
- 2.H.2.2 The City Cambridge will establish policies in its official plan to ensure that the East Side Lands Employment Area is planned and developed to:

- (a) accommodate large-lot manufacturing or business park uses, and appropriate associated uses and ancillary facilities;
- (b) be fully serviced by a *municipal water and wastewater system*;
- (c) unless otherwise compromised by design limitations associated with *natural heritage features and areas*, property configurations, the provision of new local roads, or existing development patterns, accommodate parcels greater than eight hectares in size; and
- (d) notwithstanding Policy 2.H.1.8 (d), meet or exceed a minimum density target of 25 jobs per hectare.

2.H.2.3 Notwithstanding Policy 2.H.2.2 (c), where monitoring clearly demonstrates that there will be a critical shortfall in the inventory of lands available in the short to medium term to meet the needs of new and expanding businesses requiring lot sizes less than eight hectares, the City of Cambridge may permit, through amendment to its official plan, the creation of smaller lots to meet those needs.

2.H.2.4 Employment uses that can be accommodated in un-serviced (“dry”) *employment areas* and/or are *major trip generators* will be discouraged from locating within the East Side Lands Employment Area. Any proposals to establish such land uses will require the submission of supporting studies demonstrating that the proposed use:

- (a) will not negatively impact the planned function of the Regional Road and *Provincial Highway* network, taking into consideration all vacant and/or underutilized land within the Urban Area and the Countryside; and,
- (b) will not compromise comprehensive planning for future development of the lands consistent with the goals and objectives of this Plan.

2.H.2.5 The Region will continue to collaborate with the City of Cambridge, the Grand River Conservation Authority and other stakeholders to prioritize the planning and *infrastructure* studies necessary to support the strategic development of the East Side Lands Employment Area to ensure these lands are readily available for development.

2.H.3 Highway 401/Regional Road 97 Employment Area

2.H.3.1 The Highway 401/Regional Road 97 Employment Area is designated as shown on Map 3. Lands within this *employment area* designation are intended to provide additional opportunities for employment growth and business development within the Township of North Dumfries.

- 2.H.3.2 The Township of North Dumfries will establish policies in its official plan to ensure that the Highway 401/Regional Road 97 Employment Area is planned and developed to:
- (a) primarily accommodate logistic and warehousing uses, and appropriate associated uses and ancillary facilities, that require close access to the Highway 401 corridor to efficiently move goods into and out of the region;
 - (b) be serviced by *individual on-site water services* and/or *individual on-site sewage services*;
 - (c) unless otherwise compromised by such considerations as design limitations associated with *natural heritage features and areas*, property configurations, the provision of new local roads, or existing development patterns, accommodate parcels greater than eight hectares in size; and
 - (d) notwithstanding Policy 2.H.1.8 (d), meet or exceed a minimum density target of 25 jobs per hectare.
- 2.H.3.3 Notwithstanding Policy 2.H.3.2 (c), where monitoring clearly demonstrates that there will be a critical shortfall in the inventory of un-serviced lands available in the short to medium term to meet the needs of new and expanding businesses requiring lot sizes less than eight hectares, the Township of North Dumfries may permit, through an amendment to its official plan, the creation of smaller parcels to meet those needs.

2.I General Urban Development Policies

The policies in this Section apply to all lands in the region where urban development may be permitted.

2.I.1 Land Use Compatibility

- 2.I.1.1 The Region and the area municipalities will ensure that *major facilities* and *sensitive land uses* are planned and developed to avoid, or if avoidance is not possible, minimize and mitigate any potential *adverse effects* from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of *major facilities* in accordance with Provincial guidelines, standards and procedures.
- 2.I.1.2 Where avoidance is not possible in accordance with Policy 2.I.1.1, the Region and the area municipalities will plan to protect the long-term viability of existing or planned industrial, manufacturing or other uses that are vulnerable to encroachment by ensuring that the planning and development of proposed adjacent *sensitive land uses* are only permitted if the following are demonstrated in accordance with Provincial guidelines, standards and procedures:

- (a) there is an identified need for the proposed use;
- (b) alternative locations for the proposed use have been evaluated and there are no reasonable alternative locations;
- (c) *adverse effects* to the proposed *sensitive land use* are minimized and mitigated; and
- (d) potential impacts to industrial, manufacturing or other uses are minimized and mitigated.

2.1.2 Noise from Stationary and Transportation Sources

2.1.2.1 The Region will prepare and update a Regional Implementation Guideline for the designation of Class 4 Acoustical Areas in accordance with Provincial noise guidelines. The intent of this guideline is to facilitate the review and approval of residential *intensification* in proximity to existing stationary noise sources where appropriate in accordance with the Implementation Guideline. The Implementation Guideline will address such matters as:

- (a) the criteria and procedures for designating Class 4 Areas;
- (b) the appropriate planning tools for implementing the Class 4 Area;
- (c) the recommended sound level limits to be used within Class 4 Areas, while maintaining the viability of the facilities emitting stationary noise;
- (d) the range of noise control measures that may be used to address stationary noise, including receptor based noise control measures and/or source based noise control measures; and
- (e) other implementation matters, such as the method for notifying prospective new residents within a Class 4 Area about the applicable sound level limits and any required noise attenuation measures.

2.1.2.2 Where a *development application* for a *sensitive land use* is submitted in the vicinity of an Existing Regional Road, *Provincial Highway*, Planned Regional Road or *Provincial Highway*, the *rapid transit* system, transit terminals, railways or area Municipal roads, a noise study may be required in accordance with the provisions of the Regional Implementation Guideline for Noise Policies. The noise criteria shown on Table 5 will be used in determining appropriate noise mitigation measures for the proposed development. Any required noise mitigation measures will be implemented through the *development application* review process.

2.1.2.3 Where projected noise levels exceed the noise criteria shown in Table 5 appropriate noise warning and/or noise attenuation measures will be required prior to, or as a condition of approval of the *development application* in

accordance with the provisions of the Regional Implementation Guideline for Noise Policies. Such measures may include site design and building layout, noise warning clauses, noise attenuation barriers, air conditioning, and/or structural design measures such as multiple glazed windows and brick wall construction. Notwithstanding the above, *sensitive land uses* will be prohibited where the projected attenuated daytime noise level in the associated *outdoor living area* exceeds 70 dBA.

Table 5:
Noise Criteria for Noise Sensitive Land Uses

Receiver Category	Time Period	Road Traffic	Rail Traffic
<i>Outdoor Living area</i>	0700 - 2300	Leq = 55 dBA	Leq = 55 dBA
Indoor Living area	0700 - 2300	Leq = 45 dBA	Leq = 40 dBA
Indoor Living area (Sleeping Quarters)	2300 - 0700	Leq = 40 dBA	Leq = 35 dBA

Leq means average sound level
dBA is a unit of measurement for sound levels

- 2.1.2.4 The Region will require consideration of *passive noise attenuation measures* during the preparation of *development applications* as a preferred means of reducing the use of noise attenuation barriers.
- 2.1.2.5 The impact of noise generated by increased motorized vehicle traffic volumes that result from proposed Regional Road system expansions will be considered prior to approval of the project, where such projects are located adjacent to existing *sensitive land uses*. During the review of these projects, consideration will be given to implementing noise attenuation measures in accordance with the provisions of the Regional Implementation Guideline for Noise Policies.
- 2.1.2.6 In the vicinity of the Region of Waterloo International Airport:
- (a) *development applications* proposing new residential development or other *sensitive land uses* will not be permitted in areas above 30 Noise Exposure Forecast (NEF);
 - (b) appropriate warning and/or noise attenuation measures will be required as a condition of approval for any *development applications* proposing new residential development or other *sensitive land uses* in areas between 25 and 30 NEF, including the requirement for permanent signage at the entrance to subdivisions identifying the presence of aircraft noise and other necessary noise attenuation measures; or

- (c) *development applications* proposing redevelopment of existing residential land uses or other *sensitive land uses*, or infilling of residential or other *sensitive land uses*, in areas above 30 NEF may only be permitted where the proposed development:
 - i) will not negatively impact the long-term function of the Airport; and
 - ii) incorporates appropriate warning and/or noise attenuation measures, including noise warning and other necessary noise attenuation measures.

The NEF contours established under the Region of Waterloo International Airport Master Plan will be used for the purposes of implementing this policy and any other policies or legislation administered by the Provincial or Federal governments.

2.1.3 Contaminated Sites

- 2.1.3.1 Where a *development application* is proposed on, or adjacent to, a known or potentially contaminated site, planning approvals will be subject to the submission of a Record of Site Condition in accordance with the provision of the Regional Implementation Guideline for the Review of Development Applications On or Adjacent to Known and Potentially Contaminated Sites.
- 2.1.3.2 Where a road widening, required for a Regional Road in accordance with Policies 5.A.34 and 5.A.35, is on, or adjacent to, a potentially contaminated site, or a known contaminated site, such road widening will be dedicated to the Region in accordance with the provisions of the Regional Implementation Guideline for Road Allowance Dedications On or Adjacent to Known and Potentially Contaminated Sites, in addition to any other applicable policies in this Plan.

2.1.4 Excess Soils

- 2.1.4.1 To support planning for growth and development, the Region, in collaboration with the area municipalities, may develop an excess soil reuse strategy to be implemented through appropriate official plan policies and designations, and zoning by-laws. At a minimum, this strategy will consider the impact of excess soil use on local municipal drinking water supplies, including soils that contain sodium and chloride related to the application of winter maintenance chemicals.
- 2.1.4.2 Until such time as the excess soil reuse strategy described in Policy 2.1.4.1 has been completed, the Region and the area municipalities will ensure that relevant *development applications* and municipal public work projects incorporate best practices for the management of excess soil generated and fill received during development or site alteration, including *infrastructure* development, to ensure that:

- (a) any excess soil is reused on-site or locally to the maximum extent possible and, where feasible, excess soil reuse planning is undertaken concurrently with development planning and design;
- (b) appropriate sites for excess soil storage and processing are permitted close to areas where proposed development is concentrated or areas of potential soil reuse; and
- (c) fill quality received and fill placement at a site will not cause any *adverse effects* with regard to the current or proposed use of the property, the natural environment, or municipal drinking water sources and is compatible with adjacent land uses.

2.1.5 Implementation of Intensification and Density Targets

- 2.1.5.1 The minimum *intensification* and density targets in this Plan are minimum standards and the area municipalities are encouraged to go beyond these minimum targets, where appropriate, except where doing so would conflict with any policy of this Plan.
- 2.1.5.2 Any changes to the minimum *intensification* and density targets in this Plan may only be implemented through a *municipal comprehensive review*.
- 2.1.5.3 Except as provided in Policy 2.G.1.3, the minimum intensification and density targets in this Plan will be measured across all lands within the relevant area, including any lands that are subject to more than one target.
- 2.1.5.4 Area municipalities will implement the minimum density targets in this Plan through:
 - (a) official plan policies that identify the minimum density targets and through secondary planning or other initiatives, to establish permitted uses within the relevant area and identify densities, heights, and other elements of site design;
 - (b) zoning all lands in a manner that would implement the official plan policies; and
 - (c) the use of any applicable legislative and regulatory tools that may establish area or site-specific minimum densities, heights, and other elements of site design.

2.J Special Policies for the Urban Area and Township Urban Areas

- 2.J.1 Notwithstanding the policies in this Plan, the lands shown on Figure 10 within the Township of Woolwich legally described as Part of Lots 105, 106, 107 and 108,

Germany Company Tract, and located on the east side of Hopewell Creek, south of Victoria Street, may be developed for dry industrial uses utilizing *individual on-site water services* and/or *individual on-site sewage services* where it is demonstrated, to the satisfaction of the Region, that it is not feasible to extend servicing from a *municipal water and wastewater system*.

- 2.J.2 For the lands shown on Figure 11 in the Township of North Dumfries, located between the City of Cambridge municipal boundary and the permanent Countryside Line that are designated as Designated Greenfield Area on Map 2 of this Plan, *development applications* will be subject to following additional requirements prior to final approval:
- (a) confirmation that the additional traffic resulting from the development of the lands can be accommodated within the Region's existing and planned transportation network, and that any operational improvements to Regional roads that may be required to accommodate such traffic have been identified with the physical and financial resources for such improvements having been secured by the Region prior to registration of any plans of subdivision; and
 - (b) until either the lands are incorporated into the City of Cambridge, or it has been confirmed that *municipal water and wastewater system* servicing of the lands as required will be accommodated through a cross-border servicing agreement, entered into between the City of Cambridge and the Township of North Dumfries.
- 2.J.3 For the lands shown on Figure 12 in the Township of North Dumfries, located between the permanent Countryside Line and the City of Cambridge municipal boundary that are designated as *designated greenfield area* on Map 2 of this Plan, *development applications* will be subject to the following additional requirements prior to final approval:
- (a) the lands have been incorporated into the City of Cambridge; or
 - (b) confirmation that *municipal water and waste system* servicing of the lands as required will be accommodated by the City of Cambridge through a cross-border servicing agreement, executed with the Township of North Dumfries.
- 2.J.4 Notwithstanding Policy 2.H.1.8, for the lands shown on Figure 13 in the Township of Woolwich, located north of Benjamin Road, west of Weber Street and south of Apple Grove Road (787 and 844 Weber Street North), the Township of Woolwich may permit certain additional office/commercial uses as set out in the Township's Official Plan, save and except for any *sensitive land uses* that are not ancillary to the primary uses. Any *development applications* on the lands will not be approved until the applicant confirms that *municipal water and wastewater system* servicing of the lands as required will be accommodated

through a cross-border servicing agreement, entered into between the City of Waterloo and the Township of Woolwich, with respect to wastewater treatment capacity, peak flows, effluent constituents, or other technical matters.

- 2.J.5 Notwithstanding Policy 2.H.1.8, for the lands shown on Figure 14 in the Township of Woolwich, located north of the City of Waterloo boundary, west of King Street and east of the Conestoga Parkway (713 and 725 King Street North), the Township of Woolwich may permit certain additional industrial/commercial uses as set out in the Township's Official Plan, save and except for any *sensitive land uses* that are not ancillary to the primary uses.
- 2.J.6 Notwithstanding Policy 2.H.1.8, the City of Waterloo may further identify the *employment area* lands shown on Figure 15 (305 Northfield Drive) as an *employment area gateway* in accordance with Policy 2.H.1.8 (b) of this Plan to permit *service commercial and ancillary retail uses* in accordance with the policies of this Plan, and to facilitate the continue adaptive reuse of the cultural heritage resources located on the lands.
- 2.J.7 Notwithstanding Policy 2.H.1.8, for the lands shown on Figure 16 (41 Ira Needles Boulevard) in the City of Waterloo, the City of Waterloo may permit certain highway commercial uses on a portion of the lands in accordance with Policy 11.1.40 of the City's Official Plan.
- 2.J.8. Notwithstanding any policies of this Plan, *development applications* proposing residential infill development may be permitted on *partial services, individual on-site water services, and/or individual on-site sewage services*, subject to the following:
- (a) it is demonstrated to the satisfaction of the Region that the extension of servicing from a *municipal water and/or wastewater system* is not feasible;
 - (b) the site is not located within Wellhead Sensitivity Area 1, a High Microbial Risk Management Zone, or a Surface Water Intake Protection Zone 1 described in Chapter 8;
 - (c) studies prepared in accordance with the Regional Implementation Guidelines for Source Water Protection Studies and accepted by the Region, demonstrate that such services can operate satisfactorily on the site and will not have a negative impact on groundwater resources;
 - (d) it is demonstrated to the satisfaction of the area municipality's Chief Building Official that the site conditions are suitable for the long-term provision of such services with have no *adverse effects*; and
 - (e) the development application complies with Policies 5.B.8 and 5.C.6 as applicable.

2.J.9 Notwithstanding the Urban Area or Township Urban Areas designated on Map 1, or *employment areas* designated on Map 3, any new lands designated as Urban Area, Township Urban Area, or on lands designated as *employment areas* along Northumberland Street in the Township of North Dumfries through the approval of Amendment Number 6 to this Plan, will be subject to the following:

- (a) new non-agricultural uses or development will not be permitted until such time as it is demonstrated that the proposed non-agricultural use or development complies with the *minimum distance separation formulae*; or
- (b) the area municipal official plan or zoning by-law includes policies or regulations to address compliance with the *minimum distance separation formulae*.

2.J.10 There exists a rural residential cluster, located on the west side of Riverbank Drive and comprised of 710 to 830, 870 to 1000, 1040, 1072 and 1.2 hectares of 850 Riverbank Drive, all identified on Figure 18 to which the following policies apply:

- (a) for the lands located at 850 Riverbank Drive outside of the rural residential cluster the following uses shall be permitted:
 - i. the existing single family residence; and
 - ii. a storm water management facility of approximately 4.5 hectares in size and associated inlet, outlet and maintenance access to be developed and constructed in the conjunction with the lands located on the east side of Riverbank Drive, south of the Randall Drain;
- (b) for the portion of the lands located at 850 Riverbank Drive identified as part of the rural residential cluster four (4) rural residential lots on private services or public services shall be permitted;
- (c) no expansion to the existing rural residential cluster shall be permitted; and
- (d) the existing rural residential cluster and the stormwater management facility shall be designated in the City of Cambridge Official Plan.

The lands affected by the above policies that identify the rural residential cluster and permit the proposed storm water management facility and development for four rural residential lots are shown on Figure 18.

3. Liveability in Waterloo Region

A *liveable* Waterloo Region depends on many interconnected cultural, environmental, social and economic elements. The *liveability* of a region is based not only on its design and *infrastructure*, but also on how these elements are used to help the region become a desirable, accessible and safe community that places significant importance on providing choice, and maintaining and fostering a high quality of life.

Vibrant urban and rural communities require: a range and mix of housing options; access by walking, cycling and transit; integrated Transportation Demand Management programs to reduce automobile dependency; a high standard of air quality; access to locally grown and other healthy foods; opportunities for *alternative* and/or *renewable energy systems*; and that more consideration be given to *human services* needs.

Implementation of the policies in this Chapter will require multi-faceted and consultative approaches with collaboration being central to achieving the Vision for a *Sustainable* and *Liveable* Waterloo Region.

Overall Goal – Create vibrant urban and rural places.

Objectives:

- 3.1 Plan for an appropriate range and mix of housing choices for all income groups.
- 3.2 Increase transportation opportunities for *pedestrians*, cyclists and transit users.
- 3.3 Manage traffic congestion and reduce reliance on gas-powered vehicles.
- 3.4 Promote the use of *alternative* and/or *renewable energy systems* in appropriate locations.
- 3.5 Improve air quality and help reduce the potential for climate change by conserving energy, and reducing emissions of air pollutants and greenhouse gases.
- 3.6 Support the development of an environmentally *sustainable* and economically viable regional food system.
- 3.7 Plan for an older and more culturally diverse population.
- 3.8 Support the conservation of *cultural heritage resources*.
- 3.9 Promote social inclusion and improved access to *human services*.
- 3.10 Encourage *human services* to be planned and delivered in a coordinated and effective manner.

3.A Range and Mix of Housing

Housing is a necessity of life and is an essential element for achieving an equitable, thriving, and sustainable community. Communities thrive when everyone has a place they can afford and call home, and where they can feel safe, comfortable, and part of the community. The policies in this section are all about meeting this important goal. They seek to provide for a diverse range and mix of housing options that are safe, *affordable*, of adequate size and meet the accessibility requirements of all residents.

In recent years, the region's housing stock has become increasingly characterized by particular housing types and densities – namely, high-density, high-rise condominium buildings and low-density, single- and semi-detached housing. To help address this challenge and build a wider mix of housing options in neighbourhoods where people want to live, this Plan includes policies to support the construction of *missing middle housing* in both *delineated built-up areas* and *designated greenfield areas*. This type of housing facilitates *gentle density* and provides people of all ages, incomes and abilities with opportunities to live in *15-minute neighbourhoods*.

Maintaining a healthy supply of rental housing, especially at *affordable* and mid-range rents, is critical to attracting residents and businesses to the region and supporting a wider range of housing options that are *affordable*. The policies of this Plan seek to encourage the construction of new rental housing through partnerships with all levels of governments and the private, non-profit and co-operative housing sectors. This Plan also seeks to protect the conversion of the existing stock of rental housing to condominiums.

The Region, in consultation and coordination with the area municipalities, will explore and consider a broad range of planning mechanisms, financial incentives, and other considerations to promote and secure affordable housing in Waterloo Region. This includes supporting the use of inclusionary zoning by the area municipalities as a means of requiring *affordable* housing in Major Transit Station Areas.

Given the priority this Plan places on equity and climate action, it is a particular priority for all newly built affordable housing in Waterloo Region to be achieve *net-zero operational carbon* performance, and to include measures to minimize *embodied carbon* and building energy needs. This will support the community's energy transition off fossil fuels and increase the overall energy resiliency of the region. Building new affordable housing to achieve *net-zero operational carbon* performance will help protect households with lower incomes from rising and variable fuel prices and the effects of more frequent extreme weather.

Objectives:

- Support a diverse range and mix of housing options and densities, including *additional residential units*, *affordable*, and *missing middle housing*, to serve all sizes, incomes, and ages of households.

- Achieve *net-zero operational carbon* performance for all newly built housing, including affordable housing, and implement measures to minimize *embodied carbon* and building energy needs, support the energy transition off fossil fuels, and increase the overall energy resiliency in the community.
- 3.A.1 The Region, in collaboration with the area municipalities and other agencies, will review and regularly update the 10 Year Housing and Homelessness Plan, and update the policies of Section 3.A of this Plan as required in accordance with any updates to the 10 Year Housing and Homelessness Plan.
- 3.A.2 Area municipalities, in collaboration with the Region, will plan to provide a diverse range and mix of housing options with an overall target of a minimum of 30 percent of new ownership and rental housing being *affordable to low and moderate income households*. The range and mix of housing options provided will vary in terms in terms of form, tenure, density, and number of bedrooms to accommodate the needs of all sizes, incomes, and ages of households.
- 3.A.3 The Region, in collaboration with the area municipalities, will regularly monitor the progress in meeting the *affordable* housing target set out in Policy 3.A.2, and review and update this target in accordance with any updates in Provincial policy or the Region's 10 Year Housing and Homelessness Plan.
- 3.A.4 Area municipalities will develop official plan policies and implementing zoning by-laws to permit and facilitate the use of land for *additional residential units* by authorizing,
 - (a) the use of two residential units in a detached house, semi-detached house or row house; and
 - (b) the use of a residential unit in a building or structure ancillary to a detached house, semi-detached house or row house.
- 3.A.5 A *development application* to create a plan of condominium, which would result in the conversion of rental housing to condominium ownership for buildings with six or more units, will only be permitted where:
 - (a) the rental vacancy rate for comparable units for the area municipality, or the Census Metropolitan Area, if not available for the area municipality, has been at or above three percent for the preceding two years; and
 - (b) the applicant notifies all tenants about the intention to convert the building(s) to condominium ownership and offers first right of refusal as appropriate, in accordance with the regulations of the Residential Tenancies Act, 2006.
- 3.A.6 Where a *development application* proposing residential uses is submitted for a site containing one hectare or more of developable land, the Region and the area municipalities will require, a minimum of 30 percent of new residential units to be

planned in forms other than single-detached, semi-detached, and street fronting and single unit condominium townhouse units. Examples of other potential housing forms may include, but are not limited to: duplexes; tri-plexes; four-plexes; multi-plexes; stacked and back-to-back townhouses; and apartments.

- 3.A.7 The Region, in collaboration with the area municipalities, will investigate and implement a shared incentive program for private, public, and not-for-profit sector developers and applicants to create, maintain, and expand the *affordable* housing stock. Specific tools may include, but are not limited to: offering tax increment and/or Regional Development Charge grants; providing property tax waivers; reducing or waiving development application and review fees; reducing parking and other development standards; giving priority review to applications for *affordable* housing; and establishing a concierge service program to facilitate *affordable* housing.
- 3.A.8 The Region, in consultation with the area municipalities, will explore *affordable* housing incentives through a coordinated *Community Improvement Plan* for *affordable* housing or other appropriate mechanisms.
- 3.A.9 The Region will participate in and deliver Federal and/or Provincial housing programs in collaboration with area municipalities, that will benefit all residents in the region, whenever appropriate.
- 3.A.10 The Region will develop policies, processes, and programs to prioritize the achievement of *net-zero operational carbon* performance for all new affordable housing addressed by the Region's related master plans and strategies. These policies, processes, and programs will also include measures to:
- (a) minimize *embodied carbon* and building energy needs;
 - (b) support the energy transition off fossil fuels; and
 - (c) increase energy resiliency.
- 3.A.11 *Redevelopment* or conversion of Regionally owned *community housing* will require:
- (a) full replacement of all Regional *community housing* units with new Regional community housing units at the existing rent levels;
 - (b) relocation of the tenants, to the satisfaction of the Region, to comparable accommodation at the same rent level during the period of redevelopment, or to new Regional *community housing* development; and,
 - (c) building for *net zero operational carbon* and minimizing *embodied carbon* and building energy needs.

- 3.A.12 As the Service Manager for housing and homelessness, the Region, in collaboration with the Province, the area municipalities, and other local agencies, will plan for the establishment of emergency shelters and other temporary accommodations for individuals and households across the region, and will continue to work toward the elimination of homelessness.
- 3.A.13 Area municipalities will develop official plan policies and implementing zoning by-laws to permit and facilitate emergency shelters and other temporary accommodations described in Policy 3.A.12 in appropriate locations across the municipality.
- 3.A.14 Area municipalities will develop official plan policies and implementing zoning by-laws to permit and facilitate *special needs* housing within all residential designations.
- 3.A.15 Area municipalities will develop official plan policies and implementing zoning by-laws to regulate the demolition of existing residential rental units buildings with six or more units consistent with the following criteria:
- (a) where the replacement of rental units is permitted, any replacement units will include the same or higher number of units of comparable bedroom mix and affordability; and
 - (b) where the demolition of rental units is permitted, existing tenants will be compensated in accordance with the regulations of the Residential Tenancies Act, 2006.
- 3.A.16 Area municipalities are encouraged to coordinate with the Region on *affordable* housing programs.
- 3.A.17 *Development applications* proposing residential uses will be required to indicate if and how they are contributing to meeting the *affordable* housing target set out in Policy 3.A.2, and include an assessment of mix and range of types, bedroom mix, unit sizes, tenures, and accessibility requirements.
- 3.A.18 The Region, in collaboration with the area municipalities and other commenting agencies, will develop a protocol to give priority review to expedite *development applications* proposing to deliver a minimum of 30 percent of the total units as *affordable* housing.
- 3.A.19 Notwithstanding the provisions of the Planning Act that prohibit making a request for amendments to a new official plan and/or a secondary plan before the second anniversary of any part of the plans come into effect, Council may by resolution, consider permitting any *development applications* that require any such amendments to proceed, where:

- (a) the application proposes that at least 30 percent of the total units are *affordable* housing; or
 - (b) the application is submitted on either Regional or area municipal surplus lands and proposes new *affordable* housing.
- 3.A.20 The Region encourages the area municipalities to apply alternative development standards as-of-right to help streamline the development of *affordable* housing provided health, safety, servicing, and other reasonable standards or criteria can be met. Examples of such alternative development standards may include, but are not limited to, reduced parking standards, setbacks and road allowances.
- 3.A.21 The Region will encourage area municipalities to establish Community Permit Planning System areas in their official plan.
- 3.A.22 The Region, in collaboration with the area municipalities, local school boards, and Federal and Provincial agencies, will:
- (a) identify surplus government lands and/or buildings that may be suitable for *affordable* housing development;
 - (b) prioritize the development of *affordable* housing on suitable Regionally owned surplus land;
 - (c) support and encourage other levels of government and local school boards to prioritize the development of *affordable* housing on their surplus lands;
 - (d) optimize opportunities to use any surplus government owned land to facilitate new *affordable* housing units with a focus on long-term affordability;
 - (e) develop baseline criteria for *affordable* housing development on government owned land;
 - (f) encourage innovation in the delivery of long-term *affordable* housing units using pilot projects on government owned land to test new models of housing tenure, construction, financing, land ownership/lease, public/private partnership; and
 - (g) consider additional incentives and planning mechanisms to enhance the duration and level of affordability.
- 3.A.23 Area municipalities, in collaboration with the Region, will use available planning tools and other appropriate agreements to ensure that any *affordable* housing units secured as part of the development approval process will be offered to households meeting eligibility criteria and maintained as *affordable* over time. If requested, the Region may provide technical expertise to the area municipalities regarding approaches or best practices to secure and monitor any *affordable* housing units.

- 3.A.24 The Region encourages the Province to introduce new provisions in the Planning Act authorizing municipalities to enact zoning by-laws for residential rental tenure. Such by-laws would allow municipalities to require a portion of new multi-residential buildings in certain areas to be developed as rental units, and ensure that any existing rental housing in the area be kept as rental. The intent of these legislative changes is to give municipalities greater ability to preserve and increase the overall supply of rental housing in their communities.

3.B Walking and Cycling

This Plan recognizes that a substantial portion of the community does not, or will not, have access to private automobiles either by choice or due to financial, age or physical limitations. It is also socially and economically desirable for urban transportation systems to provide affordable, accessible and effective mobility to all members of the community. This Plan, along with the Regional Transportation Master Plan, establishes the framework for the creation of a transportation system that promotes a vibrant, healthy community using a combination of land use designations and urban design initiatives that make a wide range of transportation choices viable in the region.

Walking, cycling and transit are forms of transportation that are low cost, relatively low-polluting, energy efficient and provide significant health benefits. Walking and cycling can either be a form of recreation or an individual's primary or secondary means of transportation. Additional benefits of walking, cycling and transit use include reduced requirements for roadway capacity and parking spaces per traveller, reduced traffic congestion, improved air quality and reduced car dependency.

- 3.B.1 The Region and area municipalities will implement the recommendations of the Region of Waterloo Transportation Master Plan through the *development review* process.
- 3.B.2 The Region will ensure, whenever feasible, the provision of facilities to encourage walking and cycling, and to address the needs, safety and convenience of *pedestrians* and cyclists when constructing or reconstructing Regional transportation facilities and public buildings.
- 3.B.3 Area municipalities are encouraged to enhance *pedestrian* and cycling environments so that people have more opportunities to walk and cycle for convenient travel, recreational, health, environmental and economic reasons through such means as:
- (a) providing consistent information and signage systems to support exploration, discovery and travel throughout the community on foot and bicycle;
 - (b) integrating *pedestrian* and cycling facilities into existing, expanded and new development areas;

- (c) ensuring, wherever feasible and appropriate, that urban greenlands are *pedestrian*-friendly, safe and accessible;
 - (d) implementing Crime Prevention Through Environmental Design (CPTED) principles;
 - (e) creating urban design guidelines that support *pedestrian* and cycling activity in accordance with the provisions of the Canadian Institute of Transportation Engineers' guidelines for promoting *sustainable* transportation through site design;
 - (f) securing dedications for trail corridors, wherever appropriate; and
 - (g) providing *pedestrian* and cyclist connections to *transit stops*.
- 3.B.4 The Region will support walking, cycling and transit through promotional and educational initiatives that address issues such as personal security; safe behaviour by vehicle drivers, *pedestrians* and cyclists; barrier-free access; an appreciation of the health and environmental benefits of walking; and the comparative costs of private and public travel choices.

3.C Transportation Demand Management

Transportation demand management strives to reduce the demand for roadways and motor vehicles by developing policies, programs and services that influence how, where, when and whether people travel in order to support a more efficient use of the transportation system. The overall objective of transportation demand management strategies is to reduce the total number of automobile trips by influencing people to adopt more *sustainable* travel choices when it comes to types of travel. Transportation demand management supports and promotes walking, cycling, transit, carpooling and other forms of human-powered transportation.

The Region has implemented a variety of successful transportation demand management initiatives to date. The policies in this Chapter strive to build on these initiatives as a means of encouraging alternatives to drive-alone commuting.

- 3.C.1 The Region, in collaboration with area municipalities, will implement a comprehensive Transportation Demand Management program as part of its efforts to reduce automobile dependency. This program will involve independent action as well as partnerships with the private sector, other levels of government and non-governmental organizations including educational institutions and community groups. It will also seek to make alternatives to driving more attractive, build a positive public attitude toward them, and provide information and incentives that encourage individuals to reduce automobile use. The Transportation Demand Management program will include, but not limited to:

- (a) community-wide and area-specific Transportation Demand Management programs;
 - (b) employer Transportation Demand Management programs that support and enhance *sustainable* transportation choices to public and private sector employees and major institutions for such actions as walking, cycling, transit, carpooling, car sharing, teleworking, shuttle buses and ride-sharing programs, bicycle storage facilities and showers; and
 - (c) increasing transportation system efficiency by encouraging van and carpooling, preferential parking for car and van pools, shared parking, bicycle parking facilities, indoor bus waiting areas, queue-jumping lanes for transit buses, smart cards and high-occupancy vehicle lanes.
- 3.C.2 Where an owner/applicant agrees to implement, and can appropriately secure, the transportation demand management strategies recommended in a Transportation Impact Study prepared in accordance with Policy 5.A.25, the Region may consider granting reductions in the level of road improvement that would otherwise be required to support the development.
- 3.C.3 Area municipalities are encouraged to provide reduced parking standards for *development applications* where the owner/applicant agrees to incorporate transportation demand management strategies as part of the proposed development.

3.D Energy Conservation

Energy is central to the provision of goods and services, production by industry, mobility, and comfort and *liveability* within the community. Using less energy is beneficial for the environment as it reduces the demand on resources to create energy and the *infrastructure* resources required for its distribution. Energy conservation can also help reduce greenhouse gases and other air emissions from combustion of fossil fuels, which can affect climate change and air quality. Policies resulting in a reduction in energy consumption can be integrated into land use planning regulations by promoting the development of compact, *mixed-use*, *pedestrian* and bicycle friendly, and transit oriented communities. When coupled with the use of environmentally responsible materials and alternative fuels, trips by walking, cycling and transit can significantly reduce energy consumption levels in the region.

Policies in this Section also address the potential to reduce light pollution impacts on the night sky and flora and fauna in natural areas.

- 3.D.1 The Region will support energy conservation through policies in this Plan that:
- (a) promote compact, *mixed-use* development;
 - (b) promote walking, cycling and the use of transit;

- (c) maximize, wherever appropriate, the use and production of *alternative* and/or *renewable energy systems*;
 - (d) maximize the protection of existing natural areas and, wherever appropriate, promote the use of newly planted vegetation including green roofs to reduce the urban heat island effect;
 - (e) optimize the use of existing physical *infrastructure* and *community infrastructure* to support *reurbanization*;
 - (f) support water efficiency measures that reduce the demand for energy to pump and treat water resources;
 - (g) promote building designs and orientations that incorporate energy conservation features, and the use of alternative or renewable energy; and
 - (h) promote the sourcing of materials, products and natural resources from close to market locations in order to minimize the energy required to transport materials and products.
- 3.D.2 The Region will effectively use and manage energy resources by using energy conservation techniques in Regional facilities and projects, wherever feasible.
- 3.D.3 The Region will continue to implement the recommendations of the Regional Environmental Sustainability Strategy.
- 3.D.4 The Region will pursue other energy conservation measures, including undertaking pilot projects and Community Energy Plans, to reduce the need for energy and non-renewable resources.
- 3.D.5 The Region, in collaboration with area municipalities, will continue to support initiatives that promote the benefits of reducing energy use, car dependence and idling times, and other initiatives that encourage public agencies, private industries and individuals to participate in energy conservation programs.

Alternative/Renewable Energy Systems

- 3.D.6 Area municipalities will establish policies in their official plans to permit *alternative and/or renewable energy systems* in all designations within the region, subject to the development and use of *alternative and/or renewable energy systems* being in accordance with *Provincial and Federal requirements*, including appropriate separation distances to address land use compatibility.

Lighting for Dark-Sky

- 3.D.7 Area municipalities are encouraged to develop policies or guidelines to prevent or minimize the impact of outdoor lighting on the night sky.
- 3.D.8 The Region will, wherever feasible and appropriate, use technology that supports dark-sky lighting in all new street lighting along Regional Roads and for outdoor lighting in all new Regional facilities.

3.E Air Quality

Having clean air to breathe is a prerequisite to health and *liveability*. Provincial legislation and Regional strategic directions strongly promote efforts to help reduce the potential for climate change and associated poor air quality through the land use planning process. Waterloo Region's dependence on the use of private automobiles, the need to heat homes and industrial activities all result in the emission of harmful air pollutants and greenhouse gases. Although the Region does not regulate emissions, actions within its authority do significantly influence air quality and can help mitigate and adapt to climate change. As a result, the policies in this Plan seek to improve air quality in the region through a variety of measures to help support a healthy and *liveable* community.

- 3.E.1 The Region will support improved air quality through the policies in this Plan that support a more compact, transit-supportive urban form and will:
 - (a) assess the feasibility of developing a community-wide air quality monitoring and modeling program;
 - (b) continue initiatives to operate the Region's fleet of vehicles in an environmentally *sustainable* manner;
 - (c) develop an anti-idling campaign to encourage drivers to avoid idling their engines;
 - (d) investigate opportunities for increasing forest cover throughout the region to achieve an overall target of 30 per cent forest cover or more of the region's total land area; and
 - (e) continue to support the sourcing of materials, products and natural resources in close proximity to market locations in order to help reduce fossil fuel consumption and associated greenhouse gas emissions resulting from the transportation of such materials and products.
- 3.E.2 The Region will regularly monitor reductions in greenhouse gas emissions and other air pollutants generated by the Region's own corporate operations and establish reduction targets as part of the Regional Environmental Sustainability Strategy.

3.F Access to Locally Grown and Other Healthy Foods

The regional food system consists of the chain of activities related to the production, processing, distribution, consumption and eventual disposal of food. A strong and diverse regional food system provides many benefits to the community. It facilitates peoples' access to locally grown and other healthy foods, which contributes to healthier eating choices and the achievement of broader public health objectives. It also encourages a range of food destinations within easy walking distance of where people live and work. Such a system helps shorten the distance that food travels and that people travel to buy food, thereby reducing the demand on transportation *infrastructure* and the growth in vehicle emissions. As well, a strong regional food system supports local farmers and contributes to the vitality and economic strength of rural communities and Waterloo Region as a whole. For these reasons, this Plan seeks to strengthen and diversify the regional food system.

- 3.F.1 The Region will support the development of a strong regional food system through the policies in this Plan that:
- (a) establish a Countryside Line to protect the countryside for long-term agricultural use;
 - (b) permit a full range of *agricultural uses*, *agriculture-related uses* and *secondary uses* to support the economic viability of local farms;
 - (c) provide for a mix of land uses, including food destinations, within close proximity of each other to facilitate residents' access to locally grown and other healthy food products; and
 - (d) provide a range of *human services* including *affordable* housing, subsidized daycare, employment and income supports that seek to ensure all residents have adequate incomes to be able to afford to buy locally grown and other healthy food products.
- 3.F.2 Area municipalities will establish policies in their official plans to permit *temporary farmers' markets*, wherever appropriate, in existing and newly planned neighbourhoods, particularly in areas where access to locally grown food and other healthy food products may currently be limited.
- 3.F.3 Area municipalities will establish policies in their official plans that encourage community gardens and rooftop gardens.
- 3.F.4 The Region will support community gardens, wherever feasible, by granting access to Regional lands, and by providing rain barrels, composting bins, compost, wood mulch or other forms of in-kind support.
- 3.F.5 The Region will collaborate with stakeholders to continue to implement initiatives supporting the development of a strong regional food system.

- 3.F.6 The Region supports food system planning as a means of improving the regional food system.

3.G Cultural Heritage

Cultural heritage resources are the inheritance of natural and cultural assets that give people a sense of place, community and personal identity. Continuity with the past promotes creativity and cultural diversity. The region has a rich and diverse heritage, including distinctive cultures, traditions, festivals, artisans and craftspeople, landmarks, landscapes, properties, structures, burial sites, cemeteries, natural features and *archaeological resources*. These resources provide an important means of defining and confirming a regional identity, enhancing the quality of life of the community, supporting social development and promoting economic prosperity. The Region is committed to the conservation of its cultural heritage. This responsibility is shared with the Federal and Provincial governments, area municipalities, other government agencies, the private sector, property owners and the community.

Identification of Cultural Heritage Resources

- 3.G.1 The Region and area municipalities will ensure that *cultural heritage resources* are *conserved* using the provisions of the Heritage Act, the Planning Act, the Environmental Assessment Act, the Cemeteries Act and the Municipal Act.
- 3.G.2 The Region will prepare and update a Regional Implementation Guideline for Conserving Regionally Significant Cultural Heritage Resources. In accordance with the Ontario Heritage Act, this guideline will outline the criteria and processes the Region will follow to identify and *conserve cultural heritage resources* of Regional interest including regional roads that have cultural heritage value or interest.
- 3.G.3 Area municipalities will identify cultural heritage resources by establishing and maintaining a register of properties that are of cultural heritage value or interest. area municipalities will include on their register properties designated under Part IV or V, and will consider including, but not be limited to, the following additional *cultural heritage resources* of cultural heritage value or interest:
- (a) properties that have heritage conservation easements or covenants registered against title;
 - (b) cultural heritage resources of Regional interest; and
 - (c) cultural heritage resources identified by the Grand River Conservation Authority and the Federal or Provincial governments.
- 3.G.4 The Region will coordinate and maintain a region-wide inventory of *cultural heritage resources* that are:
- (a) listed on registers established and maintained by area municipalities;

- (b) identified by the Federal or Provincial governments, and the Grand River Conservation Authority;
- (c) identified through research by the Region, area municipalities, post-secondary institutions or local historical societies;
- (d) of Regional interest; or
- (e) owned by the Region.

Cultural Heritage Landscapes

- 3.G.5 The Region will prepare and update a Regional Implementation Guideline for Cultural Heritage Landscape Conservation. This guideline will outline the framework for identifying *Cultural Heritage Landscapes*, including *Cultural Heritage Landscapes* of Regional interest, and for documenting each individual landscape through a Cultural Heritage Landscape Conservation Plan that includes:
- (a) a statement of significance;
 - (b) a listing of the *cultural heritage resources* and attributes being *conserved* within the *Cultural Heritage Landscape* through the use of existing planning tools, such as Heritage Act designations, listings on the Municipal Register, official plan policies, secondary plans and zoning by-laws; and
 - (c) recommendations for additional conservation measures.
- 3.G.6 Area municipalities will designate *Cultural Heritage Landscapes* in their official plans and establish associated policies to *conserve* these areas. The purpose of this designation is to *conserve* groupings of *cultural heritage resources* that together have greater heritage significance than their constituent elements or parts.
- 3.G.7 The Region will assist area municipalities with the preparation of Cultural Heritage Landscape Conservation Plans for *Cultural Heritage Landscapes* of Regional interest.

Archaeology

- 3.G.8 The Region will prepare and update a Regional Archaeological Master Plan, an associated Regional Archaeological Implementation Guideline, and maps identifying *archaeological resources* and areas of *archaeological potential*. The Master Plan will provide detailed information on the variables used to determine areas of *archaeological potential* and define the archaeological review process.
- 3.G.9 During the review of *development applications* and/or *site plans*, the Region and/or area municipalities will require the owner/applicant to submit an archaeological

assessment conducted by a licensed archaeologist in accordance with the provisions of the Regional Archaeological Implementation Guideline following the Ministry of Tourism and Culture's Standards and Guidelines, to the satisfaction of the *Province*, where *archaeological resources* and/or areas of *archaeological potential* have been identified in the Archaeological Master Plan.

3.G.10 Where an *archaeological assessment* identifies a *significant archaeological resource*, the Region or area municipality will require the owner/applicant to *conserve the significant archaeological resource* by:

- (a) ensuring the site remains undeveloped and, wherever appropriate, designated as open space by the area municipality; or
- (b) removing the *significant archaeological resource* from the site by a licensed archaeologist, prior to site grading or construction.

Heritage Planning Advisory Committee

3.G.11 The Region will maintain a Heritage Planning Advisory Committee to advise the Region on the implementation of the heritage policies in this Plan and other heritage issues of Regional interest, in accordance with the Terms of Reference adopted and periodically reviewed by Regional Council.

3.G.12 Area municipalities are encouraged to maintain Municipal Heritage Advisory Committees to advise on heritage planning matters, including the conservation of properties of cultural heritage value or interest.

Cultural Heritage Impact Assessment

3.G.13 Area municipalities will establish policies in their official plans to require the submission of a *Cultural Heritage Impact Assessment* in support of a proposed *development* that includes or is adjacent to a designated property or *Cultural Heritage Landscapes*, or includes a non-designated resource of cultural heritage value or interest listed on the Municipal Heritage Register.

3.G.14 Where a *Cultural Heritage Impact Assessment* required under Policy 3.G.13 relates to a *cultural heritage resource* of Regional interest, the area municipality will ensure that a copy of the assessment is circulated to the Region for review. In this situation, the *Cultural Heritage Impact Assessment* submitted by the owner/applicant will be completed to the satisfaction of both the Region and the area municipality.

3.G.15 Where a *development* includes, or is adjacent to, a *cultural heritage resource* of Regional interest which is not listed on a Municipal Heritage Register, the owner/applicant will be required to submit a *Cultural Heritage Impact Assessment* to the satisfaction of the Region.

- 3.G.16 The Region will undertake a *Cultural Heritage Impact Assessment* and consult with the affected area municipality and the Regional Heritage Planning Advisory Committee prior to planning, designing or altering Regional buildings or *infrastructure* that may affect a *cultural heritage resource* listed on the region-wide inventory described in Policy 3.G.4. The *Cultural Heritage Impact Assessment* will be reviewed and approved in accordance with the policies in this Plan.
- 3.G.17 Cultural Heritage Impact Assessment will include, but not be limited to the following:
- (a) historical research, site analysis and evaluation;
 - (b) identification of the significance and heritage attributes of the *cultural heritage resource*;
 - (c) description of the proposed *development* or *site alteration*;
 - (d) assessment of *development* or *site alteration* impacts;
 - (e) consideration of alternatives, mitigation and conservation methods;
 - (f) schedule and reporting structure for implementation and monitoring; and
 - (g) a summary statement and conservation recommendations.
- 3.G.18 Where a *Cultural Heritage Impact Assessment* required in this Plan relates to a *cultural heritage resource* of Regional interest, the conservation recommendations will, wherever feasible, aim to *conserve cultural heritage resources* intact by:
- (a) recognizing and incorporating heritage resources and their surrounding context into the proposed *development* in a manner that does not compromise or destroy the heritage resource;
 - (b) protecting and stabilizing *built heritage resources* that may be underutilized, derelict, or vacant; and
 - (c) designing *development* to be physically and visually compatible with, and distinguishable from, the heritage resource.
- 3.G.19 Where it is not feasible to *conserve a cultural heritage resource* intact in accordance with Policy 3.G.18, the conservation recommendations will:
- (a) promote the reuse or adaptive reuse of the resource, building, or building elements to preserve the resource and the handiwork of past artisans; and

- (b) require the owner/applicant to provide measured drawings, a land use history, photographs and other available documentation of the *cultural heritage resource* in its surrounding context.

3.G.20 *Cultural Heritage Impact Assessments* may be scoped or waived by the Region or the area municipality as applicable.

Conservation, Promotion and Research

3.G.21 *Built heritage resources* owned by the Region and listed on a municipal heritage register, including Joseph Schneider Haus, the Governor's House and Gaol, McDougall Cottage and the West Montrose Covered Bridge will be *conserved*. Other Regionally owned heritage buildings, bridges, or properties, will be protected, restored or rehabilitated, wherever feasible, and where not feasible, the building or structural elements will be reused to the extent possible.

3.G.22 The Region supports the national recognition given to the Grand River as a Canadian Heritage River, including its major tributaries, the Nith River, Speed River and Conestego River, and will continue to promote appropriate initiatives to maintain, enhance, manage and *conserve* natural, cultural, recreational, scenic and ecological features.

3.G.23 The Region will collect, manage and display movable heritage objects in accordance with standard museum protocols and the Regional Archives Policy.

3.G.24 Upon request, the Region may assist area municipalities in research, identification and documentation of *cultural heritage resources*.

3.G.25 The Region and area municipalities may coordinate the creation and delivery of financial incentive programs for the promotion, preservation, restoration and rehabilitation of *cultural heritage resources*. The Region will encourage coordination amongst the funding programs.

3.G.26 The Region, in collaboration with area municipalities, will develop and maintain an Arts, Culture and Heritage Master Plan for the purpose of:

- (a) building community identity around the unique cultural heritage of the Region;
- (b) enhancing public awareness of the benefits that arts, culture and heritage resources bring to the community;
- (c) encouraging collaboration and resource sharing within the cultural heritage sector;
- (d) providing resources to support the arts, culture and heritage sector; and

- (e) maximizing accessibility to arts, culture and heritage opportunities and information.

Scenic Roads

- 3.G.27 The Region recognizes that many Regional Roads are characterized by natural, cultural heritage and recreational features that contribute to the scenic value of Regional Roads. During any construction or upgrades, the Region will, wherever feasible, endeavour to protect and/or enhance the scenic value of such features along Regional Roads.
- 3.G.28 Area municipalities are encouraged to establish policies in their official plans to protect the scenic values of Regional Roads, including the view from the road to prominent heritage buildings or natural landscape features.
- 3.G.29 Area municipalities are encouraged to protect the scenic values of roads under their jurisdiction.

3.H Human Services

Human service needs of regional residents, such as police services, social assistance, pre-employment services, child care and health care programs vary with age, ability, skill, background and interest. Access to these services is fundamental to the *liveability* of a community. The policies in this Plan provide the framework for meeting these diverse needs.

- 3.H.1 The Region will regularly update the Regional Human Services Plan to provide detailed information on the implementation of such services within the region.
- 3.H.2 The Region will locate its Public Health and Social Service facilities and programs close to *pedestrian*, cycling and transit facilities, and wherever appropriate, within businesses, schools and civic buildings. Other public service agencies are encouraged to co-locate their *human service* facilities using the same criteria.
- 3.H.3 Regional *human services* facilities will, to the extent feasible, be designed and located to be accessible to all people in the region and will support the Planned Community Structure of this Plan.
- 3.H.4 Area municipalities are encouraged to consult with the Waterloo Regional Police Services to promote safety and security as part of the *development* review process.
- 3.H.5 The Region and area municipalities will, wherever appropriate, develop accessibility policies and regulations in their official plans, zoning by-laws, urban design guidelines, *site plan* guidelines, and other documents, in accordance with the provisions of the Accessibility for Ontarians with Disabilities Act.

4. Supporting Waterloo Region's Business Community

Much of Waterloo Region's high quality of life is attributable to its strong, diversified economy. Maintaining and enhancing economic strength in a globally competitive, knowledge-based economy demands that the Region collaborate with area municipalities and other private and public sector partners to ensure that Waterloo Region's economy is adaptable, innovative and creative. This effort will require on-going support not only for manufacturing, but also for sectors such as: high technology; post-secondary education; automotive; advanced manufacturing; business/financial; biotechnology and life sciences; environmental engineering, planning and management; agriculture and food processing; logistics and transportation; and construction.

The policies in this Chapter recognize the Region's traditional economic development support roles including: the planning and management of *infrastructure* to address the transportation, water supply, wastewater and waste management needs of the business community; ensuring that there are adequate quantities of strategically located *employment areas* available to accommodate forecast employment growth; advocating for Provincial and Federal government support assistance for key initiatives; and providing stable, long-term financial support for the world-wide marketing of Waterloo Region.

This Plan recognizes the important relationship between quality of life and economic prosperity. Communities that are vibrant, environmentally healthy and culturally diverse are not only great places to live, but they also attract people, jobs and new investment. This vision is reflected in this Plan through a broad range of policies that protect the environment, promote cultural heritage, coordinate *reurbanization*-oriented financial incentive programs and provide employment support services that help maximize the potential for employment and entrepreneurship.

Overall Goal – Collaborate with area municipalities, Canada's Technology Triangle Inc. and other stakeholders to foster a diverse, innovative and globally competitive regional economy.

Objectives:

Accommodate forecasted employment growth using a balanced approach to the provision and development of *employment areas* within both the Built-Up Area and Urban and Township Designated Greenfield Areas.

- 4.1 Ensure provision of required transportation *infrastructure* to accommodate forecasted growth, enhance the efficient movement of goods and improve access to employment and market opportunities for businesses and residents.
- 4.2 Ensure timely provision and maintenance of water supply, wastewater and waste management *infrastructure* to accommodate forecasted growth.

- 4.3 Provide a broad range of accessible employment opportunities throughout Waterloo Region, and maintain a competitive advantage in attracting and retaining people, jobs and investment.
- 4.4 Promote Waterloo Region as a leader in environmentally friendly business practices and as a centre of environmental consulting, products, research and services expertise.

4.A Planning and Managing Physical Infrastructure

- 4.A.1 The Region of Waterloo International Airport will be planned, managed and promoted as an integral element in moving people and goods to and from Waterloo Region.
- 4.A.2 The Region will continue to partner with the *Province* to plan for the provision of GO Transit and enhanced VIA Rail passenger service between Waterloo Region and the communities within the Greater Golden Horseshoe.
- 4.A.3 The Region will continue to advocate for the provision of high-speed rail passenger service between Waterloo Region and other communities in the Windsor-Quebec City Corridor.
- 4.A.4 The Region will continue to advocate for improvements to the *Provincial Highway* system to support more effective movement of people and goods within and beyond Waterloo Region.
- 4.A.5 The Region will continue to collaborate with agencies and transportation service providers to coordinate and optimize rail-based goods movement systems.
- 4.A.6 The Region will plan, build and maintain Regional Roads to support more effective movement of people and goods within and beyond Waterloo Region.
- 4.A.7 The Region will plan to enhance transit service to key *employment areas*.
- 4.A.8 The Region will plan and manage water supply, wastewater treatment and waste management facilities and programs to ensure that they reflect existing and forecasted employment needs.

4.B Collaborative Partnerships

- 4.B.1 The Region will provide information, research, financial and in-kind support as appropriate to assist the Waterloo Region Economic Development Corporation, in marketing Waterloo Region to the world.
- 4.B.2 The Region will work with other levels of government and private sector stakeholders on immigrant attraction and retention initiatives intended to further expand and strengthen Waterloo Region's workforce.

- 4.B.3 The Region recognizes that Conestoga College, the University of Waterloo and Wilfrid Laurier University support and enhance the competitiveness of the regional economy through research and development, innovation and the provision of skilled employees. Accordingly, the Region will support initiatives that strengthen these post-secondary education institutions and their linkages with the business community.
- 4.B.4 The Region, in collaboration with area municipalities, the business community, other levels of government and post-secondary institutions will, whenever feasible, help businesses adapt quickly and effectively to significant structural changes in the global economy and/or changes in international monetary or trade policy.
- 4.B.5 The Region will collaborate with area municipalities and the development industry in the planning and building of a range of housing, in terms of type and affordability, that supports the diverse needs of Waterloo Region.
- 4.B.6 The Region will support arts, culture and heritage initiatives that help make Waterloo Region a distinctive and unique place to live, work, visit and invest.
- 4.B.7 The Region will undertake and support healthy community initiatives that promote a healthy workforce.
- 4.B.8 The Region will provide pre-employment and employment programs that encourage inclusive employment opportunities for marginalized populations.

4.C Environment and Business

- 4.C.1 The Region, in collaboration with the business community, other levels of government and post-secondary institutions, will promote research and innovation in areas such as adaptation to climate change, water supply, efficient water use and re-use, air quality improvement, energy conservation, waste reduction and management, and ecological restoration.
- 4.C.2 *Employment areas* will, wherever possible, be designed and (re)developed to fully implement the overall goals, objectives and policies of this Plan.
- 4.C.3 New and existing businesses that use large quantities of water and/or discharge large amounts of wastewater requiring treatment will be discouraged from locating or expanding in Waterloo Region.
- 4.C.4 The Region will be a leader in corporate environmental *sustainability* through implementation of the Regional Environmental Sustainability Strategy and associated community outreach programs.
- 4.C.5 The Region will encourage new and renovated residential, office, industrial and commercial buildings and site design to be constructed to progressive environmental certification standards.

- 4.C.6 The Region will support the creation of an eco-business network with business and community stakeholders for the purpose of helping businesses share information as to how they can reduce their impact on the environment.

5. Addressing Waterloo Region's Infrastructure Needs

This Plan recognizes that successfully planning and managing *infrastructure* is an essential element of achieving the vision for a *sustainable* and *liveable* Waterloo Region. This Plan also recognizes that *infrastructure* planning and management requires the Region to consider opportunities to reduce the demand for additional *infrastructure* and to optimize the use of existing *infrastructure*. In addition, *infrastructure* can be used to help reshape Waterloo Region's urban form, create healthy, *sustainable*, safe and accessible communities and maximize the potential to capitalize on economic opportunities. In accordance with the provision of the Municipal Act, the responsibilities for planning and managing *infrastructure* are shared among the Federal and Provincial governments, the Region, area municipalities and other agencies.

The policies in this Chapter address the region's *infrastructure* needs, including the transportation system, *municipal drinking-water supply systems*, *municipal wastewater systems*, waste management and the provision of utility services. The transportation system policies seek to improve connectivity among transportation modes for the efficient movement of people and goods. The Region's transit system is a particular focus for this Chapter because of the strong link between land use and transportation planning, and the fact that the Region is the municipal transit authority. This Chapter also includes policies relating to Region of Waterloo International Airport to further support the transportation needs of the community.

Infrastructure master plans are used to plan and develop initiatives requiring significant *infrastructure* investment and/or having multiple stakeholders. These master plans will support the Planned Community Structure of this Plan and will also be used to set Regional and area municipal priorities for decisions on *infrastructure* investments in order to promote a coordinated approach to managing urban development.

The policies in this Chapter also set out requirements regarding the review of *development applications* relating to the assessment of the potential impacts that development can have on existing or planned *infrastructure*.

Overall Goal – Undertake *infrastructure* planning, development and asset management which optimizes the use of existing *infrastructure*, accommodates forecast growth, and promotes *sustainability* and a healthy population.

Objectives:

- 5.1 Plan and manage integrated, accessible and safe *multimodal* transportation systems that provide transportation choice, and promote *sustainability*, a healthy population and the effective movement of goods.
- 5.2 Plan and manage *municipal drinking-water supply systems* using a comprehensive, integrated approach that reduces water demand, achieves efficiency of water use and protects, improves or restores the water quality and quantity.

- 5.3 Plan and manage *municipal wastewater systems* to reduce future treatment capacity requirements, optimize the use of existing wastewater treatment plants and protect, improve or restore water quality and quantity in receiving waters.
- 5.4 Plan and manage waste management facilities and operations to reduce future landfill capacity requirements, optimize the use of existing landfill sites and consider alternatives to the disposal of waste at landfill sites.
- 5.5 Coordinate with utility providers to ensure that utilities are planned and managed in a manner that supports the overall goals and objectives of this Plan.

5.A Transportation Systems Planning

General Policies

- 5.A.1 The Region, in collaboration with area municipalities, will update the Regional Transportation Master Plan to inform and implement the policies in this Plan and guide the operation of the Region's day-to-day transportation programs.
- 5.A.2 The Region, in collaboration with area municipalities and community stakeholders, will prepare and regularly update the Regional Transportation Corridor Design Implementation Guideline, Regional Transportation Impact Study Implementation Guideline, Road Allowance Study for Regional Roads, and the Region of Waterloo International Airport Master Plan to inform and implement the policies in this Plan.
- 5.A.3 The Region and area municipalities will secure the following requirements prior to, or as a condition of approval of a *development application* or *site plan*, in order to support the development and operation of the Regional transit system and/or Regional Roads:
 - (a) the granting of easements and the dedication of land, including those for future *rapid transit* lines, sidewalks, bicycle pathways, *rapid transit* stations, transit terminals, *transit stops*, public transit rights-of-way, Regional Roads, roundabouts, rideshare facilities and utilities;
 - (b) the provision of associated amenities such as transit shelters, pads, energy efficient lighting and bicycle racks. The provision of such amenities will be the financial responsibility of the owner/applicant, unless funding is available through other sources satisfactory to the Region;
 - (c) *site plan* designs that meet the needs of *pedestrians*, cyclists and transit users, thereby promoting physical activity.
- 5.A.4 The Region, area municipalities and other agencies will seek to protect and, wherever feasible, acquire abandoned rail corridors for their possible inclusion in walking, cycling and transit networks, and future utility corridors.

- 5.A.5 The Region, in collaboration with the *Province* and area municipalities will promote and plan commuter parking and drop-off facilities to reduce single occupancy vehicle trips.

Regional Transit System

- 5.A.6 The Regional transit system will be improved on an on-going basis through the addition of *rapid transit* service and the preparation and implementation of the Transit Business Plan.
- 5.A.7 The Region will partner with the *Province* and other key stakeholders to improve the linkages between the Regional transit system and existing or planned inter-regional transit systems such as GO Transit.
- 5.A.8 Transit Corridors are Regional or Area Municipal Roads or dedicated rights-of-way outside of mixed traffic that accommodate existing or planned high frequency transit service. Wherever appropriate, area municipalities will adopt policies, by-laws and/or guidelines that apply the Transit Oriented Development provisions outlined in Policy 2.D.2 for *development* along Transit Corridors.
- 5.A.9 Existing and Planned Transit Corridors are designated as shown on Map 5a. Changes to the Transit Corridors as shown on Map 5a will require an amendment to this Plan.
- 5.A.10 The Central Transit Corridor Environmental Assessment Study Area – Stage 2 is identified on Map 3a. This is the area that may be directly and/or indirectly affected by the *rapid transit* system, including but not limited to land dedications and easements. The final alignment for Stage One and the Council-endorsed alignment for Stage Two of the *rapid transit* system are also shown on Map 3a.
- 5.A.11 For the purpose of implementing the Regional Transit Network and rapid transit system as shown on Map 5a and Map 3a and as a condition of approval of a *development application* and *site plan* application and in accordance with the Planning Act, the Region may require the necessary lands or easements including *rapid transit* stations, rights-of-way and related facilities for the *rapid transit* system and the Regional Transit Network, as shown on Map 3a and Map 5a, through dedication at no expense to the Region.
- 5.A.12 The Region, in collaboration with area municipalities, will implement transit priority measures such as reserved bus lanes and bus priority at traffic signals on roads where appropriate.
- 5.A.13 Area municipal parking strategies will, to the extent feasible, support existing and planned transit service levels and Transit Oriented Development.
- 5.A.14 New passenger rail terminals will be located and designed so as to promote safe and convenient access by *pedestrians*, cyclists, transit users and motorists.

Walking and Cycling Networks

- 5.A.15 Regional cycling routes are designated as shown on Map 5c. These regional-scale routes have been identified within the Region of Waterloo Transportation Master Plan and will be developed in association with ongoing Regional and area municipal Road improvements and other activities.
- 5.A.16 The Region, in collaboration with area municipalities, will regularly update the Region of Waterloo Transportation Master Plan to review the Regional cycling routes as shown on Map 5c and further develop policies and strategies to facilitate cycling for both recreational and everyday activities.
- 5.A.17 Regional Council will maintain an Active Transportation Advisory Committee to advise the Region on the implementation of the cycling policies in this Plan and the Region of Waterloo Transportation Master Plan, in accordance with the Terms of Reference adopted and periodically reviewed by Regional Council.
- 5.A.18 Wherever feasible, sidewalks will be provided on both sides of streets where transit service currently exists or is planned, and on a minimum of one side of all other through-streets or streets that interconnect with the walking network.

Region of Waterloo International Airport

- 5.A.19 The Region of Waterloo International Airport is designated as shown on Map 3a. Permitted land uses within this designation will be related to aviation and associated uses consistent with the Region of Waterloo International Airport Master Plan. Any future adjustments to the boundaries of the Region of Waterloo International Airport will not require an amendment to this Plan, but will be reflected as part of the five-year *municipal comprehensive review* of this Plan, or the completion of a *municipal comprehensive review* as otherwise initiated by Regional Council.
- 5.A.20 In planning for land uses in the vicinity of the Region of Waterloo International Airport, area municipalities will establish policies in their official plans that:
- (a) support the long-term operation and economic role of the Airport;
 - (b) protect the Airport from development that would preclude or hinder its expansion or continued use, or which would be incompatible for reasons of public health, public safety or environmental concerns;
 - (c) ensure that the Airport and *sensitive land uses* are designed, buffered and/or separated from each other to prevent *adverse effects* from odour, noise and other contaminants;

- (d) provide for the inclusion of warning clauses advising property owners in the vicinity of the Airport of potential outdoor lighting and height restrictions, and of the potential for occasional noise-related impacts;
- (e) prohibit any land uses that may cause a potential aviation safety hazard; and
- (f) be in conformity with Transport Canada's Region of Waterloo International Airport Zoning Regulations and Canadian Aviation Regulations.

5.A.21 The Region will plan and stage improvements to the Region of Waterloo International Airport and related facilities in accordance with updates to the Region of Waterloo 20 Year Airport Master Plan.

Road Network

5.A.22 The road network that will be developed and maintained to support the policies in this Plan includes:

- (a) Existing and Planned Transit Corridors as shown on Map 5a;
- (b) Existing and Planned Regional Roads as shown on Map 5b;
- (c) Existing and Planned *Provincial Highways* as shown on Map 5b; and
- (d) Proposed Road Corridors as shown on Map 5b.

5.A.23 Regional Roads provide safe, direct, accessible and *multimodal* transportation links for moving people and goods throughout Waterloo Region, and to adjacent municipalities. Regional Roads will be planned and constructed in accordance with the provisions of the Regional Transportation Corridor Design Implementation Guideline.

5.A.24 The Region will update the Regional Road Access By-law as required for the purposes of classifying Regional Roads as either:

- (a) Controlled Access – Prohibited: no access to these roads is generally permitted in recognition of their need to facilitate the efficient movement of high volumes of traffic within and between area municipalities and to *Provincial Highways*. Exemptions to permit access to these roads require the approval of Regional Council through amendment to the Controlled Access By-law.
- (b) Controlled Access – Regulated: in recognition of the need to protect the regional transportation function served by these roads, the number and design of access points to the road system is regulated by the Regional Access Permit process.

- 5.A.25 Where a proposed *development* is likely to generate significant traffic as defined in the Regional Transportation Impact Study Implementation Guideline, the Region will require the owner/applicant to undertake a Transportation Impact Study in accordance with the provisions of the guideline to assess the impact of the *development* on the regional transportation system. In addition to determining the impact of private vehicles, the Transportation Impact Study will examine ways of encouraging alternative forms of transportation such as walking, cycling and public transit, and recommend necessary improvements. Such studies and measures will be the financial responsibility of the owner/applicant.
- 5.A.26 In addition to the applicable Regional and area municipal requirements, all development applications adjacent to Provincial Highways are subject to the requirements and permits of the Province under the Public Transportation and Highway Improvement Act. New entrances or the upgrading of entrances, location of buildings, signs and encroachments within the Ministry of Transportation's permit control area of a Provincial Highway will be subject to the approval of the Ministry. Development applications proposing large traffic generators within the permit control area will require the submission of a Transportation Impact Study in accordance with the Ministry's "General Guidelines for the Preparation of Traffic Impact Studies". The Ministry of Transportation may identify the need for other information and materials through the pre-submission consultation meeting with the Region and/or applicable area municipality.
- 5.A.27 Where a proposed *development application* may compromise the Environmental Assessment Act requirements for a Proposed Regional Road Corridor as shown on Map 5b, a future Proposed Transit Corridor, Proposed *Provincial Highway*, or Proposed Provincial Transit Corridor not shown on Map 5b, the Region and/or area municipalities may, in consultation with the *Province*, whenever appropriate, consider the proposed *development application* to be premature until transportation planning and Environmental Assessment studies are completed.
- 5.A.28 Where a proposed *development application* is affected by road improvements that are subject to a Municipal Class Environmental Assessment and/or Transit Project Assessment, the assessment will be completed to the extent required before approval of the *development application* by the Region or area municipality.
- 5.A.29 The following changes to the designations of roads as shown on Map 5b may be made without amendment to this Plan:
- (a) to recognize the construction of a Planned Regional Road or *Provincial Highway*; and
 - (b) to implement the alignment of a Proposed Regional Road consistent with the corridor as shown on Map 5b.
- 5.A.30 All Regional Roads will be classified as truck routes unless prohibitions or time restrictions are imposed on particular sections based on the following:

- (a) the section of roadway is not designed or constructed for heavy truck traffic or long vehicles;
- (b) there are critical height or weight restrictions on the section of roadway;
- (c) the land uses adjacent to the roadway are primarily front-lotted urban residential and a suitable alternate route is available; or
- (d) other considerations as determined by Regional Council.

