



Long-Term Population and Housing Growth Shaping Guelph: Growth Management Strategy

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Executive summary

Terms of reference

The City of Guelph is undertaking a review of its official plan (OP), the guiding planning document that provides the long-term framework for growth, development, and the protection of many valuable cultural and natural heritage resources. The policies and mapping of the OP will be updated to reflect matters of provincial interest under the *Planning Act*, to be consistent with the Provincial Policy Statement, 2020 (PPS, 2020), and to conform with the Growth Plan for the Greater Golden Horseshoe (GGH), A Place to Grow (APTG), 2019, (as amended).¹ Building on the provincial policy framework, the OP review includes a comprehensive analysis of long-term population, housing, and employment growth, as well as associated urban land needs. This analysis forms a key component of the city's municipal comprehensive review (MCR) process.

The fundamental principles of the current OP will inform the basis of the analysis. Dillon Consulting Limited (Dillon) and Watson & Associates Economists Ltd. (Watson) were retained by the city to undertake the growth-related components of the MCR. The outcomes of these activities will be documented in a series of technical briefs and background reports.

The purpose of this technical brief is to analyze the city's long-term population and housing growth potential based on current data, to extend the city's population forecast to 2051 to implement the APTG Schedule 3 forecasts, and to inform and provide input into the land needs assessment (LNA). This review has been undertaken within the context of macro-economic trends as well as regional economic and demographic trends that are anticipated to influence the amount, type, and ultimately the location of future residential development within the City of Guelph to the year 2051.

It is noted that the City of Guelph currently has an annexation in progress in Guelph/Eramosa Township related to the Dolime Quarry lands as initiated through a Minister's Zoning Order (MZO), which will add to the city's urban land supply in the city's designated greenfield area (DGA).² The Dolime Quarry lands are estimated to accommodate approximately 5,000 persons as well as a modest amount of work at home and off-site employment. It is recommended that the city's 2051 population

¹ Hereinafter referred to as APTG (Growth Plan, 2019. A Place to Grow: Growth Plan for the Greater Golden Horseshoe, Office Consolidation 2020, Ontario).

² [History | Guelph's Dolime Quarry](#)

forecast is increased by approximately 5,000 people to reflect the additional growth opportunity associated with this urban expansion area.

Summary of key findings

By 2051, the City of Guelph's total population base is forecast to grow to approximately 208,000 persons.³ This represents an increase in population of approximately 71,700 permanent residents and non-permanent residents (NPR) between 2016 and 2051, or an average annual population growth rate of 1.2% during this time period. Comparatively, the population of the province as a whole is also forecast to increase at a rate of 1.2% over the 2016 to 2046 time period.

Population growth will be primarily driven by the city's labour force attraction across a diverse range of growing services-producing and goods-producing sectors, particularly sectors that are geared toward innovation and technology. Looking forward, the City of Guelph's distinction as a "complete" and competitive community is anticipated to represent a key driver of the future economic success and population growth potential of this city.

It is important to recognize that while the city's population base is growing, it is also getting older. Between 2016 and 2051, the 75+ age group is forecast to represent the fastest growing population age group. With an aging population, the city will be more reliant on net migration as a source of population as opposed to natural increase (i.e. net population growth from births less deaths). With respect to future housing needs, strong population growth in the 75+ age group is anticipated to place increasing demand on medium- and high-density forms including seniors' housing and affordable housing options.

The City of Guelph is also anticipated to accommodate a growing share of young adults and new families seeking home ownership and rental housing opportunities. Population growth associated with young adults is anticipated to be primarily driven by net migration of both permanent and NPR.

Accommodating forecast census population growth in the City of Guelph will require approximately 33,600 new census households between 2016 and 2051, or approximately 960 new census households annually.⁴ An additional 1,500 of off-campus dwelling units are anticipated to be required to accommodate post-secondary students not captured in the census. To adequately accommodate future housing demand across a diverse selection of demographic and socio-economic groups, a range of new housing typologies will be required with respect to built

³ In accordance with the preferred growth scenario established in section 5.2.

⁴ Census housing refers to private dwellings occupied by usual residents, which includes permanent and non-permanent residents.

form, location, and affordability in the city's DGA, strategic growth areas (SGAs), and other residential intensification areas within the built-up area (BUA).

This technical brief forms an important foundational report for each of the technical briefs to follow as part of the city's MCR and OP review process. Based on the review of the city's long-term growth outlook provided as part of this brief, a 2051 population and employment forecast of 208,000 persons and 116,000 jobs, respectively, is recommended as the preferred long-term growth scenario for the City of Guelph. The preferred growth scenario:

- Represents a reasonable absolute increase in long-term population and employment growth relative to historical trends;
- Accurately identifies the anticipated influence of identified regional and local growth drivers on future development trends for the city; and
- Represents a reasonable share of total population and employment in the City of Guelph relative to the GGH Outer Ring as a whole.

In accordance with the detailed review of the city's long-term population and employment growth outlook provided herein, a higher 2051 population beyond 208,000 is not supported for the purposes of long-term growth management and urban land needs analysis.



1 Introduction

1.1 Guelph official plan review context

The City of Guelph is undertaking a review of its official plan (OP), the guiding planning document that provides the long-term framework for growth, development, and the protection of many valuable cultural and natural heritage resources located across the city. It is a legal document under the *Planning Act* that contains the goals, objectives, and policies to manage and direct physical (land-use) change, and its effects on the cultural, social, economic, and natural environment within the community.

This review builds on the foundation of the existing OP. It includes a number of technical studies to update the recommended approach for managing population

and employment growth to 2051 within the City of Guelph. The existing 2018 OP replaced the previous OP that was adopted by Council in November 1994 and approved by the Minister of Municipal Affairs in December 1995. The OP went through a municipal comprehensive review (MCR) and comprehensive update in 2001 and subsequently was amended three times to address provincial policy conformity:

- Phase 1 – OPA 39: The OP was brought into conformity with the Growth Plan and was adopted by City Council on June 10, 2009. OPA 39 was approved by the Ministry of Municipal Affairs and Housing on November 20, 2009 and is in full force and effect.
- Phase 2 – OPA 42: A Natural Heritage Strategy was introduced which established a sustainable greenspace network throughout the city. It was adopted by Council in July 2010 and approved by the Ontario Municipal Board (OMB) in June 2014 and is in full force and effect.
- Phase 3 – OPA 48: The final phase of the five-year review was approved with modifications by the Ministry of Municipal Affairs and Housing in December 2013 and approved by the OMB in October 2017.

As indicated above, in phase 1 the Growth Plan conformity component was done through OPA 39 and was based on the 2006 Growth Plan. Since then, there have been several updates to provincial policies. On May 2, 2019, the province approved further updates to the Growth Plan; it was reissued as A Place to Grow: Growth Plan for the Greater Golden Horseshoe (APTG). APTG took effect on May 16, 2019, and on August 28, 2020 Amendment 1 to APTG, 2019 came into force and effect. The amendment includes changes to the population and employment forecasts, extending the horizon year for planning to 2051, and other policies designed to increase housing supply, create jobs, attract business investment, and better align with infrastructure. The city is required to bring its OP into conformity with APTG (including Amendment 1) by July 1, 2022.

These provincial policy and legislative documents provide direction for municipalities on land-use planning, including where and how to plan for growth. The latest round of changes to these documents seek to address some of the implementation issues associated with the former Growth Plan. The changes also seek to overcome some of the ongoing challenges facing municipalities in the Greater Golden Horseshoe (GGH), including increased demand for infrastructure, increased traffic congestion resulting in delays in the movement of people and goods, and decreased housing affordability to name a few. In addition to these changes, the province also recently enacted Bill 108, the *More Homes, More Choice Act, 2019*, to make additional changes to the *Planning Act*, the *Local Planning Tribunal Act*, the *Development Charges Act*, and other legislation. The project team

will continue to monitor any changes to Ontario’s planning system and their implications to the analysis in this study.

1.2 Shaping Guelph

The policies and mapping of the OP will be updated to reflect matters of provincial interest under the *Planning Act*, to be consistent with the 2020 Provincial Policy Statement (PPS) and to conform to APTG (including Amendment 1). The MCR, known as Shaping Guelph, is the city’s response to APTG which will ultimately result in an Official Plan Amendment (OPA). Any changes required to conform to the PPS and amendments to the *Planning Act* are being considered through the city’s companion Official Plan Review (OPR) and are not within the scope of this study.

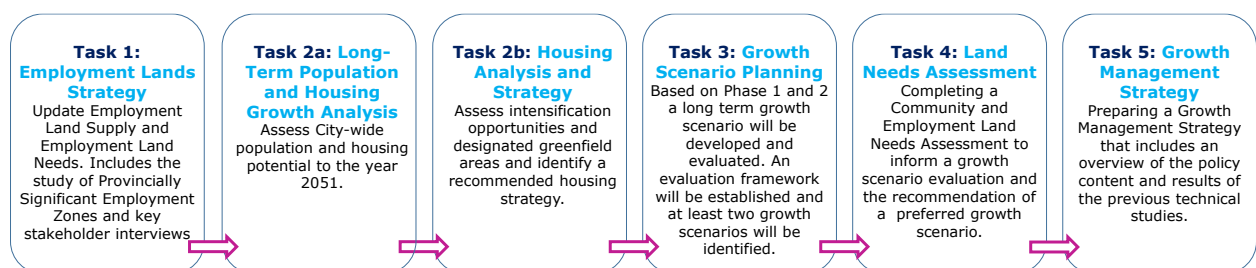
The overall purpose of the MCR is to recommend a growth management strategy (GMS) that sets out updated growth-related directions and policies to bring the City of Guelph’s OP into conformity with APTG.

The Shaping Guelph technical work includes a review of 2051 growth projections, a housing analysis and strategy, an employment lands strategy and a land needs assessment which will then feed into the GMS, and ultimately result in the selection of the preferred growth scenario which will inform a future OPA.

Dillon Consulting Limited (Dillon) and Watson & Associates Economists Ltd. (Watson) were retained by the city to undertake the growth-related components of Shaping Guelph. The process of preparing the city’s new OP represents an MCR in accordance with section 26 of the *Planning Act*.

The technical work that is part of Shaping Guelph is being undertaken in five tasks as described in Figure 1-1 below:

Figure 1-1: Shaping Guelph technical studies process



In addition to the technical work of Shaping Guelph outlined above, the city is also undertaking a number of other background studies including:

- A review of the city’s vision and principles for growth; and
- A residential intensification analysis.

The results of these background studies will be considered as part of the growth analysis work of Shaping Guelph.

A comprehensive consultation and community engagement program is being led by LURA Consulting (LURA) on behalf of the city. The Dillon and Watson team will be working closely with LURA and the city to support the engagement components of this study. The feedback and input resulting from the engagement activities will inform all aspects of Shaping Guelph.

1.3 Long-term Population and Housing Growth Analysis purpose and organization

The purpose of the Long-term Population and Housing Growth Analysis Brief includes the following:

- Analyze the city's long-term population and housing growth potential based on current data;
- Extend the city's population forecast to 2051 to implement the preferred growth scenario identified in section 5.2; and
- Assess long-term growth drivers from a regional and local perspective as input into the land needs assessment (LNA) for the city's Community Areas and Employment Areas.

Accordingly, this review has been undertaken within the context of macro-economic trends as well as regional economic and demographic trends, which are anticipated to influence the amount, type, and location of future residential development within the City of Guelph to the year 2051.

The Long-term Population and Housing Growth Analysis Brief is organized into the following six (6) chapters:

- Chapter 1 introduces the purpose and context of the OPR;
- Chapter 2 (Background) provides an overview of planning policies and guidelines related to the OPR. Key concepts regarding the growth forecast such as the census undercount, components of population growth and the student population are also defined and introduced;
- Chapter 3 (City of Guelph population and housing trends) reviews historical population and housing trends related to the City of Guelph;
- Chapter 4 (City of Guelph population and housing growth outlook to 2051) identifies key factors that are anticipated to influence population and housing growth in the City of Guelph;

- Chapter 5 (City of Guelph population and housing growth forecast, 2016 to 2051) summarizes the population and housing forecast for the City of Guelph from 2016 to 2051; and
- Chapter 6 provides recommendations and next steps.

1.4 Definitions and terminology

1.4.1 Glossary

The following provides definitions for key terms used within the Long-Term Population and Housing Growth Analysis.

Accessory apartment

A dwelling unit that is self-contained, subordinate to and located within the same building or on the same lot as a of a primary dwelling unit. These are often referred to as secondary dwelling units, granny flats, or basement apartments with separate kitchen areas.

A Place to Grow: Growth Plan for the Greater Golden Horseshoe (APTG)

APTG is the Province of Ontario's plan to manage growth and development throughout the GGH that protects the environment and supports economic prosperity. APTG sets out population and employment forecasts and targets for which municipalities are required to plan.

Built-up area

Areas of Guelph that were developed before 2006. APTG defines built-up areas as "the limits of developed urban areas as defined by the Minister for the purpose of measuring the minimum intensification targets."

Census housing

Private dwellings occupied by usual residents, which includes permanent and non-permanent residents.

Census population

The population identified by the Statistics Canada Census, based on a detailed enumeration of Canadian residents which occurs every five years.

Census undercount

The number of Canadian residents not recorded in the Statistics Canada Census. The population reported in the Statistics Canada Census is adjusted to account for the net number of persons who are missed (i.e. over-coverage less under-coverage) during enumeration.

City population

The total population and population associated with post-secondary students not captured in the census population.

Collective dwellings

According to Statistics Canada, a collective dwelling refers to a dwelling of a commercial, institutional or communal nature. These dwellings are occupied by non-usual residents.

Designated greenfield area

Areas towards the edge of Guelph that were not yet developed before 2006. Designated greenfield areas are defined in APTG as the area outside the delineated built-up area and within settlement areas.

Intensification

APTG and the PPS define intensification as “the development of a property, site or area at a higher density than currently exists through: redevelopment, including the reuse of brownfield sites; the development of vacant and/or underutilized lots within previously developed areas; infill development; and, the expansion or conversion of existing buildings.”

Non-permanent residents

Non-permanent residents, as defined by Statistics Canada, are persons from another country who have been legally granted the right to live in Canada on a temporary resident permit along with members of their family living with them. Non-permanent residents include workers and students from other countries, and the humanitarian population such as refugees and other temporary residents.

Permanent population

Population which includes persons who reside in Canada on a permanent basis.

Primary household maintainer

As defined by Statistics Canada, the primary household maintainer is the first person in the household identified as someone who pays the rent or the mortgage, or the taxes, or the electricity bill, and so on, for the dwelling.

Strategic growth areas

Strategic growth areas are focus areas for accommodating residential intensification and higher-density, mixed uses in a more compact built form. Strategic growth areas may include downtowns, nodes, corridors or other lands along major roads with existing or planned frequent transit.

Total population

The census population adjusted upward to account for census net undercoverage (census undercount).

Urban growth centre

APTG identifies several existing or emerging downtowns as urban growth centres (UGC). Guelph's downtown is identified as an urban growth centre. Guelph's urban growth centre is required to be planned to achieve a density of 150 persons and jobs per hectare by 2031.

1.4.2 List of Acronyms and Abbreviations

The following are acronyms and abbreviations that are used within the Long-Term Population and Housing Growth Analysis.

Acronym	Full description of acronym
BUA	Built-up area
DGA	Designated greenfield area
GGH	Greater Golden Horseshoe
GTHA	Greater Toronto and Hamilton Area
IRCC	Immigration, Refugees and Citizenship Canada
IMP	International Mobility Program
LNA	Land Needs Assessment
LNAM	Land Needs Assessment Methodology
MOF	Ministry of Finance
MMAH	Ministry of Municipal Affairs and Housing
MCR	Municipal comprehensive review
NPR	Non-permanent residents
OP	Official Plan
OPA	Official Plan Amendment
OPR	Official Plan Review
OMB	Ontario Municipal Board
PPU	Persons per unit

PPS	Provincial Policy Statement
SGA	Strategic growth area



2 Background

This section provides an overview of the provincial policy context that impacts growth management in the City of Guelph.

2.1 Provincial Planning Context

The two key provincial policy documents that apply to long-term growth management in Ontario and the GGH are the PPS, 2020 and APTG. The policies set out in these documents outline provincial land-use planning interests and provide high-level policy direction for municipalities.

2.1.1 Provincial Policy Statement

The PPS came into effect on May 1, 2020.⁵ Its purpose was to update the PPS, 2014 so that it worked together with changes to the provincial land-use planning system that occurred around the same time. As previously mentioned, this included changes to the *Planning Act* through Bill 108, the *More Homes, More Choice Act* (2019) and the on-going updates to the Growth Plan. Additional reasons for the update largely related to the need to increase urban housing supply, support the economy and job creation, and to reduce barriers and costs to the land-use planning system in order to provide greater predictability.

A significant change in the PPS, 2020 with regard to housing policy is the provision of a housing options approach to address an appropriate range and mix of housing, and to specifically meet market-based needs of current and future residents (policy 1.4.3). Providing for housing options adds broader considerations like ownership structures and housing program planning to built-form considerations. Housing options are defined as:

A range of housing types such as, but not limited to single detached, semi-detached, rowhouses, townhouses, stacked townhouses, multiplexes, additional residential units, tiny homes, multi-residential buildings and uses such as, but not limited to life lease housing, co-ownership housing, co-operative housing, community land trusts, affordable housing, housing for people with special needs, and housing related to employment, institutional or educational uses.

Throughout the PPS, 2020 there is strong encouragement to consider the housing market when addressing planning matters such as managing growth overall, identifying market-ready sites to improve economic development and competitiveness, and providing for a range and mix of housing options. Although this may assist with managing growth and development in a way that may more accurately reflect market realities, it could make it more challenging for municipalities to transition to other types of development forms that they have not historically had considerable success in implementing. As such, while housing market demand is important when considering long-range, land-use planning and housing objectives, this demand must be broadly considered within the context of broad provincial interests, namely: ensuring the efficient use of land, resources, and infrastructure; providing a clean and healthy environment for current and future generations; providing for affordable housing; diversifying the economic base; and supporting job creation.

⁵ Provincial Policy Statement, 2020. Under the *Planning Act*. Ontario.

2.1.2 Provincial Growth Plan for the Greater Golden Horseshoe

In May 2019, the Growth Plan, 2017 was revised.⁶ The changes to the Growth Plan were largely intended to address potential barriers to increasing the supply of housing, creating jobs, and attracting investments across the GGH. To achieve these objectives, the Growth Plan, 2019 introduced revised policies aimed to:

- Speed up development (reducing number of studies, e.g. watershed studies, infrastructure feasibility studies) and unlock modest growth opportunities outside the MCR;
- Provide greater local autonomy for local governments;
- Allow for more collaboration from local governments;
- Provide a simplified criteria and language that stresses “market demand”; and
- Provide reduced intensification and greenfield density targets, as well as opportunities for alternative targets, that are reflective of local real estate market conditions across the GGH.

The Growth Plan, 2019 sets out where and how growth will occur across the GGH and all planning decisions are required to conform to it. The Growth Plan, 2019 provides growth forecasts for single- and upper-tier municipalities and provides policy direction on a range of matters including land use, infrastructure, and transportation. Relevant aspects of the Growth Plan, 2019 for this study include the following:

- Growth will be directed to settlement areas and within settlement areas; it will be focused towards SGAs, locations where higher-order transit exists or is planned, and areas with existing or planned public services facilities;
- Municipalities should develop as complete communities with a diverse mix of land uses, including employment and residential with convenient access to local stores, services, and public service facilities;
- Population and employment growth is to be accommodated by reducing dependence on the automobile through the development of mixed-use, transit-supportive, pedestrian-friendly urban environments; and
- New revised minimum density targets for upper-tier and single-tier municipalities have been created for the horizon of the Growth Plan, 2019. The designated greenfield area (DGA) minimum density target is 50 people and jobs combined per gross ha. It is important to note that the greenfield density targets established in the Growth Plan, 2019 no longer

⁶ A Place to Grow: Growth Plan for the Greater Golden Horseshoe. May 2019. Ontario.

include employment lands. According to the Growth Plan, 2019, upper- and single-tier municipalities, in consultation with lower-tier municipalities, the province and other appropriate stakeholders, will each develop an employment strategy that includes establishing a minimum density target in Employment Areas.⁷

On August 28, 2020, the province released Amendment 1 to A Place to Grow: Growth Plan for the GGH, 2019 which has been incorporated into an Office Consolidation, August 2020 document, hereinafter referred to as APTG. APTG has been updated in conjunction with a revised outcome-based LNA methodology for the GGH. These documents are in effect as of August 28, 2020.

The population and employment growth forecast horizon set out in Schedule 3 of APTG and the applicable time horizon for land-use planning has now been extended to 2051. It is further noted that the recommended Schedule 3 growth forecasts are to be treated as minimums, with higher growth forecast alternatives permitted by upper- and single-tier municipalities through their respective MCR process.⁸ If an alternative growth forecast that exceeds Schedule 3 of APTG is utilized, the MCR must demonstrate that the alternate growth scenario meets the APTG policy objectives of accommodating a range of housing choices to meet market demand and the needs of current and future residents, as well as providing additional labour opportunities for the GGH labour market.⁹ It should be noted that higher forecasts established by upper- and single-tier municipalities through their MCRs will not apply to provincial ministries and agencies.¹⁰

⁷ As per the Growth Plan for the Greater Golden Horseshoe, Office Consolidation, 2020, section 2.2.7 pp. 23 and 24.

⁸ Growth Plan, Office Consolidation 2020, Policy 5.2.4, p. 56.

⁹ A Place to Grow: Growth Plan for the Greater Golden Horseshoe, Land Needs Assessment Methodology for the Greater Golden Horseshoe, p. 5.

¹⁰ Growth Plan, 2019, Policy 5.2.4.8, p. 57.

Minimum density targets are also set out in APTG for transit station areas.¹¹ In the City of Guelph context, while the city has a station area that is served by the GO Transit rail network, according to Schedule 5 of APTG, the station in the city is not on a priority transit corridor. Given that the City of Guelph is not located along a priority transit corridor, there is no minimum density target for the transit station area in the City of Guelph. As such, the city will need to consider a density target that is appropriate for its SGAs based on the local context, including consideration of other SGAs, for example Urban Growth Centres (UGCs), and the alignment of transit investment with growth. The City of Guelph Housing Analysis and Strategy identifies that the proposed Major Transit Station Area boundary is consistent with the extent of the UGC. The city has delineated the UGC and established land-use policies to support a density target of 150 people and jobs to 2031 in the current OP. The recommended density target for the UGC is 200 people and jobs per hectare by 2051, based on the Secondary Plan model density and its role in the city's urban structure.¹²



APTG provides population and employment forecasts for upper-tier and single-tier municipalities which will apply throughout an MCR.

Figure 2-1 summarizes the population and employment forecasts for the City of Guelph, which had approximately 136,300 people and 80,300 jobs in 2016.¹³ As summarized below, the City of Guelph is forecast to reach a population of approximately 203,000 by 2051, adding approximately 66,700 people from 2016 to 2051. With respect to employment, by 2051 the city is forecast to reach 116,000 jobs, adding approximately 35,700 jobs from 2016 to 2051.

¹¹ Growth Plan for the Greater Golden Horseshoe, Office Consolidation, 2020, section 2.2.4.

¹² City of Guelph Housing Analysis and Strategy, Shaping Guelph: Growth Management Strategy, February 2021.

¹³ 2016 population and employment figures are rounded. The 2016 population base includes a census undercount adjustment of approximately 3.4%.

Figure 2-1: APTG population and employment projections for the City of Guelph

2051 population*	2051 employment*
203	116

*Figures shown represent thousands (i.e. 000s).

It is noted that the City of Guelph currently has an annexation in progress in Guelph/Eramosa Township related to the Dolime Quarry lands as initiated through a Minister's Zoning Order (MZO), which will add to the city's urban land supply in the city's DGA.¹⁴ The Dolime Quarry lands are estimated to accommodate approximately 5,000 persons as well as a modest amount of work at home and off-site employment. A key objective of this report is to assess if the MZO for Dolime Quarry will result in an upward impact on the city's long-term population growth forecast or rather shift residential development from other locations within the city (refer to section 5.2 for further discussion).

2.1.3 Provincial Land Needs Assessment Methodology

On June 16, 2020, the Minister released the proposed LNA in the GGH for consultation. The Minister formally issued the final methodology on August 28, 2020 in accordance with policy 5.2.2.1 c) of APTG.¹⁵ This methodology replaces the previous LNA methodology for the GGH that was issued on May 4, 2018. The revised LNA methodology focuses on a more simplified and outcome-based approach in comparison to the 2018 LNA methodology. Upper- and single-tier municipalities in the GGH are required to use the methodology in combination with the policies of APTG, to assess the quantity of land required to accommodate forecast growth.

The LNA methodology identifies that the results of an LNA can only be implemented through an MCR. As previously identified, an MCR is a new OP, or an Official Plan Amendment (OPA) initiated by an upper- or single-tier municipality under section 26 of the *Planning Act* that comprehensively applies the policies and schedules in APTG.

In accordance with the LNA methodology, land needs are to be assessed across two different areas including Community Areas and Employment Areas, as defined below:

Community Areas: Areas where most of the housing required to accommodate the forecasted population will be located, as well as

¹⁴ [History | Guelph's Dolime Quarry](#)

¹⁵ A Place to Grow. Growth Plan for the Greater Golden Horseshoe. Land Needs Assessment Methodology for the Greater Golden Horseshoe (2020). Ontario. August 28, 2020.

most population-related jobs, most office jobs and some employment land employment jobs. Community areas include delineated built-up areas (BUA) and DGA.

Employment Areas: *Areas where most of the employment land employment jobs are (i.e. employment in industrial-type buildings), as well as some office jobs and some population-related jobs, particularly those providing services to the employment area. Employment areas may be located in both delineated BUA and DGA.*¹⁶

The LNA methodology prescribes the key steps to establishing Community Area and Employment Area land needs. The key steps for Community Area land needs are found in section 2 of the LNA, and in section 3 for Employment Area land needs.^{17, 18}

2.2 What drives population and employment growth?

A broad range of considerations related to demographics, economics and socio-economics are anticipated to impact future population and employment growth trends throughout the City of Guelph over the 2016 to 2051 planning horizon. These factors will not only affect the rate and magnitude of growth but will also influence the form, density and location of residential and non-residential development.

As a starting point, it is important to recognize that future population and employment growth within the City of Guelph is strongly correlated with the growth outlook and competitiveness of the economy within the City of Guelph and the surrounding region – which in this case is largely represented by the west GGH. Many of the larger, developed urban areas within the GGH comprise the City of Guelph commuter-shed. Potential employment opportunities within the City of Guelph and surrounding commuter-shed represent the primary driver of net migration to this area (refer to Map 4-2).

The employment base within the City of Guelph and surrounding commuter-shed can be grouped into two broad categories – export-based sectors and community-based sectors. The latter primarily referring to local population serving employment. Export-based sectors are comprised of industries (i.e. economic clusters) which produce goods that reach markets outside the community (agriculture and primary resources, manufacturing, research and development as

¹⁶ Land Needs Assessment Methodology for the Greater Golden Horseshoe (2020), pp. 6 and 7.

¹⁷ Ibid. pp. 8 to 14.

¹⁸ Land Needs Assessment Methodology for the Greater Golden Horseshoe. Ontario. May 4, 2019, pp. 15 to 18.

well as other knowledge-based industries). Local industries also provide services to temporary and/or other residents of the municipality not captured by census data as part of the permanent population base such as hotels, restaurants, tourism-related sectors, colleges and universities, as well as businesses related to financial, professional, scientific and technical services.

Economic growth in the regional export-based economy generates wealth and economic opportunities which, in turn, stimulates community-based or population-related employment sectors, including retail trade, accommodation and food and other service sectors. Economic development subsequently drives the need for labour force growth which is largely generated from positive net migration. Ultimately, population growth in the City of Guelph within the 0-64 age group, similar the Country as whole, will continue to be largely driven by net migration associated with the working age population and their dependents (i.e. children, spouses not in the labour force, others). On the other hand, population growth of the city's 65+ population will continue to be largely driven by the aging of the city's existing population and, to a lesser extent the attractiveness and affordability of the city to new seniors.

2.3 Components of population growth

2.3.1 Census population

The census population refers to the population identified by the Statistics Canada Census, based on a detailed enumeration of Canadian residents which occurs every five years.¹⁹ The census population includes two key components:

1. **Permanent population** – The permanent population includes persons who reside in Canada on a permanent basis. In the context of the City of Guelph, this includes permanent persons who reside in the City of Guelph, including post-secondary students, during census enumeration.
2. **Non-permanent resident (NPR) population** – NPRs are defined by Statistics Canada as persons from another country who have been legally granted the right to live in Canada on a temporary resident permit along with members of their family living with them. These residents include foreign workers, foreign students, and the humanitarian population such as refugees and other temporary residents.²⁰ The majority of the NPR population in the City of Guelph is comprised of full-time post-secondary students and foreign workers.

¹⁹ The Statistics Canada Census was updated in 2016.

²⁰ Statistics Canada, Population and Family Estimates Methods.

It is important to understand future population trends associated with both permanent and NPR population within the City of Guelph as these two distinct demographic groups are anticipated to influence the city's future population growth rate, age structure and housing requirements in unique ways. More specifically, the City of Guelph NPR population is largely represented by a temporary cohort which is typically concentrated between the age of 15 and 34 and is represented largely by foreign students, skilled workers and their families.

It is noted that the population forecast methodology provided herein takes into account the unique demographic characteristics associated with the NPR population by distinguishing this population segment from the age-specific growth forecast model which forms a foundational component of the LNA. The future growth potential and composition of the NPR population with respect to full-time international students, other students, workers, asylum seekers has been further considered through an analysis of Immigration, Refugees and Citizenship Canada (IRCC) data, a review of International Mobility Program (IMP) data and post-secondary institutions data for the City of Guelph (i.e. University of Guelph and Conestoga College). This approach was employed to develop a "bottom-up" NPR population forecast which is then tested against total net migration and population levels anticipated throughout the city to the year 2051.

Statistics Canada data indicates that post-2015 growth in the NPR category in the Wellington County Economic Region has most recently been noticeably strong relative to pre-2015 activity.²¹ It is assumed a large share of NPR activity in the Wellington County Economic Region will be concentrated in the City of Guelph, and it is anticipated to represent a noticeable component of census population growth during the 2016 to 2021 period. Recent strength in NPR population growth has been largely been driven by increased demand in international post-secondary students across Canadian post-secondary institutions, including those in the City of Guelph. It is also noted that the Canadian federal government fast-track visa program which was officially launched in June, 2017 has also accelerated growth in foreign temporary workers.²² Looking forward, NPR population is expected to represent a more significant component of future population growth in the City of Guelph, relative to historical trends, which will influence both the future demographic composition of the city as well as housing needs particularly in

²¹ Wellington County Census Division includes Wellington County as well as the separated Municipalities within the geographic boundaries of the County including, the City of Guelph. For the purposes of this report, this area is referred to as the Wellington County Economic Region.

²² <https://www.immigration.ca/global-talent-stream-early-success-fast-track-canada-visa-pilot>.

locations within proximity to the city's post-secondary institutions. Further details about the forecast are provided in chapters 4 and 5 and Appendix B.

An additional component of the census population is the non-household population. The household-population relates to persons who are part of a household, whereas the non-household population relates to persons who are residents of collective dwellings. According to Statistics Canada, a collective dwelling refers to a dwelling of a commercial, institutional, or communal nature. Included in this type of dwelling are lodging or rooming houses, hotels, motels, tourist homes, nursing homes, hospitals, staff residences, communal quarters (military bases), work camps, jails, missions, and group homes. Collective dwellings may be occupied by usual residents or solely by foreign and/or temporary residents. Population in collective dwellings is expected to increase over time largely as a result of the aging population. Further details regarding forecast collective dwellings are provided in Chapter 5.

2.3.2 Census undercount

The Statistics Canada population is adjusted to account for the net number of persons who are missed (i.e. over-coverage less under-coverage) during enumeration. The 2016 census population adjusted for the census undercount was finalized by Statistics Canada in November 2019. For the City of Guelph, the 2016 Census undercount was estimated by Statistics Canada at approximately 3.4%.²³ It is also important to note that the census undercount varies by population age, where under coverage rates are typically highest for young adults between the ages of 19 and 24. A 3.4% population undercount has been assumed for the City of Guelph throughout the forecast period to 2051.²⁴

2.3.3 Total population

Total population is defined as:

The census population adjusted upward to account for census net undercoverage (which are those people missed by the census less those who have been double-counted). APTG Schedule 3 population forecasts are expressed in total population.

²³ Statistics Canada Table 17-10-0139-01, Population Estimates, July 1, by census division, 2016 boundaries.

²⁴ Again, it is noted that the census population undercount assumed for this study varies by age.

As previously mentioned, the City of Guelph uses an undercount of 3.4%. For the purposes of this report, total population refers to the census population adjusted upward to account for a 3.4% undercount.

2.4 Approach to student population growth forecast

Post-secondary students are an important part of the City of Guelph as they contribute to the vibrancy, diversity and economic strength of this area. It is recognized that there are approximately 21,900 full-time students attending local post-secondary institutions within the City of Guelph. This includes students who are permanent residents within the city, permanent residents outside the city and international students who are captured as non-permanent residents in the city. A portion of this population is not recognized in the census population base as reported by the Statistics Canada Census.²⁵ As part of this analysis, population growth associated with post-secondary students not captured in the census population has been “layered” onto the base total population and total population forecast to the year 2051. The total population and population associated with post-secondary students not captured in the census population is referred to as city population. The approach and methodology utilized to complete this analysis are discussed below.

