



 **Watson
& Associates**
ECONOMISTS LTD.

Population, Housing and Employment Growth Analysis Study

City of Kingston

Final Report

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List of Acronyms and Abbreviations

C.M.A.	Census Metropolitan Area
B.U.A.	Built-up Area
D.G.A.	Designated Greenfield Area
O.P.	Official Plan
G.D.P.	Gross Domestic Product
G.T.H.A.	Greater Toronto Hamilton Area
M.O.F.	Ministry of Finance
N.F.P.O.W.	No Fixed Place of Work
P.I.C.	Public Information Centre
P.P.S., 2020	Provincial Policy Statement, 2020
P.P.S., 2024	Provincial Planning Statement, 2024

Glossary

Built-up Area (B.U.A.): refers to the area where most of the residential, commercial, and institutional lands within the City are developed. This area is where intensification, including redevelopment and infill, is expected to occur. The B.U.A. also offers vacant land sites; however, compared to the Designated Greenfield Area (D.G.A.), the vacant sites are smaller (sites measuring less than 20 hectares (49 acres) in land area) and are more likely to accommodate higher-density developments, such as townhouses, apartments and mixed-use developments. The City's intensification rate is applied to the B.U.A.; any housing development within this area is considered intensification, regardless of housing structure type.

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.

Census Undercount: refers to 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.

Designated Greenfield Area (D.G.A.): refers to newly established, developing and vacant lands that are designated for residential and other Community Area uses that are generally on the periphery of Kingston's Urban Area. The D.G.A. has accommodated most of the City's new at-grade housing over the past decade. The D.G.A. includes the following Secondary Plan Areas in the City: the Cataraqui West Secondary Plan Area, the Cataraqui North Secondary Plan Area, and the northern portion of the Rideau Community Secondary Plan Area. In addition, it includes large vacant sites or recently developed neighbourhoods measuring at least 20 hectares (49 acres) in size. D.G.A. lands will also include any lands that are brought into the Urban Area through a Community Area Expansion.

Intensification Rate: refers to the percentage of the City's historical and forecast housing growth accommodated within the B.U.A. The intensification rate is measured based on geographic area.



List of Acronyms and Abbreviations (Cont'd)

Missing Middle Housing: refers to the range of housing types between traditional single detached houses and high-rise apartments that have gone “missing” from many large cities in Ontario. The missing middle describes a range of medium-density housing types including multi-unit or clustered housing types compatible in scale with single-family homes that help meet the growing demand for walkable urban living, such as duplexes, triplexes, fourplexes, rowhouses, and townhouses.

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. It is important to note that non-permanent residents are captured as part of the Statistics Canada Census population.

Permanent Population refers to the combined permanent and non-permanent residents. This is also known as the Statistics Canada Census population and has been adjusted for the census population adjusted upward to account for census net undercoverage (census undercount).

Permanent Residents: refers to Canadian citizens and the population that have been granted the right to reside in Canada permanently by immigration authorities. Furthermore, it excludes students not captured in the Statistics Canada Census.

Rural Area: refers to lands identified in the City of Kingston Official Plan outside the delineated urban boundary which includes prime agricultural lands, rural lands, rural settlement areas (hamlets), mineral aggregate resources, rural commercial, and rural industrial areas.

Executive Summary



Executive Summary

Terms of Reference

The City of Kingston is undertaking an update to its Long-Term Growth Analysis and Urban Land Needs Assessment Studies. This study is particularly significant, as the projections made in the most recent 2019 Growth Analysis study were lower than that experienced in the Kingston Census Metropolitan Area (C.M.A.) and the City of Kingston, as reported by the Statistics Canada 2021 Census. This update includes population, housing, and employment forecasts to the year 2051, and an assessment of the urban land needs to accommodate the growth. This study provides strategic long-term planning and economic policy direction and forms a foundational document for the development of the City's new Official Plan (O.P.), 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 in the City.

The policies and mapping of the O.P. will be updated to reflect matters of provincial interest under the *Planning Act*, to be consistent with the Provincial Planning Statement, 2024 (P.P.S., 2024), issued August 20, 2024. A key focus of the P.P.S., 2024 is that it recognizes that the approach for achieving housing and employment outcomes will vary by municipality and, as such, moves away from a prescriptive guideline approach to growth analysis and urban land needs assessments. Notwithstanding these changes to the P.P.S., long-range demographic and economic growth forecasts and urban land needs assessments remain a fundamental background component to the development of the new O.P.