Regional Road Design, Construction and Operation

- 5.A.31 The design, construction and operation of Regional Roads, and *development applications* or *site plans* that affect Regional Roads, will be in accordance with the provisions of the Regional Transportation Corridor Design Implementation Guideline, the Regional Transportation Impact Study Implementation Guideline, the Regional Road Access By-law Implementation Guideline, the Regional Cycling Master Plan, the Regional Pedestrian Master Plan and applicable area municipal design guidelines.
- 5.A.32 In general, direct access to Regional Roads will be managed to maintain the integrity of the Regional Road system as follows:
- (a) *development* along a Regional Road will have access provided from area municipal roads, wherever feasible. The need for, and feasibility of, providing access to a Regional Road will be determined by the Region in consultation with the area municipality;
 - (b) access locations will be discouraged in close proximity to intersections, at-grade railway crossings, road abutments, along lanes specifically identified for the purpose of exclusive vehicular turning movements, or where minimum sight distance requirements are not met; and
 - (c) openings in a centre median for a private access will only be permitted where there will be substantial trip generation or transit movements, and appropriate traffic control strategies can be implemented.
- 5.A.33 Where a safe access cannot be provided, or where any proposed new access, either alone or in combination with existing accesses, is determined by the Region to be detrimental to the operation of the Regional Road, such access may be denied.

Designated Regional Road Allowances

- 5.A.34 Designated Regional Road Allowances are shown in Schedule 'A'. An amendment to Schedule 'A' will be required where there is a proposal to change a designated Regional Road Allowance.
- 5.A.35 The Region will require road widenings from all lands contained within *development applications* and/or *site plans*, where the existing road allowance is less than the designated Regional Road Allowance, or where an additional widening is required in accordance with Policy 5.A.36. Any such road widenings will be obtained by dedication prior to, or as a condition of, the approval of the *development application* and/or *site plan*, in accordance with the provisions of the Planning Act, the Regional Implementation Guideline on the Dedication of Land for Regional Roads, and the Regional Implementation Guideline for Road Allowance Dedications On or Adjacent to Known and Potentially Contaminated Sites.
- 5.A.36 In addition to requiring road widenings to secure the Designated Road Allowance shown in Schedule 'A', the Region may require road widenings as a condition of approval of a *development application* and/or *site plan*, for the following purposes:
- (a) to provide for dedicated pedestrian and/or dedicated cycling infrastructure, including sidewalks, multi-use trails, and/or or cycling lanes;
 - (b) to provide for transit and *rapid transit infrastructure*, planned or existing, including dedicated transit right-of-way, station/stop infrastructure and/or other transit system *infrastructure* requirements;
 - (c) to provide suitable access to major traffic generators or attractors; and
 - (d) to accommodate cut and fill slopes.
- 5.A.37 For the purposes of the *site plan* control provisions of the Planning Act, each Regional Road described in Schedule 'A' will constitute a "highway to be widened", and the designated Regional Road Allowance plus the road widenings specified in Policy 5.A.36 will constitute the "extent of the proposed widening".
- 5.A.38 The boundaries of the designated Regional Road Allowance will generally be equidistant from, and parallel to, the centre line of the original road allowance. However, unequal widenings may be required as a result of inaccuracies in the original surveys, legal encroachments, topographic features, historic building locations, significant environmental concerns or other unique conditions.
- 5.A.39 The Region may, where special circumstances warrant, without amendment to this Plan, reduce the required road widenings for any specific *development application* and/or *site plan*, or road section in accordance with the provisions of the Regional Implementation Guideline on the Dedication of Land for Regional Roads and the

Regional Implementation Guideline for Road Allowance Dedications On or Adjacent to Known and Potentially Contaminated Sites.

Rail Network

- 5.A.40 The Region will collaborate with agencies and rail service providers to plan and stage improvements to railway *infrastructure* and services to facilitate the movement of people and goods into and out of Waterloo Region, and improve the safety and efficiency of the regional transportation system.
- 5.A.41 The Region will review and endeavour to protect the potential for future rail transportation and related infrastructure through strategic planning for the land use and transportation needs of the community.

5.B Wastewater Treatment

General Policies

- 5.B.1 The Region will prepare and update a Regional Wastewater Treatment Master Plan that supports the policies in this Plan, provides direction for planning and staging of investments in the Region's wastewater treatment plants and related facilities, guides the operation of the Region's day-to-day wastewater treatment programs, and protects human health and the natural environment.
- 5.B.2 The Region will evaluate wastewater servicing options for *development applications*, based on the following order of priority:
- (a) extension of servicing from a *municipal wastewater system*, unless it can be demonstrated to the satisfaction of the Region that such a servicing option is not feasible; and
 - (b) new individual wastewater treatment systems, except where such systems are not permitted in accordance with Policy 5.B.6.
- 5.B.3 A wastewater treatment surcharge may be assessed to specific businesses as a means of recovering additional costs associated with the treatment of high concentration effluent at a Regional wastewater treatment plant.
- 5.B.4 Area municipalities are responsible for monitoring inflow and infiltration associated with area municipal wastewater collection systems, except in the Townships of North Dumfries and Wellesley where the Region has assumed responsibility for the wastewater collection systems. The Region and area municipalities, as applicable, will complete Inflow and Infiltration, and Sanitary Capacity Studies, and establish a program to implement recommendations of the approved studies prior to consideration being given to the expansion of Regional wastewater treatment plants.

- 5.B.5 The nature or concentrations of wastewater from non-residential sources will be regulated by the Region through the Sewer Use By-law, which may be periodically amended by Regional Council.

Individual Wastewater Treatment Systems

- 5.B.6 Notwithstanding Policy 5.B.2, *development applications* proposing the use of new individual wastewater treatment systems will not be permitted within:
- (a) Wellhead Protection Sensitivity Area 1, High Microbial Risk Management Zones and Surface Water Intake Protection Zone 1, as described in the policies in Chapter 8; and
 - (b) the Urban Area designation, except as provided for in Policies 2.D.28 and 2.D.29; and
 - (c) the Township Designated Greenfield Areas designation.
- 5.B.7 Prior to the approval of any *development applications* proposing the use of individual wastewater treatment systems, studies prepared in accordance with the provisions of the Guidelines for Hydrogeological Studies for Privately Serviced Developments and approved by the Region, must have demonstrated that such system(s) can operate satisfactorily on the site and will not have a negative impact on groundwater resources.
- 5.B.8 *Development applications* proposing alternative individual wastewater treatment systems will only be permitted where the proposed lot size would accommodate a conventional individual wastewater treatment system.

5.C Water Supply

General Policies

- 5.C.1 The Region will implement the Regional Long-Term Water Supply Strategy to support the policies in this Plan, provide direction for the planning and staging of investments in the Region's *municipal drinking-water supply systems*, guide the operation of the Region's day-to-day water supply programs, and protects human health and the natural environment. When planning for the establishment of new *municipal drinking water-supply systems*, among other considerations as part of the associated Environmental Assessment process, consideration will be given to the potential impacts on *mineral aggregate resources*.
- 5.C.2 The Region will implement the Regional Water Efficiency Master Plan and continue to develop and collaborate with community stakeholders on a range of water efficiency and demand reduction programs.
- 5.C.3 The Region will evaluate water supply servicing options for *development applications*, based on the following order of priority:

- (a) extension of servicing from a *municipal drinking-water supply system*, unless it can be demonstrated to the satisfaction of the Region that such a servicing option is not feasible;
- (b) new private wells, except where such wells are not permitted in accordance with Policy 5.C.4.

Private Wells

- 5.C.4 Notwithstanding Policy 5.C.3, *development applications* proposing the use of private wells will not be permitted within:
- (a) Wellhead Protection Sensitivity Area 1, High Microbial Risk Management Zones and Surface Water Intake Protection Zone 1, as described in Chapter 8; and
 - (b) the Urban Area designation, except as provided in Policy 2.D.29; and
 - (c) the Township Designated Greenfield Areas designations.
- 5.C.5 Prior to the approval of any *development applications* that propose the use of private wells as a servicing option, studies undertaken in accordance with the provisions of the Regional Implementation Guideline for Source Water Protection Studies, must have demonstrated that such wells can operate satisfactorily on the site and not negatively affect groundwater resources.
- 5.C.6 Where a *development application* proposes the use of private wells to supply potable water, only drilled wells with appropriate surface casing will be permitted.

5.D Regional Infrastructure Planning Agreements and Monitoring

- 5.D.1 The Regional servicing requirements for planned development and projected growth will be monitored to ensure that the total system capacities are not exceeded, and to provide sufficient lead time for the planning, design, approval, financing and construction of new facilities.
- 5.D.2 The Region, in collaboration with area municipalities, will specify procedures for the allocation of drinking-water supply and wastewater capacity for *development applications* approved under the Planning Act. Such procedures will include reserved capacity allocations for *reurbanization* within the Built-Up Area and new *development* within Urban and Township Designated Greenfield Areas, in conformity with the policies in Chapter 2, and consistent with applicable area municipal staging of development policies. Specific allocations for non-residential *development* will be provided as required.

- 5.D.3 The commitment of existing drinking-water supply and wastewater capacity to *development* will take place through an agreement specifying services between the Region and the owner/applicant for a specified time period. The Region will, in collaboration with area municipalities, review the potential for the *development* to achieve final approval prior to granting an extension of an agreement for services.

5.E Waste Management

- 5.E.1 The Region will prepare and update a Regional Waste Management Master Plan that supports the policies in this Plan, provides direction for planning and staging of investments in the Region's waste management facilities and guides the operation of the Region's day-to-day waste management programs.
- 5.E.2 The Region will design, operate and monitor waste management facilities in such a manner as to promote *sustainability* and public health and, wherever feasible, provide for future adaptive re-use opportunities in accordance with applicable area municipal official plan policies and Provincial requirements.
- 5.E.3 The Region will coordinate the collection and haulage of materials for recycling and composting to Regional waste management facilities and maximize opportunities for local composting and waste recycling.
- 5.E.4 Pursuant to the Environmental Protection Act, written approval from the *Province* will be required prior to consideration of a *development application* within areas formerly used as waste management facilities.
- 5.E.5 The Region will encourage the *Province* to use its regulatory authority to restrict landowners from discarding waste in private waste management facilities.
- 5.E.6 All Regional departments and agencies are encouraged to select products that have the least environmental impact, including products that:
- (a) contain a high proportion of recycled materials;
 - (b) contain the least amount of packaging;
 - (c) can be readily recycled or re-used; and
 - (d) contain no *hazardous chemicals and/or substances* and minimal toxic substances.

5.F Utilities

- 5.F.1 The Region will review and comment on Environmental Assessment Studies, and may participate in the Environmental Assessment process for major utilities related projects to ensure that potential impacts on matters of Regional and Provincial interest are addressed.

- 5.F.2 Utility providers proposing to locate, relocate, or replace a facility within a Regional Road Allowance will require Regional approval and be subject to the provisions of all applicable Regional by-laws and Regional Implementation Guidelines.
- 5.F.3 Prior to receiving approval to locate, relocate, or replace a facility within a Regional Road Allowance or on other land owned by the Region, the utility provider may be required to conduct a public information meeting in an effort to identify and resolve the concerns of adjacent residents.
- 5.F.4 The Region will continue to advise utility providers of the need to:
- (a) review the region-wide inventory of *cultural heritage resources* and areas of *archaeological potential* prior to undertaking construction, demolition or maintenance projects;
 - (b) consult with the Region and area municipalities;
 - (c) mitigate any impacts on *cultural heritage resources* including *archaeological resources* through acceptable conservation measures; and
 - (d) place equipment and devices in locations which do not detract from the visual character of cultural heritage resources and do not have a negative impact on the architectural integrity of these resources.
- 5.F.5 The Region and area municipalities will confirm, as part of the *development* review process, that utility providers are able to provide services to support the proposed *development* in a timely manner and that, if required, appropriate locations for large utility equipment and utility cluster sites have been determined.

6. Supporting the Countryside

Waterloo Region's countryside contains a diversity of landscapes that both surround and sustain the region's urban areas. The countryside is made up of many unique natural and cultural heritage features as well as valuable natural resources, including agricultural lands, *woodlands*, mineral aggregate deposits and groundwater recharge areas. These assets form part of the region's rich natural capital and contribute to the community's quality of life. The policies in this Plan seek to protect the countryside from urbanization and inappropriate rural activities, while sustainably managing its natural resources for the needs of current and future generations.

Agriculture forms an important part of the region's economy and provides many positive benefits. Each job in the primary agriculture sector has been shown to support an additional four jobs in the wider regional economy. As providers of fresh, locally grown food, area farmers play an important role in the health of the community. Local agriculture also promotes *sustainability* by reducing reliance on longer distance food imports.

Although the region has some of the best farmland in Ontario, this Plan recognizes that simply protecting farmland will not guarantee that it will be actively and viably farmed. Farm businesses today face many economic challenges in a globally competitive environment. To help keep farmers on the land, this Plan contains policies that support on-farm diversification strategies as a means of supplementing farm income.

The surrounding countryside is also home to a large community of Mennonites whose ancestors were among the first pioneers to the region. The culture and farming practices of the Mennonites contribute to the strength of the region's agricultural sector. This Plan seeks to preserve and support the social, economic and cultural needs of this distinct segment of the region's rural population that, in many cases, still relies on horse-drawn vehicles for their primary means of transportation.

The region's countryside includes a series of smaller Rural Settlement Areas and Rural Employment Areas that provide opportunities for living and working in a rural setting. Most of these areas are serviced by private wells and individual wastewater treatment systems and have limited potential for growth. In the future, these areas will primarily grow through infill development that is consistent with their rural character and limited *infrastructure* capacities.

This Plan identifies a broad band of permanently protected *environmental features* and agricultural lands known as the Protected Countryside. This designation contains a unique concentration of farmlands, *woodlands*, watercourses, river valleys and *wetlands*. It also includes several significant Regional Recharge Areas, which sustain some of the richest sources of groundwater in the Grand River watershed and account for a significant share of the region's water supply. The Protected Countryside will permanently protect these critical areas from urban development to ensure the region's continued environmental and economic health.

Overall Goal – Protect the rural character of the countryside while supporting the development of strong and prosperous rural communities.

Objectives:

- 6.1 Permanently protect the ecological and groundwater recharge functions of the Protected Countryside.
- 6.2 Support agriculture as the predominant land use within the countryside and help strengthen the viability of the farm sector.
- 6.3 Conserve renewable and non-renewable resources, while providing for their *sustainable* use by current and future generations.
- 6.4 Protect and enhance the countryside's open space character, topography, natural *linkages* and rural landscapes.

6.A Countryside

- 6.A.1 The Prime Agricultural Area and Rural Areas are designated as shown on Map 7.
- 6.A.2 The Prime Agricultural Area designation identifies an area where *prime agricultural lands* predominate. This designation includes areas of *prime agricultural lands* and associated areas of Canada Land Inventory Class 4 to 7 soils, and additional areas where there is a local concentration of farms that exhibit characteristics of ongoing agriculture.
- 6.A.3 The Rural Areas designation identifies areas where Canada Land Inventory Class 4 to 7 soils predominate and which are typically characterized by one or more of steep slopes, *environmental features* and/or existing *non-farm lots*.
- 6.A.4 The primary land uses permitted in the Prime Agricultural Area and Rural Areas designations will include *agricultural uses*, *agriculture-related uses* and *secondary uses* as set out in the policies in this Chapter.
- 6.A.5 Within the Prime Agricultural Area and Rural Areas designations, all types, sizes and intensities of *agricultural uses* and *normal farm practices* will be promoted and protected in accordance with *Provincial* standards.
- 6.A.6 *Mineral aggregate operations* may be permitted as an interim use in the Prime Agricultural Area and Rural Areas designations in accordance with the policies in Chapter 9.
- 6.A.7 *Recreational and tourism uses*, *rural institutional uses* and limited infill residential uses may be permitted in Rural Areas in accordance with the policies in this Chapter.

- 6.A.8 Within the Environmentally Sensitive Landscape designation as shown on Map 4, Policies 7.B.6 to 7.B.19 supersede the policies in this Chapter to the extent of any conflict.
- 6.A.9 The Region will identify *specialty crop areas* in accordance with the evaluation procedures established by the *Province*. These *specialty crop areas* will be designated on Map 7 through a future amendment to this Plan.

6.B Protected Countryside

- 6.B.1 The Protected Countryside is designated as shown on Map 7. This designation identifies a continuous band of *environmental features* and agricultural lands surrounding the north, west and south sides of the Urban Area designation that is to be permanently protected. Lands within the Protected Countryside contain a large concentration of *prime agricultural lands*, *woodlands*, watercourses, portions of the Grand River valley, *wetlands*, Environmentally Sensitive Landscapes, Regional Recharge Areas, and portions of the Waterloo and Paris-Galt Moraines and *mineral aggregate resources*. The Protected Countryside is intended to permanently protect these valuable areas from urban development, while providing for the continued use of the lands for agriculture, environmental and other appropriate rural uses including appropriate access to natural resources including *mineral aggregate resources* in conformity with the policies in this Plan.

Within the Southwest Kitchener Policy Area designated on Maps 7 and 7a the final extent of the Protected Countryside has yet to be determined. The final extent of the Protected Countryside as it applies to the lands within the Southwest Kitchener Policy Area will be coincident with the final boundary of the Regional Recharge Area and will be determined through the next *municipal comprehensive review* process to be undertaken not later than 2019. The final location of the Protected Countryside as it applies to the Southwest Kitchener Policy Area will be implemented by a future amendment to this Plan. The current Protected Countryside designation adjacent to the Southwest Kitchener Policy Area as shown on Map 7a will be considered as the minimum extent of the designation for the purposes of this future review process and there will be no reconsideration of the extent of the Protected Countryside designation on lands to which it applies outside of the Southwest Kitchener Policy Area.¹

- 6.B.2 Land uses within the Protected Countryside will be regulated in accordance with the underlying policies of the Prime Agricultural Area, Rural Areas or Landscape Level Systems designations as shown in this Plan.

¹ As part of the approval of Amendment No. 6 to this Plan, the Province has determined the boundaries of the Countryside Line and the Protected Countryside in the Southwest Kitchener Policy Area as shown on Map 1. The Region will update the boundaries of the Regional Recharge Area shown on Maps 4 and 6g to align with the Province's decision through a future housekeeping amendment.

- 6.B.3 Expansions of the Urban Area, Township Urban Areas, Highway 401/Regional Road 97 Employment Area, Rural Settlement Areas or Rural Employment Areas will not be permitted into the Protected Countryside, except as provided for in Policy 6.B.4.
- 6.B.4 Minor expansions of Rural Settlement Areas located within the Protected Countryside designation may be permitted to facilitate the enlargement of an *existing* employment, recreational or institutional use subject to the provisions of Policy 6.G.8 and, where applicable, Policy 7.B.25. Such expansions will not be permitted where the lands subject to the expansion proposal are also designated as Environmentally Sensitive Landscape.
- 6.B.5 The designation of lands as Protected Countryside will not affect *agricultural uses* and associated *normal farm practices* as defined in applicable Provincial legislation and regulations in conformity with approved area municipal official plans and zoning by-laws, and statutes, policies and regulations of other government agencies, including agricultural drainage through municipal or agreement drains.
- 6.B.6 Nothing in this Plan shall prevent the owner of a legal lot of record located within the Protected Countryside designation from obtaining a building permit to construct or enlarge a house, accessory building or farm structure, provided it is in conformity with all other Regional, area municipal and Grand River Conservation Authority policies and regulations.

6.C General Policies

The policies in Section 6.C apply to the Prime Agricultural Area and Rural Areas designations.

- 6.C.1 New land uses, including the creation of separate lots, expansions of existing lots and the development of new or expanding livestock facilities, will comply with the *minimum distance separation formulae*.
- 6.C.2 The placing of fill, removal of topsoil or extraction of peat will generally be discouraged within the Prime Agricultural Area and Rural Areas designations. Area municipalities are encouraged to regulate such activities through site alteration by-laws, passed under the provisions of the Municipal Act or Topsoil Preservation Act, and to require the rehabilitation of lands from which peat or topsoil has been removed.
- 6.C.3 Additional permanent or temporary *farm-related residential units* may be permitted on a farm without severance to accommodate full-time farm employees, including members of the farm household directly involved in the farm operation, provided that:

- (a) the size, nature and productive capability of the farm operation warrant additional farm employment for extended periods of time such that additional on-site accommodation is considered necessary;
 - (b) any new permanent dwellings will be limited to bunkhouses or the conversion and/or expansion of *existing farm-related residential units*;
 - (c) any new temporary dwellings will be located near existing farm buildings and will be removed if they are no longer required to accommodate farm employees; and
 - (d) the site can be appropriately serviced by private wells and individual wastewater treatment systems.
- 6.C.4 To preserve and support the historic, social and cultural needs of a unique segment of the region's existing rural community which relies on horse-drawn vehicles as their primary means of transportation, area municipalities may, by amendment to their zoning by-law, permit the establishment of small-scale schools, places of worship and associated cemeteries. In prime agricultural areas, an alternative locational analysis needs to be completed and the policies of Section 6.D.1 (b) to (d) inclusive, apply.
- 6.C.5 Minor intensification of, or minor lot additions to, *existing* industrial, commercial, recreational and/or institutional uses, including minor changes to the uses thereof, may be permitted within the limits of the existing or expanded property.
- 6.C.6 The Region will endeavour to support environmentally *sustainable* agriculture by assisting farmers in the development of individual Environmental Farm Plans to minimize soil degradation, protect the quality and quantity of water resources, improve the management of potential on-site pollution sources and to maintain, enhance or, where feasible, restore the *ecological functions* of elements of the Greenlands Network.

Agriculture-Related Uses

- 6.C.7 Area municipalities will establish policies in their official plans to permit *agriculture-related uses* within the Prime Agricultural Area and Rural Areas designations, subject to the following:
- (a) the use minimizes the amount of land removed from agricultural production and is suitable for the site in comparison to other reasonable alternatives available in the area municipality, including sites with poorer agricultural soils or where fragmented or smaller lots and/or a mix of *non-farm lots* may already exist;
 - (b) the use mitigates any potential land use conflicts with adjacent farms and other land uses;

- (c) the use can be appropriately serviced by private wells and individual wastewater treatment systems; and
- (d) the severance of a lot for an *agriculture-related use* created in accordance with this policy may be permitted only in accordance with Policy 6.E.7.

Secondary Uses

6.C.8 Area municipalities will establish policies in their official plans to permit *secondary uses* within the Prime Agricultural Area and Rural Areas designations, subject to the following:

- (a) the *secondary use* will be clearly accessory to the principal use of the property;
- (b) the *secondary use* will be small in scale and compatible with surrounding agricultural operations;
- (c) for *secondary uses* located on a farm, any buildings, structures or facilities associated with the *secondary use*, except roadside produce stands, will be integrated with the main farm buildings and be constructed in a manner that will allow for ease of conversion to an *agricultural use* should the *secondary use* cease to exist. Minor retailing of products will be permitted directly from the farm provided that sales are limited to those goods produced or manufactured primarily on the farm; and
- (d) the severance of a lot for a *secondary use* created in accordance with this policy will not be permitted.

6.C.9 Area municipalities will establish regulations for *secondary uses* in their zoning by-laws.

Expansion/Intensification of Existing Employment Uses within the Countryside Line

6.C.10 Lands located between the Urban Area/Township Urban Areas designations and the Countryside Line shown on Map 7 will continue to be subject to the Prime Agricultural Area and Rural Areas policies in this Plan, except where a development application is submitted to expand or intensify an existing employment use. In such situations, an area municipality may consider approving the development application without an amendment to this Plan only where:

- (a) there is a demonstrated need to expand or intensify the use;
- (b) the uses minimizes the amount of land removed from agricultural production;

Inoperative, see page ii)

- (c) the land use mitigates any potential land use conflicts with adjacent farms and other land uses;
- (d) the proposed land use will not compromise comprehensive planning for the future development of a *complete community* on the lands located within the Countryside Line; and
- (e) the use is in conformity with all other applicable policies of this Plan.

6.D Rural Areas Special Policies

Recreational and Tourism Uses

- 6.D.1 Area municipalities may permit the establishment or expansion of a *recreational and tourism use* within the Rural Areas designation by amendment to their official plan, provided that:
- (a) any buildings or structures associated with the use are small-in-scale and do not include overnight guest accommodation, with the exception of campgrounds;
 - (b) the use is compatible with surrounding agricultural operations;
 - (c) the use minimizes the amount of land removed from agricultural production;
 - (d) the use complies with other policies in this Plan regarding mineral aggregate extraction, source water protection, the natural environment and water and wastewater servicing; and
 - (e) for proposed golf courses, the proponent submits a Best Management Practices report to the satisfaction of the area municipality that outlines measures to minimize irrigation, fertilizer and pesticide use requirements through use of Integrated Pest Management, promotes native and naturalized vegetation and minimizes active use areas.

Rural Institutional Uses

- 6.D.2 Area municipalities may permit the establishment or expansion of a *rural institutional use* by amendment to their official plan and/or zoning by-law, provided that the proposed use:
- (a) has a demonstrated need to locate within the Rural Areas designation; and
 - (b) will be in conformity with Policy 6.D.1 (a) to (d).

6.E Lot Creation and Lot Adjustment Policies

- 6.E.1 *Development applications* to create a new residential lot within the Prime Agricultural Area or Rural Areas designations, or which would otherwise result in the creation of a new residential lot, will not be permitted except in the following circumstances:
- (a) to create a lot for a second residence designated under the Heritage Act that would become surplus to the farm operation as a result of a proposed consolidation of the farm, subject to Policy 6.E.8; and
 - (b) within the Rural Areas designation, to create new infill lots for residential purposes within an existing grouping of rural residential lots that has not been designated in an area municipal official plan as a Rural Settlement Area, subject to Policy 6.E.10.
- 6.E.2 *Development applications* to create new non-residential lots within the Prime Agricultural Area or Rural Areas designations may be permitted only in the following circumstances:
- (a) within both the Prime Agricultural Area and Rural Areas designations, to create new farm parcels, or reconfigure existing farm parcels where lands are severed from one farm parcel and conveyed as a lot addition to an adjoining farm and held in one ownership in accordance with Policy 6.E.3;
 - (b) within both the Prime Agricultural Area and Rural Areas designations, to sever lands for *agriculture-related uses* in accordance with Policies 6.E.4 and 6.E.7;
 - (c) within both the Prime Agricultural Area and Rural Areas designation, to facilitate conveyances to public bodies or non-profit entities for the conservation of *environmental features* or elements of the Greenlands Network, in accordance with Policy 6.E.9; and
 - (d) within the Rural Areas designation, to create lots for *recreational and tourism uses* and *rural institutional uses*, in accordance with Policies 6.E.4, 6.E.11 and 6.E.13.

Farm Lot Severances

- 6.E.3 *Development applications* to create a new farm parcel, or reconfigure existing farm parcels where lands are severed from one farm parcel and conveyed as a lot addition to an adjoining farm and held in one ownership, will comply with the following:
- (a) the minimum lot area for both the newly created and retained farm parcels will be 40 hectares each; or

- (b) where the newly created or retained farm parcels would have lot areas less than 40 hectares, the owner/applicant will be required to provide information satisfactory to the Region, which demonstrates that the resulting farm parcels will:
 - i) be of a size appropriate for the type of *agricultural uses* common in the area; and
 - ii) be sufficiently large enough to sustain an economically viable farm operation and to maintain flexibility for future changes in the type or size of agricultural operations.
- 6.E.4 *Development applications* to sever lands from an existing farm parcel for an *agriculture-related use, recreational and tourism use, rural institutional use*, or for the purposes of conserving *environmental features* or elements of the Greenlands Network as provided for in this Plan, will be in conformity with all applicable policies in this Plan and the following:
- (a) the minimum lot area for the retained farm parcel will be 40 hectares; or
 - (b) where the retained farm parcel would have a lot area less than 40 hectares, the owner/applicant will be required to provide information satisfactory to the Region, which demonstrates that the resulting farm parcel will:
 - i) be of a size appropriate for the type of *agricultural uses* common in the area; and
 - ii) be sufficiently large enough to sustain an economically viable farm operation, and to maintain flexibility for future changes in the type or size of agricultural operations.
- 6.E.5 The Region may consult with the *Province*, or other professionals knowledgeable in farm economics and management, at the owner's/applicant's expense, to evaluate the farm severance for conformity with the provisions of Policies 6.E.3 and 6.E.4.
- 6.E.6 This Plan recognizes that there are many existing farm parcels within the Prime Agricultural Area and Rural Areas designations that are less than 40 hectares in area. These undersized parcels are considered as *agricultural uses* except where otherwise provided for in this Plan.

Severance of Agriculture-Related Uses

- 6.E.7 *Development applications* to sever lands for *agriculture-related uses* may be permitted, provided that:
- (a) the severed lands will be limited to a minimum size needed to accommodate the use of private wells and individual wastewater treatment systems;

- (b) the severance will not result in an undersized farm that may not be economically viable, as determined in accordance with Policy 6.E.4; and
- (c) the consent to sever will not receive final approval until the buildings or structures associated with the use have been constructed or substantially completed.

Severances for Surplus Dwellings Designated Under the Heritage Act

- 6.E.8 Where two or more farm parcels are to be merged in title into one ownership, with each lot having one dwelling, a new lot may be created for the dwelling surplus to the needs of the merged farm provided that:
- (a) the surplus dwelling is designated by the area municipality as a heritage property under the Heritage Act; and
 - (b) the new lot has a maximum area of one hectare, except where natural features or existing lot patterns justify the inclusion of additional lands.

Severances for Woodlands/Conservation Lands

- 6.E.9 Conveyance of lands specifically for the purpose of conserving *environmental features* or elements of the Greenlands Network may be permitted only where such lands are both designated and zoned in the area municipal official plan and zoning by-law to prohibit any use not related to conservation, and are covered by a conservation easement granted in favour of the Region, area municipality or other conservation organizations acceptable to the Region. The creation of such lots will not be permitted where the configuration of the remnant parcels will create the potential for new *non-farm lots*.

Severances for Residential Infilling – Rural Areas Only

- 6.E.10 Within the Rural Areas designation, area municipalities may permit the creation of new lots for residential infill purposes within an existing grouping of rural residential lots that has not been designated as a Rural Settlement Area within the area municipal official plan, provided that:
- (a) the existing grouping of lots accommodating the proposed infilling lot(s) presently consists of a grouping of four or more *non-farm lots*, with each such unit or lot separated from each other by no more than 100 metres on the same side of an open public road;
 - (b) the measurement of the 100 metre separation distance is determined in accordance with the *rural residential infilling formulae*;

- (c) the new lot has a maximum area of one hectare, except where natural features or existing lot patterns justify inclusion of additional lands;
- (d) the new lot is not located within a Source Water Protection Area where individual wastewater treatment systems are identified as a prohibited use in accordance with the policies in Chapter 8; and
- (e) the new lot can be appropriately serviced by private wells and individual wastewater treatment systems.

Severances for Recreational and Tourism Uses – Rural Areas Only

6.E.11 Within the Rural Areas designation, *development applications* to sever new lots for *recreational and tourism uses* established in accordance with Policy 6.D.1 may be permitted, provided that:

- (a) the new lot will be limited to a minimum size needed to accommodate the use;
- (b) the severance will not result in an undersized farm that may not be commercially viable, as determined in accordance with Policy 6.E.4;
- (c) the lands to be severed have been designated and zoned in the area municipal official plan and zoning by-law to permit only the proposed use; and
- (d) the new lot can be appropriately serviced by private wells and individual wastewater treatment systems.

6.E.12 Within the Rural Areas designation, *development applications* to expand the lot areas of *existing recreational and tourism uses* may be permitted, provided that:

- (a) the *existing use* is not a legal non-conforming use;
- (b) there is a demonstrated need for the additional land area;
- (c) the use minimizes the amount of land that is removed from agricultural production;
- (d) the expansion does not adversely affect the ability of surrounding agricultural operations to carry out *normal farm practices*; and
- (e) the severance will not result in an undersized farm that may not be commercially viable, as determined in accordance with Policy 6.E.4.

Severances for Rural Institutional Uses

6.E.13 Within the Rural Areas designation, *development applications* to sever new lots for *rural institutional uses* established in accordance with Policy 6.D.2 may be permitted, provided that:

- (a) the new lot will be limited to a minimum size needed to accommodate the use;
- (b) the severance will not result in an undersized farm that may not be commercially viable, as determined in accordance with Policy 6.E.4;
- (c) the severed lands have been designated and zoned in the area municipal official plan and zoning by-law to permit only the proposed use; and
- (d) the new lot can be appropriately serviced by private wells and individual wastewater treatment systems.

6.E.14 Within the Prime Agricultural Area or Rural Areas designations, *development applications* to expand the lot areas of *existing rural institutional uses* may be permitted, provided that:

- (a) the *existing use* is not a legal non-conforming use;
- (b) there is a demonstrated need for the additional land area;
- (c) the use minimizes the amount of land removed from agricultural production;
- (d) the expansion does not adversely affect the ability of surrounding agricultural operations to carry out *normal farm practices*; and
- (e) the severance will not result in an undersized farm that may not be commercially viable, as determined in accordance with Policy 6.E.4.

Minor Lot Boundary Adjustments

6.E.15 Notwithstanding the provisions of Policies 6.E.1 and 6.E.2, a new farm or new lot will not be deemed to have been created where consent to sever is given for the following purposes:

- (a) minor adjustments to lots so as to permit conformity with existing patterns of exclusive use and occupancy, or to rectify problems created by the encroachment of buildings, structures, private wells or individual wastewater treatment systems on abutting lots, provided that such adjustments do not result in the creation of any additional lot held, or capable of being held, in distinct and separate ownership pursuant to the Planning Act;
- (b) minor adjustments to the boundaries of two adjoining *non-farm lots*

recognized by the area municipal zoning by-law, provided that such adjustments do not result in the creation of any additional lot held, or capable of being held, in distinct and separate ownership pursuant to the Planning Act;

- (c) minor adjustment to the boundaries between an adjoining farm and a *non-farm lot* that does not decrease the size of the farming operation;
- (d) acquisitions of land for *infrastructure*, where the need for the project has been demonstrated through an *Environmental Assessment* or other appropriate study and the facility or corridor cannot be accommodated through the use of easements or rights-of-way;
- (e) addressing legal or technical matters such as easements, rights-of-way, corrections of deeds, and quit claims that do not result in the creation of a separate lot, except where such easements or rights-of-way are intended to facilitate the construction of new buildings or structures on a vacant lot of record otherwise undevelopable due to a lack of frontage onto a public road. Consents for such easements will be considered an application to create a new lot and will be subject to the provisions set out in Policies 6.E.1 or 6.E.2 as applicable; or
- (f) severing from each other two or more rural lots that have unintentionally merged in title, provided the severances reflect the original lot lines.

6.F Rural Mixed-Use/Agricultural Clusters

- 6.F.1 In order to preserve and support the historic social, economic and cultural needs of a unique segment of the region's existing rural community, which relies on horse-drawn vehicles as their primary means of transportation, the Township of Wellesley may designate a limited number of sites in its official plan to permit the development of Rural Mixed-Use/Agricultural Clusters. Rural Mixed-Use/Agricultural Clusters consist of lots on which a combination of compatible residential, industrial/commercial and limited, non-commercial farming uses are permitted. In addition, Rural Mixed-Use/Agricultural Clusters may also contain lots for small-scale schools, places of worship and associated cemeteries, as required to support this segment of the rural community.
- 6.F.2 Any area municipal official plan amendment to designate a Rural Mixed-Use/Agricultural Cluster will:
 - (a) not be adopted until the area municipality has completed a planning justification report addressing the need for this type of development;
 - (b) assess the suitability of the site proposed in comparison to reasonable alternatives available in the area municipality, including consideration of minimizing impacts on agricultural areas and operations by locating on lands of poorer soil capability, or where fragmented or smaller lots and/or a mix of

non-farm lots uses may already exist;

- (c) establish a minimum and maximum number of lots to be permitted in each Rural Mixed-Use/Agricultural Cluster, based on Policy 6.F.2 (d) to (i), and the size and configuration of the selected site;
- (d) permit additional lots within the Rural Mixed-Use/Agricultural Cluster for small-scale schools, places of worship and associated cemeteries as required to support the segment of the rural community which relies on horse-drawn vehicles as their primary means of transportation;
- (e) propose lot sizes of approximately two hectares, except where studies submitted in accordance with Policy 6.F.2 (f) ii) have indicated additional lands are required to provide for wastewater and manure disposal in accordance with the requirements of the Nutrient Management Act, 2002, where appropriate, but lots will generally not be permitted to exceed four hectares in size;
- (f) be accompanied by detailed servicing studies to determine:
 - i) the suitability of the lots for servicing by private wells; and
 - ii) the suitability of the lots for servicing by individual wastewater treatment systems, and for disposal of manure in accordance with the requirements of the Nutrient Management Act, 2002, where appropriate that could reasonably be anticipated to be generated by the limited, non-commercial farming uses;
- (g) be accompanied by studies as required to address the impact of the establishment of the Rural Mixed-Use/Agricultural Cluster on the Greenlands Network in accordance with the policies in Chapter 7;
- (h) propose appropriate separation of new Rural Mixed-Use/Agricultural Clusters from each other and from Rural Settlement Areas and Rural Employment Areas, and from Township Urban Areas as required to minimize conflicts; and
- (i) be in conformity with the *minimum distance separation formulae* between Rural Mixed-Use/Agricultural Clusters and adjacent *agricultural uses*.

6.G Countryside Settlements

- 6.G.1 Rural Settlement Areas refer to existing smaller settlements, such as villages and hamlets, that generally comprise a limited mix of residential, commercial and institutional uses primarily serving the local community. These rural communities provide opportunities for living and working in the countryside, and also play a key role in the economic health and vitality of the townships. Rural Settlement Areas

are not identified within this Plan, but will be designated and zoned in area municipal official plans and zoning by-laws.

- 6.G.2 Rural Employment Areas refer to existing clusters of small-scale, industrial and associated commercial and ancillary uses. The primary function of Rural Employment Areas is to provide rural employment opportunities compatible with the surrounding countryside. Residential development will not be permitted within these areas. Rural Employment Areas are not identified in this Plan, but will be designated and zoned in area municipal official plans and zoning by-laws.
- 6.G.3 Where lands located within a Rural Employment Area are currently designated and zoned to permit commercial uses within an area municipal official plan and zoning by-law, as of the date of the adoption of this Plan by Regional Council, *development* in conformity with such designations and zoning will continue to be permitted.
- 6.G.4 Where an existing lot is partly within a Rural Settlement Area or Rural Employment Area, the part of the lot located outside the Rural Settlement Area or Rural Employment Area will be designated and zoned in the area municipal official plan and zoning by-law in accordance with the policies in this Chapter. Consent applications to sever the lot along the boundary of the Rural Settlement Area or Rural Employment Area, so as to create a new *non-farm lot* outside the Rural Settlement Area or Rural Employment Area, will not be permitted.
- 6.G.5 Area municipal official plans will delineate Rural Settlement Area and Rural Employment Area boundaries in a definitive manner.
- 6.G.6 Within Rural Settlement Areas and Rural Employment Areas, *development applications* may be approved provided that any new lots can be appropriately serviced by private wells and individual wastewater treatment systems.
- 6.G.7 The expansion of existing Rural Settlement Areas or Rural Employment Areas will not be permitted, except as provided for in Policies 6.B.4, 6.G.8 or 7.B.24.
- 6.G.8 Area municipalities, in collaboration with the Region, may give consideration to permitting a minor expansion to a Rural Settlement Area or Rural Employment Area to accommodate the future employment, recreational or institutional needs of the Township. Any such expansions will require an amendment to the area municipal official plan and will only be considered as part of the *municipal comprehensive review* of the area municipal official plan where:
 - (a) sufficient opportunities to accommodate the proposed employment, recreational or institutional use within existing Township Urban Areas, Rural Settlements or Rural Employment Areas are not available;
 - (b) the site is zoned for the specific use;

- (c) within the Prime Agricultural Area designation:
 - i) the land does not comprise a *specialty crop area*;
 - ii) there are no reasonable alternatives that avoid the Prime Agricultural Area; and
 - iii) there are no reasonable alternatives on lower priority agricultural lands in the Prime Agricultural Area;
 - (d) the potential impacts on any surrounding agricultural operations are mitigated to the extent possible; and
 - (e) the minor expansion complies with all other applicable policies in this Plan.
- 6.G.9 The Townships of North Dumfries, Wellesley, Wilmot and Woolwich may rationalize the boundaries of their respective Rural Settlement Areas, including the deletion of areas from one Rural Settlement Area designation and the addition of areas to another Rural Settlement Area designation, provided that the boundary rationalization:
- (a) only occurs at the time the area municipal official plan is first brought into conformity with this Plan;
 - (b) takes into consideration existing property configurations, patterns of existing land use, natural and constructed features, and will not extend or promote strip development;
 - (c) does not result in a net increase in developable land area;
 - (d) re-designates the area being deleted from the Rural Settlement Area as Prime Agricultural Area or Rural Areas, as appropriate, in the area municipal official plan;
 - (e) does not result in an expansion of a Rural Settlement Area into the Protected Countryside; and
 - (f) is minor and is in conformity with all other applicable policies in this Plan.
- 6.G.10 The designation of new Rural Settlement Areas or Rural Employment Areas will not be permitted.
- 6.G.11 Notwithstanding Policy 5.B.8, the lands shown on Figure 19 in the Township of Wilmot, located at 63 Benjamin Street in the New Dundee Rural Settlement Area may be developed to a maximum of six (6) lots using tertiary wastewater treatment systems, subject to all other policies of this Plan

6.H Municipal Park Use

- 6.H.1 Notwithstanding the Prime Agricultural Area, Regional Recharge Area and Protected Countryside designations and their location outside of the Countryside Line, the lands located at the southwest corner of Fischer-Hallman Road and Huron Roads may be used for the development of a municipal park (active or passive), athletic/community centre and associated facilities. The extent of the municipal park use will be determined through the development of a master plan for the lands by the City of Kitchener.

7. The Greenlands Network

The Greenlands Network is defined as *environmental features* and the *linkages* among them. The Greenlands Network, and the *ecological functions* it provides, contributes to maintaining the environmental health of Waterloo Region and the Grand River watershed. This Plan contains policies to maintain, enhance or, wherever feasible, restore the Greenlands Network. Such action is necessary to counteract the negative effects of fragmentation which can result in a loss of ecological integrity and the degradation of natural *biodiversity*. Such action is also necessary to maintain biological and geological diversity, viable populations of native species and ecosystems, and make possible adaptation in response to actual or expected effects of climate change.

This Plan recognizes the importance of *wetlands*, watercourses, lakes and groundwater to the strength of the Greenland Network. These hydrological features and their associated functions provide a variety of environmental benefits and are fundamental components of the overall ecosystem.

Responsibility for the environment is shared among Federal and Provincial governments, the Region, area municipalities, the Grand River Conservation Authority and private landowners. All have an important role in enhancing the natural environment within the region, and all have the responsibility to be good stewards. As a result, establishing a Greenlands Network requires co-operation among agencies, private landholders and the wider community.

This Chapter establishes a policy framework for a co-operative approach to the identification of the *environmental features* that comprise the Greenlands Network. It also outlines how provincially and regionally *significant* features (termed Core Environmental Features) will be maintained, enhanced or, wherever feasible, restored. The policies in this Chapter also provide direction on how other *environmental features* (termed Supporting Environmental Features) will be maintained, enhanced or, wherever feasible, restored and encourages the establishment of *linkages* among elements of the Greenlands Network

The Greenlands Network is a layered approach to environmental protection comprised of Landscape Level Systems, Core Environmental Features and Supporting Environmental Features. Each layer contains policies that provide appropriate protection to areas of environmental significance. Landscape Level Systems are recognized within the Greenlands Network as macro-scale *environmental features* or as concentrations of high quality Core and Supporting Environmental Features. Policies relating to Landscape Level Systems focus on protecting and enhancing the ecological integrity and functions of these landscapes.

Core Environmental Features form key habitat for native flora and fauna and represent the most significant elements of the regional landscape in terms of maintaining *biodiversity* and important *ecological functions*. Supporting Environmental Features play an important role in maintaining elements of the Greenlands Network not meeting the criteria for recognition as being regionally *significant*. *Linkages* between Core and Supporting Environmental

Features permit the movement of native flora and fauna and help to maintain, enhance or restore the *ecological function* of the Greenlands Network.

Overall Goal – Work with the *Province*, area municipalities, the Grand River Conservation Authority and private landowners to maintain, enhance and restore a comprehensive Greenlands Network within the region.

Objectives:

- 7.1 Maintain, enhance or wherever feasible restore environmental features and the ecological and hydrological functions of the Greenlands Network including the Grand River and its tributaries and the landscape level *linkages* among environmental features.
- 7.2 Use *watershed studies*, community plans and *development applications* as opportunities not merely to maintain, but also to enhance and restore the Greenlands Network.
- 7.3 Regulate *development* within *hazardous lands* and *hazardous sites* to prevent or minimize hazards to life and property.
- 7.4 Develop partnerships, programs and policies to maintain, enhance and restore the *ecological functions* of the Greenlands Network, including the Grand River and its tributaries.
- 7.5 Increase forest cover in appropriate locations to achieve an overall target of 30 per cent or more of the region's total land area.
- 7.6 Promote informed stewardship of the Greenlands Network.

7.A The Greenlands Network

- 7.A.1 The Greenlands Network comprises Landscape Level Systems, Core Environmental Features, Fish Habitat, Supporting Environmental Features and the *linkages* among these elements, and lands designated within the Provincial Greenbelt Plan as Natural Heritage System.
- 7.A.2 Area municipalities will designate and zone Landscape Level Systems and Core Environmental Features in their official plans and zoning by-laws respectively to regulate the use of land within these areas in conformity with the policies in Sections 7.B and 7.C.
- 7.A.3 Area municipalities are encouraged to identify and designate Supporting Environmental Features and *linkages*, and establish associated policies for these areas in their official plans in accordance with the policies in Section 7.E.

- 7.A.4 The Region will prepare and update a Regional Greenlands Network Implementation Guideline to guide the implementation of the policies in this Chapter in accordance with the provisions of Policies 10.B.9 through 10.B.14.
- 7.A.5 The Region will develop and maintain a Regional Implementation Guideline entitled Technical Appendix for Landscape Level Systems and Core Environmental Features that provide additional technical information and more precise mapping relating to each element in accordance with the provisions of Policies 10.B.9 through 10.B.14.
- 7.A.6 Interpretation of the boundaries of Landscape Level Systems and Core Environmental Features, as required to support the review of *development applications*, will be achieved through the completion of *Environmental Impact Statements* or other appropriate studies in accordance with the policies in Section 7.G.
- 7.A.7 Boundary interpretations not consistent with the Technical Appendix for Landscape Level Systems and Core Environmental Features must be approved by Regional Council, in consultation with the *Province*, area municipalities, the Grand River Conservation Authority and other stakeholders.
- 7.A.8 Boundary interpretations not generally in conformity with the Greenlands Network as shown on Map 4 will require an amendment to this Plan.
- 7.A.9 On lands where elements of the Greenland Network have not been adequately identified and evaluated through a *watershed study* or any other appropriate natural heritage review, *development* or *site alteration* will be prohibited until such time as an Environmental Impact Statement has been prepared by an owner/applicant in accordance with the policies in Section 7.G. to identify and evaluate any such elements located on the subject lands and, wherever appropriate, *contiguous* lands.
- 7.A.10 Where lands are designated as two or more elements of the Greenlands Network as shown on Map 4, the more restrictive policies pertaining to those elements will apply in the event of any conflict.
- 7.A.11 Illegal acts resulting, or having resulted, in a reduction in the form or function of an *environmental feature* within the Greenlands Network, including but not limited to such acts as tree removal, wetland filling or draining, or the diverting of watercourses, will not be recognized as existing conditions within the *development* review process. Restoration of the damaged area may be required prior to, or as a condition of, approval of any *development applications*.
- 7.A.12 Elements of the Greenlands Network that are privately owned are not for use by the public, except at the discretion of the owner.

Ecological and Environmental Advisory Committee

- 7.A.13 Regional Council will maintain an Ecological and Environmental Advisory Committee to advise the Region in the review of *development applications*, policy proposals and other matters, in accordance with terms of reference adopted and periodically reviewed by Regional Council.

7.B Landscape Level Systems

- 7.B.1 Landscape Level Systems are recognized within the Greenlands Network as large-scale *environmental features* or as significant concentrations of *environmental features*. Landscape Level Systems are designated as shown on Map 4 and comprise:
- (a) Environmentally Sensitive Landscapes;
 - (b) Significant Valleys;
 - (c) Regional Recharge Areas; and
 - (d) Provincial Greenbelt Natural Heritage System.
- 7.B.2 The designation of lands as Landscape Level Systems will not affect *agricultural uses* and associated *normal farm practices* as defined in applicable Provincial legislation and regulations in conformity with approved area municipal official plans and zoning by-laws, and statutes, policies and regulations of other government agencies, including agricultural drainage through municipal or agreement drains.
- 7.B.3 The Region will maintain, enhance or, wherever feasible, restore the scenic qualities of Regional Roads within Landscape Level Systems and area municipalities are encouraged to do the same for area municipal roads.

Environmentally Sensitive Landscapes

- 7.B.4 Environmentally Sensitive Landscapes are designated as shown on Map 4.
- 7.B.5 To qualify for designation as an Environmentally Sensitive Landscape, an area will:
- (a) fulfill all of the following:
 - i) be a geographically and ecologically definable landscape;
 - ii) contain natural features that are *contiguous*, linked or sufficiently close to allow for movement of flora or fauna through the area;
 - iii) not be bisected by major highways; and

- iv) be located primarily outside areas designated for fully serviced urban development and/or established Rural Settlement Areas; and
- (b) contain any two of the following designated natural features:
 - i) Significant Habitat of Endangered or Threatened Species;
 - ii) Environmentally Sensitive Policy Area;
 - iii) Provincially Significant Wetland;
 - iv) Regionally *significant* Earth Science Area of Natural and Scientific Interest;
 - v) Significant Valleys; or
 - vi) Significant Woodlands; and
- (c) contain any two of the following associated natural features:
 - i) rivers, major stream valleys, *floodplains* and associated *hazard lands*;
 - ii) *woodlands* greater than four hectares in extent;
 - iii) forest interior habitat;
 - iv) other *wetlands*;
 - v) significant landforms such as moraines, kettle lakes, kames, eskers and drumlins;
 - vi) *significant* wildlife habitat such as: winter habitat for deer or wild turkeys; colonial bird nesting areas; raptor roosting, feeding and nesting areas; hibernaculae or herpetofauna breeding areas; and significant migratory stop over areas; or
 - vii) specialized habitats such as but not limited to: savannas; tallgrass prairies; rare *woodland* types; cliffs; alvars; sand barrens; marl seeps; bogs; and fens; and
- (d) sustain any two of the following *ecological functions*:
 - i) provide significant groundwater storage, recharge or discharge;
 - ii) sustain a fishery resource;

- iii) provide diverse natural habitats;
- iv) provide habitat for provincially or regionally *significant* species; or
- v) serve as a *linkage*.

Environmentally Sensitive Landscape Policies

- 7.B.6 Expansions to the Urban Area, Township Urban Areas, lands designated to permit urban and recreational development within the Blair Village as designated in the City of Cambridge Official Plan, Rural Settlement Areas and Rural Employment Areas as identified in area municipal official plans are not permitted within or into Environmentally Sensitive Landscapes.
- 7.B.7 *Development* may be considered inside Rural Settlement Areas and Rural Employment Areas located within Environmentally Sensitive Landscapes, and lands designated to permit urban and recreational development within the Blair Village as designated in the Cambridge Official Plan, subject to the other policies of this Plan, area municipal official plans and the policies and regulations of other government agencies.
- 7.B.8 The creation of new lots for *non-farm-related residential units* within Environmentally Sensitive Landscapes is only permitted within Rural Settlement Areas and on lands designated to permit urban development within the Blair Village as designated in the Cambridge Official Plan.
- 7.B.9 Within the Environmentally Sensitive Landscapes designation, *development applications* submitted in accordance with the policies in Chapter 6 to:
- (a) establish or expand *recreational and tourism uses* or *rural institutional uses*;
 - (b) create a new lot, or permit a lot addition, for a *recreational and tourism use* or *rural institutional use*;
 - (c) permit the minor intensification of *existing* industrial, commercial, recreational and/or institutional uses, including minor changes in the uses thereof;
 - (d) permit new *agriculture-related uses* or *secondary uses*;
- may be considered for approval subject to the following additional criteria:
- i) there will be no *adverse environmental impacts* on *environmental features* and *ecological functions*, enhancement/restoration areas, existing corridors and *linkages*, watercourses, or the quality and quantity of groundwater within or *contiguous* to the Environmentally Sensitive Landscape resulting directly from the proposed *development* or through increases in traffic or development of required servicing *infrastructure*;

- ii) disturbance of existing natural vegetation will be minimized;
- iii) the *development* will be buffered from existing natural features by an appropriate width of natural vegetation, and will otherwise facilitate the enhancement or restoration of new areas and/or corridors and *linkages*; and
- iv) all natural landscape features, required buffer strips, and enhancement or restoration areas on the subject property are given appropriate zoning in the zoning by-law of the respective area municipality and/or protected through a Conservation Easement acceptable to the Region.

7.B.10 The following land uses will not be permitted within Environmentally Sensitive Landscapes outside Rural Settlement Areas and outside lands designated to permit urban and recreational development within the Blair Village Special District as designated within the City of Cambridge Official Plan:

- | | |
|--|--|
| (a) abattoir and rendering plants; | (n) hospitals; |
| (b) amusement, theme or water parks; | (o) illuminated play fields; |
| (c) bus yards; | (p) metal painting and fabricating; |
| (d) cemeteries, crematoria, or mausoleums; | (q) motorized vehicle tracks or competition sites; |
| (e) commercial manure composting of off-site material; | (r) paintball facilities; |
| (f) commercial motor vehicle repair, sales, service and storage; | (s) portable toilet suppliers; |
| (g) commercial thermal waste treatment (incineration); | (t) private or public schools; |
| (h) commercial water extraction; | (u) private social clubs; |
| (i) contractor's yards; | (v) resorts or conference centres; |

- | | |
|--|--|
| (j) fairgrounds or stadiums; | (w) retailing/wholesaling of chemicals and/or fuels; |
| (k) farm implement dealerships; | (x) shooting ranges; |
| (l) golf courses, driving ranges or mini-putt courses; | (y) sod farming; |
| (m) horse race tracks or casinos; | (z) trailer parks; and |
| | (zi) wood treatment (including mulch processing). |

- 7.B.11 The Region, in collaboration with willing landowners, area municipal and other agency staff, and other relevant organizations, will prepare a Regional Environmentally Sensitive Landscape Implementation Guideline for each Environmentally Sensitive Landscape. The Guideline will identify opportunities to enhance *environmental features*, landscape connectivity and the scenic value of roads within the Environmentally Sensitive Landscape, as well as landscape stewardship programs such as technical assistance or financial incentives that will assist in maintaining and/or enhancing the Environmentally Sensitive Landscape. The Guideline will not be used to introduce new policy which would restrict existing and future use of lands within Environmentally Sensitive Landscapes, and will be adopted by Regional Council following the public participation and notification requirements for Regional Implementation Guidelines outlined in the policies in Chapter 10.
- 7.B.12 Where *development* or *site alteration* is proposed on lands within or *contiguous* to an Environmentally Sensitive Landscape, the owner/applicant will be required to submit an *Environmental Impact Statement* which addresses landscape impacts in addition to any other requirements in accordance with the policies in Section 7.G.
- 7.B.13 Where review of an *Environmental Impact Statement* required in accordance with Policy 7.B.12 has demonstrated to the Region that the proposed *development* or *site alteration* would have no *adverse environmental impact* upon the *environmental features* and *ecological functions* of the Environmentally Sensitive Landscape, the Region may, subject to appropriate conditions, approve or recommend approval of the application.
- 7.B.14 Where review of an *Environmental Impact Statement* required in accordance with Policy 7.B.12 has demonstrated to the Region that a proposed *development* or *site alteration* may have an *adverse environmental impact* upon *environmental features*,

or the *ecological functions* of the Environmentally Sensitive Landscape, the Region will refuse, or recommend refusal of, the application.

- 7.B.15 Where construction of a road on a new right-of-way, widening or upgrading of an existing roadway, construction or upgrading of a trunk sewer, trunk watermain, gas pipeline or electrical transmission line, wastewater treatment facility, waste management facility or groundwater taking project is proposed within or *contiguous* to an Environmentally Sensitive Landscape, the submission of an *Environmental Impact Statement*, or other appropriate study, in accordance with the policies in Section 7.G, which evaluates landscape level impacts, will be required.
- 7.B.16 Where review of a study completed in accordance with Policy 7.B.15 demonstrates to the satisfaction of the Region that the construction of the *infrastructure* project will:
- (a) result in localized and/or reversible impacts to the *environmental features* and *ecological functions* of the Environmentally Sensitive Landscape, and that other alternatives are reasonably less feasible from a technical, environmental and/or financial perspective, the Region and area municipalities will, without amendment to this Plan:
 - i) require that appropriate mitigation measures be implemented; and
 - ii) approve the undertaking; or
 - iii) support the undertaking in comments, submissions or recommendations; or
 - (b) result in widespread *adverse environmental impacts* to the *environmental features* and *ecological functions* of the Environmentally Sensitive Landscape or result in long-term damage to its significant features and functions, and that other technically and financially feasible alternatives exist that would have less negative impact on the Environmentally Sensitive Landscape, the Region and area municipalities will:
 - i) not approve the undertaking; or
 - ii) not support the undertaking in comments, submissions or recommendations; or
 - (c) result in widespread *adverse environmental impacts* to the *environmental features* and *ecological functions* of the Environmentally Sensitive Landscape, or result in long-term damage to its significant features and functions, but that there is a clearly demonstrated need for the undertaking, and that all other alternatives to the recommended undertaking are substantially less reasonably feasible from a technical, environmental, and/or financial

perspective, the Region and area municipalities will, without amendment to this Plan:

- i) require that appropriate mitigation measures be implemented to reduce the impact of the undertaking to greatest extent feasible; and
- ii) approve the undertaking; or
- iii) support the undertaking in comments, submissions or recommendations.

7.B.17 Nothing in this Plan shall prevent the owner of a legal lot of record in an Environmentally Sensitive Landscape from obtaining a building permit to construct or enlarge a house, accessory building or farm structure, provided it is in conformity with all other Regional, area municipal and Grand River Conservation Authority policies and regulations.

7.B.18 The designation of an Environmentally Sensitive Landscape will not affect existing aggregate extraction and processing operations licensed under the Aggregate Resources Act.

7.B.19 Field studies will be conducted from time to time to determine whether Environmentally Sensitive Landscapes still fulfill criteria necessary for designation. The Regional Environmentally Sensitive Landscapes Implementation Guideline will be revised by resolution of Regional Council to reflect the results of these field investigations.

Significant Valleys

7.B.20 Significant Valleys are designated as shown on Map 4. This designation identifies valleys of the Grand River, Conestogo River, Nith River and Speed River, which are together nationally recognized as a Canadian Heritage River. Significant Valleys comprise the entire river channel within the region and run up to the point where the slope of the valley begins to grade into the surrounding upland.

7.B.21 To complement the Canadian Heritage River status of the Grand River, the Region and area municipalities, in collaboration with the Grand River Conservation Authority, will seek to maintain the character of Significant Valleys by identifying, conserving, interpreting and enhancing *cultural heritage resources* of recreational and scenic value within Significant Valleys.

Regional Recharge Areas (Environmental Protection)

7.B.22 Regional Recharge Areas are designated as shown on Maps 4 and 6g. This designation, which includes portions of the Waterloo Moraine, identifies a large *environmental feature* where considerable deposits of sand and gravel allow for the infiltration of large quantities of rainfall and snowmelt deep into the ground. This

important *hydrologic function* sustains some of the richest sources of groundwater in the Grand River watershed.

Regional Recharge Areas serve two important functions. From an environmental perspective, groundwater discharge from the shallow aquifers located within Regional Recharge Areas sustains a wide range of aquatic habitats and ecosystems within the Greenlands Network. This groundwater discharge also provides a high percentage of the baseflow to the Grand River, its tributary rivers and cold-water streams and therefore is critical to maintaining the health of the Grand River to the benefit of the region and downstream communities.

The second function of Regional Recharge Areas is to replenish deep underground aquifers that serve as a source for a significant share of the municipal drinking-water supply. Specific policies related to this source water supply function are outlined in the policies in Chapter 8.

Within the Southwest Kitchener Policy Area designated on Maps 7 and 7a, the final extent of the Regional Recharge Area has yet to be determined. Studies completed to date have demonstrated that the portions of lands within the Southwest Kitchener Policy Area also contained within the study area boundary of the Blair Creek Functional Drainage Study are not Regional Recharge Area and therefore will not be subject to the Regional Recharge Area designation. However, the exact boundary of the Regional Recharge Area designation within the Cedar Creek Subwatershed has yet to be finalized. The final extent of the Regional Recharge Area within the Cedar Creek Subwatershed will be determined through the next *municipal comprehensive review* process to be undertaken not later than 2019. The final location of the Regional Recharge Area as it applies to the Southwest Kitchener Policy Area will be implemented by future amendment to this Plan. The current Regional Recharge Area designation adjacent to the Southwest Kitchener Policy Area as shown on Map 7a will be considered as the minimum extent of the designation for the purposes of this future review process.²

- 7.B.23 Expansions of the Urban Area, Township Urban Areas, Rural Settlement Areas or Rural Employment Areas will not be permitted onto lands designated as Regional Recharge Areas, except as provided for in Policy 7.B.24.
- 7.B.24 Minor expansions of Rural Settlement Areas located within Regional Recharge Areas may be permitted to facilitate the enlargement of an *existing* employment, recreational or institutional use subject to the provisions of Policies 6.G.8 and 7.B.25. Such expansions will not be permitted where the lands subject to the expansion proposal are also designated as Environmentally Sensitive Landscape.

² As part of the approval of Amendment No. 6 to this Plan, the Province has determined the boundaries of the Country Line and the Protected Countryside in the Southwest Kitchener Policy Area as shown on Map 1. The Region will update the boundaries of the Regional Recharge Area shown on Maps 4 and 6g to align with the Province's decision through a future housekeeping amendment.

7.B.25 *Development applications* within Regional Recharge Areas on lands already designated for urban development in this Plan, will comply with the following:

- (a) Category 'A' uses, or any employment uses restricted by Policy 8.A.5, will not be permitted;
- (b) the *development* maintains, improves or restores the hydrogeologic and *hydrologic functions* of Regional Recharge Areas as established through *watershed studies*, community plans or through further study in accordance with Policy 8.A.4;
- (c) the *development* incorporates best management practices, where appropriate, developed in accordance with the provisions of the Regional Implementation Guideline for Source Water Protection Studies; and
- (d) the *development* is in conformity with all other applicable policies of this Plan.

Provincial Greenbelt

7.B.26 The Provincial Greenbelt Plan Natural Heritage System is shown on Map 4. This System identifies significant and/or sensitive natural heritage and water resource features that are part of, and connect to, broader natural heritage systems in southern Ontario. Any *development* within or *contiguous* to this Provincial designation will comply with the policies in this Plan and the Greenbelt Plan. Where there is discrepancy between this Plan and the Greenbelt Plan, the more restrictive policies will apply.

7.C Core Environmental Features

7.C.1 Core Environmental Features are those *environmental features* identified as being provincially *significant* or regionally *significant*. These features are the most significant elements of the regional landscape in terms of maintaining, protecting and enhancing *biodiversity* and important *ecological functions*. Core Environmental Features are designated as shown on Map 4. The Core Environmental Features designation applies to lands that meet the criteria as:

- (a) Significant Habitat of Endangered or Threatened Species;
- (b) Provincially Significant Wetlands;
- (c) Environmentally Sensitive Policy Areas;
- (d) Significant Woodlands;
- (e) Environmentally Significant Valley Features; or
- (f) Significant Areas of Natural and Scientific Interest.

- 7.C.2 Core Environmental Features are designated as shown on Map 4 or as identified in accordance with Policies 7.C.3 to 7.C.7.

Significant Habitat of Endangered or Threatened Species

- 7.C.3 Significant Habitat of Endangered or Threatened Species is approved by the *Province* or the Federal government. This habitat is necessary for the maintenance, survival and/or recovery of naturally occurring or reintroduced populations of *endangered or threatened species*, and where those areas of occurrence are occupied or habitually occupied by the species during all or any part(s) of its life cycle. Mapping of the habitat of these species may not be shown on Map 4 and will not be shown within the Core Environmental Features Technical Appendix in order to protect such species and their habitat. The Region will collaborate with the Province to ensure that Significant Habitat of Endangered or Threatened Species on lands affected by or *contiguous* to any proposed *development or site alteration* is properly identified.

Provincially Significant Wetlands

- 7.C.4 Provincially Significant Wetlands, as identified by the *Province*, will be considered Core Environmental Features for the purposes of this Plan. The Region will collaborate with the Province to ensure that wetlands on lands affected by or *contiguous* to any proposed *development or site alteration* are properly evaluated and identified as Provincially Significant Wetlands, where appropriate.

Environmentally Sensitive Policy Areas

- 7.C.5 Environmentally Sensitive Policy Areas identified by the Region are regionally *significant* natural areas that comprise:
- (a) At least two of the following criteria:
 - i) comprise ecological communities deemed unusual, of outstanding quality or particularly representative regionally, provincially or nationally;
 - ii) contain critical habitats which are uncommon or remnants of once extensive habitats such as old growth forest, forest interior habitat, Carolinian forest, prairie-savanna, alvars, cliffs, bogs, fens, marl meadows, and cold water streams;
 - iii) provide a large area of natural habitat of at least 20 hectares which affords habitat to species intolerant of human intrusion; or
 - iv) provide habitat for organisms native to the region recognized as regionally, provincially or nationally *significant*; or
 - (b) fulfill one of the criteria in Policy 7.C.5 (a) and any two of the following:

- i) contain an unusual diversity of native life forms due to varied topography, microclimates, soils and/or drainage regimes;
- ii) perform a vital *ecological function* such as maintaining the hydrological balance over a widespread area by acting as a natural water storage, discharge or recharge area;
- iii) provide a linking system of relatively undisturbed forest or other natural habitat for the movement of wildlife over a considerable distance;
- iv) serve as major migratory stop-over or significant over-wintering habitat; or
- v) contain landforms deemed unusual or particularly representative at the regional scale.