The geographic origin of current (2016) full-time students was assessed with respect to the share of domestic (i.e. local, GTHA, other Ontario, out of province) and international students. This was completed through a review of available enrolment data from the two post-secondary schools and a review of Council of Ontario Universities Application statistics, and enrolment data from the Ministry of Colleges and Universities.

The analysis also considered the current (2016) residency of Guelph’s post-secondary student population including students who live on campus, off campus with parents or commute from outside the city, as well as those residing off campus in rental housing. This was assessed through available housing data available from the post-secondary institutions, 2016 census data, as well as through consultation with the City of Guelph Planning and Building Services Division.

The post-secondary student population not captured in the census data was estimated to total 13,900 in 2016. This includes a share of students living off campus in student rental housing and students residing in on-campus residences. Full-time post-secondary enrolment forecasts were prepared for each of Guelph’s two post-secondary institutions which involved the following:

²⁵ Reflects full-time enrolment at the University of Guelph and Conestoga College affiliated campuses located within the City of Guelph in 2016.

- Determination of current (2016) full-time enrolment by geographic location in Canada (i.e. local – City of Guelph and area, GTHA, rest of Ontario, Canada (excluding Ontario) and corresponding capture rates²⁶ for population 18-24 years of age by geographic zone. The share and number of total international students were also identified;
- Forecast population growth within the 18-24 age group by each geographic zone within Canada in five-year increments was then identified over the 2016 to 2051 period. Growth projections for Ontario were based on Ministry of Finance (MOF) growth projections, while Canadian growth projections (excluding Ontario) were derived from Statistics Canada;
- With capture rates held constant using the 2016 data, forecast undergraduate enrolment by geographic zone was identified to 2051 in five-year increments. Future graduate level enrolment growth at the University of Guelph was assumed to experience similar growth rates as undergraduate enrolment growth;
- Potential growth in international students was “layered on,” based on recent and anticipated enrolment growth trends at each of the schools as well as the future outlook for macro-level growth in international students globally; and
- In the development of the short-term forecast (i.e. 2016 to 2021), the analysis also considers actual enrolment levels through 2019

²⁶ Refers to the share of population aged 18-24 in the identified markets enrolled in the undergraduate level programs full-time at Guelph’s two post-secondary schools.



3 City of Guelph Historical Population and Housing Trends

3.1 Introduction

This Chapter provides an assessment of historical population and housing growth trends for the City of Guelph over the past several decades. A broad range of considerations related to demographics, economics, socio-economics and infrastructure are anticipated to drive future growth in the city over the long-term planning horizon. As further discussed in chapters 4 and 5, these factors will not only impact the rate and magnitude of growth but will also influence the form, density and location of residential development throughout the city.

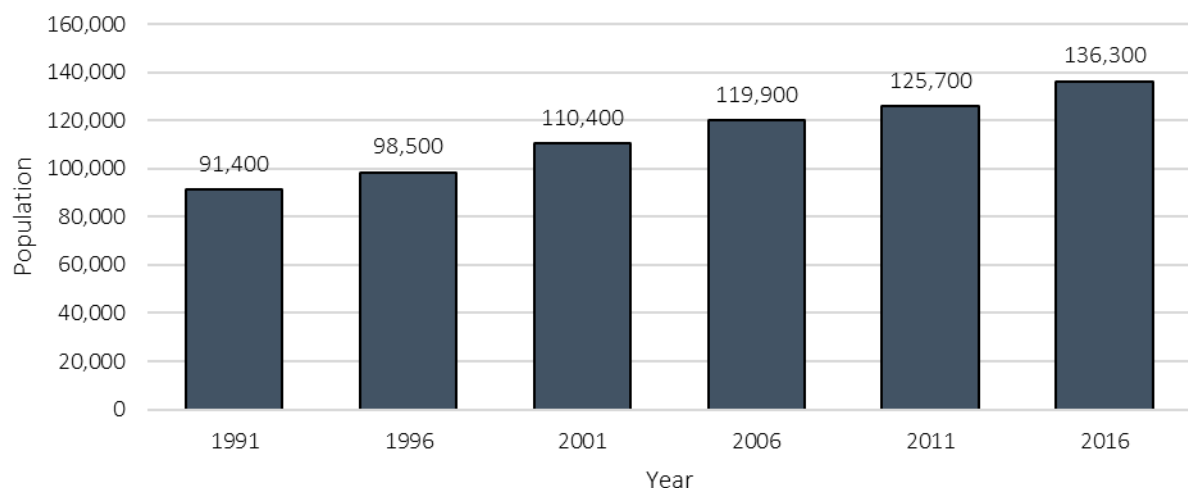
3.2 Review of historical census population and housing growth trends

3.2.1 City of Guelph historical population trends, 1991 to 2016

Figure 3-1 summarizes historical population growth trends for the City of Guelph over a 25-year period from 1991 to 2016 in accordance with Statistics Canada Census data. Figure 3-2 provides a summary of annual historical population growth rates for the City of Guelph, Wellington County, the GGH and the province as a whole. Key observations include the following:

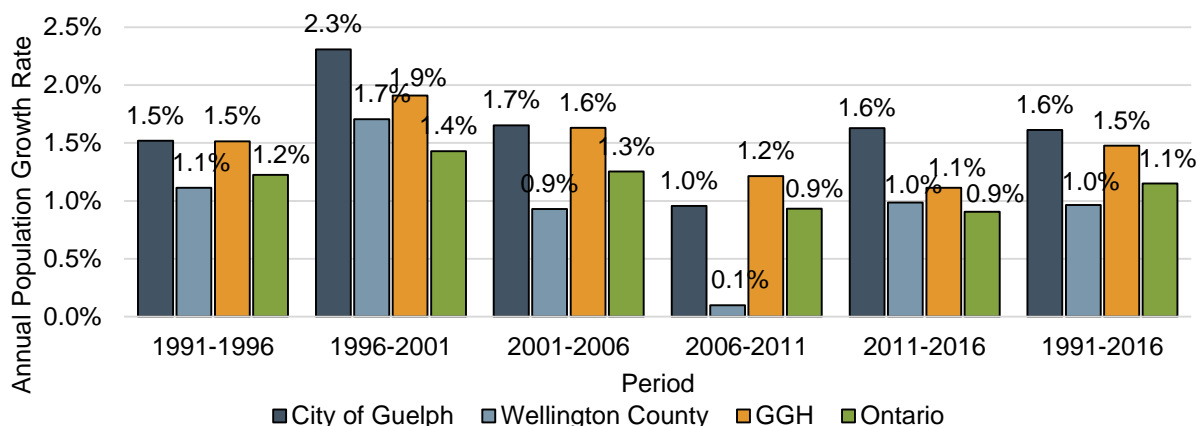
- The City of Guelph experienced strong population growth during this period, increasing from 91,400 to 136,600 – an increase of 44,900 or an annual growth rate of 1.6%. This is relatively higher than the annual growth in Wellington County (1.0%), the GGH (1.5%) and provincial average (1.1%) over the 25-year period;
- The annual population growth rate in the City of Guelph declined from 2006 to 2011 to 1.0% which is consistent with the broader area as a result of the 2008/2009 global economic recession, and has since increased over the past five years to 1.6%, with an increase of approximately 10,600 persons from 2011 to 2016; and
- Comparably, population growth rates over the past five years within the City of Guelph have been above both Wellington County (1.0%), the GGH (1.1%) and the provincial average (0.9%).

Figure 3-1: City of Guelph historical population, 1991 to 2016



Note: Population includes net Census undercount and is rounded.

Source: Derived from Statistics Canada Census and Annual Demographics Statistics/Estimates data by Watson & Associates Economists Ltd.,

Figure 3-2: City of Guelph annual historical population growth rates, 1991 to 2016

Note: Population includes net Census undercount.

Source: City of Guelph, Wellington County and Ontario derived from Statistics Canada Census and Annual Demographics Statistics/Estimates data, and GGH from Greater Golden Horseshoe: Growth Forecasts to 2051 Technical Report, August 2020, Hemson Consulting Ltd., by Watson & Associates Economists Ltd.

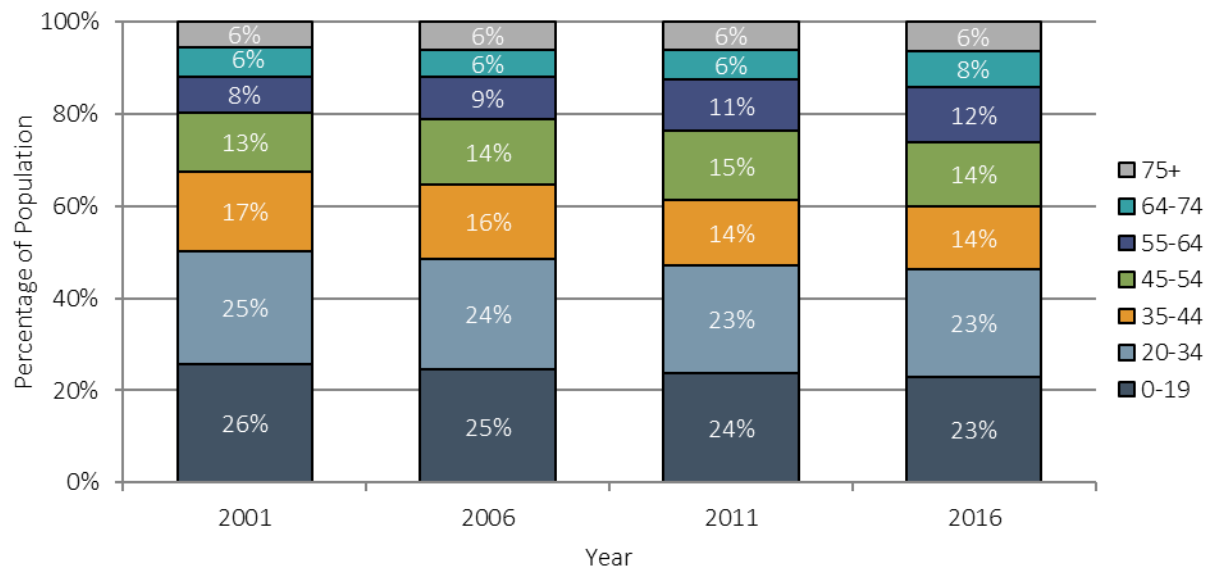
3.2.2 City of Guelph trends in total population age structure

Figure 3-3 summarizes historical trends in population structure by age cohort over the 2001 through 2016 period by major age groups. Figure 3-4 summarizes the 2016 population age structure in the City of Guelph compared to the GGH and the Province of Ontario as a whole. Key observations regarding the City of Guelph historical population by age include the following:

- In 2016, the 0-19 age cohort (youth population) in the City of Guelph accounted for 23% of the total population. Proportionately, the population share of this age cohort has decreased from 26% in 2001;
- The city's young adult/adult population share (20-54 years of age) has declined moderately over the same time period, comprising approximately 51% of the population in 2016:
 - The 20-34 age cohort (young adults), which comprised an estimated 23% of the population in 2016, has decreased in proportion from 25% in 2001;
 - The percentage of the 35-44 age group decreased from 17% in 2001 to 14% in 2016;
 - The percentage of adults 45-54 years old account for 14% of the 2016 population, up from 13% in 2001;
- The city's 55+ population (i.e. empty nesters and seniors') population share has increased over the same time period, specifically:

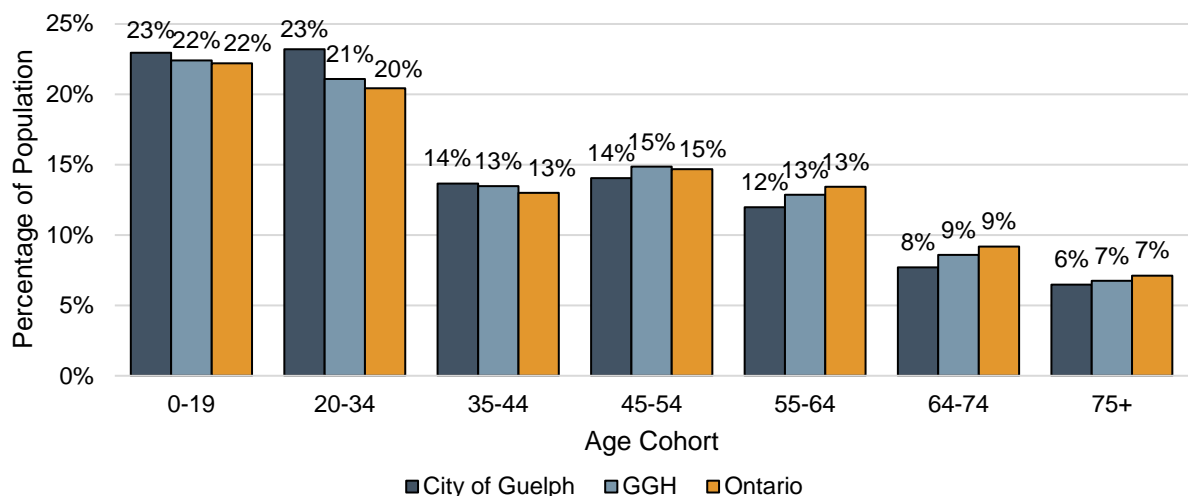
- The 55-74 age group (empty-nesters/younger seniors) increased by 6 percentage points between 2001 and 2016, from 14% to 20%;
- The 75+ age group (older seniors) has remained stable at 6% from 2001 to 2016. Looking forward, the share of the city's population in the 75+ age group is anticipated to increase significantly, driven by the aging of the Baby Boom population.²⁷ This is anticipated to place increasing demand on the need for seniors' housing, affordable housing, as well as social services to support the city's growing population base of seniors;
- Generally, the City of Guelph's 2016 age structure is younger than that of the GGH and the provincial average;
- A slightly lower proportion of the population in the City of Guelph is concentrated in the 45-54 age group, 55-74 age group and 75+ age group in comparison to the GGH and the province of Ontario as a whole; and
- The City of Guelph has a higher proportion of youth and adults between the ages of 0-19, 20-34, and 35-44 respectively, when compared to the GGH and the Province of Ontario.

²⁷ Baby Boomers refer to those born between 1946 and 1964.

Figure 3-3: City of Guelph population by age cohort, 2001 to 2016

Note: Population includes net Census undercount.

Source: Population forecast by age derived from 2001 to 2016 Statistics Canada Census and Annual Demographics Statistics/Estimates data by Watson & Associates Economists Ltd., 2020.

Figure 3-4: City of Guelph, GGH and Ontario population by age cohort, 2016

Note: Population includes net Census undercount.

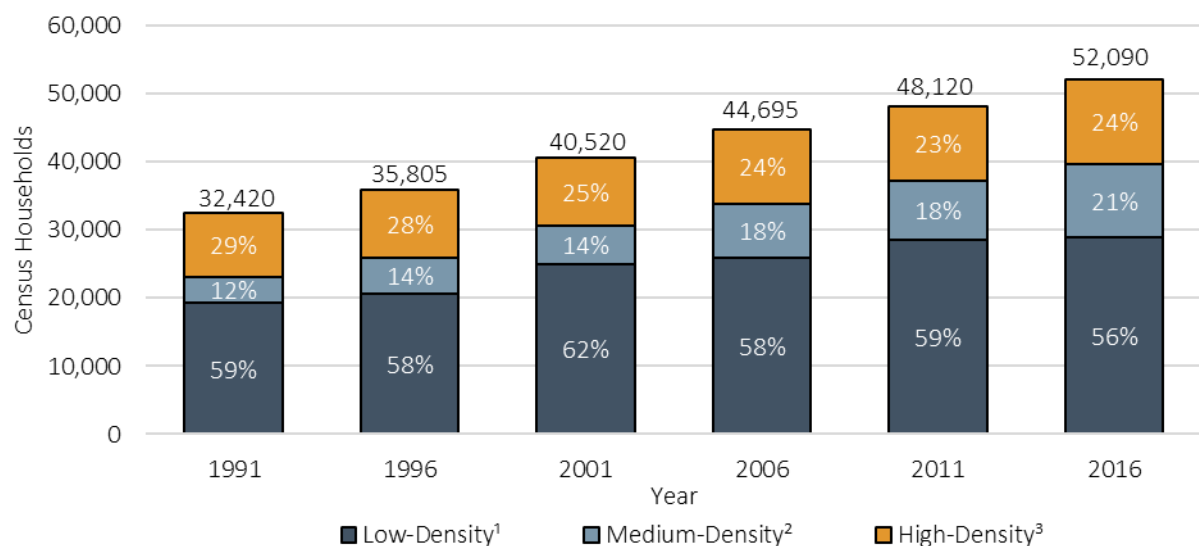
Source: Derived from Statistics Canada Census and Annual Demographics Estimates data by Watson & Associates Economists Ltd.

3.2.3 Historical census housing trends, 1991 to 2016

Similar to population growth trends, the City of Guelph has experienced a steady rate of census housing growth over the past 25 years. During this historical period, the city's housing base has increased by approximately 19,700 households from

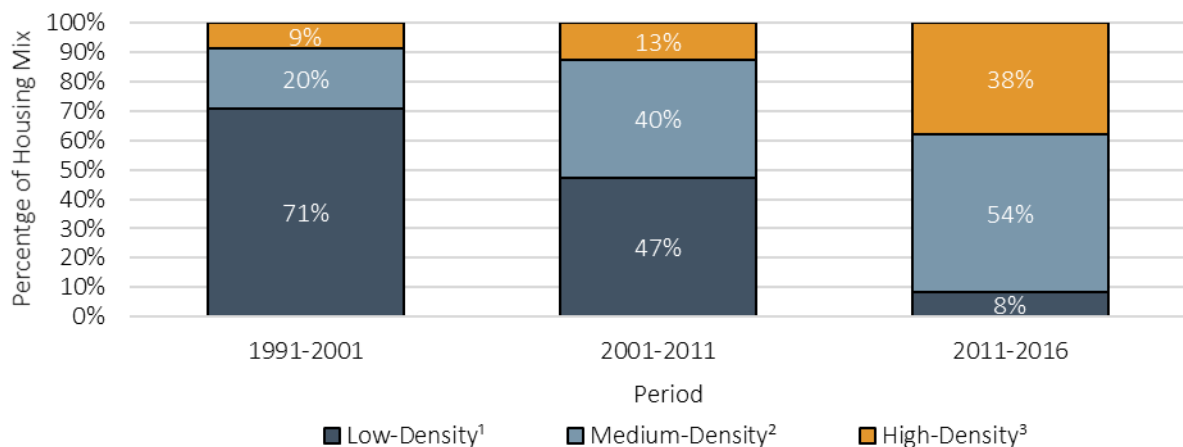
32,400 to 52,100, which represents an increase of approximately 790 census housing units per year.²⁸ Figure 3-5 and Figure 3-6 summarize housing growth by density type between 1991 and 2016. Low-density households largely include single and semi-detached units; townhouses comprise medium-density households and apartments in duplexes, while apartments are included in the high-density category. Historically, low-density housing has comprised the majority of new housing development over the past 25 years (at 49% of census housing growth). Recent housing growth over the past five years from 2011 to 2016, however, has shifted towards medium- and high-density housing forms (92% of total housing growth). Over the next 25 years, it is anticipated that housing development within the City of Guelph will be increasingly concentrated in medium- and high-density forms, largely driven by housing affordability and the aging of the city's population base. Notwithstanding this trend, it will be important for the city to provide a broad range of housing across all market segments by age and income.

Figure 3-5: City of Guelph, historical number of households, 1991 to 2016



Source: Derived from Statistics Canada Census data, 1991 to 2016, by Watson & Associates Economists Ltd., 2020.

²⁸ Excludes off campus student households occupied by students, which are not categorized as private dwellings occupied by usual residents in City of Guelph in the Statistics Canada Census.

Figure 3-6: City of Guelph, historical share of housing growth by type, 1991 to 2016

¹Includes singles and semi-detached households.

²Includes townhouses and apartments in duplexes.

³Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

Source: Derived from Statistics Canada Census data, 1991 to 2016, by Watson & Associates Economists Ltd., 2020.

3.2.4 Housing occupancy trends within the City of Guelph

Household headship rates

A household headship rate is defined as the ratio of primary household maintainers, or heads of households, by major population age group (i.e. cohort).²⁹ Between 1996 and 2016, the City of Guelph's total headship rate increased modestly from 36% to 38% (refer to Appendix B for additional details). An understanding of historical headship rate trends is important because this information provides insights into household formation trends associated with population growth by age, family type and family structure. While major fluctuations in headship rates are not common over time, the ratio of household maintainers per capita varies by population age group. For example, a municipality with a higher percentage of seniors will typically have a higher household maintainer ratio per capita (i.e. headship rate) compared to a municipality with a younger population. This is because households occupied by seniors typically have fewer children than households occupied by adults under 65 years of age. Accordingly, forecast trends in population age structure provide important insights into future headship rates and average persons per unit (PPU) trends for the City of Guelph, which is further discussed below and in Chapter 5. It is important to note that headship rates by major age group are anticipated to remain relatively stable over the long-term forecast period.

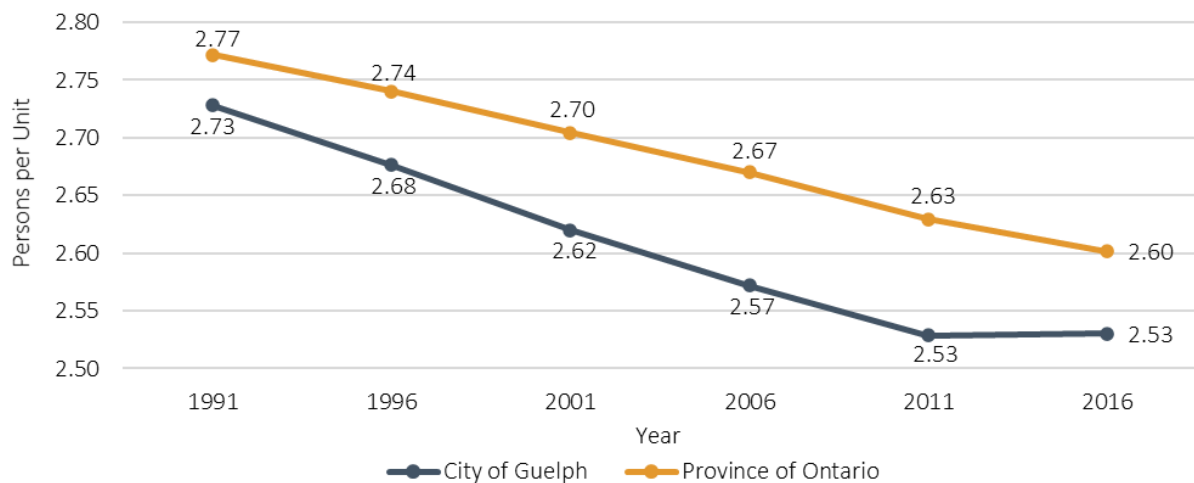
²⁹ It is noted that each household is represented by one primary household maintainer.

Persons per housing unit (PPU)

Figure 3-7 summarizes trends in average housing occupancy for the City of Guelph and the Province of Ontario over the 2001 to 2016 period, expressed as the average number of persons per unit (PPU).³⁰ Trends in household occupancy and age structure are a particularly important statistic for urban planners, as these trends have broad implications for the amount and type of future housing needs associated with population growth as well as demands for public infrastructure, municipal services and schools. Key observations include the following:

- The average PPU for the City of Guelph has steadily declined over the 1991 to 2016 period; however, since 2011 the city's average PPU has stabilized at 2.53;
- Average housing occupancy levels for the province as a whole are higher relative to the City of Guelph; however, the rate of PPU decline between 1991 and 2011 was relatively comparable. In contrast to the City of Guelph, the average PPU for the province continued to decline between 2011 and 2016;
- The recent trend toward greater stabilization in average household occupancy within the City of Guelph is largely believed to be a result of delays in adult children leaving home largely due to rising housing ownership and housing rental costs. An increase in multi-family (i.e. multi-generational) dwellings is also believed to be driving this trend. These trends have also been observed across many other GGH municipalities, most notably the more populated, urbanized municipalities within the GTHA;
- Over the next 15 years (2016 to 2031) average PPU levels are anticipated remain stable, largely driven by strong net migration levels associated with young families arriving in the City of Guelph; and
- The average PPU for the City of Guelph is forecast to continue to decline over the longer term. This decline, however, is anticipated to occur at a slower rate relative to historical trends primarily as a result of strong net migration associated with young adults (both from permanent and NPR population) anticipated over the forecast period (particularly over the next 15 years).

³⁰ Average number of persons per unit (PPU) defined as the total population divided by the number of occupied dwelling units.

Figure 3-7: City of Guelph, historical persons per unit (PPU) trends, 1991 to 2016

Note: Population used to calculate persons per unit does not include the net Census undercount.

Source: Derived from Statistics Canada Census and Annual Demographics Statistics/Estimates data by Watson & Associates Economists Ltd., 2020.

Figure 3-8 summarizes the average PPU for new households occupied from 2011 to 2016 for the City of Guelph by planning policy area. During this time period, the average PPU within the DGA has experienced a minor decrease but remained well above average municipal-wide housing occupancy levels. This observation suggests that average household sizes, particularly related to new construction, on DGA lands are likely to remain higher relative to households within the BUA. The average PPU levels within the BUA have remained stable between 2011 and 2016.

Figure 3-8: City of Guelph historical persons per unit (PPU) trends by built-up area (BUA), designated greenfield area (DGA), 2011 and 2016

Geographic area	2011 population	2011 occupied dwellings	2011 PPU	2016 population	2016 occupied dwellings	2016 PPU
Built boundary	112,653	44,942	2.51	116,777	46,698	2.50
Greenfield	9,032	3,178	2.84	15,038	5,392	2.79
Total	121,685	48,120	2.53	131,815	52,090	2.53

Note: Population excludes the net census undercount.

Source: Derived from City of Guelph growth management data and custom Statistics Canada Census PPU data, by Watson & Associates Economists Ltd.

Generally, it is observed that for newly developed units, average housing occupancy levels tend to increase in the shorter term (1 to 5 years) as new home buyers form

families, followed by a decline over the medium term (15 to 30 years) as children age and eventually leave home. This trend is then followed by a period of stabilization over the long term (30+) as older units are regenerated by new families. The result of this pattern is that more recently constructed housing units typically yield a higher PPU on average in comparison to older units.

Figure 3-9 through Figure 3-11 summarize average PPU levels for newer housing units (i.e. units which are 15 years or newer in accordance with census data) by structure type (i.e. low, medium and high density) between 2006 and 2016 for the City of Guelph, as well as selected surrounding GGH municipalities. This analysis provides insights associated with future household formation trends with the City of Guelph relative to broader provincial trends. Key observations include:

- As of 2016, the average PPU for new low-density dwellings in the City of Guelph was 3.41, up from an average of 3.21 in 2006;
- Average new unit PPU levels in the City of Guelph are below the average housing occupancy levels of the more populated, urbanized municipalities surveyed within the GTHA, but comparable to many of the other GGH municipalities surveyed as well as the provincial average;
- In contrast to low-density households, average PPU levels have not risen by notable amounts over the past decade for medium-density dwellings in the City of Guelph, experiencing only a slight increase from 2.45 to 2.49. The Town of Oakville and Town of Milton were the only GGH municipalities surveyed within the surrounding area that showed a steady PPU increase between 2006 and 2016; and
- Average PPU levels for new high-density dwellings remained stable between 2006 and 2016 for the City of Guelph. This trend is relatively unique compared to many of the other GGH municipalities surveyed (except for the City of Waterloo and the City of Burlington) as well as the province as a whole, which experienced a PPU decline between 2006 and 2016 in high-density units.

Figure 3-9: City of Guelph and surrounding GGH municipalities, comparative PPU by low density dwellings for newer housing units (1 to 15 years of age)

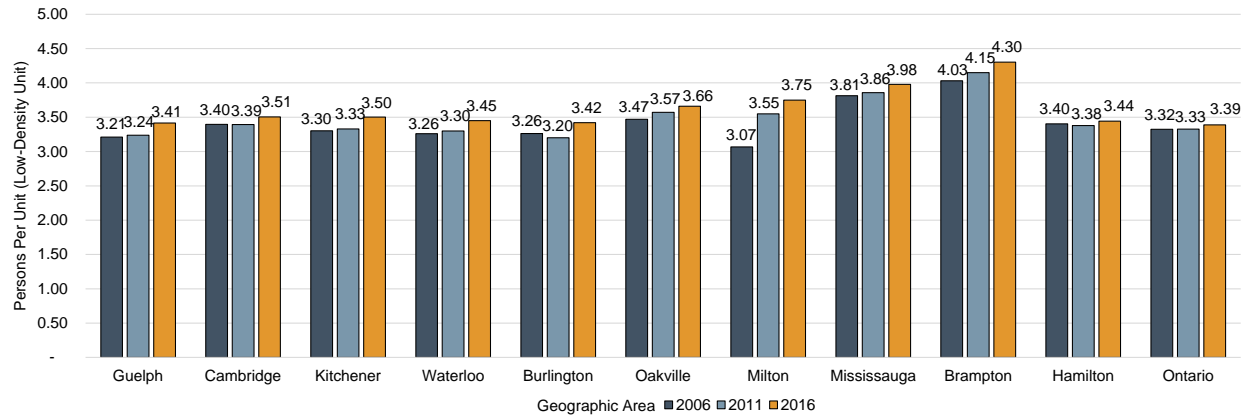


Figure 3-10: City of Guelph and surrounding GGH municipalities, comparative PPU by medium density dwellings for newer housing units (1 to 15 years of age)

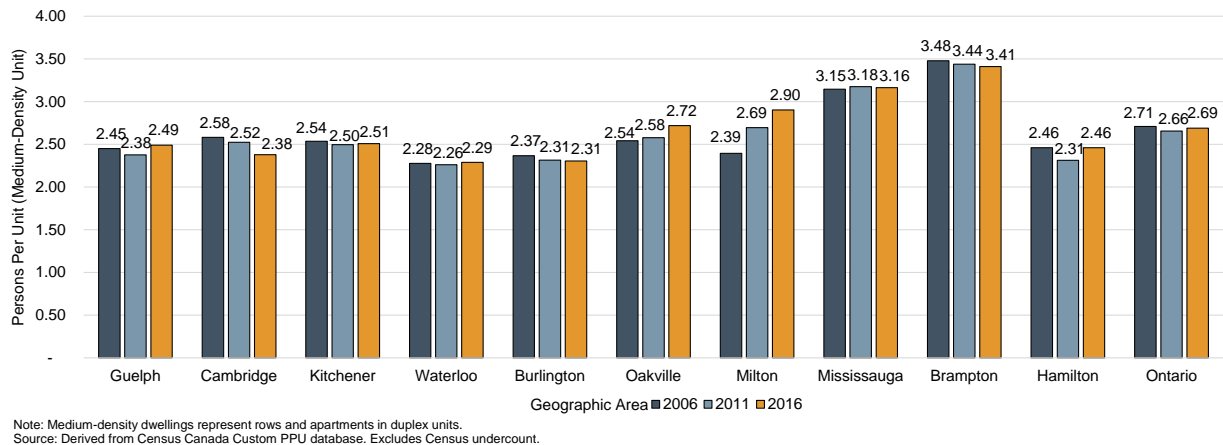
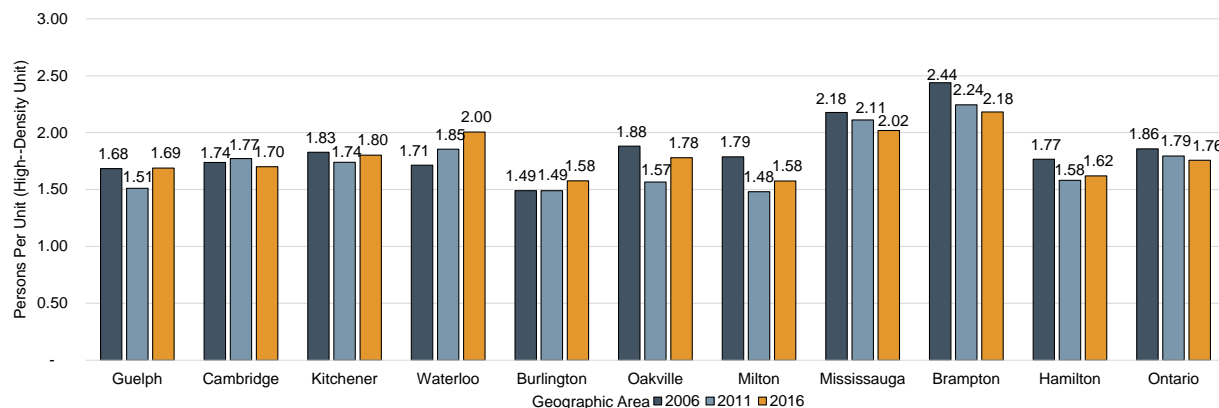


Figure 3-11: City of Guelph and surrounding GGH municipalities, comparative PPU by high density dwellings for newer housing units (1 to 15 years of age)



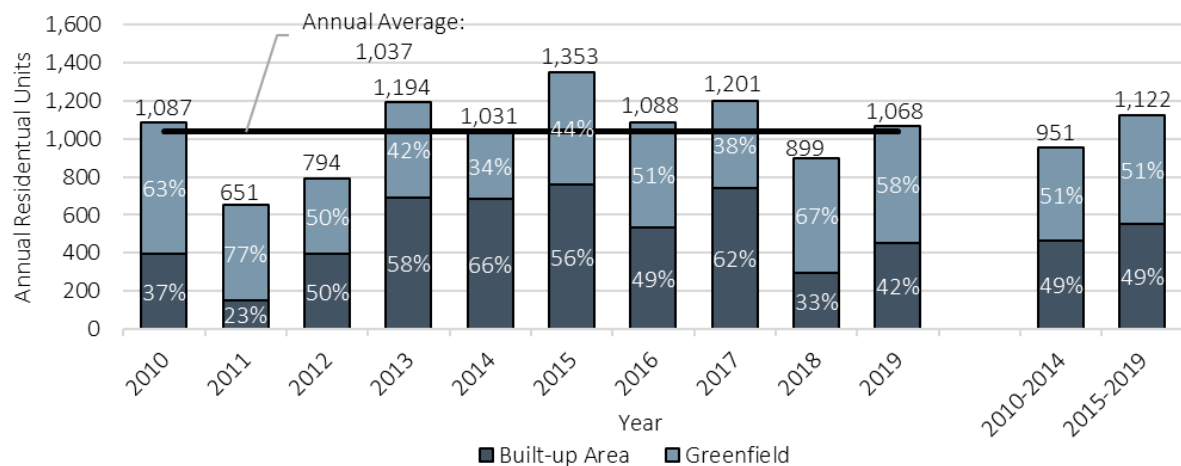
3.2.5 Historical residential development activity by structure type and location

Figure 3-12 and Figure 3-13 summarize recent residential building permit activity for new units in the City of Guelph by planning policy area and structure type between 2010 and 2019. During this this historical time period:

- Residential new units from building permits averaged approximately 1,040 annually;
- Residential units from building permit activity from 2015 to 2019 was 18% higher compared to the 2010 to 2014 period;
- Approximately half of new units from building permit activity occurred within the built-up area, averaging just over 500 annually;
- Units from residential building permit development activity has remained stable over the past decade, with the BUA comprising 49% of new units from 2010 to 2014 and 2015 to 2019; and
- A broad mix of housing structure types have been accommodated within the City of Guelph, however, recent housing construction has been steadily shifting towards high-density housing forms comprising 47% of residential building permits between 2015 and 2019, up from 30% between 2010 and 2014.