Building on the provincial policy framework, this review includes a comprehensive analysis of long-term population, housing, and employment growth forecast to the year 2051, as well as an assessment of the urban land needs to accommodate growth. In total, three long-term City-wide population and housing growth scenarios have been prepared for the Kingston C.M.A. and the City of Kingston to the year 2051, including a Low Growth Scenario, Medium Growth Scenario, and a High Growth Scenario.

On December 5, 2023, City of Kingston Council endorsed the Medium Growth Scenario as the recommended growth scenario for long-range growth management and planning purposes. The key findings of the City's long-term population, housing, and employment growth forecast prepared by Watson & Associates Economists Ltd. (Waton) are



documented in City Council Meeting 01-2024, Report Number 24-016, dated December 5, 2023.^[1]

This specific report provides additional details regarding the approach, assumptions, and key findings regarding the long-range growth scenarios for the Kingston C.M.A. and the City of Kingston. Additional details are also provided in this report regarding the allocation of population, housing, and employment growth by Sub-Area, Water and Wastewater Serviced Catchment Area as well as by Planning Policy Area.

Summary of Key Findings

The City of Kingston's total population, including the permanent population and off-campus student population not captured by the Census, is forecast to grow from 154,100 persons in 2021 to 220,900 in 2051. The permanent population is forecast to grow from 136,600 in 2021 to 197,000 in 2051, increasing by 60,400 people over the 30-year period at a rate of 1.2% annually.^[2] This is noticeably higher relative to the historical annual growth rate of 0.7% achieved from 2001 to 2021. Comparatively, the population of the Province as a whole is forecast to increase at a rate of 1.5% over the 2021 to 2046 time period.

Full-time post-secondary student enrolment is forecast to increase from 34,000 in 2021 to 48,300 in 2051, of which 6,400 students are identified as not captured in the Statistics Canada Census and the permanent population forecast. The City of Kingston's employment base is forecast to increase from 80,500 to 113,900, increasing by 33,400 jobs across a broad range of sectors to provide services to the increasing population and to accommodate strong industrial demand.

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 education, innovation and technology. Looking forward, the City of Kingston's distinction as a "complete" and competitive community is

^[1] <https://events.cityofkingston.ca/default/Detail/2023-12-05-1900-Regular-Council2/>

^[2] In accordance with the Medium (Preferred) growth scenario.



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 2021 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 housing forms, including seniors' housing and affordable housing options.

The City of Kingston 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 the permanent population.

Accommodating forecast total population growth in the City of Kingston will require approximately 29,300 new households to accommodate the permanent population and students not captured in the Census between 2021 and 2051, or approximately 980 new households annually.^[1] Permanent households are expected to grow by an additional 27,700 units over the 30-year period, while student housing that accommodates post-secondary students not captured in the Census is expected to increase by 2,300 units during the same time.

Taking into account the City's total housing needs, including student housing needs not captured in the Census, the City's 10-year annual housing forecast is anticipated to average just over 1,400 units per year or 14,000 total housing units. The housing forecast recommended herein exceeds the 10-year housing target of 8,000 units, as set out in the Bill 23 Municipal Housing Pledge by the Province of Ontario. The recommended housing forecast also exceeds the four-year housing target of 1,200 units annually, as set by City of Kingston Council.

^[1] Census housing refers to private dwellings occupied by usual residents, which includes permanent and non-permanent residents.



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 form, location, and affordability in the City's Designated Greenfield Area (D.G.A.), and residential intensification areas within the Built-Up Area (B.U.A.). Based on a review of supply and demand factors, 60% of future permanent housing growth in the City of Kingston from 2021 to 2051 is forecast to be accommodated through intensification in the B.U.A. The B.U.A. is forecast to be largely composed of high-density housing growth in addition to medium-density housing forms. The D.G.A. is forecast to account for 38% of the City's permanent housing growth to 2051, and 85% of the City's total low-density housing growth. The Rural Area is forecast to accommodate 2% of the City's future permanent housing growth.

The 2021 to 2051 forecast has also been assessed by Sub-Area in addition to Water and Wastewater Catchment Areas in the City. The results of this analysis have identified the following for the Sub-Areas:

- Kingston West is forecast to accommodate 41% and 40% of the City's future permanent population and employment growth to 2051, respectively;
- Kingston Central is forecast to accommodate 34% and 36% of City-wide permanent population and employment growth, respectively;
- Kingston East is forecast to accommodate 23% of future population and employment growth, while Kingston North is anticipated to accommodate approximately 1% of City-wide population growth over the long-term forecast period; and
- It is important to note that in addition to the permanent population and housing growth, the post-secondary student forecast not captured in the Census will be accommodated in Kingston Central.