Significant Woodlands

7.C.6 Significant Woodlands are areas that meet all of the following criteria:

- (a) greater than four hectares in size, excluding any adjoining hedgerows;
- (b) consisting primarily of native species of trees; and
- (c) meets the criteria of a *woodland* in accordance with the provisions of the Regional Woodland Conservation By-law.

The boundary of a Significant Woodland may be more precisely delineated, subject to Policy 7.A.6, to exclude plantations of primarily non-native species, small lobes and projections, and low quality wooded habitat on the periphery of the feature, the removal of which does not create an *adverse environmental impact* on the residual woodland.

Environmentally Significant Valley Features

7.C.7 Environmentally Significant Valley Features are natural features within or immediately contiguous to a Significant Valley that consist of:

- (a) at least one of the following:
 - i) river channel; or
 - ii) *Environmentally Significant Discharge Areas* or *Environmentally Significant Recharge Areas*; or
- (b) both of the following ecological features:
 - i) habitat of regionally *significant* species of flora or fauna;

- ii) natural area, such as a *woodland* of one to four hectares in extent, *floodplain* meadow or *wetland*, which consists primarily of native species; or;
- (c) any one of Policy 7.C.7 (b) above plus any one of the following Earth Science features:
 - i) river terrace;
 - ii) esker;
 - iii) cliff or steep slopes;
 - iv) oxbow;
 - v) confluence with significant watercourse draining a watershed greater than five square kilometres;
 - vi) regionally *significant* Earth Science *Area of Natural and Scientific Interest*; or
 - vii) fossil bed.

Significant Areas of Natural and Scientific Interest

7.C.8 Significant Areas of Natural and Scientific Interest are natural features that have been identified as such by the Province.

Core Environmental Features Policies

7.C.9 *Development* or *site alteration* will not be permitted within Core Environmental Features, except for:

- (a) forest, fish or wildlife management and conservation;
- (b) flood or erosion control projects demonstrated to be in the public interest and for which no other alternative is feasible;
- (c) minor alterations to legal non-conforming land uses within Core Environmental Features;
- (d) *infrastructure* projects in accordance with Policies 7.C.12 and 7.C.13; or
- (e) *mineral aggregate operations* in accordance with the policies in Chapter 9;

Any application for *development* or *site alteration* for the above uses will require the submission of an *Environmental Impact Statement*, to the satisfaction of the Region, to determine the mitigation measures to be implemented, as appropriate, through the *development* review process.

7.C.10 *Development* or *site alteration* will only be permitted on lands *contiguous* to a Core Environmental Feature where an *Environmental Impact Statement*, or similar study, submitted in accordance with the policies in Section 7.G has determined to the satisfaction of the Region, area municipalities, the Grand River Conservation

Authority and/or the *Province*, as appropriate, that approval of the proposed *development* or *site alteration* would not result in *adverse environmental impacts* on the features and *ecological functions* of the Core Environmental Feature. The Region may require conditions of approval to implement such recommendations.

- 7.C.11 An *Environmental Impact Statement* submitted in accordance with Policies 7.C.9 or 7.C.10 will identify appropriate buffers to Core Environmental Features, to the satisfaction of the Region, in consultation with area municipalities and the Grand River Conservation Authority. Such buffers will not only serve to protect Core Environmental Features from *adverse environmental impacts* but will also provide opportunities for net *habitat enhancement* to enhance or, wherever feasible, restore the *ecological functions* of the Core Environmental Feature. The location, width, composition and use of buffers will be in accordance with the approved *Environmental Impact Statement*, with buffers being a minimum of 10 metres as measured from the outside boundary of the Core Environmental Feature and established and maintained as appropriate self-sustaining native vegetation
- 7.C.12 Where construction of a road on a new right-of-way, widening or upgrading of an existing roadway, construction or upgrading of a trunk sewer, trunk watermain, gas pipeline or electrical transmission line, wastewater treatment facility, waste management facility or groundwater taking project is proposed within or *contiguous* to a Core Environmental Feature, the submission of an *Environmental Impact Statement*, or other appropriate study, in accordance with the policies in Section 7.G will be required.
- 7.C.13 Where a study completed in accordance with Policy 7.C.12 demonstrates to the satisfaction of the Region that the construction of the *infrastructure* project will:
- (a) result in localized and/or reversible impacts to the features and *ecological functions* of the Core Environmental Feature, and that other alternatives are less feasible from a technical, environmental and/or financial perspective, the Region and area municipalities will, without amendment to this Plan;
 - i) require that appropriate mitigation measures be implemented; and
 - ii) approve the undertaking; or
 - iii) support the undertaking in comments, submissions or recommendations; or
 - (b) result in widespread *adverse environmental impacts* to the features and *ecological functions* of the Core Environmental Feature or result in long-term damage to its *significant* features and functions, and that other technically and financially feasible alternatives exist that would have fewer *adverse environmental impacts*, the Region and area municipalities will:
 - i) not approve the undertaking; or

- ii) not support the undertaking in comments, submissions or recommendations; or
- (c) result in widespread *adverse environmental impacts* to the features and *ecological functions* of the Core Environmental Feature, or result in long-term damage to its *significant* features and functions, but that there is a clearly demonstrated need for the undertaking, and that all other alternatives to the recommended undertaking are substantially less feasible from a technical, environmental, and/or financial perspective, the Region and area municipalities will, without amendment to this Plan:
 - i) require that appropriate mitigation measures be implemented to reduce the impact of the undertaking to greatest extent feasible; and
 - ii) approve the undertaking; or
 - iii) support the undertaking in comments, submissions or recommendations.

7.D Fisheries

- 7.D.1 *Development or site alteration* will not be permitted within *fish habitat*, except in accordance with *Provincial and Federal requirements* to the satisfaction of the Federal Department of Fisheries and Oceans, or its delegate.

7.E Supporting Environmental Features

- 7.E.1 Supporting Environmental Features are those *environmental features* not meeting the criteria for recognition as being regionally *significant*. Supporting Environmental Features play an important role in maintaining the *ecological functions* provided by the Greenlands Network and will be maintained, enhanced or, wherever feasible, restored.
- 7.E.2 Area municipalities are encouraged, in consultation with the *Province*, the Region and the Grand River Conservation Authority to identify maintain, enhance or, wherever feasible, restore *environmental features* not identified as Core Environmental Features within this Plan.
- 7.E.3 Area municipalities, in consultation with the *Province*, the Region, the Grand River Conservation Authority and affected landowners, will establish policies in their official plans to provide for the protection, enhancement or, wherever feasible, restoration of *Environmentally Significant Recharge Areas* and *Environmentally Significant Discharge Areas*, not fulfilling the criteria for designation as Regional Recharge Areas in accordance with Policy 7.B.22.

- 7.E.4 Where *Environmentally Significant Discharge Areas* and/or *Environmentally Significant Recharge Areas* sustain a Core Environmental Feature as documented through a *watershed study*, *Environmental Impact Statement* or other such study prepared in accordance with the policies in Section 7.G, the Region and area municipalities will:
- (a) not permit *development* or *site alteration* within or *contiguous* to the *Environmentally Significant Discharge Areas* and/or *Environmentally Significant Recharge Areas*, except where it has been determined to the satisfaction of the Region and/or other applicable agencies that the *development* or *site alteration* would not result in *adverse environmental impacts* on the features and *ecological functions* of the Core Environmental Feature; and
 - (b) ensure that any proposed public *infrastructure* projects will avoid *Environmentally Significant Discharge Areas* and *Environmentally Significant Recharge Areas*, wherever feasible. Where it is not feasible to avoid these areas, the construction of the *infrastructure* project will be designed to maintain the *hydrologic functions* that sustain Core Environmental Features.
- 7.E.5 Lands within river or stream valleys, *floodplains*, *wetlands*, watercourses, lakes or *hazardous lands*, or lands within 120 metres of Provincially Significant Wetlands and *wetlands* greater than or equal to two hectares, or lands within 30 metres of *wetlands* less than two hectares, are regulated by the Grand River Conservation Authority. *Development* or *site alteration* within these Regulated Areas will require a permit from the Grand River Conservation Authority in accordance with the applicable regulations approved under the Conservation Authorities Act.

Linkages

- 7.E.6 The Region, area municipalities, Grand River Conservation Authority and other stakeholders will identify *linkages* through *watershed studies*, Natural Heritage Inventories, *Environmental Impact Statements* or other appropriate studies. These areas are intended to provide opportunities for plant and animal movement among *environmental features*, support hydrological and nutrient cycling, and contribute to the overall *ecological integrity* of the Greenlands Network.
- 7.E.7 Area municipalities will require the incorporation of any *linkages*, identified in accordance with Policy 7.E.6, into the design of new *development* to maintain, enhance or, wherever feasible, restore *linkages* among *environmental features*.
- 7.E.8 The Region will enhance *linkages*, where appropriate, by restoring natural habitat on lands owned by the Region. The Region encourages the naturalization of inactive sections of parks and open space areas under the jurisdiction of other agencies and in private ownership, wherever appropriate, to enhance *linkages*.

7.F Watershed Planning

- 7.F.1 The Region recognizes the watershed as the regionally ecologically meaningful scale for planning and, in collaboration with the *Province*, area municipalities and the Grand River Conservation Authority, will undertake *watershed studies* both to minimize *adverse environmental impacts*, including cross-jurisdictional and cross-watershed impacts, and to maintain, enhance or, wherever feasible, restore the Greenlands Network. Such studies will also be used to direct enhancement of the water system, maintenance or improvement of the health of watercourses and to identify natural hazards.
- 7.F.2 The priorities and process for undertaking and updating *watershed studies* will be jointly determined by the *Province*, the Region, area municipalities and the Grand River Conservation Authority.
- 7.F.3 Area municipalities will require the finalization of a *watershed study* prior to the adoption of area municipal official plan amendments, community plans or secondary plans, which permit significant areas of development within the watershed.
- 7.F.4 The *Province*, the Region, affected area municipalities and the Grand River Conservation Authority, in consultation with affected landowners and the general public, will jointly determine the terms of reference for *watershed studies*. At a minimum, the terms of reference for *watershed studies* will include:
- (a) identification, maintenance, restoration and, wherever feasible, enhancement of *environmental features*, *groundwater features*, surface water features and *ecological functions* which are necessary for the ecological and hydrological integrity of the watershed;
 - (b) identification, maintenance, enhancement and, wherever feasible, restoration of *linkages* among *environmental features* and *ecological functions*, *groundwater features* and surface water features;
 - (c) determination of areas where *development* or *site alteration* will be prohibited to:
 - i) protect actual and potential municipal drinking-water supplies and identified *vulnerable* areas; and
 - ii) maintain, enhance or, wherever feasible, restore sensitive and *vulnerable* surface water and *groundwater features*, and their *hydrologic functions*, and *floodplains*;
 - (d) protection of the quality, quantity, distribution and direction of flow of existing surface and groundwater processes;

- (e) identification of stormwater management practices that maintain or enhance the quality, quantity and distribution of stormwater including infiltration measures, and minimize stormwater volumes and contaminant loads;
 - (f) identification of areas where site specific *Environmental Impact Statements* may be required for the review of *development applications* in accordance with the policies in Section 7.G. Wherever feasible, *watershed studies* should partially fulfill the *Environmental Assessment* requirements for major *infrastructure* works to be located within that watershed, and/or Comprehensive *Environmental Impact Statements* for all or part of the watershed; and
 - (g) develop a monitoring plan and define roles and responsibilities for pre-, during- and post-construction monitoring to determine and address the impact of *development* on the Greenlands Network and surface and groundwater resources.
- 7.F.5 Regional participation in *watershed studies* will focus upon the preparation of recommendations relating to Regional interests, including:
- (a) *sustainable* management of the quality and quantity of groundwater resources;
 - (b) surface water quality with reference to Regional water-taking requirements and the capability of receiving watercourses to cumulatively assimilate effluent from wastewater treatment plants to ensure the ecological integrity of the river system;
 - (c) identification, protection and management of Landscape Level Systems and Core Environmental Features; and
 - (d) implications of proposed *development* on the provision and upgrading of Regional *infrastructure*.
- 7.F.6 Portions of *watershed studies* that deal with Regional interests will be approved by the Region prior to the adoption of area municipal official plan amendments, community plans or secondary plans that implement the recommendations of the studies. The Region will amend this Plan as appropriate to implement recommendations that pertain to Regional interests.
- 7.F.7 Area municipalities will amend their official plans to implement appropriate recommendations from *watershed studies*. The Region and area municipalities will also implement the recommendations of *watershed studies* as part of the *development* review process.

7.G Environmental Impact Statements

- 7.G.1 An *Environmental Impact Statement* may be required to identify and evaluate the potential effects of a proposed *development* or *site alteration* on elements of the Greenlands Network, and recommend means of preventing, minimizing or mitigating these impacts, as well as enhancing or restoring the quality and connectivity of elements of the Greenlands Network. An *Environmental Impact Statement* may also be used to identify and evaluate elements of the Greenlands Network and interpret the boundaries of these elements based on ecological considerations. The *Province*, Region, area municipalities and the Grand River Conservation Authority will co-ordinate the requirements for the preparation of *Environmental Impact Statements*.
- 7.G.2 The Region, in consultation with the *Province*, area municipalities and the Grand River Conservation Authority may require the completion of a single comprehensive *Environmental Impact Statement* where:
- (a) *development* or *site alteration* is proposed on multiple contiguous properties containing elements of the Greenlands Network;
 - (b) a comprehensive community planning process is being undertaken;
 - (c) environmental studies are required to support the proposed expansion of the Urban Area or a Township Urban Area; or
 - (d) the extent of a *development application* and its anticipated impacts on the Greenlands Network are anticipated by the relevant agency(ies) to be substantial.
- 7.G.3 The need for, and scope of *Environmental Impact Statements*, will be determined in collaboration with affected area municipalities, the Province, the Grand River Conservation Authority by:
- (a) the *Province*, for *development* or *site alteration* potentially affecting Significant Habitat of Endangered or Threatened Species, or;
 - (b) the Region, for *development* or *site alteration* potentially affecting:
 - i) Landscape Level Systems, not including Significant Valleys;
 - ii) Core Environmental Features; or
 - iii) *Environmentally Significant Discharge Areas* and/or *Environmentally Significant Recharge Areas* that sustain Core Environmental Features.
 - (c) the Grand River Conservation Authority for Significant Valleys, Provincially Significant Wetlands located outside Environmentally Sensitive Policy Areas

and *wetlands* not identified as provincially *significant*, including unevaluated *wetlands*;

- (d) the affected area municipality for *development applications* potentially affecting other elements of the Greenlands Network; and
- (e) the Federal Department of Fisheries and Oceans, or its delegate, for *fish habitat*.

7.G.4 The following provisions will apply to *Environmental Impact Statements* required by the Region under Policy 7.G.3 (b):

- (a) the *Environmental Impact Statement* will be prepared in accordance with the provisions of the Regional Greenlands Network Implementation Guideline;
- (b) the Region may reduce the scope and/or content of the *Environmental Impact Statement* where the impacts of the proposed *development* or *site alteration* upon an element of the Greenlands Network are expected to be limited in area and/or scope, or where other environmental studies fulfilling the requirements of an *Environmental Impact Statement* have been previously been prepared;
- (c) the Region may waive the requirement for the *Environmental Impact Statement* where consultation with other agencies or site investigation by the Region indicate that there are not likely to be *adverse environmental impacts* upon the Greenlands Network; and
- (d) the submission of an *Environmental Impact Statement* will not be required by the Region where an *Environmental Assessment* or alternative environmental reviews are being undertaken as part of a comprehensive planning process required under Provincial or Federal Legislation, provided the *Environmental Assessment* or alternative environmental review fulfills all the requirements for site specific, and/or landscape level *Environmental Impact Statements* that would otherwise be required by this Plan.

7.H Natural Hazards

7.H.1 *Hazardous lands* and *hazardous sites* as identified by the Grand River Conservation Authority will be given an appropriate land use designation within area municipal official plans. Development or *site alteration* on *hazardous lands* and *hazardous sites* may also be subject to the regulations administered by the Grand River Conservation Authority. Amendments to area municipal official plans will not be required for minor revisions to the boundaries of *hazardous lands* and *hazardous sites*, where such revisions are supported by technical studies approved by the Grand River Conservation Authority.

- 7.H.2 In areas designated for development within area municipal official plans, *hazardous lands* and *hazardous sites* will be placed in a separate zoning category or identified by the addition of a zone suffix or prefix as an area where regulations are applied by the Grand River Conservation Authority and the area municipality to minimize hazards.
- 7.H.3 For the purposes of this Plan, *floodplains* will be considered as *one-zone policy areas* unless otherwise designated in an area municipal official plan. Where a *one-zone policy area* is applied, the entire *floodplain* is considered the *floodway*.
- 7.H.4 Area municipalities, in collaboration with the Grand River Conservation Authority, may designate *two-zone policy areas* in their official plans where significant urban uses currently exist within the *floodplain*, and where there is significant potential for further infilling and redevelopment with no *adverse effects* on flood flows. Flood fringe and *floodway* designations within the *two-zone policy areas* will be in conformity with mapping approved by the Grand River Conservation Authority.
- 7.H.5 Where strict adherence to the *one-zone policy area* or *two-zone policy area* approaches would result in serious *adverse effects* on the social and economic health and viability of an area municipality, a special policy area may be established by the *Province* in collaboration with the Region, area municipalities and the Grand River Conservation Authority.
- 7.H.6 Where a *special policy area* has been approved by the Province, the affected area municipality will designate the *special policy area* and establish appropriate policies in its official plan. Any change or modification to the policies or boundaries applying to the *special policy area* must be approved by the *Province* prior to the approval of any official plan amendment or zone change application implementing such changes or modifications.
- 7.H.7 *Development or site alteration* will not be permitted within:
- (a) *hazardous lands* which are impacted by *flooding hazards* and/or *erosion hazards*;
 - (b) erosion access allowances, which will not be less than six metres; and
 - (c) *hazardous sites*.
- 7.H.8 Notwithstanding Policy 7.H.7, *development or site alteration* may be permitted in *hazardous lands* and *hazardous sites* where;
- (a) a *special policy area* has been approved by the *Province*; or
 - (b) the *development* is limited to land uses that, by their nature, must locate within the *floodway*, including flood and/or erosion control works, structures necessary for conservation, water supply, wastewater management, or minor additions or passive non-structural uses which do not affect flood flows; or

- (c) a *two-zone policy area* has been designated in accordance with Policy 7.H.6 to permit *development or site alteration* in the *flood fringe*, and the effects and risk to public safety are minor so as to be managed or mitigated in accordance with the *Province's* standards, as determined by the demonstration and achievement of all of the following:
 - (i) *development or site alteration* is carried out in accordance with *floodproofing standards, protection works standards, and access standards*;
 - (ii) vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies;
 - (iii) new hazards are not created and existing hazards are not aggravated; and
 - (v) no *adverse environmental impacts* will result.
- 7.H.9 Notwithstanding Policy 7.H.8, *development* proposing the following land uses will not be permitted within *hazardous lands* and *hazardous sites*:
 - (a) an institutional land use associated with hospitals, nursing homes, pre-school, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of flooding, failure of *floodproofing standards* or *protection works standards*, or erosion;
 - (b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations, which would be unacceptably impaired during an emergency as a result of flooding, the failure of *floodproofing standards* or *protection works standards*, or erosion; and
 - (c) land uses associated with the disposal, manufacture, treatment or storage of *hazardous chemicals and/or substances*.
- 7.H.10 The Region will consider funding requests for inclusion in the Regional Capital Forecast for stream bank stabilization, dam, dyke and reservoir construction projects, or land acquisition for any of these projects by area municipalities and/or the Grand River Conservation Authority, based on appropriate studies. Priority will be given to projects that are to be effective in reducing the hazards to life and property caused by flooding within *special policy areas*.
- 7.H.11 Area municipalities will include policies in their official plans to require detailed hydrogeological and/or geotechnical studies to assess potential risks to persons, buildings, structures, or public *infrastructure* occasioned by groundwater discharge or high water tables prior to *development*. Such studies should demonstrate that

engineering solutions designed to protect structures from the effects of groundwater discharge and high water tables will be effective, will not require significant on-going maintenance to remain effective, and will not divert or impede natural groundwater flows so as to create hazards or annoyances to adjacent lands and buildings. *Discharge Constraint Areas* should be identified in community plans and/or the area municipal official plan where they have been identified.

7.1 Environmental Stewardship

- 7.1.1 The Region will continue to acquire *woodlands* and associated natural features such as *wetlands*, savannas, meadows and prairies as finances permit, or to accept donations of *woodland* tracts to be managed as *Regional Forests*.

Managing Woodland Resources

- 7.1.2 The Region encourages good stewardship practices to manage public and private *woodlands* through the development and implementation of forest management plans. Such plans will not only recognize the economic value of timber, but also maintain, enhance or, wherever feasible, restore the important *ecological functions* of *woodlands*.
- 7.1.3 Regional Forest Management Plans, capital operating budgets and shorter term operating and management plans for *Regional Forests* and other Regional *woodlands* will accord management objectives in the following order of priority:
- (a) the maintenance, or wherever feasible, enhancement of the *woodlands ecological functions*, particularly where *Regional Forests* exhibit Carolinian forest, old growth, or interior habitat attributes;
 - (b) passive recreation including trails for nature appreciation, hiking and cross-country skiing;
 - (c) outdoor education and research;
 - (d) timber production according to ecologically *sustainable* forest management practices; and
 - (e) hunting, fishing, horse-back riding and mountain biking where expressly permitted.
- 7.1.4 Trees and other vegetation within *Regional Forests* may be removed or destroyed by authorized cutting or burning to achieve the objectives of Policy 7.1.3.
- 7.1.5 The Region, in collaboration with area municipalities, will minimize the impact of *development* on *woodlands* by selecting alternative locations for proposed land uses and/or through the implementation of appropriate mitigation measures.

- 7.1.6 Area municipalities will consider the importance of *woodlands* during the *development* review process. Consideration during the review of *development applications* will be given to:
- (a) the potential impact of the proposed land use on the *ecological functions*, productivity or potential productivity of the *woodland* for commercial timber production;
 - (b) the impact of the proposed land use on the extent and distribution of *woodland* cover in the watershed in which the subject land is situated; and
 - (c) opportunities to restore or re-establish productive forest habitats consisting of native species following the completion of the proposed *development*.
- 7.1.7 Area municipalities are encouraged to adopt a Tree Preservation By-law to prohibit or regulate the destruction or injuring of trees in *woodlands* less than four hectares in area.

Land Stewardship

- 7.1.8 The Region encourages landowners to maintain, enhance or, wherever feasible, restore *environmental features* on their property through measures including conservation easements, buffers and wherever appropriate, fencing.
- 7.1.9 The Region, in collaboration with the *Province*, area municipalities, the Grand River Conservation Authority and other stakeholders, will provide advice and information on other land stewardship programs to landowners wishing to exercise good stewardship of lands within the Greenlands Network.
- 7.1.10 Area municipalities are encouraged to secure ownership of elements of the Greenlands Network and to prepare management plans for these lands to maintain, enhance or, wherever feasible, restore their *ecological functions*.
- 7.1.11 The Region will consider the establishment of a Land Trust to hold, purchase and manage elements of the Greenlands Network, or to hold conservation easements.
- 7.1.12 The Region encourages individuals and agencies to use native species appropriate to the locality when planting within or *contiguous* to elements of the Greenlands Network. To provide guidance in maintaining the native *biodiversity* of the Greenlands Network, the Region will maintain a list of native trees and shrubs suitable for such use.
- 7.1.13 The Region discourages individuals and agencies from using non-native species considered invasive and unsuitable for planting within or *contiguous* to elements of the Greenlands Network. To provide guidance, the Region will prepare a list of non-native species considered invasive and unsuitable for such use.

- 7.I.14 Wherever feasible and appropriate, species native to the region will be used in plantings along Regional Roads and on the grounds of Regional facilities. Area municipalities are similarly encouraged to use native species in roadside plantings, stormwater management facilities and park naturalization projects.
- 7.I.15 The Region may create and administer a Greenlands Network Stewardship financial incentives program to assist private landowners with stewardship initiatives and provide funds for the public acquisition of lands within the Greenlands Network.

8. Source Water Protection

Waterloo Region is unique in Ontario in that it is the largest urban municipality to rely almost exclusively on groundwater supplies for its drinking-water. Approximately three quarters of all the region's drinking-water comes from the over one hundred municipal wells, many of which tap into rich aquifers sustained by the Waterloo Moraine. The remaining quarter of the region's drinking-water is drawn from the Grand River. Protecting these valuable water resources from contamination and from land uses that could hinder groundwater recharge is essential to maintaining human health, economic prosperity and a high quality of life in the region.

The *Province* has recently emphasized the importance of protecting the *municipal drinking-water supply system* by way of land use planning decisions, through changes to the Provincial Policy Statement. The importance of protecting the *municipal drinking-water supply system* is also underscored by the enactment of the Safe Drinking Water Act and the Clean Water Act. The Region's role in implementing Provincial policy, places an obligation on the Region to make land use planning decisions consistent with the Provincial Policy Statement's direction to protect the quality and quantity of drinking-water resources in the region, and to limit *development* and *site alteration* that could adversely affect drinking-water supplies drawn from both the Grand River and groundwater resources. Waterloo Region's continued long-term reliance on groundwater resources necessitates a high priority be placed on protecting this valuable resource through land use management.

Def. No. 1

This Chapter contains policies for the protection and conservation of the Region's drinking-water resources. These policies form an important component of the Region's Water Resource Protection Strategy, and play a critical role in the Region's multi-barrier approach to providing safe drinking-water. By safeguarding drinking-water at the source, this Plan seeks to prevent unnecessary environmental, economic, social and health costs associated with the loss and/or clean up of drinking-water resources due to contamination or over use. This proactive approach will help ensure that the region's municipal drinking-water supply remains clean and plentiful to support current and future generations.

The policies in this Chapter will be carried out by managing land use activities within designated Source Water Protection Areas. These *vulnerable* areas are located throughout the region, including residential neighbourhoods, *employment areas*, *rural settlement areas*, agricultural areas, mineral aggregate resource areas and in areas where future urban development may occur. The Source Water Protection Areas designated in this Plan include: Wellhead Protection Sensitivity Areas; wells that obtain their water from Groundwater Under the Direct Influence of surface water (GUDI wells); Surface Water Intake Protection Zones; and Regional Recharge Areas.

In addition to managing land uses to prevent contamination from *hazardous chemicals and/or substances* and disease causing organisms, this Chapter contains policies to help reduce the impact of de-icing salts on the *municipal drinking-water supply system*. The policies in this Chapter promote the balance between the use of de-icing salts and the need to mitigate impacts through best management practices. Significant reductions in the need

for de-icing salt application to sidewalks, parking lots and roads can be achieved through sound management practices and innovative road and property designs.

Overall Goal – Protect, maintain and, wherever feasible, enhance surface water and groundwater resources to ensure that a *municipal drinking-water supply system* continues to provide a sufficient quantity and quality of drinking-water.

Objectives:

- 8.1 Protect existing and future sources of drinking-water from incompatible land uses.
- 8.2 Maintain and, wherever feasible, enhance the quantity and quality of water infiltration and recharge to groundwater aquifers.
- 8.3 Minimize the potential for contamination, including potential contamination from de-icing salts, on sources of municipal drinking-water.
- 8.4 Promote informed stewardship of Source Water Protection Areas in collaboration with the *Province*, area municipalities and Grand River Conservation Authority.

8.A Source Water Protection Areas

Source Water Protection Areas are identified in this Plan to protect the current and future *municipal drinking-water supply system*. These protection areas are significant in that they contribute water, or are in close proximity, to municipal drinking-water supply wells and surface water intakes that are *vulnerable* to contamination and/or depletion from incompatible land uses. Source Water Protection Areas consist of: Wellhead Protection Sensitivity Areas; High Microbial Risk Management Zones; Surface Water Intake Protection Zones; and Regional Recharge Areas.

General Policies

- 8.A.1 Source Water Protection Areas are designated as shown on Maps 6a through 6g.
- 8.A.2 Area municipalities will designate Source Water Protection Areas and establish associated policies within their official plans to ensure that *development applications* are in conformity with the policies in this Plan.
- 8.A.3 The Region, in consultation with the Province and other stakeholders, will prepare and update a Regional Implementation Guideline for Source Water Protection Studies to inform and implement the policies in this Plan in accordance with the provisions of Policies 10.B.9 through 10.B.14.
- 8.A.4 Where the policies in this Chapter require one or more studies to be submitted in support of a *development application*, such studies will be completed in accordance

with the Regional Implementation Guideline for Source Water Protection Studies to the satisfaction of the Region. The studies requested will vary based on the location of the *development application* relative to the sensitivity of the Source Water Protection Area and its proximity to a municipal drinking-water supply well or surface water intake. Studies submitted by the owner/applicant will demonstrate that the proposed use will not negatively impact the quantity and/or quality of drinking-water resources in Source Water Protection Areas for the *development application* to receive approval.

- 8.A.5 *Development applications* within all Source Water Protection Area designations will comply with the following:
- (a) employment uses that would direct infiltration of stormwater run-off through the use of drywells or artificial/enhanced recharge will not be permitted; and
 - (b) employment uses that would require new water taking for industrial/commercial purposes and/or for irrigation purposes, except for water taking associated with *mineral aggregate operations* will not be permitted.
- 8.A.6 New water taking will not be permitted for any new or expanding uses within the Urban Area and Township Urban Area designations.
- 8.A.7 New water taking in quantities greater than 50,000 litres per day may be permitted outside of the Urban Area, Township Urban Area and Source Water Protection Area designations through a site specific amendment to the applicable zoning by-law, provided that the application is substantiated by further study in accordance with Policy 8.A.4.

Source Water Protection Land Use Categories

The quantity and quality of drinking-water is affected by land uses found within Source Water Protection Areas. Not all land uses pose the same level of risk to drinking-water; therefore, this Plan identifies four categories of land uses based on their associated level of risk.

- 8.A.8 For the purposes of implementing the policies in this Chapter, land uses that may pose a risk to the quantity and/or quality of municipal drinking-water supplies are divided into the following four categories according to the level of risk:
- (a) Category 'A' (Very High Risk Uses);
 - (b) Category 'B' (High Risk Uses);
 - (c) Category 'C' (Moderate Risk Uses); and

- (d) Category 'D' (represents *preferential pathways*, or other land uses that involve soil excavation and/or the creation of subsurface facilities, that contribute to the risk to municipal drinking-water supplies by increasing *vulnerability*).

8.A.9 Land uses typically associated with each of the land use categories identified in Policy 8.A.8 include, but are not limited to, the uses listed in Schedule 'B' to this Plan.

Time of Travel Capture Zones

This Plan makes reference to two and ten year *time of travel* capture zones surrounding each municipal drinking-water supply well. These capture zones reflect the length of time groundwater within the zone will take to reach the municipal drinking-water supply well. The size and shape of the capture zones is influenced by many factors including the well pumping rate, the topography of the land, the nature of the subsurface materials, and the rate and direction of groundwater flow.

Wellhead Protection Areas

This Plan designates Wellhead Protection Areas around each municipal drinking-water supply well. Wellhead Protection Areas are the total area of land which contributes water to a municipal drinking-water supply well. Within each Wellhead Protection Area, one or more Wellhead Protection Sensitivity Areas (WPSA) may be delineated. The purpose of these designations is to prevent land uses involving *hazardous chemicals and/or substances*, disease causing organisms and land uses that increase the *vulnerability* of groundwater from becoming water quantity and/or quality risks to municipal drinking-water supply wells.

8.A.10 Wellhead Protection Sensitivity Areas (WPSA) are classified from 1 to 8. This classification allows for varying degrees of management relative to the *vulnerability* of the underlying groundwater to contamination, the importance of the well to the capacity of the *municipal drinking-water supply systems*, as well as the length of time groundwater within the WPSA will take to reach the municipal drinking-water supply well. WPSAs are designated as shown on Maps 6a through 6e and are described below:

- (a) WPSA 1 - delineates areas within a 100 meter radius of each municipal drinking-water supply well. It represents the highest sensitivity area with respect to the potential movement of disease causing organisms and groundwater infiltration. This area requires the most restrictive management, including the consideration of land purchase or establishment of conservation easements, given its close proximity to the drinking-water supply wells;
- (b) WPSA 2 - delineates high sensitivity areas found within the two year *time of travel* to a municipal drinking-water supply well;
- (c) WPSA 3 - delineates high sensitivity areas found outside of the two year, but within the ten year *time of travel* to a municipal drinking-water supply well;

- (d) WPSA 4 - delineates medium sensitivity areas found within the two year *time of travel* to a municipal drinking-water supply well;
- (e) WPSA 5 - delineates medium sensitivity areas found outside of the two year, but within the ten year *time of travel* to a municipal drinking-water supply well;
- (f) WPSA 6 - delineates low sensitivity areas found within the two year *time of travel* to a municipal drinking-water supply well;
- (g) WPSA 7 - delineates low sensitivity areas found outside of the two year, but within the ten year *time of travel* to a municipal drinking-water supply well; and
- (h) WPSA 8 - delineates the area outside of the ten year *time of travel* to the limit of the total land area contributing water to a municipal drinking-water supply well.

8.A.11 Within the WPSA 1 designation:

- (a) Category 'A', 'B', 'C' and 'D' uses will not be permitted;
- (b) new individual wastewater treatment systems, private wells, pipelines sewers, stormwater management ponds (or other ponds) and the direct infiltration of stormwater run-off will not be permitted; and
- (c) new impermeable surfaces of any kind will be restricted or minimized to the greatest extent feasible.

8.A.12 *Development applications* within the WPSA 2 designation will comply with the following:

- (a) Category 'A' uses, *geothermal wells*, *mineral aggregate operations* and *wayside pits and quarries* will not be permitted;
- (b) Category 'B' and 'C' uses and underground parking garages will not be permitted outside of the Built-Up Area as shown on Maps 3a to 3e;
- (c) Category 'B' and 'C' uses and underground parking garages already permitted by existing area municipal official plans may be permitted within the Built-Up Area subject to further study in accordance with Policy 8.A.4; and
- (d) individual wastewater treatment systems, private wells, pipelines, sewers, stormwater management ponds (or other ponds) and residential plans of subdivision or vacant land condominiums may be permitted subject to further study in accordance with Policy 8.A.4.

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8.A.13 *Development applications* within the WPSA 3 designation will comply with the following:

- (a) Category 'A' uses will not be permitted;
- (b) Category 'B' and 'C' uses will not be permitted outside of the Built-Up Area;
- (c) Category 'B' and 'C' uses already permitted by existing area municipal official plans may be permitted within the Built-Up Area subject to further study in accordance with Policy 8.A.4; and
- (d) Category 'D' uses, individual wastewater treatment systems, private wells, pipelines, sewers, stormwater management ponds (or other ponds), and residential plans of subdivision or vacant land condominiums may be permitted subject to further study in accordance with Policy 8.A.4.

8.A.14 *Development applications* within the WPSA 4 designation will comply with the following:

- (a) Category 'A' uses, geothermal wells, *mineral aggregate operations* and *wayside pits and quarries* will not be permitted;
- (b) Category 'B' and 'C' uses will not be permitted outside of the Built-Up Area;
- (c) Category 'B' and 'C' uses already permitted by existing area municipal official plans may be permitted within the Built-Up Area subject to further study in accordance with Policy 8.A.4; and
- (d) underground parking garages, individual wastewater treatment systems, private wells, pipelines, sewers, stormwater management ponds (or other ponds) and residential plans of subdivision or vacant land condominiums may be permitted subject to further study in accordance with Policy 8.A.4.

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8.A.15 *Development applications* within the WPSA 5 designation will comply with the following:

- (a) Category 'A' uses will not be permitted;
- (b) Category 'B' and 'C' uses will not be permitted outside of the Built-Up Area;
- (c) Category 'B' and 'C' uses already permitted by existing area municipal official plans may be permitted subject to further study within the Built-Up Area in accordance with Policy 8.A.4; and
- (d) Category 'D' uses and residential plans of subdivision or vacant land condominiums may be permitted subject to further study in accordance with Policy 8.A.4.

8.A.16 *Development applications* within the WPSA 6 designation will comply with the following:

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- (a) Category 'A' uses, *geothermal wells*, *mineral aggregate operations* and *wayside pits and quarries* will not be permitted;
- (b) Category 'B' and 'C' uses will not be permitted outside of the Built-Up Area;
- (c) Category 'B' and 'C' uses may be permitted within the Built-Up Area subject to further study in accordance with Policy 8.A.4; and
- (d) underground parking garages and residential plans of subdivision or vacant land condominiums may be permitted subject to further study in accordance with Policy 8.A.4.

8.A.17 *Development applications* within the WPSA 7 designation will comply with the following:

- (a) Category 'A' uses will not be permitted;
- (b) Category 'B' and 'C' uses will not be permitted outside of the Built-Up Area;
- (c) Category 'B' and 'C' uses already permitted by existing area municipal official plans may be permitted within the Built-Up Area subject to further study in accordance with Policy 8.A.4; and
- (d) Category 'D' uses and residential plans of subdivision or vacant land condominiums may be permitted subject to further study in accordance with Policy 8.A.4.

8.A.18 *Development applications* within the WPSA 8 designation will comply with the following:

- (a) Category 'A' uses will not be permitted; and
- (b) *geothermal wells*, *mineral aggregate operations* and *wayside pits and quarries* may be permitted subject to further study in accordance with Policy 8.A.4.

GUDI Wells and High Microbial Risk Management Zones

This Plan designates municipal drinking-water supply wells supplied by Groundwater Under the Direct Influence of Surface Water (GUDI) as shown on Maps 6a, 6b and 6c. These GUDI wells are classified separately under the Safe Drinking Water Act in that they require a higher level of protection and treatment than other municipal drinking-water supply wells. GUDI wells draw groundwater that is directly connected to, and dependant upon, surface water in locations where contaminants in the surface water may not be filtered adequately by the overlying soil or subsurface before entering the well. Areas of high microbial risk have been delineated immediately surrounding GUDI wells to minimize the risk of contamination to these drinking-water supply wells.

- 8.A.19 High Microbial Risk Management Zones surrounding each GUDI well are designated as shown on Map 6f. These zones identify areas where the underlying groundwater is the most vulnerable to disease causing organisms. In addition to the policies in this Chapter that apply to any Wellhead Protection Sensitivity Areas, *development applications* proposing individual wastewater treatment systems and/or private wells will not be permitted within High Microbial Risk Management Zones.

Surface Water Intake Protection Zones

A portion of the Region's drinking-water supply comes from surface water through a municipal intake located in the Grand River. Similar to Wellhead Protection Areas, Surface Water Intake Protection Zones represent geographic areas (land and water) that contribute water to the surface water intake of the Region's *municipal drinking-water supply system*. Surface Water Intake Protection Zones are delineated to protect the quality and quantity of the surface water entering the intake, mainly by protecting the surface water upstream of the intake from hazardous spills.

- 8.A.20 Surface Water Intake Protection Zones 1 and 2 are designated as shown on Map 6g. Surface Water Intake Protection Zone 1 delineates an area of land within a 200 metre radius upstream of the municipal intake, while Surface Water Intake Protection Zone 2 delineates the area of land over which a hazardous spill could reach a municipal surface water intake within a two hour travel time.
- 8.A.21 Within Surface Water Intake Protection Zone 1, *development applications* proposing Category 'A', 'B', 'C' and 'D' uses, individual wastewater treatment systems, private wells, pipelines, sewers and stormwater management ponds (or other ponds) will not be permitted.
- 8.A.22 Within Surface Water Intake Protection Zone 2, *development applications* will comply with the following:
- (a) Category 'A' uses will not be permitted; and
 - (b) Category 'B', 'C' and 'D' uses and stormwater management ponds (or other ponds) may be permitted subject to further study in accordance with Policy 8.A.4.

Regional Recharge Areas (Source Water Protection)

Regional Recharge Areas play a crucial role in providing clean water to the Region's *municipal drinking-water supply system*. This designation identifies portions of the Waterloo Moraine where considerable deposits of sand and gravel found in the ground allow for the natural infiltration of large quantities of rainfall, snowmelt, and in some cases, seepage from creeks and streams into a series of deep and shallow aquifers. The deep aquifers are a

significant source of the Region's existing and future municipal drinking-water supply, and the protection of these aquifers is vital to the region's health and economic prosperity.

- 8.A.23 Regional Recharge Areas are designated as shown on Maps 4 and 6g. This designation identifies areas that will be protected from land use practices, *hazardous chemicals and/or substances* that could negatively impact the quality and quantity of water within and available to the aquifers that contribute to the *Region's municipal drinking-water supply system*.

Within the Southwest Kitchener Policy Area designated on Maps 7 and 7a, the final extent of the Regional Recharge Area has yet to be determined. Studies completed to date have demonstrated that the portions of lands within the Southwest Kitchener Policy Area also contained within the study area boundary of the Blair Creek Functional Drainage Study are not Regional Recharge Area and therefore will not be subject to the Regional Recharge Area designation. However, the exact boundary of the Regional Recharge Area designation within the Cedar Creek Subwatershed has yet to be finalized. The final extent of the Regional Recharge Area within the Cedar Creek Subwatershed will be determined through the next *municipal comprehensive review* process to be undertaken not later than 2019. The final location of the Regional Recharge Area as it applies to the Southwest Kitchener Policy Area will be implemented by future amendment to this Plan. The current Regional Recharge Area designation adjacent to the Southwest Kitchener Policy Area as shown on Map 7a will be considered as the minimum extent of the designation for the purposes of this future review process.³

- 8.A.24 *Development applications* proposed within Regional Recharge Areas will be regulated in accordance with the policies in Section 6.B, and Policies 7.B.23, 7.B.24 and 7.B.25.

8.B De-icing Salts

The use of de-icing salts is an important component of Regional and area municipal efforts to keep transportation corridors open and safe during icy and snowy conditions. However, the impact of de-icing salts on the quality of municipal drinking-water supplies has become a concern. This Plan includes policies that encourage a more balanced approach to the use of de-icing salts through sound salt management practices and strategic urban design as methods to reduce the need for de-icing salt application to sidewalks, parking lots and roads.

- 8.B.1 Applications for a new plan of subdivision, or vacant land condominium, will only be approved where the owner/applicant has submitted a Salt Impact Assessment in accordance with the Regional Salt Impact Assessment Protocol Implementation

³ As part of the approval of Amendment No. 6 to this Plan, the Province has determined the boundaries of the Country Line and the Protected Countryside in the Southwest Kitchener Policy Area as shown on Map 1. The Region will update the boundaries of the Regional Recharge Area shown on Maps 4 and 6g to align with the Province's decision through a future housekeeping amendment.

Guideline to the satisfaction of the Region. This assessment is required to address the potential impacts of de-icing salts of the *development* on the Region's municipal drinking-water supply wells and to recommend ways to minimize such impacts.

- 8.B.2 Prior to the approval of any modifications to existing draft approved plans of subdivision, or vacant land condominiums, the Region may require the owner/applicant to submit a Salt Impact Assessment in accordance with Policy 8.B.1, where the scope of the modification would necessitate such an assessment.
- 8.B.3 The Region may require the owner/applicant to submit and implement Salt Management Plans in accordance with the Regional Salt Management Planning Implementation Guideline to the satisfaction of the Region for the following types of *development applications*:
- (a) plans of subdivision and zoning by-laws proposing new employment uses and multiple unit residential *development*;
 - (b) plans of condominium for new development;
 - (c) plans of condominium in previously constructed buildings; or
 - (d) consent to create a lot for a multi-unit residential or employment use.

8.C Stewardship

- 8.C.1 The Region, in collaboration with the *Province*, Grand River Conservation Authority, and area municipalities, will provide advice to land owners to promote good stewardship practices for lands and water within Source Water Protection Areas.
- 8.C.2 The Region will encourage the design of drainage systems and lot grading in new plans of subdivision to include consideration for cold weather stormwater flows and winter maintenance, and will promote and may require the strategic design of new road networks to reduce the need for road salt application.
- 8.C.3 The Region may consider the use of alternative protection measures within highly *vulnerable* Source Water Protection Areas, including but not limited to, the establishment of a Land Trust for acquiring, holding and managing Source Water Protection Areas, and/or entering into conservation easements, agreements, and development of stakeholder partnership programs to encourage changes in land use or land management practices.

9. Managing Aggregate Resources

Mineral aggregates are a valuable non-renewable resource essential to both the Region's and Province's growth and economic prosperity. *Mineral aggregate resources* within the region include naturally occurring sand and gravel deposits and bedrock resource areas. These resources have a finite supply and provide significant material used in the construction of buildings and *infrastructure*. They also support many secondary industries that provide employment opportunities and produce a wide range of manufactured items, including blocks, bricks and pre-cast concrete products. As such, the long-term protection of mineral aggregate resources and making them available close to markets is important both for economic and environmental reasons.

Waterloo Region is one of the largest aggregate producers in southwestern Ontario, providing several million tonnes of aggregates annually to local and provincial markets. As the region's population continues to grow, so too will the demand for aggregate products to support building and construction needs. The challenge facing the Region and area municipalities will be to address the growing demand for aggregates while preventing or minimizing the potential impacts of *mineral aggregate operations* on surface water and groundwater resources, surrounding communities, *cultural heritage resources*, *environmental features* and *ecological functions*, and agricultural resources and operations.

Within the Prime Agricultural Area, Provincial policy generally treats *mineral aggregate operations* as interim land uses that will return to an *agricultural use* once the aggregate resources have been extracted. However, the duration of any given aggregate operation will depend on the scale and nature of the operation. Some operations may cease to operate after a few years, while others may continue to exist for several decades. In addition, *mineral aggregate operations* that extract resources from below the water table result in permanent changes to the landscape as well as surface water and groundwater regimes. For these reasons, this Plan places a high priority on identifying and addressing, in conjunction with area municipal official plans, the potential long-term social and environmental effects of *mineral aggregate operations* throughout the region.

A large share of the region's mineral aggregate areas overlaps with some of the region's best groundwater aquifers and recharge areas. These water resources are the primary sources of the municipal drinking-water supply. *Mineral aggregate operations* can create *preferential pathways* or increase the *vulnerability* of these aquifers through the removal of the protective overburden. The removal of this overburden increases the risk of groundwater contamination through spills during the extraction operation and in the establishment of post-extractive uses. Accordingly, this Chapter includes policies related to the siting of *mineral aggregate operations*, best management practices, conditions or restrictions on aggregate activities and rehabilitation plans.

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All policies in this Plan should be read together. However, in light of the interrelationships between the region's *mineral aggregate resources* and its groundwater recharge areas, the policies in this Chapter should be read particularly in conjunction with the policies in Chapter 8.

Overall Goal – Plan for the availability of *mineral aggregate resources* to support the region’s economic and growth needs, while preventing or minimizing any potential impacts of *mineral aggregate operations* on surface water and groundwater resources, surrounding communities, *cultural heritage resources*, *environmental features* and *ecological functions*, and agriculture resources and operations.

Objectives:

- 9.1 Identify and protect Mineral Aggregate Resource Areas for current and future needs.
- 9.2 Prevent any changes in land use that could conflict with *existing* or future *mineral aggregate operations*.
- 9.3 Ensure that *mineral aggregate operations* proceed as expeditiously as possible and in logical sequence so that depleted areas can be restored while extraction continues in other areas of the pit.
- 9.4 Ensure potential impacts of new *mineral aggregate operations* are prevented or minimized through the *development application* and *site plan* review processes.
- 9.5 Ensure the availability of *mineral aggregate resources* occurs as close to markets as possible.

9.A Resource Protection

- 9.A.1 Mineral Aggregate Resource Areas are designated as shown on Map 8. These areas have been identified by the *Province* as having a high potential to contain *mineral aggregate resources*. The identification of these resources in this Plan does not presume that all lands located within these areas are suitable for the establishment of new, or expansions to existing, *mineral aggregate operations*. The Region will update the boundaries of the Mineral Aggregate Resource Areas as necessary as part of the five-year *municipal comprehensive review* of this Plan, or the completion of a *municipal comprehensive review* as otherwise initiated by Regional Council.
- 9.A.2 Area municipalities will designate Mineral Aggregate Resource Areas in their official plans in conformity with Map 8. The boundaries of these areas may be further refined within area municipal official plans without an amendment to this Plan.
- 9.A.3 Extraction of *mineral aggregate resources* may be permitted outside the Mineral Aggregate Resource Areas as shown on Map 8 where there is a sufficient quantity and quality of resources to warrant extraction as demonstrated to the satisfaction of the *Province*, the Region and the area municipality, subject to the policies in this Plan and area municipal official plans.
- 9.A.4 Area municipalities will establish policies in their official plans to:

- (a) prohibit *development* in areas located within or adjacent to Mineral Aggregate Resource Areas, which would preclude or hinder the establishment of *mineral aggregate operations* or access to the resources, except where:
 - i) extraction of the resource would not be feasible; or
 - ii) the proposed land use or *development* serves a greater long-term public interest; and
 - iii) issues of public health, safety and environmental impact are appropriately addressed.
 - (b) minimize the amount of land required for any new *development* proposed under Policy 9.A.4 (a) to retain as much of the *mineral aggregate resource* potential as possible;
 - (c) encourage the recovery of *mineral aggregate resources* through the sequential use of developable land, whereby *mineral aggregate resources* are extracted prior to, or in conjunction with, development of the land;
 - (d) permit accessory uses associated with *mineral aggregate operations* such as crushing, screening, washing, stockpiling, blending with recycled asphalt or concrete materials, storage, weigh scales, and parking and office facilities;
 - (e) require a site-specific zoning by-law amendment to permit ancillary land uses, including asphalt plants, concrete plants and aggregate depots that blend and stockpile aggregate materials with salt, except where such uses are identified as a prohibited use in accordance with the policies in Chapter 8;
 - (f) ensure that *mineral aggregate operations* are provided with adequate buffering, screening and other mitigation measures to prevent or minimize any potential *adverse effects* on surrounding *sensitive land uses*; and
 - (g) plan for and regulate the subsequent use of rehabilitated *mineral aggregate operations* in accordance with the policies in this Plan.
- 9.A.5 The Region will promote the conservation of *mineral aggregate resources* by making provision for the recovery of these resources, wherever feasible.

9.B Existing Mineral Aggregate Operations

- 9.B.1 Existing licensed *mineral aggregate operations* are recognized as legal uses of land and will be permitted to continue without the need for an official plan amendment or rezoning under the Planning Act. Area municipalities will establish policies in their official plans to protect these operations from new *development* that would preclude or hinder their expansion or continued use, or which would be

incompatible for reasons of public health, public safety or environmental concerns. Existing licensed operations will be zoned appropriately in the respective area municipal Zoning By-laws to permit aggregate extraction.

- 9.B.2 Where a *development application* is required to expand the boundary of the licensed area of an existing *mineral aggregate operation*, or to increase the depth of extraction, the *development application* will be subject to all policies in this Plan that would apply to an application for a new *mineral aggregate operation* in addition to any requirements under the Aggregate Resources Act.

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- 9.B.3 Where the licensee has circulated an application to expand an existing licensed *mineral aggregate operation* or increase the depth of extraction which does not require the approval of a *development application*, the Region will review and provide comments on the application to the *Province* in the context of all relevant policies in this Plan that would apply to an application for a new *mineral aggregate operation*.

- 9.B.4 A *development application* to expand an existing *mineral aggregate operation* located on lands designated as Environmentally Sensitive Landscapes as shown on Map 4 will only be supported where:

- (a) it can be demonstrated to the satisfaction of the Region and the *Province* that substantial progress has been made in the rehabilitation to viable after-use of the disturbed area within the existing licensed area; and
- (b) the total active extraction area of the original licensed area and the proposed expansion area is not increasing over the long term. A lesser standard may be considered where it can be demonstrated that the overall rehabilitation goals of the site can be more effectively achieved by deferring rehabilitation until a later stage of the pit's operation.

9.C New Mineral Aggregate Operations

- 9.C.1 New *mineral aggregate operations* will require a site-specific amendment to the area municipal zoning by-law, the approval of which will be subject to all applicable policies in this Plan, in addition to the requirements for a license under the Aggregate Resources Act. Any zoning by-law amendments approved under this policy will apply only to the boundary of the licensed area, and will limit the depth of extraction to that which is specified on the proposed *site plan*.

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Required Technical Information

- 9.C.2 Within the Prime Agricultural Area designation as shown on Map 7, new *mineral aggregate operations* proposing extraction below the water table will require an amendment to this Plan to identify the area of extraction below the water table on Map 8. Such amendment will be subject to the policies in Section 9.D and all other

Def. No. 8

applicable policies in this Plan. An amendment to the area municipal official plan will also be required to identify the area of extraction below the water table.

9.C.3 *Development applications* to permit a new *mineral aggregate operation*, expand an *existing operation*, or increase the depth of extraction, will only be permitted where the following studies have been submitted to the satisfaction of the Region or agency with jurisdiction over the issue addressed by the study:

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- (a) noise, dust and vibration studies demonstrating that the proposed operation is appropriately designed, buffered and/or separated from any surrounding *sensitive land uses* to prevent any *adverse effects*;
- (b) a hydrogeological study in accordance with the provisions of the Regional Implementation Guideline for Source Water Protection Studies, demonstrating that the proposed operation will have no negative impacts on the quality and quantity of any surface water or groundwater resources;
- (c) a Transportation Impact Study in accordance with Policy 5.A.25 indicating how the proposed operation will address any potential impacts on Regional roads and Provincial Highways;
- (d) an *Environmental Impact Statement* in accordance with the policies in Section 7.G, where the proposed *mineral aggregate operation* is *contiguous* to a Core Environmental Feature, or within or contiguous to a Supporting Environmental Feature;
- (e) an *archaeological assessment* and/or *Cultural Heritage Impact Assessment* in accordance with the policies in Section 3.G;
- (f) information on the estimated lifespan of the *mineral aggregate operation* and demonstration that the final rehabilitation plan is consistent with the policies in this Plan and the area municipal official plan; and
- (g) any other studies identified by the area municipality to meet requirements of a complete application under the provisions of the Planning Act.

9.C.4 The studies noted in Policies 9.C.3 and 9.D.1 will take into account the potential *cumulative impacts* that may result from a proposed new *mineral aggregate operation* when added to other past, present and proposed future *mineral aggregate operations* in the vicinity of the proposed new operation. The appropriate level of detail, analysis boundaries and baseline data to be used in the cumulative impact assessment will be determined by the Region, area municipalities, the Grand River Conservation Authority and the owner/applicant as part of the *pre-submission consultation meeting*.

9.C.5 To avoid potential overlap among the studies required under Policies 9.C.3 and 9.D.1 and similar studies that may be required by the *Province*, area municipalities

or the Grand River Conservation Authority, the Region will require the owner/applicant to participate in a *pre-submission consultation meeting* with each of these agencies prior to the submission of any supporting studies. The purpose of this *pre-submission consultation meeting* will be to identify the specific policy requirements of each of the agencies in each of the substantive areas being studied under Policies 9.B.3, 9.C.3 and 9.D.1 such that a single study can satisfy all of the requirements identified by the agencies. Following the *pre-submission consultation meeting*, the Region to the extent of its jurisdiction, may scope, waive, or establish a peer review or other suitable evaluation process for any requirements reflected in these studies.

Review Criteria

- 9.C.6 New *mineral aggregate operations* will not be permitted on lands designated as Core Environmental Features, except in accordance with the following:
- (a) within habitat of *endangered or threatened species* where authorized in accordance with provincial and federal requirements;
 - (b) within Significant Woodlands, Environmentally Significant Valley Features and/or Significant Areas of Natural and Scientific Interest, new *mineral aggregate operations* may be permitted where the features consists of habitats that can be effectively replaced or restored within a reasonable period of time, such as:
 - i) areas of crop or pasture;
 - ii) plantation;
 - iii) early successional habitat;
 - iv) areas of high disturbance;
 - v) areas of low ecological diversity with high percentage of non-native species;
 - vi) small areas of non-provincially significant marsh or thicket *wetland*;
 - vii) old field meadow;
 - viii) hedgerows;
 - ix) minor areas on the perimeter of the features; or
 - x) drainage swales; and
 - (c) the owner/applicant must demonstrate to the satisfaction of the Region that:
 - i) the portion of the Core Environmental Feature affected by the mineral aggregate extraction will be replaced or restored within a reasonable

period of time with habitat of greater extent and/or ecological value as part of the rehabilitation plans, to promote, where possible, a net ecological gain, or in the case of habitat of *endangered or threatened species*, compliance with provincial and federal requirements have been achieved;

- ii) there will be no *adverse environmental impacts* to the *environmental features* or *ecological functions* and connectivity of the residual areas of the Core Environmental Feature;
- iii) the quantity, quality and direction of local surface water and groundwater will be maintained or enhanced; and
- iv) the extraction of *mineral aggregate resources* will be completed, and the area will be rehabilitated, as early as possible in the life of the operation.

9.C.7 New *mineral aggregate operations* proposed within a Source Water Protection Area designated as shown on Maps 6a to 6g may be permitted, except where such uses are prohibited in accordance with the source water protection policies in Chapter 8.

9.C.8 New *mineral aggregate operations* proposed *contiguous* to Core Environmental Features may be permitted, provided that there will be no *adverse environmental impacts* to their features or *ecological functions* and connectivity/*linkages*.

9.C.9 Area municipalities will include site-specific regulations within their zoning by-laws to restrict extraction below the water table where subwatershed-scale hydrogeological studies, prepared in accordance with Policy 9.D.1 (b), have not demonstrated to the Region's satisfaction the acceptability of such extraction from a surface water and groundwater perspective.

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No.
10

9.C.10 New *mineral aggregate operations*, or *wayside pits and quarries*, may be permitted within Environmentally Sensitive Landscapes where it can be demonstrated to the satisfaction of the Region, in consultation with the *Province*, area municipalities and the Grand River Conservation Authority that:

- (a) notwithstanding Policies 7.B.12, 7.B.13 and 7.B.14, where extraction is proposed *contiguous* to a Core Environmental Feature, there will be no significant *adverse environmental impacts* to their features or landscape level *ecological functions* and connectivity;
- (b) where extraction is proposed within or *contiguous* to the following features, which are not included within a Core Environmental Feature:
 - i) rivers, stream valleys, *floodplains*, or associated *hazardous lands* or *hazardous sites*;
 - ii) *fish habitat*;

- iii) meromictic and kettle lakes;
- iv) *significant* wildlife habitat; or
- v) savannas, tallgrass prairies, rare *woodland* types, cliffs, alvars, sand barrens, marl seeps, bogs and fens;

there will be no significant *adverse environmental impacts* to their features or landscape level *ecological functions* and connectivity, although extraction may be considered in habitats which can be effectively replaced or restored in a short to medium time scale such as areas of crop or pasture land, young plantation, early successional *woodland*, small areas of non-provincially significant marsh or thicket wetland, old field meadow, hedgerows and drainage swales; and

- (c) the quantity and quality of local surface water and groundwater regimes can be maintained or enhanced.

9.C.11 Where a new *mineral aggregate operation* is proposed on lands designated as an Environmentally Sensitive Landscape as shown on Map 4, the Region will recommend to the *Province* that the Natural Environment Report required under the Aggregate Resources Act also address the following objectives:

- (a) natural habitat that would be lost from the site will be replaced with equivalent habitat on the property or on adjacent lands, and no less than 35 per cent of the licensed area remaining above the water table after extraction will be rehabilitated to sustainable natural *woodland* habitat representative of the landscape in which it is located;
- (b) the quantity and quality of surface water and groundwater regimes and aquatic ecosystems remaining after, or created by, extraction will be rehabilitated to sustainable natural aquatic ecosystems representative of the landscape in which they are located;
- (c) the health, diversity, size, *ecological function* and connectivity of major natural features remaining within the proposed licensed area will be maintained and, where possible, enhanced before, during and after the extraction of aggregate resources;
- (d) the rehabilitated area will be maximized and the disturbed area minimized on an ongoing basis during the life-cycle of the pit operation; and
- (e) rehabilitation of any area once occupied by natural features or identified as potential enhancement/restoration and/or corridor/*linkage* areas is completed as early as possible in the life of the extraction operation.

- 9.C.12 Development applications that would establish an ancillary use to a mineral aggregate operation will only be permitted where applicable studies identified in Policy 9.C.3 demonstrate to the satisfaction of the Region and/or area municipality that the proposed use will mitigate any potential *adverse effects*.
- 9.C.13 The Region will collaborate with the *Province* and area municipalities to ensure that all appropriate requirements resulting from the review of an application for a *mineral aggregate operation* are imposed and enforced as:
- (a) conditions on the license or notes on the *site plan* required under the Aggregate Resources Act, including but not limited to spill protection measures to prevent discharges to surface water and groundwater resources from on-site fuel storage, vehicle or equipment repair and equipment operation, and spills from salt storage, use and transfer; and other best management practices; and
 - (b) regulations in area municipal zoning by-Laws, development agreements and conservation easements as may be applicable.
- 9.C.14 A new *mineral aggregate operation* proposing to establish or expand a *quarry operation* may only be permitted by way of an amendment to this Plan. Such amendment will be reviewed in the context of the policies of this Plan, the applicable area municipal Official Plan and the Provincial Standards approved under the Aggregate Resources Act.

Def. No. 11

9.D. Extraction Below the Water Table

- 9.D.1 In addition to all other applicable policies in this Plan, including the requirement for an amendment to this Plan in accordance with Policy 9.C.2, mineral aggregate extraction below the water table will only be permitted where:
- (a) on lands identified as *prime agricultural lands* within Prime Agricultural Areas it is demonstrated to the satisfaction of the Region and area municipality that there is a substantial quantity of *mineral aggregate resources* below the water table warranting extraction;
 - (b) the completion of a hydrogeological cumulative impacts assessment demonstrates that the removal of the resource and the subsequent rehabilitation of the lands will not negatively impact the quantity and quality of surface or groundwater resources and relevant natural heritage features. Such studies shall be completed to satisfaction of the Region, the Province, the area municipality and the Grand River Conservation Authority;
 - (c) if necessary and feasible to protect groundwater quality, post-extractive drainage is directed away from the resulting pond, the slopes of the pond are stabilized with appropriate native species, and a pond planting plan is prepared and implemented to the satisfaction of the Region;

Def. No. 12

- (d) on lands identified as *prime agricultural lands*, other alternatives have been considered by the owner/applicant and found unsuitable, and agricultural rehabilitation in remaining areas will be maximized. The consideration of other alternatives will include investigation as to the availability of alternative resources on lands identified as Canada Land Inventory Class 4 to 7 soils, resources on lands committed to future urban uses, and resources on *prime agricultural lands* where rehabilitation to agriculture is feasible; and
- (e) it is demonstrated to the satisfaction of the Region and the applicable area municipality that the site will be rehabilitated in accordance with the policies in Section 9.F.

9.D.2 Where the results of an individual or sub-watershed scale hydrogeological study indicate that mineral aggregate extraction below the water table may have a negative impact on the quantity or quality of groundwater in an area, the area municipality will restrict extraction below the water table by means of a site-specific regulation in the zoning by-law in accordance with Policy 9.C.1. The purpose of this restriction is to maintain the depth of residual over burden necessary to protect the quality and quantity of groundwater.

Def. No. 13

9.D.3 Where the extraction of a proven significant quantity of *mineral aggregate resources* located below the water table is not permitted in accordance with Policy 9.D.1 and 9.D.2, this resource will continue to be protected from land uses incompatible with its future extraction.

9.E. Wayside Pits and Quarries, Portable Asphalt and Concrete Plants

9.E.1 Area municipal official plans will include policies related to *wayside pits and quarries*, *portable asphalt plants* and *portable concrete plants* used for public road authority contracts. Such uses will be permitted on a temporary basis in all land use designations, without the need for an official plan amendment or rezoning, except where:

- (a) the use would be located within or adjacent to an existing Built-Up Area that would be incompatible with aggregate extraction and associated activities;
- (b) the use would be located within a Core Environmental Feature designated as shown on Map 4; and
- (c) the use is identified as a prohibited use by the policies in Chapter 8.

9.E.2 *Portable asphalt plants* and *portable concrete plants* will be discouraged on lands containing active agricultural operations. If asphalt or concrete for a public road project cannot be obtained from an existing asphalt or concrete plant, attempts should be made to locate the portable plant in *wayside pits and quarries*, vacant industrial sites, or on inactive or less productive agricultural lands.

- 9.E.3 *Portable asphalt plants and portable concrete plants* will obtain appropriate approvals pursuant to the Environmental Protection Act and will include provisions to prevent spills of petroleum chemicals to surface and groundwater resources.

9.F Rehabilitation of Aggregate Operations

- 9.F.1 All proposals for new *mineral aggregate operations*, including *wayside pits and quarries*, will include a rehabilitation plan to the satisfaction of the Region and area municipalities that will ensure that:

- (a) progressive rehabilitation will be carried out whenever feasible so that depleted areas are restored while extraction continues in other areas of the site;
- (b) final rehabilitation will comply with the land use designations contained in this Plan and area municipal official plan, and be compatible with the character of surrounding land uses;
- (c) within the Prime Agricultural Area and Rural Areas designations, rehabilitation to agriculture will be the first priority, as follows:
 - i) within the Prime Agricultural Area, substantially the same land area will be rehabilitated back to an agricultural condition to allow for the same range and productivity of crops common in the area; and
 - ii) within Rural Areas, rehabilitation of the site will be carried out so that substantially the same land area and same average soil quality for agriculture are restored.
- (d) where mineral aggregate extraction has occurred below the water table, rehabilitation will be in accordance with Policy 9.D.1 (c) to protect groundwater quality.

- 9.F.2 In the Prime Agricultural Area designation, rehabilitation to agriculture will be the first priority. Notwithstanding this, complete agricultural rehabilitation within the Prime Agricultural Area and Rural Areas designations may not be required where:

- (a) the depth of the planned extraction makes restoration of pre-extraction agricultural capability impractical;
- (b) hydrogeological investigations completed in accordance with the policies in this Plan have demonstrated to the satisfaction of the Region that agricultural rehabilitation is not desirable due to groundwater protection requirements;
- (c) the Region, in collaboration with the *Province*, area municipalities and the Grand River Conservation Authority, have determined a suitable alternative

post-extractive use in conformity with the policies in this Plan and the area municipal official plan; or

- (d) aggregate extraction would remove natural features such as *woodlands*, *wetlands* and watercourses on lands not otherwise protected by the Greenlands Network policies in this Plan, in which case these natural features will be restored and, where possible, enhanced consistent with the intent of Policy 9.C.11.

9.F.3 Where multiple *mineral aggregate operations* are located in close proximity to one another, the Region will collaborate with the *Province*, area municipalities, the Grand River Conservation Authority and the affected owners/applicants to jointly develop comprehensive rehabilitation plans for multiple properties.

10. Fulfilling Consultation and Implementation Roles

Establishing an effective implementation framework is an essential component of any plan if its goals and objectives are to be realized. This Chapter outlines a variety of tools that will be used to implement the policies in this Plan, including the traditional tools that govern the review and approval of *development applications*. This Chapter also addresses the key roles of area municipalities in achieving this Plan's objectives.

Partnerships and collaboration are critical when it comes to implementation, and the Region relies upon the strong relationships that have been developed with the *Province*, area municipalities, the Grand River Conservation Authority, other government agencies, the private sector and the broader community. The Region's goal in the public consultation process is to collaborate with individuals, groups and agencies to achieve, whenever possible, mutually satisfactory solutions to planning issues. Collaboration and participation are encouraged as part of the planning process in order to find alternative points of view and solutions, build trust and accountability, recognize diverse interests and to ultimately make better decisions. To assist in this process, the Region will undertake research on emerging planning issues and monitor the effectiveness of policies in this Plan.