Map 3-1 illustrates the location and concentration of residential building permit activity for the City of Guelph between 2006 and 2019. During this time-period, building permit activity in the city was concentrated around arterial roads, within proximity of the UGC and clustered in various areas of the DGA.

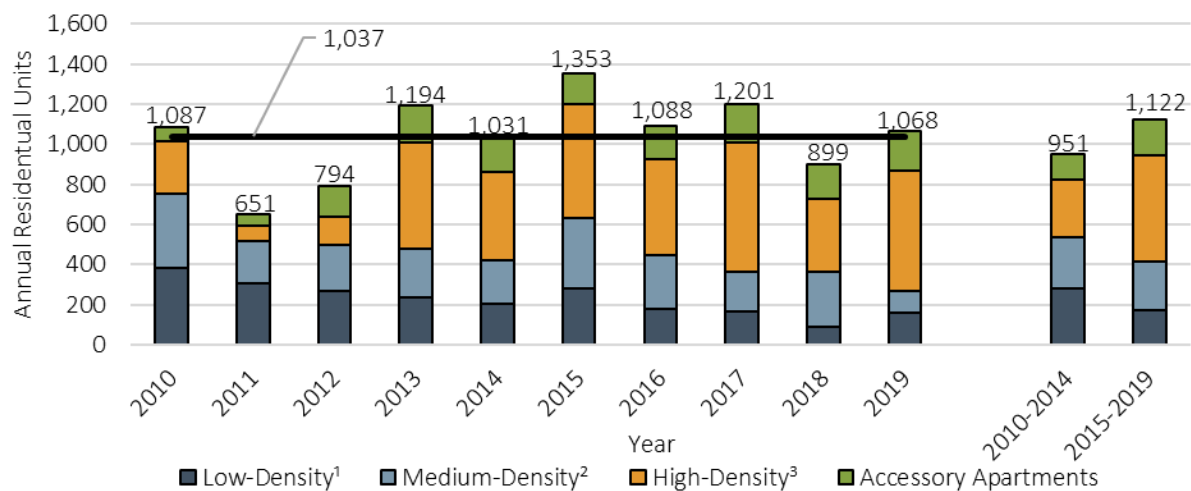
Figure 3-12: City of Guelph, residential units from building permit activity (new units) by planning policy area, 2010 to 2019



Note: There are no annual residential units in the rural area.

Source: Derived from City of Guelph building permit data by Watson & Associates Economists Ltd., 2020.

Figure 3-13: City of Guelph, residential building permit occupancy (new units) by type, 2010 to 2019



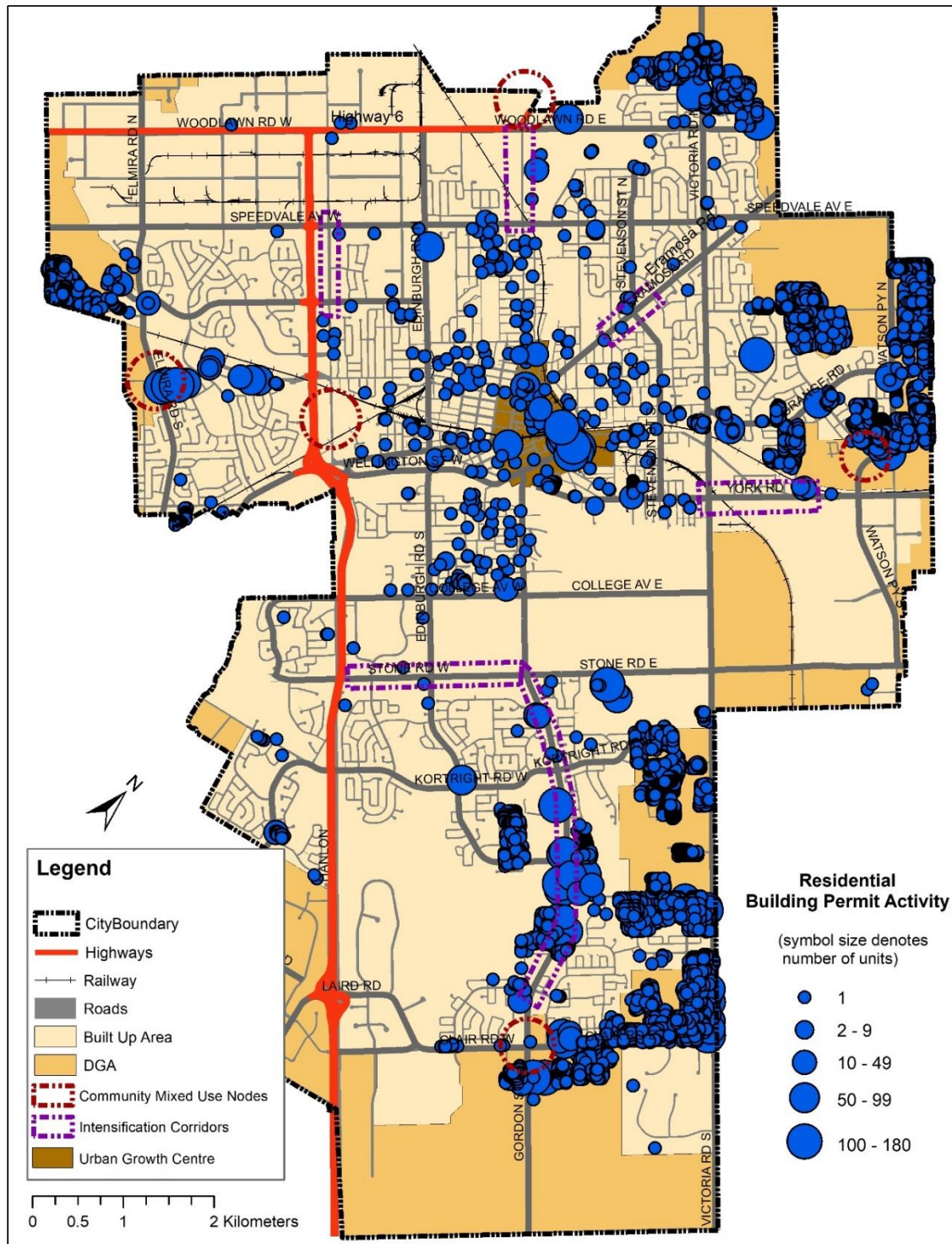
¹ Includes singles and semi-detached households.

² Includes townhouses and apartments in duplexes.

³ Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

Source: Derived from City of Guelph building permit data by Watson & Associates Economists Ltd., 2020.

Map 3-1: City of Guelph, residential building permit activity (new units), 2006 to 2019



3.2.6 Housing propensity by structure type, 2016

Figure 3-14 summarizes historical housing propensity (i.e. demand) trends by structure type for census households (private dwellings occupied by usual residents) in the City of Guelph based on 2016 Statistics Canada Census data. Age-specific propensities measure housing demand by dwelling structure type, by age of household maintainer.

The socio-economic characteristics of the city's population related to income/affordability, lifestyle, family size, lifestyle decisions, health and mobility vary by population age, which in turn, influences the demand for housing by structure type. As illustrated in Figure 3-14, propensities for high-density housing (apartments and condominium units) are highest among younger age groups, while propensities for low-density housing (single and semi-detached housing) tend to be highest among population age groups between 35 and 64 years of age.

As previously mentioned in section 3.2.2, the City of Guelph population is aging and the 55+ age group has grown considerably over the past 15 years. Looking forward, the percentage of seniors, particularly older seniors in the 75+ age group, within the City of Guelph is expected to increase in both percentage and absolute terms over the next several decades. As the average age of the City of Guelph population continues to increase, it is anticipated that the demand for higher density housing forms will also continue to steadily increase. As illustrated in Figure 3-15, 53% of demand for high-density housing growth from 2011 to 2016 was in the 55+ age group.

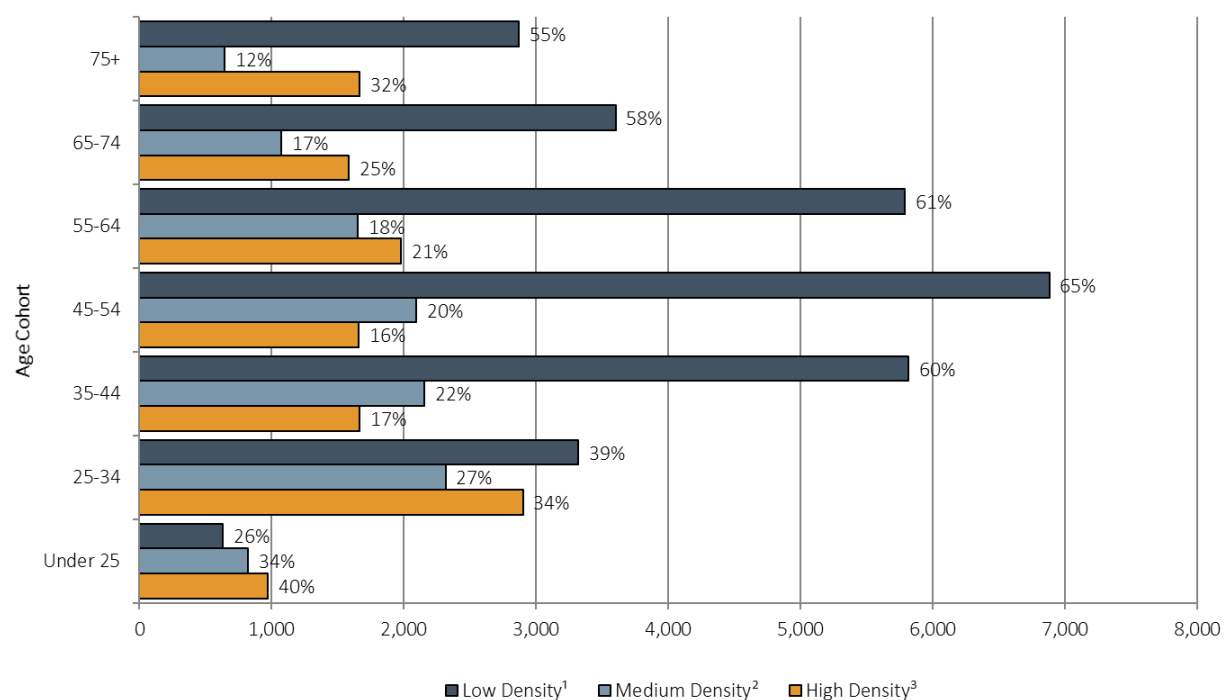
Within the 55+ age group, housing demand related to the 55-74 age group is anticipated to be relatively stronger for ground-oriented housing forms (i.e. single detached, semi-detached and townhouses) which provide proximity to urban amenities, municipal services and community infrastructure. With respect to the 75+ age group, the physical and socio-economic characteristics of this age group (on average) are considerably different than those of younger seniors, empty-nesters and working adults with respect to income, mobility and health. Typically, these socio-economic and physical characteristics represent a key driver behind the higher propensity from this age group for high-density housing forms (including seniors' housing) which are in proximity to urban amenities, health care services and other community facilities.

It is important to note that the growth in high-density housing presented in this section relates to private dwellings occupied by usual residents, and does not include the population living in collective dwellings (as previously defined in section 2.3.1). Over the next 35 years, the rate of population growth associated with collective dwellings is anticipated to increase significantly relative historical trends largely due to demand from the 75+ age group. This age group is anticipated to represent the fastest growing age-cohort across the City of Guelph and place demand on accommodations such as seniors' homes, nursing homes, assisted

living, and long-term care homes, which in many cases are not categorized by Statistics Canada as private dwellings occupied by usual residents. Section 5.4, herein, provides a long-term forecast of City of Guelph population living in collective dwellings.

The City of Guelph is also anticipated to accommodate a growing share of young adults and new families seeking competitively priced home ownership and rental opportunities. Accordingly, opportunities should be explored to provide a mix of future housing across a range of density types to accommodate those with varying levels of income (including affordable housing options) within greenfield areas.

Figure 3-14: City of Guelph permanent housing propensity by structure type, 2016



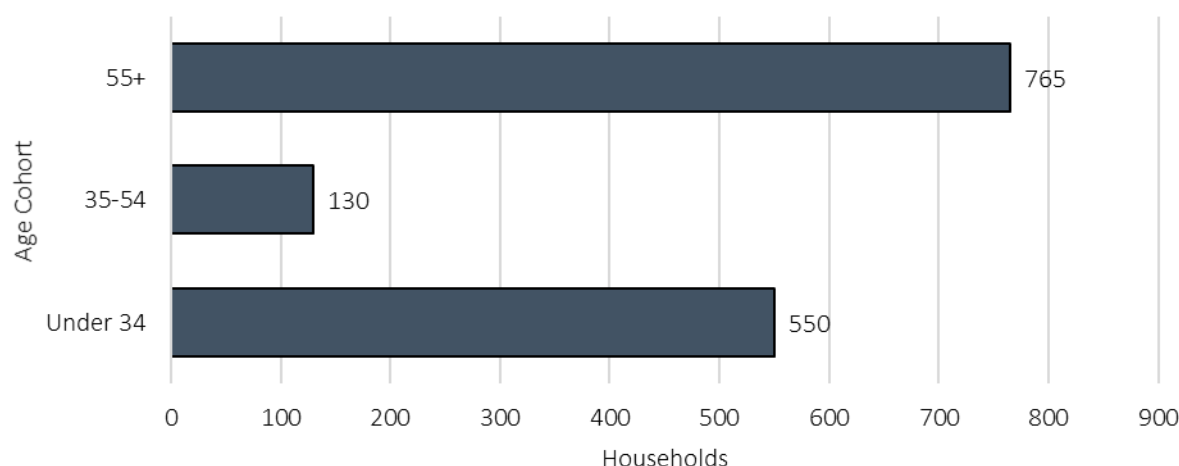
¹ Includes singles and semi-detached units.

² Includes townhouses and apartment in duplexes.

³ Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Source: Data from Statistics Canada Census 2016 by Watson & Associates Economists Ltd., 2020.

Figure 3-15: City of Guelph high-density housing propensity change by age group, 2011 to 2016



Note: Total change may vary from other figures in the report due to different Statistics Canada datasets used.

Source: Data from Statistics Canada Census, 2011 and 2016, by Watson & Associates Economists Ltd., 2020.

In addition to population age structure, there are a number of factors such as household income, housing affordability, lifestyle decisions, health, mobility and planning policy, which also influence the form and type of housing units constructed across the City of Guelph. These additional factors make it difficult to accurately project housing propensity by type over both the short-term period and the longer-term planning horizon as the impact of these other socio-economic variables cannot be easily isolated or tested in the city's housing forecast. It is also recognized that the housing propensity analysis summarized above in Figure 3-15 does not provide insight with respect to housing demand by structure during the post-2016 period. As such, it is recognized that this data represents one historical information source in developing long-term assumptions regarding forecast housing growth by structure type but should also be supported by a thorough review of more recent and forward-looking data sources. Such data sources should include, but would not be limited to, recent residential building permit activity/housing completions, market trends in housing prices relative to household income, active residential development applications within the City of Guelph and post-censal migration trends within the Wellington County Census District.

3.2.7 Trends in City of Guelph housing prices, 2010 to 2020

Economic conditions and housing prices play a key role in shaping housing development trends. Over the past two decades, the GGH has experienced a steady increase in housing prices driven by rising land prices, strong population growth and a robust employment market. Generally, strong fundamentals associated with the Canadian economy have also attracted a steady stream of local and foreign investment to the GGH real estate market. The current low-interest rate

environment has also enabled the appreciation of residential real estate values as buyers have benefited from access to low-rate mortgages. Recent federal policy changes targeted to gradually “cool” the market particularly in the cities of Toronto and Vancouver, however, have somewhat slowed housing appreciation across some areas of the Country, including the GGH in general.

Figure 3-16, summarizes historical trends in average housing sale prices for the City of Guelph and several GGH municipalities for single detached dwelling units between 2010 and 2020. Housing price data for townhouses and condominiums is also provided for 2020, where available. Across the GGH, housing prices for new single detached units vary considerably, with average prices highest in the GTHA municipalities of Mississauga, Burlington and Oakville. Comparatively, the average price of a single detached house is significantly lower in the City of Hamilton within the GTHA context. Average housing prices for new single detached houses within the City of Guelph fall between these ranges. With respect to housing appreciation for new single detached units, Burlington and Mississauga have experienced the strongest average annual growth rate over the past 10 years, with the municipalities of Milton, Guelph, Cambridge and Brantford following in this regard.

Figure 3-16: Historical trends in GGH housing prices

Municipality	New single detached price, 2010	New single detached price, 2020	Townhouse price, 2020	Condominium price, 2020	Annual increase in new single detached housing unit, 2010-2020
City of Burlington	\$602,800	\$2,297,800	\$760,500	\$521,400	14%
City of Mississauga	\$784,400	\$2,780,400	\$833,700	\$533,800	13%
Town of Milton	\$441,100	\$1,078,200	\$731,100	\$523,500	9%
City of Guelph	\$372,700	\$907,900	\$447,300	\$369,100	9%
City of Cambridge	\$338,200	\$774,900	\$425,500	\$503,200	9%
City of Brantford	\$285,200	\$645,300	\$330,400	\$275,800	9%
Town of Oakville	\$958,700	\$2,143,700	\$915,200	\$646,000	8%
City of Caledon	\$561,000	\$1,092,400	\$753,000	-	7%
City of Kitchener ¹	\$388,700	\$751,300	\$416,100	\$314,900	7%
City of Waterloo ¹	\$468,700	\$870,900	\$416,100	\$314,900	6%
City of Brampton	\$483,200	\$868,300	\$721,600	\$461,500	6%
City of Hamilton	\$422,700	\$636,200	-	-	4%

¹ City of Kitchener and City of Waterloo townhouse and condominium prices are based on their combined market. Source: Watson & Associates Economists Ltd. Data for average single detached prices based on the average price of new single detached units derived from Canada Mortgage Housing Corporation (CMHC), Housing Market Absorption Survey. Townhouse and condominium prices for the City of Guelph, City of Cambridge, City of Kitchener, City of Waterloo and City of Brantford derived from Canadian Real Estate Association MLS HPI data. Townhouse and condominium prices for the City of Burlington, Town of Milton, Town of Oakville, City of Mississauga, City of Brampton and City of Caledon derived from TREB Market Watch reports.

3.2.8 City of Guelph household income trends, 2001 to 2016

Figure 3-17 summarizes average household income growth for the City of Guelph and the Province of Ontario between 2000 and 2015. Key observations are as follows:

- As of 2015, the estimated average household income in the City of Guelph was \$94,400, which is marginally lower compared to the average household income for the Province of Ontario; and
- The annual rate of household income growth for the City of Guelph has increased over the past five years relative to the previous five years. Household income growth over the past ten years in the city has been slightly lower relative to the Province of Ontario.

Figure 3-17: City of Guelph and Province of Ontario, average household income, 2001 to 2016 census years

Census year	City of Guelph average household income	Province of Ontario average household income
2001	\$64,700	\$66,800
2006	\$76,100	\$78,000
2011	\$83,000	\$85,800
2016	\$94,400	\$97,900
Census period	City of Guelph average household income annual growth	Province of Ontario average household income annual growth
2001-2006	\$2,280	\$2,240
2006-2011	\$1,380	\$1,560
2011-2016	\$2,280	\$2,420
Census period	City of Guelph average household income annual growth rate	Province of Ontario average household income annual growth rate
2001-2006	3.3%	3.1%
2006-2011	1.8%	1.9%
2011-2016	2.6%	2.7%

Note: Census year income shown is for previous year; e.g. 2001 to 2016 is 2000 to 2015 income.

Source: 2001 to 2016 data derived from Statistics Canada Census and NHS by Watson & Associates Economists Ltd.

While average household income levels in the City of Guelph have kept up closely with the provincial average, average household incomes have not kept pace with rising resale and new housing prices. As a result, housing affordability has been steadily eroded over the past decade across the GGH, most notably within the larger urban centres of the GTHA. As a result of this upward pressure on housing prices and steady reduction in housing affordability, there is a need to ensure that sufficient opportunities exist within the City of Guelph (and across the GGH in general) to accommodate a range of housing types (i.e. ground-oriented and high density) for all income levels, including market, affordable, assisted and emergency housing.^{31, 32, 33}

3.2.9 Visible minorities, 2001 to 2016

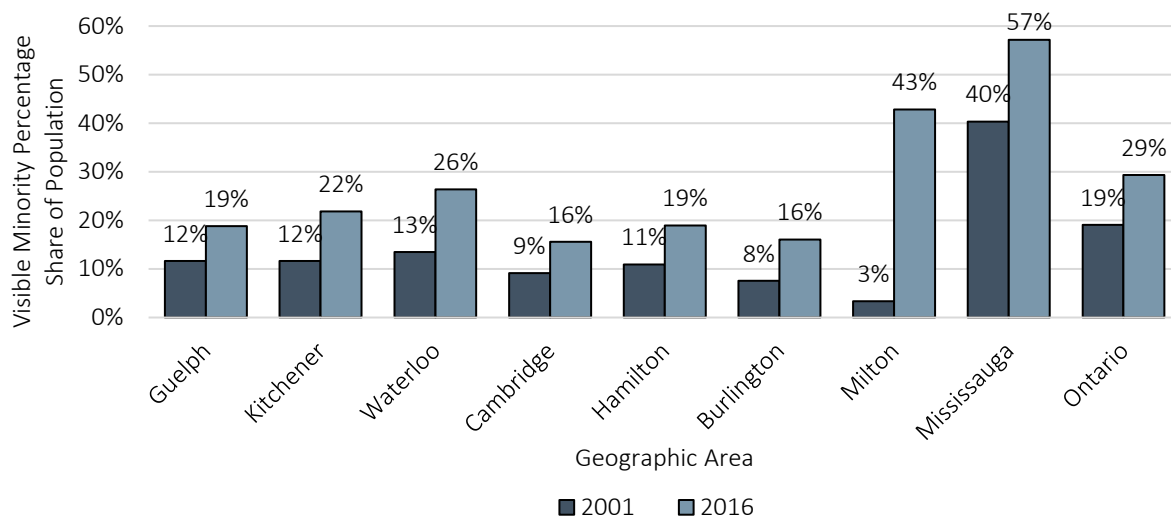
The changing ethnic makeup within the City of Guelph is also anticipated to have an impact on future trends related to family type (e.g. multiple families, non-families) and average household size. These evolving trends are anticipated to have an impact on future housing needs associated with population growth across the city. Figure 3-18 identifies the percentage total of population categorized as “visible minority” according to the 2001 and 2016 censuses, within the City of Guelph as well as selected municipalities within the surrounding area.

During the 2001 to 2016 period, the percentage share of visible minorities in the City of Guelph increased from 12% to 19%, respectively. This is comparable to outer GTHA and GGH municipalities, while inner GTHA municipalities which have experienced strong growth over the past decade have a significantly higher share of visible minorities, such as the Town of Milton and the City of Mississauga. These socio-economic trends are important to consider with respect to future housing needs and housing occupancy trends across the City of Guelph.

³¹ Affordable housing is defined in the 2014 Provincial Policy Statement, p. 38, as housing with a market price or rent that is affordable to households of low to moderate income, spending no more than 30 percent of their gross income without government subsidies, with sufficient income remaining to meet other daily living needs.

³² Assisted housing is defined as housing that is available to low- and moderate-income households for rent or purchase where part of the housing cost is subsidized through a government program.

³³ Emergency housing refers to shelters, supportive housing, transitional housing, etc.

Figure 3-18: Percentage share of population that is a visible minority, 2001 and 2016

Source: Derived from Statistics Canada Census data by Watson & Associates Economists Ltd., 2020.

3.2.10 City of Guelph – Active residential applications in the development pipeline, vacant land and infill opportunities

The residential real estate market for the City of Guelph is represented by a diverse mix of low-, medium- and high-density housing products. Over the past decade, the city's housing market has continued to transition towards medium- and high-density development. As shown in Figure 3-19:

- There are approximately 5,320 committed units proposed in the city's development pipeline of which 8% are represented by low-density housing forms, 16% are medium density, while the remaining 76% are defined as high-density housing units;³⁴
- There are an additional 9,180 identified uncommitted units on vacant greenfield lands and infill opportunities of which 11% are low-density housing forms, 36% are medium density and 53% are high-density housing units;
- The Clair-Maltby Secondary Plan is a major area for new residential development and is anticipated to be largely built out by 2041. It will add approximately 7,150 units of which 17% are low-density housing forms, 23% are medium density and 60% are high-density housing units; and

³⁴ Development pipeline, as defined herein, includes registered unbuilt, approved and draft approved housing.

- High- and medium-density development projects appear to be targeted towards a broad range of demographic groups, including young urban professionals, families, empty nesters, seniors, students and temporary residents.

Figure 3-19: City of Guelph future housing supply in the development pipeline (as of 2019)

Stage of development	Committed singles & semi-detached	Committed multiples ¹	Committed apartments ²	Committed total units
Greenfield in development approvals	225	224	1,541	1,990
Residential infill in the development process	210	607	2,515	3,332
Total committed	435	831	4,056	5,322
Total committed % breakdown	8%	16%	76%	100%
Stage of development	Uncommitted singles & semi-detached	Uncommitted multiples ¹	Uncommitted apartments ²	Uncommitted total units
Greenfield uncommitted	997	2,474	3,175	6,646
Residential infill uncommitted	10	831	1,696	2,537
Total uncommitted	1,007	3,305	4,871	9,183
Total uncommitted % breakdown	11%	36%	53%	100%
Stage of development	Committed & uncommitted singles & semi-detached	Committed & uncommitted multiples ¹	Committed & uncommitted apartments ²	Committed & uncommitted total units
Committed & uncommitted total	1,442	4,136	8,972	14,505
Committed & uncommitted % breakdown	10%	29%	62%	100%
Stage of development	Clair-Maltby Secondary Plan singles & semi-detached	Clair-Maltby Secondary Plan multiples ¹	Clair-Maltby Secondary Plan apartments ²	Clair-Maltby Secondary Plan total units
Clair-Maltby Secondary Plan total	1,237	2,013	3,902	7,152
Clair-Maltby Secondary Plan % breakdown	17%	23%	60%	100%

Stage of development	Total singles & semi-detached	Total multiples ¹	Total apartments ²	Total units
Total units	2,679	6,149	12,829	21,657
Total unit % breakdown	12%	29%	59%	100%

¹ Includes townhouses and apartments in duplexes.

² Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Source: Committed and uncommitted supply derived from City of Guelph data, and Clair-Maltby from Preferred Concept Plan for Clair-Maltby Secondary Plan, MSH, 2020, by Watson & Associates Economists Ltd.

3.2.11 City of Guelph post-secondary student population



As previously, mentioned, there are two main post-secondary institutions in the City of Guelph, including University of Guelph and Conestoga College. As of 2016, it is recognized that there are approximately 21,900 full-time students attending local post-secondary institutions within the city.³⁵ This includes students who are permanent residents within the city, permanent residents outside the city and international students who are captured as non-permanent residents in the city. These students are comprised of those who live on campus, off campus with parents, as well as those residing off campus primarily in rental housing as illustrated in Figure 3-20.

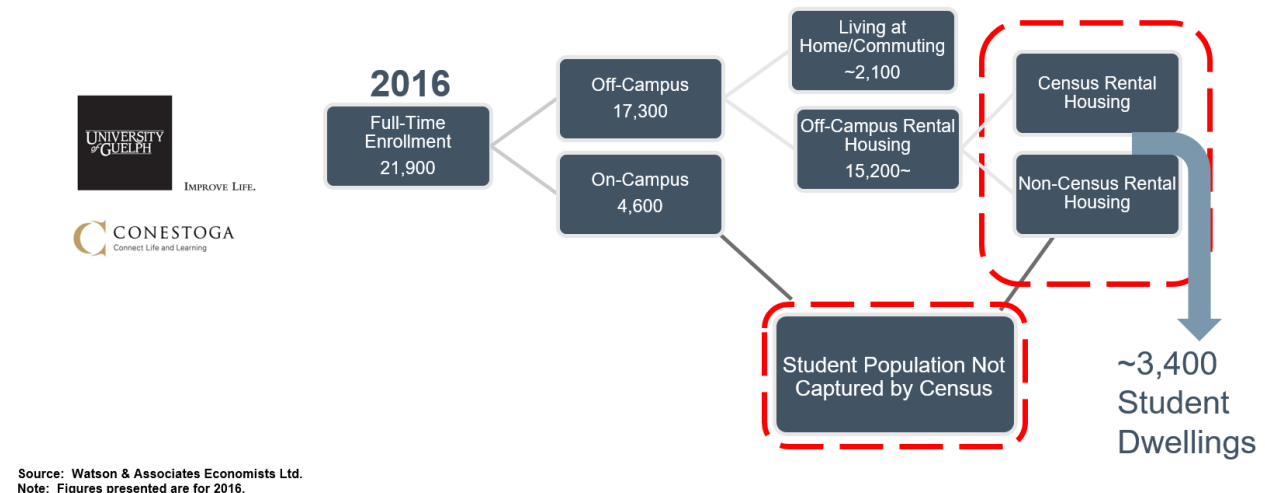
A portion of the post-secondary student population is not captured in census data.³⁶ As previously mentioned, of full-time enrolment, an estimated 63% (13,900

³⁵ Based on a review of available enrolment data from the two post-secondary institutions and a review of Council of Ontario Universities Application Statistics and enrolment data from the Ministry of Colleges and Universities.

³⁶ In accordance with Statistics Canada, unoccupied private dwellings represent private dwellings where usual residents are temporarily absent at the time of census enumeration, which includes post-secondary student housing.

students), are not captured in the 2016 census. This includes students living on campus (in school residences) and living off campus largely in rental housing. The students captured by census data include those living at home (with parents) or otherwise captured as permanent or non-permanent residents during the census enumeration.

Figure 3-20: City of Guelph post-secondary student population, 2016



3.3 Observations

Over the past 25 years, the City of Guelph has experienced strong population growth across all major demographic groups (i.e. children, adults and seniors), largely driven by steady net migration across all age groups and, to a lesser extent, natural increase (i.e. births less deaths). Since 1991, the city's population has grown at a rate above the provincial average, fueling steady housing construction throughout the city. With respect to recent housing trends, new dwellings units from resident building permit activity between 2015 to 2019 was higher relative to historical levels from 2010 to 2014. Historically, residential development activity within the City of Guelph has provided a mix of housing options concentrated in ground-oriented housing forms (i.e. singles/semi-detached and townhouses). During the most recent five-year period from 2015 to 2019, however, the city has experienced a shift toward a higher share of high-density housing forms, which have accounted for nearly two-thirds of all residential construction in terms of new units.