The Water and Wastewater Catchment Area forecast has identified the following:

- The Kingston West Water and Wastewater Catchment Areas are forecast to comprise 41% and 40% of the City's population employment growth to 2051;
- The Kingston Central Water and Wastewater Catchment Areas are forecast to accommodate 34% and 35% of the City's population and employment growth to 2051. The Central Water and Wastewater Catchment Areas will also



accommodate the post-secondary student population and housing not captured in the Census;

- The Kingston East Water and Wastewater Catchment Areas are forecast to comprise 23% of the City's population and employment growth to 2051;
- The Cana Water Serviced Area is not forecast to accommodate additional population and employment growth to 2051; and
- Areas with no City Water or Wastewater servicing are forecast to account for 2% of the City's population and employment growth. This growth is composed of areas in the Kingston North and East Sub-Areas.

This analysis forms an important foundational report and integral component to each of the other technical reports prepared as part of the City's Growth Analysis and Urban Land Needs Assessment Study process. The results of this analysis indicate that the Medium Growth Scenario represents the "most plausible growth forecast scenario for the City of Kingston for the following reasons:

- It represents a reasonable future rate of population growth relative to the surrounding municipalities and sub-regions of Eastern Ontario regarding historical and forecast trends.
- The level of permanent population growth in the 15 to 64 population age group is reasonable, given the forecast economic growth in the local and regional economy.
- Forecast net migration levels are higher but appropriate relative to historical trends experienced over the past 15 years, particularly during the post-2016 period. Forecast net migration trends are reflective of steady growth anticipated in the local and regional economy, forecast work at home opportunities, as well as the attractiveness of the City to empty nesters and seniors as a retirement/semi-retirement destination.

For these reasons, the Medium Growth Scenario is the recommended scenario for the purposes of long-range population, housing, and employment forecasting and urban land needs analysis for the City of Kingston. As previously noted, this report informs a number of variables that are explored through the Community Area Land Needs and



Residential Intensification Analysis Report, Employment Land Needs Review Report and Commercial Land Needs Study.^[1]

^[1] City of Kingston Community Area Land Needs and Residential Intensification Analysis Report, July 2024; and City of Kingston Commercial Land Needs Study, August 2024. City of Kingston Employment Land Needs Review Report, August 2024.

Report



Chapter 1

Introduction



1. Introduction

1.1 Terms of Reference

As a key component to long range planning, the City of Kingston is preparing an update to its long-term Growth Analysis and Urban Land Needs Assessment studies. This update includes population, housing, and employment forecasts to the year 2051, and an assessment of the urban land needs to accommodate the growth. More specifically, this study provides the following deliverables:

- Three long-term population, housing, and employment growth scenarios for the Kingston Census Metropolitan Area (C.M.A.)^[1] and the City of Kingston to the year 2051, including a recommended long-term growth scenario;
- A residential, commercial, and Employment Area land needs assessment over a 25-year planning horizon;
- An analysis of long-term residential land needs, including an assessment of long-term residential intensification opportunities focusing on the City's priority areas for future infill and redevelopment; and
- Planning policy recommendations with respect to long-term land use planning and growth management.

This study is particularly significant, as the projections made in the most recent 2019 Growth Analysis study were lower than that experienced in the Kingston C.M.A. and the City of Kingston, as reported by the Statistics Canada 2021 Census.² This study provides strategic long-term planning and economic policy direction and forms a foundational document for the development of the City's new Official Plan (O.P.). This study is being prepared in two phases: Phase 1 (Technical Analysis), and Phase 2 (Strategic Directions).

This Growth Analysis report provides findings regarding the long-term population, housing, and employment growth forecast for the Kingston C.M.A. and the City of

^[1] The Kingston C.M.A. includes the City of Kingston, the Township of South Frontenac, Loyalist Township, and the Township of Frontenac Islands.

^[2] Refer to Appendix A for additional details on how the City of Kingston is tracking to the 2019 Study forecast.



Kingston to the year 2051. As previously noted, this analysis represents an update to the City's most recent long-term population, housing, and employment growth analysis completed in 2019.