The planning tools and resources that aid implementation are also described in this Chapter. *Community Improvement Plans*, fiscal tools, Provincial legislation and policy and implementation guidelines are all mechanisms that the Region may either use or require. In addition, this Chapter contains policies related to plan interpretation, boundary interpretation and the process for amending this Plan.

Regional Implementation Guidelines are used to support the objectives of this Plan. These guidelines detail the manner in which certain policies will be implemented.

Finally, this Chapter establishes a framework for ongoing monitoring that will ensure that the policies in this Plan remain effective in achieving the stated goals and objectives. Only through monitoring can the Region assess the success of specific policies and subsequently make targeted amendments to ensure these overall goals and objectives of this Plan are realized, or adjusted as required.

Overall Goal – Foster participation and collaboration in the effective implementation of the goals and objectives of this Plan.

Objectives:

- 10.1 Help educate and engage members of the community about the importance of planning and to encourage participation in the planning process.
- 10.2 Provide a variety of enhanced opportunities for input and continue to explore innovative processes for citizen engagement.

- 10.3 Continue to partner with area municipalities, the Grand River Conservation Authority and other stakeholders to successfully implement this Plan.
- 10.4 Continue to provide regular, streamlined and timely communication with partners and the broader community.
- 10.5 Monitor, evaluate and report on implementation progress.
- 10.6 Continue to develop and/or participate in financial incentive programs.

10.A Public Consultation

Partnerships and Collaboration

- 10.A.1 The Region will provide opportunities for public participation in the development, implementation and monitoring of Regional planning policies in accordance with this Plan, the Planning Act, the Environmental Assessment Act and other relevant legislation and policy.
- 10.A.2 The Region will co-operate with area municipalities in public participation programs, including the holding of joint public meetings, where appropriate, during the processing of amendments to this Plan and area municipal official plans, and for other initiatives where interests are common.
- 10.A.3 In public participation programs associated with a *municipal comprehensive review* of this Plan, or major amendments hereto, the Region will endeavour to:
 - (a) establish realistic objectives and timelines for public participation programs;
 - (b) solicit public input through a variety of enhanced public participation programs;
 - (c) demonstrate how comments from the public have been considered in the planning policy and development decisions; and
 - (d) ensure appropriate opportunities exist for public input into the development and approval of planning policies and programs.

10.B Planning Tools and Resources

Corporate Strategic and Fiscal Planning

- 10.B.1 The Region will prepare and regularly update a Regional Corporate Strategic Plan that:
 - (a) identifies emerging opportunities that are key to the maintenance and enhancement of the quality of life in the region, and to the achievement of the

goals and objectives of this Plan; and

- (b) recommends priorities among various programs and services of the Region, and organizational and other changes needed to maintain and improve efficient and effective program and service delivery.

10.B.2 The Regional Capital Forecast will be prepared and periodically updated to reflect the stated goals and objectives of this Plan. The Region will give priority to *infrastructure* investments that support the Planned Community Structure of this Plan.

10.B.3 The Region may impose user fees as a means of recovering appropriate operating and capital costs associated with the delivery of Regional services.

10.B.4 The Region will periodically examine the implications of Regional efforts to develop cost recovery mechanisms for its services and programs on the various sectors of the community. Where these impacts prove onerous, alternative approaches may be implemented.

10.B.5 The Region will establish and maintain a Regional Development Charges By-law, in accordance with the provisions of the Development Charges Act, as a means of recovering eligible growth-related capital costs associated with the delivery of Regional services. The Region may provide for exemptions from the collection of such charges within the Regional Development Charges By-law, where such exemptions support the Planned Community Structure of this Plan.

Community Improvement Plans

10.B.6 For the purposes of promoting a *sustainable* and *liveable* community, the Region may support *community improvement* through the designation of Community Improvement Project Areas and the adoption of Regional *Community Improvement Plans* in relation to the following:

- (a) *affordable* housing;
- (b) *infrastructure* that is within the Region's jurisdiction;
- (c) land and buildings within and adjacent to Existing or Planned Transit Corridors that have the potential to provide for higher density *reurbanization*; or
- (d) other matters as the *Province* may prescribe in accordance with the Planning Act.

10.B.7 The Region may provide grants, loans or other assistance under its own *Community Improvement Plans*. The corporate boundaries of the Region of

Waterloo constitute the boundaries of the Community Improvement Project Area under the Planning Act.

- 10.B.8 The Region may provide grants, loans or other assistance as Regional Council deems appropriate for the purposes of carrying out programs as described in area municipal *Community Improvement Plans*.

Implementation Guidelines

- 10.B.9 Regional Implementation Guidelines are recognized as statements adopted by resolution of Regional Council which detail the manner in which policies established in this Plan will be implemented. The content and scope of these Implementation Guidelines will be determined by the Region, in consultation with area municipalities and the Grand River Conservation Authority as appropriate, will be updated from time-to-time and will be in conformity with the policies in this Plan.
- 10.B.10 Regional Implementation Guidelines will not be used as instruments to introduce new policy provisions that could be the basis for denying *development applications* under the Planning Act, or for interfering with the natural justice rights of landowners and the public.
- 10.B.11 The Region will provide public and agency notification at least 20 days prior to Regional Council consideration of any new or revised Regional Implementation Guidelines. Such notification will include the following information:
- (a) the general nature, purpose or content of the proposed Implementation Guideline;
 - (b) the time, date and place at which the proposed Implementation Guideline will be considered for approval by Regional Council or a Committee of Regional Council; and
 - (c) the means by which interested persons may obtain further information or may submit comments on the proposed Implementation Guideline prior to its adoption.
- 10.B.12 Public and agency notification of the proposed adoption of a Regional Implementation Guideline will be provided by:
- (a) publication in a newspaper of sufficiently general circulation as to give reasonable public notice of the meeting;
 - (b) personal service or prepaid first class mail to every person or agency who has made a request to receive such notification or who the Region has determined is likely to have a significant interest in the matter which is the subject of the proposed Implementation Guideline;

- (c) posting on the Region's website; and
- (d) other means of notification as may be deemed appropriate by Regional Council.

10.B.13 Copies of the proposed Regional Implementation Guideline will be available at the time public notification is given in accordance with Policy 10.B.11.

10.B.14 A reasonable opportunity will be provided to all persons and agencies having an interest in a proposed Regional Implementation Guideline to make representations to Regional Council or to a Committee of Regional Council. A fair hearing will be provided to such deputations or to written comments submitted to the Regional Clerk, prior to its consideration for adoption.

10.C Policy and Mapping Interpretations

Policy Interpretation

10.C.1 The text, tables, maps, schedules and glossary of terms contained in this Plan constitute the Regional Municipality of Waterloo's Official Plan. Any graphics or text contained in the margins of the Plan are intended to be illustrative and are provided for information only.

10.C.2 The policies contained in this Plan provide a statement of the intentions of Regional Council. If clarification of any policy is necessary, reference should be first made to the introductory text, and then to the overall goals and objectives of this Plan. Maps 1 to 8 must be read in the context of the related policies.

10.C.3 Where new mapping information is provided by the *Province*, any affected maps in this Plan will be reviewed and updated as part of the five-year *municipal comprehensive review* process, or the completion of a *municipal comprehensive review* as otherwise initiated by Regional Council.

10.C.4 In the case of a discrepancy between the policies and the related map, the policies will take precedence.

10.C.5 Where differences of opinion arise as to the meaning of any part of this Plan, an interpretation may be made by Regional Council after hearing all interested parties. Where such interpretation is not accepted by the Council of an area municipality or by any other interested party, such Council or party may apply to the Courts or other Body having jurisdiction over such matters.

10.C.6 Where a parcel of land is subject to one or more designations shown on a map in this Plan, *development applications* will be reviewed in accordance with all the policies of the applicable designations. Where conflict exists between such policies, the more restrictive policies will prevail to the extent of the conflict except where

application of the more restrictive policy would result in an outcome not consistent with the goals and objectives of this Plan.

Boundary Interpretation

10.C.7 The boundaries shown on maps in this Plan will be interpreted as follows:

- (a) the urban land use designations as shown on Maps 3a to 3e inclusive will be interpreted as being definitive, except for Urban Growth Centres, Township Urban Growth Centres and Major Transit Stations Areas, the boundaries of which are conceptual. The precise boundaries of these three designations will be delineated in the applicable area municipal official plan;
- (b) where the boundaries of the Urban Area, Township Urban Areas and the Highway 401/Regional Road 97 Employment Area as shown on Maps 3a to 3e inclusive coincide with such physical features as roadways, rivers and other defined geographical features, the boundaries will be deemed to be the centre line of that feature.
- (c) the environmental land use designations as shown on Map 4, except for the Provincial Greenbelt Natural Heritage System, are based on more detailed mapping contained in the Technical Appendix for Landscape Level Systems and Core Environmental Features. The interpretation of these boundaries will be in accordance with the provisions set out in Chapter 7. The boundary of the Provincial Greenbelt Natural Heritage System will be interpreted in accordance with the provisions of the Provincial Greenbelt Plan; and
- (d) the boundaries of the various natural resource areas as shown on Maps 6a to 6g, Map 7 and Map 8 will be interpreted through the *development* review process.

10.D Development Review Process

- 10.D.1 The Region will provide comments to area municipalities or other applicable agencies with respect to matters of Regional significance or interest relating to applications submitted in accordance with the Planning Act or other Provincial or Federal legislation and policy. These comments will be provided in accordance with the procedures established by the *Province*, the Ontario Municipal Board or other legal authority.
- 10.D.2 The Region, in its role as a delegate of various Provincial agencies as established through legislative regulation or agreements with these agencies, will implement this mandate through the review and approval of *development applications*.
- 10.D.3 Where the Region is the approval authority as assigned under the provisions of the Planning Act, Regional Council may by by-law, subject to any terms and conditions

contained therein, delegate authority to persons or bodies as described in the by-law.

- 10.D.4 Applications to amend this Plan will not be accepted by the Region for processing in the absence of a complete application in accordance with the policies in this Section.
- 10.D.5 The Region will only accept and process complete applications for plans of subdivision or plans of condominium for which the Region is the approval authority, and/or for amendments to this Plan. To be deemed complete, an application must satisfy all applicable statutory requirements, all requirements set out in the applicable area municipal official plan and be accompanied by all the *other information and materials* listed in Schedule 'C' except where some of these study requirements have been scoped or waived through a *pre-submission consultation meeting* as set out in a Record of Pre-submission Consultation issued by the Regional Commissioner of Planning, Housing & Community Services pursuant to the Region's Pre-submission Consultation By-Law.
- 10.D.6 *Other information and materials* submitted in accordance with Policy 10.D.5 are subject to the following stipulations in order to be deemed complete:
- (a) the content and necessity of the *other information and materials* will be determined through a *pre-submission consultation meeting* with the Region, the applicable area municipality and other agencies as required and will be in keeping with the scope and complexity of the application(s);
 - (b) the *other information and materials* submitted must be prepared by a qualified professional (as defined in applicable legislation or alternatively to the satisfaction of the Region) retained by and at the expense of the owner/applicant; and
 - (c) the *other information and materials* submitted must be in accordance with any applicable Provincial or Regional guidelines.
- 10.D.7 The Region may refuse *other information and materials* submitted if it considers the quality of the submission unsatisfactory.
- 10.D.8 The Region may request electronic versions of all *other information and materials* submitted and stipulate the format of the digital submission.
- 10.D.9 The Region may require additional information or reports as part of the complete application, in addition to the *other information and materials* listed in Schedule 'C', where circumstances necessitate such information in the decision-making process.
- 10.D.10 Through the course of the review process for a *development application* that has otherwise been deemed a complete application, the Region may require

additional reports, studies, or information from the owner/applicant to address specific issues to enable Regional Council to make informed decisions.

- 10.D.11 Where this Plan requires a study to be completed in support of a *development application*, such studies will be submitted and approved to the satisfaction of the appropriate agency. If an appropriate agency is not stated as an approval authority, the required studies must be completed to the satisfaction of the Region and the results of such studies will be used to structure conditions of approval.
- 10.D.12 Where this Plan requires a study to be completed in support of a *development application* and the study has been submitted to the satisfaction of the Region or the appropriate agency, the resultant recommendations from the study or studies must be implemented, or secured through appropriate legal agreements, prior to final approval of the *development application*.
- 10.D.13 The Region may conduct a peer review of any *other information and materials* submitted where necessary to determine whether the quality of the submission is satisfactory. Such peer reviews will be completed by an appropriate agency or professional consultant retained by the Region at the owner/applicant's expense.
- 10.D.14 The Region will continue to review the *development* review process in consultation with area municipalities, the Grand River Conservation Authority, the development industry and other stakeholders to:
- (a) establish and monitor general time frames and procedures for the review of *development applications*;
 - (b) identify means of increasing the efficiency and effectiveness of the development review process;
 - (c) update development review procedures based on the review; and
 - (d) periodically prepare a report for Regional Council on the results of the review.
- 10.D.15 The Region, or any delegate thereof responsible for the approval of plans of subdivision, will, in consultation with the applicable municipality and other appropriate agencies, review draft approved plans of subdivision every three years in accordance with the provisions of the Planning Act.

10.E Plan Conformity

- 10.E.1 This Plan is a legal document prepared in accordance with the statutory powers and responsibilities vested in the Region by the *Province*. All public works carried out in the region must be in conformity with this Plan, and no by-laws will be passed for any purposes that are not in conformity with this Plan.

- 10.E.2 The effect of Provincial and Federal legislation in granting exemptions from compliance under this Plan for specified undertakings is acknowledged. However, the Region will strive through consultation to gain the full support of Federal and Provincial agencies in working toward the objectives of this Plan.
- 10.E.3 Other government agencies will have regard to this Plan in preparing and administering plans and programs which may affect the region.
- 10.E.4 The Region considers the policies in this Plan to be consistent with the Provincial Policy Statements adopted by the *Province* under the Planning Act.
- 10.E.5 Although the scope and content of respective area municipal official plans may differ in recognition of the unique circumstances within each municipality, area municipal official plans and official plan amendments:
- (a) will be in conformity with this Plan; and
 - (b) may contain policies which are more restrictive than the policies in this Plan on the same subject, but may not be more permissive than the policy direction established in this Plan.
- 10.E.6 Where this Plan designates lands on a map or establishes a policy on a particular matter, it may not be necessary for area municipal official plans to address the issue further unless this Plan requires companion actions by the area municipality, or the area municipality wishes to apply the policy in greater detail.
- 10.E.7 Area municipalities will bring their respective official plans and zoning by-laws into conformity with the policies in this Plan in accordance with the timelines set out in the Planning Act.
- 10.E.8 In the event that an area municipality fails to bring its official plan into conformity with this Plan within two years of the date of approval of this Plan, the Region will require the area municipality to amend its official plan to achieve such conformity in accordance with the provisions of the Planning Act.
- 10.E.9 Where an area municipality has not brought their official plan into conformity with the policies required to be established by policies in this Plan, the Region will provide interpretation of these policies as part of the *development* review process.
- 10.E.10 Notwithstanding any other policies in this Plan, public service facilities and systems owned and operated by, or on behalf of, the Federal or Provincial governments, the Region or any area municipality, or the Grand River Conservation Authority may be permitted in any area municipal Plan land use designation.

- 10.E.11 The policies in this Plan will apply to any *development applications* or *site plans*, matters or proceedings commenced on or after the date this Plan, or any applicable part of this Plan, comes into effect.

10.F Amendments to the Plan

- 10.F.1 Notice of amendments to this Plan will be given in accordance with the procedures as provided for in the Planning Act.
- 10.F.2 Copies of the proposed amendment will be available to the public at the time notification is given.
- 10.F.3 In considering amendments to this Plan, the Region will be guided by the following:
- (a) the need for the proposed change;
 - (b) the effect of the proposed change on the demand for Regional and area municipal services and facilities;
 - (c) the implications the amendment may have on other policies in this Plan;
 - (d) the implications of the proposed change on the Region's ability to achieve the overall goals, objectives, and policies expressed in this Plan, or on other Regional policies, programs or interests;
 - (e) the implications of the proposed change on the ability of area municipalities to achieve the principles and policies expressed in their official plans, or on other area municipal policies, programs or interests;
 - (f) the conformity of the amendment with the Growth Plan and other applicable Provincial policies and legislation; and
 - (g) the consistency of the amendment with the Provincial Policy Statement.
- 10.F.4 The Region will undertake a review of the policies in this Plan where judicial decisions, Ontario Municipal Board decisions, and/or changes to legislation or the Provincial Policy Statements warrant such a review. The Region will consider amendments to this Plan as appropriate to implement the results of this review.
- 10.F.5 The Region will review the policies in this Plan as part of a five-year *municipal comprehensive review*, or the completion of a *municipal comprehensive review* as otherwise initiated by Regional Council. These reviews will be completed in conjunction with updates to the Regional Land Budget which will help determine whether there is sufficient justification to consider expanding the Urban Area and/or Township Urban Area boundaries to accommodate projected population and employment growth within the time horizon of the Plan.

- 10.F.6 The Region will conduct a major review of the overall goals and objectives of this Plan every ten years.

10.G Monitoring, Plan Review and Updating

- 10.G.1 To provide information for the on-going evaluation of the policies in this Plan, the Region will continue to carry out a program of research, in collaboration with the *Province*, area municipalities, the Grand River Conservation Authority and other stakeholders, as appropriate, to identify the changing social, economic and physical needs of the residents of the region and the consequences of technological improvements that may affect the programs and policies of the Region.
- 10.G.2 The Region will continue to develop financial and/or information collection and sharing arrangements with the *Province*, area municipalities, the Grand River Conservation Authority and other stakeholders to provide for the development and maintenance of comprehensive and integrated region-wide demographic, environmental, economic, land use, housing and social databases. These databases will be used to monitor the effectiveness of the policies in this Plan, and where feasible, information from these databases will be made available to the public.
- 10.G.3 Data collected in accordance with Policy 10.G.2 for inclusion in the cultural, demographic, environmental, economic, land use and social databases will be used for monitoring and to support future amendments and *comprehensive reviews* of the Plan.
- 10.G.4 A report will be presented periodically to Regional Council and community stakeholders with the results of the monitoring process.

Schedule A: DESIGNATED ROAD ALLOWANCES

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
1	Wilmot-Easthope Road	Oxford County/Perth County boundary	Highway 7 & 8	30.480
1	Wilmot-Easthope Road/Huron Street	Highway 7 & 8	Stone Street (New Hamburg)	30.000
1	Huron Street/ Waterloo Street (New Hamburg)	Stone Street (New Hamburg)	~100m south of Arnold Street	20.117
1	Huron Street/ Waterloo Street (New Hamburg)	~100m south of Arnold Street	Victoria Street	26.000
1	Waterloo Street/ Snyder's Road W	Victoria Street	~244m west of Charlotta Street (Western Baden Township Urban Area Limit)	30.480
1	Snyder's Road W (Baden)	~244m west of Charlotta Street (Western Baden Township Urban Area Limit)	Livingston Boulevard	26.000
1	Snyder's Road W (Baden)	Livingston Boulevard	Schneller Drive	26.000
1	Snyder's Road W	Schneller Drive	Gingrich Road (6)	30.480
3	Oxford-Waterloo Road	Oxford County Road 22	Walker Road (3)	30.480
3	Walker Road	Region of Waterloo/ Oxford County boundary	Highway 7 & 8	30.480
4	Ottawa Street	Fountain Street (17)	~890m west of Woolwich Street South (East parcel limit of WATERLOO GCT PT LOT 115 RP 58R17176 PT 5)	35.000
4	Ottawa Street	~890m west of Woolwich Street South (East parcel limit of WATERLOO GCT PT LOT 115 RP 58R17176 PT 5)	Otterbien Road	75.000
4	Ottawa Street	Otterbien Road	Heritage Drive	35.000
4	Ottawa Street	Heritage Drive	Conestoga Parkway	30.480

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
4	Ottawa Street	Conestoga Parkway	Fischer-Hallman Road (58)	30.480
4	Ottawa Street	Fischer-Hallman Road (58)	Bleams Road (4)	30.480
4	Bleams Road (Mannheim)	Ottawa Street (4)	~189m west of Cedarbrook Court (Western Mannheim Rural Settlement Area Limit)	20.117
4	Bleams Road	~189m west of Cedarbrook Court (Western Mannheim Rural Settlement Area Limit)	Bergey Court	30.480
4	Bleams Road (Diversion to Highway 7 & 8)	Bergey Court	Highway 7 & 8	26.213
4	Peel Street (New Hamburg)	Highway 7 & 8	Huron Street (1)	20.117
4	Huron Street (New Hamburg)	Peel Street (4)	Waterloo Street (1)	20.117
5	Nafziger Road	Highway 7 & 8	Gerber Road (12)	30.480
5	Nafziger Road (Wellesley Settlement)	Gerber Road (12)	Queen's Bush Road (5)	20.117
5	Queen's Bush Road (Wellesley Settlement)	Nafziger Road (5)	~310m east of Hutchison Road (Western Wellesley Township Urban Area Limit)	20.117
5	Queen's Bush Road (Wellesley Settlement)	~310m east of Hutchison Road (Western Wellesley Township Urban Area Limit)	Hutchison Road (5)/Perth Line (7)	30.000
5	Hutchison Road	Queen's Bush Road (5)/Perth Line (7)	Lobsinger Line (15)	30.480
5	Hutchinson Road/ William Hastings Line (Crosshill)	Lobsinger Line (15)	~482m west of Hutchison Road (Western Crosshill Rural Settlement Area Limit)	20.117
5	William Hastings Line/ Manser Road	~482m west of Hutchison Road (Western Crosshill Rural Settlement Area Limit)	Lorraine Drive (Linwood)	30.480
5	Manser Road (Linwood)	Lorraine Drive (Linwood)	Adelaide Street	20.117
5	Manser Road	Adelaide Street	Line 86 (86)	30.480
6	Frederick Street (Kitchener)	Bruce Street (61)	East Avenue	26.213

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
6	Frederick Street	East Avenue	Lancaster Street	26.000
6	Frederick Street	Lancaster Street	Weber Street (8)	26.000
6	Frederick Street	Weber Street (8)	Duke Street (63)	26.000
6	Frederick Street	Duke Street (63)	Benton Street (6) (King Street East)	30.000
6	Benton Street	Frederick Street (6)	Courtland Avenue (53)	26.213
6	Queen Street	Courtland Avenue (53)	Schneider Avenue	26.000
6	Queen Street	Schneider Avenue	Highland Road (6)	26.213
6	Highland Road	Queen Street (6)	Westmount Road (50)	26.213
6	Highland Road	Westmount Road (50)	~326 m east of Notre Dame Drive (Northeastern Petersburg Rural Settlement Area Limit)	30.480
6	Snyder's Road E (Petersburg)	~326 m east of Notre Dame Drive (Northeastern Petersburg Rural Settlement Area Limit)	~312 m west of Notre Dame Drive (Northwestern Petersburg Rural Settlement Area Limit)	20.117
6	Snyder's Road E	~312 m west of Notre Dame Drive (Northwestern Petersburg Rural Settlement Area Limit)	Gingrich Road (6)	30.480
6	Gingrich Road	Snyder's Road (1)	Foundry Street (51)	30.480
7	Hutchison Road/ Perth Line	Queen's Bush Road (5)	Road 116 (Region Waterloo/Perth County boundary)	30.480
8	Dundas Street (Cambridge)	Branchton Road (43)	Main Street (97)	30.480
8	Dundas Street	Main Street (97)	Hespeler Road (24)	26.213
8	Coronation Boulevard	Hespeler Road (24)	Concession Road	36.576

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
8	King Street E	Concession Road	Bishop Street (41)	26.000
8	King Street E	Bishop Street (41)	Eagle Street (39)	20.000
8	King Street E	Eagle Street (39)	Fountain Street S (8)	26.213
8	Fountain Street S	King Street (8)	Shantz Hill Road (8)	26.213
8	Shantz Hill Road	Fountain Street S (8)	Highway 401 Ramps	39.000
8	King Street E (Kitchener)	Highway 401 Ramps	Sportsworld Drive (38)	36.576
8	King Street E	Sportsworld Drive (38)	Highway 8	45.000
8	King Street E (Kitchener)	Highway 8	Fairway Road (53)	26.000
8	King Street E	Fairway Road (53)	Weber Street (8)	26.213
8	Weber Street	King Street E (8)	Victoria Street (55)	26.213
8	Weber Street	Victoria Street (55)	Louisa Street	30.480
8	Weber Street	Louisa Street	K-W boundary	30.000
8	Weber Street	K-W boundary	King Street N (15)	30.480
8	Weber Street	King Street N (15)	Northfield Drive (50)	30.480
8	Weber Street	Northfield Drive (50)	Benjamin Road (Waterloo/Woolwich boundary)	30.480
8	Weber Street	Benjamin Road (Waterloo/Woolwich boundary)	King Street N (15)	30.480
8	King Street N	Lobsinger Line (15) (Woolwich)	Henry Street (St. Jacobs)	30.480
8	King Street N (St. Jacobs)	Henry Street (St. Jacobs)	~60m North of Front Street (Conestoga River)	20.117
8	King Street N	~60m North of Front Street (Conestoga River)	Sawmill Road (17)	30.480 - 71.628
9E	Erb Street (Waterloo)	Bridgeport Road (9W)	Weber Street (8)	26.000
9E	Erb Street	Weber Street (8)	Regina Street	26.000
9E	Erb Street	Regina Street	King Street (15)	24.384

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
9E	Erb Street	King Street (15)	Caroline Street (9W)	26.213
9	Erb Street	Caroline Street (9W)	Westmount Road (50)	26.000
9	Erb Street	Westmount Road (50)	Fischer-Hallman Road (58)	30.480
9	Erb Street	Fischer-Hallman Road (58)	Waterloo/Wilmot boundary	30.480
9	Erb's Road (Wilmot)	Waterloo/Wilmot boundary	Strauss Court	30.480
9	Erb's Road (St. Agatha)	Strauss Court	Wilma Street	20.117
9	Erb's Road	Wilma Street	Approximately 150 m east of Nafziger Road (5)	30.480
9	Erb's Road (Philipsburg)	Approximately 150 m east of Nafziger Road (5)	Approximately 150 m west of Nafziger Road (5)	20.117
9	Erb's Road	Approximately 150 m west of Nafziger Road (5)	Wilmot - Easthope Road (Waterloo/ Perth boundary)	30.480
9W	Bridgeport Road	Lancaster Street (29)	Conestoga Parkway	30.480
9W	Bridgeport Road	Conestoga Parkway	Weber Street (8)	26.213
9W	Bridgeport Road	Weber Street (8)	Moore Avenue	30.480
9W	Bridgeport Road	Moore Avenue	Regina Street	26.000
9W	Bridgeport Road	Regina Street	Albert Street	20.117
9W	Caroline Street	Albert Street	Erb Street (9)	26.000
9W	Caroline Street	Erb Street (9)	Allen Street (37)	26.000
10	Herrgott Road (St. Clements)	Lobsinger Line (15)	~273m north of Maple Street (Northern St. Clements Rural Settlement Area Limit)	26.213
10	Herrgott Road	~273m north of Maple Street (Northern St. Clements Rural Settlement Area Limit)	~90m south of Line 86 (86)	30.480

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
10	Herrgott Road (Wallenstein)	~90m south of Line 86 (86)	Line 86 (86)	20.117
11	William Hastings Line	Manser Road (5)	Road 116 (Region of Waterloo/Perth County boundary)	30.480
12	New Dundee Road/Bridge Street (Kitchener/Wilmot)	Homer Watson Boulevard (28)	~428m east of Main Street (Easterly New Dundee Rural Settlement Area Limit)	30.480
12	Queen Street/ Bridge Street (New Dundee)	~428m east of Main Street (Easterly New Dundee Rural Settlement Area Limit)	~96m north of Cottage Lane (Northerly New Dundee Rural Settlement Area Limit)	20.117
12	Queen Street/Notre Dame Drive	~96m north of Cottage Lane (Northerly New Dundee Rural Settlement Area Limit)	~289m south of Reinhart Place (Southerly Petersburg Rural Settlement Area Limit)	30.480
12	Notre Dame Drive (Petersburg)	~289m south of Reinhart Place (Southerly Petersburg Rural Settlement Area Limit)	~255m north of Cecil Kennedy Court (Northerly Petersburg Rural Settlement Area Limit/Railway)	20.117
12	Notre Dame Drive	~255m north of Cecil Kennedy Court (Northerly Petersburg Rural Settlement Area Limit/Railway)	~426m south of Erb's Road (9) (Southerly St. Agatha Rural Settlement Area Limit)	30.480
12	Notre Dame Drive (St. Agatha)	~426m south of Erb's Road (9) (Southerly St. Agatha Rural Settlement Area Limit)	~52m north of St. Ann Avenue (Northerly St. Agatha Rural Settlement Area Limit)	26.213
12	Notre Dame Drive/Gerber Road	~52m north of St. Ann Avenue (Northerly St. Agatha Rural Settlement Area Limit)	Nafziger Road (5)	30.480
14	Moser-Young Road	Gerber Road/Notre Dame Drive (12)	~247m south of Weimar Line (14) (Southerly Bamberg	30.480

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
			Rural Settlement Area Limit)	
14	Moser-Young Road/Weimar Line	~247m south of Weimar Line (14) (Southerly Bamberg Rural Settlement Area Limit)	~890m east of Moser- Young Road (14) (Easterly Bamberg Rural Settlement Area Limit)	26.213
14	Weimer Line	~890m east of Moser- Young Road (14) (Easterly Bamberg Rural Settlement Area Limit)	Kressler Road (16)	30.480
14	Kressler Road	Weimer Line (14)	Erbsville Road (70)	30.480
15	King Street E (Kitchener)	Montgomery Road	Charles Street	45.720
15	King Street E	Charles Street	Sheldon Avenue South	30.480
15	King Street E	Sheldon Avenue South	Ottawa Street (4)	30.000
15	King Street W	Francis Street North (68)	Victoria Street (55)	26.000
15	King Street W	Victoria Street (55)	Erb Street (9)	30.000
15	King Street W	Erb Street (9)	Columbia Street	26.213
15	King Street N	Columbia Street	Weber Street North (8)	30.480
15	King Street N	Weber Street North (8)	Northfield Drive (50)	36.000
15	King Street N/Lobsinger Line	Northfield Drive (50)	~520m east of Kressler Road (16) (Easterly Heidelberg Rural Settlement Area Limit)	30.480
15	Lobsinger Line (Heidelberg)	~520m east of Kressler Road (16) (Easterly Heidelberg Rural Settlement Area Limit)	~569m west of Kressler Road (16) (Westerly Heidelberg Rural Settlement Area Limit)	20.117

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
15	Lobsinger Line (15)	~569m west of Kressler Road (16) (Westerly Heidelberg Rural Settlement Area Limit)	~375m east of Anita Drive (Easterly St. Clements Rural Settlement Area Limit)	30.480
15	Lobsinger Line (St. Clements)	~375m east of Anita Drive (Easterly St. Clements Rural Settlement Area Limit)	~476m west of Charles Street (Westerly St. Clements Rural Settlement Area Limit)	20.117
15	Lobsinger Line	~476m west of Charles Street (Westerly St. Clements Rural Settlement Area Limit)	~298m east of Hutchison Road (5) (Easterly Crosshill Rural Settlement Area Limit)	30.480
15	Lobsinger Line	~298m east of Hutchison Road (5) (Easterly Crosshill Rural Settlement Area Limit)	Hutchison Road (5)	30.480
16	Kressler Road	Erbsville Road (70)	Rocky Lane (Southerly Heidelberg Rural Settlement Area Limit)	30.480
16	Kressler Road	Rocky Lane (Southerly Heidelberg Rural Settlement Area Limit)	~285m north of Alten Way (Northerly Heidelberg Rural Settlement Area Limit)	20.117
16	Kressler Road	~285m north of Alten Way (Northerly Heidelberg Rural Settlement Area Limit)	Hawkesville Road (17)	30.480
17	Fountain Street N (Cambridge)	King Street (8)	Highway 401	26.213
17	Fountain Street N	Highway 401	Woolwich Street S	30.480
17	Fountain Street N	Woolwich Street S	Victoria Street N (55)	35.000
17	Ebycrest Road	Victoria Street N (55)	Bloomingdale Road (20)	30.480
17	Sawmill Road	Bloomingdale Road (20)	~167m south of River Street (Southerly Bloomingdale Rural Settlement Area Limit)	30.480

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
17	Sawmill Road (Bloomingdale)	~167m south of River Street (Southerly Bloomingdale Rural Settlement Area Limit)	~189m north of Snyder's Flats Road (Northerly Bloomingdale Rural Settlement Area Limit)	20.117
17	Sawmill Road	~189m north of Snyder's Flats Road (Northerly Bloomingdale Rural Settlement Area Limit)	~167m east of River Run Place (Easterly Conestogo Rural Settlement Area Limit)	30.480
17	Sawmill Road (Conestogo)	~167m east of River Run Place (Easterly Conestogo Rural Settlement Area Limit)	~68m west of Weberlyn Crescent (Westerly Conestogo Rural Settlement Area Limit)	20.117
17	Sawmill Road	~68m west of Weberlyn Crescent (Westerly Conestogo Rural Settlement Area Limit)	Northside Drive (St. Jacobs)	30.480
17	Northside Drive (St. Jacobs)	Sawmill Road (17)	Hawkesville Road (17)	26.213
17	Hawkesville Road	Northside Drive (St. Jacobs)	~170m west of Chris Court (Westerly St. Jacobs Urban Area Boundary)	26.213
17	Hawkesville Road/Ament Line	~170m west of Chris Court (Westerly St. Jacobs Urban Area Boundary)	~221m east of Knarr Street (Easterly Linwood Rural Settlement Area Limit)	30.480
17	Ament Line (Linwood)	~221m east of Knarr Street (Easterly Linwood Rural Settlement Area Limit)	Manser Road (5)	20.117
19	Floradale Road	Church Street/Line 86 (86)	~213m south of Eldon Place (Southerly Floradale Rural Settlement Area Limit)	30.480
19	Floradale Road (Floradale)	~213m south of Eldon Place (Southerly Floradale Rural Settlement Area Limit)	Florapine Road	20.117

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
20	Bloomingdale Road N (Kitchener)	Bridge Street (52)	Daniel Avenue (Easterly City of Kitchener Urban Area Boundary)	26.213
20	Bloomingdale Road N	Daniel Avenue (Easterly City of Kitchener Urban Area Boundary)	Ebycrest Road/ Sawmill Road (17)	30.480
21	Arthur Street S (Elmira)	Listowel Road (86)	First Street	30.480
21	Arthur Street S/Arthur Street N	First Street	Riverside Drive West	20.117
21	Arthur Street N	Riverside Drive West	Floradale Road (Region of Waterloo/ Wellington County boundary)	30.480
22	Northfield Drive E (Waterloo/Twp. Of Woolwich)	King Street N (15)	~214m south of Elgin Street West (Southerly Conestogo Rural Settlement Area Limit)	30.480
22	Northfield Drive E (Conestogo)	~214m south of Elgin Street West (Southerly Conestogo Rural Settlement Area Limit)	~285m north of Country Spring Walk (Northerly Conestogo Rural Settlement Area Limit)	20.117
22	Northfield Drive E (Woolwich)	~285m north of Country Spring Walk (Northerly Conestogo Rural Settlement Area Limit)	Region of Waterloo/Wellington County Boundary	30.480
23	Katherine Street S	Sawmill Road (17)/Crows Foot Road	~60m south of Township Road 51 (Southerly Winterbourne Rural Settlement Area Limit)	30.480
23	Katherine Street S (Winterbourne)	~60m south of Township Road 51 (Southerly Winterbourne Rural Settlement Area Limit)	~259m north of Holmwood Street (Northerly Winterbourne Rural Settlement Area Limit)	20.117
23	Katherine Street N	~259m north of Holmwood Street (Northerly Winterbourne Rural Settlement Area Limit)	Region of Waterloo/ Wellington County boundary	30.480

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
24	Water Street (Cambridge)	~168m south of Myers Road (43)	Ainslie Street S (24)	26.213
24	Water Street (Cambridge)	Ainslie Street S (24)	Bruce Street	26.000
24	Water Street S	Bruce Street	Ainslie Street N (24)	20.117
24	Water Street N	Ainslie Street N (24)	Augusta Street	26.213
24	Ainslie Street S	Water Street S (24)	Main Street	20.117
24	Ainslie Street N	Main Street	Water Street N (24)	20.117
24	Hespeler Road	Augusta Street	Brooklyne Road	36.576
24	Hespeler Road	Brooklyne Road	100m south of Can-Amera Parkway (80)	45.000
24	Hespeler Road	100m south of Can-Amera Parkway (80)	100m north of Can-Amera Parkway (80)	48.000
24	Hespeler Road	100m north of Can-Amera Parkway (80)	230m south of Pinebush Road (39)	45.000
24	Hespeler Road	230m south of Pinebush Road (39)	230m north of Pinebush Road (39) (Highway 401)	38.000
24	Hespeler Road	200 m north of Pinebush Road (39) (Highway 401)	Region of Waterloo/Wellington County boundary	70.841 to 122.968
25	Maryhill Road	Woolwich/Guelph Line Road (Region of Waterloo/Wellington County boundary)	Notre Dame Avenue	30.480
25	Maryhill Road	Notre Dame Avenue	St. Charles Street (26)	20.117
26	St. Charles Street	Sawmill Road (17)	~582m west of Maryhill Road (25) (Westerly Maryhill Rural Settlement Area Limit)	30.480
26	St. Charles Street (Maryhill)	~582m west of Maryhill Road (25) (Westerly Maryhill Rural Settlement Area Limit)	Maryhill Road (25)	20.117
27	Clyde Road (Clyde)	Village Road (Eastern Leg)	Langford Drive	26.213
27	Clyde Road	Langford Drive	Franklin Boulevard (36)	30.480
27	Main Street	Water Street (24)	Queen's Square (27)	26.000
27	Queen's Square	Main Street (27)	Grand Avenue	20.117

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
27	North Square	Grand Avenue	George Street (42)	20.117
27	South Square	Grand Avenue	George Street (42)	20.117
28	Fountain Street (Cambridge)	Shantz Hill Road (8)	Limerick Road	26.000
28	Fountain Street	Limerick Road	Highway 401	30.480
28	Homer Watson Boulevard (Kitchener)	Highway 401	Ottawa Street (4)	45.720
29	Lancaster Street	Victoria Street (55)	Shirk Place	26.213
29	Lancaster Street	Shirk Place	Bridge Street (52)	26.000
30	Shantz Station Road	Kossuth Road (31)	St. Charles Street W (26)	30.480
31	Kossuth Road (Cambridge)	Region of Waterloo/Wellington County Boundary	Fountain Street (17)	30.480
33	Townline Road (Cambridge)	Avenue Road	Wellington County Road 34	30.480
36	Franklin Boulevard (Cambridge)	South Boundary Road	Myers Road (43)	30.480
36	Franklin Boulevard	Myers Road (43)	Champlain Blvd	30.480
36	Franklin Boulevard	Champlain Blvd	Dundas Street (8)	30.000
36	Franklin Boulevard	Dundas Street (8)	Main Street (97)	36.000
36	Franklin Boulevard	Main Street (97)	Clyde Road (27)	36.000
36	Franklin Boulevard	Clyde Road (27)	Mill Creek Road	36.570
36	Franklin Boulevard	Mill Creek Road	Avenue Road	36.000
36	Franklin Boulevard	Avenue Road	Highway 401	36.576
37	Allen Street West	King Street (15)	Caroline Street (9W)	20.000
38	Sportsworld Drive (Kitchener)	King Street E (8)	Highway 8	35.000
38	Sportsworld Drive/Maple Grove Road	Highway 8	Hespeler Road (24)	35.000
39	Pinebush Road (Cambridge)	Townline Road (Region of Waterloo/ Wellington County boundary)	Hespeler Road (24)	30.480
39	Eagle Street	Hespeler Road (24)	Concession Road	30.480

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
39	Eagle Street	Concession Road	King Street (8)	26.213
40	Waterloo Street	Victoria Street (55)	Breithaupt Street	20.000
41	Bishop Street (Cambridge)	Franklin Boulevard (36)	Hespeler Road (24)	30.480
41	Bishop Street	Hespeler Road (24)	Mary Avenue	30.000
41	Bishop Street	Mary Avenue	King Street (8)	26.213
42	George Street (Cambridge)	St. Andrews Street (75)	Park Hill Road W (77)	20.117
42	Blair Road	Park Hill Road W (77)	Langdon Drive	30.480
42	Blair Road	Langdon Drive	Fountain Street (28)	20.117
43	Branchton Road (North Dumfries)	Lockie Road (Region of Waterloo/ Brant County boundary)	Dundas Street South (8)	30.480
43	Myers Road (Cambridge)	Branchton Road (43)	Water Street (24)	30.480
45	East River Road (North Dumfries)	Region of Waterloo/Brant County boundary	Highway 24	30.480
46	Roseville Road (North Dumfries)	Blenheim Road	~76m east of Paul Avenue (Easterly Roseville Rural Settlement Area Limit)	30.480
46	Roseville Road (Roseville)	~76m east of Paul Avenue (Easterly Roseville Rural Settlement Area Limit)	Fischer-Hallman Road (58)	26.213
47	Dumfries Road	Wrigley Road (49)	Roseville Road (46)	30.480
49	Wrigley Road	Spragues Road (75)	~283m east of Stanley Street (Easterly Ayr Urban Area Boundary)	30.480
49	Scott/Main/Stanley Streets (Ayr)	~283m east of Stanley Street (Easterly Ayr Urban Area Boundary)	Swan Street (58)	20.117
50	Westmount Road (Kitchener)	Fischer-Hallman Road (58)	University Avenue (57)	26.213
50	Westmount Road (Waterloo)	University Avenue (57)	Columbia Street	30.480
50	Westmount Road	Columbia Street	Westmount Road North	35.000
50	Northfield Drive	Westmount Road North	Weber Street North (8)	30.480

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
50	Northfield Drive	Weber Street North (8)	King Street N (15)	36.000
51	Wilmot Centre Road/Foundry Street	Bleams Road (4)	Gingrich Road (6)	30.480
51	Foundry Street (Baden)	Gingrich Road (6)	Snyder's Road (1)	26.213
52	Bridge Street (Kitchener-Waterloo)	Ebycrest Road (17)	City of Kitchener/Township of Woolwich Boundary	26.213
52	Bridge Street	City of Kitchener/Township of Woolwich Boundary	Northfield Drive (22)	30.000
53	Fairway Road (Woolwich)	Fountain Street (17)	300 m east of the Grand River	35.000
53	Fairway Road	300m east of the Grand River	150m west of the Grand River	75.000
53	Fairway Road (Kitchener)	150m west of the Grand River	260m east of Lackner Boulevard (54)	35.000
53	Fairway Road	260m east of Lackner Boulevard (54)	River Road (56)	35.000
53	Fairway Road	River Road (56)	Highway 8 southbound on/off ramp	30.480
53	Fairway Road/Courtland Avenue	Highway 8 southbound on/off ramp	Highway 7&8	36.576
53	Courtland Avenue	Highway 7&8	Mill Street	30.480
53	Courtland Avenue	Mill Street	Queen Street (6)	26.213
54	Lackner Boulevard (Kitchener)	Fairway Road (53)	Victoria Street (55)	36.576
55	Victoria Street (Woolwich)	~313 m east of Fountain Street (17) (MTO Jurisdiction Line)	Kitchener/Woolwich Boundary	30.480
55	Victoria Street (Kitchener)	Kitchener/Woolwich boundary	Frederick Street	40.000
55	Victoria Street	Frederick Street	Bruce Street (61)	30.480
55	Victoria Street	Bruce Street (61)	Edna Street (62)	30.000
55	Victoria Street	Edna Street (62)	Westmount Road (50)	26.213
55	Victoria Street	Westmount Road (50)	Fischer-Hallman Road (58)	26.213
55	Victoria Street	Fischer-Hallman Road (58)	Ira Needles Boulevard (70)	30.480

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
56	River Road/Bleams Road (Kitchener)	Fairway Road (53)	Trussler Road (70)	30.480
57	University Avenue (Waterloo)	Bridge Street (52)	Westmount Road (50)	30.480
57	University Avenue	Westmount Road (50)	Fischer-Hallman Road (58)	36.576
57	University Avenue	Fischer-Hallman Road (58)	Ira Needles Boulevard (70)	35.000
58	Swan Street (Ayr)	Brant-Waterloo Road (Region of Waterloo/ Brant County boundary)	~269m south of Hilltop Drive (Southerly Ayr Urban Area Boundary)	30.480
58	Swan/Stanley/Northumberland Streets (Ayr)	~269m south of Hilltop Drive (Southerly Ayr Urban Area Boundary)	CPR Tracks	20.117
58	Northumberland Street	CPR Tracks	Greenfield Road	26.213
58	Northumberland Street/Roseville Road	Greenfield Road	~312m west of Fischer-Hallman Road (58) (Westerly Roseville Rural Settlement Area)	30.480
58	Roseville Road (Roseville)	~312m west of Fischer-Hallman Road (58) (Westerly Roseville Rural Settlement Area)	Fischer-Hallman Road (58)	20.117
58	Fischer-Hallman Road	Roseville Road (46)	New Dundee Road (12)	30.480
58	Fischer-Hallman Road (Kitchener)	New Dundee Road (12)	Plains Road	36.576
58	Fischer-Hallman Road (Kitchener)	Plains Road	Bleams Road (56)	36.576
58	Fischer-Hallman Road (Kitchener)	Bleams Road (56)	Westmount Road (50)	30.480
58	Fischer-Hallman Road (Kitchener)	Westmount Road (50)	Ottawa Street (4)	35.000
58	Fischer-Hallman Road	Ottawa Street (4)	McGarry Drive	36.576
58	Fischer-Hallman Road	McGarry Drive	Highland Road (6)	35.000
58	Fischer-Hallman Road	Highland Road (6)	Columbia Street	45.720
58	Fischer-Hallman Road	Columbia Street	Laurelwood Drive	35.000
58	Bearinger Road	Laurelwood Drive	Westmount Road (50)	35.000
61	Bruce Street (Kitchener)	Frederick Street (6)	Victoria Street (55)	20.117
62	Edna Street (Kitchener)	Frederick Street (6)	Victoria Street (55)	20.117

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
63	Duke Street	Frederick Street (6)	Francis Street (68)	20.000
64	Charles Street	Ottawa Street (4)	Cedar Street	30.000
64	Charles Street	Cedar Street	Benton Street (6)	30.000
64	Charles Street	Benton Street (6)	Francis Street	26.213
64	Charles Street	Francis Street	Victoria Street (55)	26.213
66	Borden Avenue	Charles Street (64)	Huron Park Spur	20.000
67	Hayward Avenue	Huron Park Spur	Courtland Avenue (53)	26.000
68	Francis Street North	Duke Street (63)	King Street (15)	26.000
69	Manitou Drive (Kitchener)	Homer Watson Boulevard (28)	Fairway Road (53)	30.480
70	Trussler Road	Brant-Waterloo Road (Region of Waterloo/ Brant County boundary)	Greenfield Road	30.480
70	Trussler Road	Highway 401	Cedar Creek Road (97)	30.480
70	Trussler Road (North Dumfries)	Cedar Creek Road (97)	New Dundee Road (12)	30.480
70	Trussler Road (Kitchener)	New Dundee Road (12)	Highway 7 & 8	30.480
70	Ira Needles Boulevard	Highway 7 & 8	0.64 km north of Highway 7 & 8	36.576
70	Ira Needles Boulevard	0.64 km north of Highway 7 & 8	Erb Street (9)	35.000
70	Erbsville Road	Erb Street (9)	Keats Way	35.000
70	Erbsville Road	Keats Way	Schnarr Street (~258m south of Conservation Drive)	30.480
70	Erbsville Road	Schnarr Street (~258m south of Conservation Drive)	Conservation Drive	20.117
70	Erbsville Road	Conservation Drive	Kressler Road (16)	30.480
71	Dickie Settlement Road	Fountain Street (28)	Roseville Road (46)	30.480
71	Edworthy Side Road	Roseville Road (46)	Cedar Creek Road (97)	30.480

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
75	Spragues Road (North Dumfries) / St. Andrews Street (75)	Brant-Waterloo Road (Region of Waterloo/ Brant County boundary)	Southwood Drive	30.480
75	St. Andrews Street (Cambridge)	Southwood Drive	George Street South (42)	20.117
75	St. Andrews Street (Cambridge)	George Street South (42)	Grand Avenue (76)	20.117
76	Grand Avenue (Cambridge)	Cedar Street (97)	St. Andrews Street (75)	20.117
77	Park Hill Road (Cambridge)	Ainslie Street (24)	George Street (42)	20.117
80	Can-Amera Parkway (Cambridge)	Townline Road (33)	Franklin Boulevard (36)	45.000
80	Can-Amera Parkway	Franklin Boulevard (36)	Hespeler Road (24)	45.720
85	Arthur Street S (Woolwich)	King Street (15) (Woolwich)	~1.16 km north of Sawmill Road (17) (North edge of St. Jacobs Township Urban Area)	76.000
85	Arthur Street S	~1.16 km north of Sawmill Road (17) (North edge of St. Jacobs Township Urban Area)	Listowel Road (85)	38.000
85	Listowel Road	Arthur Street S (85)	Line 86 (86)	38.000
86	Line 86	Region of Waterloo/ Wellington County boundary	~438m east of George Street (Easterly Elmira Township Urban Area Boundary)	30.480
86	Line 86/Church Street	~438m east of George Street (Easterly Elmira Township Urban Area Boundary)	Raising Mill Gate (Elmira)	20.117
86	Line 86/Church Street	Raising Mill Gate (Elmira)	~71m west of Eldale Road (Westerly Elmira Township Urban Area Boundary)	30.480
86	Line 86	~71m west of Eldale Road (Westerly Elmira Township Urban Area Boundary)	Township Road 23	30.480
86	Line 86	Mallott Road	180 m east of Herrgott Road (10)	36.576
86	Line 86	180 m east of Herrgott Road (10)	Herrgott Road (10)	30.480
86	Line 86	Herrgott Road (10)	Conestoga River	38.000

RD. NO.	ROAD NAME	FROM	TO	DESIGNATED RD. ALLOWANCE metres (up to the maximum)
86	Line 86	Conestoga River	Manser Road (5)	49.000
86	Line 86	Manser Road (5)	100 m west of Manser Road (5)	36.576
86	Line 86	100 m west of Manser Road (5)	East Limits of Dorking	50.000
86	Line 86	East Limits of Dorking	Road 116 (Waterloo/Wellington boundary)	30.480
97	Old Beverly Road (North Dumfries)	Region of Waterloo/ Hamilton Wentworth boundary	Main Street (97) City of Cambridge	30.480
97	Main Street (Cambridge)	Old Beverly Road (97)	Franklin Boulevard (36)	30.480
97	Main/Concession/Cedar Streets	Franklin Boulevard (36)	Richardson Street	26.213
97	Cedar Street	Richardson Street	St. Andrews Street (75)	26.000
97	Cedar Street	St. Andrews Street (75)	Southwood Drive	26.213
97	Cedar Street	Southwood Drive	Grand Ridge Drive (Cambridge/North Dumfries Boundary)	30.480
97	Cedar Creek Road	Grand Ridge Drive (Cambridge/North Dumfries Boundary)	Highway 401	30.000
97	Cedar Creek Road	Highway 401	Trussler Road (70) (Waterloo/Oxford boundary)	30.000
-	East Boundary Road	Can-Amara Parkway (80)	Highway 8 S	60.000
-	McQueen-Shaver Boulevard	Highway 8 S	Highway 24 S	60.000

Schedule B: SOURCE WATER PROTECTION LAND USE CATEGORIES

Category 'A'
Waste treatment and disposal facilities, including lagoons, landfills, communal/municipal sewage treatment facilities and including large sewage vaults at sewage pumping stations, but not including facilities regulated under the Nutrient Management Act.
Salvage yards, including automobile wrecking yards or premises
Bulk storage of hazardous chemicals and hazardous substances (as listed in O.Reg. 347 under the Environmental Protection Act), including bulk storage of oil, gasoline or petroleum products, and including transportation terminals for these substances/chemicals (including truck/trailer/container parking, washing or cleaning depots)
Category 'B'
Bulk storage of road salt and snow disposal sites
Primary metal manufacturing, including iron and steel mills and ferro-alloy manufacturing; steel product manufacturing from purchased steel; alumina and aluminum production and processing; non-ferrous metal production and processing; and foundries
Manufacturing of fabricated metal products, including manufacturing of unfinished metal products and metal finishing operations
Manufacturing and assembly of transportation equipment, including motor vehicles and parts, aerospace products and parts, rail cars, ships and boats
Manufacturing of machinery, including agricultural, commercial, industrial, and other machinery
Chemical manufacturing including chemicals; resins; fertilizers, pesticides and other agricultural chemicals; pharmaceutical and medicines; paint, coating and adhesives; inks and other chemicals but excluding soap and cleaning compound manufacturing. Including manufacturing, packaging, repackaging, and bottling. Excludes uses involving bulk storage of hazardous materials which are included under Category 'A'
Manufacturing of petroleum and coal products, including manufacturing of asphalt materials. Excludes uses involving bulk storage of hazardous materials which are included under Category 'A'
Manufacturing of electronic components such as semiconductors, printed circuit boards, and cathode ray tubes
Manufacturing of electrical equipment, appliances and components
Commercial or industrial dry cleaning of textiles and textile products, excluding depots not performing on-site dry cleaning
Manufacturing of leather and allied products including footwear
Wood and wood product preservation and treatment
Gasoline stations and other retail establishments with gasoline sales

Wholesale/distributing of cleaning products, pesticides, herbicides, fungicides and chemicals
Category 'C'
- Manufacturing of rubber products - Manufacturing of soap, cleaning compounds and toilet preparations - Textile and fabric finishing and fabric coating - Manufacturing of plastic products - Manufacturing of wood products including wood furniture, and excluding wood preservation - Manufacturing of glass and glass products - Manufacturing of paper and paper products including newsprint and boxes - Printing and related support activities, excluding business support services such as photocopy services - Repair and Maintenance of automobiles and automotive machinery, electronic equipment, industrial and commercial machinery, and personal and household goods repair - Golf courses - Airports, train and public transit terminals, except terminals with no fuel storage or transfer of shipped goods or materials - Medical, health and other laboratories (other than clinics generally associated with commercial plazas) - Miscellaneous manufacturing not included elsewhere, including jewellery, silverware, medical equipment and signs - Recycling, recovery, or remanufacturing of materials including the collection, processing, manufacturing, or reuse of post-consumer or post-industrial materials, not including recycling or disposal of hazardous materials, and not including salvage yards or facilities with outdoor operations which are Category 'A' uses
Category 'D'
- Underground parking garages <i>Geothermal wells</i> <i>Mineral aggregate operations including wayside pits and quarries</i>

**Schedule C: OTHER INFORMATION AND MATERIALS THAT MAY BE
REQUIRED TO PROCESS AN APPLICATION**

Digital Plans
▪ Subdivision/Condominium Plan(s)
Cultural
▪ <i>Archaeological Assessment</i>
▪ <i>Cultural Heritage Impact Assessment</i>
Environmental
▪ Aggregate/Mineral Resource Analysis
▪ Local Air Quality Study
▪ Salt Impact Assessment
▪ Salt Management Plans
▪ Cut & Fill Analysis
▪ <i>Environmental Impact Statement</i>
▪ <i>Comprehensive Environmental Impact Statement</i>
▪ Natural Habitat Inventory
▪ Environmental Management Plan
▪ Tree Conservation and Planting Plans
▪ <i>Provincial and Federal Requirements for Fish Habitat</i>
▪ Slope Stability Study and Report
▪ Floodline Delineation Study/Hydraulics Study
▪ Hydrologic and Hydrogeologic Studies
▪ Source Water Protection Studies
▪ Best Management Practices for development within the Regional Recharge Area
▪ Best Management Practices (for golf courses)
▪ Environmental Site Assessment and/or Record of Site Condition
▪ <i>Cumulative Impact Assessment</i>
▪ Site Plan, Spill Protection Measures and other Best Management Practices for <i>Mineral Aggregate Operations</i>
▪ Final Rehabilitation Plan (for <i>mineral aggregate operations</i>)
Construction, Servicing and Infrastructure
▪ Preliminary Grading Plan
▪ Preliminary Stormwater Management Report/Plan and/or update to an existing Stormwater Management Plan
▪ Soils/Geotechnical Study
▪ Construction Methods and Spills Protection Measures
▪ Servicing Options Report
▪ Development Phasing Plan

- Water and Wastewater Servicing Plans and associated studies - Hydrogeologic Studies for Privately Serviced Developments - Impact on Existing Infrastructure Study
Land Use Compatibility
- Air Quality Assessment - Dust Impact Analysis - Airport Compatibility Study - Land Use Compatibility Study - Landfill Impact Study - Agricultural Impact Assessment <i>Minimum Distance Separation</i> - Noise Study - Odour Impact Assessment - Vibration Study - Written Provincial approval (pursuant to the Environmental Protection Act for development within former waste management facilities) <i>Provincial and Federal Requirements for Alternative and/or Renewable Energy Systems and Fish Habitat</i> - Approval from the Grand River Conservation Authority
Planning
- Affordable Housing Report/Rental Conversion Assessment - Detailed Property Assessment of Affordable Rental Housing - Farm Viability Study - Planning Report - Land Use Study for Retail/Commercial Land Uses in Support of the Planned Community Structure or Retail/Commercial Impact Analysis - Retail Commercial Market Impact Study - Urban Design Report/Brief
Transportation
- Transportation Impact Study - Transportation System Impact Study - Parking Analysis <i>Pedestrian</i> Route and Sidewalk Analysis - Roundabout Feasibility Analysis - Traffic Calming Options Report - Transit Assessment - Transportation Demand Management Options Report - Provincial Requirements and Permits under the Public Transportation Act and Highway Improvements Act - Environmental Assessment and Other Appropriate Studies for development adjacent to Proposed Regional and Provincial Corridors

GLOSSARY OF TERMS

15-minute neighbourhoods

Compact, well-connected places such as mixed-use neighbourhoods or other areas within the Urban Area and Township Urban Areas. They are places that offer support and opportunities for people of all ages and abilities and at all times of year to conveniently access the necessities for daily living with a 15-minute trip by *walking, cycling, and rolling*, and where other needs can be met by taking direct, frequent, and convenient transit, wherever possible. *15-minute neighbourhoods* include an appropriate mix of jobs, local stores, and services, a full range of housing, transportation options and *public service facilities*. They are also age-friendly places and may take different shapes and forms appropriate to their contexts.

Access standards

Methods or procedures to ensure safe vehicular and *pedestrian* movement, and access for the maintenance and repair of protection works during times of *flooding hazards, erosion hazards* and/or other water-related hazards.

Additional residential units

An *additional residential unit* referred to in subsection 16 (3) of the Planning Act. This subsection provides for the use of:

- (a) two residential units in a detached house, semi-detached house or row house; and
- (b) one residential unit in a building or structure ancillary (e.g., garage, or a separate building referred to as “coach house”) to a detached house, semi-detached house or row house.

Additional residential units may also be referred to as additional dwelling units, secondary dwelling units, accessory dwelling units, second residential unit, secondary suites, laneway houses, garden suites, accessory apartments, or basement apartments.

Adverse effects

As defined in the Environmental Protection Act; one or more of:

- (a) impairment of the quality of the natural environment for any use that can be made of it;
- (b) injury or damage to property or plant or animal life;
- (c) harm or material discomfort to any person;
- (d) an adverse effect on the health of any person;
- (e) impairment of the safety of any person;
- (f) rendering any property or plant or animal life unfit for human use;

- (g) loss of enjoyment of normal use of property; and
- (h) interference with normal conduct of business.

Adverse environmental impacts

Changes likely to arise directly or indirectly from *development* or *site alteration* within or *contiguous* to an element of the Greenlands Network that result in widespread, long-term, or irreversible degradation of the significant features or impairment of the natural functions of the designated area.

Examples of adverse environmental impacts include, but are not limited to, the following:

- a) fragmentation or substantial reduction in size of an element of the Greenlands Network;
- b) significant increase in the perimeter-to-area ratio of an element of the Greenlands Network;
- c) disruption of corridors and *linkages* to other elements of the Greenlands Network;
- d) substantial alteration of natural topography;
- e) disruption of ecological relationships among significant or representative native species;
- f) increased potential for human or domestic animal intrusion into relatively inaccessible areas;
- g) alteration of the quantity, quality, timing (hydroperiod) or direction of flow of surface water or groundwater within or *contiguous* to an element of the Greenlands Network;
- h) alteration of the structure, functions or ecological interrelationships of a natural habitat which sustain representative community associations or populations of significant species;
- i) reductions in the populations or reproductive capacity of significant species;
- j) mortality in or removal of the predominant vegetation which provides structure to an element of the Greenlands Network;
- k) erosion of soils or deposition of sediment;
- l) compaction or trampling of soils;
- m) increased potential for the introduction of invasive non-native species;
- n) disruption of ecological processes due to increased nocturnal artificial light levels; or

- o) increases in the level and quality of noise.

Affordable

- (a) in the case of ownership housing, the least expensive of:
 - i. housing for which the purchase price results in annual accommodation costs which do not exceed 30 per cent of gross annual household income for low and moderate income households; or
 - ii. housing for which the purchase price is at least 10 per cent below the average purchase price of a resale unit in the regional market area;
- (b) in the case of rental housing, the least expensive of:
 - i. a unit for which the rent does not exceed 30 per cent of gross annual household income for low and moderate income households; or
 - ii. a unit for which the rent is at or below the average market rent of a unit in the regional market area.

For the purposes of this definition:

Low and moderate income households means, in the case of ownership housing, households with incomes in the lowest 60 per cent of the income distribution for the regional market area; or in the case of rental housing, households with incomes in the lowest 60 per cent of the income distribution for renter households for the regional market area.

Regional market area means an area, generally broader than a lower-tier municipality that has a high degree of social and economic interaction. In the GGH, the upper- or single-tier municipality will normally serve as the regional market area. Where a regional market area extends significantly beyond upper or single-tier boundaries, it may include a combination of upper-, single- and/or lower-tier municipalities. (Based on PPS 2020 and modified by Growth Plan 2019)

Agri-food Network

Within the *Agricultural System*, a network that includes elements important to the viability of the agri-food sector such as regional *infrastructure* and transportation networks; on-farm buildings and infrastructure; agricultural services, farm markets, distributors, and primary processing; and vibrant, agriculture-supportive communities. (Greenbelt Plan 2017)

Agri-tourism Activities

The act of visiting a working farm or any agricultural, horticultural or agri-business operation for the purpose of enjoyment, education, or active involvement in the activities of the farm where the principal activity on the property remains as farming and where products used in the activity are produced on the property or related to farming.

Agricultural Impact Assessment

A study that evaluates the potential impacts of non-agricultural development on agricultural operations and the *Agricultural System* and recommends ways to avoid or, if avoidance is not possible, minimize and mitigate adverse impacts. (Greenbelt Plan 2017)

Agricultural System

The system mapped and issued by the Province in accordance with the Provincial Growth Plan, comprised of a group of inter-connected elements that collectively create a viable, thriving agricultural sector. It has two components: 1) An agricultural land base comprised of *prime agricultural areas*, including *specialty crop areas*, and *rural lands* that together create a continuous productive land base for agriculture; and 2) An *agri-food network* which includes infrastructure, services, and assets important to the viability of the agri-food sector. (Greenbelt Plan 2017)

Agricultural Uses

Means the growing of crops, including nursery, horticultural and floricultural crops; raising of livestock; raising of other animals for food, fur or fibre, including poultry and fish; aquaculture; apiaries; agro-forestry; maple syrup production; and associated on-farm residence(s), buildings, structures and *farm greenhouses*.

Agriculture-related Uses

Means those farm-related commercial and farm-related industrial uses that are small-scale and directly related to the farm operation and are required in close proximity to the farm operation. Such uses may generally include abattoirs, grain drying and storage operations, feed mills, produce auctions for locally grown food and similar uses that provide a direct service to the farm community.

Alternative Energy System

A system that uses sources of energy or energy conversion processes to produce power, heat and/or cooling that significantly reduces the amount of harmful emissions to the environment (air, earth and water) when compared to conventional energy systems. (PPS 2020)

Archaeological assessment

The combined background research and field study of a property evaluated as moderate to high on Archaeological Potential Maps approved by the *Province* that identify the presence of and interpretation of the *archaeological resources* on the property, and make recommendations for the mitigation of the impacts on the resources. Archaeological assessments must be undertaken by a Provincially-licensed archaeologist, in accordance with reporting guidelines established by the Provincial Government, and must address the entire area of the *development application*.

Archaeological potential

The likelihood to contain *archaeological resources*. Criteria for determining archaeological potential are established by the *Province*, but municipal approaches which achieve the

same objectives may also be used. Archaeological potential is confirmed through archaeological fieldwork undertaken in accordance with the Ontario Heritage Act.

Archaeological Resources

Includes artifacts, archaeological sites, marine archaeological sites, as defined under the Ontario Heritage Act. The identification and evaluation of such resources are based upon archaeological fieldwork undertaken in accordance with the Ontario Heritage Act. (PPS 2020)

Areas of Natural and Scientific Interest

Areas of land and water identified by the *Province* or the Region that contain natural landscapes or features that have been identified as having life science or earth science values related to protection, scientific study or education.

Biodiversity

The variety of life in all its forms. It includes species diversity, ecosystem diversity and genetic diversity within species.

Brownfield Sites

Underdeveloped or previously developed properties that may be contaminated. They are usually, but not exclusively, former industrial or commercial properties that may be underutilized, derelict or vacant. (PPS 2020)

Built Heritage Resource

A building, structure, monument, installation or any manufactured remnant that contributes to a property's cultural heritage value or interest as identified by a community, including an Aboriginal community. Built heritage resources are generally located on property that has been designated under Parts IV or V of the Ontario Heritage Act, or included on local, provincial and/or, federal registers.

Central Transit Corridor Environmental Assessment Study Area

The Study Area identified in the Individual Environmental Assessment Terms of Reference for the Regional Rapid Transit Initiative dated July 21, 2005, as the area within which an alignment for a proposed *rapid transit* system will be selected and the area that may be directly and indirectly affected by the system. The Corridor extends from the Mercedes Industrial Commercial Area in Woolwich, south through Uptown Waterloo and Downtown Kitchener, to the Preston Town Centre and Galt City Centre in Cambridge.

Community housing

Rental housing that offers affordable market rent units and subsidized (rent–geared–to–income) units for individuals and families who are finding it difficult to afford adequate housing in the private rental market.

Community improvement

The planning, replanning, design, or redesign, resubdivision, clearance, development or redevelopment, reconstruction and/or rehabilitation of a Community Improvement Project Area, and the provision of such residential, commercial, industrial, public, recreational,

institutional, religious, charitable, or other uses, buildings, works improvements or facilities, or spaces therefore, as may be appropriate or necessary.

Community Improvement Plan

A plan for the community improvement of a Community Improvement Project Area designated under Section 28 of the Planning Act.

Community Infrastructure

Lands, buildings and structures that support the quality of life for people and communities by providing public services for health, education, recreation, socio-cultural activities, security and safety, and affordable housing.