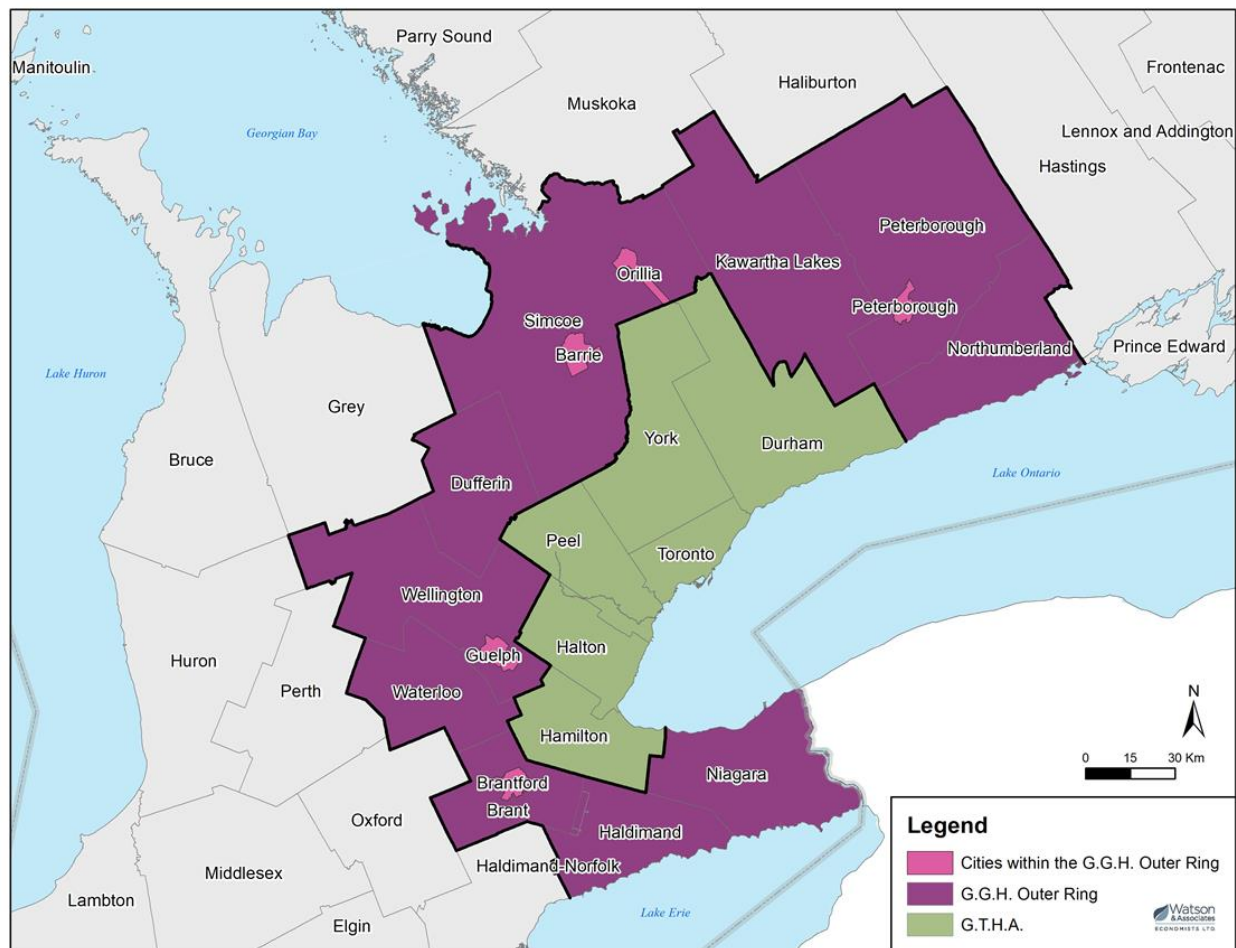
It is important to recognize that the demographic and socio-economic characteristics and trends explored in this chapter, as they relate to the city's OP review, will continue to have broad implications on the amount, type and density of future housing needs, municipal services and public infrastructure requirements, as well as demand for retail, arts, culture, recreation and entertainment.



4 City of Guelph population and housing growth outlook to 2051

4.1 Population and employment growth outlook for the Greater Golden Horseshoe, 2016 to 2051

As previously discussed, a key driver of the City of Guelph's future economic potential is its geographic location within Ontario. As illustrated on Map 4-1, the City of Guelph is located within the GGH "Outer Ring." The GGH comprises the municipalities that make up the GTHA, as well as the surrounding regions/counties within Central Ontario, which extend from Haldimand County in the southwest, to Simcoe County in the north, and to Peterborough County in the northeast.

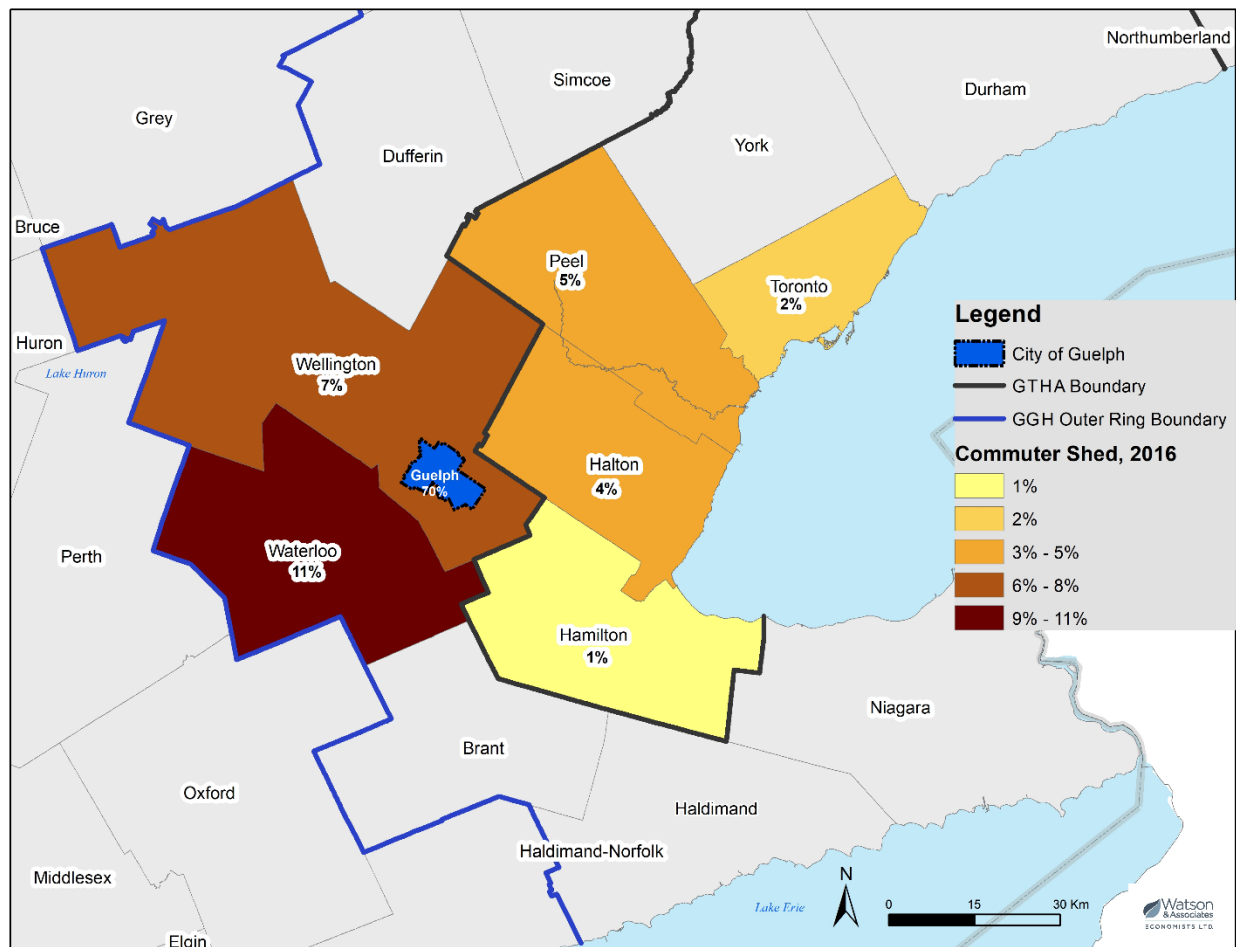
Map 4-1: City of Guelph within the context of the Greater Golden Horseshoe

As identified in APTG, the long-term outlook for the GGH is positive. As summarized in Figure 4-1, the population of the GGH is forecast to increase from 9.5 million in 2016 to 14.9 million in 2051.³⁷ This represents a population increase of approximately 5.3 million people (153,000 annually), or 1.3% annually between 2016 and 2051. With respect to the city's economic potential, the GGH employment base is forecast to increase from 4.6 million in 2016 to 7 million in 2051 (refer to Figure 4-2). This represents an employment increase of 2.4 million jobs (69,000 annually), or 1.2% annually between 2016 and 2051. Currently, the GGH represents the fourth largest and one of the fastest growing city/regions in North America.

³⁷As previously mentioned, proposed Amendment 1 to the Growth Plan extends the Schedule 3 forecast to 2051.

The GGH represents the economic powerhouse of Ontario and the centre of a large portion of the economic activity in Canada. It also represents much of the commuter shed for the City of Guelph (refer to Map 4-2). The GGH is also economically diverse with most of the top-20 traded industry clusters throughout North America having a strong presence in this region. The GGH industrial and office commercial real estate markets within this region are significant, having the third- and sixth-largest inventories, respectively, in North America.

Map 4-2: Where City of Guelph residents commute to work



With a robust economy and diverse mix of export-based employment sectors, the GGH is highly attractive on an international level to new businesses and investors. The GGH also has a strong appeal given the area's regional infrastructure (i.e. Toronto Pearson International Airport (TPIA), other regional airports, provincial highways, inter-modal facilities), access to labour force, post-secondary institutions and proximity to the US border. In turn, this continues to support steady population and housing growth within this region, largely driven by international and inter-provincial net migration to this region.

The diverse and highly competitive GGH economy has fueled a steady level of employment growth over the past decade in most major sectors of the economy. Employment growth has been particularly strong related to knowledge-based and creative-class service sectors, including professional, scientific, and technical services, financial services, information and cultural industries, education services, health care and social services as well as real estate. Within the service sector, economic growth has been notably robust for small- to medium-scale knowledge-based businesses that are focused on innovation, entrepreneurship, and technology.

Figure 4-1 and Figure 4-2 summarize the historical and long-term population and employment growth forecast for the GGH between the GTHA and the GGH Outer Ring. The figures identify that the GTHA has historically experienced a higher rate of population and employment relatively to the GGH Outer Ring over the 2001 to 2016 period. Looking forward, the forecast annual population and employment growth rate of the GGH Outer Ring is anticipated to increase significantly, driven by continued outward growth pressure from the GTHA and steady net migration. In fact, the forecast annual rate of employment growth in the GGH Outer Ring is expected to exceed that of the GTHA between 2016 and 2051.

Figure 4-1: Historical and forecast population growth for the Greater Golden Horseshoe, 2001 to 2051

Area	2001 population	2016 population	2051 population	2001 to 2016 total population growth	2001 to 2016 annual population growth rate	2016 to 2051 total population growth	2016 to 2051 annual population growth rate
GTHA	5,808,000	7,183,000	11,172,000	1,375,000	1.4%	3,989,000	1.3%
GGH	2,046,000	2,355,000	3,703,000	309,000	0.9%	1,348,000	1.3%
Total GGH	7,854,000	9,538,000	14,875,000	1,684,000	1.3%	5,337,000	1.3%

Source: 2001 to 2016 derived from Statistics Canada Census. 2051 from A Place to Grow: Growth Plan for the Greater Golden Horseshoe. Office Consolidation 2020. Ontario.ca/growth planning. Figure by Watson & Associates Economists Ltd.

Figure 4-2: Historical and forecast employment growth for the Greater Golden Horseshoe, 2001 to 2051

Area	2001 employment	2016 employment	2051 employment	2001 to 2016 total employment growth	2001 to 2016 annual employment growth rate	2016 to 2051 total employment growth	2016 to 2051 annual employment growth rate
GTHA	2,938,000	3,564,000	5,360,000	626,000	1.3%	1,796,000	1.2%
GGH	890,000	1,034,000	1,650,000	144,000	1.0%	616,000	1.3%
Total GGH	3,828,000	4,598,000	7,010,000	770,000	1.2%	2,412,000	1.2%

Source: 2001 to 2016 derived from Statistics Canada Census. 2051 from A Place to Grow: Growth Plan for the Greater Golden Horseshoe. Office Consolidation 2020. Ontario.ca/growth planning. Figure by Watson & Associates Economists Ltd.

Notwithstanding the past and potential success of the regional employment market, international competition for business development and investment is steadily increasing in today's "new economy." The City of Guelph is located within proximity

to a number of highly populated and growing municipalities within the GGH with which it competes directly with for business attraction and investment. All these municipalities generally offer regional attributes which largely appeal to prospective international and local firms as well as new residents. The City of Guelph has been particularly competitive in its ability to distinguish itself as a hub for innovation and technology while encouraging ongoing entrepreneurship, small business development and investment retention. These efforts have produced a diverse and growing local economy with a relatively high ratio of residents who live and work within the city relative to other surrounding upper-tier/single-tier municipalities, particularly those in the “905” region of the GTHA. This distinction as a “complete” and competitive community is anticipated to represent a key driver of the future economic success and population growth potential of this city.

4.2 Near-term impacts of COVID-19

4.2.1 Near-term impacts of COVID-19 on population growth and longer-term impacts on the economy and the real estate market in the City of Guelph

Since being declared a pandemic by the World Health Organization (W.H.O.) on March 12, 2020, the economic impacts of coronavirus disease (COVID-19) on global economic output have been significant. Economic sectors such as travel and tourism, accommodation and food, manufacturing, and energy have been hit particularly hard. On the other hand, many other employment sectors (particularly knowledge-based sectors), which are more adaptable to the current remote work environment, have been less negatively impacted and in some cases have prospered.

Canada’s gross domestic product (GDP) declined by approximately 39% in the second quarter of 2020 (April to June) due to COVID-19. As restrictions gradually loosened during that period, beginning in May 2020, businesses came out of lockdown during the summer months and economic activity grew at a pace of 40.5% in the third quarter, although GDP was still short of pre-pandemic levels.

Economic growth continued throughout the fourth quarter of 2020, increasing by 2.3% despite increased COVID-19 restrictions towards the end of November 2020. Despite this fourth-quarter increase, real GDP in 2020 declined overall by 5.4%. In 2021, Canada’s economy grew sharply by 6.5% in the first quarter, but due to the impacts of the third COVID-19 wave in April 2021 and the province-wide lockdown which weighed on economic activity in the second quarter of 2021, the economy contracted by an annual rate of 1.1%. Given the relatively strong economic performance leading up to April 2021 and the rollout of vaccine passports to access

non-essential businesses, it is expected that economic setbacks due to the lockdown will be recouped as provincial restrictions continue to ease.^{38, 39, 40, 41, 42}

Overall, required modifications to social behavior (e.g., physical distancing) and increased work at home requirements, resulting from government-induced containment measures and increased health risks, have resulted in significant economic disruption largely related to changes in consumer demand and consumption patterns. Furthermore, continued tensions, logistical challenges and constraints related to international trade have also started to raise further questions regarding the potential vulnerabilities of globalization and the structure of current global supply chains.

At present, the level of sustained economic impact related to this “exogenous shock” to the world and the Canadian economy is still relatively uncertain. While the prospects for a global recovery have improved in recent months, the pace of this global economic recovery has been uneven, largely due to the rate at which countries have been able to vaccinate their residents.⁴³

Despite the near-term consequences of COVID-19, particularly related to immigration as well as businesses in the retail, travel and tourism sector, the long-term economic and housing outlook for the GGH remains positive as the region continues to be attractive to international investment and newcomers alike. While the housing market across the GGH experienced a slow start in early 2020 due to COVID-19, pent-up demand and historically low mortgage rates have accelerated housing demand across the GGH, particularly in the Outer Ring, with increasing new construction activity, record sales and higher average selling prices. According to the Guelph and District Association of Realtors, 2020 set new monthly records for home sales volume and prices, with continued strong activity into 2021. The average selling price of homes across the City of Guelph year-to-date September 2021 was a high of \$881,000, up by approximately 25% from the same period in

³⁸ Reuters Business News, August 28, 2020.

³⁹ CBC Business News, Canada’s economy bounced back at record 40% pace in third quarter – but GDP still below pre-COVID levels, December 1, 2020.

⁴⁰ Ontario Newsroom, Office of the Premier, Ontario Declares Second Provincial Emergency to Address COVID-19 Crisis and Save Lives, January 12, 2021.

⁴¹ Reuters, Canadian Economy Seen Strong in First Quarter, But Impact of Third Wave Looms, April 20, 2021.

⁴² Global News, Canadian Economy Shrank by 1.1% in Second Quarter of 2021, Statistics Canada Says, August 31, 2021.

⁴³ Global Government Forum. OECD Warns of Uneven Economic Recovery from COVID-19, Despite Global Growth. June 1, 2021.

2020. Housing sales are also up by nearly 24% in the first nine months of 2021 compared to 2020.^{44, 45}

Notwithstanding the recent positive real estate trends identified for the GGH as a whole, the GGH Outer Ring and the City of Guelph, there are a number of factors about which to remain cautious with respect to the broader demand for housing over the near term (i.e., the next one to three years). For example, reduced immigration levels in 2020 and potentially lower immigration levels in 2021/2022 may begin to represent a drag on population growth potential within the larger urban centres of the G.G.H (refer to section 4.2.2).⁴⁶ Tighter mortgage rules and local measures designed to curb market speculation may also temper demand in the real-estate market as home buyers would face stiffer mortgage stress tests. The Governor of the Bank of Canada has warned that homeowners who have overextended on their mortgages are vulnerable to rising interest rates when they must be renewed, and not to expect the rapid price increase to continue indefinitely.⁴⁷

These above-mentioned factors have the potential to reduce population growth levels and soften the housing market in areas of Ontario where population growth is most heavily dependent on immigration. Among GGH municipalities, the City of Toronto, Peel Region, and York Region could potentially be the most heavily impacted by such a trend, while the remaining “905” area of the GTHA and the GGH Outer Ring, including the City of Guelph, which is more dependent on inter-provincial and intra-provincial net migration as a source of housing demand, may potentially be less impacted.

In addition to its broader impacts on the economy, COVID-19 is also anticipated to accelerate changes in work and commerce as a result of technological disruptions which were already taking place prior to the pandemic. Businesses will increasingly be required to rethink the way they conduct business with an increased emphasis on remote work enabled by technologies such as virtual private networks (VPNs), virtual meetings, cloud technology and other remote work collaboration tools. These trends are anticipated to have a direct influence on commercial and industrial real estate needs over both the near and longer terms. In light of these anticipated trends, it is important to consider the manner in which these impacts are likely to

⁴⁴ The Guelph and District Association of REALTORS® represents more than 600 REALTORS® in Guelph and surrounding communities like Fergus and Elora.

⁴⁵ Guelph & District Associates Association of Realtors, CREA Housing Market Statistics.

⁴⁶ “Very difficult” to meet Canada's immigration targets after pandemic drop: immigration lawyer. CTV News. January 14, 2021.

⁴⁷ CTV Business News, Mortgage stress tests set to tighten in wake of Bank of Canada warnings, May 20, 2021.

influence the nature of employment by type, as well as by place of work. These factors are further discussed in the City of Guelph Employment Lands Strategy.⁴⁸

As of 2016, approximately 6% of the City of Guelph's workforce is identified as working from home on a full-time basis, up from 5% in 2001. The percentage of workers who reported having no fixed place of work (NFPOW) in 2016 was 8%, up from 6% in 2001.^{49, 50} It is anticipated that the percentage of people who work from home on a full-time and part-time basis, as well as those who do not have a fixed place of work, will steadily increase over the long term. As this percentage continues to steadily rise, it may reduce the relative need for future commercial and institutional building space associated with the employment forecasts set out in Schedule 3 of the Growth Plan.

4.2.2 Near-term immigration levels for Canada are likely to remain below historical averages due to COVID-19

In October 2020, the Canadian federal government released its Immigration Plan for the following three years. Canada has continued to raise their immigration targets and aims to welcome 401,000 new permanent residents in 2021, 411,000 in 2022, and 421,000 in 2023. This is an increase of 50,000 newcomers annually from the previous targets of 351,000 in 2021 and 361,000 in 2026 to make up for the shortfall in 2020 and fill crucial labour market gaps to ensure Canada remains competitive on the world stage. With a focus on economic growth, 60% of admissions are to come from the economic class.⁵¹

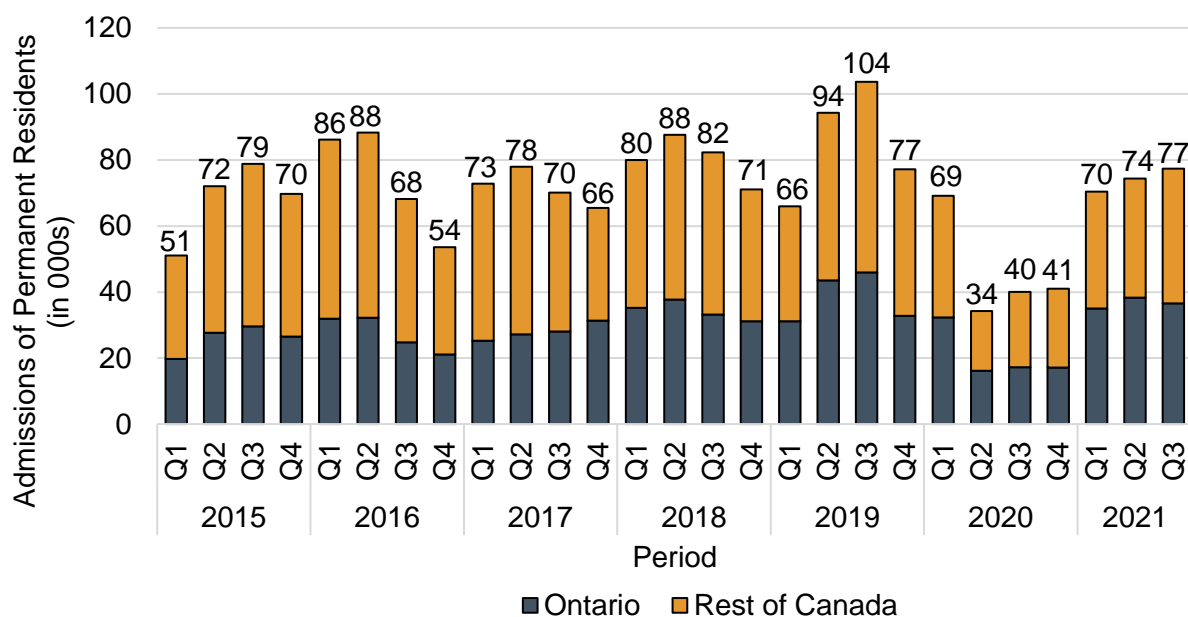
Figure 4-3 summarizes admissions to Canada and Ontario by quarter since 2015. Looking forward through the remainder 2021 and 2022, Canadian immigration levels are anticipated to continue to show signs of a rebound as global vaccination efforts continue to rollout. This suggests that near-term immigration levels across the GGH will also continue to recover inline with recent historical averages.

⁴⁸ City of Guelph Employment Lands Strategy. Shaping Guelph: Growth Management Strategy November 27, 2020. Watson & Associates Economists Ltd. and Dillon Consulting Limited.

⁴⁹ Work at home and NFPOW employment derived from 2001 and 2016 Statistics Canada Census data.

⁵⁰ Statistics Canada defines NFPOW employees as "persons who do not go from home to the same workplace location at the beginning of each shift. Such persons include building and landscape contractors, travelling salespersons, independent truck drivers, etc."

⁵¹ Immigration, Refugee and Citizenship Canada news release, October 20, 2020. <https://www.canada.ca/en/immigration-refugees-citizenship/news/2020/10/government-of-canada-announces-plan-to-support-economic-recovery-through-immigration.html>

Figure 4-3: Quarterly admission of permanent residents in Ontario versus the rest of Canada, 2015 to 2021

Source: Derived from IRCC, August 31, 2021, data, by Watson & Associates Economists Ltd.

4.3 Population growth drivers and disruptors in the City of Guelph

A number of regional and local growth drivers and disruptors have been identified which are anticipated to influence future population and housing growth within the City of Guelph over the 2016 to 2051 period. These drivers and disruptors are identified below.

4.3.1 Regional infrastructure assets

The City of Guelph continues to have a strong appeal to both businesses and residents. This appeal is largely attributed to the city's geographic location along the Toronto-Waterloo Innovation Corridor, which is an internationally recognized technology innovation supercluster.⁵² The City of Guelph also offers proximity to key regional infrastructure such as the Toronto Pearson International Airport (TPIA), provincial highways such as Highway 401, which serves as Canada's major trade corridor and links major urban centres in Ontario and Quebec to the U.S., as well as regional transit with the Guelph Central Station offering GO train and bus service.

⁵⁰ Immigration, Refugee and Citizenship Canada news release, October 20, 2020. <https://www.canada.ca/en/immigration-refugees-citizenship/news/2020/10/government-of-canada-announces-plan-to-support-economic-recovery-through-immigration.html> sights/americas/the-toronto-waterloo-innovation-corridor

As previously mentioned, the City of Guelph is home to the University of Guelph as well as Conestoga College (Guelph Campus), and is also located within a 1- to 2-hour drive of a number of other post-secondary institutions within southwestern/central Ontario. These attributes make the City of Guelph an attractive destination for permanent residents of all ages, non-permanent residents, students, as well as small, mid-sized and large businesses.

4.3.2 Quality of life

In addition to the above-mentioned “hard” regional infrastructure attributes, “soft” or “quality” factors are becoming increasingly important regarding the attraction of new families and business development. The City of Guelph has a reputation as a vibrant, growing, low-crime location in which to live. Generally, the city offers a wide range of top-rated elementary, secondary and post-secondary schools, a high standard of local infrastructure (i.e. roads, indoor/outdoor recreation facilities and social services, etc.), a vibrant downtown, access to shopping, arts and culture and other recreational opportunities. These “soft” factors represent a key reason why the City of Guelph’s competitive position is likely to strengthen in attracting new families and business development over the long term. Talent attraction and retention will be a key focus in the City of Guelph’s competitiveness going forward and, therefore, a factor in the city’s economic growth will be the extent to which it can develop “quality of life” enhancements to appeal to mobile young talent, while not detracting from its attractiveness for other older population segments.

4.3.3 Local and regional economic opportunities

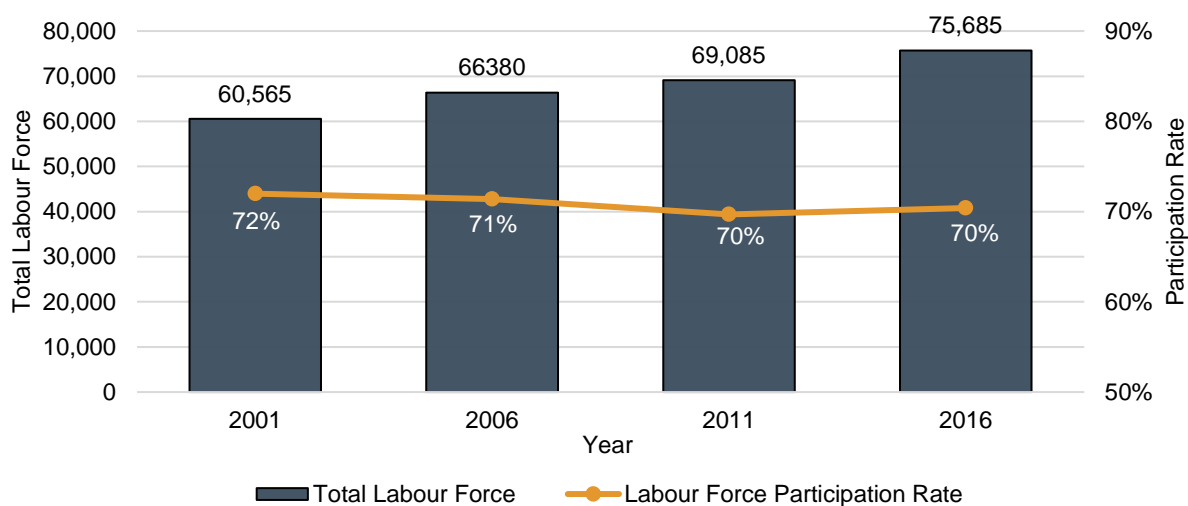
Continued employment growth in the City of Guelph and throughout the surrounding regional economy has generated demand for new housing within the City of Guelph and will continue to do so. New housing construction and associated local population growth is anticipated to generate local demand for population-related employment sectors such as retail, accommodation and food services, as well as other personal service uses. Other local “knowledge-based” and “creative” class” employment such as information and cultural industries, arts, entertainment, and recreation and professional, scientific and technical services are also experiencing strong employment growth. Population growth combined with the aging of the existing population base will also place increasing demands on employment sectors and municipal services related to the growing population base of seniors, primarily related to the health care and social assistance sector.

The City of Guelph existing employment base is concentrated in a diverse range of goods producing and service providing sectors such as manufacturing, wholesale and retail trade, government and education, healthcare and social assistance, research and innovation, and accommodation and food services. The economic base is also oriented towards home-based occupations. A more detailed discussion regarding the city’s long-term employment outlook and the implications on planning

for Employment Areas, Community Areas and Rural Areas is discussed in the City of Guelph Employment Land Strategy.⁵³

As previously identified, local and regional employment growth opportunities represent the primary driver of labour force growth, net migration and ultimately long-term population growth within the City of Guelph. As summarized in Figure 4-4, the City of Guelph's total labour force base grew by 15,100 persons or 1.5% annually between 2001 and 2016. During the same historical time period, the city's labour force participation rate⁵⁴ declined from 72% to 70% between 2001 and 2016 largely due to the aging of the labour force. Looking forward, the city's labour force participation rate is anticipated to further decline as the Baby Boomer generation continues to age. It is important to recognize that the city's aging population and labour force will place downward pressure on long-term labour force growth potential, which further emphasizes the need to plan for steady migration, particularly geared to the working-age population.

Figure 4-4: City of Guelph, historical labour force trends, 2001 to 2016



Source: 2001 to 2016 derived from Statistics Canada Census and NHS by Watson & Associates Economists Ltd., 2020.

Figure 4-5 summarizes total employed labour force and unemployment rate trends for the Guelph Census Metropolitan Area (CMA).⁵⁵ Census labour force data is not available for the City of Guelph post-2016, but it is captured in the Guelph CMA by

⁵³ Employment Lands Strategy, Shaping Guelph. Growth Management Strategy November 27, 2020.

⁵⁴ The labour force participation rate is defined as the ratio of employed and unemployed people to the total working-age population (age 15 years and older).

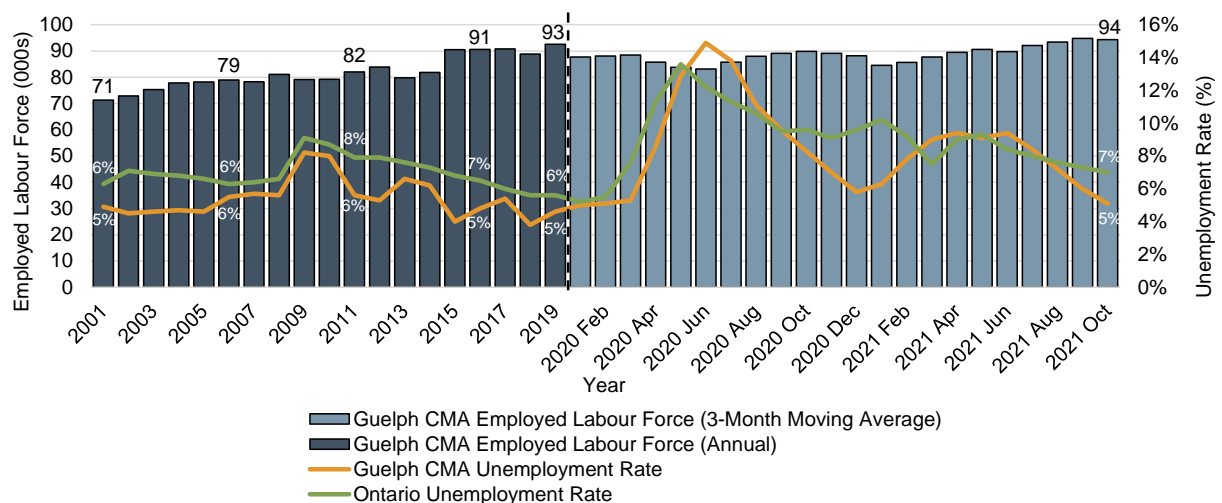
⁵⁵ It is noted the geographic area of the Guelph CMA and the City of Guelph are different, with the former including the Township of Guelph/Eramosa and Township of Puslinch. Labour force data provided by the Statistics Canada Labour Force Survey varies from the labour force data provided by the Statistics Canada Census.

the Statistics Canada Labour Force Survey. After a decline from 2012 to 2013, the employed labour force in the Guelph CMA increased to a historical high in 2019 with an annual growth rate of 2.5% from 2013 to 2019. The unemployment rate in the Guelph CMA peaked at over 8% in 2009, coinciding with the 2008 global economic recession, and has since fallen to 4.6% in 2019. Comparatively, the unemployment rate for the Province of Ontario as a whole was 5.6% in 2019.