Compact Built Form

A land use pattern that encourages the efficient use of land, *15-minute neighbourhoods*, proximity to a mobility network focused on *walking, cycling, rolling*, and taking transit, and reduced need for *infrastructure*. *Compact built form* can include detached and semi-detached houses on small lots as well as townhouses and walk-up apartments, multi-storey commercial developments, and apartments or offices above retail. *Compact built form* can also be characterized by roads laid out in a well-connected network, destinations that are easily accessible by transit and *walking, cycling and rolling*, sidewalks with minimal interruptions for vehicle access, and protected infrastructure along roads to provide a safe environment for *walking, cycling and rolling*.

Complete Community

Communities that meet people's needs for daily living throughout an entire lifetime by providing convenient access to an appropriate mix of employment, local services, a full range of housing and *community infrastructure* including affordable housing, schools, recreation and open space for their residents. Convenient access to public transportation and options for safe, non-motorized travel is also provided.

Complete Streets

Streets planned to balance the needs of all road users, including motorists, transit-users, pedestrians, cyclists, and people that use mobility aids such as wheelchairs and other legal mobility devices.

Conserve/conserved (for the purposes of Chapter 3)

The identification, protection, use and/or management of cultural heritage and *archaeological resources* in such a way that their heritage values, attributes and integrity are retained. This may be addressed through a conservation plan or heritage impact assessment.

Contiguous

Lands that are situated in sufficiently close proximity such that *development* or *site alteration* could reasonably be expected to produce one or more of the following impacts: alterations to existing hydrological or hydrogeological regimes; clearing of existing vegetation; erosion and sedimentation; or producing a substantial disruption of existing natural *linkages* or the habitat of a significant species.

Cultural Heritage Impact Assessment

A study to determine if *cultural heritage resources* will be negatively impacted by a proposed *development* or *site alteration*. It can also demonstrate how the *cultural heritage resource* will be *conserved* in the context of redevelopment or *site alteration*. Mitigative or avoidance measures or alternative *development* approaches may also be recommended.

Cultural Heritage Landscape

A defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Indigenous community. The area may include features such as buildings, structures, spaces, views, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. *Cultural heritage landscapes* may be properties that have been determined to have cultural heritage value or interest under the Ontario Heritage Act or have been included on federal and/or international registers, and/or protected through official plan, zoning by-law, or other land use planning mechanisms. (PPS 2020)

Cultural Heritage Resources

Built heritage resources, cultural heritage landscapes and archaeological resources that have been determined to have cultural heritage value or interest for the important contribution they make to our understanding of the history of a place, an event, or a people. While some cultural heritage resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation. (Greenbelt Plan 2017)

Cumulative Impacts

The changes to the environment resulting from a particular activity in combination with the incremental impacts caused by other closely related past, present and reasonably foreseeable future activities. Cumulative impacts may reveal that relatively minor impacts associated with a particular activity may contribute to more significant impacts when considered collectively with other activities taking place over a period of time.

Delineated Built Boundary

The limits of the developed urban area as defined by the Minister in consultation with affected municipalities for the purpose of measuring the minimum *intensification* target in this Plan. (Growth Plan, 2019)

Delineated Built-up Area

All land within the *delineated built boundary*. (Growth Plan, 2019)

Designated Greenfield Area

Lands within settlement areas (not including *Rural Settlement Areas*) but outside of *delineated built-up areas* that have been designated in an official plan for development and are required to accommodate forecasted growth to the horizon of this Plan. *Designated greenfield areas* do not include *excess lands*. (Growth Plan, 2019)

Development

The creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the Planning Act, but does not include:

- a) activities that create or maintain infrastructure authorized under an environmental assessment process; or
- b) works subject to the Drainage Act. (Based on PPS 2020 and modified by the Growth Plan 2019)

Development application

An application for approval under the Planning Act. Development applications may include applications for approval of the following: Plans of Subdivision; Plans of Condominium; Consent; Part Lot Control Exemption By-laws; Official Plan Amendments; and Zone Change Applications. Development applications do not include *site plans*.

Discharge Constraint Areas

Lands where groundwater naturally discharges to the surface of the soil or other surface water bodies and may pose a serious constraint to the construction, use and occupancy of land and buildings.

Ecological Function

The natural processes, products or services that living and non-living environments provide or perform within or among species, ecosystems and landscapes, including *hydrologic functions* and biological, physical, chemical and socio-economic interactions. (Greenbelt Plan)

Embodied carbon

Greenhouse gas emissions associated with materials and construction processes throughout the whole lifecycle of a building, piece of infrastructure, or other human construction. This includes the GHG emissions associated with the raw material supply, manufacturing, construction/installation, maintenance and repair, deconstruction/demolition, and waste processing and disposal.

Employment Area

Areas designated in an official plan for clusters of business and economic activities including, but not limited to, manufacturing, warehousing, offices, and associated retail and ancillary facilities. (PPS 2020)

Employment Area Gateway

Access or entrance locations that are along the periphery of an *employment area*, or at the intersections of Regional Roads and/or Provincial Highways.

Endangered or threatened species

A species that is listed or categorized as either a “Threatened Species” or an Endangered Species” appears on the *Province’s* official Species at Risk in Ontario List, as updated and amended from time to time.

Environmental Assessment

A process for the authorization of an undertaking under legislation such as the Environmental Assessment Act, and the Ontario Energy Board Act.

Environmental features

Features of the natural environment, including:

- (a) Significant Habitat of Endangered or Threatened Species;
- (b) *Fish habitat*;
- (c) *Wetlands*;
- (d) Provincially significant life science *Areas of Natural and Scientific Interest*, regionally significant life science *Areas of Natural and Scientific Interest*, or provincially significant earth science *Areas of Natural and Scientific Interest*;
- (e) Environmentally Significant Valley Features;
- (f) Regionally Significant Woodlands;
- (g) *Significant wildlife habitat*;
- (h) Sand barrens, savannas and tallgrass prairies;
- (i) Alvars;
- (j) Permanent and intermittent watercourses;
- (k) Lakes (and their littoral zones);
- (l) *Environmentally Significant Discharge Areas & Environmentally Significant Recharge Areas*; and
- (m) Regional Recharge Areas.

Environmental Impact Statement

A study prepared in accordance with established procedures to refine the boundaries of elements of the Greenlands Network, identify the potential impacts of a *development application* on such elements, and recommend a means of preventing or minimizing these impacts through avoidance or mitigation.

Environmentally Sensitive Landscape

Is a geographically and ecologically definable landscape that is distinguishable from the surrounding areas by the concentration, proximity and/overlap of:

- (a) designated natural features (such as Environmentally Sensitive Policy Areas or Provincially Significant Wetlands),
- (b) associated natural features (such as stream valleys and specialized habitats), and
- (c) ecological functions (such as groundwater recharge areas and ecological corridors or linkages) which together constitute a heterogeneous landscape mosaic that contributes significantly to Regional biodiversity conservation.

An Environmentally Sensitive Landscape (ESL) may include lands under active human use or management, but should be: predominantly natural, not bisected by major highways, and exclusive of areas irreversibly transformed by concentrated human settlement, or where widespread commitments to development in the form of land use designations have been

made in area municipal Official Plans. In recognition of the cultural influences that have shared, and continue to shape, the Region's landscape, ESL's are considered compatible with a number of limited human uses such as legally permitted agricultural, residential, commercial and resource extraction areas .

In addition to protecting regional and local biodiversity, providing a wide range of ecological functions, and accommodating some human land uses, ESLs also provide continued opportunities for aesthetic enjoyment, low-impact recreation, and scientific, archaeological and/or historical study in the Region's countryside.

Environmentally Significant Discharge Areas

Lands where groundwater discharges to the surface of the soil or to surface water bodies to sustain *wetlands*, fisheries, or other specialized natural habitats.

Environmentally Significant Recharge Areas

Lands where water infiltrates into the ground to replenish an aquifer that sustains, in full or in part, *environmental features*.

Erosion hazard

The loss of land, due to human or natural processes, that poses a threat to life and property. The erosion hazard limit is determined using considerations that include the 100 year erosion rate (the average annual rate of recession extended over a 100 year time span), an allowance for slope stability, and an erosion access allowance.

Excess Lands

Vacant, unbuilt but developable lands within *settlement areas* but outside of *delineated built-up areas* that have been designated in an official plan for development but are in excess of what is needed to accommodate forecasted growth to the horizon of this Plan. (Growth Plan, 2019)

Existing

Land uses legally existing in accordance with the area municipal zoning by-law.

Farm greenhouse

A building used for the growing of flowers, fruits, vegetables, plants, shrubs, trees and other similar agricultural products, under glass, fiberglass or plastic, that are used as inputs on the farm or primarily sold off-site at wholesale or retail.

Farm-related residential unit

A dwelling on a farm used as the primary residence for an active and operating farmer, or a dwelling for a full-time farm employee of an active farm on which the dwelling is located.

Fish Habitat

As defined in the Fisheries Act, means spawning grounds and any other areas, including nursery, rearing, food supply, and migration areas on which fish depend directly or indirectly in order to carry out their life processes. (PPS 2020)

Flood fringe

For watercourses and small inland lake systems; the outer portion of the *floodplain* between the *floodway* and the *flooding hazard* limit. Depths and velocities of flooding are generally less severe in the flood fringe than those experienced in the *floodway*.

Flooding hazard

The inundation of areas adjacent to watercourses and small inland lake systems and not ordinarily covered by water. The flooding hazard limit is the greater of:

- (a) the flood resulting from the rainfall actually experienced during a major storm such as the Hurricane Hazel storm (1954) or the Timmins storm (1961), transposed over a specific watershed and combined with the local conditions, where evidence suggests that the storm event could have potentially occurred over watersheds in the general area;
- (b) the 100 year flood; and
- (c) a flood which is greater than (a) or (b) which was actually experienced in a particular watershed or portion thereof as a result of ice jams and which has been approved as the standard for that specific area by the *Province*;

except where the use of the 100 year flood or the actually experienced event has been approved by the *Province* as the standard for a specific watershed (where the past history of flooding supports the lowering of the standard).

Floodplain

For watercourses and small inland lake systems; the area, usually low lands adjoining a watercourse, which has been or may be subject to *flooding hazards*.

Floodproofing standard

The combination of measures incorporated into the basic design and/or construction of buildings, structures, or properties to reduce or eliminate *flooding hazards* along watercourses and small inland lake systems.

Floodway

For watercourses and small inland lake systems; the portion of the *floodplain* where *development* and *site alteration* would cause a danger to public health and safety or property damage. Where the one-zone concept is applied, the floodway is the entire contiguous *floodplain*. Where the two-zone concept is applied, the floodway is the contiguous inner portion of the *floodplain*, representing that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are considered to be such that they pose a potential threat to life and/or property damage. Where the two-zone concept applies, the outer portion of the *floodplain* is called the *flood fringe*. In all cases, the floodway will include areas of inundation that contain high points of land not subject to flooding.

Freight-supportive

In regard to land use patterns, means transportation systems and facilities that facilitate the movement of goods. This includes policies or programs intended to support efficient freight movement through the planning, design and operation of land use and transportation systems. Approaches may be recommended by the Province or based on municipal approaches that achieve the same objectives. (PPS 2020)

Frequent Transit

A public transit service that runs at least every 15 minutes in both directions throughout the day and into the evening every day of the week. (Growth Plan, 2019)

Gentle Density

Development or *redevelopment* in Urban Areas or Township Urban Areas with a slightly higher density than adjacent single-detached (or lower density) neighborhood.

Geothermal well

A vertical well, borehole or pipe installation used for geothermal systems, ground-source heat pump systems, geo-exchange systems or earth energy systems for heating or cooling; including open-loop and closed-loop vertical borehole systems. A geothermal well does not include a horizontal system where construction or excavation occurs to depths less than five meters unless the protective geologic layers overlaying a *vulnerable* aquifer have been removed through construction or excavation.

Greater Golden Horseshoe (GGH)

The geographic area identified as the Greater Golden Horseshoe growth plan area in Ontario Regulation 416/05 under the Places to Grow Act, 2005. (Growth Plan, 2019)

Green Infrastructure

Natural and human-made elements that provide ecological and hydrologic functions and processes. Green infrastructure can include components such as natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs. (PPS 2020)

Greyfields

Previously developed properties that are not contaminated. They are usually, but not exclusively, former commercial properties that may be underutilized, derelict or vacant. (Growth Plan, 2019)

Gross leasable area

The total floor area designed for tenant occupancy and exclusive use, including basements, upper floors and mezzanines. It is measured from the centre line of joint partitions and from outside wall faces. Gross leasable area is the area on which tenants pay rent, and which produces income for an owner.

Groundwater Features

Water-related features in the earth's subsurface, including recharge/discharge areas, water tables, aquifers and unsaturated zones that can be defined by surface and subsurface hydrogeologic investigations. (PPS 2020)

Habitat enhancement

An enhancement of the form and/or *ecological function* of the Greenlands Network. Refers to an overall positive contribution to the state of the natural environment as a result of rehabilitation initiatives associated with a *mineral aggregate operation*. These positive contributions may include such criteria as increased biological diversity, system function, *significant* wildlife habitat and the creation of *environmental features*, including *wetlands*, water systems and *woodlands*.

Habitat of Endangered Species and Threatened Species

Habitat within the meaning of section 2 of the Endangered Species Act, 2007. (PPS 2020)

Hazardous Lands

Property or lands that could be unsafe for development due to naturally occurring processes. Along the shorelines of large, inland lakes, this means the land, including that covered by water, between a defined offshore distance or depth and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along river, stream and small inland lake systems, this means the land, including that covered by water, to the furthest landward limit of the flooding hazard or erosion hazard limits. (PPS 2020)

Hazardous sites

Property or lands that could be unsafe for *development* and *site alteration* due to naturally occurring hazards. These may include unstable soils (sensitive marine clays [leda], organic soils) or unstable bedrock (karst topography).

Hazardous chemicals and/or substances

Substances that individually or in combination with other substances are normally considered to pose a danger to public health, safety and the environment. These substances generally include a wide array of materials that are toxic, ignitable, corrosive, reactive, radioactive or pathological.

Higher Order Transit

Transit that generally operates in partially or completely dedicated rights-of-way, outside of mixed traffic, and therefore can achieve levels of speed and reliability greater than mixed-traffic transit. Higher order transit can include heavy rail (such as subways and inter-city rail), light rail, and buses in dedicated rights-of way. (Growth Plan, 2019)

Highly Vulnerable Aquifer

Aquifers, including lands above the aquifers, on which external sources have or are likely to have a significant adverse effect. (Greenbelt Plan 2017)

Human services

Those services that maintain and promote a high quality of life and allow residents to develop to their full potential, including, but not limited to, police services, emergency services, social assistance, pre-employment services, child care, health care and cultural services.

Hydrologic function

The functions of the hydrological cycle that include the occurrence, circulation, distribution and chemical and physical properties of water on the surface of the land, in the soil, underlying rocks and in the atmosphere, and water's interaction with the environment including its relation to living things.

Impacts of a changing climate

The present and future consequences from changes in weather patterns at local and regional levels including extreme weather events and increased climate variability. (PPS 2020)

Individual On-Site Sewage Services

Means sewage systems, as defined in O. Reg. 332/12 under the Building Code Act, 1992, that are owned, operated and managed by the owner of the property upon which the system is located. (PPS 2020)

Individual On-Site Water Services

Means individual, autonomous water supply systems that are owned, operated and managed by the owner of the property upon which the system is located (PPS 2020)

Infrastructure

Physical structures (facilities and corridors) that form the foundation for development. Infrastructure includes: *municipal drinking-water supply systems*, *municipal wastewater systems*, *sewage treatment systems*, *storm water management systems*, *waste management systems*, *electric power generation and transmission*, *communications/telecommunications*, *transit systems and corridors*, the roads, including Regional, local and private roadways, *Provincial Highways*, railways, oil and gas pipelines and associated facilities.

Intensification

The development of a property, site or area at a higher density than currently exists through:

- (a) *redevelopment*, including the reuse of *brownfield sites*;
- (b) the development of vacant and/or underutilized lots within previously developed areas;
- (c) infill development; and
- (d) the expansion or conversion of existing buildings. (PPS 2020)

Key Hydrologic Areas

Significant groundwater recharge areas, highly vulnerable aquifers, and significant surface water contribution areas that are necessary for the ecological and hydrologic integrity of a watershed. (Growth Plan 2019)

Key Hydrologic Features

Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands. (Growth Plan 2019)

Key Natural Heritage Features

Habitat of endangered species and threatened species; fish habitat; wetlands; life science areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat (including habitat of special concern species); *sand barrens, savannahs, and tallgrass prairies; and alvars*. (Growth Plan 2019)

Life Science Areas of Natural and Scientific Interest (ANSIs)

An area that has been identified as having life science values related to protection, scientific study, or education; and further identified by the Ministry of Natural Resources and Forestry using evaluation procedures established by that Ministry, as amended from time to time. (Greenbelt Plan 2017)

Linkages

Areas that connect *environmental features* along which plants and animals can propagate, genetic interchange can occur, populations can move in response to environmental changes and life-cycle requirements, and species can be replenished from other *environmental features*. *Linkages* can also include those areas currently performing, or with the potential to perform, through restoration, linkage functions. Although *linkages* help to maintain and improve *environmental features*, they can also serve as important *environmental features* in their own right.

Liveable/liveability

The ability to readily satisfy the majority of one's day-to-day housing, employment, shopping, health, transportation and recreational needs and thereby sustain a high quality of life. A liveable region is one that contains integrated, compact, *mixed-use* communities with distinct senses of place and character that provide people with choices about where they live, work and play.

Low Impact Development

An approach to stormwater management that seeks to manage rain and other precipitation as close as possible to where it falls to mitigate the impacts of increased runoff and stormwater pollution. It typically includes a set of site design strategies and distributed, small-scale structural practices to mimic the natural hydrology to the greatest extent possible through infiltration, evapotranspiration, harvesting, filtration, and detention of stormwater. Low impact development can include, for example: bio-swales, vegetated areas at the edge of paved surfaces, permeable pavement, rain gardens, green roofs, and exfiltration systems. Low impact development often employs vegetation and soil in its

design, however, that does not always have to be the case and the specific form may vary considering local conditions and community character.

Major Facilities

Facilities which may require separation from *sensitive land uses*, including but not limited to airports, manufacturing uses, transportation infrastructure and corridors, *rail facilities*, marine facilities, sewage treatment facilities, waste management systems, oil and gas pipelines, industries, energy generation facilities and transmission systems, and resource extraction activities. (PPS 2020)

Major Goods Movement Facilities and Corridors

The transportation facilities and corridors associated with the inter- and intra-provincial movement of goods. Examples include: inter-modal facilities, ports, airports, truck terminals, freight corridors, freight facilities, and haul routes and primary transportation corridors used for the movement of goods. Approaches that are *freight-supportive* may be recommended in guidelines developed by the Province or based on municipal approaches that achieve the same objectives. (PPS 2020)

Major Office

Freestanding office buildings of approximately 4,000 square metres of floor space or greater, or with approximately 200 jobs or more. (Growth Plan, 2019)

Major Retail

Large-scale or large-format stand-alone retail stores or retail centres that have the primary purpose of commercial activities. (Growth Plan, 2019)

Major Transit Station Area

The area including and around any existing or planned higher order transit station or stop within a settlement area; or the area including and around a major bus depot in an urban core. Major transit station areas generally are defined as the area within an approximate 500 to 800 metre radius of a transit station, representing about a 10-minute walk. (Growth Plan, 2019)

Major Trip Generators

Origins and destinations with high population densities or concentrated activities which generate many trips (e.g., Urban Growth Centres and other downtowns, *major office* and office parks, *major retail*, *employment areas*, community hubs, large parks and recreational destinations, post-secondary institutions and other *public service facilities*, and other mixed-use areas). (Growth Plan, 2019)

Mineral aggregate operation

An operation and uses accessory thereto, other than *wayside pits and quarries*, conducted under a license or permit under the Aggregate Resources Act.

Mineral Aggregate Resources

Gravel, sand, clay, earth, shale, stone, limestone, dolostone, sandstone, marble, granite, rock or other material prescribed under the Aggregate Resources Act suitable for

construction, industrial, manufacturing and maintenance purposes but does not include metallic ores, asbestos, graphite, kyanite, mica, nepheline syenite, salt, talc, wollastonite, mine tailings or other material prescribed under the Mining Act. (PPS 2020)

Minimum distance separation formulae

The separation distance as determined through the Minimum Distance Separation Formulae I and II or any other reduced distance satisfactory to the area municipality and the *Province* through an amendment to an area municipal zoning by-law or minor variance application.

Missing Middle Housing

Multiple unit housing including, but not limited to multiplexes, stacked townhouses, apartments, and other low-rise housing options.

Mixed-use

Development of compatible residential and non-residential land uses within the same area or on the same parcel of land. Mixed-use facilitates the provision of a wide range of residential types within close proximity to employment, institutional, social and recreational opportunities.

Modal Share

The percentage of person-trips or of freight movements made by one travel mode, relative to the total number of such trips made by all modes. (Growth Plan, 2019)

Multimodal

Relating to the availability or use of more than one form of transportation, such as automobiles, walking, cycling, buses, *rapid transit*, rail (such as commuter and freight), trucks, air, and marine. (Based on PPS 2020 and modified by Growth Plan 2019)

Municipal Comprehensive Review

A new official plan, or an official plan amendment, initiated by an upper- or single-tier municipality under section 26 of the Planning Act that comprehensively applies the policies and schedules of this Plan. (Growth Plan, 2019)

Municipal drinking-water supply systems

All or part of the drinking-water supply, treatment and distribution systems owned and operated by a municipality.

Municipal wastewater systems

Any sewage collection or treatment works owned or operated by a municipality.

Municipal water and wastewater systems

Municipal water systems are all or part of a drinking-water system:

- (a) that is owned by a municipality or by a municipal service board established under section 195 of the Municipal Act, 2001;

- (b) that is owned by a corporation established under section 203 of the Municipal Act, 2001;
- (c) from which a municipality obtains or will obtain water under the terms of a contract between the municipality and the owner of the system; or
- (d) that is in a prescribed class of municipal drinking-water systems as defined in regulation under the Safe Drinking Water Act, 2002, including centralized and decentralized systems.

And, municipal wastewater systems are any sewage works owned or operated by a municipality. (Growth Plan, 2019)

Natural Heritage Features and Areas

Features and areas, including *significant wetlands*, significant coastal wetlands, other coastal *wetlands* in Ecoregions 5E, 6E and 7E, *fish habitat*, *significant woodlands* and *significant valleylands* in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River), *habitat of endangered species and threatened species*, *significant wildlife habitat*, and *significant areas of natural and scientific interest*, which are important for their environmental and social values as a legacy of the natural landscapes of an area. (PPS 2020)

Natural Heritage System

A system made up of *natural heritage features and areas*, and *linkages* intended to provide connectivity (at the regional or site level) and support natural processes which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species, and ecosystems. The system can include *key natural heritage features*, *key hydrologic features*, federal and provincial parks and conservation reserves, other *natural heritage features and areas*, lands that have been restored or have the potential to be restored to a natural state, associated areas that support *hydrologic functions*, and working landscapes that enable *ecological functions* to continue. (Based on PPS 2020 and modified by Growth Plan 2019)

Natural Heritage System for the Growth Plan

The natural heritage system mapped and issued by the Province in accordance with this Plan. (Growth Plan, 2019)

Net-zero carbon

Describes a human activity that does not release more greenhouse gas emissions than it removes from the atmosphere over the course of its complete lifecycle, including both operational and *embodied carbon*. A *net-zero carbon* activity either does not release GHG emissions into the atmosphere at all during its full lifecycle, or minimizes GHG emissions and offsets remaining emissions with activities that remove carbon from the atmosphere.

Net-Zero Operational Carbon

When operating a building, on an annual basis, the building does not add any additional greenhouse gases into the atmosphere, either by not making them at all, or by minimizing and addressing remaining emissions through actions that remove/ compensate for the greenhouse gases in the atmosphere.

Non-farm lot

Parcel of land designated in the area municipal official plan and/or zoned in the area municipal zoning by-law for non-farm purposes.

Non-farm-related residential unit

Any dwelling unit that is not in conformity with the definition of an agricultural-related residential unit.

Normal farm practices

A practice, as defined in the Farming and Food Production Protection Act, that is conducted in a manner consistent with proper and acceptable customs and standards as established and followed by similar agricultural operations under similar circumstances; or makes use of innovative technology in a manner consistent with proper advanced farm management practices. Normal farm practices shall be consistent with the Nutrient Management Act, and regulations made under that Act.

Office Parks

Employment areas or areas where there are significant concentrations of offices with high employment densities. (Growth Plan, 2019)

One-zone policy area

The approach whereby the entire *floodplain*, as defined by the Regulatory Floodline, is treated as one unit, and approval of all *development applications* are prohibited or restricted.

Other information and materials

The particular studies, reports, maps, plans, and other documentation that may be required of the owner/applicant in addition to the requirements of sub-sections 22(4) and 51(17) of the Planning Act to satisfy the requirements of a complete application. The study requirements will be determined on a case-by-case basis through the *pre-submission consultation meeting*.

Outdoor living area

Is the part of an outdoor area which is easily accessible from the building and which is designed for the quiet enjoyment of the outdoor environment. Outdoor living areas include, but are not limited to, the following:

- (a) backyards or front yards or gardens or terraces or patios;
- (b) balconies, provided they are the only outdoor living area for the occupant and meet the following conditions:

- i) minimum depth of four metres;
 - ii) outside the exterior building facade; and
 - iii) unenclosed;
- (c) common outdoor living areas associated with multi-storey apartment buildings or condominiums; and
- (d) passive recreational areas such as parks if identified by the area municipality.

Partial Services

means

- a) *municipal water and waster servicing systems combined with individual on-site water services*; or
- b) *municipal water and wastewater servicing systems combined with individual on-site sewage services*. (PPS 2020)

Passive noise attenuation measures

Noise reducing site designs, building layouts and structural design measures that mitigate noise between *sensitive land uses* and noise generating or other potentially incompatible land uses without the use of structural mitigation measures such as noise attention walls or berms.

Pedestrian

A person moving from place to place, either by foot or by using an assistive mobility device. Pedestrians include residents and visitors of all abilities.

Portable asphalt plant

A facility:

- (a) with equipment designed to heat and dry aggregate and to mix aggregate with bituminous asphalt to produce asphalt paving material, and includes stockpiling and storage of bulk materials used in the process; and
- (b) which is not of permanent construction, but which is to be dismantled at the completion of the construction project.

Portable concrete plant

A building or structure:

- (a) with equipment designed to mix cementing materials, aggregate, water and admixtures to produce concrete, and includes stockpiling and storage of bulk materials used in the process; and

- (b) which is not of permanent construction, but which is designed to be dismantled at the completion of the construction project.

Preferential pathways

A constructed pathway or excavation to a depth greater than five meters and/or where protective geologic layers overlying an aquifer have been removed that create a direct access or conduit facilitating the transport of contaminants to a municipal drinking-water source.

Pre-submission consultation meeting

The opportunity for staff to consult with an owner/applicant prior to the owner/applicant preparing an application, in order to outline the information and materials that the owner/applicant will be required to submit concurrently with the application form and prescribed fees.

Prime Agricultural Area

An area where prime agricultural lands predominate. This includes areas of prime agricultural lands and associated Canada Land Inventory Class 4 through 7 lands and additional areas where there is a local concentration of farms which exhibit characteristics of ongoing agriculture. Prime agricultural areas are to be identified by the Ontario Ministry of Agriculture, Food and Rural Affairs using guidelines developed by the Province as amended from time to time. (Based on PPS 2020 and modified by the Growth Plan 2019)

Prime Agricultural Lands

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 (PPS 2020).

Priority Transit Corridors

Transit corridors shown in Schedule 5 or as further identified by the Province for the purpose of implementing the Provincial Growth Plan. (Growth Plan, 2019)

Protection works standards

The combination of non-structural or structural works and allowances for slope stability and flooding/erosion to reduce the damage caused by *flooding hazards*, *erosion hazards* and other water-related hazards, and to allow access for their maintenance and repair.

Province

The Province of Ontario or one or more of its ministries or other agencies that exercise delegated authority on behalf of one of more ministries.

Provincial and Federal requirements

(For the purposes of Chapters 3 and 6) – legislation and policies administered by Federal or Provincial governments for the purpose of protecting the environment from potential impacts associated with energy facilities and ensuring that the necessary approvals are obtained.

Provincial and Federal requirements

(For the purposes of Chapter 7) – legislation and policies administered by Federal or Provincial governments for the purpose of protecting *fish habitat*, and related scientifically established standards such as water quality criteria for protecting Lake Trout populations.

Provincial Highways

Roads which provide inter-regional or provincial scale service and which are under the jurisdiction of the *Province*. They provide primarily a traffic service function and may be two lane or multi-lane, divided, or undivided, with at-grade or grade-separated interchanges as per demand requirements, constructed to Provincial Highway standards.

Provincial Plan

A plan approved by the Lieutenant Governor in Council or the Minister of Municipal Affairs and Housing, but does not include municipal official plans.

Provincially constrained environmental areas

Landscape features where the features are both identified in any applicable official plan or *Provincial plan*, and where the applicable *Provincial plan* or Provincial Policy Statement prohibits *development* in the features: *wetlands*, *woodlands*, Significant Valleys, Environmentally Significant Valley Features, *Areas of Natural and Scientific Interest*, Significant Habitat of Endangered or Threatened Species, *significant* wildlife habitat and *fish habitat*.

Provincially significant employment zones

Areas defined by the Minister in consultation with affected municipalities for the purpose of long-term planning for job creation and economic development. *Provincially significant employment zones* can consist of *employment areas* as well as mixed-use areas that contain a significant number of jobs. (Growth Plan, 2019)

Public Service Facilities

Lands, buildings and structures for the provision of programs and services provided or subsidized by a government or other body, such as social assistance, recreation, police and fire protection, health and educational programs, long- term care services, and cultural services. Public service facilities do not include infrastructure. (PPS 2020)

Public Realm

All spaces to which the public has unrestricted access, such as streets, parks, and sidewalks. (Growth Plan, 2019)

Rapid transit

A public transportation system operating for its entire length primarily on an exclusive right-of-way. The definition includes systems operating at-grade and systems operating on elevated or underground facilities.

Record of Pre-Submission Consultation

The written documentation of a *pre-submission consultation meeting* as issued by the Regional Commissioner of Planning, Housing & Community Services which outlines the information and materials identified for inclusion of the complete application.

Recreational and tourism uses

Both passive and active recreational and tourism uses, such as trails, parks, golf courses, playing fields, campgrounds, outdoor paint ball facilities, butterfly conservatories and similar uses.

Redevelopment

The creation of new units, uses or lots on previously developed land in existing communities, including brownfield sites. (PPS 2020)

Regional Forest

A forested property owned and managed by the Region.

Renewable Energy System

A system that generates electricity, heat and/or cooling from a renewable energy source.

For the purposes of this definition:

A renewable energy source is an energy source that is renewed by natural processes and includes wind, water, biomass, biogas, biofuel, solar energy, geothermal energy and tidal forces. (PPS 2020)

Retail Commercial Centres

A group of stores planned and developed as a unit and having a minimum *gross leasable area* of 10,000 square metres.

Reurbanization

Describes four distinct types of activity, all of which serve to increase the residential or employment density on sites located within the existing, built-up area. The four types of activity captured under the definition of reurbanization include:

- (a) Infill: new *development* on formerly vacant land;
- (b) Intensification: an expansion in the use of an existing structure or structures that serves to increase the density on a site;
- (c) Adaptive reuse: a change in the use of a structure, typically from commercial/industrial to residential, that results in greater density; and
- (d) Redevelopment: the wholesale change or conversion of an area, often involving some form of land assembly and/or demolition, which results in significantly higher density than existed previously.

Many of the key opportunities for reurbanization are associated with *brownfields* (underutilized or derelict properties believed to contain some form of contamination) and *greyfields* (previously developed sites that are not contaminated).

Rural institutional uses

Institutional uses related to and directly serving the needs of the rural community, such as schools, places of worship and rural community centres.

Rural lands

Lands which are located outside *settlement areas* and which are outside *prime agricultural areas*. (PPS 2020)

Rural residential infilling formulae

The measurement of the 100 metre separation distance set out in Policy 6.E.10 will be determined as follows:

- (a) measurement is established between two points located along the centre-line of the existing right-of-way of an open public road and which points are determined by a line drawn from the centre of such unit and perpendicular to the public road;
- (b) the distance between the two points is measured along the public road through intersecting public roads; and
- (c) the point of reference on an adjoining and undeveloped *non-farm lot* is determined by the mid-point along the public road.

Rural settlement areas

Existing hamlets or similar existing small *settlement areas* that are long established and identified in official plans. These communities are serviced by partial services and individual private on-site water and/or private wastewater systems, contain a limited amount of undeveloped lands that are designated for development and are subject to official plan policies that limit growth. (Growth Plan, 2019)

Secondary Uses

Uses secondary to the principal use of the property, including but not limited to home occupations, bed and breakfasts, home industries, *agri-tourism activities* and uses that provide value-added agricultural products from the farm operation on the property.

Sensitive Land Uses

Buildings, amenity areas, or outdoor spaces where routine or normal activities occurring at reasonably expected times would experience one or more adverse effects from contaminant discharges generated by nearby major facilities. *Sensitive land uses* may be a part of the natural or built environment. Examples may include, but are not limited to: residences, day care centres, and educational and health facilities. (PPS 2020)

Service Commercial

Uses or establishments that provide a service to the public or other businesses and may include, but are not limited to, the following examples: automobile service station or repair shop, food services/restaurant and hotel/motel.

Settlement Areas

Urban areas and *rural settlements* within municipalities (such as cities, towns, villages and hamlets) that are:

- (a) built up areas where development is concentrated and which have a mix of land uses; and
- (b) lands which have been designated in an official plan for development in accordance with the policies of this Plan. Where there are no lands that have been designated for development, the *settlement area* may be no larger than the area where development is concentrated. (Based on PPS 2020 and modified by the Growth Plan 2019)

Significant –

- (a) in regard to *wildlife habitat*, areas that are ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system.
- (b) in regard to regionally significant features and areas comprising the Greenlands Network, areas identified as being ecologically important to the region based on the specific criteria established by the Region and described in the associated policies in this Plan.
- (c) in regard to cultural heritage and archaeology, resources that are valued for the important contribution they make to our understanding of the history of a place, an event, or a people.

Significant Groundwater Recharge Area

An area that has been identified:

- (a) as a significant groundwater recharge area by any public body for the purposes of implementing the PPS 2020;
- (b) as a significant groundwater recharge area in the assessment report required under the Clean Water Act, 2006; or
- (c) as an ecologically significant groundwater recharge area delineated in a subwatershed plan or equivalent in accordance with provincial guidelines.

For the purposes of this definition, ecologically significant groundwater recharge areas are areas of land that are responsible for replenishing groundwater systems that directly support sensitive areas like cold water streams and wetlands. (Greenbelt Plan)

Significant Wetland

A wetland that has been identified as provincially significant by the Province. (Based on PPS 2020 and modified by Growth Plan 2019)

Significant Wildlife Habitat

A wildlife habitat that is ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system. These are to be identified using criteria established by the Province. (Based on PPS 2020 and modified by Growth Plan 2019)

Significant Woodland

A woodland which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history. These are to be identified using criteria established by the Province. (Based on PPS 2020 and modified by Growth Plan 2019)

Significant Valleyland

A *valleyland* which is ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or *natural heritage system*. These are to be identified using criteria established by the Province. (Based on PPS 2020 and modified by Growth Plan 2019)

Site alteration

Activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site.

Site plan

(For use in all Chapters, except Chapter 9) – a plan prepared under Section 41 of the Planning Act which details building location and design as well as other site specific considerations such as walkways, landscaping, lighting and storage areas.

Site plan

(For the purposes of Chapter 9) – a plan as defined in the licensing process for aggregate extraction operations in accordance with the provisions of the Aggregate Resources Act.

Special needs

Means any housing, including dedicated facilities, in whole or in part, that is used by people who have specific needs beyond economic needs, including but not limited to, needs such as mobility requirements or support functions required for daily living. Examples of special needs housing may include, but are not limited to long-term care homes, adaptable and accessible housing, and housing for persons with disabilities such as physical, sensory or mental health disabilities, and housing for older persons. (PPS 2020)

Special policy area

An area within a community that has historically existed in the *floodplain* and where site-specific policies, approved by the *Province*, are intended to provide for the continued viability of existing uses (which are generally on a small scale) and address the significant social and economic hardships to the community that would result from strict adherence to provincial policies concerning development. The criteria and procedures for approval are established by the *Province*. Special policy areas are not intended to allow for new or intensified development or site alteration if an area municipality has feasible opportunities for development outside the floodplain otherwise in conformity with the policies of the Plan.

Specialty crop area

Areas designated using evaluation procedures established by the *Province*, as amended from time to time, where specialty crops such as tender fruits (peaches, cherries, plums), grapes, other fruit crops, vegetable crops, greenhouse crops, and crops from agriculturally developed organic soil lands are predominantly grown, usually resulting from:

- (a) soils that have suitability to produce specialty crops, or lands that are subject to special climatic conditions, or a combination of both; and/or
- (b) a combination of farmers skilled in the production of specialty crops, and of capital investment in related facilities and services to produce, store, or process specialty crops.

Stormwater Master Plan

A long-range plan that assesses existing and planned stormwater facilities and systems and outlines stormwater infrastructure requirements for new and existing development within a settlement area. Stormwater master plans are informed by watershed planning and are completed in accordance with the Municipal Class Environmental Assessment. (Growth Plan, 2019)

Stormwater Management Plan

A plan that provides direction to avoid or minimize and mitigate stormwater volume, contaminant loads, and impacts on receiving water courses to: maintain groundwater quality and flow and stream baseflow; protect water quality; minimize the disruption of pre-existing (natural) drainage patterns wherever possible; prevent increases in stream channel erosion; prevent any increase in flood risk; and protect aquatic species and their habitat. (Growth Plan, 2019)

Strategic Growth Areas

Within Urban Areas and Township Urban Areas, nodes, corridors, and other areas that have been identified by the Region, area municipalities or the Province to be the focus for accommodating *intensification* and higher-density mixed uses in a more *compact built form*. Strategic growth areas include Urban Growth Centres, Major Transit Station Areas, Regional Intensification Corridors, Local Corridors and Centres, Township Urban Growth Centres, and other major opportunities that may include infill, redevelopment, brownfield sites, the expansion or conversion of existing buildings, or greyfields. (Growth Plan, 2019)

Sustainable/sustainability

The ability to meet the needs of both current and future generations by balancing cultural, economic, environmental and social elements through thoughtful, comprehensive and inclusive decision-making. A sustainable region is one that is robust, resilient and strives to live within its natural limits.

Temporary Farmers' Markets

Outdoor food stands using temporary structures to sell food products to the public. The foods sold would be primarily from local sources, and may include processed foods such as jams and preserves and other farm-made products. Stand operators could be farmers or staff or volunteers of a business or organization with a permit to operate the stand.

Time of travel

An estimate of time required for a particle of water to move in the saturated soil or rock from a specific point in an aquifer to the well intake.

Transit stops

Include conventional bus transit terminals and stops and iXpress stops

Transit-supportive

Relating to development that makes transit viable and improves the quality of the experience of using transit. It often refers to compact, mixed-use development that has a high level of employment and residential densities. Transit-supportive development will be consistent with Ontario's Transit Supportive Guidelines. (Growth Plan, 2019)

Transportation System

A system consisting of facilities, corridors and rights-of-way for the movement of people and goods, and associated transportation facilities including transit stops and stations, sidewalks, cycle lanes, bus lanes, high occupancy vehicle lanes, rail facilities, parking facilities, park-and-ride lots, service centres, rest stops, vehicle inspection stations, inter-modal facilities, harbours, airports, marine facilities, ferries, canals and associated facilities such as storage and maintenance. (PPS 2020).

Two-zone policy area

The approach that selective developed urban areas within the *floodplain*, as defined by the Regulatory Floodline, are considered to be less hazardous than others such that *development applications* could potentially safely occur. The first zone, termed the *flood fringe*, defines the portion of the *floodplain* where *development* may occur subject to appropriate *floodproofing standards*. The second zone, termed the *floodway*, defines that portion of the *floodplain* where *development* is prohibited or restricted.

Vulnerable/vulnerability

Surface water and groundwater that can be easily changed or impacted by activities or events, either by virtue of their vicinity to such activities or events or by *preferential pathways* among such activities and the surface water and/or groundwater.

Walking, cycling, and rolling

Methods of active transportation, which means movement of people or goods that is powered by human activity. Active transportation includes walking, cycling, and the use of human-powered or hybrid mobility aids such as wheelchairs, scooters, e-bikes, and rollerblades.

Watershed studies

Comprehensive scientific studies that describe how surface water and groundwater and terrestrial and aquatic ecosystems function within a defined drainage area. These investigations result in recommendations as to where and how development activity can safely occur so as to minimize flood risks, stream erosion, degradation of water quality, and negative impacts on natural systems. Recommendations may also identify opportunities for ecological enhancement and recreation.

Wayside pits and quarries

A temporary pit or quarry opened and used by or for a public authority solely for the purpose of a particular project or contract of road construction and not located on the road right-of-way.

Wetlands

Lands that are seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils and has favoured the dominance of either hydrophytic plants or water tolerant plants. The four major types of wetlands are swamps, marshes, bogs and fens.

Periodically soaked or wet lands being used for agricultural purposes which no longer exhibit wetland characteristics are not considered to be wetlands for the purposes of this definition.

Wetlands are further identified, by the Ministry of Natural Resources and Forestry or by any other person, according to evaluation procedures established by the Ministry of Natural Resources and Forestry, as amended from time to time. (Greenbelt Plan 2017)

Wildlife Habitat

Areas where plants, animals and other organisms live, and find adequate amounts of food, water, shelter and space needed to sustain their populations. Specific wildlife habitats of concern may include areas where species concentrate at a vulnerable point in their annual or life cycle; and areas which are important to migratory or non-migratory species. (PPS 2020)

Woodlands

Treed areas that provide environmental and economic benefits to both the private landowner and the general public, such as erosion prevention, hydrological and nutrient cycling, provision of clean air and the long-term storage of carbon, provision of wildlife habitat, outdoor recreational opportunities, and the sustainable harvest of a wide range of

woodland products. Woodlands include treed areas, woodlots or forested areas and vary in their level of significance at the local, regional and provincial levels. Woodlands may be delineated according to the Forestry Act definition or the *Province's* Ecological Land Classification system definition for "forest." (PPS 2020)

MAP 1

REGIONAL STRUCTURE

- Urban System**
- Urban Growth Centre
 - Regional Intensification Corridors
 - Urban Area
 - Township Urban Area
 - Countryside Line
- Agricultural System***
- Protected Countryside
 - Prime Agricultural Area
 - Rural Lands
 - Rural Settlement Areas
- Municipal Boundaries**
- Regional Municipal Boundary
 - Area Municipal Boundary
- Transportation**
- Region of Waterloo International Airport
 - Provincial Highways
 - Regional Roads

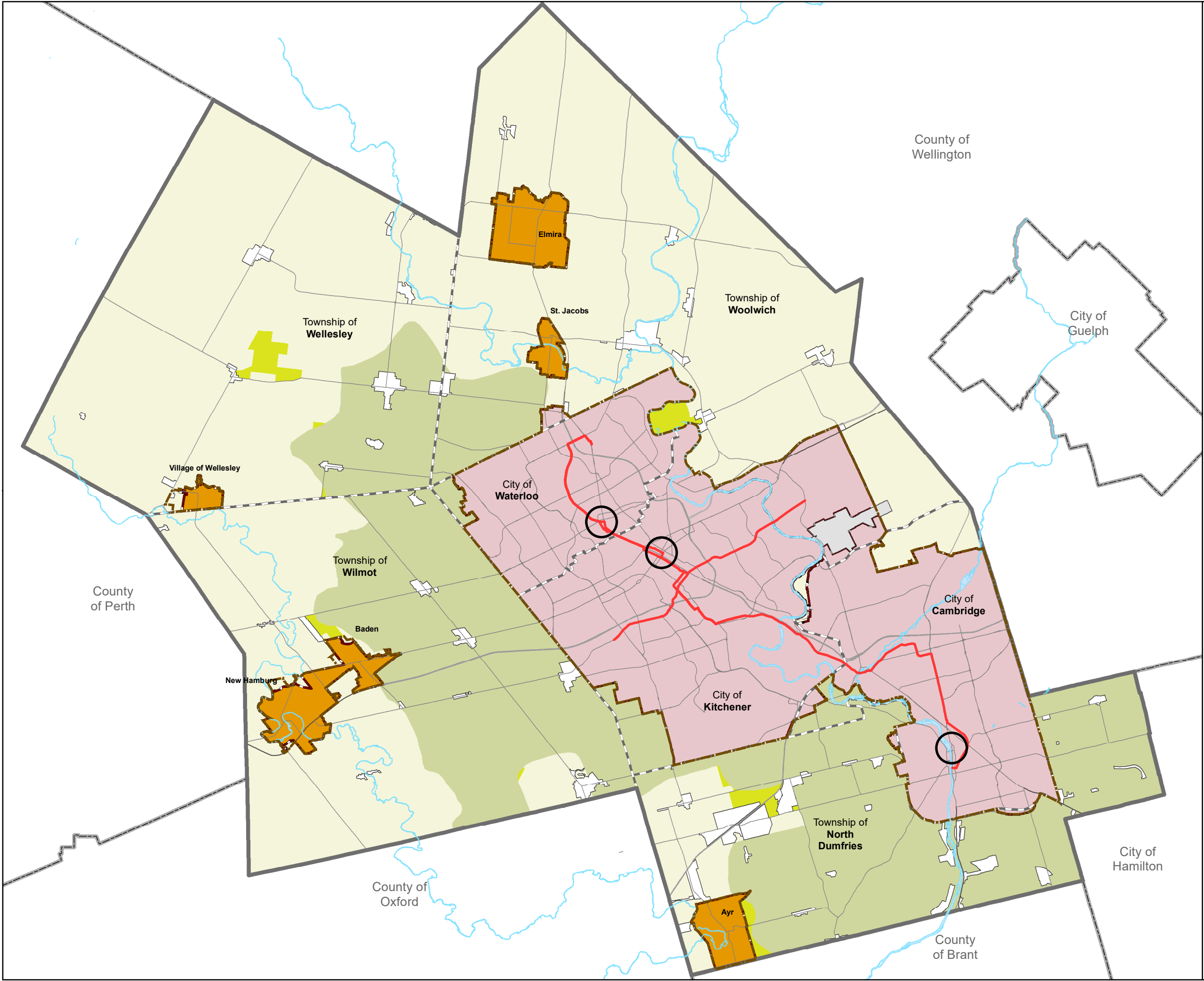
*The agricultural land base reflects the in-force 2015 Regional Official Plan. The Region will be implementing a new Agricultural System and associated mapping as part of the second phase of the ROP review.



0 2.5 5 Kilometers



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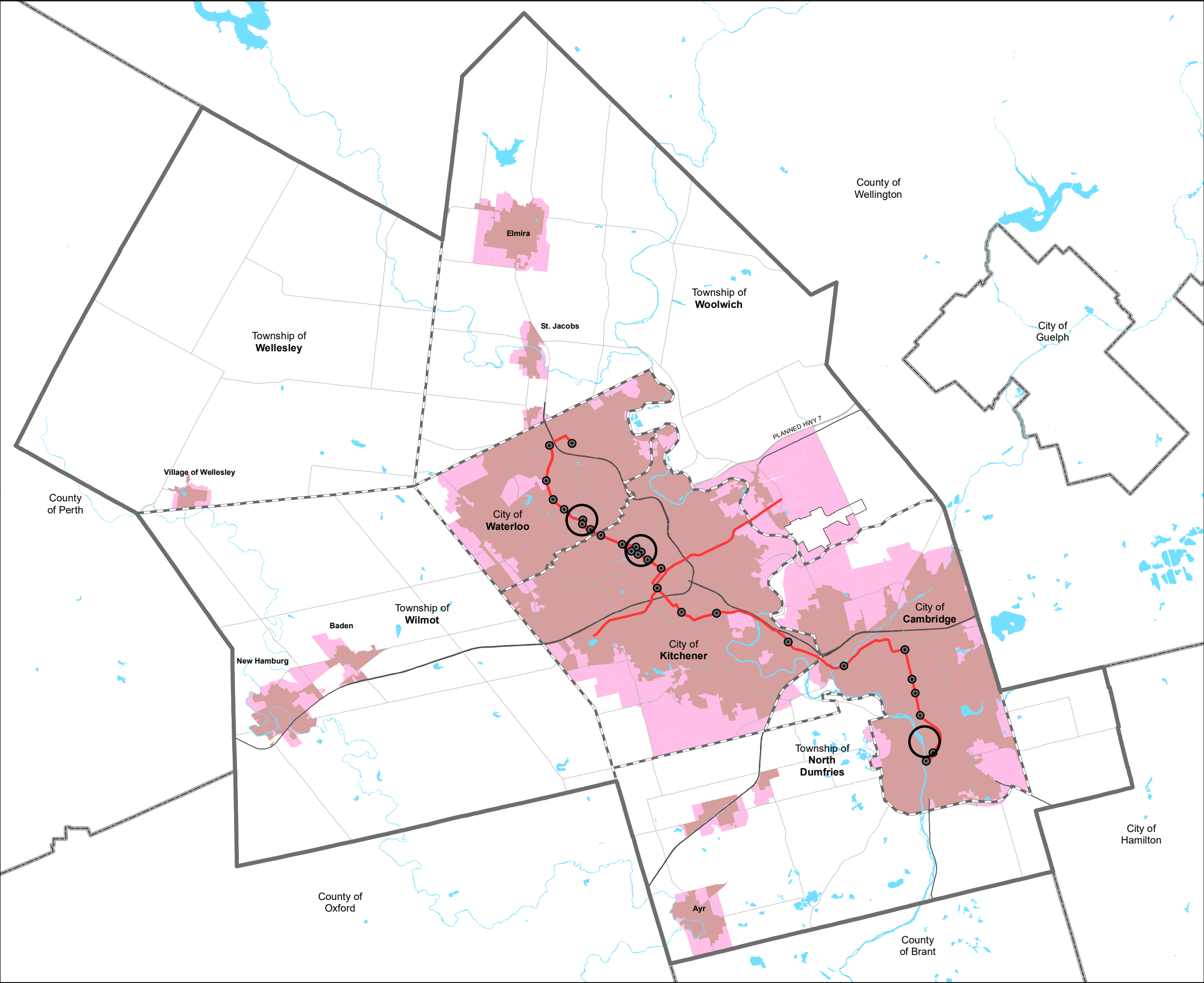


MAP 2

URBAN SYSTEM

- Strategic Growth Areas**
- Urban Growth Centre*
 - Regional Intensification Corridors
 - Major Transit Station Area*
- Urban Area / Township Urban Area**
- Delineated Built-Up Area
 - Designated Greenfield Area
- Municipal Boundaries**
- Regional Municipal Boundary
 - Area Municipal Boundary
- Transportation**
- Region of Waterloo International Airport
 - Provincial Highways
 - Regional Roads

*The location of the Urban Growth Centres and Major Transit Station Areas are shown symbolically. The boundaries of the UGCs are delineated on Figures 1 to 3, and the boundaries of the MTSAs are delineated on Figures 4a to 9d inclusive.



0 2.5 5 Kilometers

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MAP 3 EMPLOYMENT AREAS

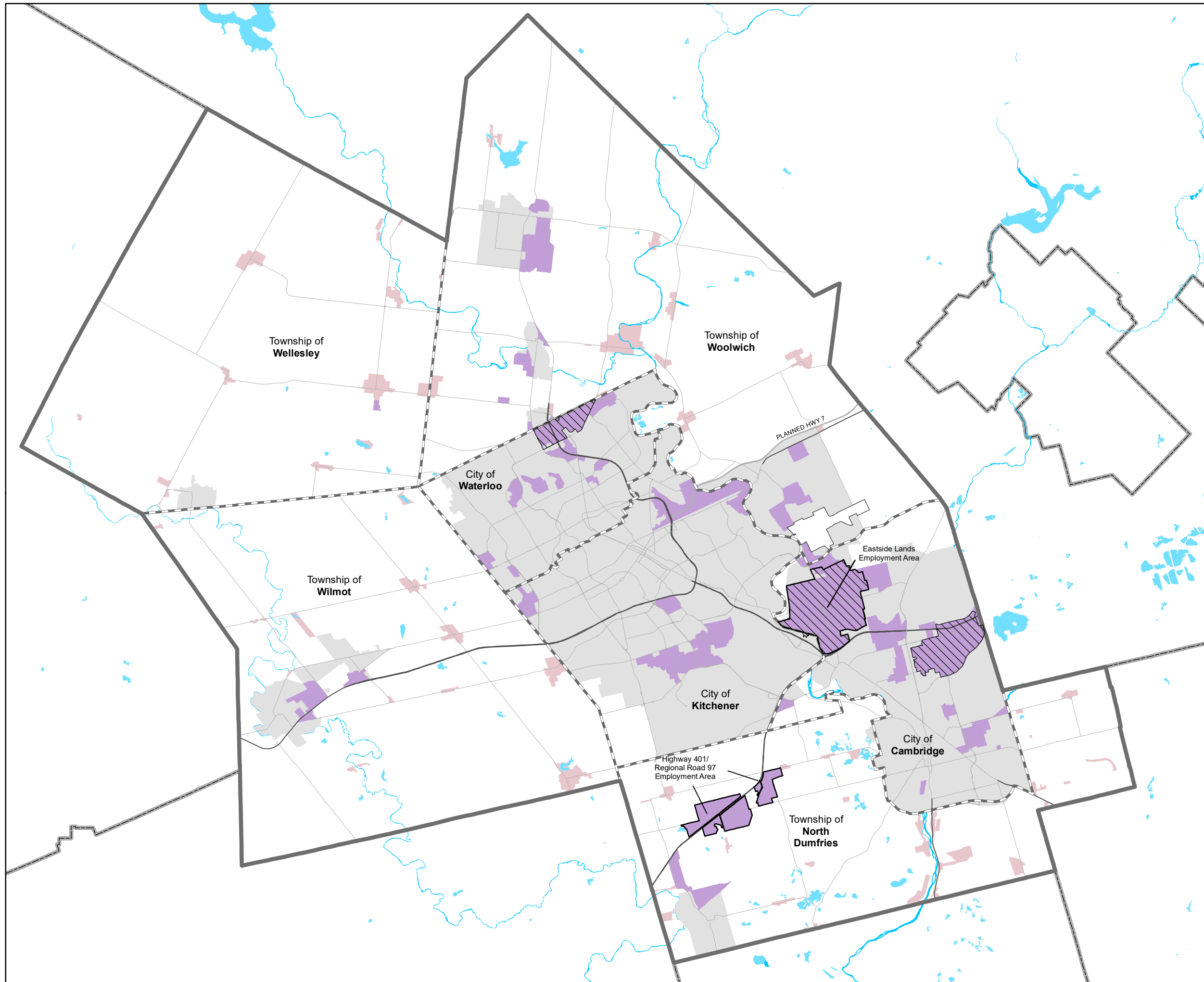
- Employment Areas
- Provincially Significant Employment Zone
- Urban Area / Township Urban Area
- Rural Settlement Area

Municipal Boundaries

- Regional Municipal Boundary
- Area Municipal Boundary

Transportation

- Region of Waterloo International Airport
- Provincial Highways
- Regional Roads

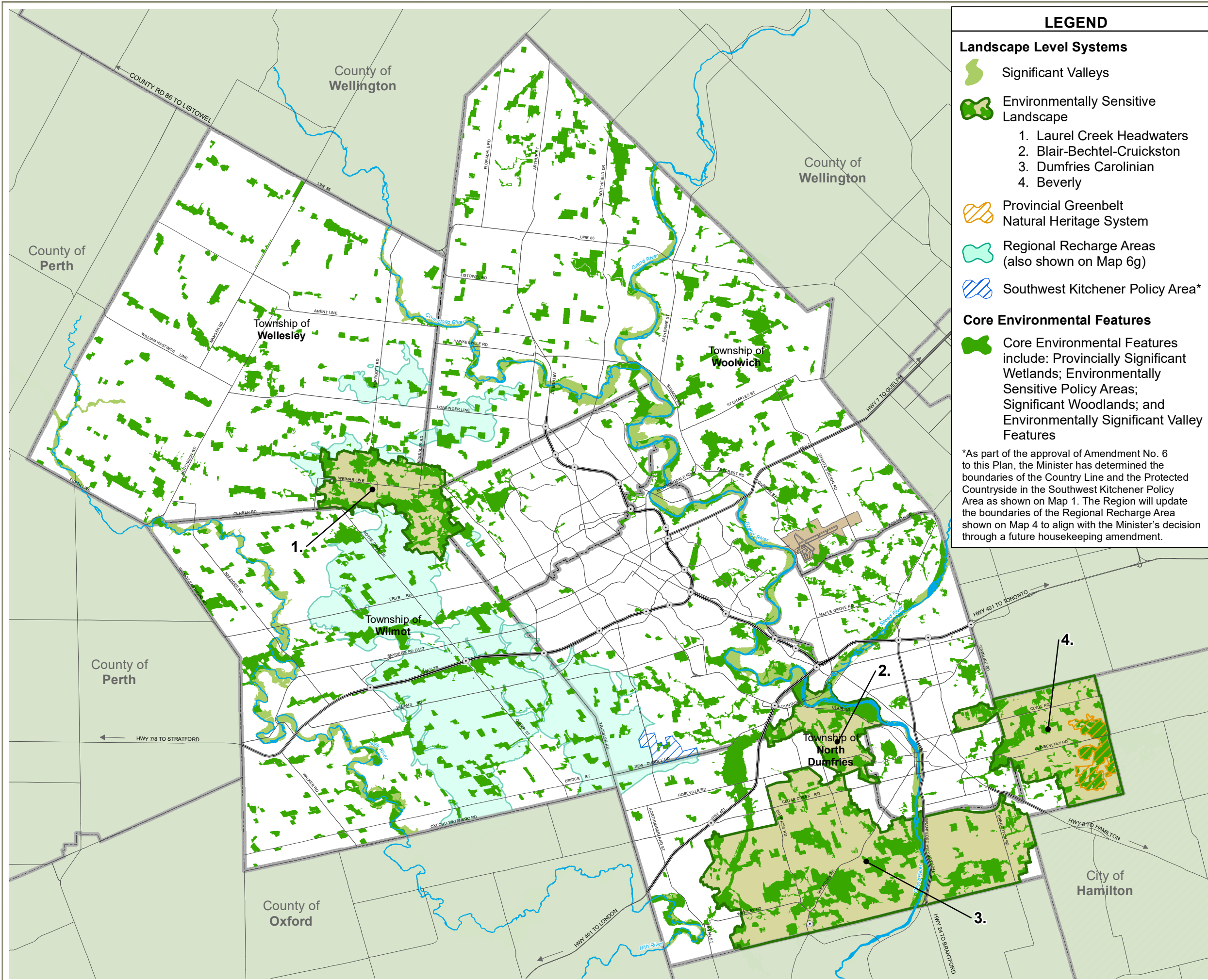


0 2.5 5 Kilometers



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Region of Waterloo

Regional Official Plan SHAPING OUR FUTURE

MAP 4

GREENLANDS NETWORK

LEGEND

- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway

0 1 2 4 Km



Sources: Region of Waterloo, Ministry of Natural Resources

2015

Note: Permanent and intermittent watercourses are identified in the Technical Appendix for Landscape Level Systems and Core Environmental Features

Note: This map forms part of the Official Plan of the Regional Municipality of Waterloo and must be read in conjunction with the policies of this Plan.



Region of Waterloo

Regional Official Plan SHAPING OUR FUTURE

MAP 5a

REGIONAL TRANSIT NETWORK

LEGEND

- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway

0 0.5 1 2 Km

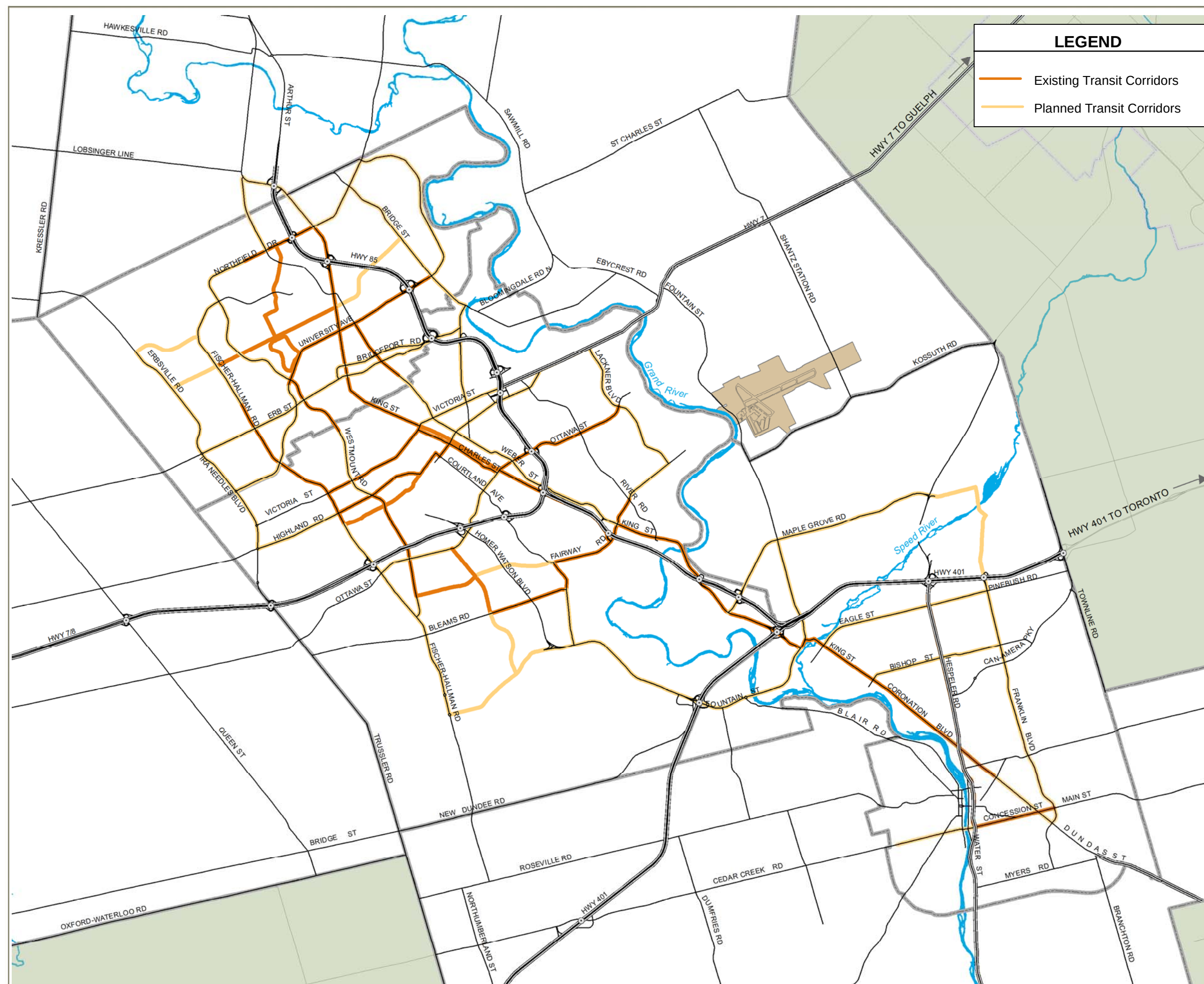


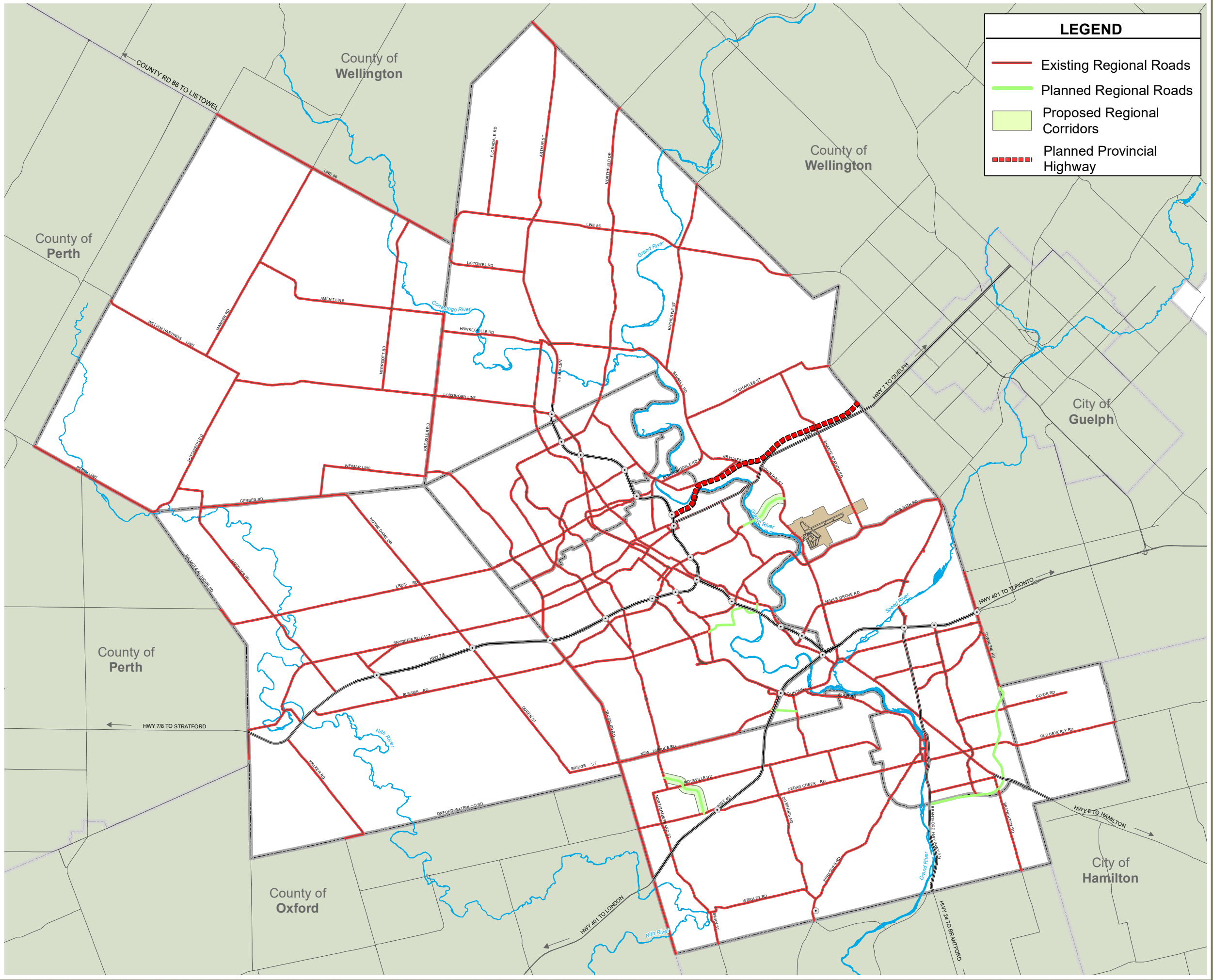
Sources: Region of Waterloo

2015

Note: The Regional transportation system is currently under review in conjunction with the Regional Transportation Master Plan (RTMP). The results of the RTMP may result in future amendments.

Note: This map forms part of the Official Plan of the Regional Municipality of Waterloo and must be read in conjunction with the policies of this Plan.