Despite the strong recent historical performance of the Guelph CMA labour market, the unemployment rate increased to a high of 14.9% in June 2020 (3-month moving average) as a result of the COVID-19 pandemic, and most recently as of October 2021 has improved to 5.1%. According to Statistics Canada, the unemployment increase due to the COVID-19 pandemic has been driven by temporary layoffs, indicating that much of the labour force is expected to return to their former place of work as restrictions are relaxed.⁵⁶ As of October 2021 the City of Guelph has recovered to pre-COVID-19 pandemic labour force levels.

Anticipated economic growth City of Guelph will continue to generate a steady need for local skilled and unskilled labour over the coming decades. This will require on-going efforts to retain, attract, and accommodate new working residents to ensure that economic development potential is not unduly constrained by labour shortages.

Figure 4-5: Guelph CMA total employed labour force and unemployment rate trends, 2001 to 2021



Note: Statistics Canada Labour Force Survey and Census labour force statistics may differ.

Source: Guelph (CMA) employed labour force and unemployment rate from Statistics Canada Table 14-10-0096-01, 2020 monthly rates from Table 14-10-0287-03, and 2021 monthly rates from Statistics Canada Table 14-10-0380-02. Annual Province of Ontario unemployment rate from Statistics Canada Table 14-10-0090-01, 2020 monthly rates from Table 14-10-0295-02, and 2021 monthly rates from Statistics Canada Table 14-10-0287-03. By Watson & Associates Economists Ltd.

⁵⁶ Statistics Canada, The Daily, Labour Force Survey, April 2020.

4.3.4 Technological change – disruptor or generator of future labour force demand?

Long-term labour force growth potential across the national, provincial, regional and local level will also be directly influenced by continued structural changes and disruptions driven by technology and automation. According to the Brookfield Institute for Innovation + entrepreneurship, over the next 10 to 20 years, 42% of the Canadian labour force is at high risk of being affected by automation, either through significant task restructuring or elimination. Jobs that are anticipated to be most highly impacted by automation are primarily within occupations that are administrative, routine, or oriented towards sales and service. The Brookfield Institute report also notes that highly-skilled occupations are expected to grow much more quickly than the rest of the labour force and are at a lower risk of being negatively affected by automation. This suggests that more highly-skilled labour will be a significant driver of Canada's future economic growth.

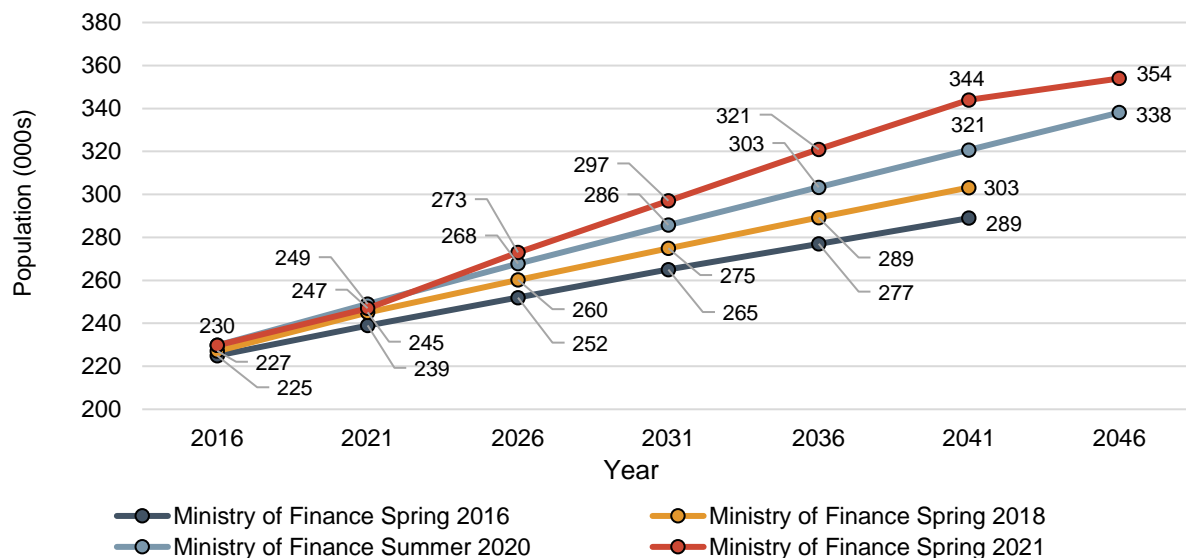
With highly-respected post-secondary institutions and a strategic location in the heart of the Toronto-Waterloo Innovation Corridor, the City of Guelph is well positioned to benefit from continued growth within the knowledge-based economy. Building on its strong institutional and community foundations, the City of Guelph has been active in increasing its readiness towards an ever-evolving knowledge-based economy through on-going leadership and investment. These efforts will continue to be important in driving youth in-migration (both permanent and NPR), talent attraction and retention, global investment and regional employment opportunities ultimately geared towards an increasingly skilled labour market.

4.3.5 Stronger regional population outlook

Figure 4-6 compares the most recent population projections for the Wellington County Economic Region prepared by the MOF between 2016 and 2021.⁵⁷ Under the most recent 2021 update prepared by the MOF, the 2041 population forecast for the Wellington County Economic Region increased to 344,000, which represents an increase of 55,000, compared to the previous MOF forecast prepared in 2016. Over the past five years the MOF has consistently projected higher population growth for this area.

⁵⁷ Wellington County Census Division includes Wellington County as well as the separated municipalities within the geographic boundaries of the county including, the City of Guelph. For the purposes of this report, this area is referred to as the Wellington County Economic Region.

Figure 4-6: Wellington County Economic Region, Ministry of Finance population projections, 2016 to 2046



Source: Derived from Ministry of Finance Ontario Population Projections Spring 2016, Spring 2018, Summer 2020 and Spring 2021 releases. Figure by Watson & Associates Economists Ltd.

4.4 Observations

Comparatively, the GGH economy is growing and is projected to continue to grow at a faster rate than the remaining regions of the province. The GGH also represents the fastest growing large metropolitan area in the Great Lakes/eastern US region of North America. Future population and employment growth potential within the City of Guelph is strongly correlated with the growth outlook and competitiveness of the export-based sectors with the regional economy – which in this case is largely represented by the GGH. Potential job opportunities within the city’s diverse and growing economic base and surrounding commuter-shed represent the primary driver of net migration to the City of Guelph. In turn, net migration drives population growth within the city’s working-age population and their dependents (i.e. children, spouses not in the labour force and other family members).

A review of recent economic trends and anticipated growth drivers suggests that the City of Guelph is well positioned to accommodate a growing portion of the regional economic and population growth that is anticipated within the broader GGH. It is also recognized that technological change and automation will continue to create economic opportunities and disruptions within an increasingly competitive global labour market. Looking forward, the City of Guelph will need to remain proactive in its pursuit to capitalize on anticipated opportunities generated from an evolving economy while continuing to manage change associated with creative

disruption as well as an aging demographic base. This will require innovative local land-use planning and economic development policies, as well as programs and initiatives which continue to promote the attractiveness of the city for future investments while also striving to enhance the quality of life for its residents.



5 City of Guelph population and housing growth forecast, 2016 to 2051

This chapter provides an assessment of the recommended long-term population and housing growth potential for the City of Guelph to the year 2051 in five-year increments building on the analysis summarized in chapters 3 and 4. Additional details regarding the census population and housing forecast are provided in Appendix B. As previously mentioned, the post-secondary student population represents a key component of the city's total population base. As such, the growth analysis presented herein recognizes the city's post-secondary student population, including those not captured by the census. Additional details regarding the post-secondary student population are provided in Appendix C.

5.1 Short-term population estimate, 2016 to 2020

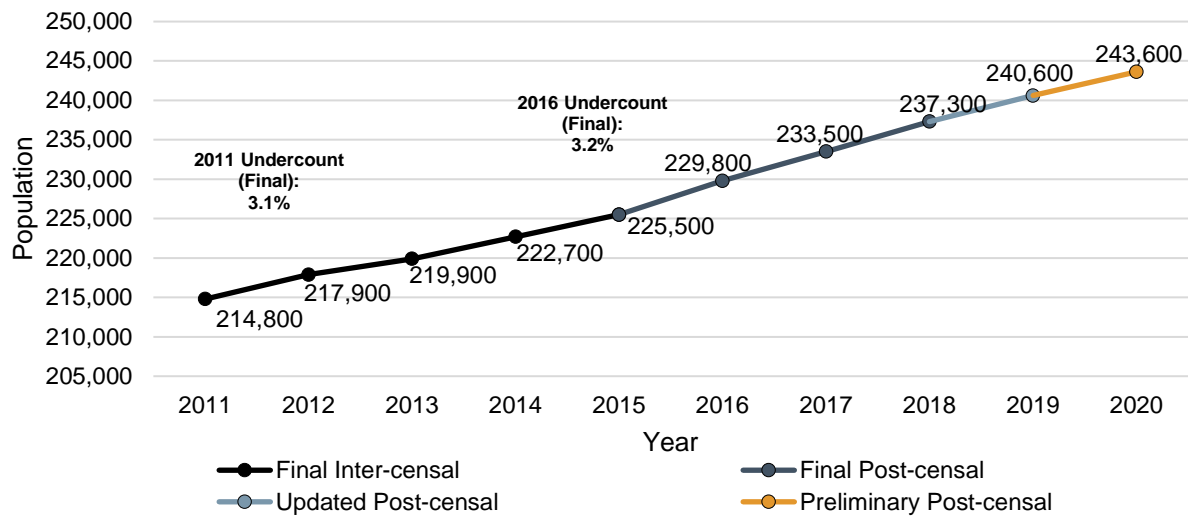
5.1.1 Wellington County Economic Region population estimates, 2016 to 2020

Figure 5-1 summarizes the annual intercensal and postcensal population estimates for the Wellington County Economic Region as provided by Statistics Canada. The 2020 post-censal population estimate provided by Statistics Canada is 243,600. As identified in Figure 5-1, the Statistics Canada population estimates for Wellington County Economic Region are tracking noticeably higher from 2015 to 2020 at an annual growth rate of 1.6%, compared to a historical annual growth rate of 1.2% from 2011 to 2015. The Statistics Canada 2020 population estimates are preliminary and are subject to change.

Based on Statistics Canada components of population growth data,⁵⁸ a key driver of population growth from 2015 to 2020 primarily relates to an increase in intra-provincial migration (i.e. immigration to the Wellington County Economic Region from other areas of Ontario) and to a lesser degree an increase in NPR population and international immigrants. With respect to the age of new migrants to the Wellington County Economic Region, recent demand has been experienced across all major age groups with a large concentration in youth and young adults, specifically in the 15-34 age group which accounted for approximately 53% of new migrants.

⁵⁸ Statistics Canada. Table 17-10-0140-01 Components of population change by Census division, 2016 boundaries.

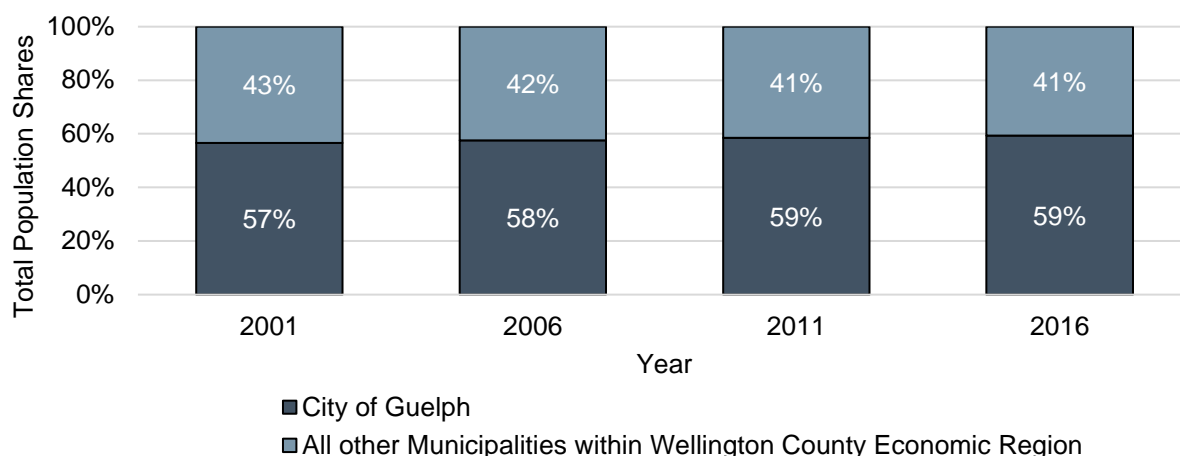
Figure 5-1: Wellington County Economic Region, short-term population estimate, 2011 to 2020



5.1.2 City of Guelph population in context of the Wellington County Economic Region

Figure 5-2 and 5-3 summarizes the historical share of population growth between the City of Guelph relative to Wellington County between 2001 and 2016. During this historical period, the City of Guelph population accounted for approximately 74% of the total population within the Wellington County Economic Region. This indicates that the City of Guelph has been the primary driver of population growth within this Economic Region. In accordance with historical population growth patterns, the City of Guelph is anticipated to continue to comprise a large share of future population growth within the Wellington County Economic Region.

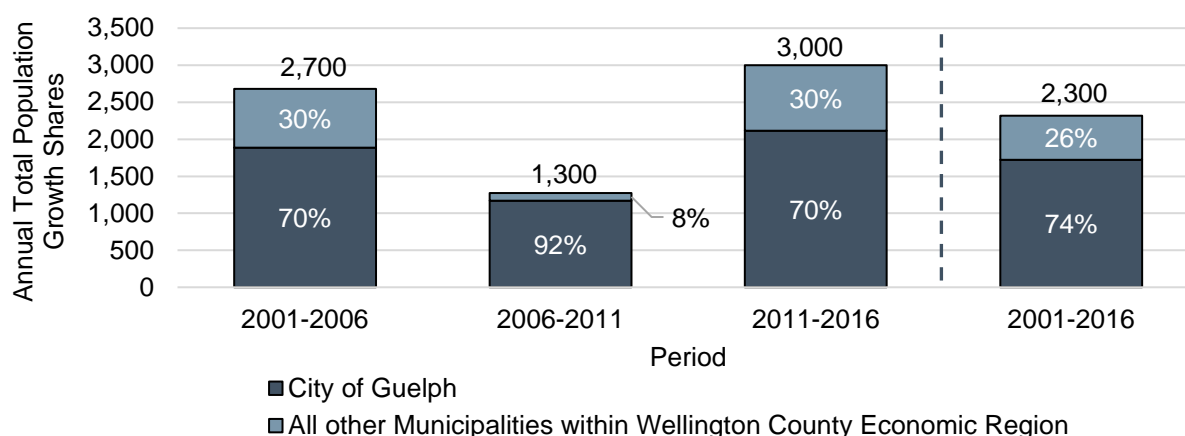
Figure 5-2: City of Guelph, share of Wellington County Economic Region population, 2001 to 2016



Note: Population includes the net Census undercount.

Source: Derived from Statistics Canada Census and Annual Demographics Estimates data, 2001 to 2016, by Watson & Associates Economists Ltd., 2020.

Figure 5-3: City of Guelph, share of population growth to Wellington County, 2001 to 2016



Note: Population includes the net Census undercount.

Source: Derived from Statistics Canada Census and Annual Demographics Estimates data, 2001 to 2016, by Watson & Associates Economists Ltd., 2020.

5.2 City of Guelph total population growth forecast, 2016 to 2051

5.2.1 City of Guelph preferred growth forecast

As previously discussed in chapter 4, the long-term population and employment growth forecast for the City of Guelph has been comprehensively evaluated herein within the context of historical growth trends, the broader growth outlook for the

GGH, the influence of regional growth drivers on the share of GGH growth allocated to the City of Guelph and supply/demand factors related to the local real estate market.

As previously discussed, the City of Guelph is anticipated to experience continued urban development pressure driven by increasing demand and available supply of housing options within planned BUA and DGA locations, as well as urban expansion lands associated with the Dolime Quarry annexation area. Home to the University of Guelph, as well as Conestoga College (Guelph Campus), and located within the Toronto-Waterloo Innovation Corridor, the city has distinguished itself as a hub for innovation and technology. As such, the city remains attractive to a broad range of demographic groups including younger population age groups and families.

The city's diverse and growing local economy supports a "complete" and competitive community with a relatively strong live/work ratio and high quality of life. These factors contribute to the city's relative economic strength, competitive advantages and ability to attract and retain future residents and businesses.

As previously identified in section 2.1.2, the recommended Growth Plan, 2019 Schedule 3 growth forecasts are to be treated as minimums, with higher growth forecast alternatives permitted by upper- and single-tier municipalities through their respective MCR process.⁵⁹ If an alternative growth forecast that exceeds Schedule 3 of APTG is utilized, the MCR must demonstrate that the alternate growth scenario meets the APTG policy objectives of accommodating a range of housing choices to meet market demand and the needs of current and future residents, as well as providing additional labour opportunities for the GGH labour market.⁶⁰

As illustrated in Figure 5-4 and Figure 5-5, the City of Guelph population and employment has growth at an annual rate of 1.4% and 1.3%, respectively, from 2001 to 2016. The population and employment base for the City of Guelph is forecast to grow at an annual rate of approximately 1.2% and 1.0%, respectively, under the preferred scenario from 2016 to 2051. Comparatively, the City of Guelph's population and employment base is forecast to grow at a slightly slower rate than the GGH Outer Ring as a whole.

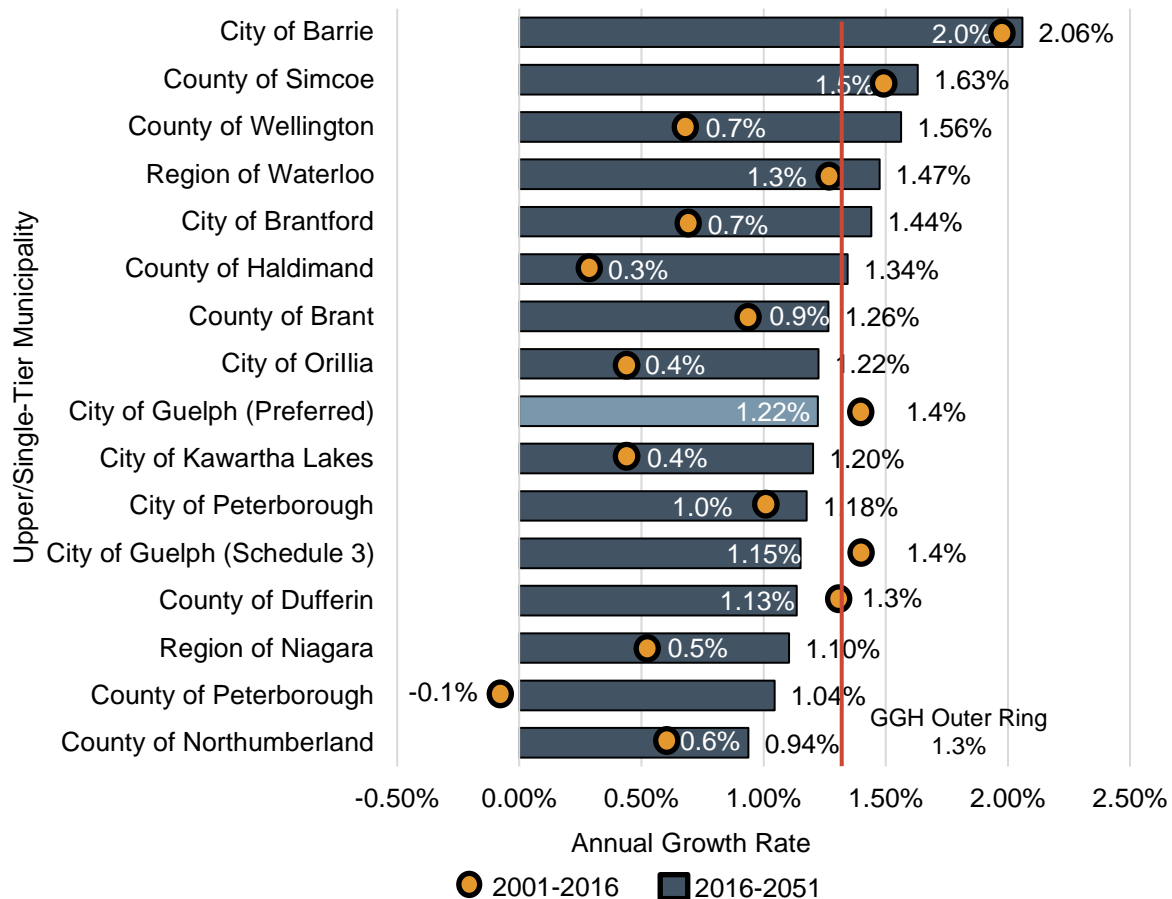
Over the next decade, population and employment growth for the City of Guelph is anticipated to remain particularly strong; however, the rate of annual population and employment growth within the City of Guelph is forecast to slow over the longer-term as the city continues to mature and its remaining greenfield areas are built out. Over the long term, the city's population and labour force base is also

⁵⁹ Growth Plan, Office Consolidation 2020, Policy 5.2.4, p. 56.

⁶⁰ A Place to Grow: Growth Plan for the Greater Golden Horseshoe, Land Needs Assessment Methodology for the Greater Golden Horseshoe, p. 5.

anticipated to steadily age, which as previously mentioned will place downward pressure on the rate of population and growth. This is a similar trend anticipated for many mid-sized to large urban municipalities across the GGH.

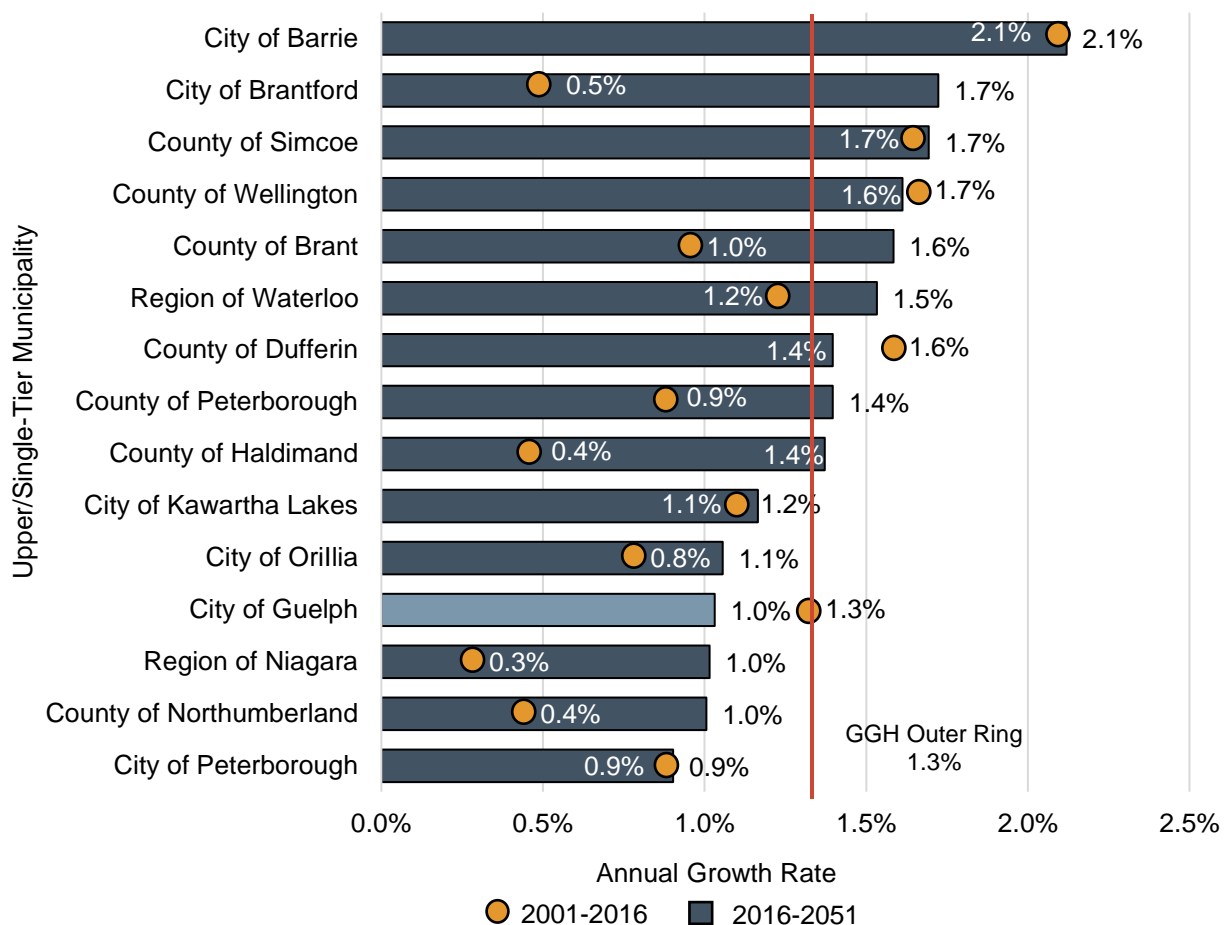
Figure 5-4: GGH Outer Ring, annual population growth rate by municipality, 2016 to 2051 (Schedule 3) and City of Guelph preferred scenario



Note: Population includes the net Census undercount.

Source: Derived from Greater Golden Horseshoe: Growth Forecasts to 2051 Technical Report, August 26, 2020, Hemson Consulting Ltd., except for City of Guelph (Preferred) by Watson & Associates Economists Ltd.

Figure 5-5: GGH Outer Ring, annual employment growth rate by municipality, 2016 to 2051 (Schedule 3) and City of Guelph preferred scenario



Source: Derived from Greater Golden Horseshoe: Growth Forecasts to 2051 Technical Report, June 16, 2020, Hemson Consulting Ltd., by Watson & Associates Economists Ltd., 2020.

Taking into account the growth drivers discussed in this report, it is anticipated that the City of Guelph has potential to exceed the population forecast identified in Schedule 3 of APTG. Accordingly, it is recommended that the city's 2051 population forecast is increased by approximately 5,000 people to reflect the additional growth opportunity associated with Dolime Quarry.

As previously mentioned, the city's aging population will place increased emphasis on net-migration as the primary source of population growth. This also places downward pressure on labour force participation rates and ultimately labour force growth. As noted in section 5.2.6 herein, the level of annual net migration required to achieve the 2051 preferred population forecast for the City of Guelph is over 31% higher than historical trends achieved between 2001 and 2016. Achieving higher amounts of net migration, however, beyond what it required to achieve the

city's 2051 preferred population forecast (refer to Figure 5-10), is not considered to be a likely long-term scenario.

It is also important to recognize that the City of Guelph currently has water servicing capacity constraints, which potentially limit the city's long-term population growth potential beyond the preferred growth scenario. The City of Guelph is currently updating its existing Water Supply Master Plan (WSMP) and Wastewater Treatment and Biosolids Management Master Plan to address the additional population growth identified for the city under the preferred growth scenario.

Based on the review of the city's long-term growth outlook provided herein, a 2051 population and employment forecast of 208,000 persons and 116,000 jobs, respectively, is recommended as the preferred long-term growth scenario for the City of Guelph. The preferred growth scenario:

- Represents a reasonable absolute increase in long-term population and employment growth relative to historical trends;
- Accurately identifies the anticipated influence of identified regional and local growth drivers on future development trends for the city; and
- Represents a reasonable share of total population and employment in the City of Guelph relative to the GGH Outer Ring as a whole.

In accordance with the detailed review of the city's long-term population and employment growth outlook provided herein, a higher 2051 population beyond 208,000 is not supported for the purposes of long-term growth management and urban land needs analysis.

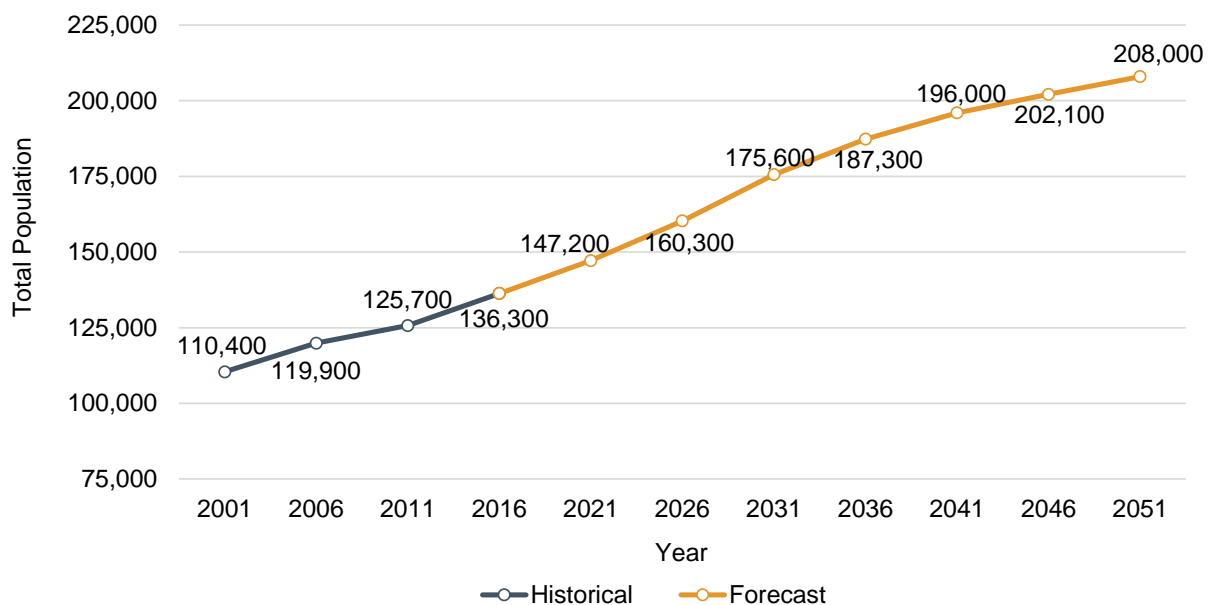
5.2.2 Total population growth forecast

Figure 5-6 summarizes the City of Guelph total population growth forecast over the 2016 to 2051 forecast period relative to historical population between 2001 and 2016. As identified, the City of Guelph total population base is forecast to steadily increase between 2016 and 2051 largely driven by continued expansion of its economic base and outward growth pressure from the GTHA. By 2051, the City of Guelph's total population base is forecast to grow to approximately 208,000.⁶¹ This represents an increase of approximately 71,700 persons between 2016 and 2051, or an average annual population growth rate of 1.2% during this time period.

⁶¹ Population forecast includes the net Census undercount which is estimated at 3.4% for all periods. The Census undercount represents the net number of permanent residents who are missed (i.e. over-coverage less undercoverage) during Census enumeration in accordance with Statistics Canada.

Comparatively, the population of the province as a whole is also forecast to increase at a rate of 1.2% over the 2016 to 2046 time period.⁶²

Figure 5-6: City of Guelph, total long-term forecast population, 2016 to 2051



Note: Population includes net Census undercount. Figures are rounded.

Source: Historical data derived from Statistics Canada Census and Annual Demographics Estimates, 2001 to 2016, and 2016 to 2051 forecast by Watson & Associates Economists Ltd.

5.2.3 Total population growth forecast by major age group

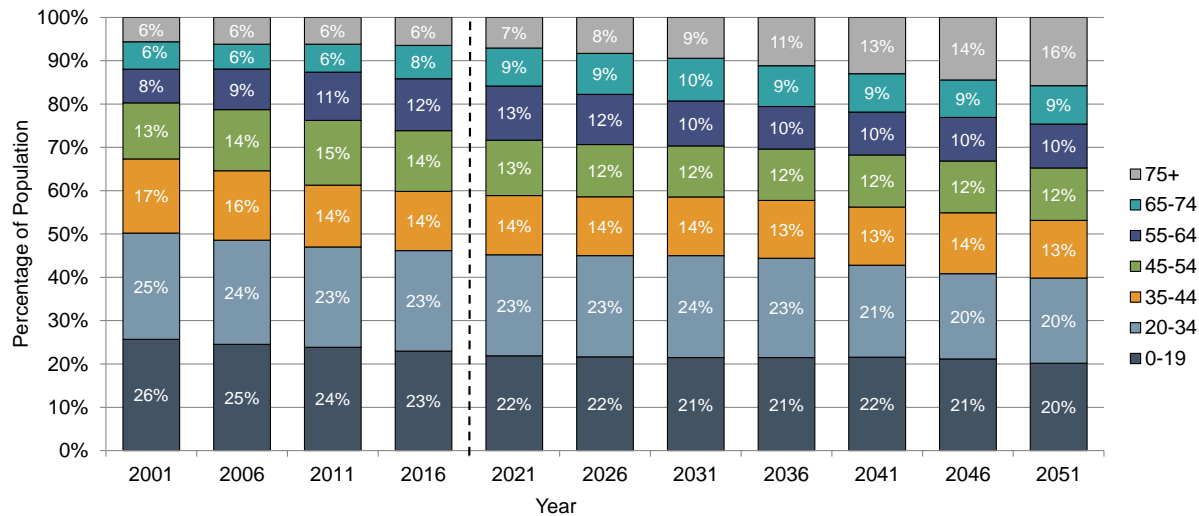
Figure 5-7 summarizes the total population growth forecast for the City of Guelph by the percentage population by major age group. Key observations include:

- The percentage of the City of Guelph's youth (0-19) is forecast to gradually decline from 23% in 2016 to 20% in 2051;
- The 20-34 age cohort (young adults), which comprised 23% of the population in 2016, is forecast to decline to 20% in 2051;
- The share of population in the 35-54 age group (adults) is forecast to decline slightly from 28% to 25% over the same period;
- The percentage of empty-nesters/younger seniors (age 55-74) is forecast to marginally decline from 20% to 19%; and
- The percentage of population in the age 75+ age group (older seniors) is forecast to more than double from 6% in 2016 to 16% in 2051. As previously mentioned, this is anticipated to place increasing demand on

⁶² Ontario growth rate based on Ministry of Finance Ontario Population Projection, 2019-2046, Spring 2021.

the need for seniors' housing, affordable housing, as well as community and social services geared to older seniors.