Region of Waterloo

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MAP 5b

EXISTING, PLANNED AND PROPOSED ROADS AND CORRIDORS

LEGEND

- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway



Sources: Region of Waterloo

2015

Note: The Regional transportation system is currently under review in conjunction with the Regional Transportation Master Plan (RTMP). The results of the RTMP may result in future amendments.

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Region of Waterloo

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MAP 5c

REGIONAL CYCLING ROUTES

LEGEND

- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway

0 1 2 4 Km

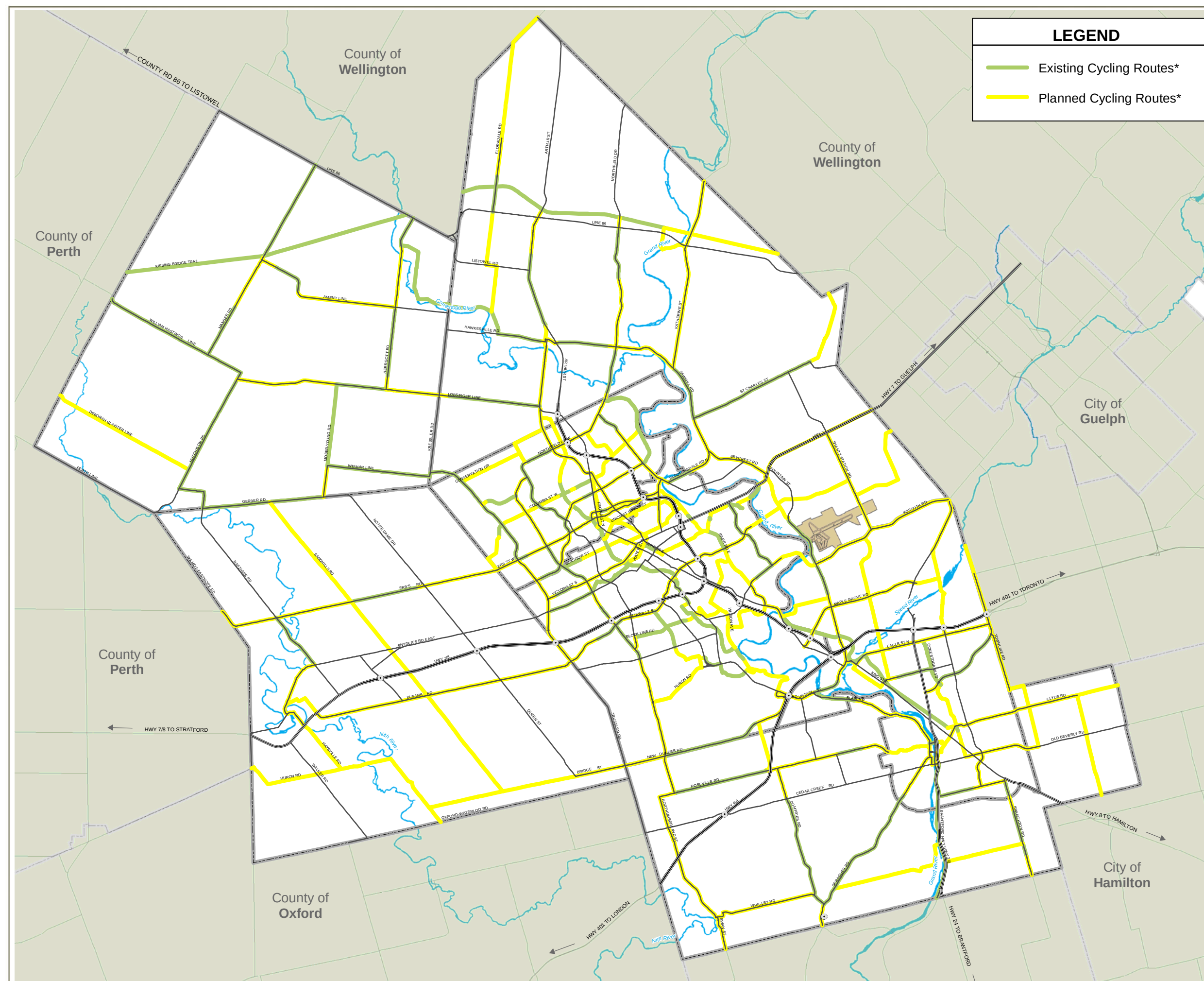


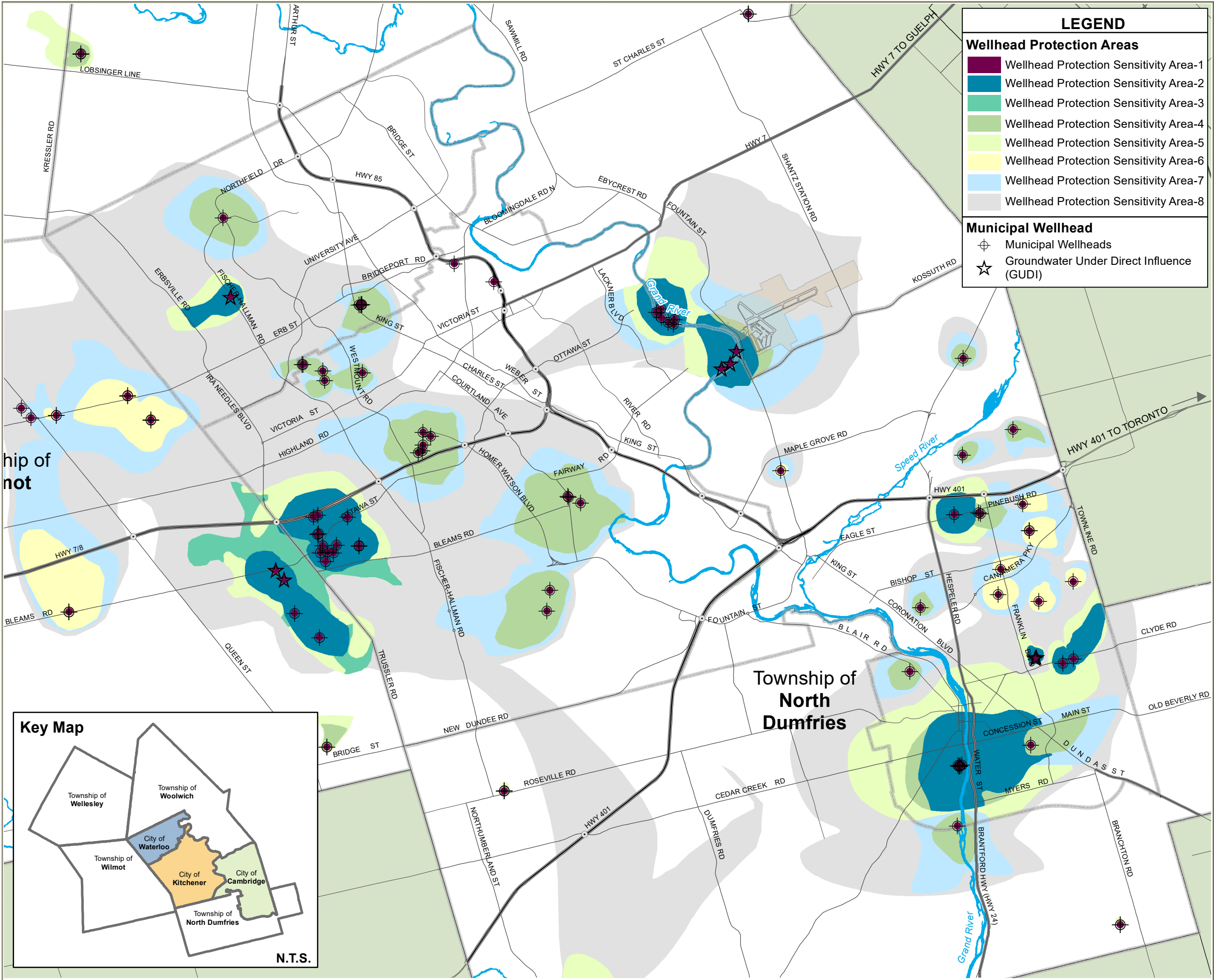
Sources: Region of Waterloo

2015

*The Regional Cycling Routes shown on this map reflect the Regional Cycling Master Plan as adopted by Regional Council in 2004 and additional route construction since that time.

Note: This map forms part of the Official Plan of the Regional Municipality of Waterloo and must be read in conjunction with the policies of this Plan.





LEGEND

Wellhead Protection Areas

Wellhead Protection Sensitivity Area-1

Wellhead Protection Sensitivity Area-2

Wellhead Protection Sensitivity Area-3

Wellhead Protection Sensitivity Area-4

Wellhead Protection Sensitivity Area-5

Wellhead Protection Sensitivity Area-6

Wellhead Protection Sensitivity Area-7

Wellhead Protection Sensitivity Area-8

Municipal Wellhead

Municipal Wellheads

Groundwater Under Direct Influence (GUDI)



Regional Official Plan
SHAPING OUR FUTURE

MAP 6a
URBAN AREA
SOURCE WATER
PROTECTION
AREAS

LEGEND

Provincial Highway

Regional Road

River

Region of Waterloo
International Airport

Municipal Boundary

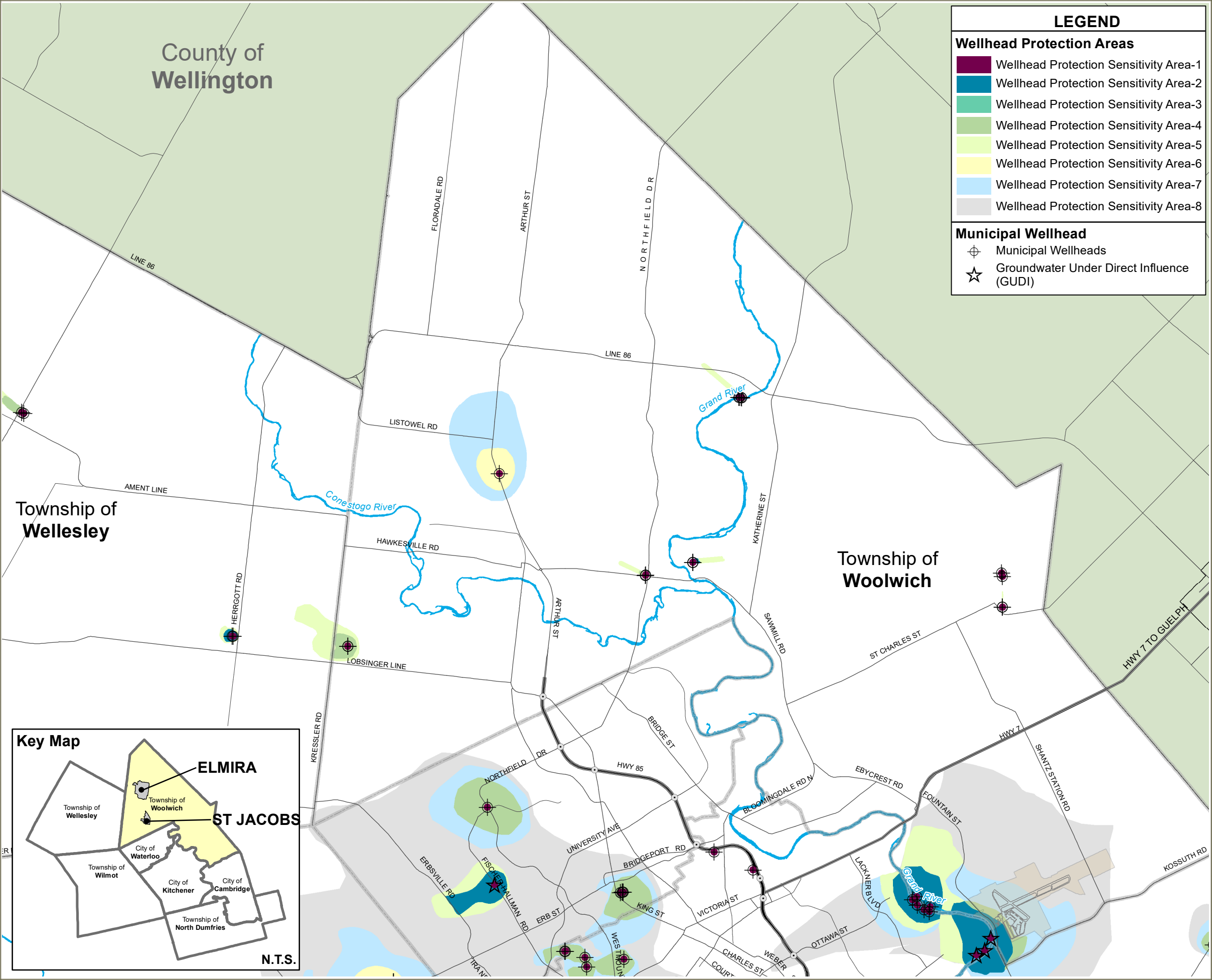
Railway

0 0.5 1 2 Km

Sources: Region of Waterloo

2015

Note: This map forms part of the Official Plan of the Regional Municipality of Waterloo and must be read in conjunction with the policies of this Plan.



LEGEND

Wellhead Protection Areas

- Wellhead Protection Sensitivity Area-1
- Wellhead Protection Sensitivity Area-2
- Wellhead Protection Sensitivity Area-3
- Wellhead Protection Sensitivity Area-4
- Wellhead Protection Sensitivity Area-5
- Wellhead Protection Sensitivity Area-6
- Wellhead Protection Sensitivity Area-7
- Wellhead Protection Sensitivity Area-8

Municipal Wellhead

- Municipal Wellheads
- Groundwater Under Direct Influence (GUDI)



Region of Waterloo

Regional Official Plan SHAPING OUR FUTURE

MAP 6b

TOWNSHIP OF WOOLWICH SOURCE WATER PROTECTION AREAS

LEGEND

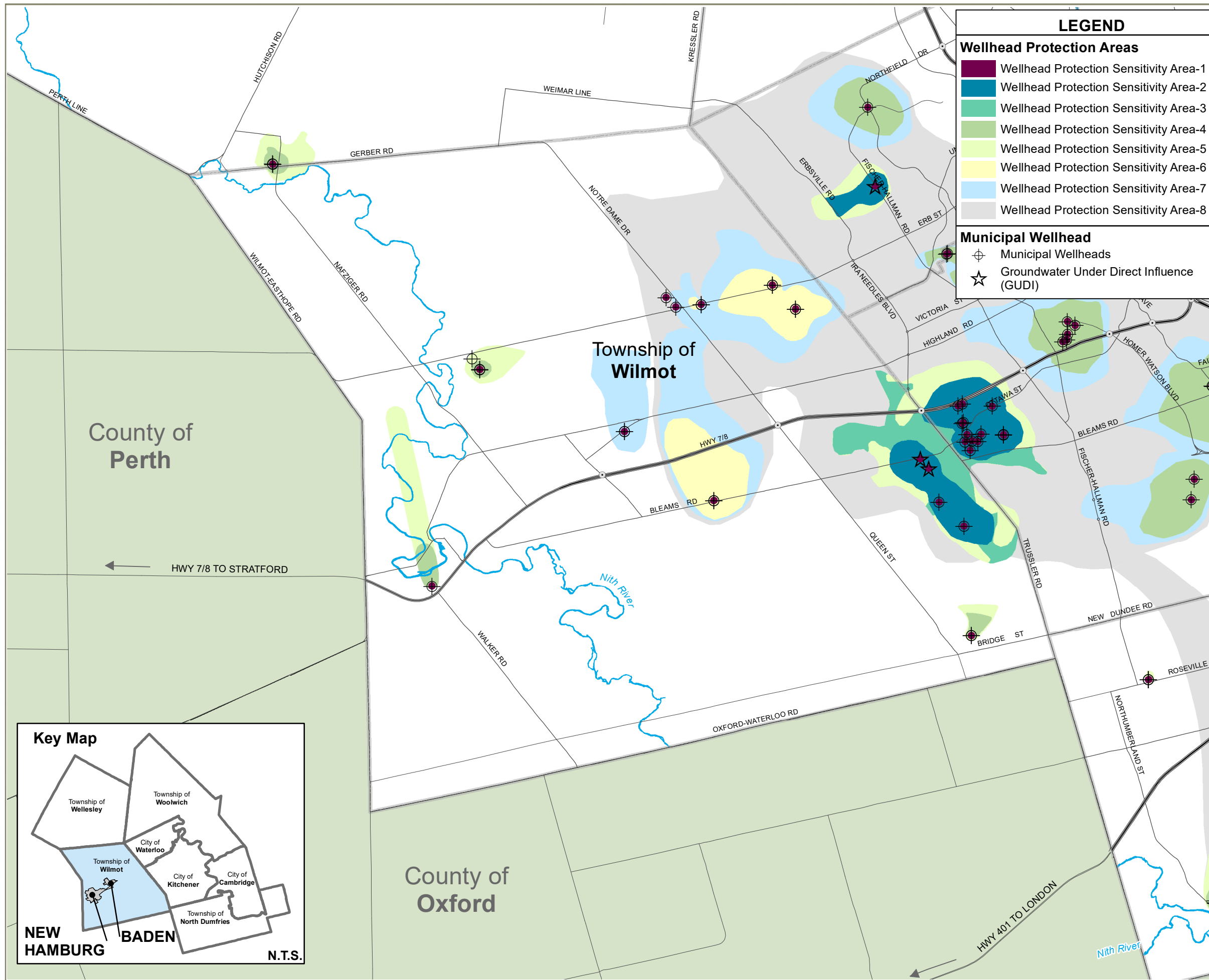
- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway

0 0.5 1 2 Km

Sources: Region of Waterloo

2015

Note: This map forms part of the Official Plan of the Regional Municipality of Waterloo and must be read in conjunction with the policies of this Plan.



Region of Waterloo

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MAP 6c

TOWNSHIP OF WILMOT SOURCE WATER PROTECTION AREAS

LEGEND

- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway

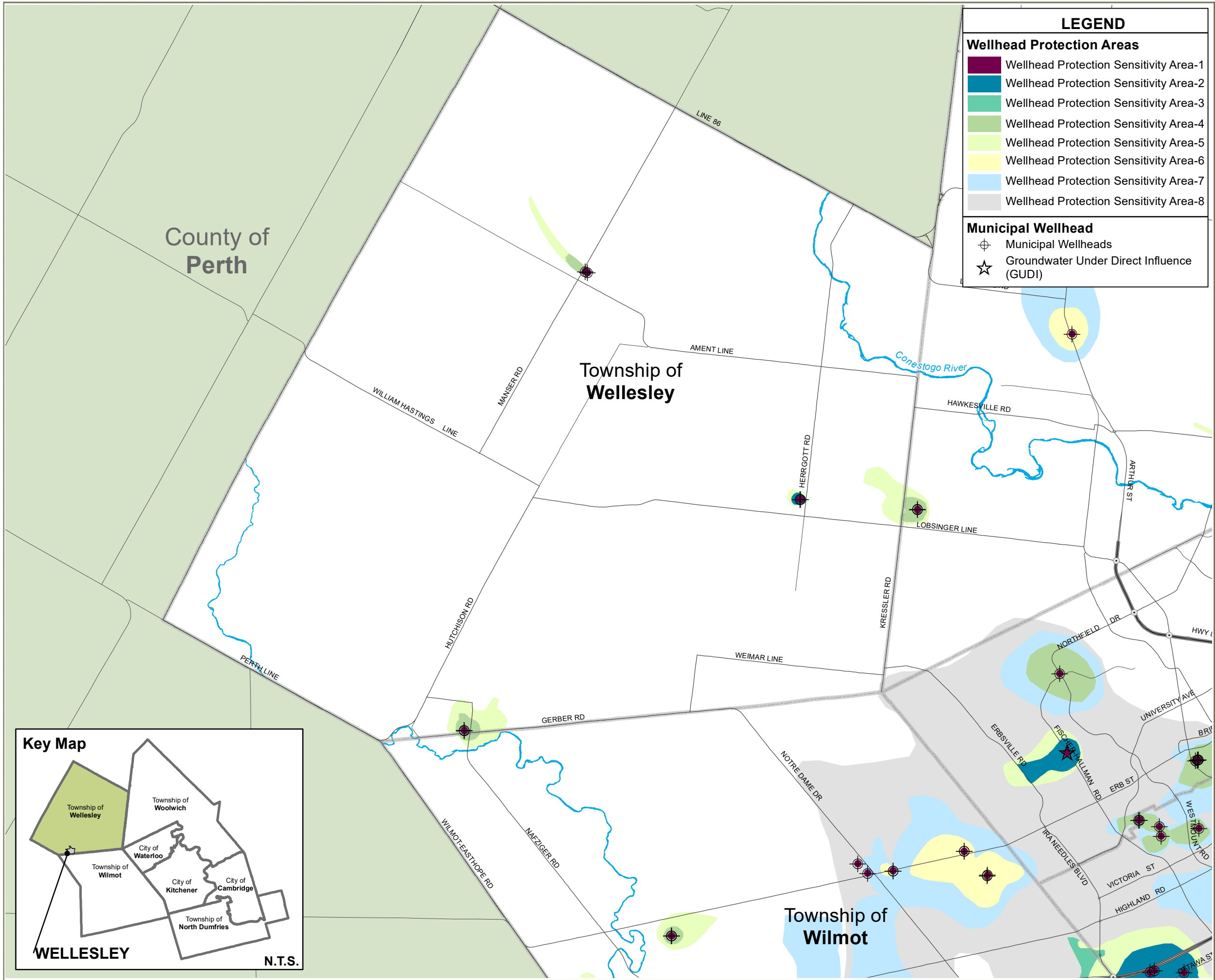
0 0.5 1 2 Km



Sources: Region of Waterloo

2015

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Region of Waterloo

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MAP 6d

TOWNSHIP OF WELLESLEY SOURCE WATER PROTECTION AREAS

LEGEND

- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway

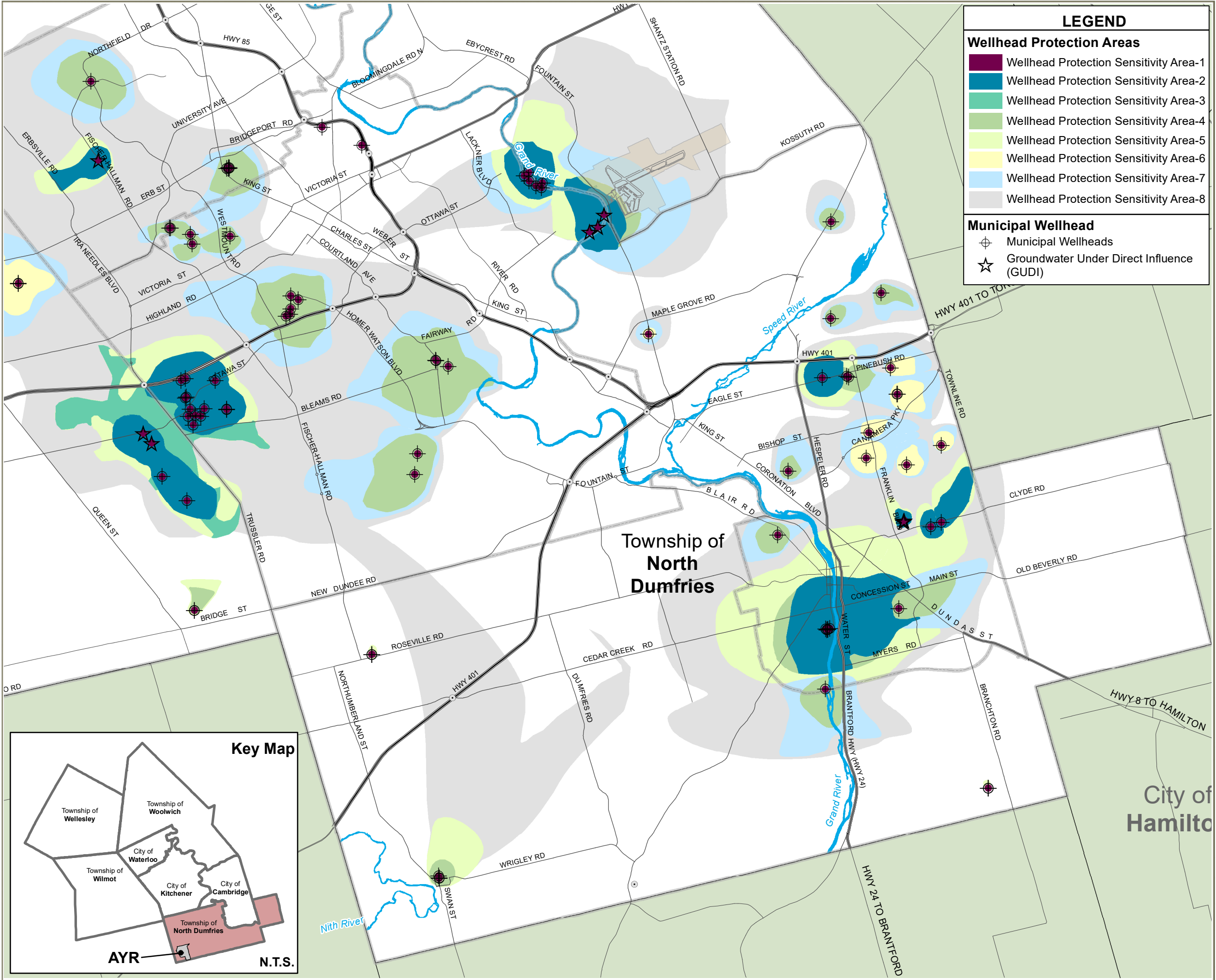
0 0.5 1 2 Km



Sources: Region of Waterloo

2015

Note: This map forms part of the Official Plan of the Regional Municipality of Waterloo and must be read in conjunction with the policies of this Plan.



LEGEND

Wellhead Protection Areas

- Wellhead Protection Sensitivity Area-1
- Wellhead Protection Sensitivity Area-2
- Wellhead Protection Sensitivity Area-3
- Wellhead Protection Sensitivity Area-4
- Wellhead Protection Sensitivity Area-5
- Wellhead Protection Sensitivity Area-6
- Wellhead Protection Sensitivity Area-7
- Wellhead Protection Sensitivity Area-8

Municipal Wellhead

- Municipal Wellheads
- Groundwater Under Direct Influence (GUDI)



Regional Official Plan
SHAPING OUR FUTURE

MAP 6e
TOWNSHIP OF
NORTH DUMFRIES
SOURCE WATER
PROTECTION
AREAS

LEGEND

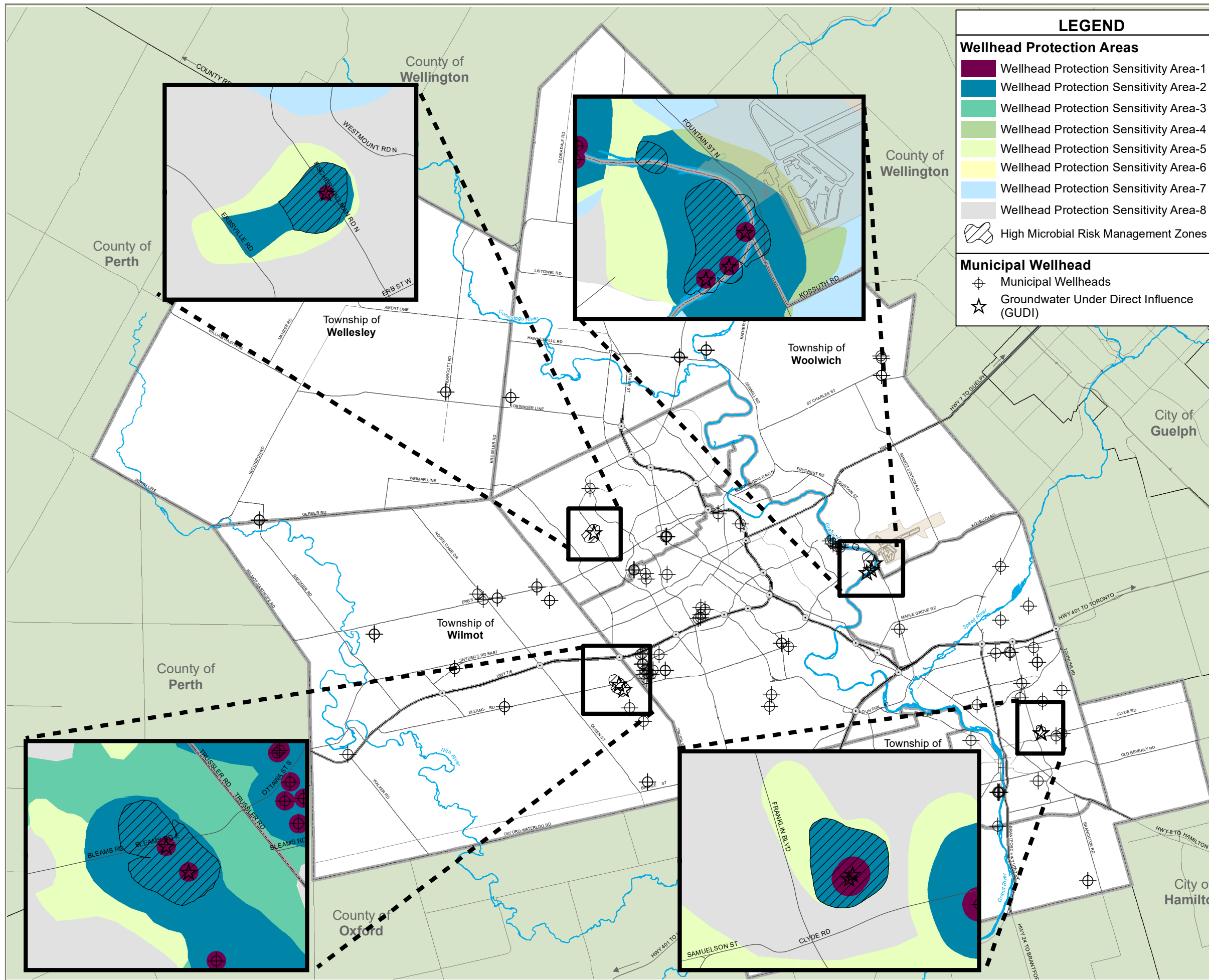
- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway

0 0.5 1 2 Km

Sources: Region of Waterloo

2015

Note: This map forms part of the Official Plan of the Regional Municipality of Waterloo and must be read in conjunction with the policies of this Plan.



LEGEND

Wellhead Protection Areas

Wellhead Protection Sensitivity Area-1

Wellhead Protection Sensitivity Area-2

Wellhead Protection Sensitivity Area-3

Wellhead Protection Sensitivity Area-4

Wellhead Protection Sensitivity Area-5

Wellhead Protection Sensitivity Area-6

Wellhead Protection Sensitivity Area-7

Wellhead Protection Sensitivity Area-8

High Microbial Risk Management Zones

Municipal Wellhead

Municipal Wellheads

Groundwater Under Direct Influence (GUDI)



Region of Waterloo

Regional Official Plan SHAPING OUR FUTURE

MAP 6f

OTHER SOURCE WATER PROTECTION AREAS - HIGH MICROBIAL RISK MANAGEMENT ZONES

LEGEND

Provincial Highway

Regional Road

River

Region of Waterloo International Airport

Municipal Boundary

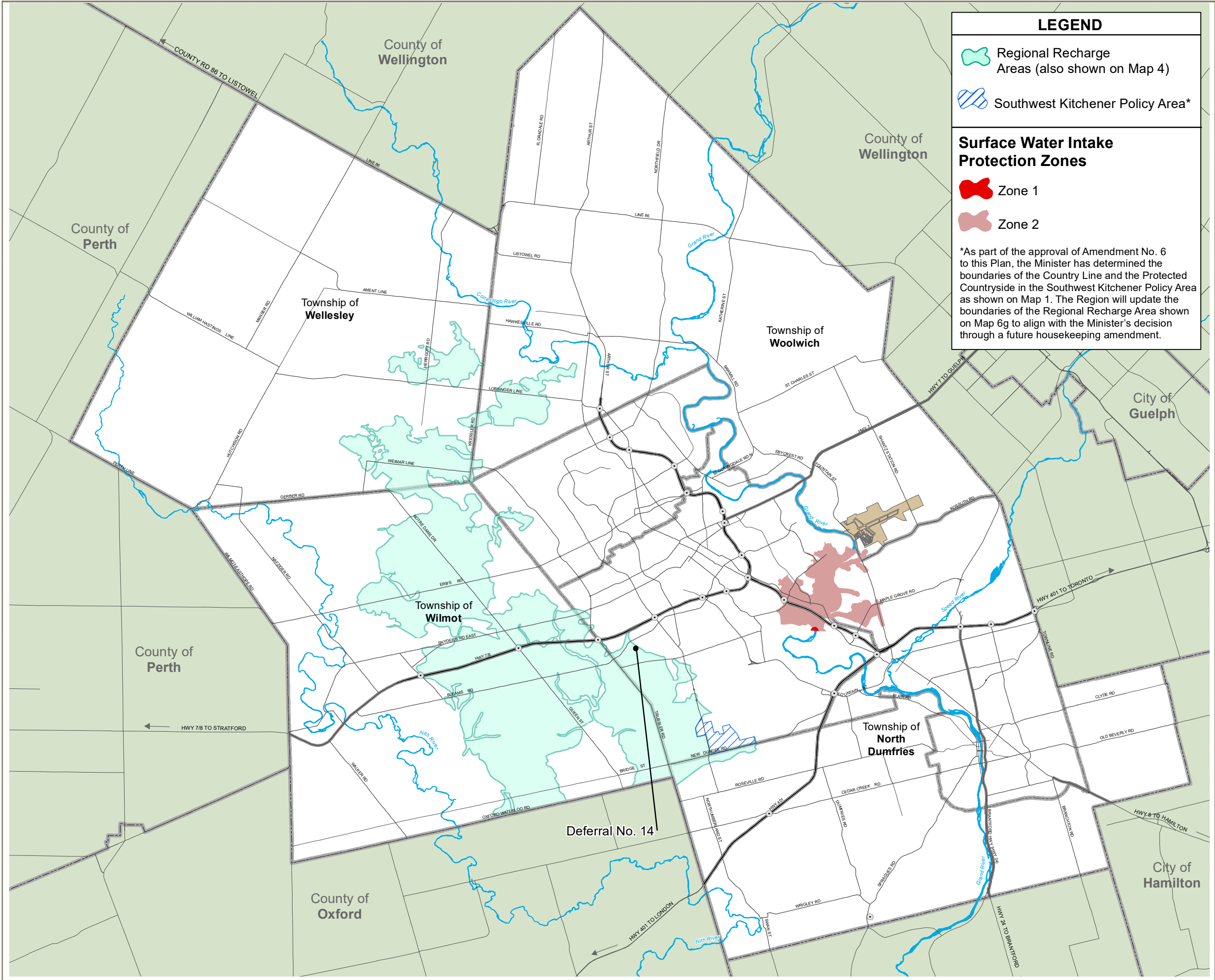
Railway

0 0.5 1 Km

Sources: Region of Waterloo

2015

Note: This map forms part of the Official Plan of the Regional Municipality of Waterloo and must be read in conjunction with the policies of this Plan.



LEGEND

Regional Recharge Areas (also shown on Map 4)

Southwest Kitchener Policy Area*

Surface Water Intake Protection Zones

Zone 1

Zone 2

*As part of the approval of Amendment No. 6 to this Plan, the Minister has determined the boundaries of the Country Line and the Protected Countryside in the Southwest Kitchener Policy Area as shown on Map 1. The Region will update the boundaries of the Regional Recharge Area shown on Map 6g to align with the Minister's decision through a future housekeeping amendment.



Regional Official Plan
SHAPING OUR FUTURE

MAP 6g
OTHER
SOURCE WATER
PROTECTION AREAS

LEGEND

Provincial Highway

Regional Road

River

Region of Waterloo International Airport

Municipal Boundary

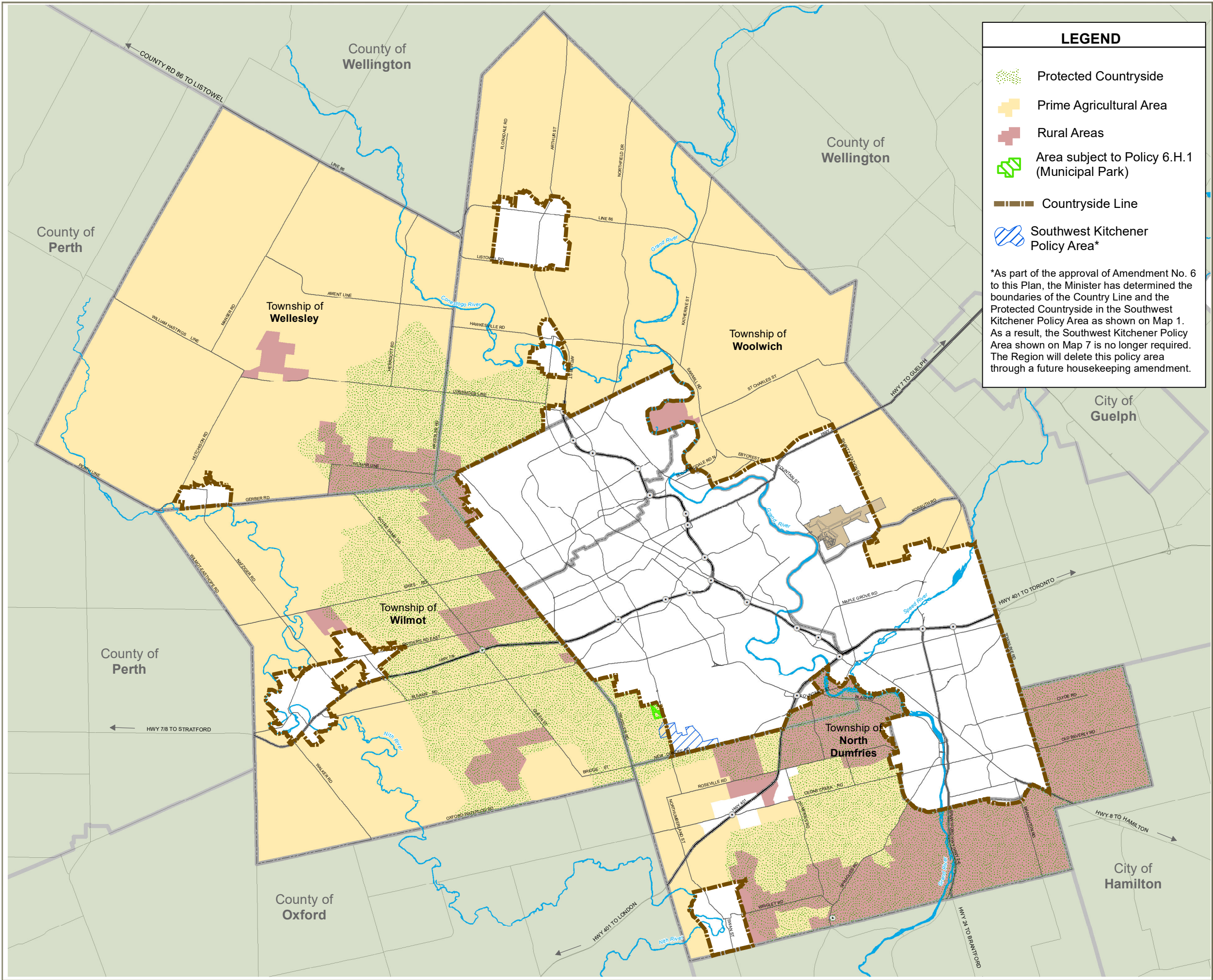
Railway

0 1 2 4 Km

Sources: Region of Waterloo

2015

Note: This map forms part of the Official Plan of the Regional Municipality of Waterloo and must be read in conjunction with the policies of this Plan.



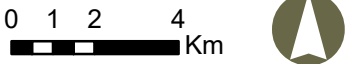
Region of Waterloo

Regional Official Plan SHAPING OUR FUTURE

MAP 7 THE COUNTRYSIDE

LEGEND

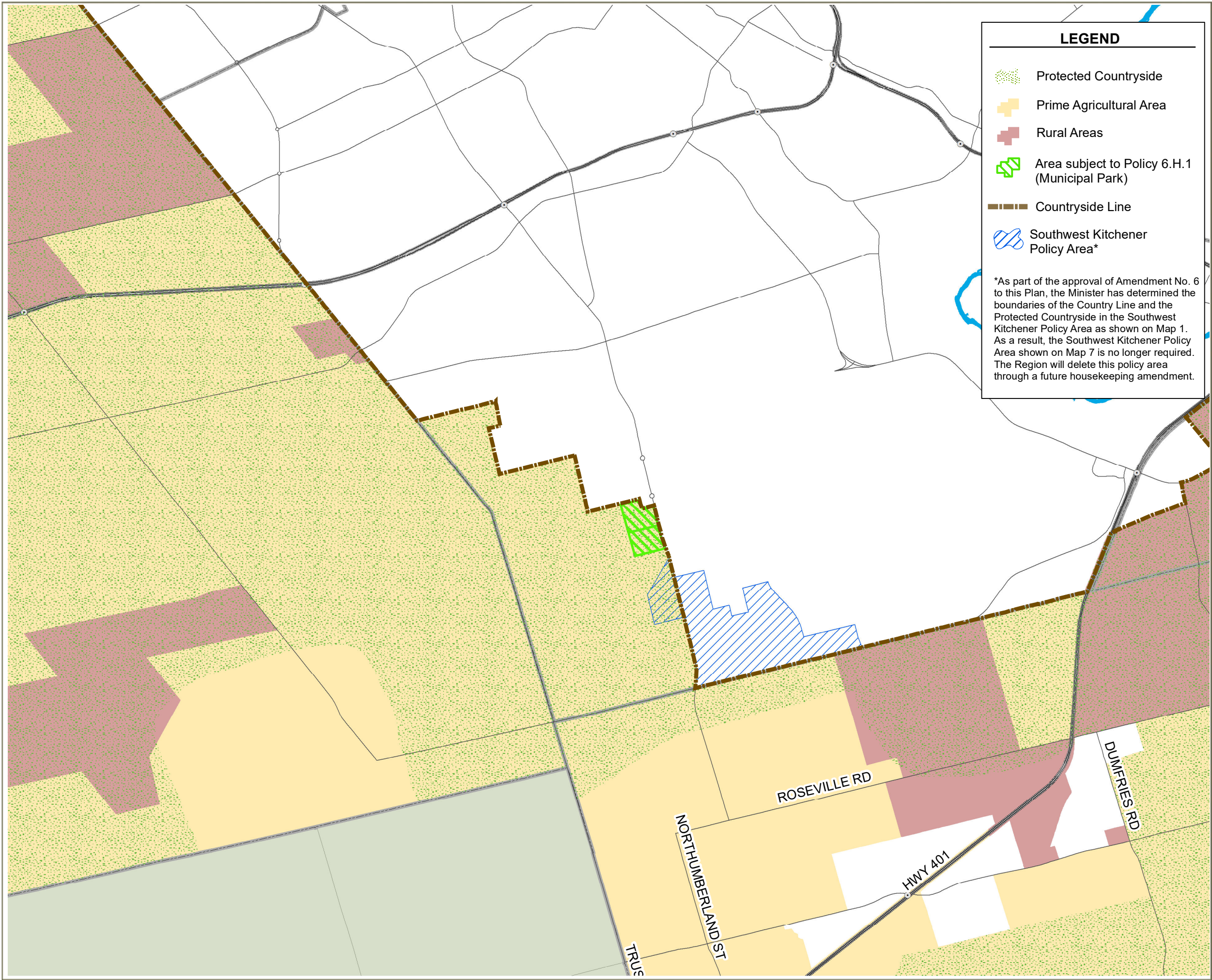
- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway



Sources: Region of Waterloo

2015

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Region of Waterloo

Regional Official Plan SHAPING OUR FUTURE

MAP 7a

THE COUNTRYSIDE

LEGEND

- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway

0 0.5 1 Km



Sources: Region of Waterloo

2015

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Region of Waterloo

Regional Official Plan SHAPING OUR FUTURE

MAP 8

MINERAL AGGREGATE RESOURCE AREAS AND AGGREGATE BEDROCK DEPOSITS

LEGEND

- Provincial Highway
- Regional Road
- River
- Region of Waterloo International Airport
- Municipal Boundary
- Railway

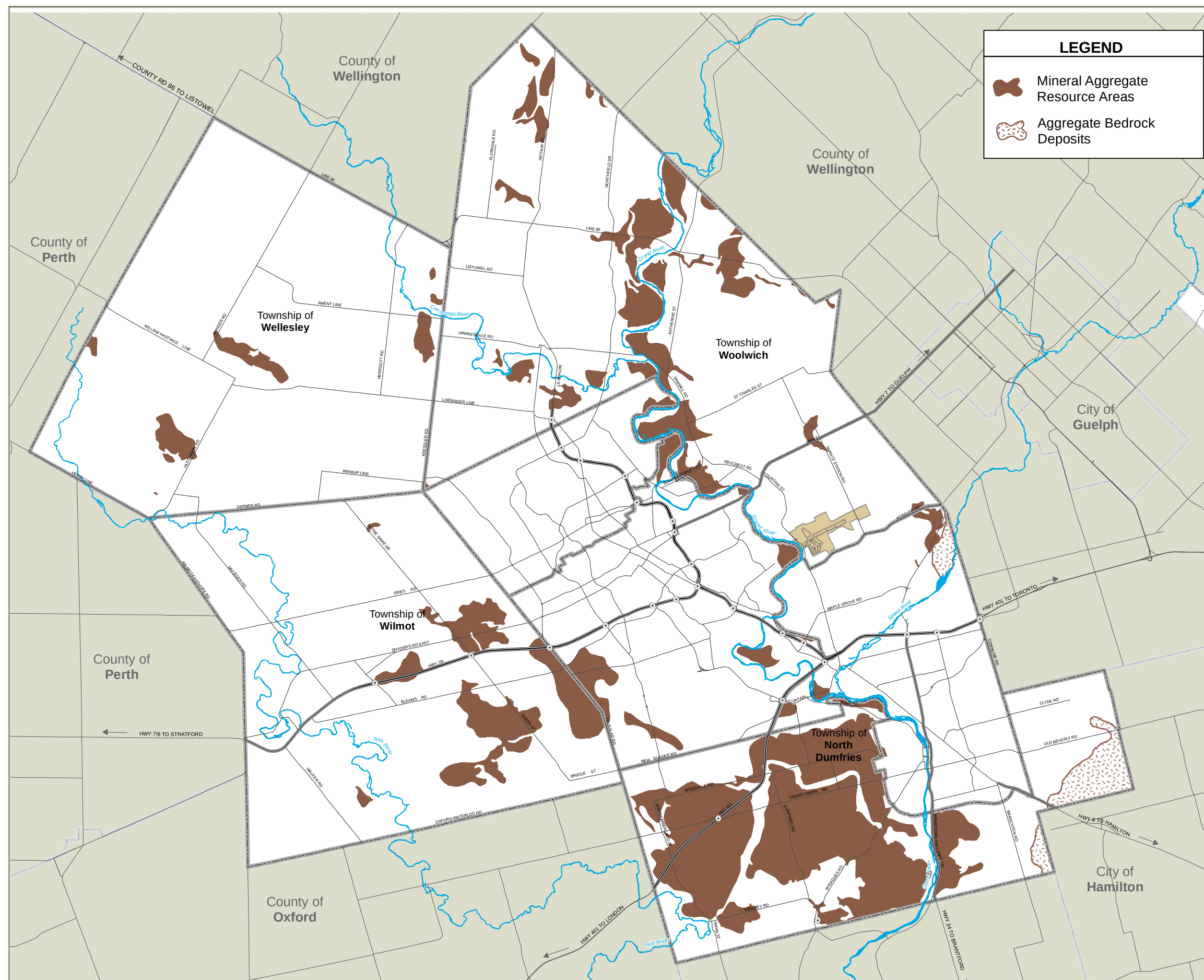
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Sources: Region of Waterloo, Ministry of Northern Development and Mines and Forests

2015

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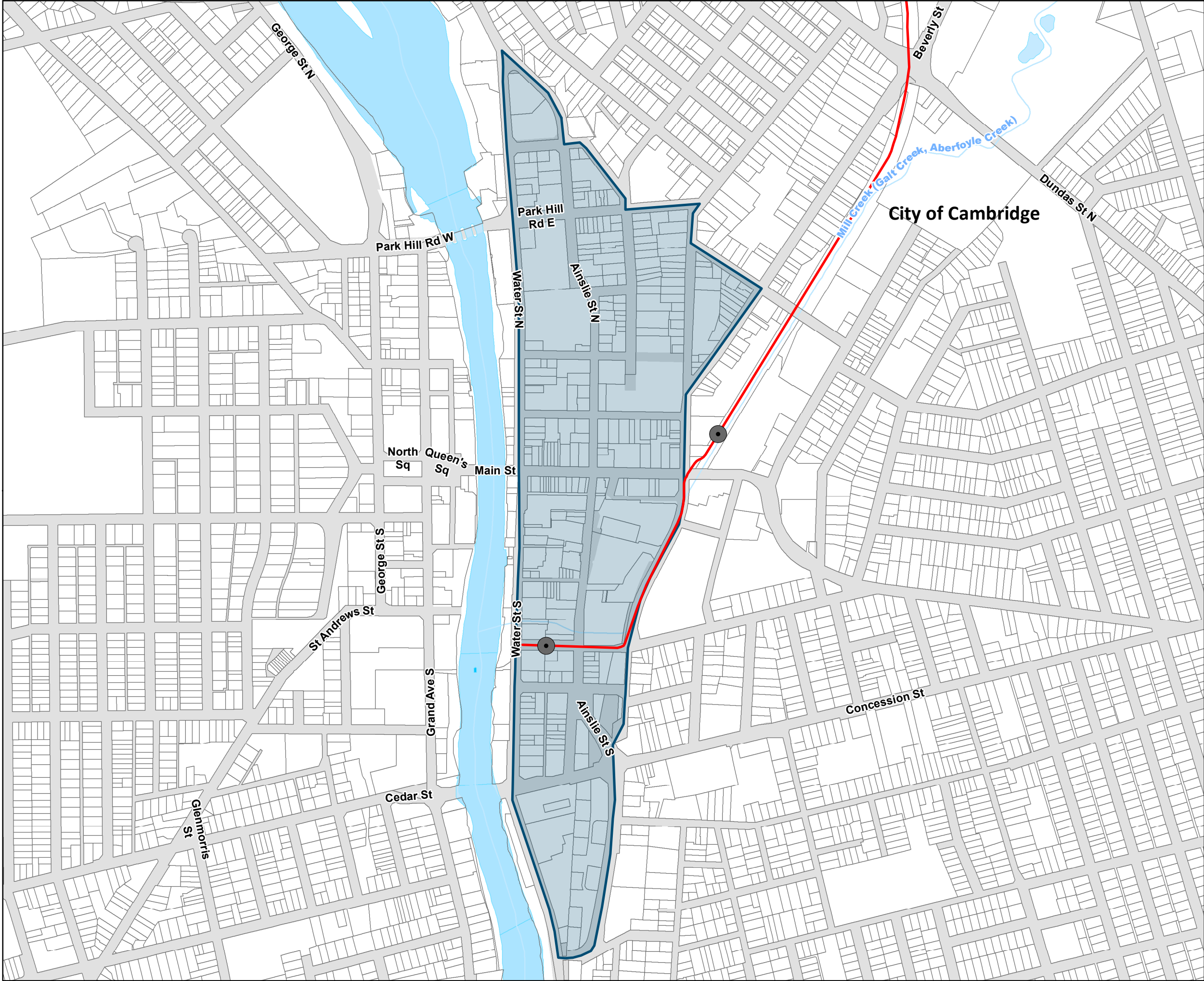
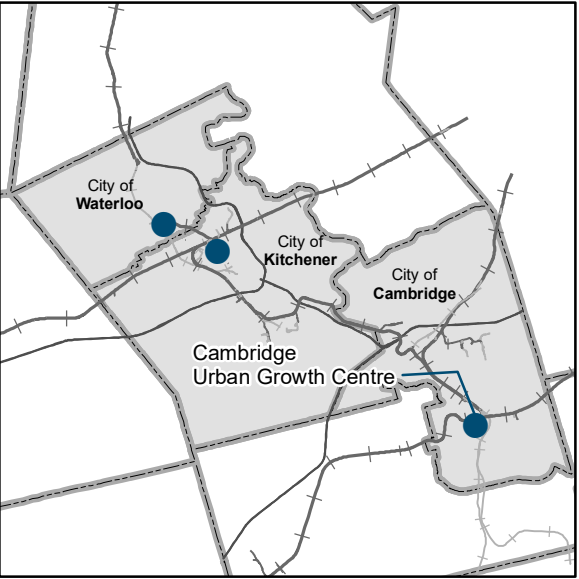


Figure 1

**Cambridge
Urban Growth Centre**

-  Urban Growth Centre
-  ION Planned Stage 2 Route
-  Major Transit Station Area

Key Map



0 115 230
Meters



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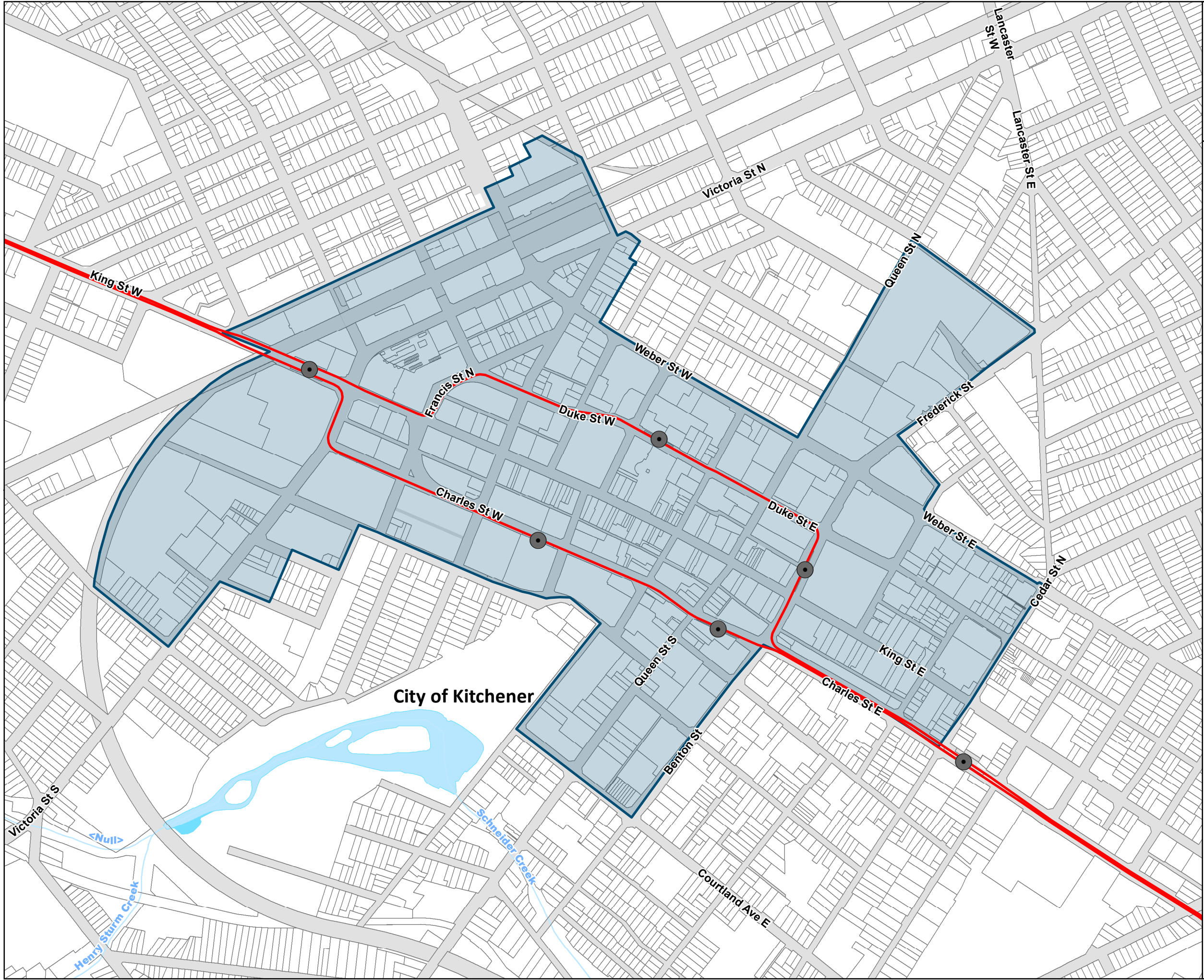
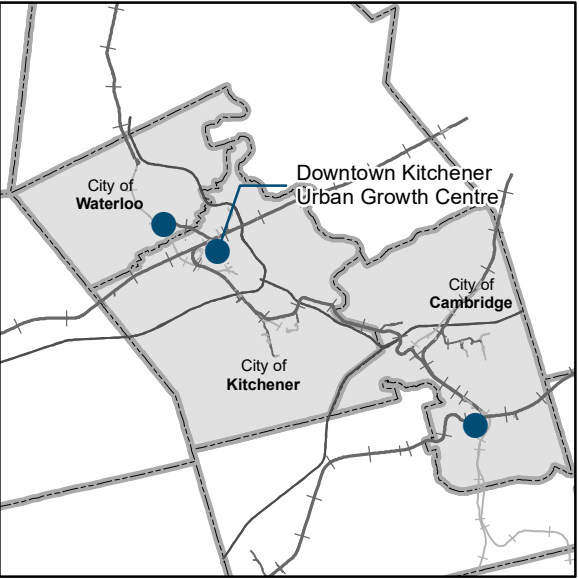


Figure 2

**Downtown Kitchener
Urban Growth Centre**

-  Urban Growth Centre
-  ION LRT Route
-  Major Transit Station Area

Key Map



0 115 230
Meters

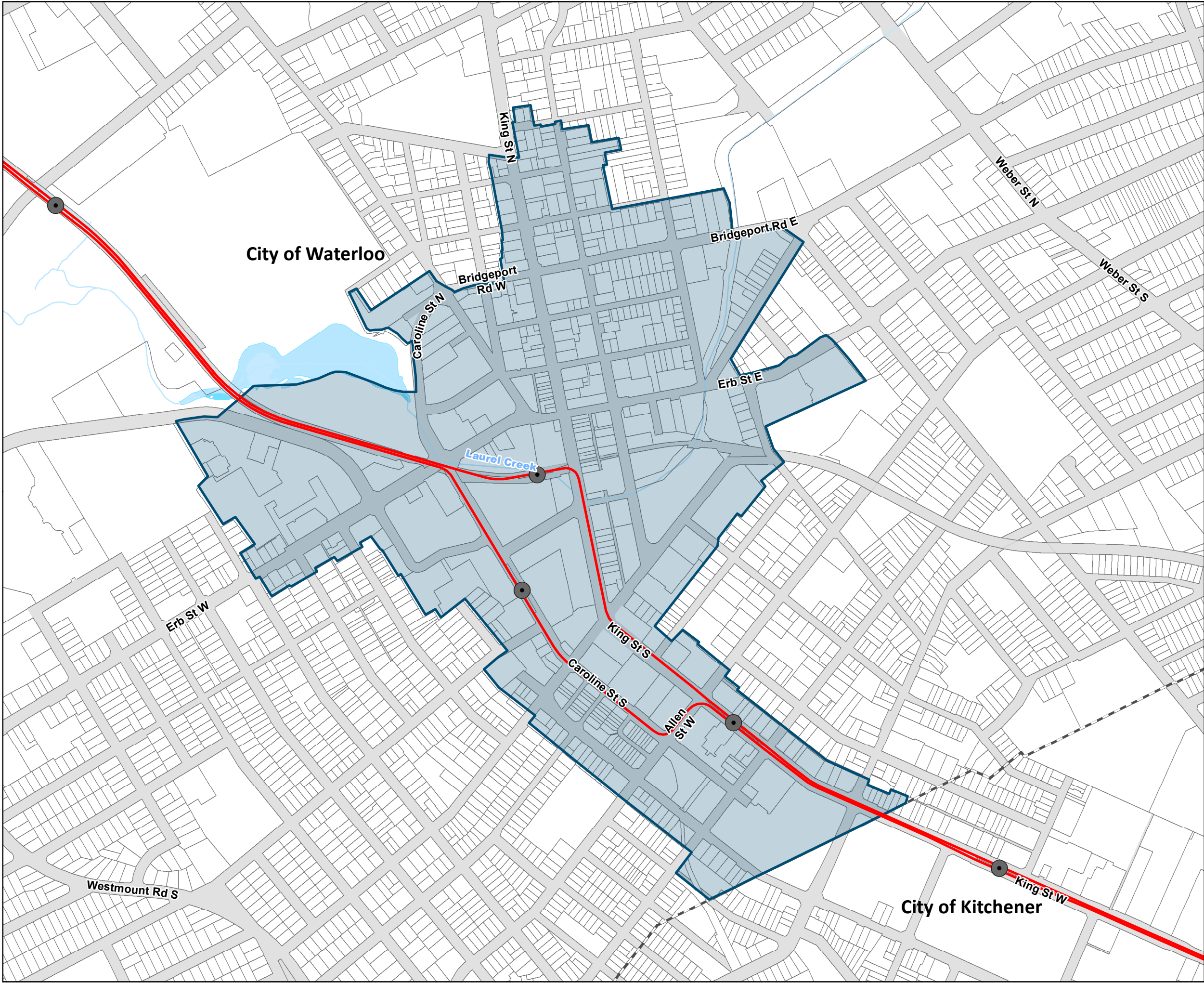
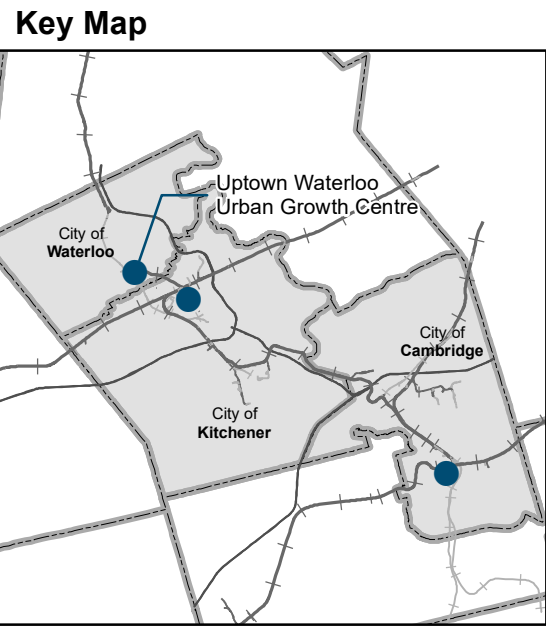


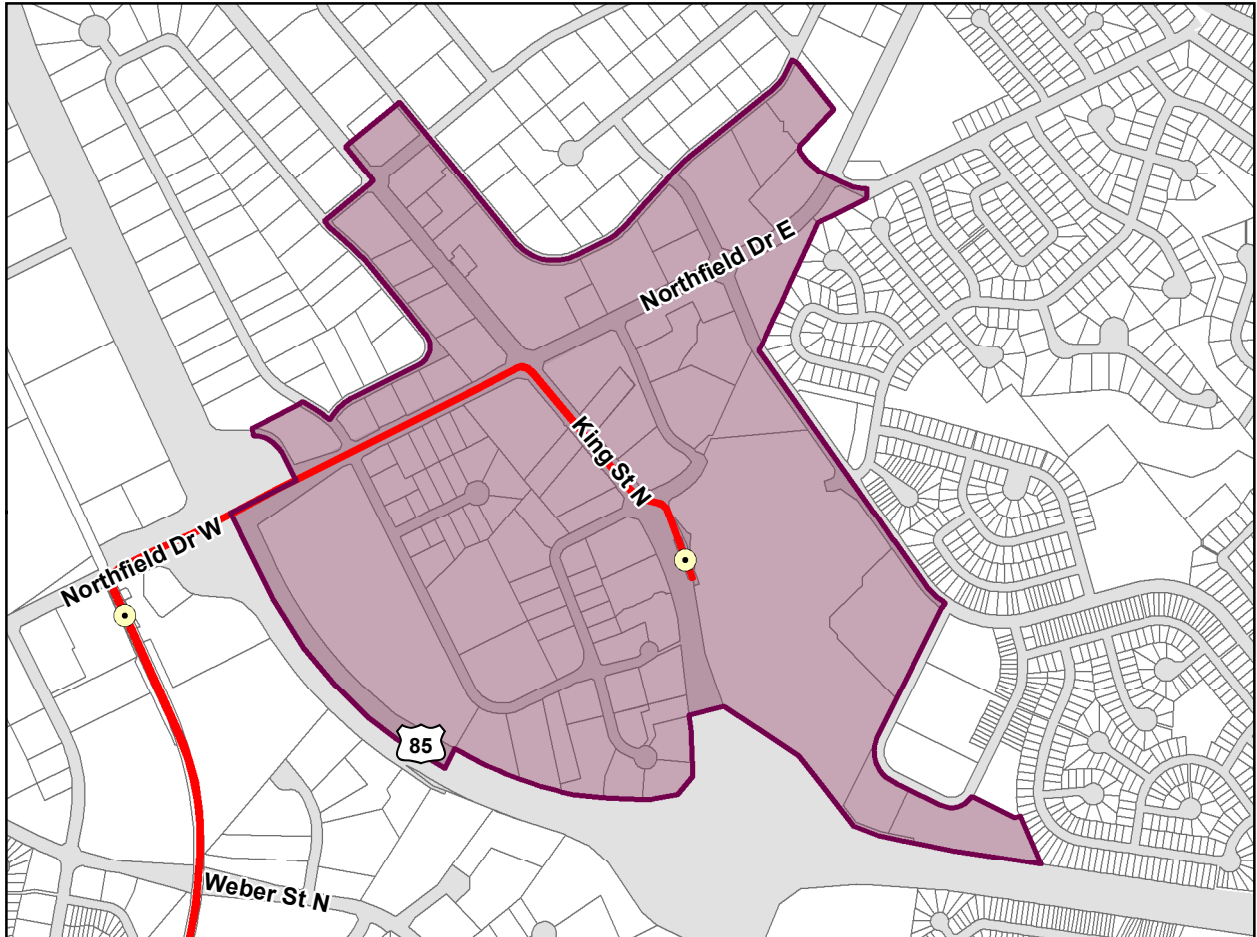
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Figure 3
Uptown Waterloo Urban Growth Centre