Figure 5-7: City of Guelph, total population by major age group, 2016 to 2051

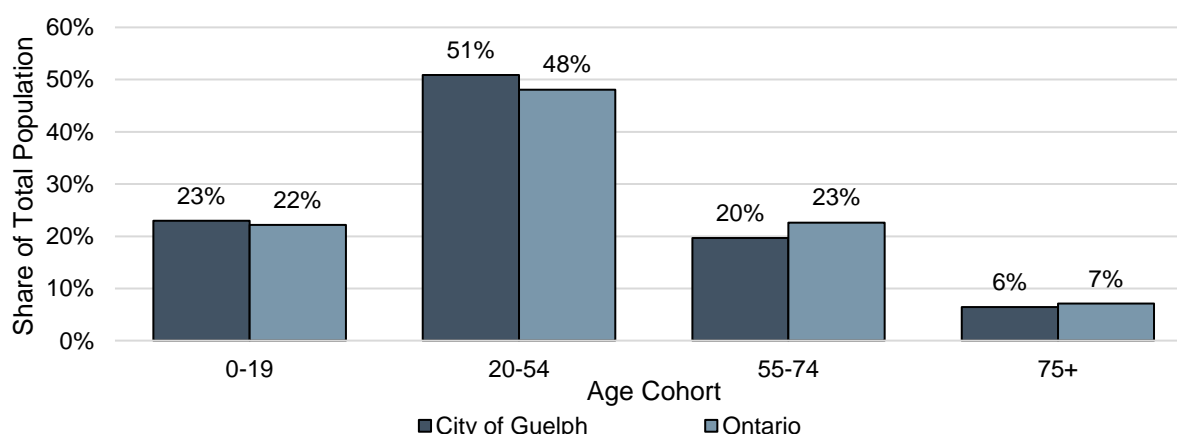


Source: Population forecast by age derived from 2001 to 2016 Statistics Canada Census and Annual Demographics Statistics data by Watson & Associates Economists Ltd., 2020. 2016 to 2051 population forecast by age prepared by Watson & Associates Economists Ltd.
 Note: Population includes net Census undercount.

5.2.4 City of Guelph population comparison by major age group

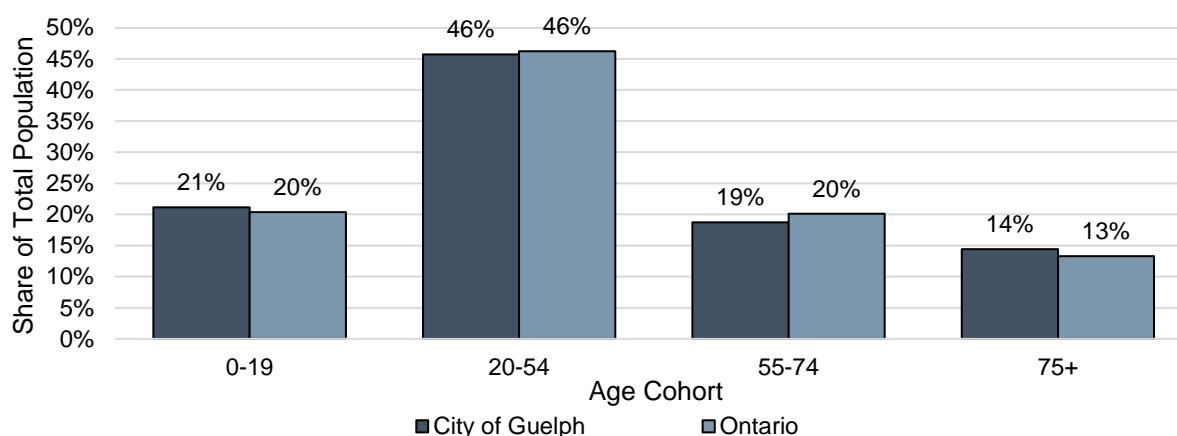
Figure 5-8 and Figure 5-9 summarize the 2016 and 2046 population age structure in the City of Guelph compared to the Province of Ontario as a whole. Generally, the City of Guelph existing population is younger than the Province of Ontario. By 2046, the city's population age structure is anticipated to be comparable to the Province of Ontario.

Figure 5-8: City of Guelph and Ontario population age structure, 2016



Note: Population used to calculate shares includes the net Census undercount.
Source: Ontario and City of Guelph derived from Statistics Canada Table 17-10-0139-01 by Watson & Associates Economists Ltd.

Figure 5-9: City of Guelph and Ontario population age structure, 2046



Note: Population used to calculate shares includes the net Census undercount.
Source: Ontario derived from Ontario Ministry of Finance Population Projections, Spring 2021, and City of Guelph by Watson & Associates Economists Ltd.

5.2.5 Planning for existing and future generations within the City of Guelph

As previously identified, forecast trends in population age structure are important to address as these demographic trends will directly influence the rate of future population growth as well future housing needs, infrastructure requirements and community services across the City of Guelph. For most Canadian municipalities, including Guelph, the influence of key demographic groups, including Generation Z, Millennials and Baby Boomers, on the future of local real estate markets is particularly important to address. A brief summary of how these demographic

groups are anticipated to shape future housing market demand across the City of Guelph is provided below.

Addressing the future housing needs of Millennials and Generation Z

Millennials are typically defined as the segment of the population that reached adulthood during the 2000s. While there is no standard age group associated with the Millennial generation, persons born between 1980 and 1992 (currently 28-40 years of age) best fit the definition of this age group. Millennials represent a large cohort in Canada, rivaling the Baby Boomer generation in terms of size and impacts on the real estate market and labour force base. As of 2016, Millennials comprise approximately 20% of the City of Guelph population, higher than the Ontario provincial average of 17%.⁶³

Home ownership is considered important for the majority of Millennials. A recent Royal LePage study found that nearly half the Canadians aged 25-35 owned their home, and that 68% who currently are not homeowners planned to purchase a home in the next five years, with 72% being confident in their financial outlook. Nearly two-thirds of this age group who are employed or seeking employment feel the ability to work remotely for an employer is important, and approximately half said this has increased their likeliness to move further from their place of work. In total, nearly two in five are considering a move to a less dense area due to the COVID-19 pandemic, while approximately half said COVID-19 did not impact their desire to move into less dense areas. Given an option, 45% indicated they would prefer living in a city, while 47% said they would choose small town or country living. The most attractive features of living in a city were walkability (21%) and access to events, attractions and other entertainment options (21%), followed by diversity of people and cultures (18%), and more employment opportunities (17%). The top reasons for wanting to move to a less dense area included access to more outdoor space (62%) and lower home prices (61%), followed by the affordability of larger properties (51%).⁶⁴

Much of this demand for future home ownership appears to be the desire for additional floor space and a yard, in many cases to accommodate a growing family. Anticipated housing demand by the Millennial population is anticipated to drive future housing needs across the City of Guelph, largely in Urban Centres, which provide options for first time homebuyers as well as “move-up” buyers with growing families. With this in mind, housing demand related to this demographic group is anticipated to be strongest for grade-related housing development, such as townhouses (including back-to-back and stacked townhouses) as well as single and semi-detached dwellings.

⁶³ Statistics Canada, Census 2016, population by age.

⁶⁴ Royal LePage 2021 Demographic Survey (full national, regional and city-level results): rlp.ca/table_2021demographicsurvey

The City of Guelph has been successful in attracting and accommodating the Millennial generation in recent years. Between 2011 and 2016, the Millennial population increased by approximately 1,300 persons in the City of Guelph.⁶⁵ The city's success in attracting this cohort can largely be attributed to market competitive housing opportunities (refer to Figure 3-15), regional employment opportunities (particularly in knowledge-based sectors), synergies associated with the city's post-secondary institutions, business support organizations for start-up industries, as well as increasing options related to amenities and entertainment.

Generation Z, the cohort that directly follows the Millennial generation is now entering the real estate and labour market. Demographers and researchers typically use the mid-1990s to mid-2000s as starting birth years to describe the Generation Z cohort. For the purposes of this study, we have assumed that those born between 1993 and 2005 (15-27 years of age comprise Generation Z). As of 2016, the Generation Z population comprises approximately 17% of the City of Guelph's population base. Between 2016 and 2051, Generation Z is forecast to comprise 12% of total population growth within the City of Guelph. Over the next decade, Generation Z is also anticipated to place increased demand on medium- and high-density ownership and rental housing.

It is also important to recognize the impact of Millennials and Generation Z on the nature of future employment growth, which will be increasingly driven by the knowledge-based economy. From a planning and economic development perspective, both Millennials and Generation Z will continue to serve as a catalyst for both growth and change related to future office, retail, institutional and industrial developments across the City of Guelph. The extent to which the City of Guelph can capitalize on potential demand from these demographic groups is subject to a number of economic and socio-economic variables (e.g. relative housing costs/affordability, local and regional employment opportunities, fuel costs, lifestyle preferences, local amenities, community services and perceived quality of life).

Continuing to plan for older generations

As summarized in Figure 5-7, the average age of the population base in the City of Guelph is getting older, due to the large concentration of Baby Boomers within the region. As of 2021, this age group is between 57 and 75 years of age. As of 2016, Baby Boomers comprise 22% of the city's population base. As previously noted, the percentage of seniors within the city, particularly older seniors (i.e. seniors 75 years of age and older), is anticipated to steadily increase over the 2016 to 2051 forecast period driven by the aging of the Baby Boom population. From 2001 to 2016, the city's 75+ population grew at an annual rate of 2.3%. Over the 2016 and 2051 period, the forecast annual population growth rate for the 75+ age group is forecast

⁶⁵ Derived from 2011 and 2016 Statistics Canada Census data.

to increase to 3.8%. This demographic trend is anticipated to be largely driven by the aging of the city's existing population, as opposed to net-migration of older residents into the city. It is important to recognize that not only is the Baby Boom age group large in terms of its population share in the City of Guelph, this group is also diverse with respect to age, income, health, mobility, and lifestyle/life stage.

When planning for the needs of older adults, it is important to consider these diverse physical and socio-economic characteristics relative to younger population age groups. On average, seniors, particularly those in the 75+ age group, have less mobility, less disposable income and typically require increased health care compared to younger seniors (65-74 age group) and other segments of the younger working-age population. Typically, these characteristics associated with the 75+ age group drive the demand for relatively higher density housing forms (e.g. apartments and seniors' homes) that are in proximity to urban amenities (e.g. hospitals and health care facilities, amenities and other community services geared towards older seniors).

Considerable research has been undertaken over the past decade regarding the aging population and its impact on housing needs over the long term. The majority of literature and commentary regarding the housing needs of older Canadians suggests that a large percentage of seniors will "age in place"; that is, they will continue to live in their current home and/or community for as long as possible even if their health changes.⁶⁶ While there is strong rationale to support "aging in place" as a general concept, it is important to address the current characteristics of the city's housing stock occupied by older adults (i.e. house size, built form, location and amenities) against the socio-economic characteristics of older residents in the City of Guelph (i.e. household income, housing affordability, mobility, health, etc.). These factors are also important to recognize when comparing housing preferences of Baby Boomers with previous generations. With this in mind, it is important to recognize that the concept of "aging in place" should emphasize the goal to age with some level of independence "within the community," as opposed to simply "aging at home." The overarching message around "aging in place" is that seniors require choices as well as access to services and amenities regarding their living arrangements.⁶⁷ This could include creating new housing through infill or intensification of established areas which can facilitate "aging in place" by providing housing options that allow seniors to remain in their communities when responding to life changes.⁶⁸

⁶⁶ Canadian Housing Observer 2011. CMCH. 2011.

⁶⁷ The Meaning of "Aging in Place" to Older People. The Gerontologist, Vol. 52, No. 3, 2012.

⁶⁸ Housing for Older Canadians: The Definitive Guide to the Over-55 Market. CMCH. Canada. 2012. Pg. 18.

5.2.6 Components of total population growth

Figure 5-10 and 5-11 summarize population growth in the City of Guelph by component including, net migration and natural increase (births less deaths). As previously mentioned, net migration is anticipated to represent the largest component of forecast population growth in the City of Guelph. This is a result of diminished population growth from natural increase due to the aging of the population. Net migration can be broken into three broad categories, including:

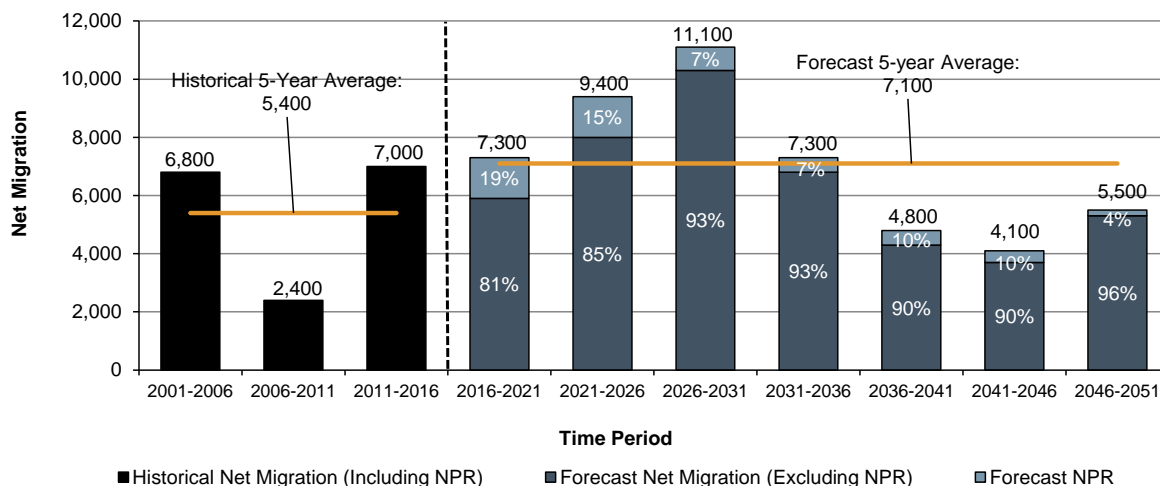
- **International net-migration** – represents international immigration less emigrants, plus net non-permanent residents. Over the last decade this has been a significant source of net migration over the last decade for the City of Guelph;
- **Inter-provincial net-migration** – is comprised of in-migration less out-migration from other Canadian provinces/territories. Historically this has not been a major source of net-migration for the City of Guelph; and
- **Intra-provincial net migration** – includes in-migration less out-migration from elsewhere within the Province of Ontario. This represents the largest source of net migration for the City of Guelph.

Key observations with respect to the components of population growth in the City of Guelph include:

- Over the 2016 to 2051 period, approximately 69% of population growth within the City of Guelph is anticipated to be driven from net migration;
- The city is forecast to accommodate just over 1,400 new net migrants per year (or 7,100 migrants every five years). Relative to historical trends, this represents a noticeable increase of 31% to the average historical levels of net migration experienced between 2001 and 2016;
- As previously discussed, forecast net migration in the City of Guelph is anticipated to be largely driven by the long-term economic growth prospects in the regional economy and surrounding commuter-shed, and outward growth pressure for the GTHA. Local housing growth opportunities targeted to a broad range of demographic groups (i.e. first-time homebuyers, families, empty nesters and seniors) and the city's attractiveness as a place to work, live and study also represent key drivers of net future migration within the city;
- Historically the NPR population has represented a minor component of the city's total population. Between 2001 and 2016 the NPR population in the City of Guelph increased by approximately 800 people or 3% of population growth over the 15-year period. Over the 2016 to 2051 planning horizon, the NPR population is anticipated to represent larger component of future population growth at 7%;

- As previously discussed in section 5.1, net-migration over the 2016 to 2021 is anticipated to be driven by a significant increase in intra-provincial migration to the City of Guelph, and to a lesser extent an increase in the NPR population. Net migration related to NPR population is forecast to remain strong over the forecast period relative to historical levels, however, relative demand from this population segment is anticipated to moderate over the latter half of the forecast period (refer to section 5.2.5);
- Net migration of permanent residents is forecast to comprise 89% of total net migration while NPR population is forecast to comprise the remaining 11% of total net migration from 2016 to 2051; and
- The city is anticipated to experience relatively strong net migration across all major age groups, most notably the 20-34 age group (young adults).

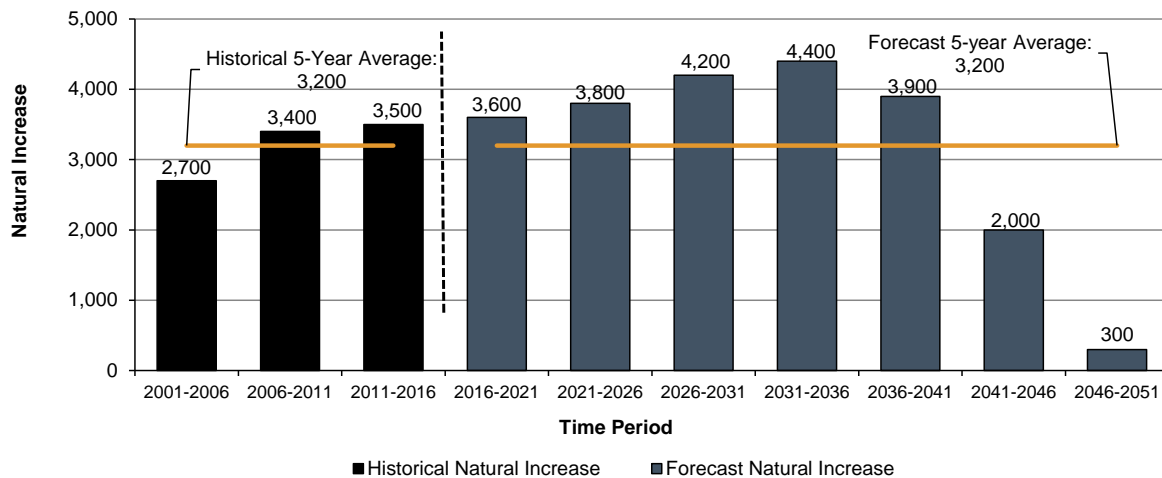
Figure 5-10: City of Guelph, historical and forecast net migration, 2016 to 2051



Source: 2001 to 2016 Derived from Statistics Canada, Demography Division (Catalogue no. 91C0005), by Watson & Associates Economists Ltd. 2016 to 2051 net migration and NPR forecast prepared by Watson & Associates Economists Ltd. Population includes Census undercount.

Figure 5-11 summarizes forecast population growth associated with natural increase for the City of Guelph relative to historical trends. As previously discussed, historical population growth (2001 to 2016) associated with natural increase has been relatively strong in the City of Guelph, driven by a relatively young population base. Over the forecast period, the share of population growth associated with natural increase is forecast to decline, particularly during the post-2041 period.

Figure 5-11: City of Guelph historical and forecast natural increase, 2016 to 2051

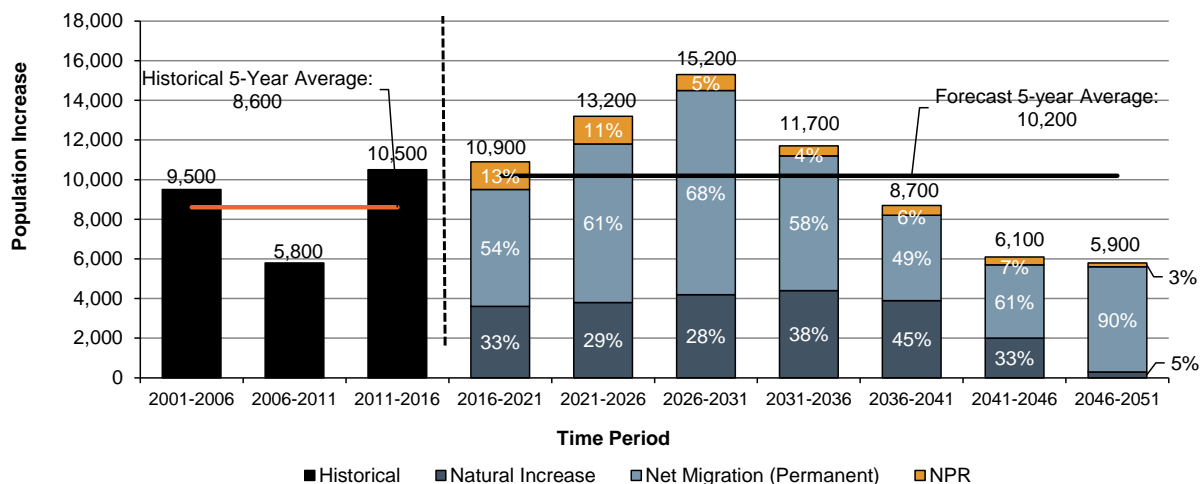


Note: Population includes Census undercount

Source: 2001 to 2016 Derived from Statistics Canada, Demography Division data by Watson & Associates Economists Ltd., 2019. 2016 to 2051 forecast prepared by Watson & Associates Economists Ltd.

Figure 5-12 summarizes the City of Guelph total population forecast by growth component from 2016 to 2051 in five-year increments in comparison to historical population growth trends. Forecast population growth in the City of Guelph is 19% higher relative to historical trends, driven by higher net migration from both permanent and NPR population. Further details regarding NPR growth are provided in section 5.2.7.

Figure 5-12: City of Guelph, historical and forecast total population growth, 2016 to 2051

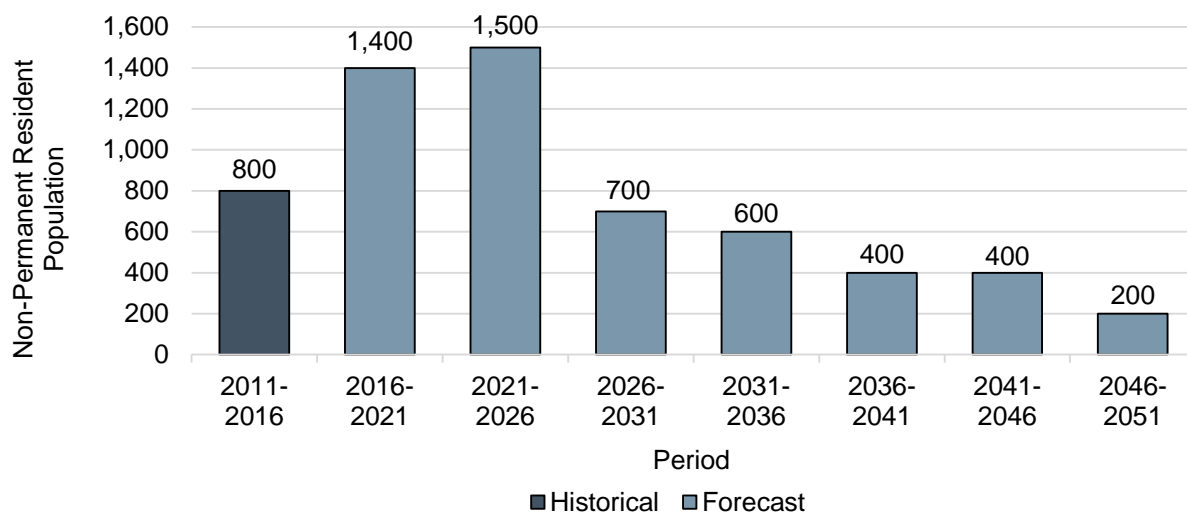


Source: 2001 to 2016 derived from Statistics Canada, Demography Division and Statistics Canada Census data. 2016 to 2051 derived by Watson & Associates Economists Ltd.

5.2.7 Non-permanent resident population growth forecast

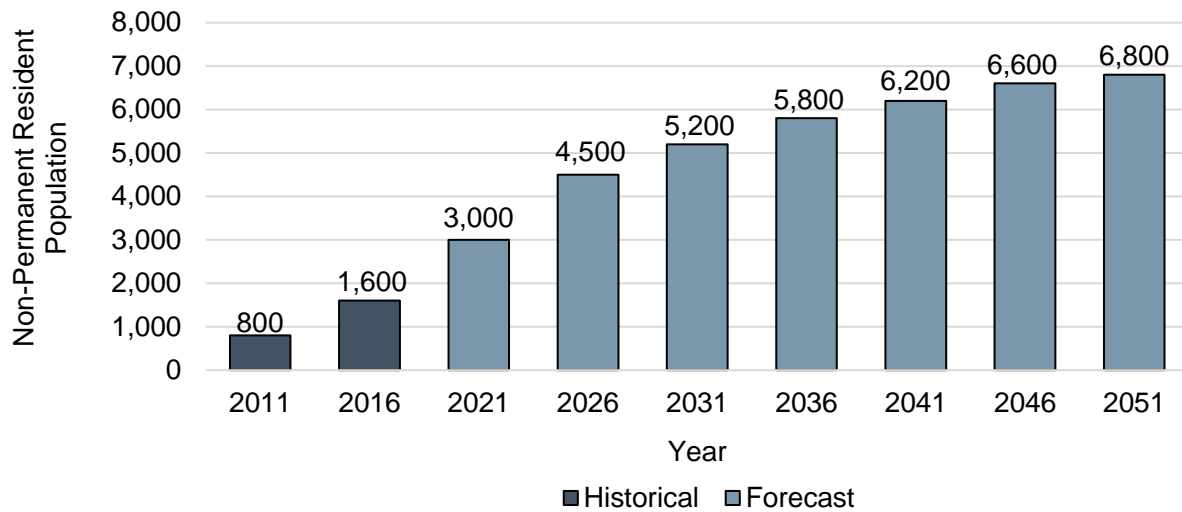
Figure 5-13 through Figure 5-15 provide additional details regarding the City of Guelph NPR population forecast in five-year increments over the 2016 to 2051 forecast. Recent population growth between 2016 and 2020 (as identified by Statistics Canada data) has accelerated in the Wellington County Economic Region partially due to an increase in NPR population. At the broader five-year level, this trend is anticipated to continue over the 2020 to 2026 period, largely driven by increases in international enrolment at post-secondary institutions in the City of Guelph. As previously noted, however, the impacts of COVID-19 may moderate this trend. Over the total forecast period, the NPR population in the City of Guelph is forecast to increase from 1,600 in 2016 to 6,800 by 2051, an increase of 5,200 persons. In 2016, NPR population represented 1% of the city's total population base; by 2051, this segment of the population is anticipated to increase to 3% of the city's total population. Over the longer term (post-2026), absolute population growth associated with NPR population is forecast to steadily moderate to approximately 1.7% per year.

Figure 5-13: City of Guelph, historical and forecast NPR population growth, 2016 to 2051



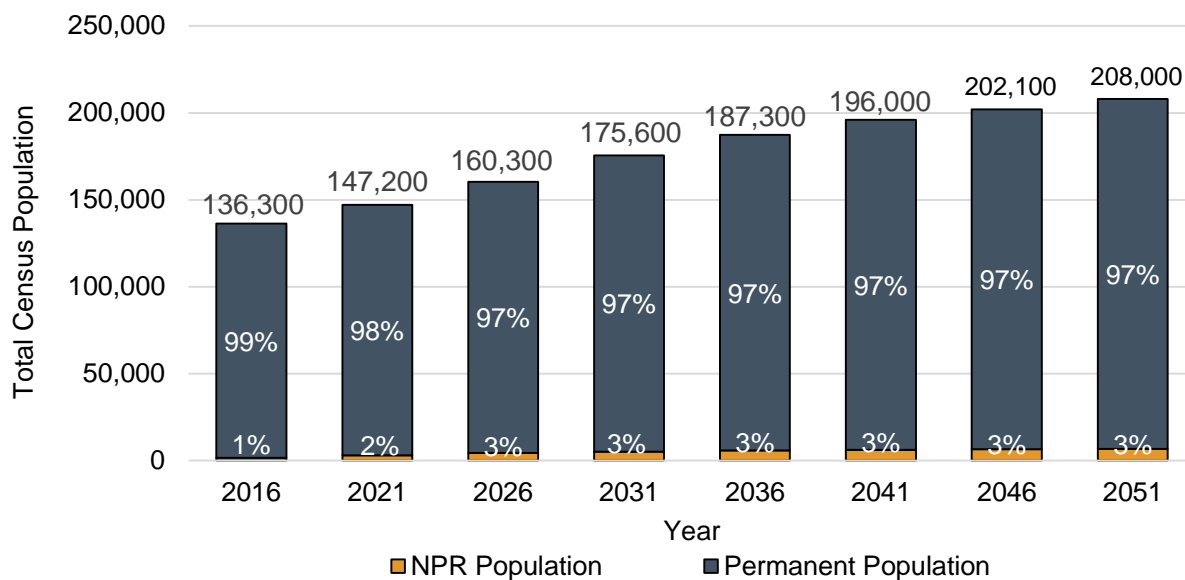
Source: Historical data from Statistics Canada Census, 2011-2016, and 2016-2051 forecast by Watson & Associates Economists Ltd.

Figure 5-14: City of Guelph, historical and forecast NPR population, 2016 to 2051



Source: Historical data from Statistics Canada Census, 2006-2016, and 2016-2041 forecast by Watson & Associates Economists Ltd.

Figure 5-15: City of Guelph, NPR population share of total population, 2016 to 2051



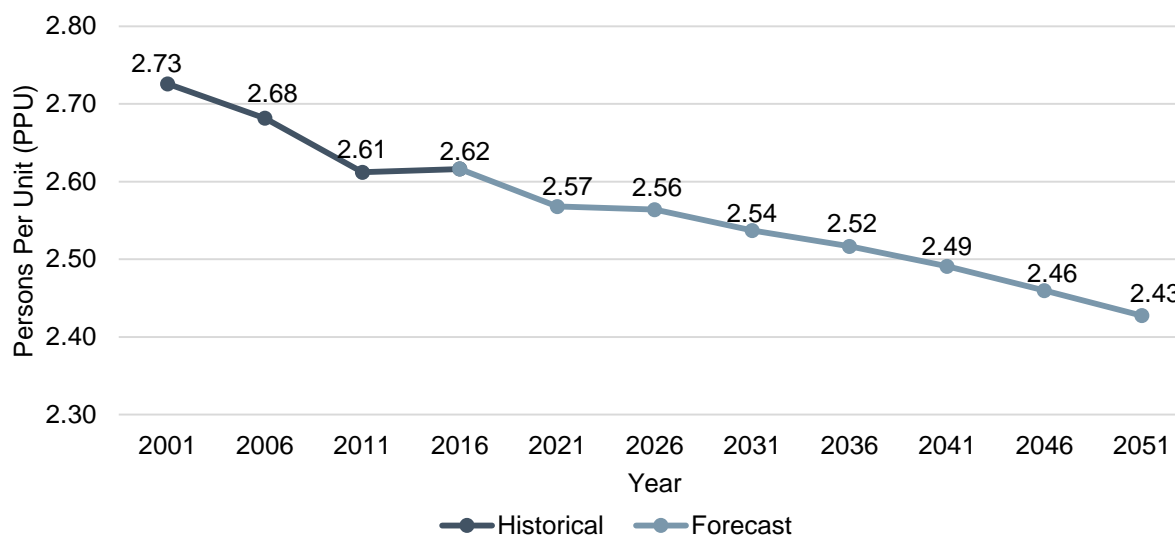
Source: Watson & Associates Economists Ltd.

5.3 City of Guelph census housing growth forecast

Figure 5-16 summarizes anticipated long-term forecast housing occupancy trends (i.e. PPU) for the City of Guelph from 2016 to 2051 with the context of historical

trends from 2001 to 2016. As previously discussed, this PPU forecast has been based on a headship rate analysis (refer to Appendix A for additional details).⁶⁹ Over the forecast period, overall average household occupancy levels are expected to decline between 2016 and 2051, largely as a result of the aging of the population.

Figure 5-16: City of Guelph, person per unit (PPU), 2016 to 2051



Note: Population used to calculate PPU includes net Census undercount.

Source: 2001 to 2016 derived from Statistics Canada Census and Annual Demographics Estimates data. Forecast by Watson & Associates Economists Ltd.