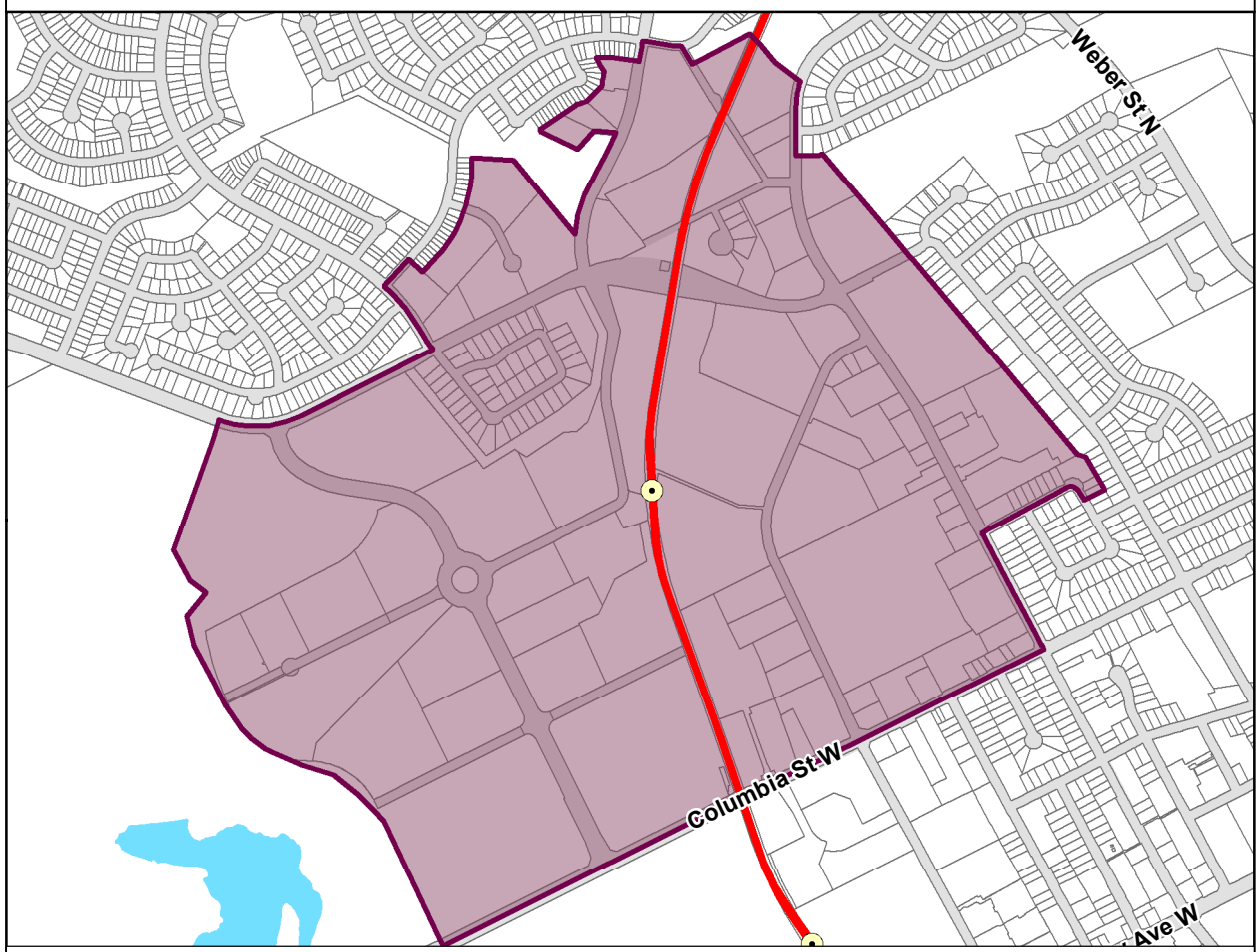
-  Urban Growth Centre
-  ION LRT Route
-  Major Transit Station Area
-  Area Municipal Boundary





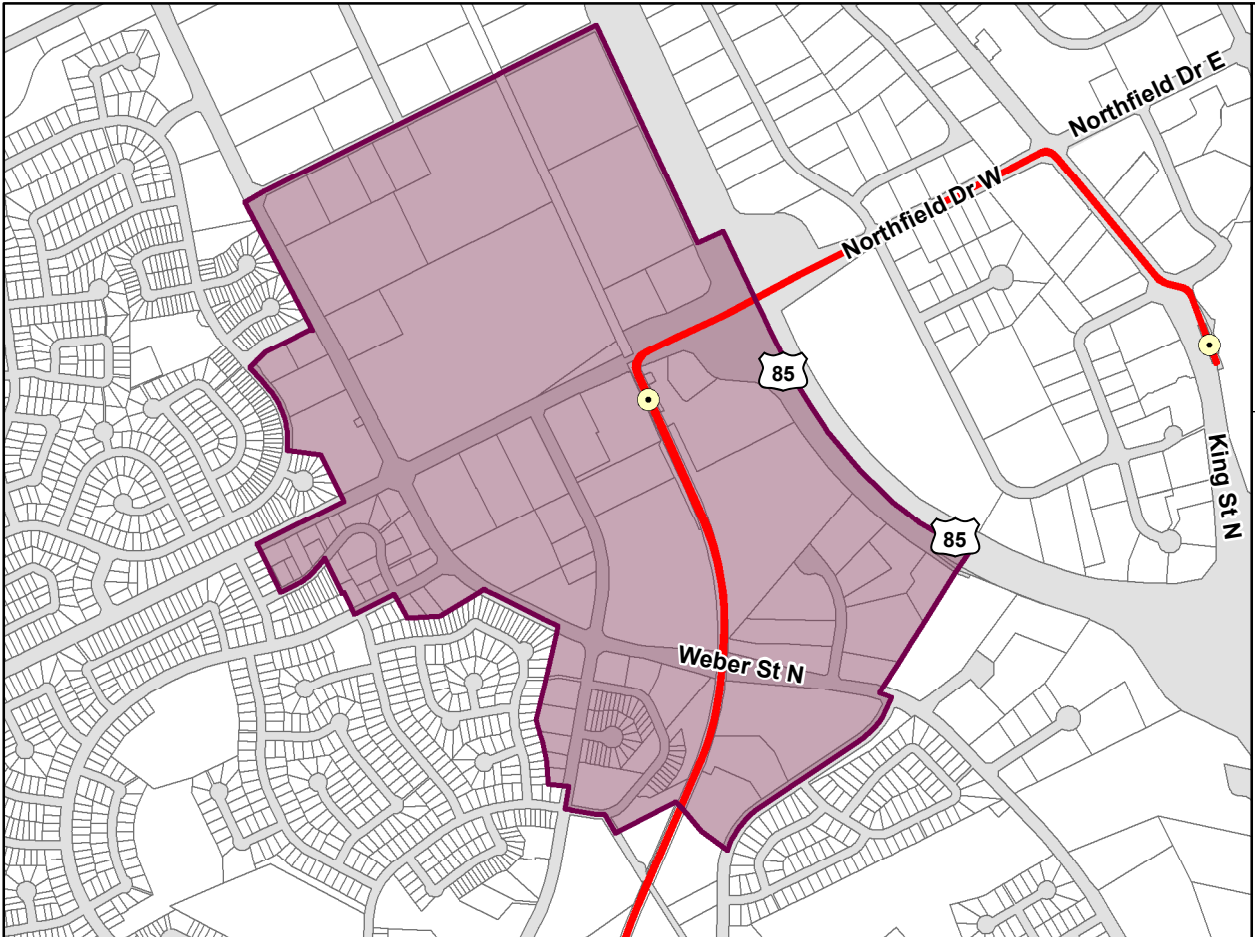
Conestoga Station - 4a

0 55 110 220 330 Meters



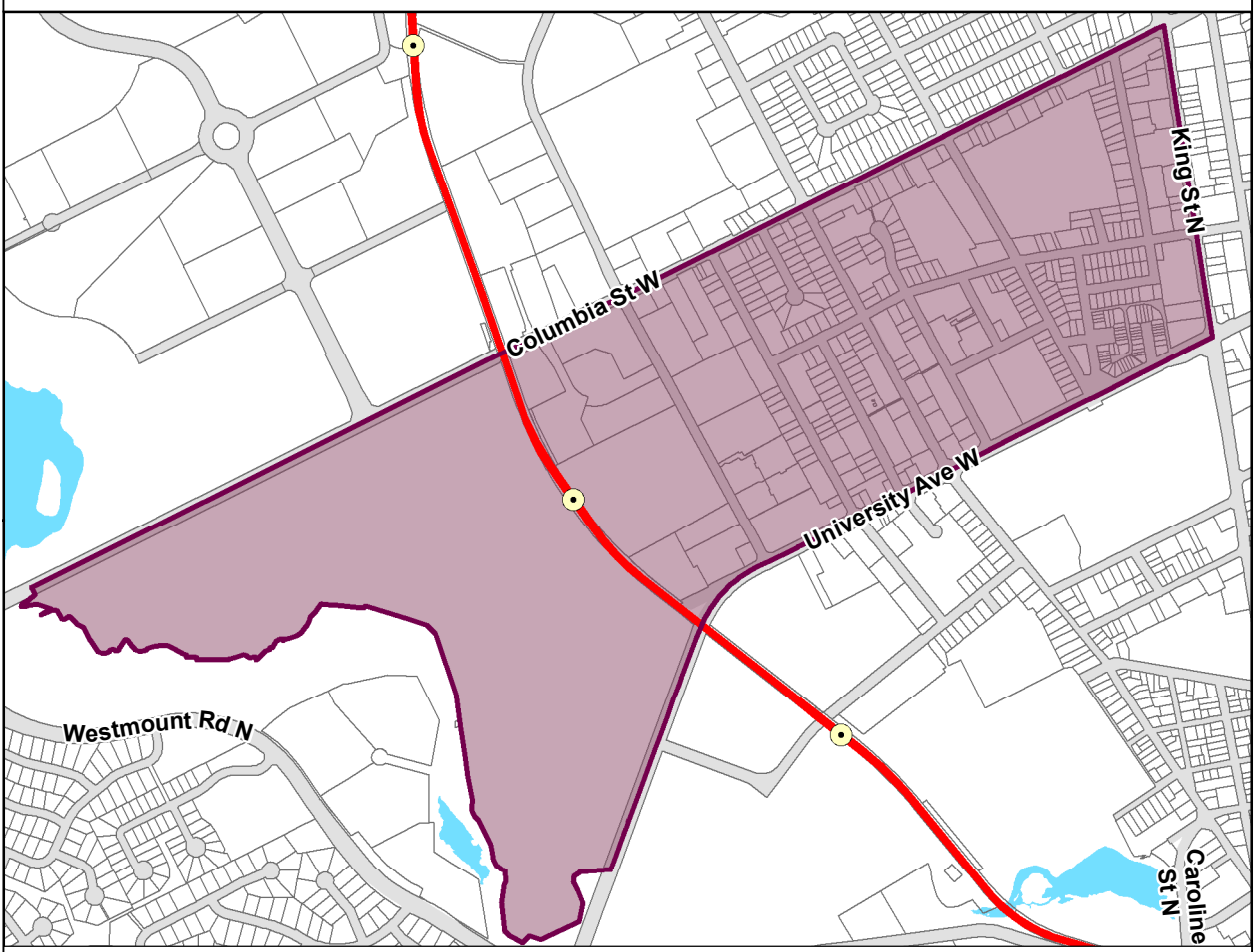
Research & Technology Park Station - 4c

0 40 80 160 240 320 Meters



Northfield Station - 4b

0 55 110 220 330 Meters



University of Waterloo Station - 4d

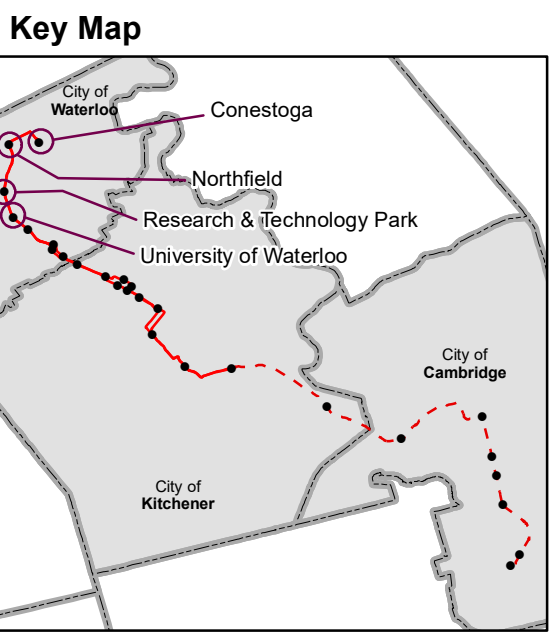
0 40 80 160 240 320 Meters

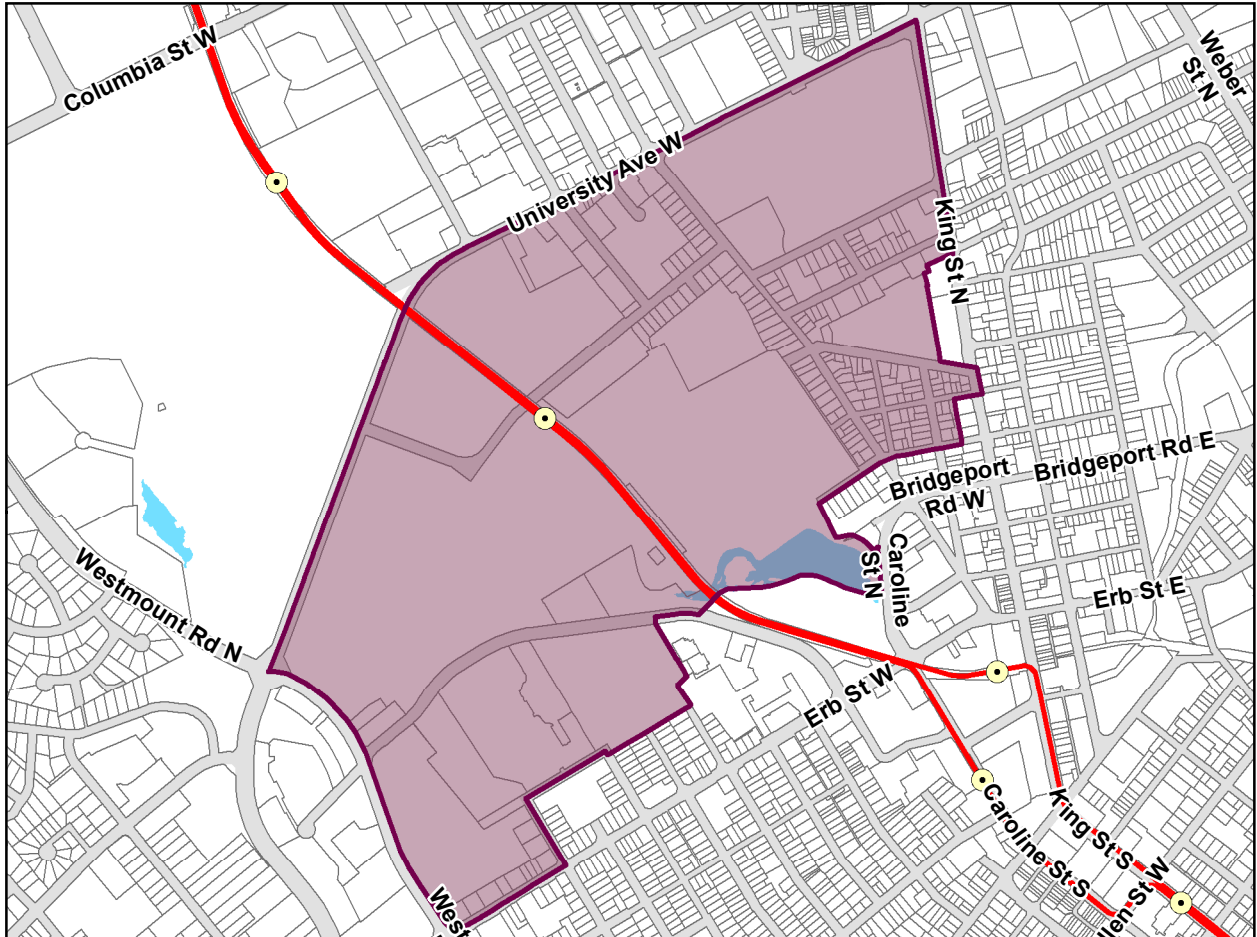
Figures 4a - 4d

Major Transit Station Areas

- Conestoga
- Northfield
- Research & Technology Park
- University of Waterloo

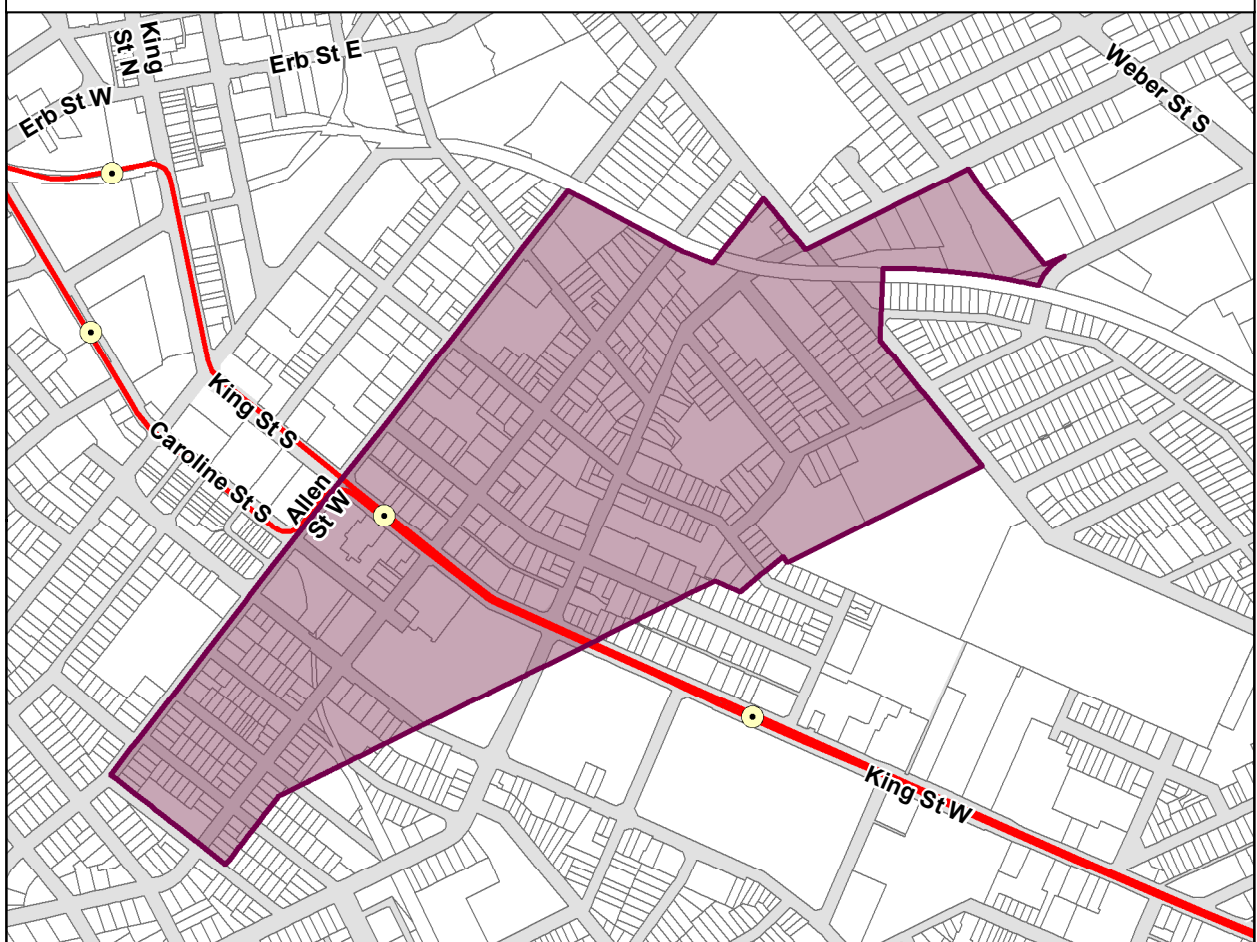
- Transit Stop
- Stage 1 ION LRT Route
- Planned Stage 2 ION LRT Route
- Major Transit Station Area





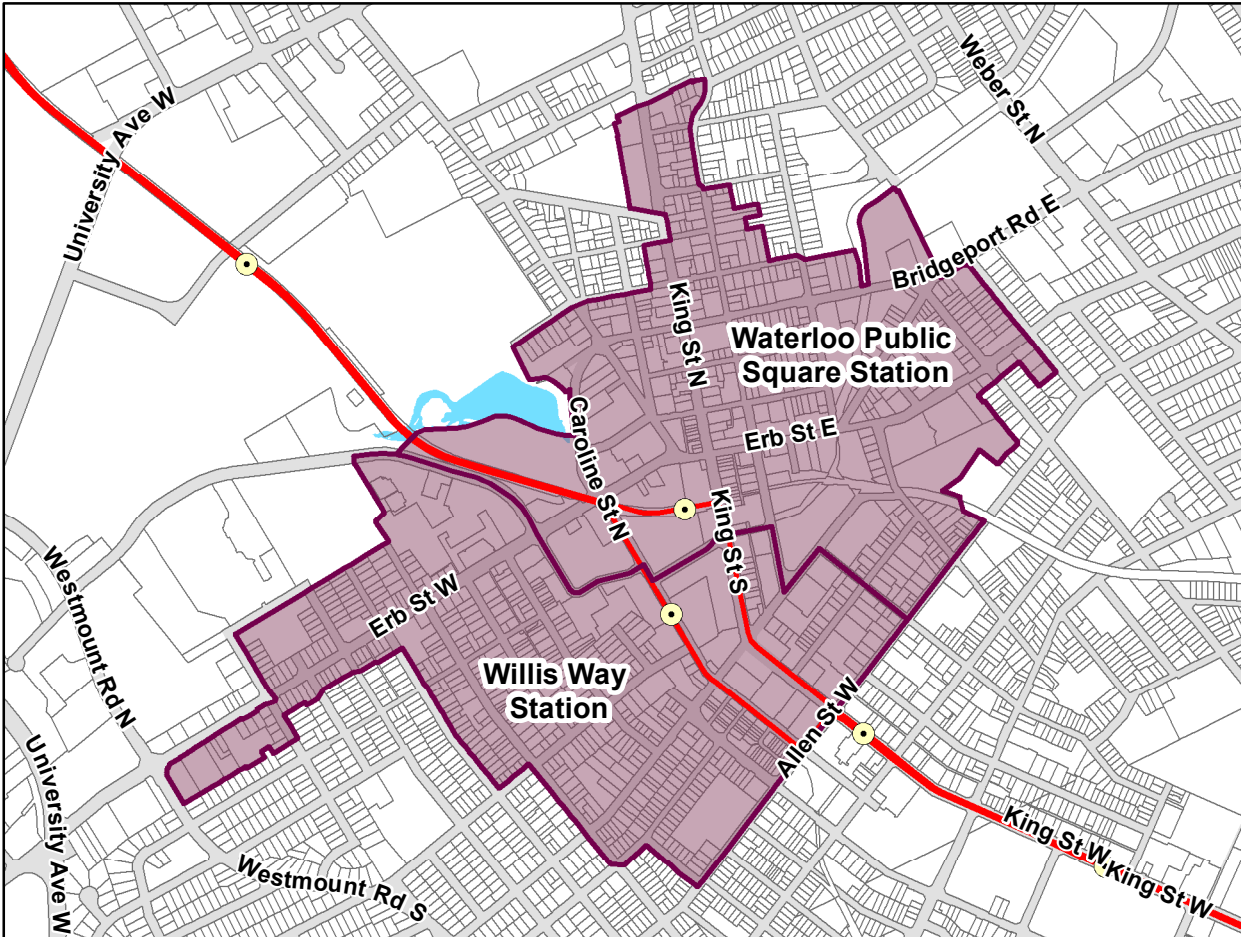
Laurier - Waterloo Park Station - 5a

0 65 130 260 390 Meters



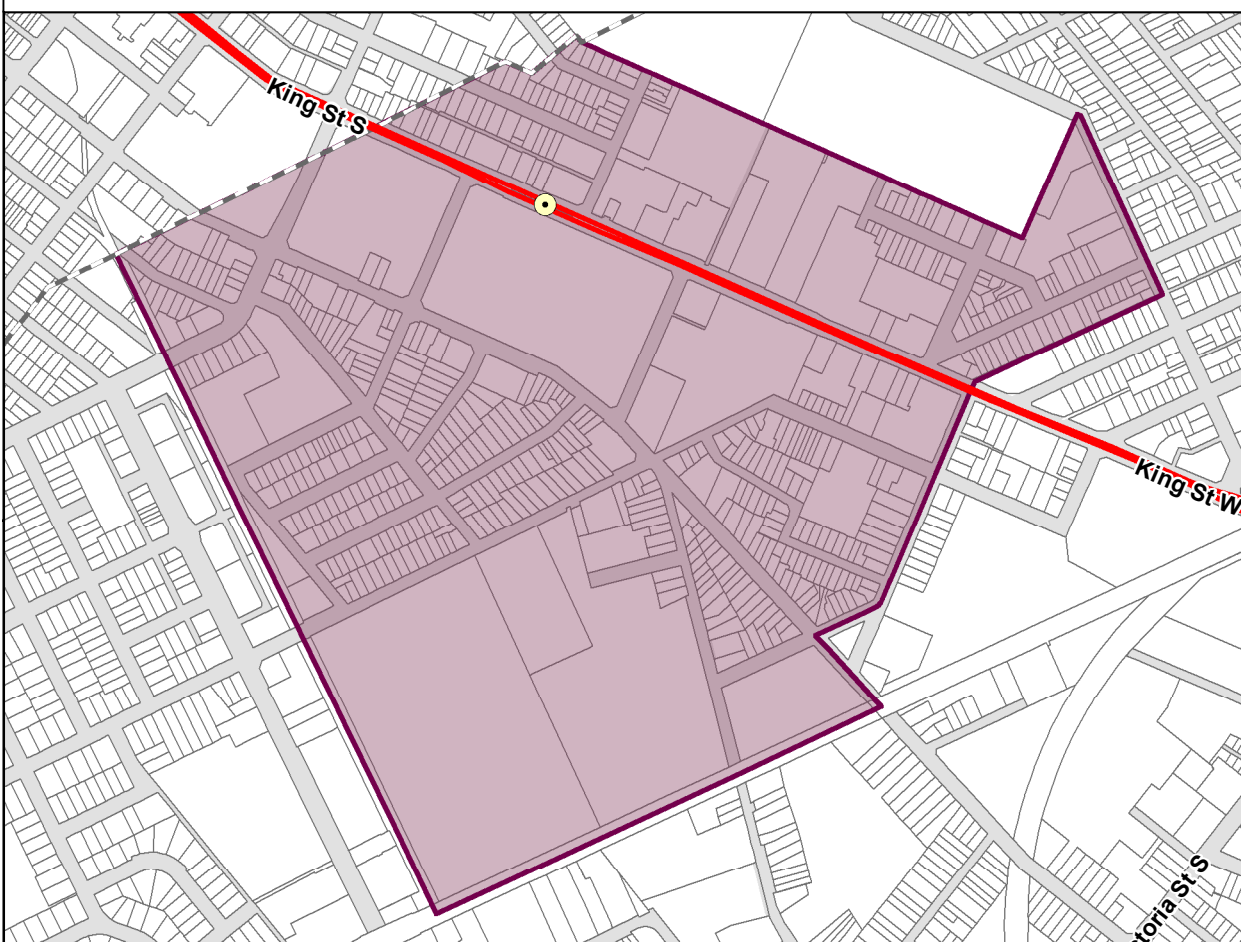
Allen Station - 5c

0 40 80 160 240 Meters



Waterloo Public Square and Willis Way Station - 5b

0 55 110 220 330 Meters



Grand River Hospital Station - 5d

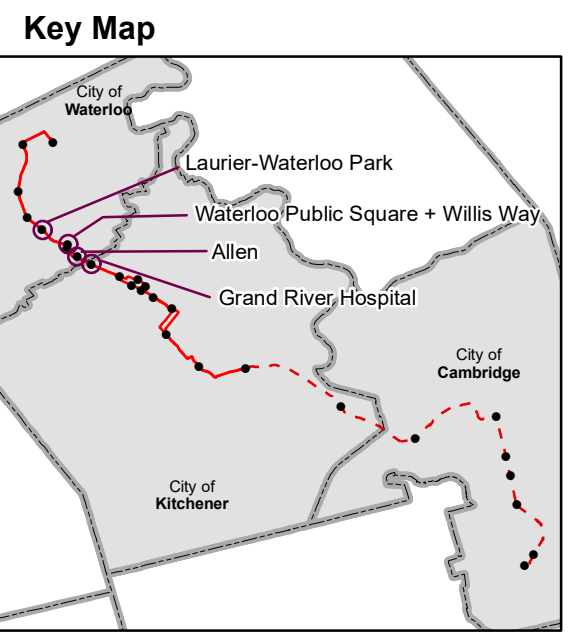
0 37.5 75 150 225 Meters

Figures 5a - 5d

Major Transit Station Areas

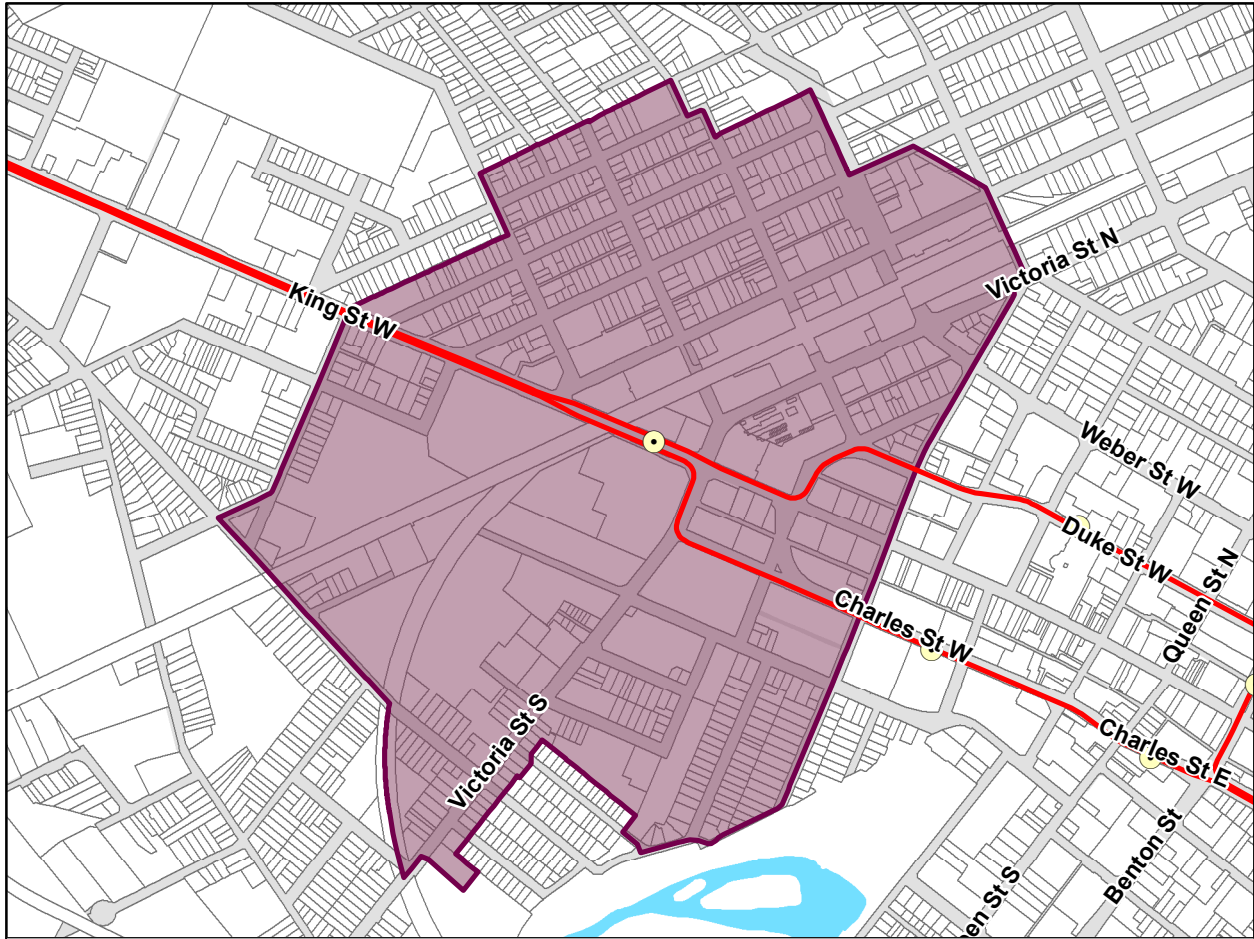
- Laurier - Waterloo Park
- Waterloo Public Square and Willis Way
- Allen
- Grand River Hospital

- Transit Stop
 - Stage 1 ION LRT Route
 - Planned Stage 2 ION LRT Route
 - Major Transit Station Area
- Municipal Boundaries**
- Regional Municipal Boundary
 - Area Municipal Boundary



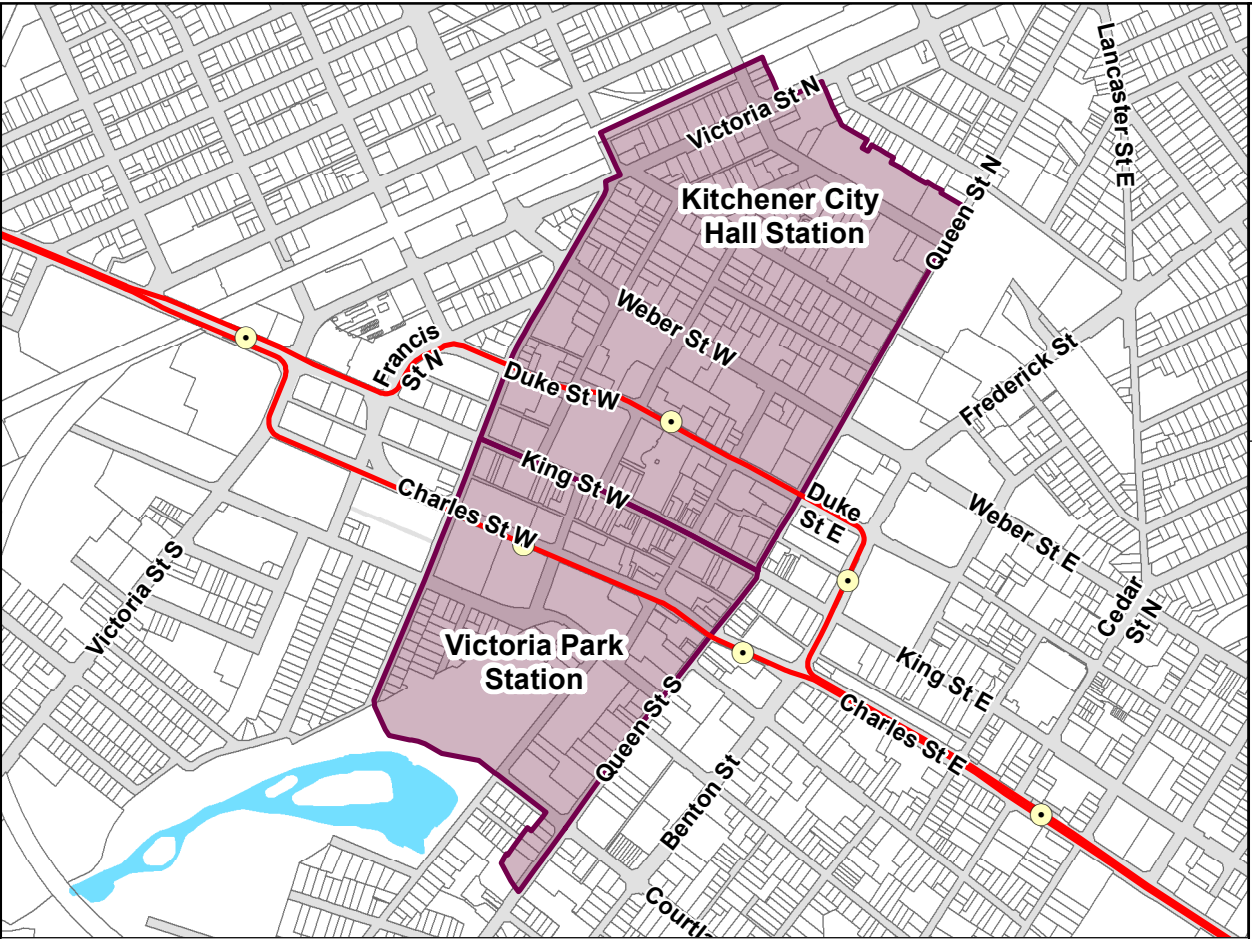
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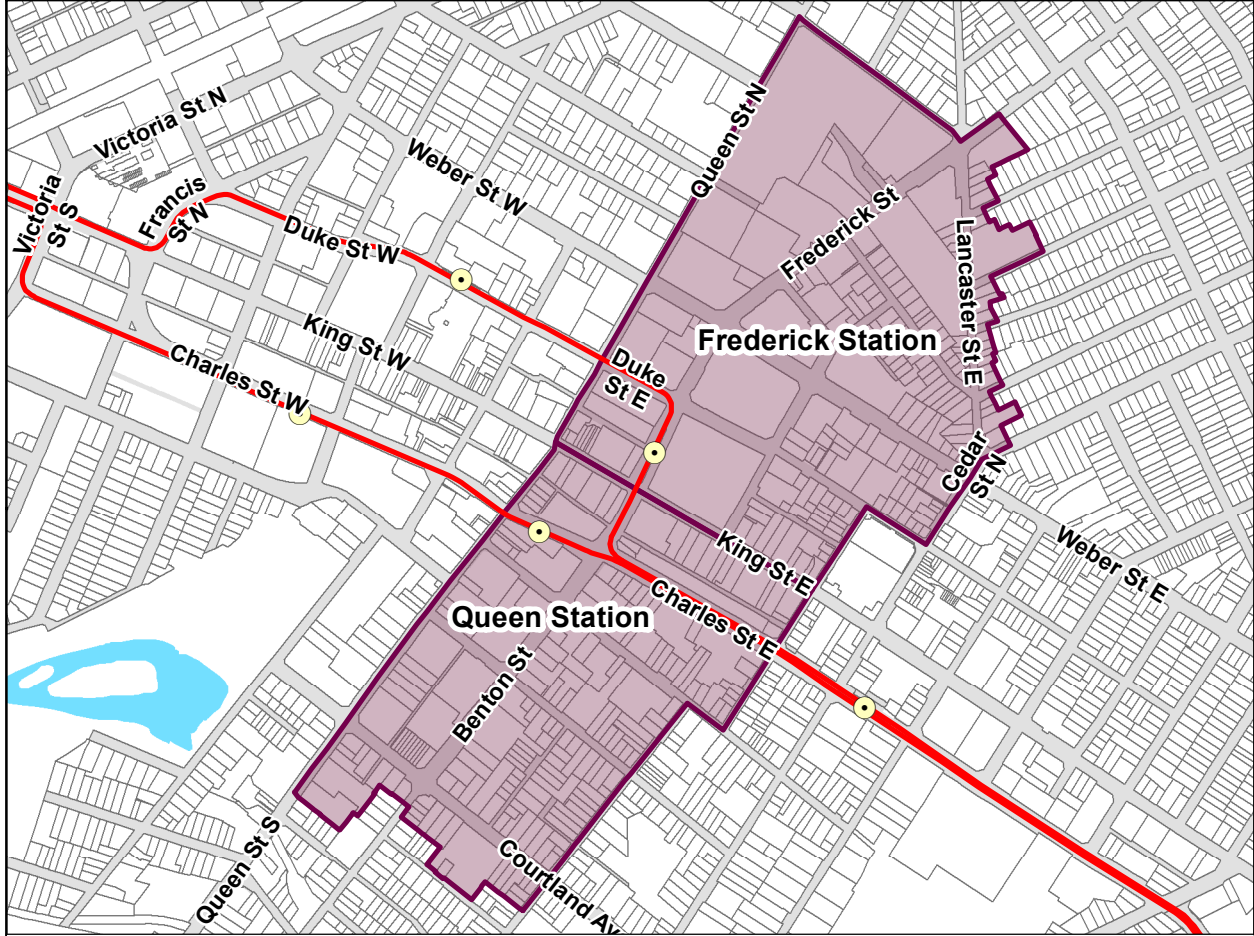
Central Station - 6a

0 50 100 200 300 Meters



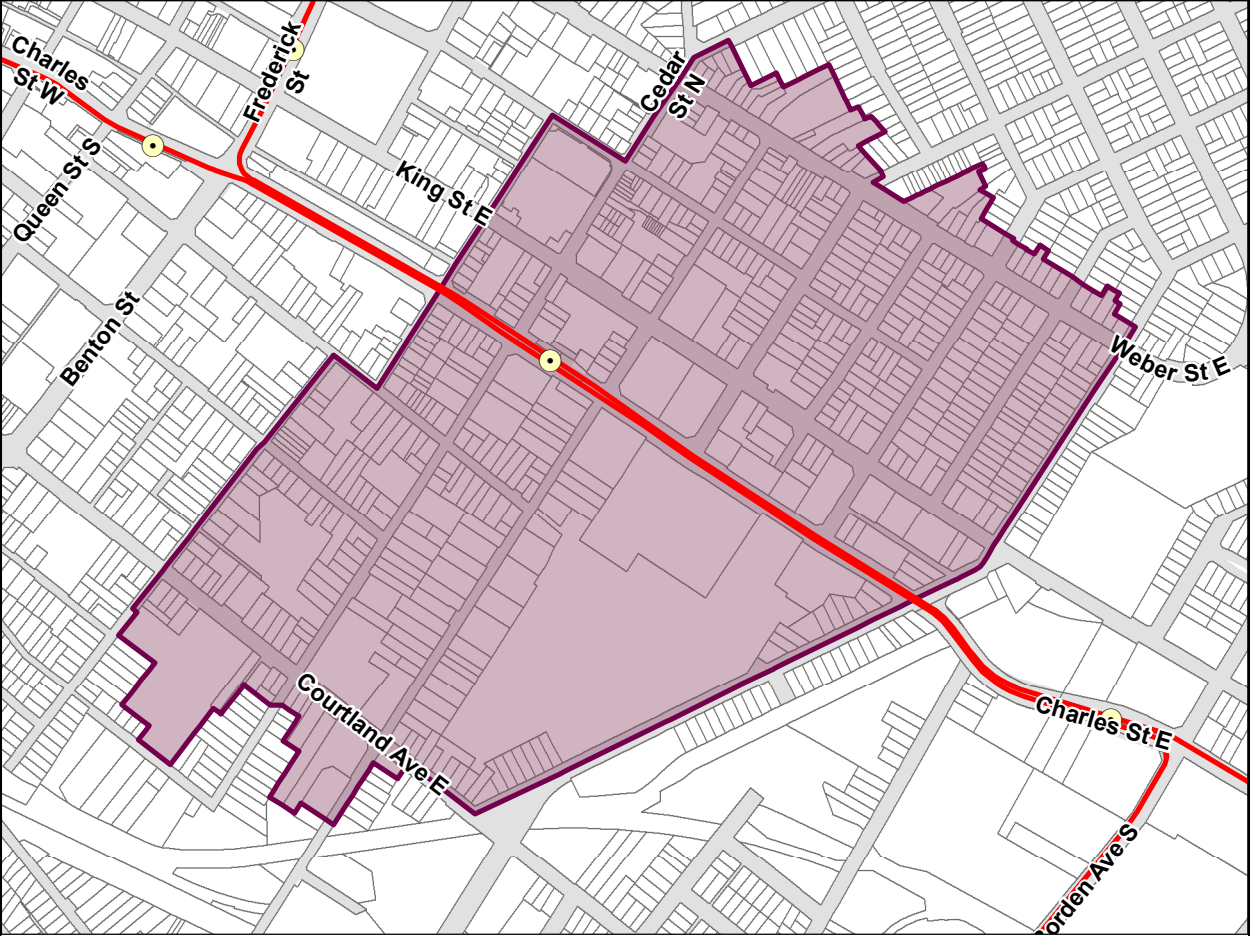
Victoria Park and Kitchener City Hall Station - 6b

0 55 110 220 330 Meters



Queen and Frederick Station - 6c

0 50 100 200 300 Meters



Kitchener Market Station - 6d

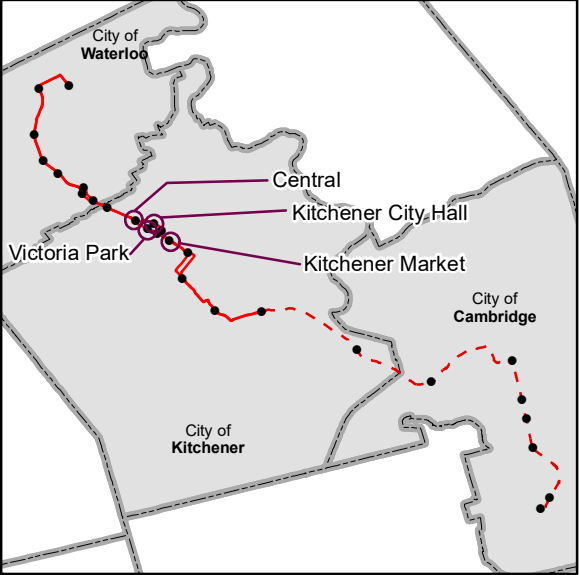
0 37.575 150 225 Meters

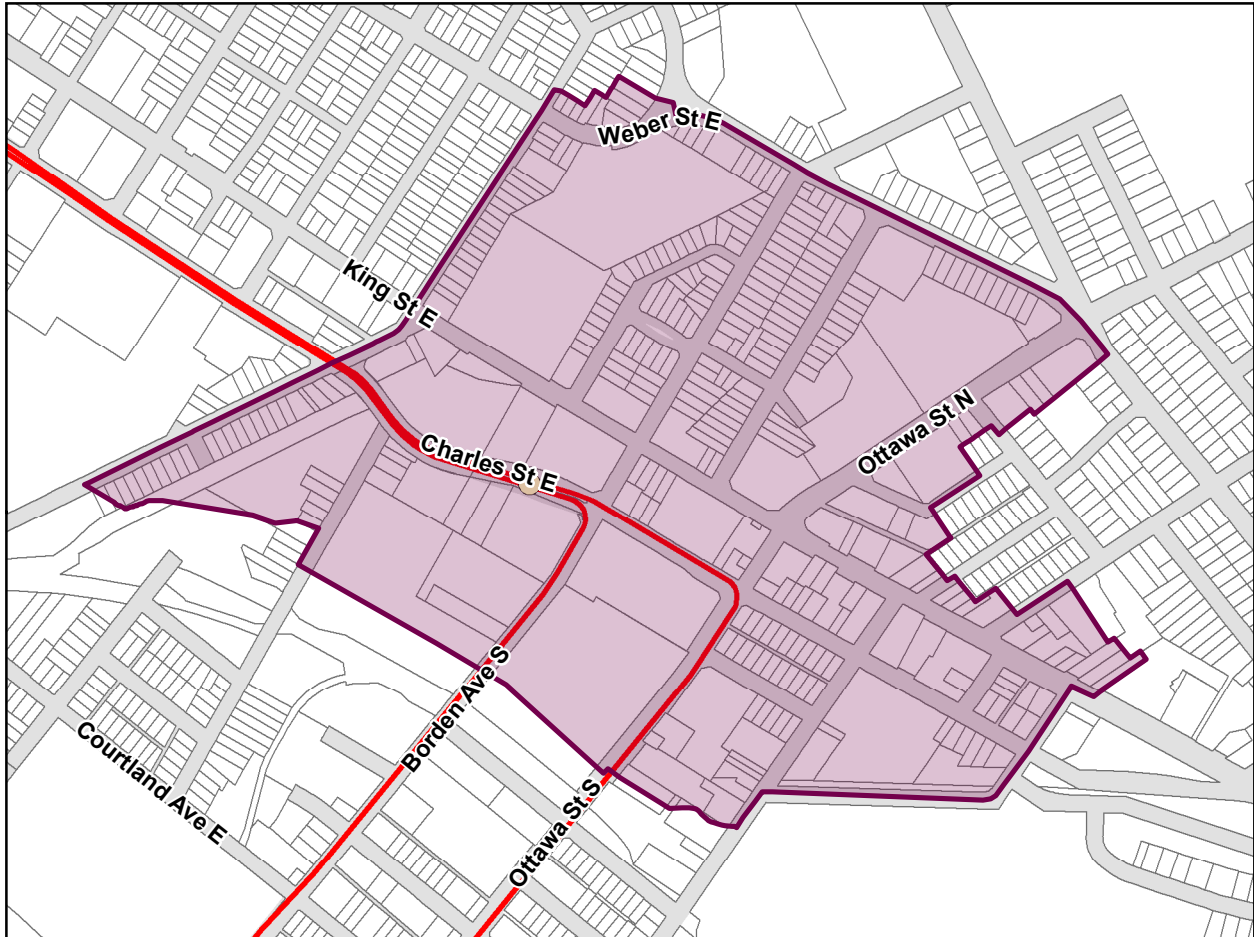
Figures 6a - 6d
Major Transit Station Areas

- Central
- Victoria Park and Kitchener City Hall
- Queen and Frederick
- Kitchener Market

- Transit Stop
- Stage 1 ION LRT Route
- Planned Stage 2 ION LRT Route
- Major Transit Station Area

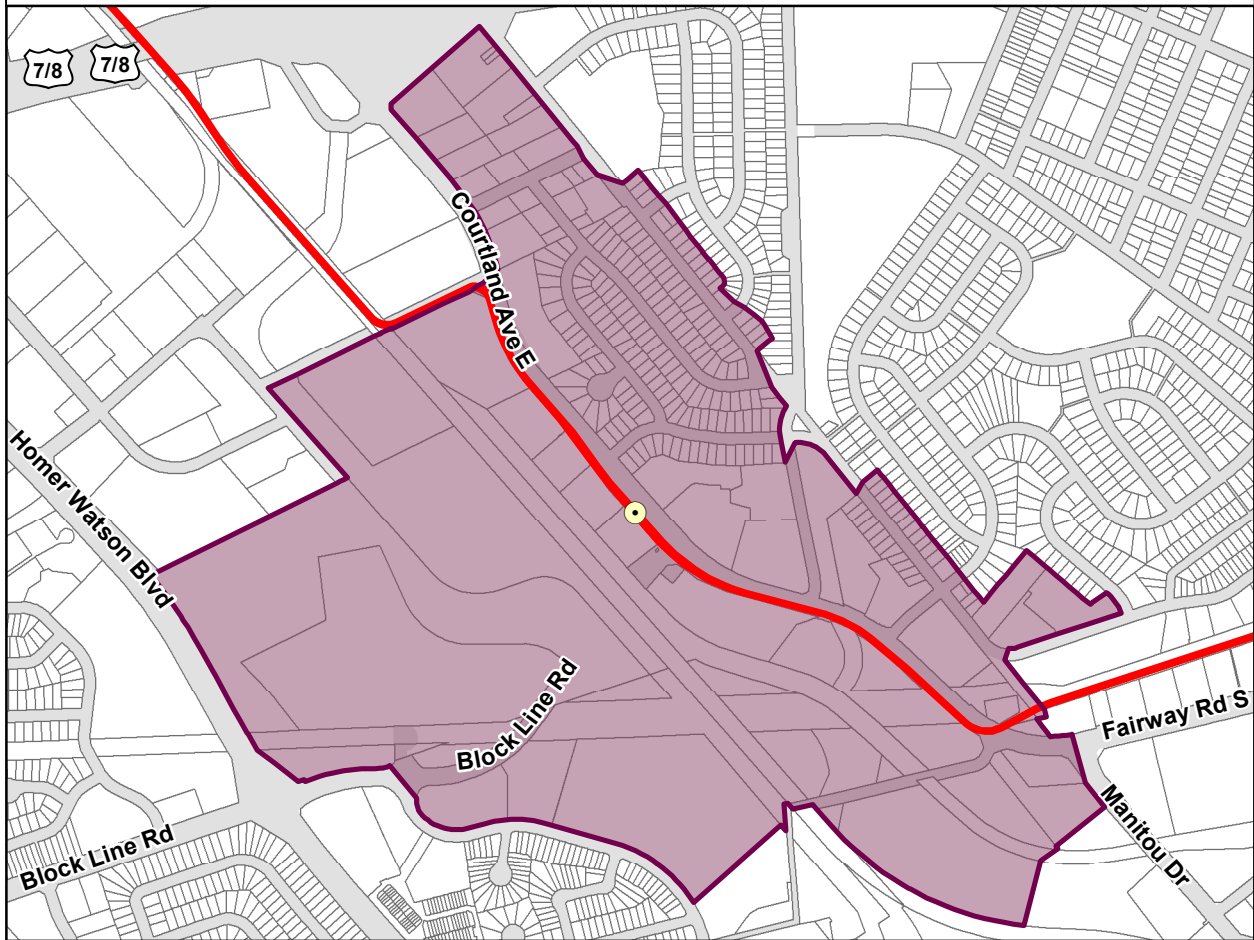
Key Map





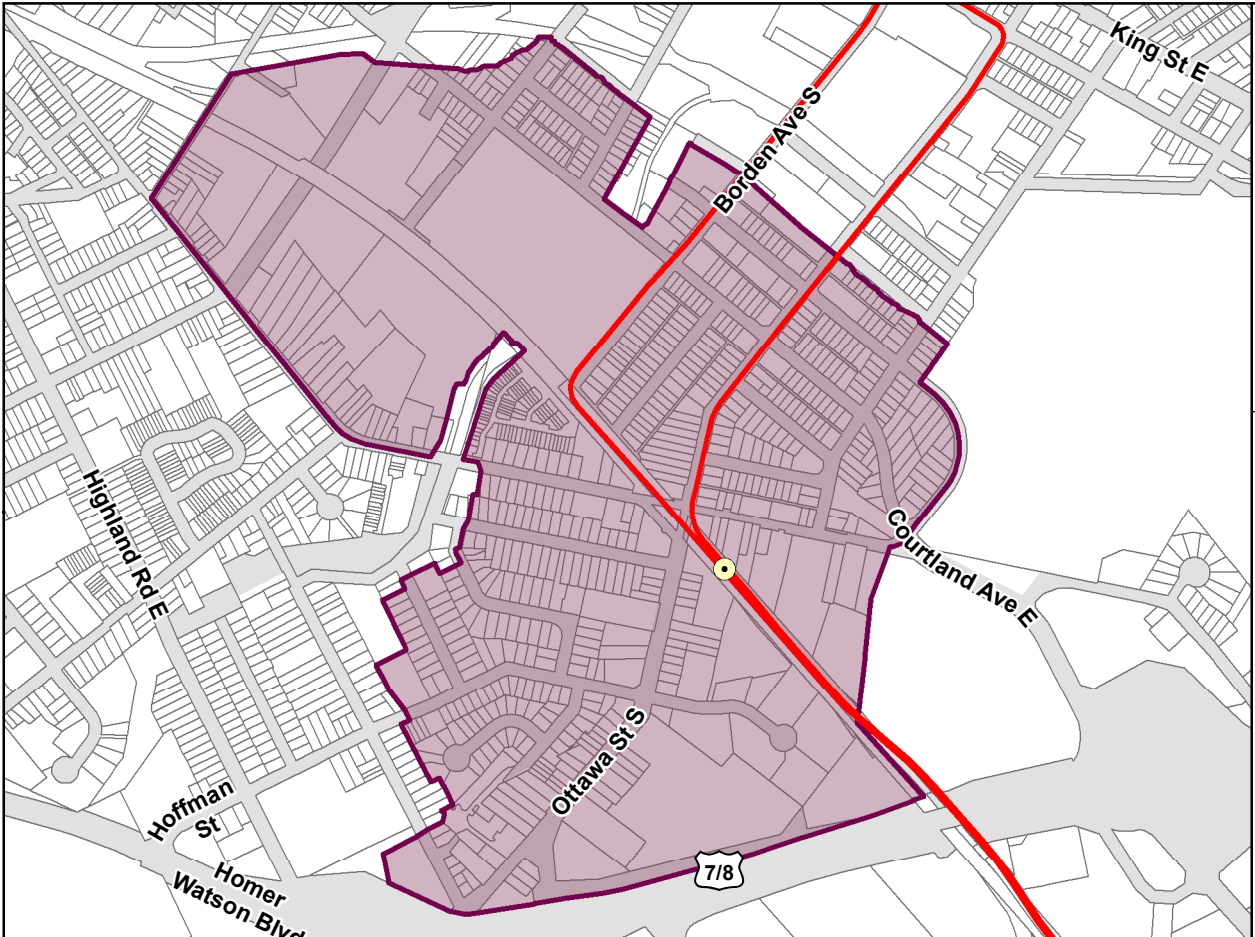
Borden Station - 7a

0 50 100 200 300 Meters



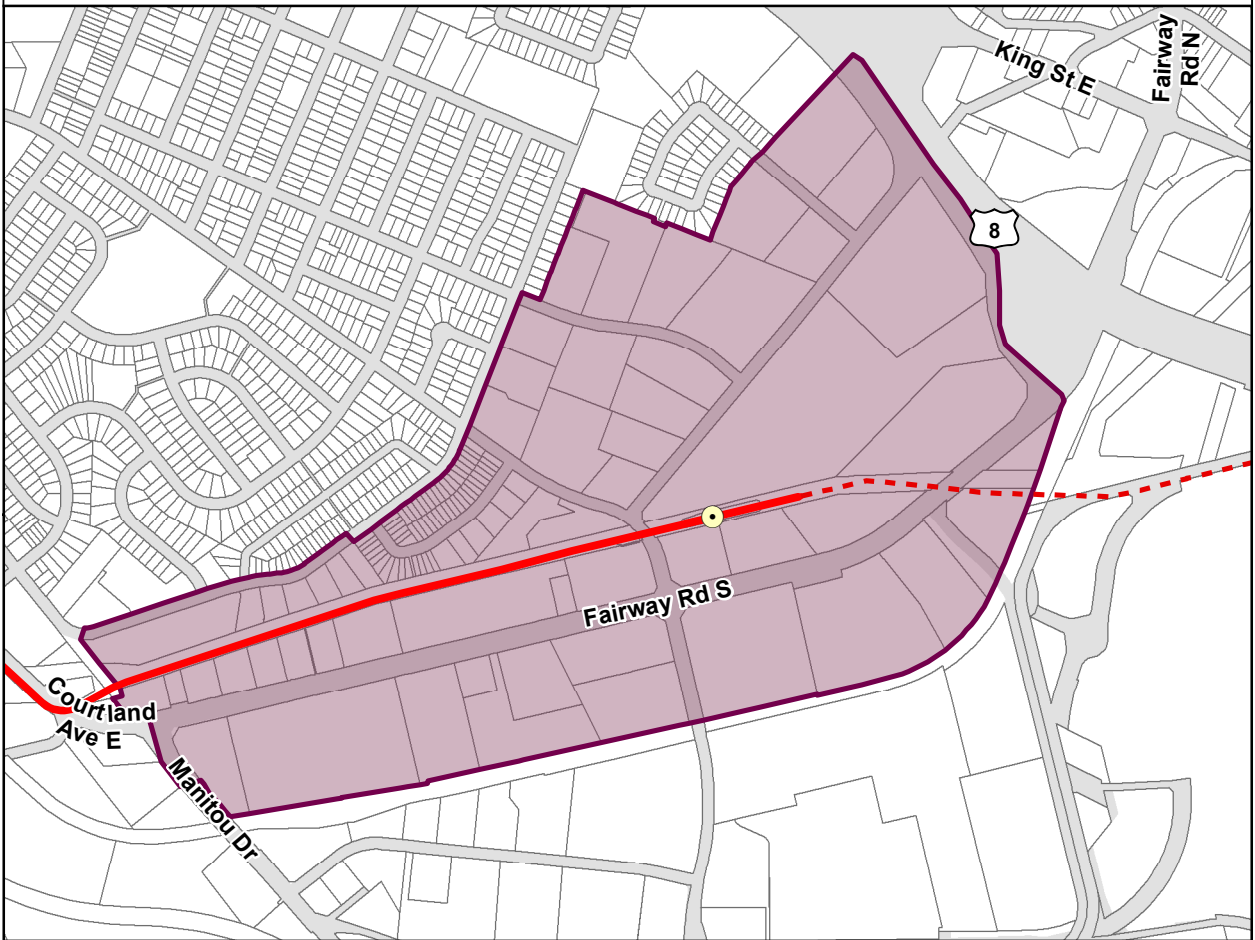
Blockline Station - 7c

0 50 100 200 300 Meters



Mill Station - 7b

0 45 90 180 270 Meters



Fairway Station - 7d

0 50 100 200 300 Meters

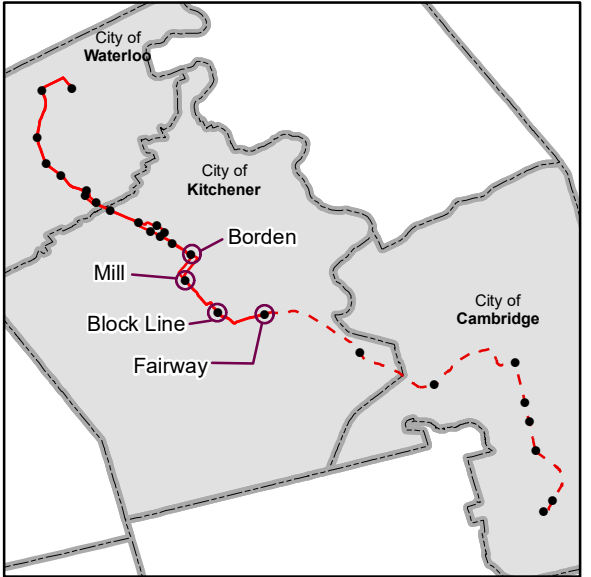
Figures 7a - 7d

Major Transit Station Areas

- Borden
- Mill
- Blockline
- Fairway

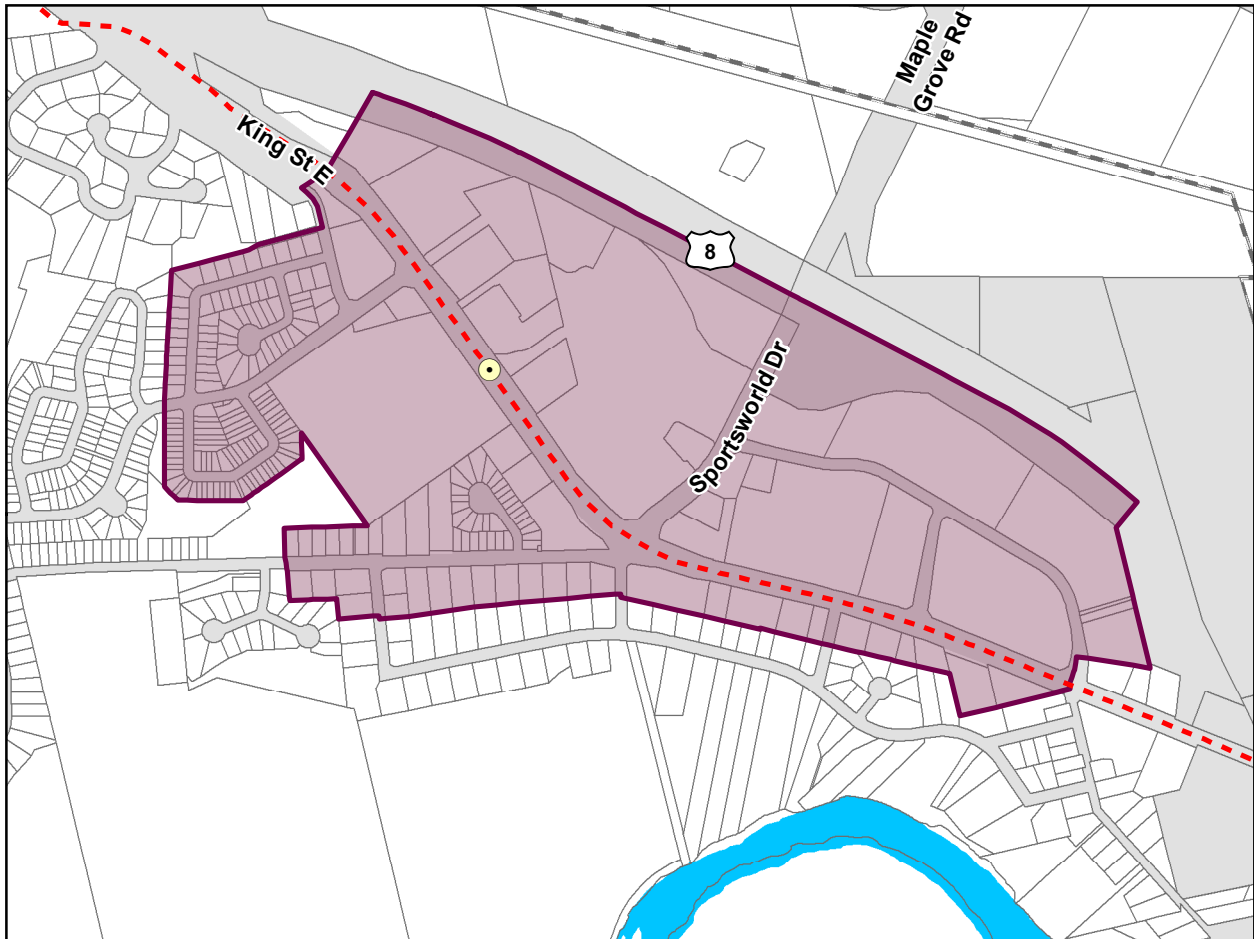
- Transit Stop
- Stage 1 ION LRT Route
- Planned Stage 2 ION LRT Route
- Major Transit Station Area

Key Map

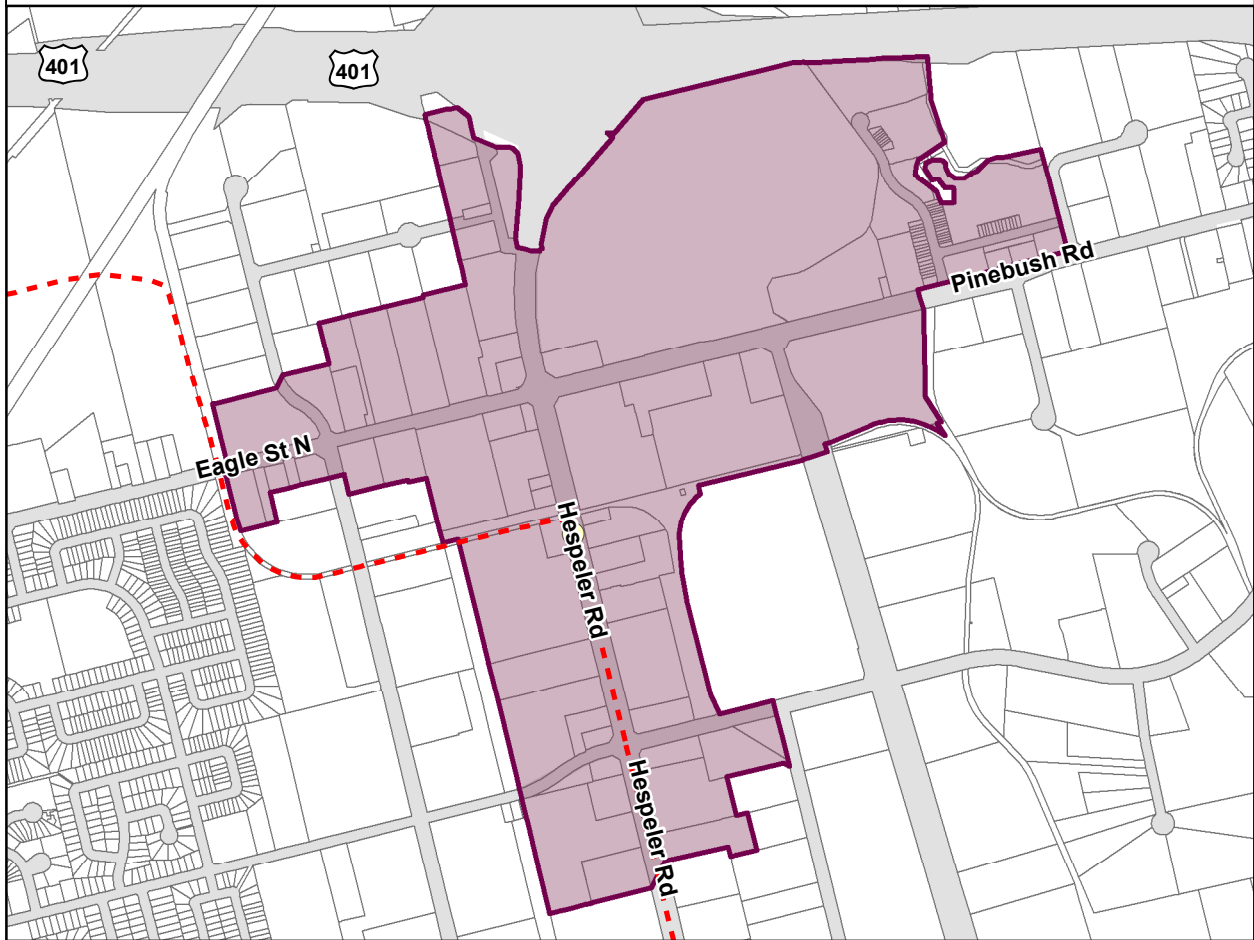


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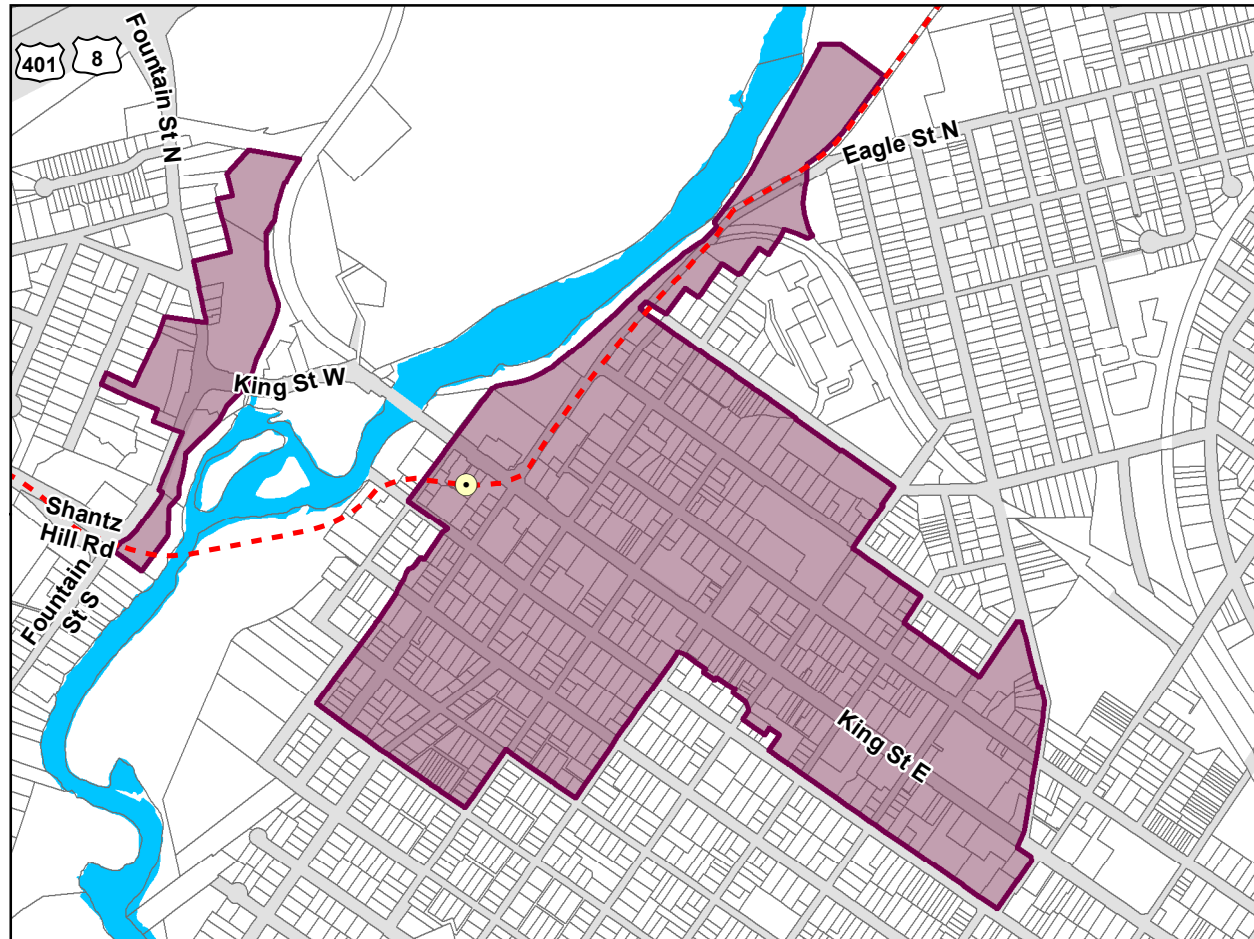




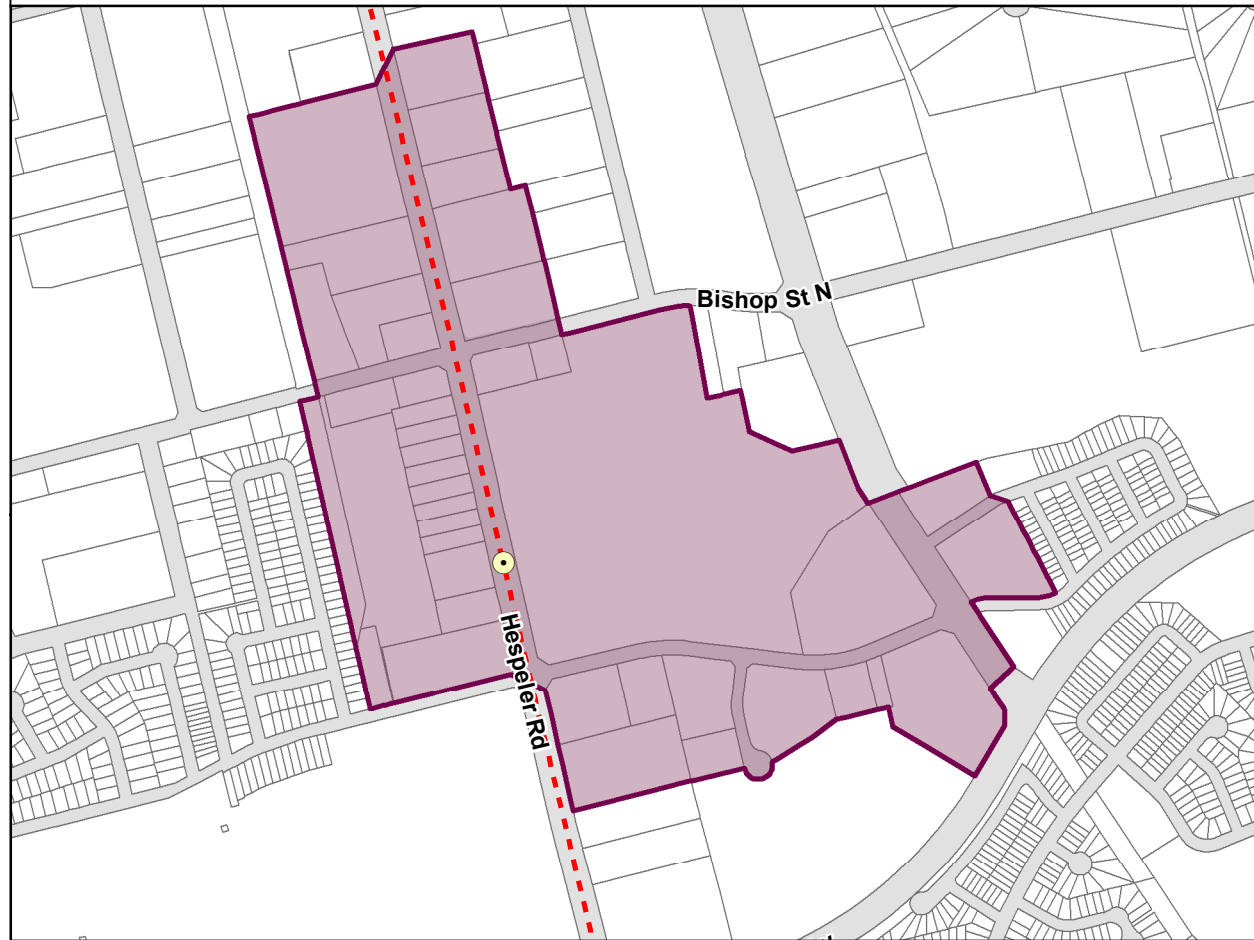
Sportsworld Station - 8a



Pinebush Station - 8c



Preston Station - 8b



Cambridge Centre Mall Station - 8d

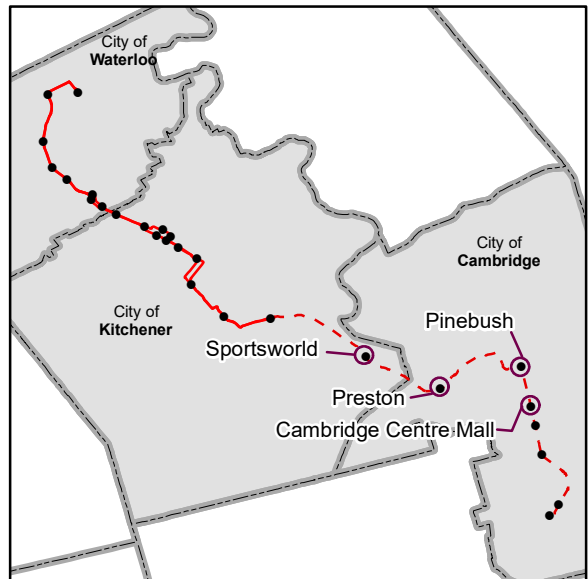
Figures 8a - 8d

Major Transit Station Areas

- Sportsworld
- Preston
- Pinebush
- Cambridge Centre Mall

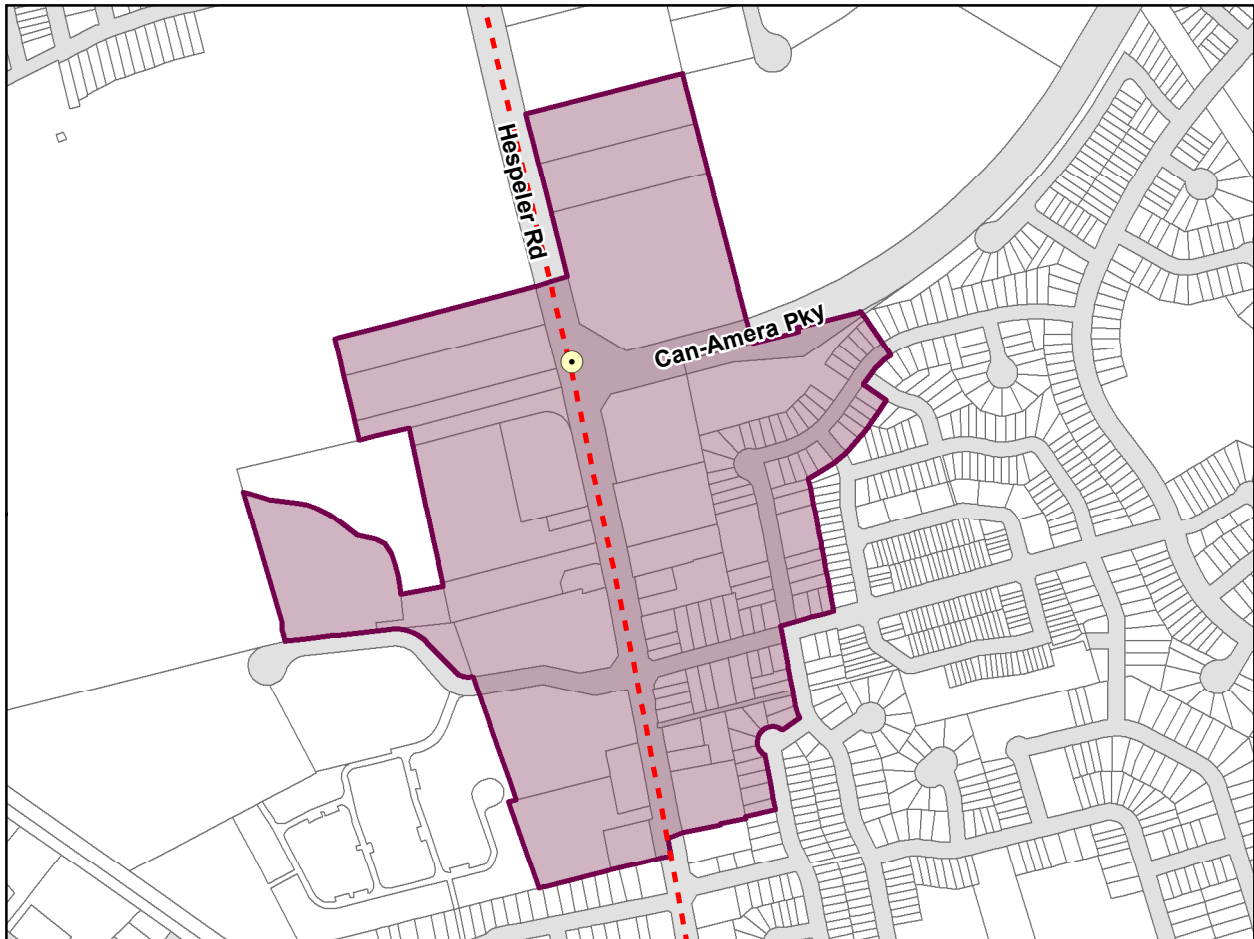
- Transit Stop
- Stage 1 ION LRT Route
- Planned Stage 2 ION LRT Route
- Major Transit Station Area

Key Map

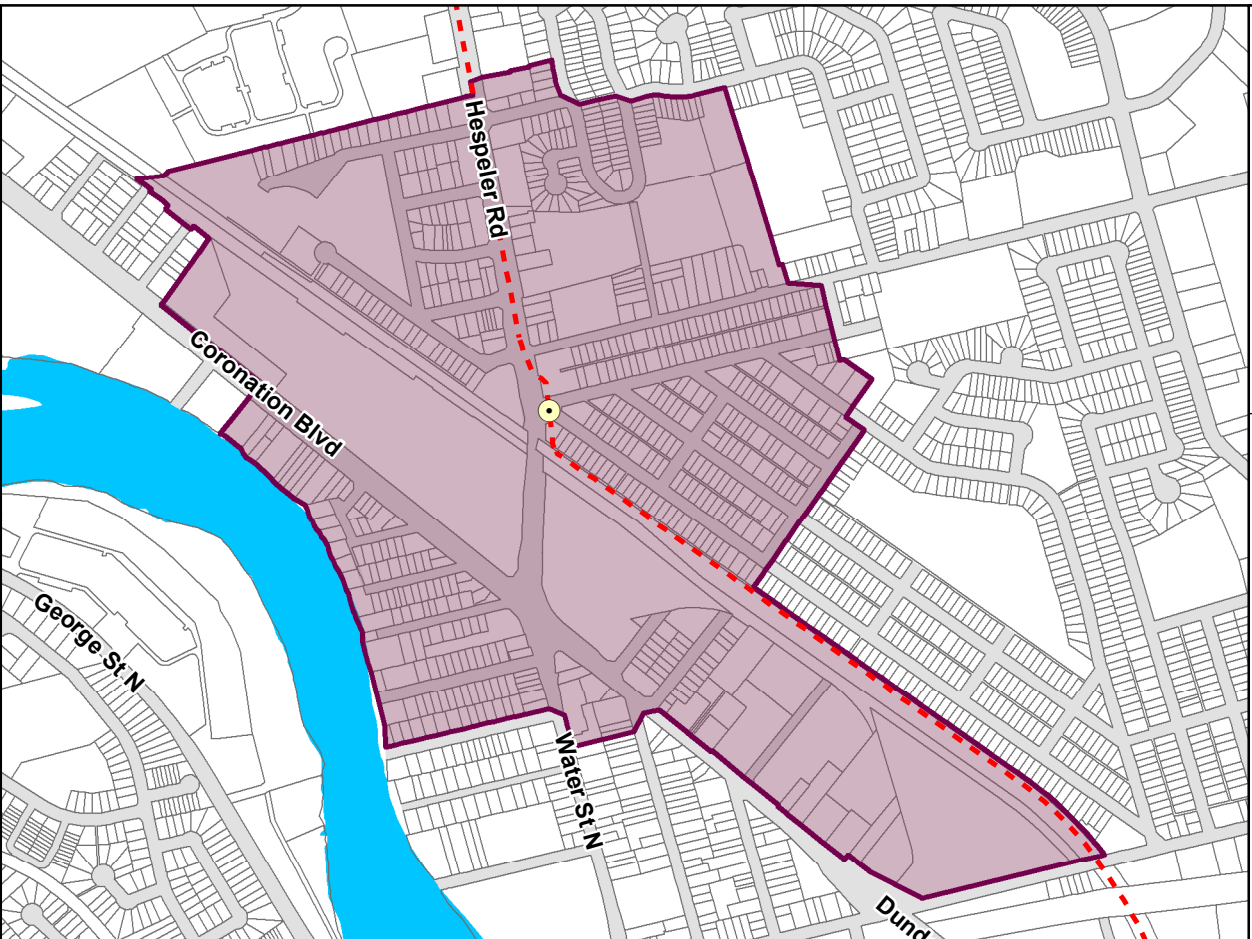


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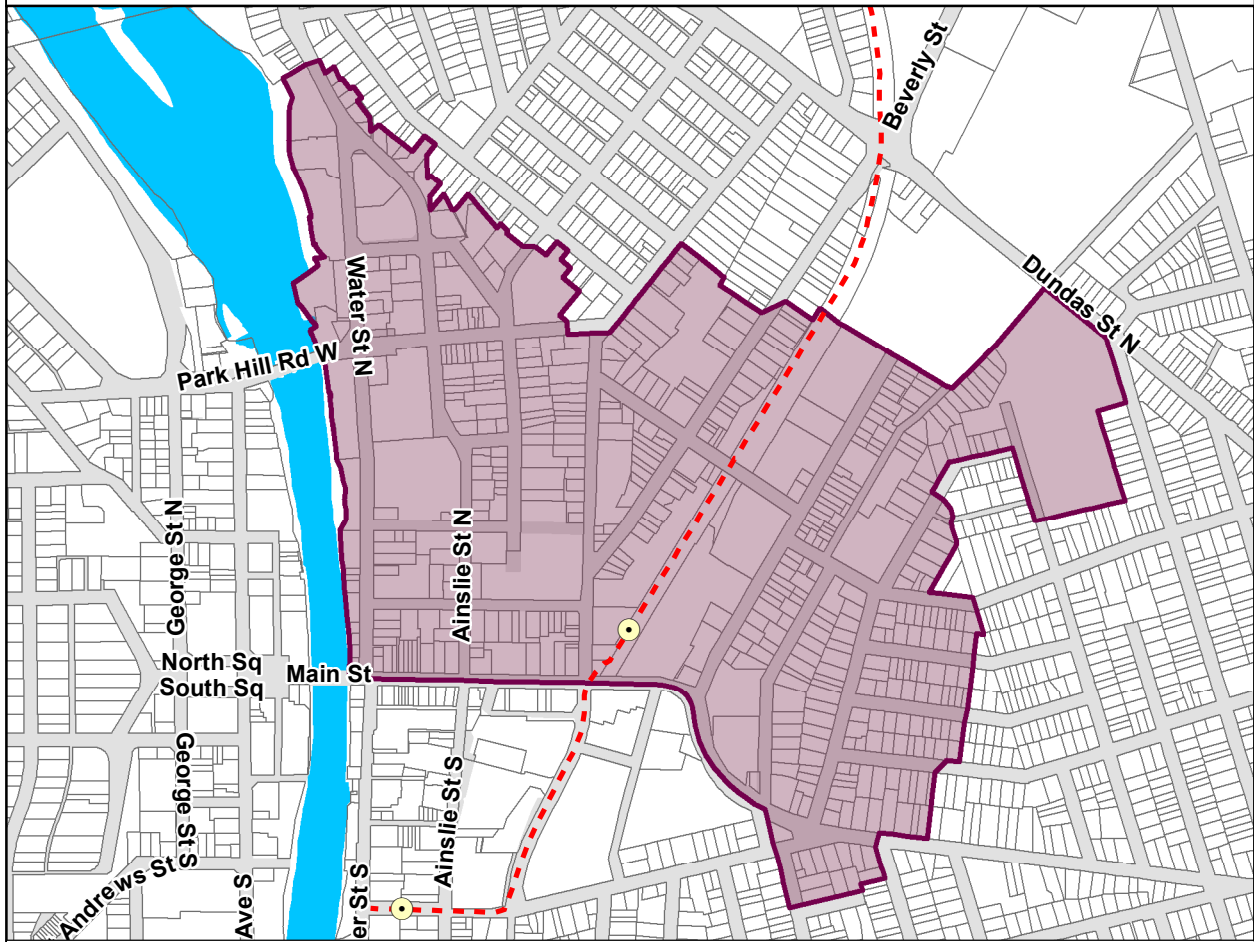




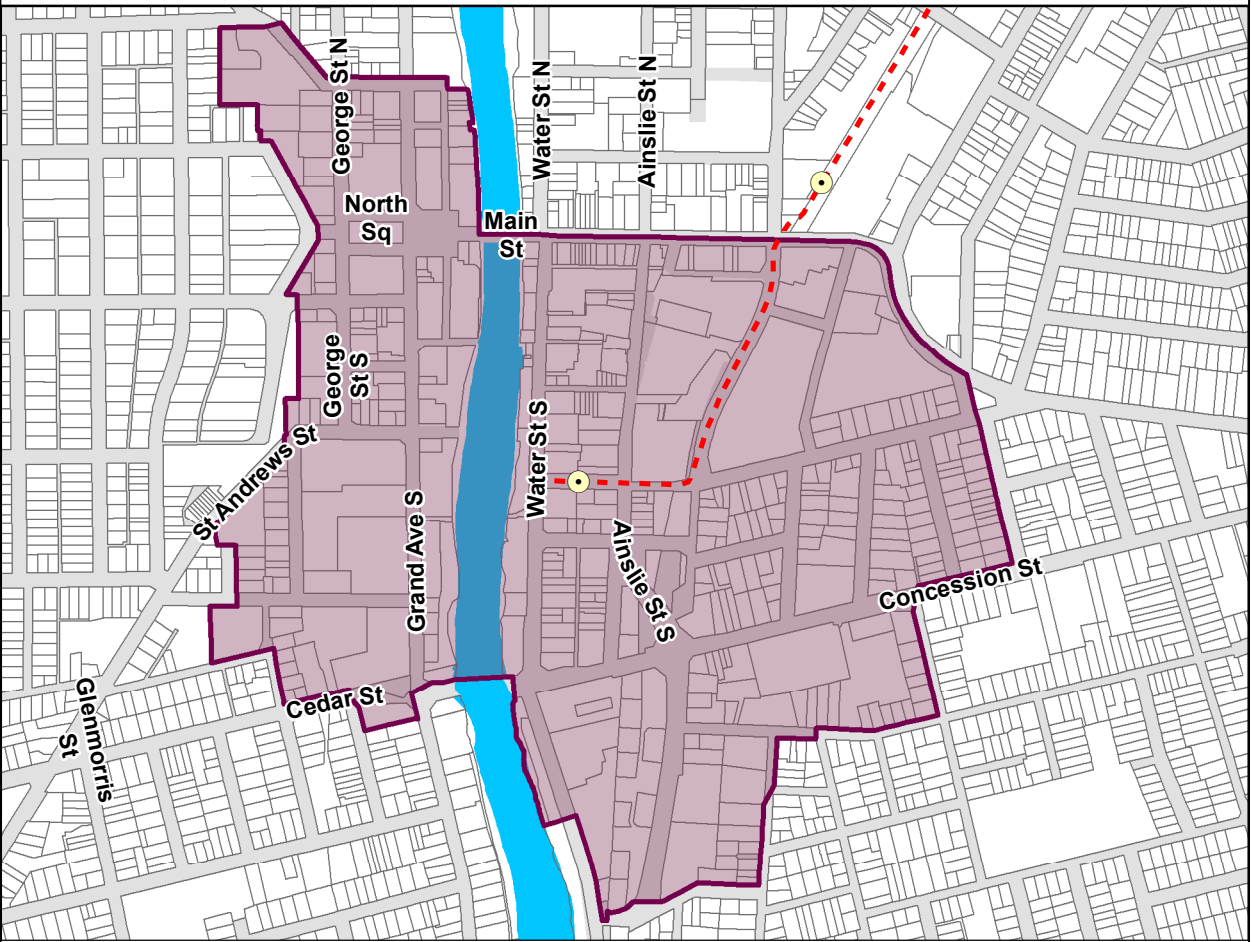
Can-Amara Station - 9a



Delta Station - 9b



Main Station - 9c

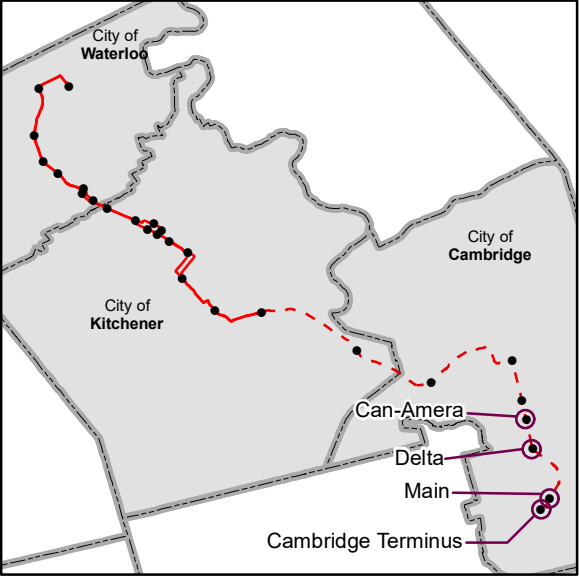


Downtown Cambridge Station - 9d

Figures 9a - 9d **Major Transit Station Areas** - Can-Amara - Delta - Main - Downtown Cambridge

- Transit Stop
- Stage 1 ION LRT Route
- Planned Stage 2 ION LRT Route
- Major Transit Station Area

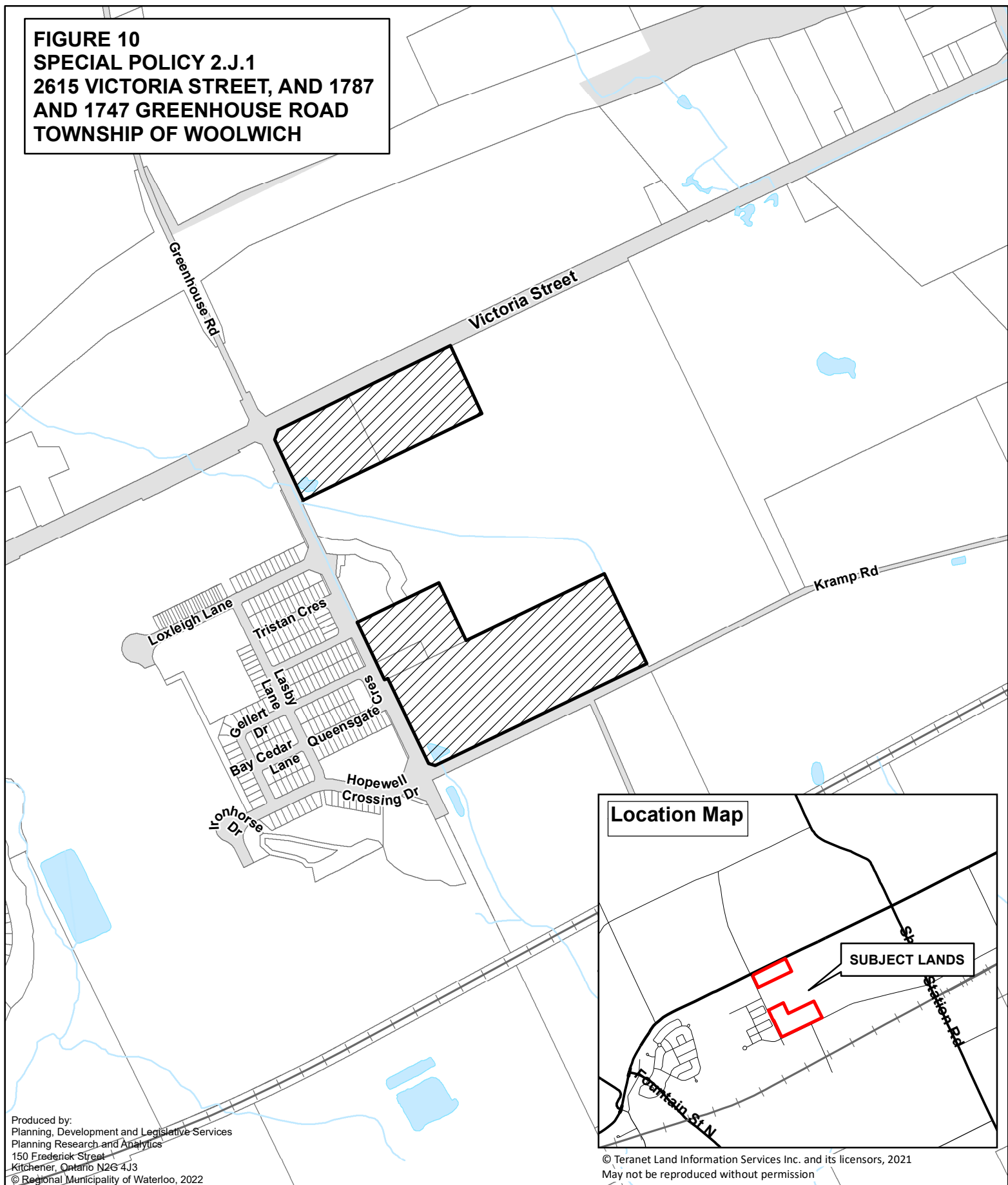
Key Map



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FIGURE 10
SPECIAL POLICY 2.J.1
2615 VICTORIA STREET, AND 1787
AND 1747 GREENHOUSE ROAD
TOWNSHIP OF WOOLWICH



Legend

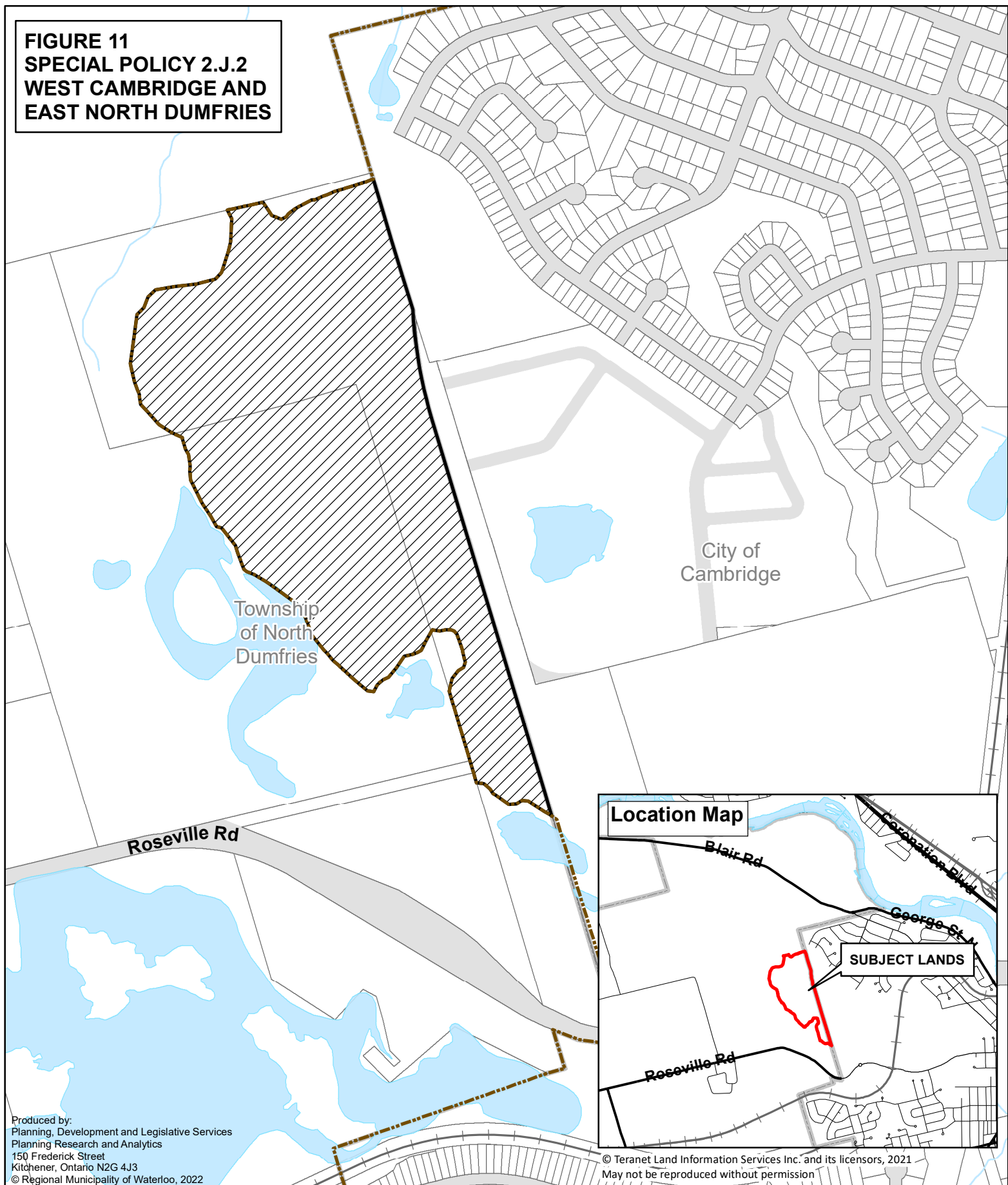


Lands Subject to Policy 2.J.1



0 100 200 400
 m

**FIGURE 11
SPECIAL POLICY 2.J.2
WEST CAMBRIDGE AND
EAST NORTH DUMFRIES**



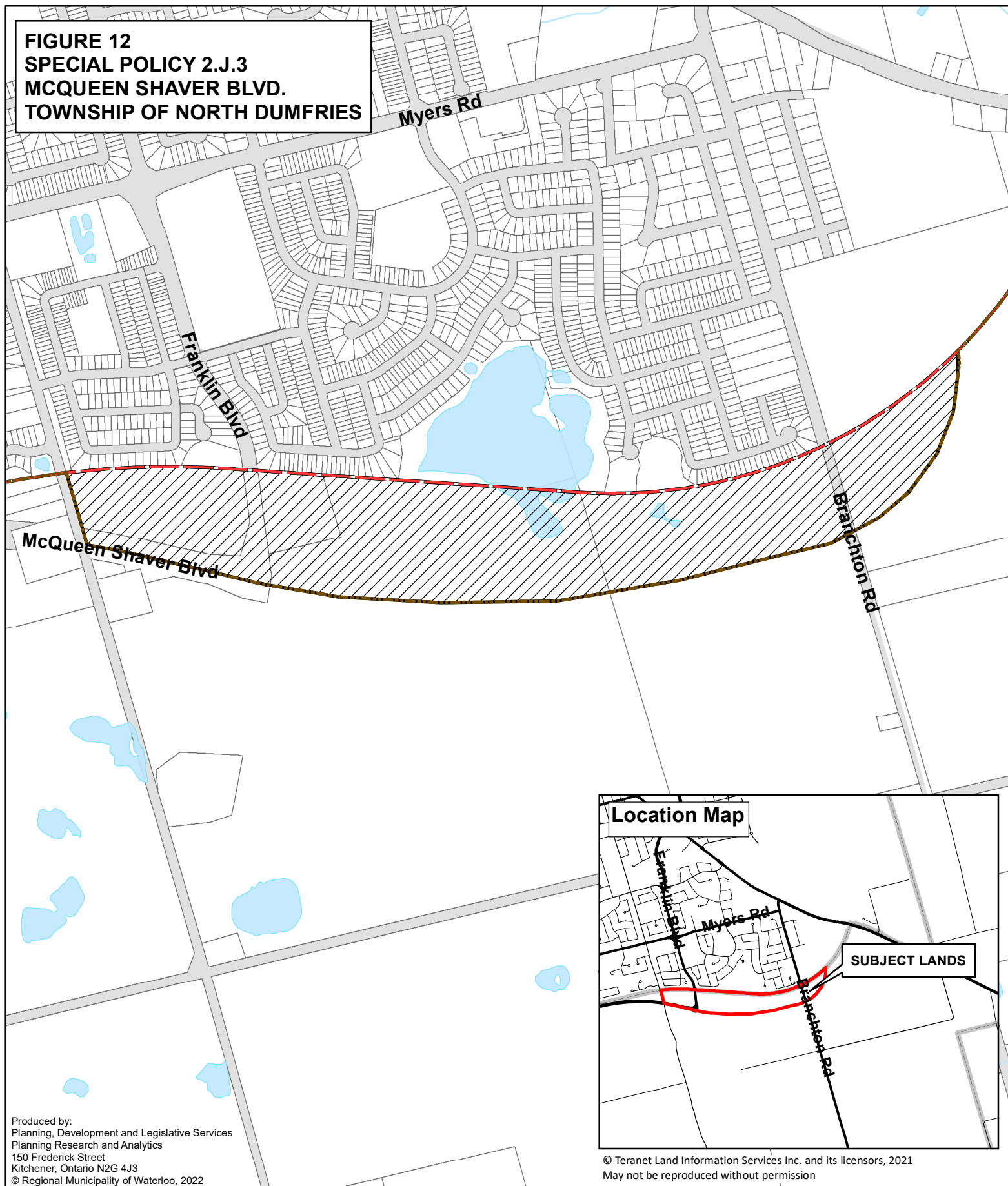
Legend

- Countryside Line
- Lands Subject to Policy 2.J.2



0 80 160 320
m

**FIGURE 12
SPECIAL POLICY 2.J.3
MCQUEEN SHAVER BLVD.
TOWNSHIP OF NORTH DUMFRIES**



Legend

-  Countryside Line
-  Urban Area
-  Lands Subject to Policy 2.J.3

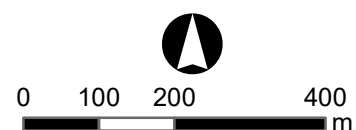
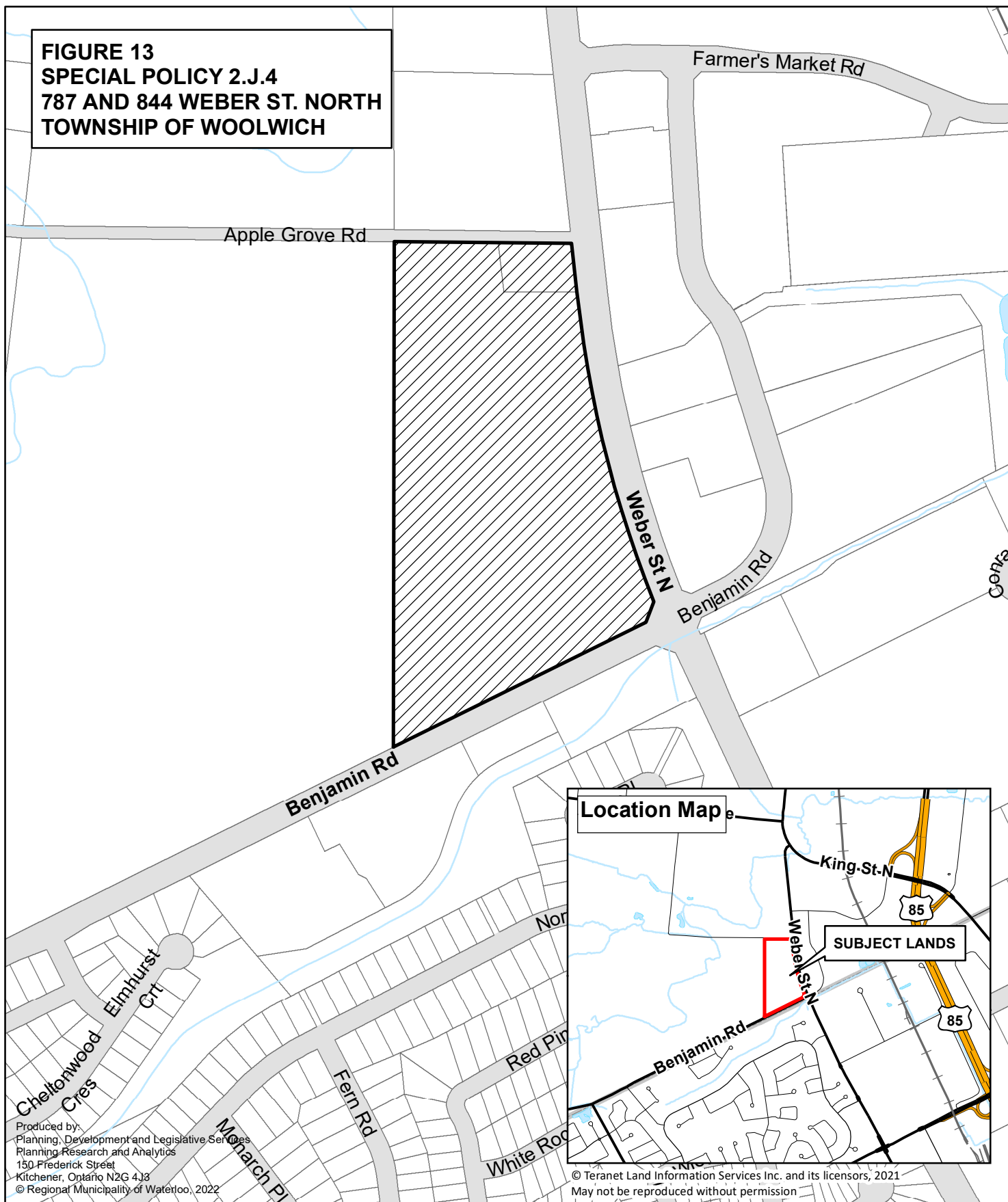


FIGURE 13
SPECIAL POLICY 2.J.4
787 AND 844 WEBER ST. NORTH
TOWNSHIP OF WOOLWICH



Legend

 Lands Subject to Policy 2.J.4

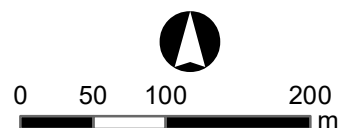


FIGURE 14
SPECIAL POLICY 2.J.5
713 AND 725 KING STREET NORTH
TOWNSHIP OF WOOLWICH

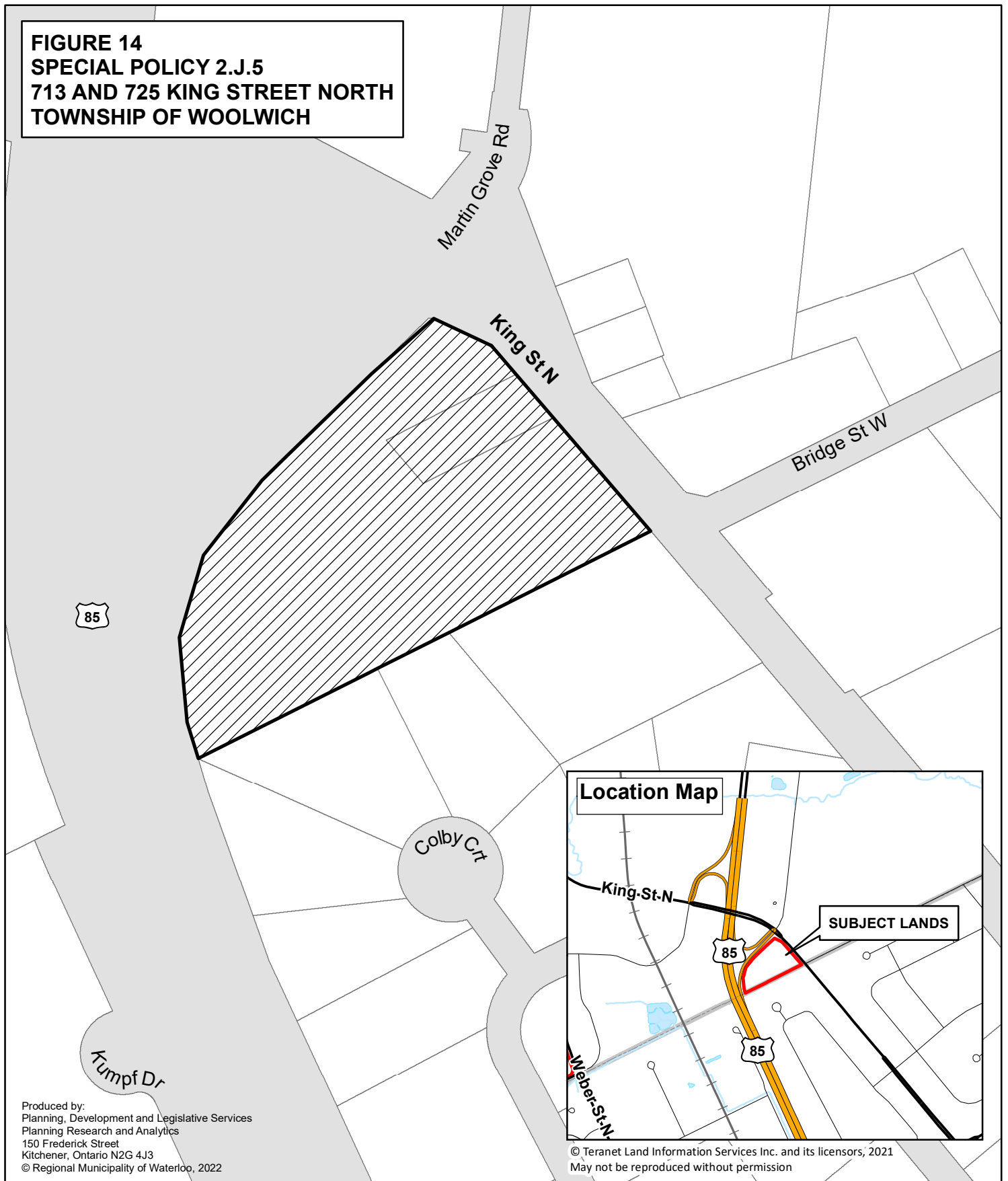
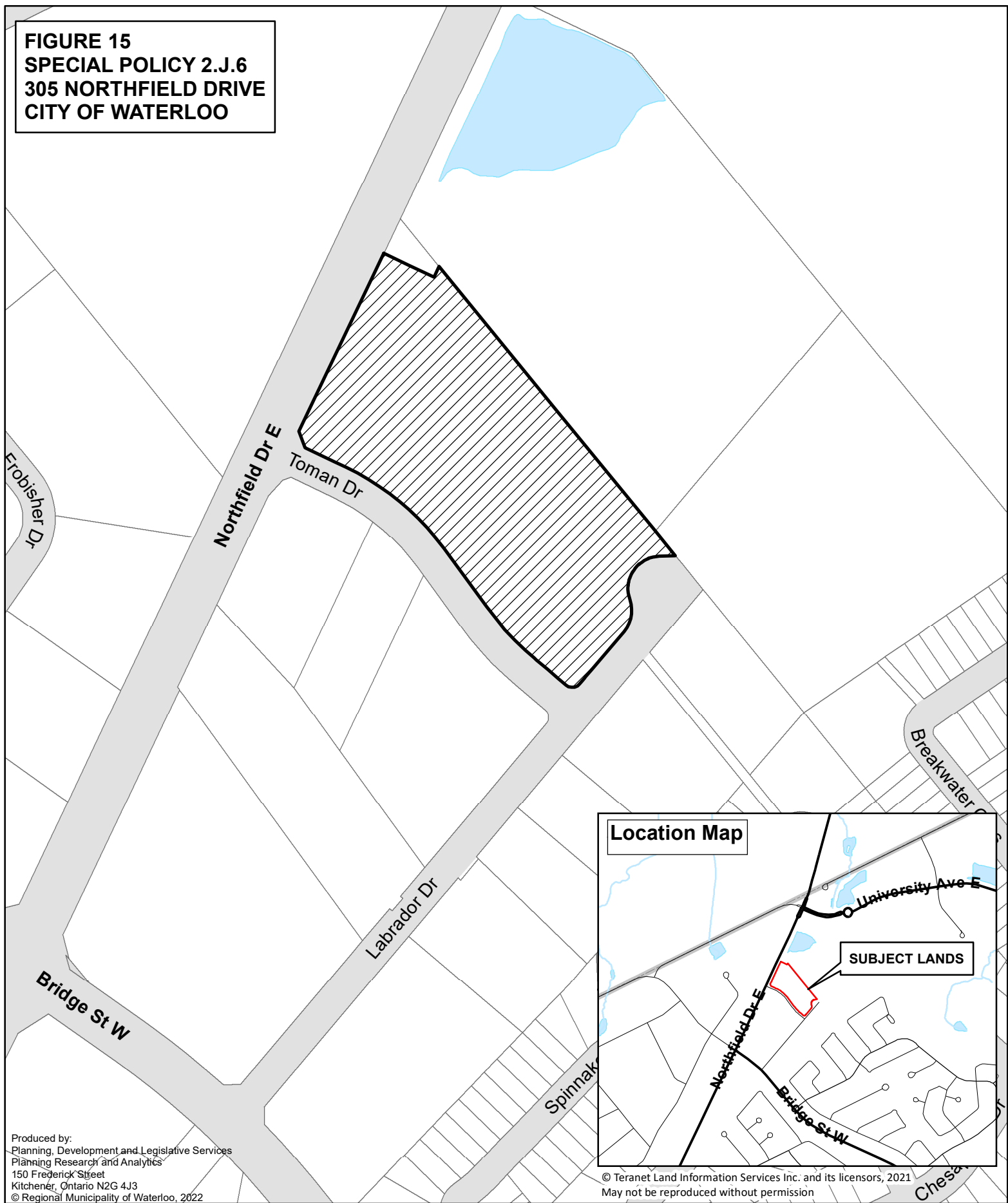


FIGURE 15
SPECIAL POLICY 2.J.6
305 NORTHFIELD DRIVE
CITY OF WATERLOO



Legend

 Lands Subject to Policy 2.J.6

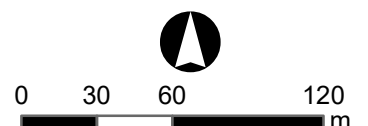


FIGURE 16
SPECIAL POLICY 2.J.7
41 IRA NEEDLES BLVD.
CITY OF WATERLOO

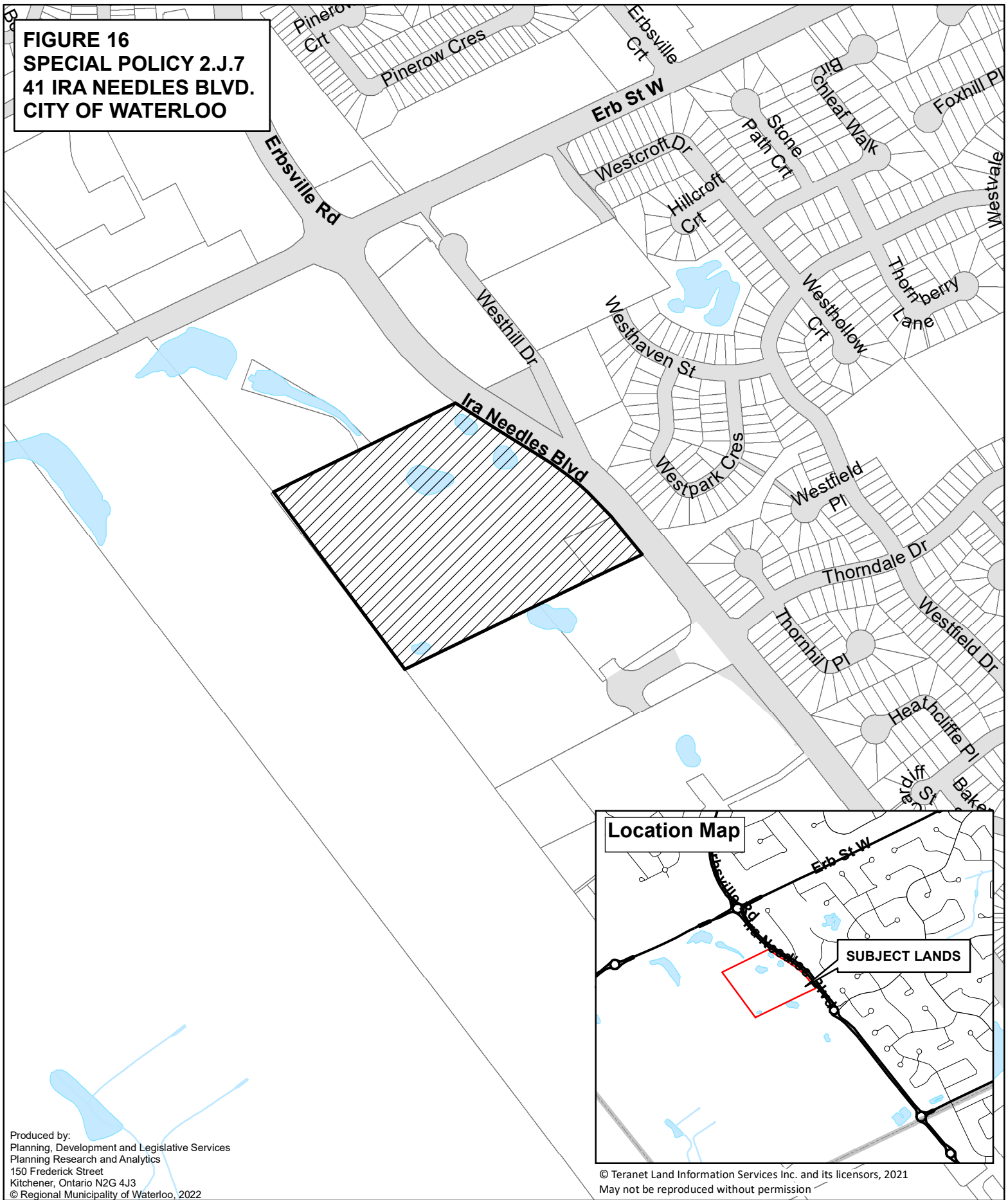
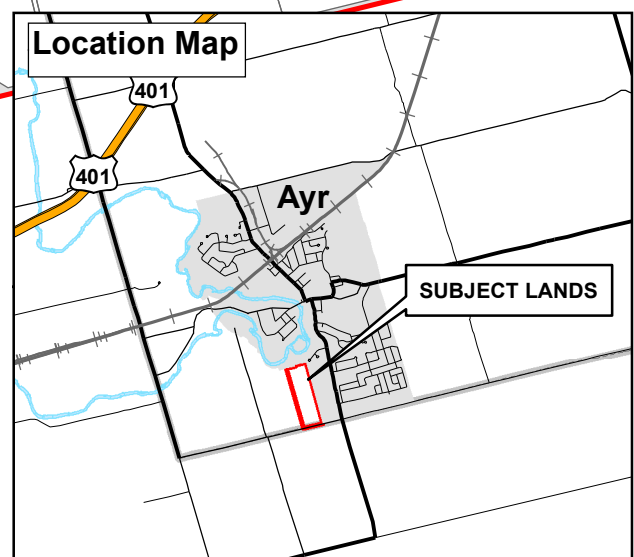
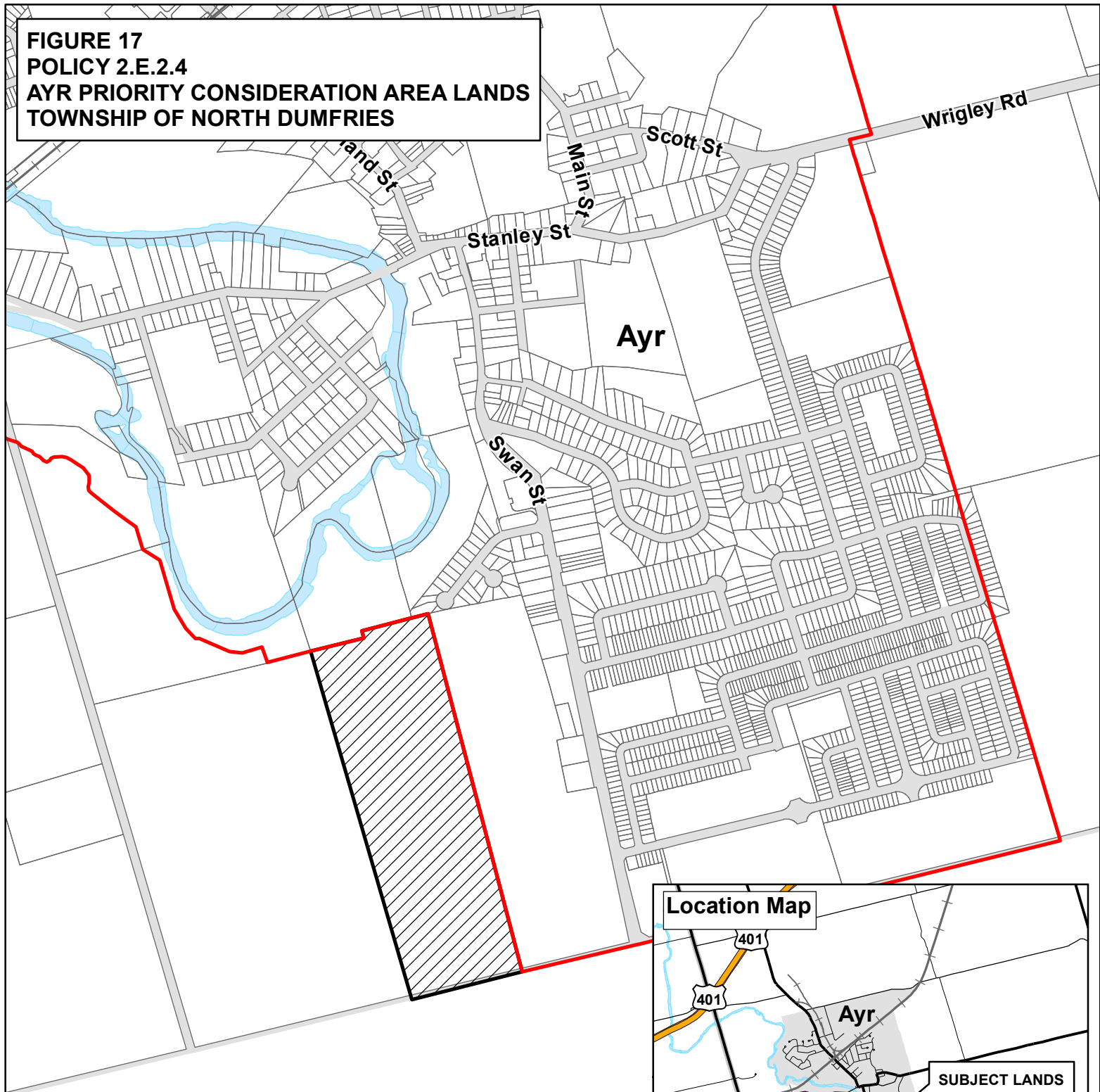


FIGURE 17
POLICY 2.E.2.4
AYR PRIORITY CONSIDERATION AREA LANDS
TOWNSHIP OF NORTH DUMFRIES



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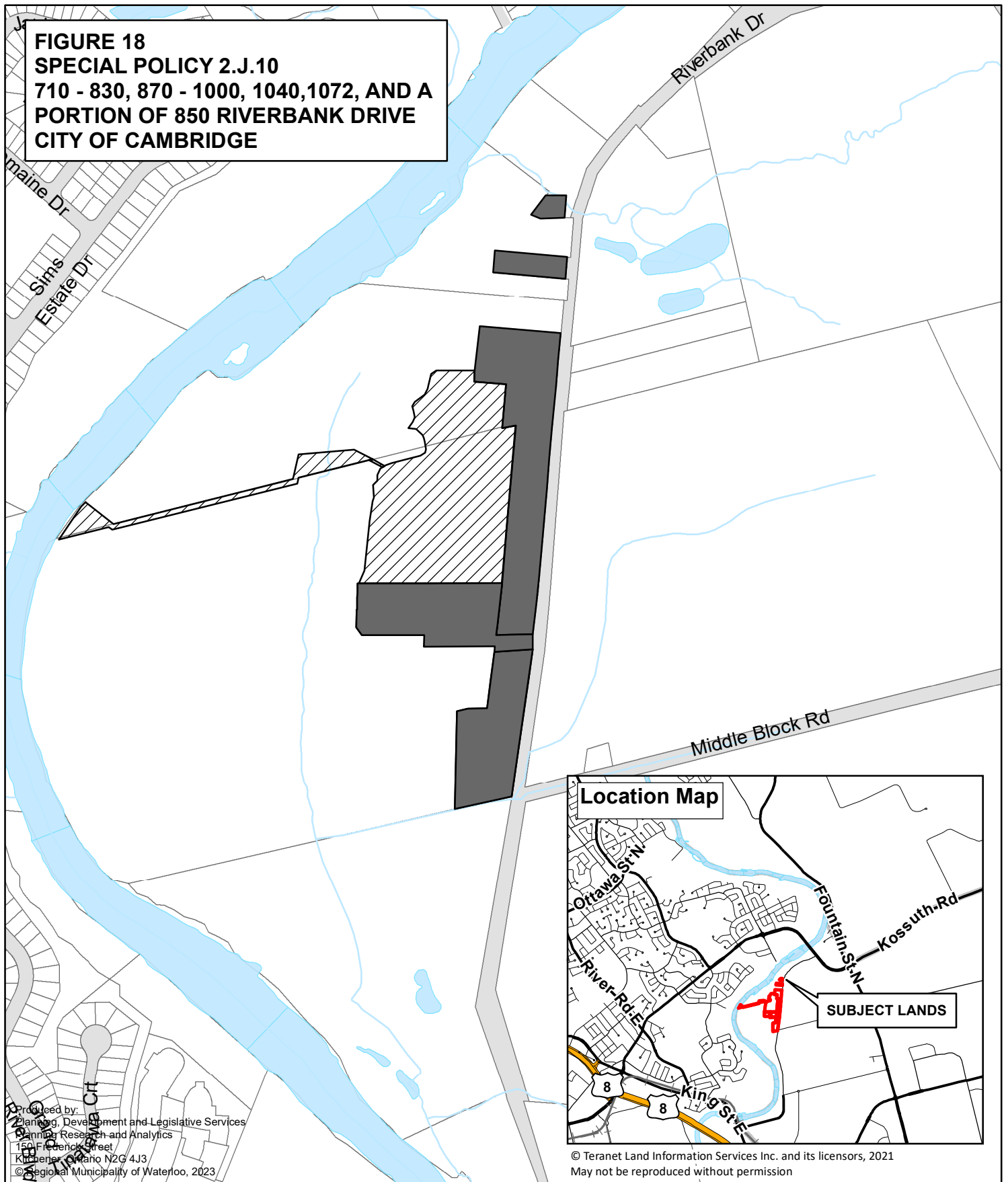
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- Township Urban Area
- Lands Subject to Policy 2.E.2.4



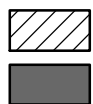
FIGURE 18
SPECIAL POLICY 2.J.10
710 - 830, 870 - 1000, 1040, 1072, AND A
PORTION OF 850 RIVERBANK DRIVE
CITY OF CAMBRIDGE



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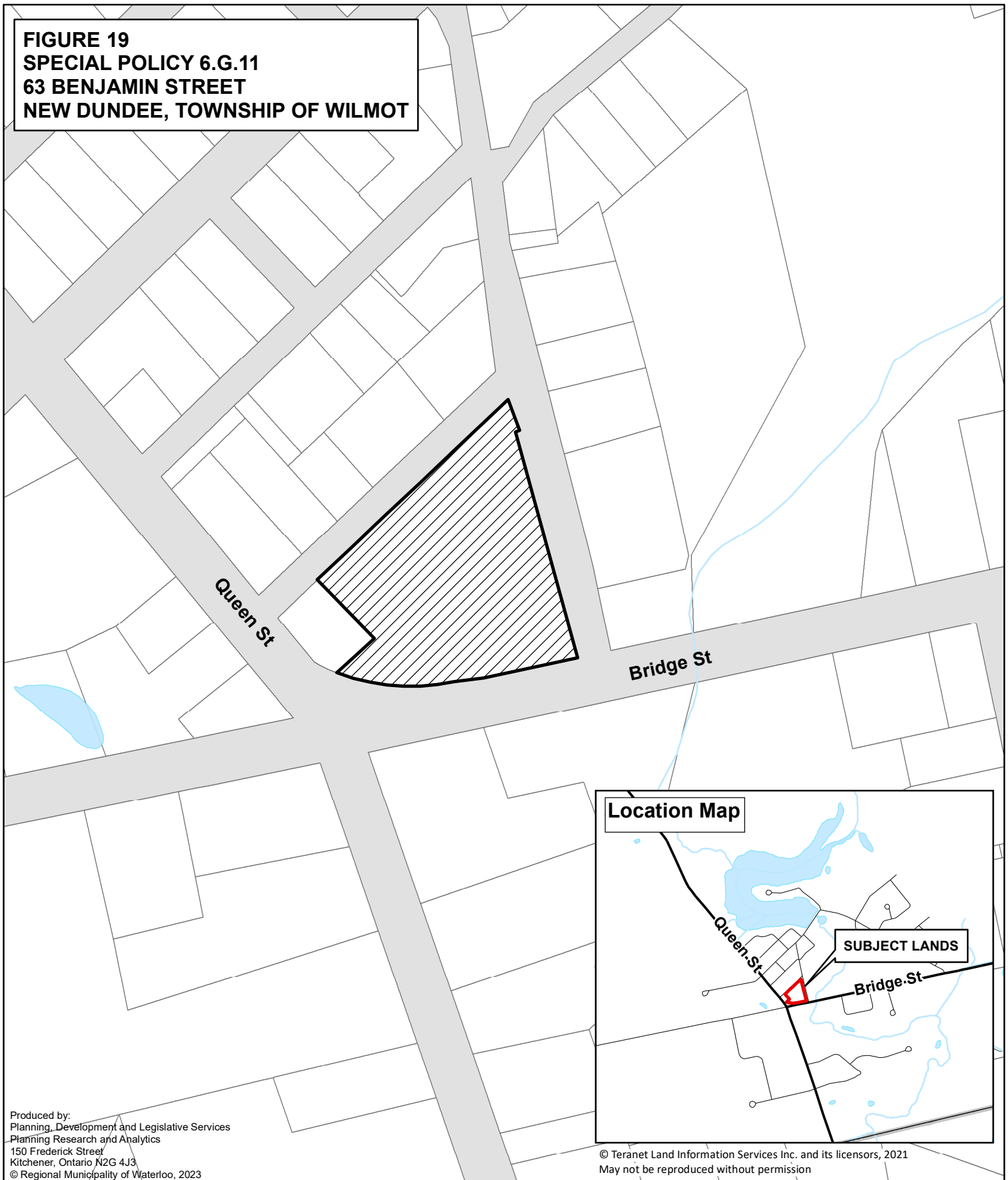
Future Stormwater Management Facility and Inlet and Outlet

Rural Residential Cluster



0 70 140 280
 m

FIGURE 19
SPECIAL POLICY 6.G.11
63 BENJAMIN STREET
NEW DUNDEE, TOWNSHIP OF WILMOT



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Legend

 Lands Subject to Policy 6.G.11



0 20 40 80
 m