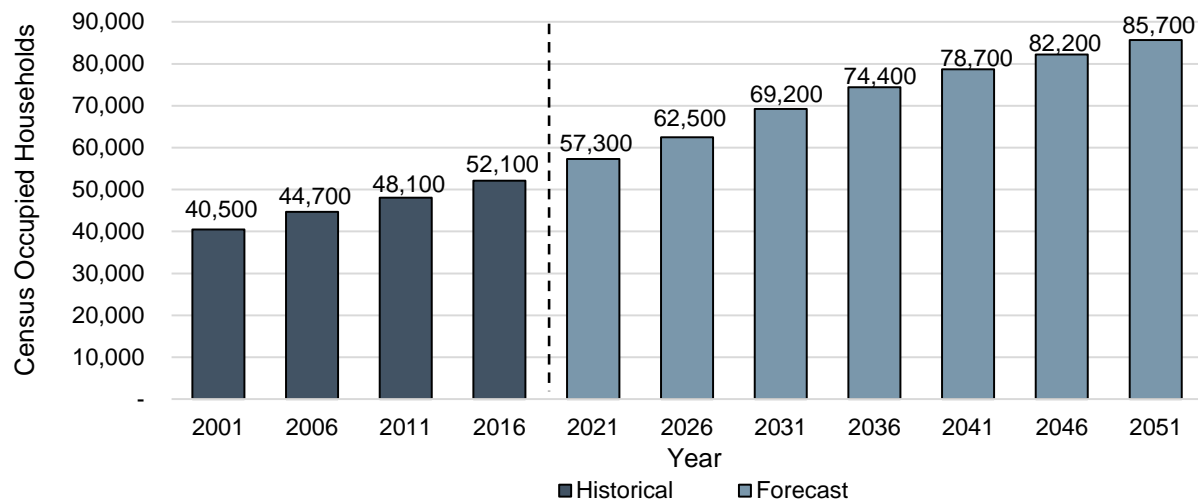
Figure 5-17 summarizes the long-term total census household forecast for the City of Guelph in five-year increments from 2016 to 2051. By 2031 the city's census housing base is forecast to reach approximately 69,200 total households.⁷⁰ The rate of housing growth is forecast to slow down during the post-2031 period, similar to forecast population growth trends anticipated during this time period. By 2051, the city's housing base is forecast to increase to approximately 85,700. This represents an annual housing growth rate of approximately 1.4% over the 2016 to 2051 period. This represents a marginally lower rate of forecast housing growth relative to the city's historical 15-year average annual housing growth rate (1.7% from 2001 to 2016). It is important to note that even with a lower rate of housing

⁶⁹ A headship rate is defined as the number of primary household maintainers or heads of households by major population age group. The headship forecast forms the basis for determining the demand for new households generated from population growth. Dividing total units over population generates the resulting long-term PPU for the city from 2016 to 2051.

⁷⁰ Census housing refers to private dwellings occupied by usual residents.

growth, the absolute annual number of households is higher over the forecast period, relative to historical trends.

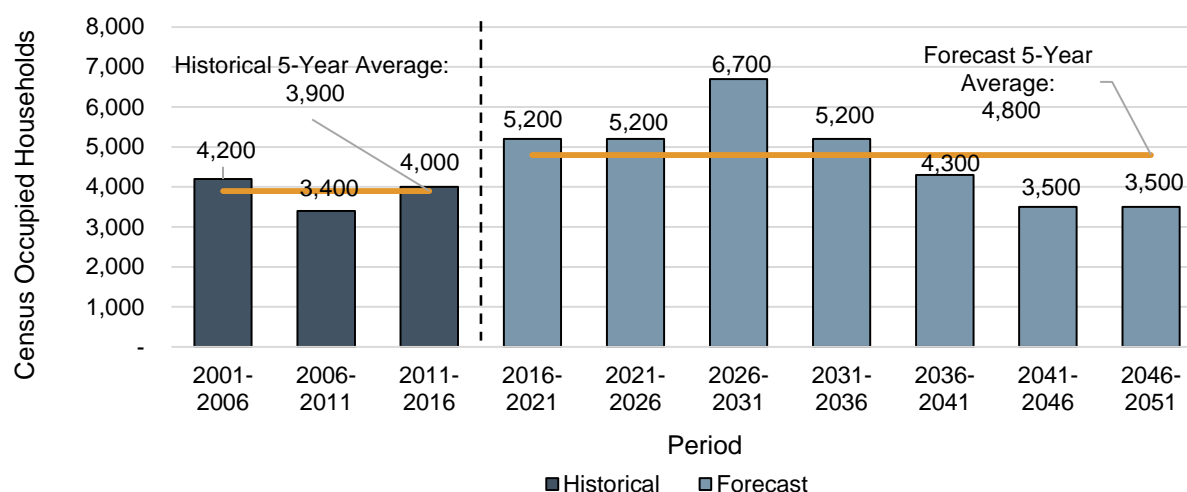
Figure 5-17: City of Guelph, census housing forecast, 2016 to 2051



Source: Historical data from Statistics Canada Census Profiles, 2001 to 2016, and 2016 to 2051 forecast by Watson & Associates Economists Ltd.

Figure 5-18 compares annual historical permanent housing growth for the City of Guelph from 2001 to 2016 against forecast new housing growth over the 2016 to 2051 period.⁷¹ In accordance with housing growth trends between 2016 and 2020 (i.e. residential building permits) and a review of housing units in the development approvals process, total absolute housing growth over the 2016 to 2021 period is anticipated to be strong relative to historical trends, and is anticipated to remain strong to 2036. Over the long term, total census housing growth post-2031 is forecast to gradually slow due to the aging of the existing population base. Overall annual average forecast housing growth from 2016 to 2051 is forecast to be above historical averages (approximately 23% higher relative to the 2001 to 2016 historical period in absolute terms).

⁷¹ In the 2016 to 2021 forecast period, 2016 to 2021 is based on building permit data received from the City of Guelph.

Figure 5-18: City of Guelph, annual census housing forecast, 2016 to 2051

Source: Historical data from Statistics Canada Census Profiles, 2001 to 2016, and 2016 to 2051 forecast by Watson & Associates Economists Ltd.

5.4 City of Guelph accessory apartment forecast, 2016 to 2051

An accessory apartment is a dwelling unit that is self-contained, subordinate to and located within the same building or on the same lot as a primary dwelling unit. These are often referred to as secondary dwelling units, granny flats, or basement apartments with separate kitchen areas. Accessory apartments can assist municipalities in meeting their goals regarding intensification as well as affordable housing, density targets, and even climate change mitigation and greenhouse gas emissions reduction.

APTG promotes residential intensification broadly throughout the BUA.

Intensification is intended to be focused within SGAs, with some modest growth in low-density residential areas also expected, primarily through the provision for new accessory apartments and gentle intensification.

The City of Guelph OP establishes a foundation for accessory apartments, encouraging their creation throughout the BUA and in aiding to provide for a full range of housing choices, including affordable housing. OPA 48 added subsection 9.2.3 to the OP, which provides for the creation of accessory apartments in low-density residential designations. The city's zoning bylaw also provides specific regulations for accessory apartments.

It is forecast that the city's low-density housing stock will reach approximately 32,700 dwellings by 2051. Assuming that approximately 7.5% of all low-density housing units add a secondary suite over the next 30 years, the city is anticipated to add approximately 2,500 secondary units by 2051. Additional details regarding

accessory apartments are provided in the City of Guelph Housing Analysis and Strategy.⁷²

5.5 City of Guelph population in collective dwellings forecast, 2016 to 2051

Figure 5-19 summarizes historical and forecast trends regarding the population in collective dwellings for the City of Guelph from 2006 to 2051. Over the historical time period from 2006 to 2016, the population in collective dwellings increased by approximately 260 people or 26 people annually. This represents an annual growth rate of 1.7%. Historically, the share of population in collective dwellings relative to total population has slightly increased between 2006 and 2016.

Over the 2016 to 2051 period, it is anticipated that the number of collective dwellings in the City of Guelph will steadily increase as the population grows. Also, as previously discussed, the City of Guelph's population is aging. This suggests that the number of collective dwellings related to facilities such as hospitals, retirement facilities and nursing homes will also increase. Over the 2016 to 2051 period, the City of Guelph population in collective dwellings is forecast to increase by approximately 2,3000 persons. This represents an annual increase of approximately 65 persons in collective dwellings per year or a 2.4% annual growth rate. Over the 2016 to 2051 planning horizon the share of population in collective dwellings relative to total population is forecast to increase from 1.3% to 1.9%.

⁷² Housing Analysis and Strategy, Shaping Guelph: Growth Management Strategy, February 2021. Dillon Consulting Limited and Watson & Associates Economists Ltd.

Figure 5-19: City of Guelph population in collective dwellings, 2016 to 2051

Historical year	Historical population in collective dwellings	Historical total population	Historical percentage share of population in collective dwellings to total population
2006	1,450	119,860	1.2%
2011	1,135	125,705	0.9%
2016	1,710	136,280	1.3%
Forecast year	Forecast population in collective dwellings	Forecast total population	Forecast percentage share of population in collective dwellings to total population
2021	1,995	147,155	1.4%
2026	2,330	160,345	1.5%
2031	2,720	175,000	1.5%
2036	3,045	184,000	1.6%
2041	3,350	191,000	1.7%
2046	3,655	197,135	1.8%
2051	3,965	203,000	1.9%
Period	Incremental growth for population in collective dwellings	Incremental growth for total population	Incremental growth for percentage share of population in collective dwellings to total population
2016-2031	1,010	38,720	0.2%
2016-2041	1,640	54,720	0.4%
2016-2051	2,260	66,720	0.6%

Note: Figures have been rounded.

Source: Historical data derived from Statistics Canada Census, and forecast by Watson & Associates Economists Ltd.

5.6 City of Guelph student enrollment and corresponding population growth forecast, 2016 to 2051

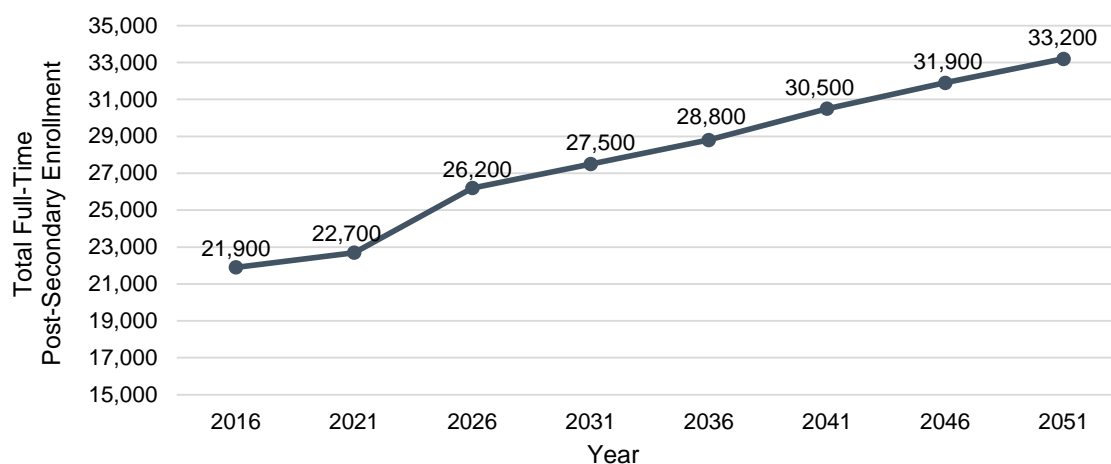
5.6.1 Student enrolment forecast

Based on the methodology presented in section 2.4, a long-term (2016 to 2051) aggregate post-secondary student enrolment forecast for Guelph was prepared reflecting growth potential within the city's two post-secondary institutions. As illustrated in Figure 5-20, full-time enrolment is forecast to increase from 21,900 in

2016 to 33,200 by 2051, an increase of 52% (11,300 students) over the forecast period (1.2% annual growth rate).

Recent full-time post-secondary student enrolment growth in Guelph has been relatively stable. During the 2012 to 2016 period, full-time enrolment growth increased at an average annual rate of 1.2%.⁷³ Over the short term (i.e. 2016 to 2026), full-time enrolment growth is expected to be the strongest with an annual growth rate of 1.8%, coinciding with growth in the NPR population which includes international students. As previously noted, the impacts of COVID-19 are anticipated to slow international enrolment levels in 2021, which may reduce the 2026 forecast. Post-2026, full-time enrolment is forecast to moderate to an annual growth rate of approximately 0.9%. The moderation of the long-term post-secondary student forecast is anticipated to be driven by the slowing of population growth related to domestic students and the increased global competition related to post-secondary international student attraction.

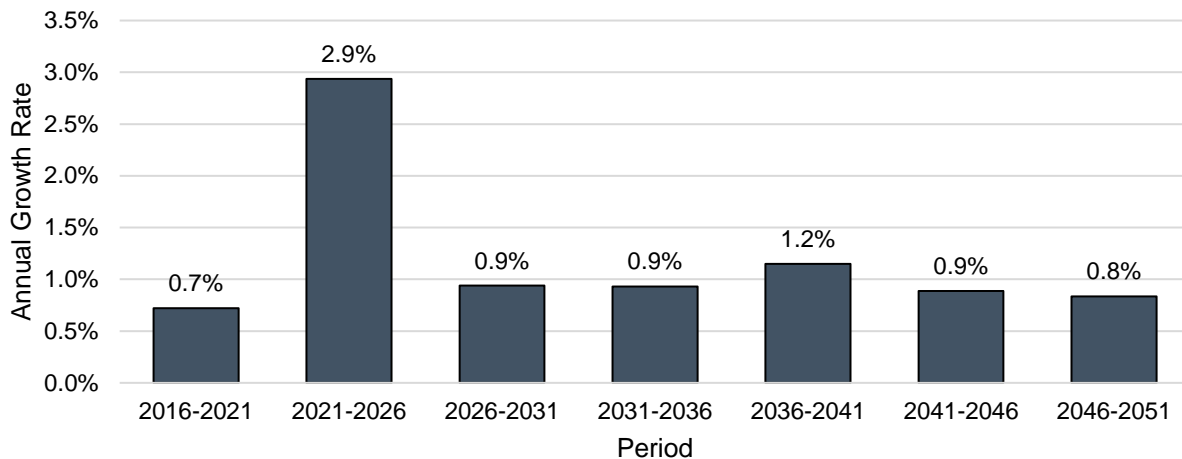
Figure 5-20: City of Guelph, full-time post-secondary student enrolment, 2016 to 2051



Note: Figures have been rounded.
Source: Watson & Associates Economists Ltd.

⁷³ Derived from Province of Ontario, Ministry of Training, Colleges and Universities data.

Figure 5-21: City of Guelph, full-time post-secondary student enrolment average annual growth rate, 2016 to 2051

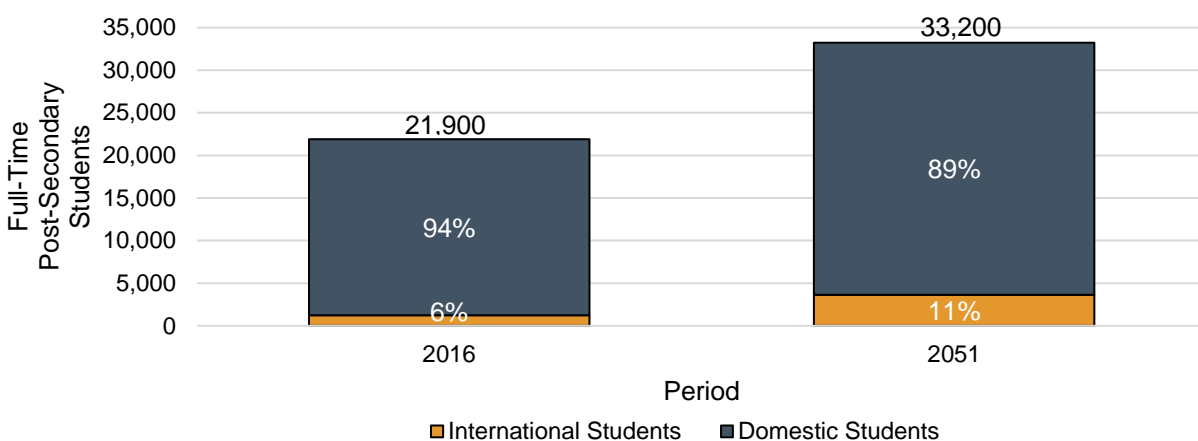


Note: Actual future student population may be impacted by a number of factors that affect student enrolment at post-secondary institutions, including changes in government policy related to enrolment and funding.

Source: Watson & Associates Economists Ltd.

In accordance with domestic demographic trends, combined with demand from international students, the share of total full-time enrolment associated with international students is expected to increase from 6% in 2016 to 11% in 2051, as illustrated in Figure 5-22. Conversely, the share of domestic students is expected to decrease from 94% to 89% during the same period.

Figure 5-22: City of Guelph, geographic origin of full-time post-secondary student enrolment, 2016 vs. 2051

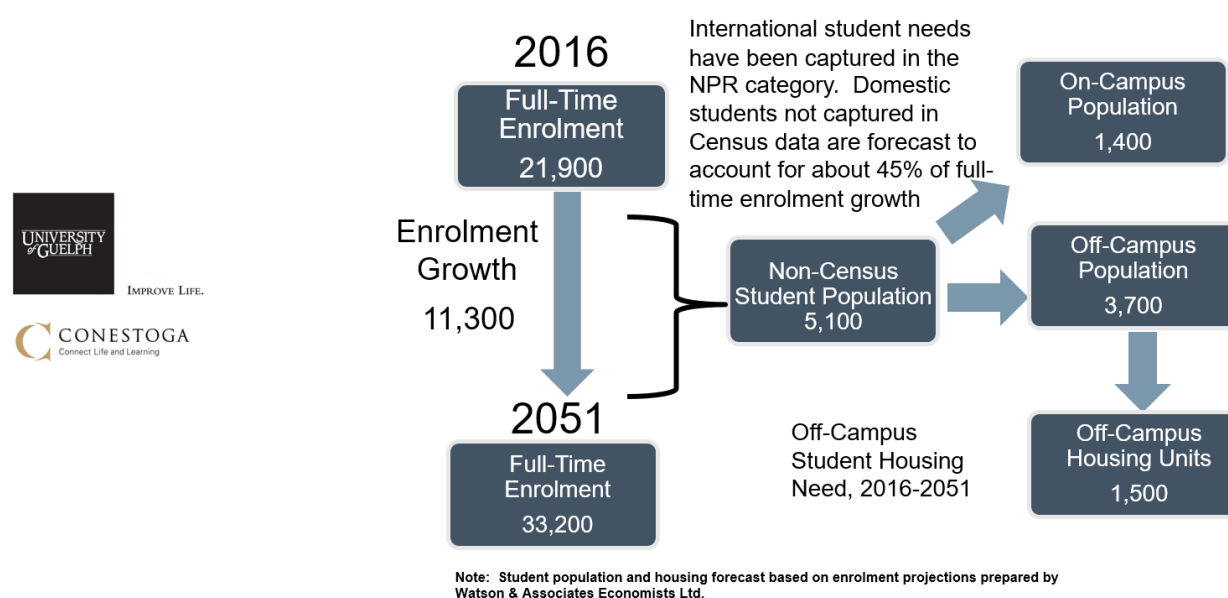


Source: Watson & Associates Economists Ltd.

Based on anticipated growth trends in enrolment by geographic location and local residency patterns, it is anticipated that 45% (5,100 of 11,300 students) of forecast full-time post-secondary enrolment growth over the 2016 to 2051 period, will

reflect students not captured in the census (i.e. those who are counted elsewhere in Canada but require housing locally while they are studying at one of the post-secondary institutions in the City of Guelph). As previously identified, it is important to note that international students are part of the NPR population and are already captured in the census. Based on current occupancy trends, it is anticipated that approximately 1,400 of the students not captured in the census (28% of total) will be accommodated in on-campus residences, as illustrated in Figure 5-23. The residual (72% or 3,700 students) is anticipated to be accommodated in off-campus housing. Assuming an average PPU of 2.5,⁷⁴ this will generate the need for approximately 1,500 off-campus dwelling units to accommodate post-secondary students not captured in the census over the 2016 to 2051 period.

Figure 5-23: City of Guelph, student population forecast



5.7 City population and housing growth forecast

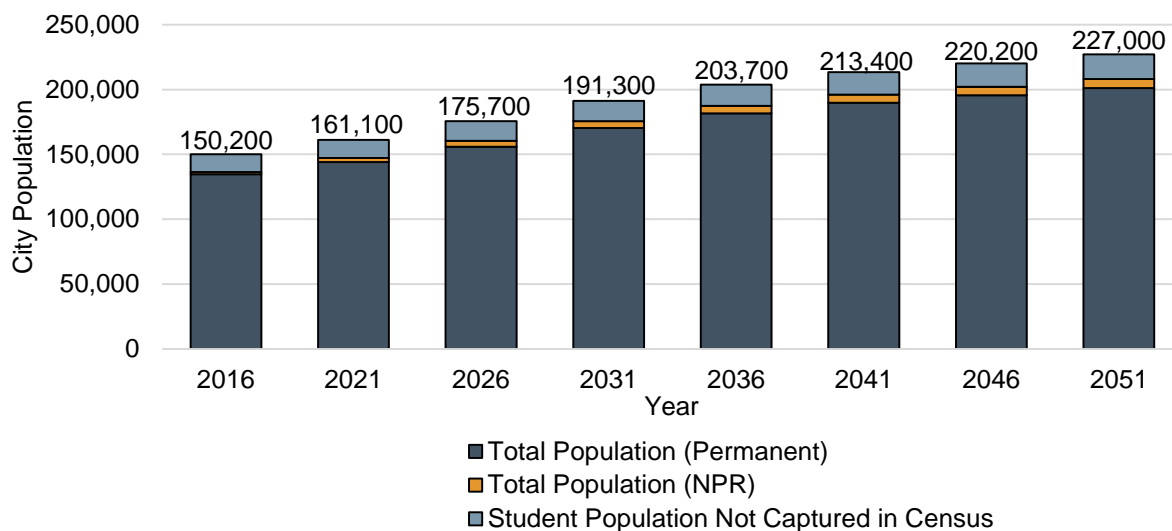
Figure 5-24 summarizes the city population which includes the total population (permanent and non-permanent residents adjusted for the net census undercount) and students not captured by the census, while Figure 5-25 identifies the incremental population growth from 2016 to 2051 by population category (permanent, non-permanent, students not captured by the census). Over the 35-year forecast period, the total population in the City of Guelph is forecast to grow by 71,700, or 1.2% annually, whereas the student population⁷⁵ is forecast to grow

⁷⁴ Based on a review anticipated new off-campus student dwellings in Guelph as well as consideration of broader student housing trends in Ontario, it is assumed that most new off-campus student housing will be in the form of apartments.

⁷⁵ Refers to students not captured in Census.

by 5,100, or 0.9% annually. Overall, the city population is forecast to increase by 76,800, or 1.2% annually.

Figure 5-24: City of Guelph, city population (includes population not captured in census), 2016 to 2051



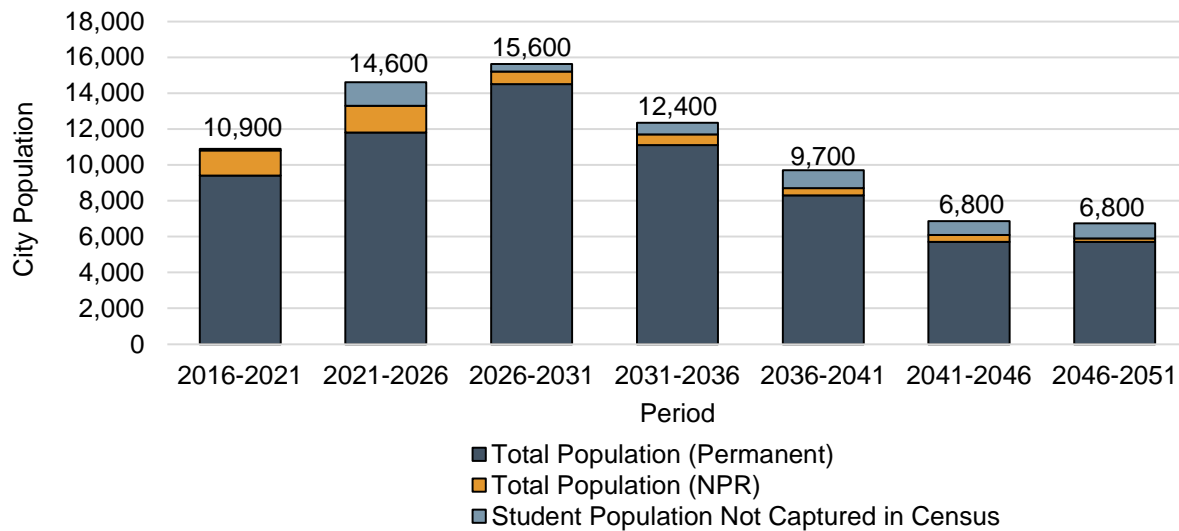
Source: Watson & Associates Economists Ltd.

Population category	2016	2021	2026	2031	2036	2041	2046	2051
Total population (permanent)	134,700	144,100	155,900	170,400	181,500	189,800	195,500	201,200
Total population (NPR)	1,600	3,000	4,500	5,200	5,800	6,200	6,600	6,800
Total population	136,300	147,100	160,400	175,600	187,600	196,000	202,100	208,000
Student population not captured in census	13,900	14,000	15,300	15,700	16,400	17,400	18,100	19,000
City population	150,200	161,100	175,700	191,300	203,700	213,400	220,200	227,000

Note: Figures may not sum to totals due to rounding.

Source: 2016 derived from Statistics Canada Census data, and 2021 to 2051 by Watson & Associates Economists Ltd.

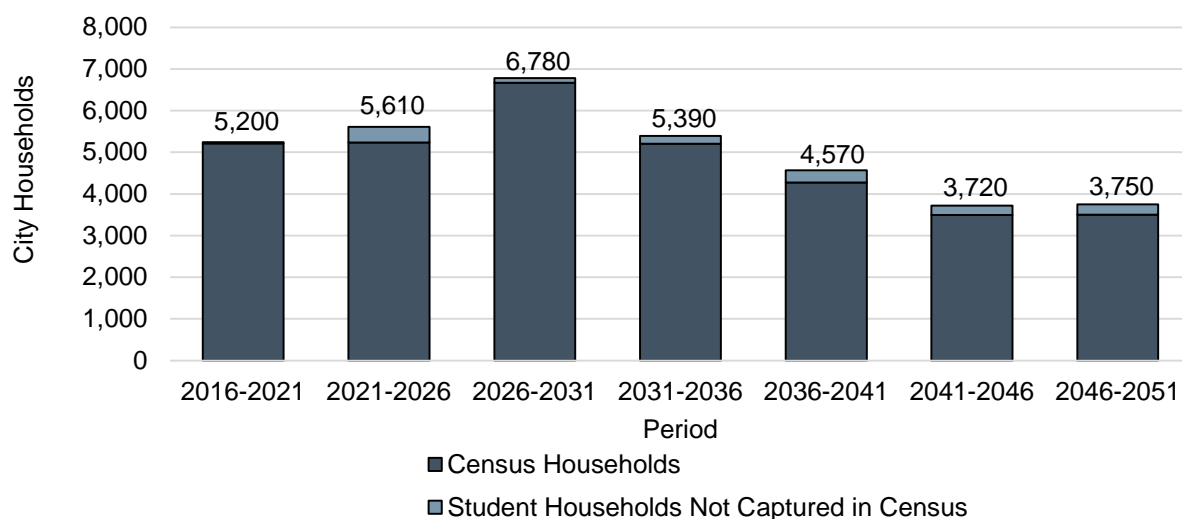
Figure 5-25: City of Guelph, city population growth (includes population not captured in census), 2016 to 2051



Source: Watson & Associates Economists Ltd.

Figure 5-26 summarizes the city housing forecast in five-year increments from 2016 to 2051. City of Guelph census households are expected to grow by an additional 33,700 units over the 35-year period, while student housing not captured in the census is expected to increase by 1,500 units during the same time frame. Over the 35-year forecast period, census housing is expected to average approximately 960 new households annually or by an average of 4,800 households every five years. Student housing not captured in the census is expected to grow roughly at 42 new units per year or an average of 210 housing units over each five-year period.

Figure 5-26: City of Guelph, annual housing forecast growth, (census households and student households not captured in census), 2016 to 2051



Source: Watson & Associates Economists Ltd.

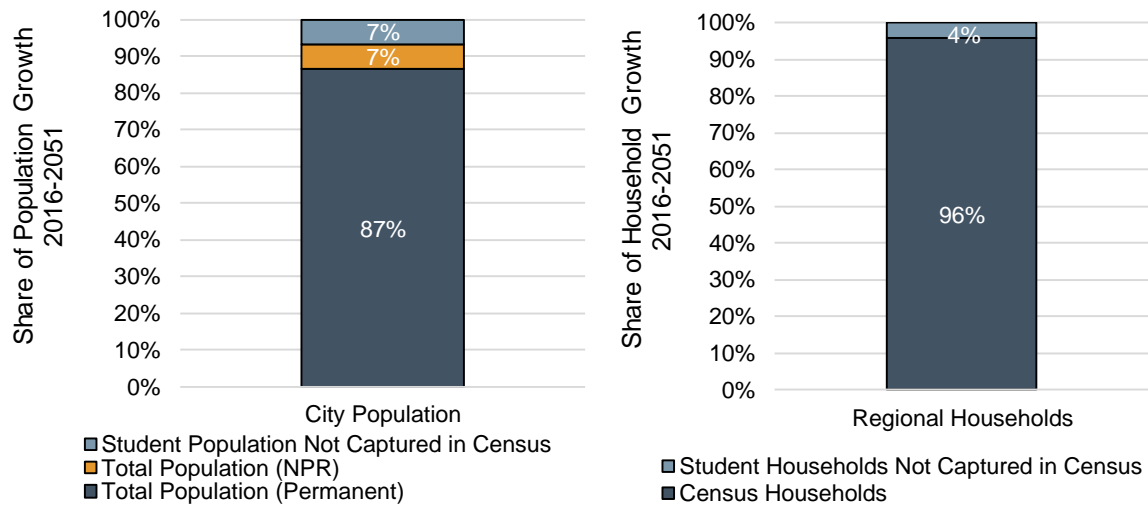
Housing category	2016-2021	2021-2026	2026-2031	2031-2036	2036-2041	2041-2046	2046-2051
Census housing	5,220	5,240	6,670	5,210	4,280	3,500	3,510
Student housing not captured in census	30	380	120	190	290	220	240
City households	5,250	5,620	6,790	5,400	4,570	3,720	3,750

Note: Figures may not sum to totals due to rounding.

Source: Watson & Associates Economists Ltd.

Figure 5-27 summarizes the city population and housing growth over the 35-year forecast period. City population growth is forecast to comprise 93.4% of total population growth (86.6% permanent and 6.8% non-permanent) from 2016 to 2051, while the student population not captured in the census is forecast to account for the remaining 6.6%. Student housing accounts for 4% of the total housing growth over the same period (refer to Appendix A for additional details).

Figure 5-27: City of Guelph, share of population and housing growth – permanent and students not captured in census, 2016 to 2051



Source: Watson & Associates Economists Ltd.



6 Recommendations and next steps

This Long-term Population and Housing Growth Analysis forms an important foundational brief and integral component to each of the other technical briefs prepared as part of the city's MCR and OP review process. This report informs a number of variables that are explored through the Housing Analysis Strategy and Growth Scenarios analysis. The Growth Scenarios Technical Brief examines alternative growth scenarios and provides an evaluation framework to select the preferred growth scenario. Several factors have been identified through the context of the city's Housing Analysis Strategy and Employment Lands Strategy. These factors are further examined through alternative growth scenarios for the city and the development of the preferred growth scenario. These include:

- a. Mix of housing by structure type and built form
- b. Pace of growth within the BUA
- c. Where growth is directed within the BUA
- d. Pace of growth within the DGA
- e. Density of development within the DGA

- f. Type of employment and the density of Employment Areas.

These technical briefs collectively form the background materials required to support the city's MCR report.

Appendix A

City of Guelph student population forecast, 2016 to 2051

Figure A-1: City of Guelph, forecast full-time post-secondary enrolment by origin, 2016 to 2051

Full-time post-secondary enrolment	2016	2021	2026	2031	2036	2041	2046	2051
Domestic and international enrolment	21,900	22,700	26,200	27,500	28,800	30,500	31,900	33,200
Domestic enrolment	20,700	20,900	23,600	24,600	25,700	27,100	28,300	29,600
International enrolment	1,200	1,800	2,500	2,900	3,100	3,400	3,500	3,600
Domestic enrolment share	94%	92%	90%	90%	89%	89%	89%	89%
International enrolment share	6%	8%	9%	10%	11%	11%	11%	11%
Non-permanent resident population (full-time post-secondary students only)	1,200	1,700	2,300	2,600	2,800	3,000	3,200	3,300

Note: Figures may not add precisely due to rounding.

Source: 2016 derived from Province of Ontario, Ministry of Training, Colleges and Universities data, and University of Guelph data. 2016 to 2051 forecast by Watson & Associates Economists Ltd.

Figure A-2: City of Guelph, post-secondary school off-campus housing need, 2016 to 2051

Post-secondary institution	Total full-time domestic enrolment growth	% enrolment growth requiring student housing in City of Guelph	Domestic enrolment growth requiring student housing in City of Guelph	% housed on campus	% off campus	On-campus student population	Off-campus student population growth
Variable	(A)	(B)	(A) x (B) = (C)	(D)	(E)	(C) x (D) = (F)	(C) x (E) = (G)
University of Guelph	6,430	97%	6,240	20%	80%	1,250	4,990
Conestoga College	2,480	73%	1,810	10%	90%	180	1,630
City of Guelph	8,910	90%	8,050	18%	82%	1,430	6,620

Post-secondary institution	Off-campus domestic student population growth not captured in the census	Off-campus domestic students not captured in census	Total students not captured in census	Off-campus housing PPU	Off-campus student housing need, 2016-2051	Off-campus domestic students not in census housing need, 2016-2051
Variable	(H)	(G) x (H) = (I)	(F) x (I) = (J)	(K)	(G) / (K) = (L)	(I) / (K) = (M)
University of Guelph	67%	3,350	4,590	2.5	2,000	1,340
Conestoga College	20%	330	510	2.5	700	130
City of Guelph	55%	3,670	5,100	2.5	2,700	1,470

Note: Figures may not add precisely due to rounding.

Source: Watson & Associates Economists Ltd.

Appendix B

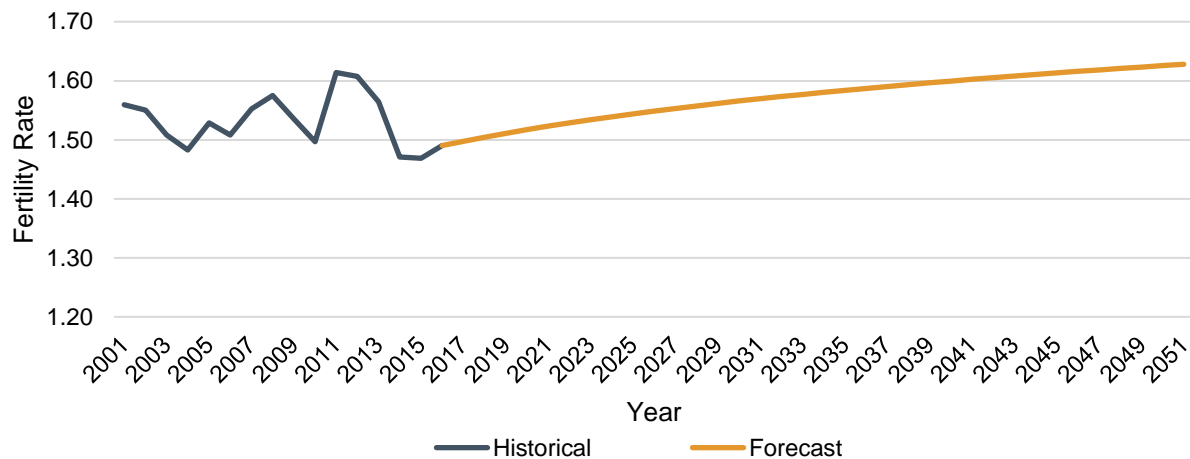
City of Guelph housing headship rates, 2006 to 2051

Figure B-1: City of Guelph, housing headship rates, 2016 to 2051

Age group	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
0-14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15-24	0.1220	0.1246	0.1272	0.1272	0.1272	0.1286	0.1286	0.1286	0.1286	0.1286
25-34	0.4342	0.4250	0.4101	0.4101	0.4101	0.4146	0.4146	0.4146	0.4146	0.4146
35-44	0.5091	0.5056	0.5179	0.5179	0.5179	0.5236	0.5236	0.5236	0.5236	0.5236
45-54	0.5638	0.5634	0.5561	0.5561	0.5561	0.5622	0.5622	0.5622	0.5622	0.5622
55-64	0.5775	0.5936	0.5777	0.5777	0.5777	0.5840	0.5840	0.5840	0.5840	0.5840
65-74	0.5813	0.5874	0.5957	0.5957	0.5957	0.6023	0.6023	0.6023	0.6023	0.6023
75+	0.6157	0.6434	0.5858	0.5858	0.5858	0.5923	0.5923	0.5923	0.5923	0.5923

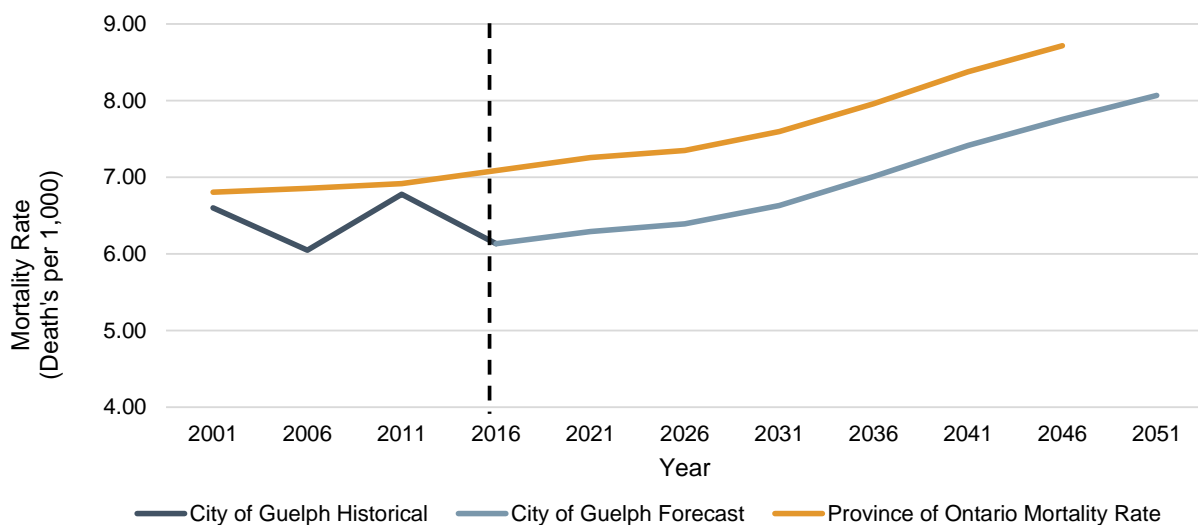
Appendix C

City of Guelph population and housing forecast,
2016 to 2051

Figure C-1: City of Guelph, fertility rates, 2016 to 2051

Source: Historical fertility rate data by age of mother provided by Vital Statistics, Ontario, Office of the Registrar General. Total fertility rate data provided by Statistics Canada Demography Division (Catalogue no. 91C0005). Fertility rate forecast prepared by Watson & Associates Economists Ltd.

Note: Province of Ontario fertility rate forecast (reference scenario) is assumed to increase from 1.49 to 1.55 between 2017 and 2046, in accordance with Ministry of Finance (MoF), Ontario Population Projections Update, Summer 2020.

Figure C-2: City of Guelph, mortality rates, 2016 to 2051

Source: Statistics Canada Demography Division (Catalogue no. 91C0005). City of Guelph mortality rate from 2016 to 2051 forecast prepared by Watson & Associates Economists Ltd. Province of Ontario mortality rate forecast derived from Ministry of Finance (MoF), Ontario Population Projections Update, Summer 2019.

Figure C-3: City of Guelph, total population forecast (permanent and non-permanent residents), 2016 to 2051

Total population growth

Population category	2016-2021	2021-2026	2026-2031	2031-2036	2036-2041	2041-2046	2046-2051
Permanent population	9,500	11,800	14,500	11,200	8,300	5,800	5,600
Non-permanent residents (NPR)	1,400	1,400	800	500	500	400	200
<i>NPR full-time post-secondary international students</i>	600	600	300	200	200	200	100
<i>NPR other (all students except full-time post-secondary students, workers and other non-permanent population)</i>	900	900	500	300	300	200	100
Total	10,900	13,200	15,200	11,700	8,700	6,100	5,900

Total population growth shares

Population category	2016-2021	2021-2026	2026-2031	2031-2036	2036-2041	2041-2046	2046-2051
Permanent population	87%	89%	95%	96%	95%	95%	95%
Non-permanent residents (NPR)	13%	11%	5%	4%	6%	7%	3%
<i>NPR full-time post-secondary international students</i>	6%	5%	2%	2%	2%	3%	2%
<i>NPR other (all students except full-time post-secondary students, workers and other non-permanent population)</i>	8%	7%	3%	3%	3%	3%	2%
Total	100%	100%	100%	100%	100%	100%	100%

Non-permanent resident (NPR) population growth

Population category	2016-2021	2021-2026	2026-2031	2031-2036	2036-2041	2041-2046	2046-2051
NPR full-time post-secondary international students	600	600	300	200	200	200	100
NPR all other students ¹	200	200	100	100	100	-	-
Total students	800	800	400	300	300	200	100
NPR workers, asylum seekers and other remaining	600	600	400	200	200	200	100
Total	1,400	1,400	800	500	500	400	200

Non-permanent resident (NPR) population growth shares

Population category	2016-2021	2021-2026	2026-2031	2031-2036	2036-2041	2041-2046	2046-2051
NPR full-time post-secondary international students	39%	39%	41%	42%	43%	43%	43%
NPR all other students ¹	16%	16%	14%	13%	12%	12%	12%
Total students	55%	55%	55%	55%	55%	55%	55%
NPR workers, asylum seekers and other remaining	45%	45%	45%	45%	45%	45%	45%
Total	100%	100%	100%	100%	100%	100%	100%

Total population

Population Category	2016	2021	2026	2031	2036	2041	2046	2051
Permanent population	134,700	144,100	155,900	170,400	181,500	189,800	195,500	201,200
Non-permanent residents (NPR) ²	1,600	3,000	4,500	5,200	5,800	6,200	6,600	6,800
<i>NPR full-time post-secondary international students³</i>	<i>1,200</i>	<i>1,800</i>	<i>2,300</i>	<i>2,700</i>	<i>2,900</i>	<i>3,100</i>	<i>3,200</i>	<i>3,300</i>
<i>NPR other (all students except full-time post-secondary students, workers and other non-permanent population)³</i>	<i>400</i>	<i>1,200</i>	<i>2,100</i>	<i>2,600</i>	<i>2,900</i>	<i>3,100</i>	<i>3,400</i>	<i>3,500</i>
Total population	136,300	147,200	160,300	175,600	187,300	196,000	202,100	208,000

Non-permanent resident share of total population

Metric	2016	2021	2026	2031	2036	2041	2046	2051
Share	1%	2%	3%	3%	3%	3%	3%	3%

¹ All non-full-time post-secondary students and all non-post-secondary full-time and part-time students including elementary and secondary schools.

² 2016 base based on 2016 Statistics Canada Census data.

³ 2016 base estimated by Watson & Associates Economists Ltd.

Note: Figures may not add precisely due to rounding. A 55%/45% ratio for total NPR students to all other NPR is assumed for incremental growth over the forecast period. It is also assumed the share of full-time post-secondary students to all other students will increase over the forecast period as post-secondary institution enrolment of international students increases.

Source: 2016 from Statistics Canada Census. 2021 to 2051 forecast by Watson & Associates Economists Ltd.

Figure C-4: City of Guelph, total population forecast by major age group, 2016 to 2051

Permanent population

Age group	2016	2021	2026	2031	2036	2041	2046	2051
0-19	31,000	31,700	34,000	36,800	39,300	41,300	41,600	40,700
20-34	30,600	32,500	34,700	38,000	39,400	37,800	35,700	36,800
35-44	18,400	19,700	21,300	23,200	24,300	25,600	27,600	26,800
45-54	19,000	18,600	19,000	20,400	21,800	23,200	23,800	24,800
55-64	16,300	18,400	18,500	18,100	18,400	19,300	20,200	21,000
64-74	10,500	12,900	15,200	17,300	17,600	17,200	17,500	18,300
75+	8,800	10,400	13,300	16,600	20,900	25,500	29,200	32,800
Total	134,700	144,100	155,900	170,400	181,500	189,800	195,500	201,200

Non-permanent resident (NPR) population

Age group	2016	2021	2026	2031	2036	2041	2046	2051
0-19	300	500	800	900	1,000	1,100	1,100	1,200
20-34	1,000	1,900	2,800	3,300	3,600	3,900	4,100	4,200
35-44	200	400	600	600	700	800	800	800
45-54	100	200	300	300	400	400	400	400
55-64	-	-	100	100	100	100	100	100
64-74	-	-	-	-	-	-	-	-
75+	-	-	-	-	-	-	-	-
Total	1,600	3,000	4,500	5,200	5,800	6,200	6,600	6,800

Total population

Age group	2016	2021	2026	2031	2036	2041	2046	2051
0-19	31,300	32,200	34,700	37,700	40,200	42,300	42,800	41,900
20-34	31,600	34,300	37,500	41,300	42,900	41,600	39,800	41,000
35-44	18,600	20,100	21,800	23,800	25,000	26,300	28,400	27,600
45-54	19,100	18,800	19,300	20,700	22,200	23,600	24,200	25,200
55-64	16,300	18,400	18,600	18,200	18,400	19,400	20,300	21,100
64-74	10,500	12,900	15,200	17,300	17,600	17,300	17,500	18,400
75+	8,800	10,400	13,300	16,600	20,900	25,500	29,200	32,800
Total	136,300	147,200	160,300	175,600	187,300	196,000	202,100	208,000

Note: Figures may not add to totals due to rounding. Population includes net census undercount.

Source: 2016 derived from Statistics Canada Census and Demography Division data. 2016 to 2051 derived by Watson & Associates Economists Ltd.

Figure C-5: City of Guelph, total population forecast shares by major age group, 2016 to 2051

Permanent population

Age group	2016	2021	2026	2031	2036	2041	2046	2051
0-19	23%	22%	22%	22%	22%	22%	21%	20%
20-34	23%	23%	22%	22%	22%	20%	18%	18%
35-44	14%	14%	14%	14%	13%	13%	14%	13%
45-54	14%	13%	12%	12%	12%	12%	12%	12%
55-64	12%	13%	12%	11%	10%	10%	10%	10%
64-74	8%	9%	10%	10%	10%	9%	9%	9%
75+	7%	7%	9%	10%	12%	13%	15%	16%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Non-permanent resident (NPR) population

Age Group	2016	2021	2026	2031	2036	2041	2046	2051
0-19	19%	17%	18%	17%	17%	18%	17%	18%
20-34	63%	63%	62%	63%	62%	63%	62%	62%
35-44	13%	13%	13%	12%	12%	13%	12%	12%
45-54	6%	7%	7%	6%	7%	6%	6%	6%
55-64	0%	0%	2%	2%	2%	2%	2%	1%
64-74	0%	0%	0%	0%	0%	0%	0%	0%
75+	0%	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Total population

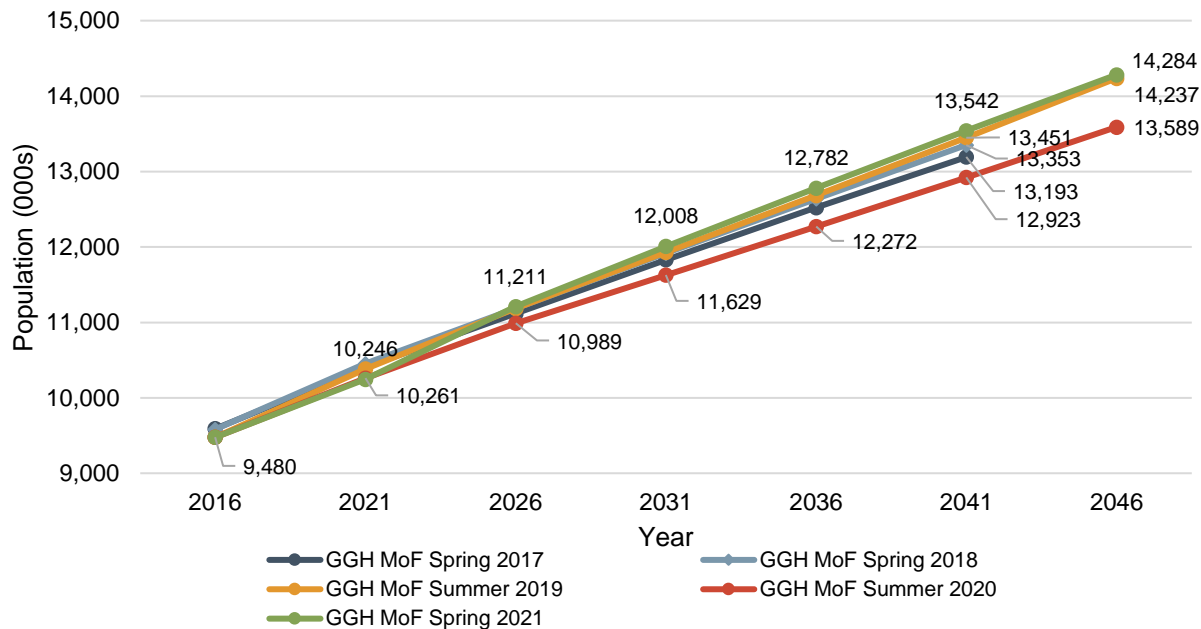
Age group	2016	2021	2026	2031	2036	2041	2046	2051
0-19	23%	22%	22%	21%	21%	22%	21%	20%
20-34	23%	23%	23%	24%	23%	21%	20%	20%
35-44	14%	14%	14%	14%	13%	13%	14%	13%
45-54	14%	13%	12%	12%	12%	12%	12%	12%
55-64	12%	13%	12%	10%	10%	10%	10%	10%
64-74	8%	9%	9%	10%	9%	9%	9%	9%
75+	6%	7%	8%	9%	11%	13%	14%	16%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Note: Figures may not add to totals due to rounding. Population includes net census undercount.

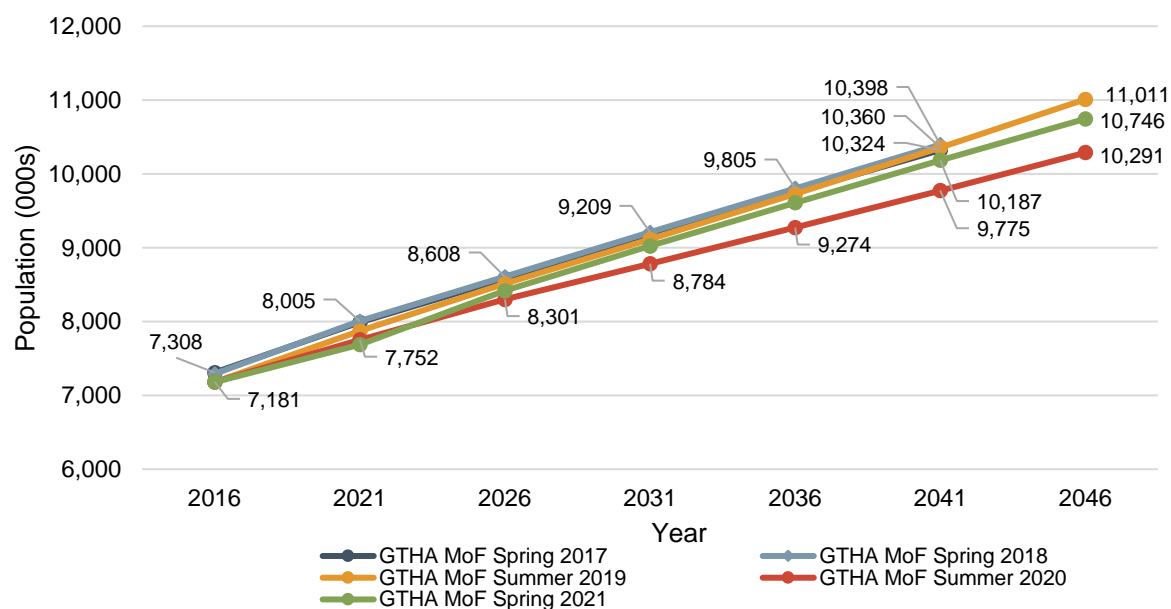
Source: 2016 derived from Statistics Canada Census and Demography Division data. 2016 to 2051 derived by Watson & Associates Economists Ltd.

Appendix D

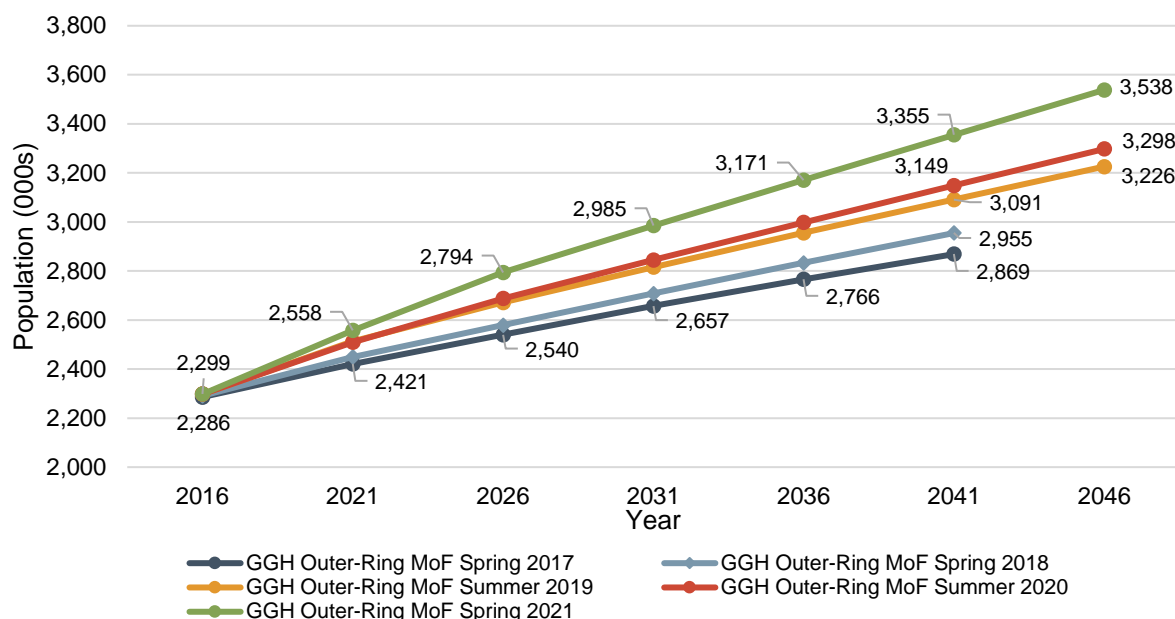
City of Guelph 2051 forecast background information

Figure D-1: Ministry of Finance GGH population projections

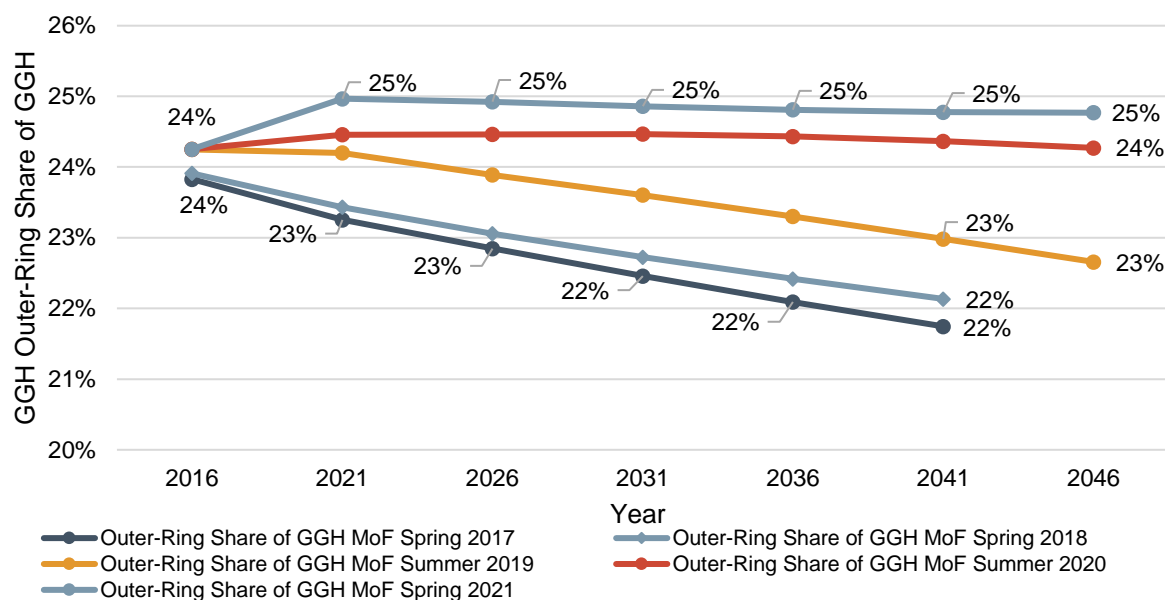
Source: Derived from Ministry of Finance Ontario Population Projections Spring 2017, Spring 2018, Summer 2019, Summer 2020 and Spring 2021 releases, by Watson & Associates Economists Ltd.

Figure D-2: Ministry of Finance GTHA population projections

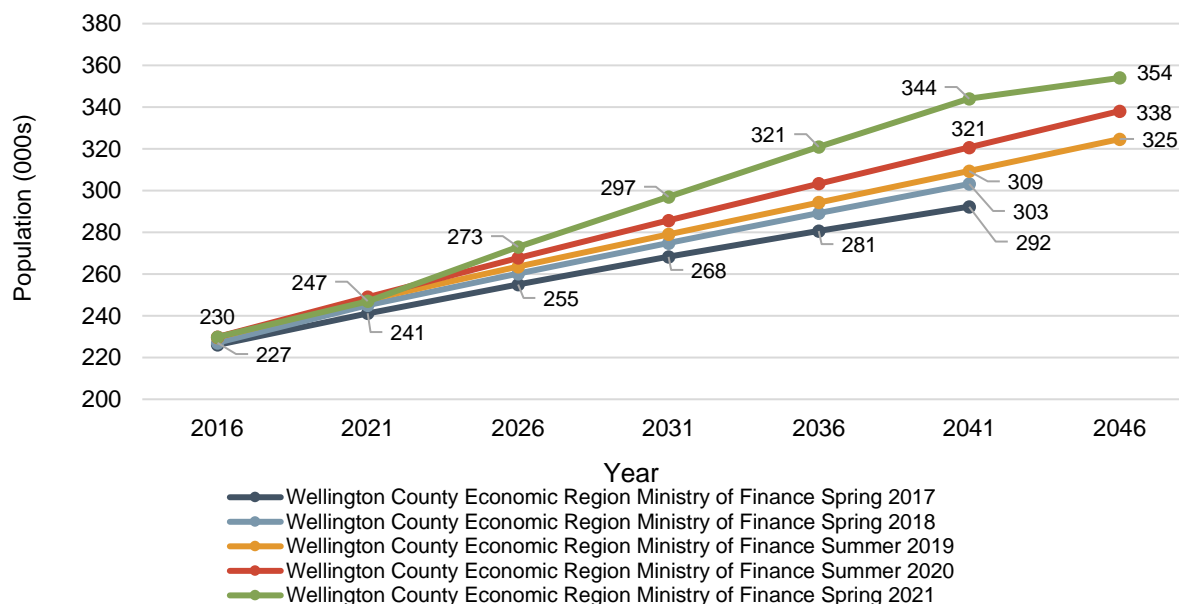
Source: Derived from Ministry of Finance Ontario Population Projections Spring 2017, Spring, 2018, Summer 2019, Summer 2020 and Spring 2021 releases, by Watson & Associates Economists Ltd.

Figure D-3: Ministry of Finance GGH Outer Ring population projections

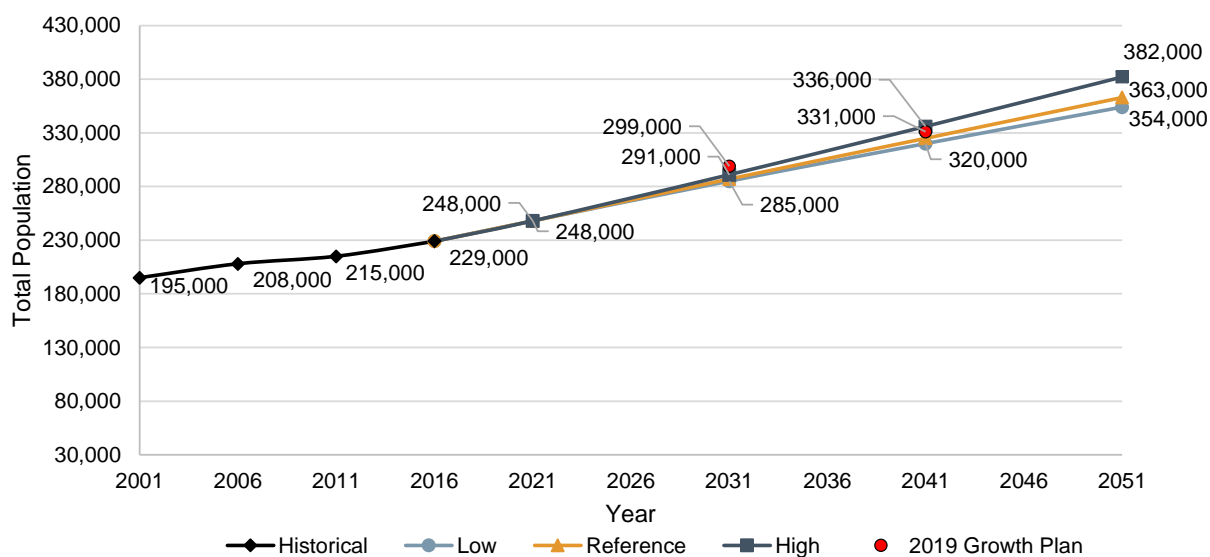
Source: Derived from Ministry of Finance Ontario Population Projections Spring 2017, Spring 2018, Summer 2019, Summer 2020 and Spring 2021 releases, by Watson & Associates Economists Ltd.

Figure D-4: Ministry of Finance GGH Outer Ring share of GGH population projections

Source: Derived from Ministry of Finance Ontario Population Projections Spring 2017, Spring 2018, Summer 2019, Summer 2020 and Spring 2021 releases, by Watson & Associates Economists Ltd.

Figure D-5: Ministry of Finance City of Guelph population projections

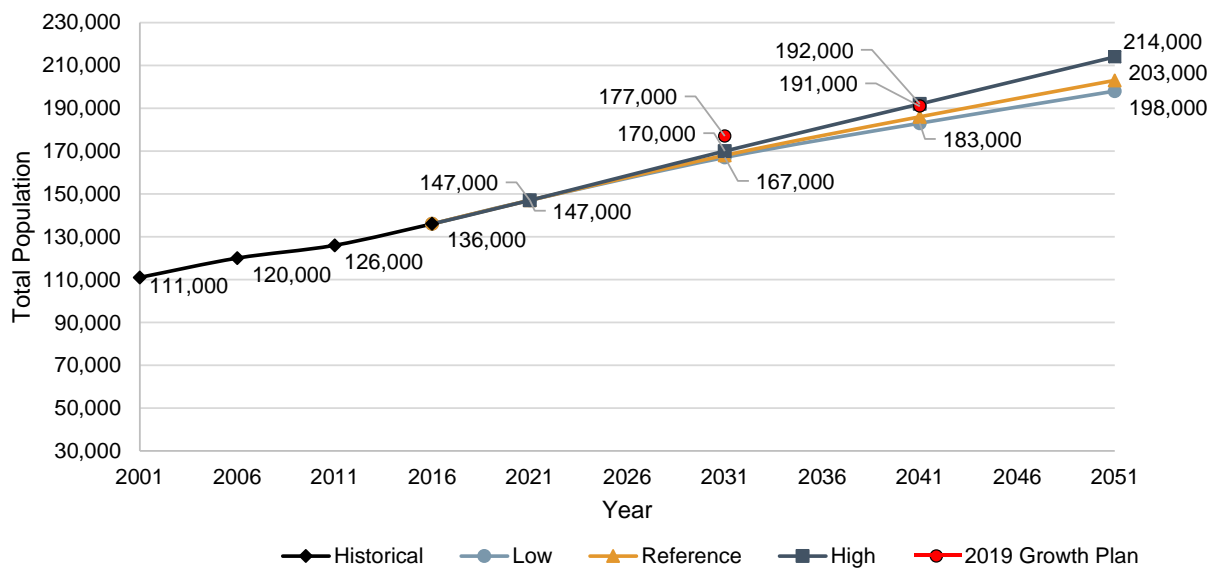
Source: Derived from Ministry of Finance Ontario Population Projections Spring 2016, Spring 2018, Summer 2020 and Spring 2021 releases. Figure by Watson & Associates Economists Ltd.

Figure D-6: Wellington County Economic Region population projections, 2020 Technical Report and 2019 Growth Plan (May 2019)

Note: Population includes net Census undercount estimated at approximately 3%. Wellington County Economic Region includes the City of Guelph and Wellington County.

Source: Historical, Low, Reference and High scenarios from Greater Golden Horseshoe Growth Forecasts to 2051 Technical Report, August 26, 2020, Hemson Consulting Ltd. 2019 Growth Plan from A Place to Grow, Growth Plan for the Greater Golden Horseshoe, May 2019. Figure by Watson & Associates Economists Ltd.

Figure D-7: City of Guelph population projections, 2020 Technical Report and 2019 Growth Plan (May 2019)



Note: Population includes net Census undercount estimated at approximately 3%.

Source: Historical, Low, Reference and High scenarios from Greater Golden Horseshoe Growth Forecasts to 2051 Technical Report, August 26, 2020, Hemson Consulting Ltd. 2019 Growth Plan from A Place to Grow, Growth Plan for the Greater Golden Horseshoe, May 2019. Figure by Watson & Associates Economists Ltd.