In total, three long-term City-wide population and housing growth scenarios have been prepared for the Kingston C.M.A. and the City of Kingston to the year 2051, including a Low Growth Scenario, Medium Growth Scenario, and a High Growth Scenario. On December 5, 2023, City of Kingston Council endorsed the Medium Growth Scenario as the recommended growth scenario for long-range growth management and planning purposes. The key findings of the City's long-term population, housing, and employment growth forecast prepared by Watson are documented in City Council Meeting 01-2024, Report number 24-016, dated December 5, 2023.^[1]

Leading to the endorsement of the growth forecast scenario by City of Kingston Council, an in-person Public Information Centre (P.I.C.) was held in June 2023 and the project team engaged with various City departments and external stakeholders over the course of the project. Additionally, the project team also consulted with representatives of Queen's University, St. Lawrence College, and the Royal Military College of Canada in the development of the post-secondary student forecast. More recently, on April 17, 2024, a second P.I.C. was held in-person to present and discuss the land needs and intensification findings contained in this report, and the preliminary technical results of the Commercial Land Review and Employment Lands Review.

This report provides additional details regarding the approach, assumptions, and key findings regarding the long-range growth scenarios for the Kingston C.M.A. and the City of Kingston. Additional details are also provided in this report regarding the allocation of population, housing, and employment growth by Sub-Area as well as by Water and Wastewater Catchment Area.

1.2 Provincial Planning Policy Context

On April 7, 2023, the Province of Ontario released a new proposed Provincial Planning Statement (proposed P.P.S., 2023) in concert with introducing Bill 97: *Helping Homebuyers, Protecting Tenants Act, 2023*. Bill 97 proposes amendments to seven

^[1] <https://events.cityofkingston.ca/default/Detail/2023-12-05-1900-Regular-Council2/>



provincial statutes, including the *Planning Act*. The proposed P.P.S., 2023 intended to simplify and integrate existing provincial policies (A Place to Grow: Growth Plan for the Greater Golden Horseshoe and the Provincial Policy Statement, 2020 (P.P.S., 2020) while providing municipalities and the Province with greater flexibility to deliver on housing objectives.

On April 10, 2024, the Province introduced *Bill 185: Cutting Red Tape to Build More Homes Act, 2024* and, at the same time, an updated draft of the P.P.S. (proposed P.P.S., 2024) was released. A key focus of the proposed P.P.S., 2024 was that it recognized the approach for achieving housing and employment outcomes will vary by municipality and, as such, moved away from a prescriptive guideline approach to growth analysis and urban land needs assessments. Notwithstanding these, long-range demographic and economic growth forecasts and urban land needs assessments remain a fundamental background component to the O.P. project.

On August 20, 2024, the Province issued a new Provincial Planning Statement (P.P.S., 2024), with an effective date of October 20, 2024. P.P.S., 2024 notes that “planning authorities shall base population and employment growth forecasts on Ministry of Finance 25-year projections and may modify projections, as appropriate.”^[1] It is important to note that the Ministry of Finance population forecasts are provided at the Census Division level only; the Frontenac Census Division includes the City of Kingston and Frontenac County. Furthermore, the most recent Summer 2023 Ministry of Finance forecast provides growth estimates to the year 2046. Subsection 2.1.3 of the P.P.S., 2024 states that urban land needs can be calculated up to 30 years. As such, current Ministry of Finance forecasts would need to be extended from 2046 to 2054 to accommodate a full 30-year planning horizon. It is our interpretation that the use of the Ministry of Finance forecasts is not meant to replace long-term forecasting by municipalities, but the forecasts are to be used as a starting place in establishing forecasts and testing the reasonableness of alternative regional forecasts and area municipal growth allocations, a practice that Watson currently carries out.

A cohort survival forecast methodology has been utilized to generate the population and housing forecast for the Kingston C.M.A. and the City of Kingston (see Chapter 2 for more details). This methodology is recognized in the Province’s 1995 “Projection

^[1]P.P.S., 2024, policy 2.1.1, p. 6.



Methodology Guidelines” as one of the more common, provincially accepted approaches to growth forecasting.^[1] The P.P.S., 2024 does not require adherence to standard guidelines regarding growth projection and urban land needs. In place of specific guidelines, the P.P.S., 2024 indicates that the long-term need for urban lands will be informed by “provincial guidance.”

The growth forecast scenarios identified in this report will form the foundation for further analysis regarding the assessment of the City’s urban land needs. According to P.P.S., 2024, at the time of each O.P. update, sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon between 20 and 30 years. This report was prepared under the purview of the P.P.S., 2020; however, it is noted that the changes in P.P.S., 2024 have been extensively reviewed and addressed. As such, the forecast methodology provided herein aligns with the changes in P.P.S., 2024.

1.3 Forecast Approach and Methodology

A broad range of considerations related to demographics, economics, and socio-economics are anticipated to impact future population and employment growth trends in the City of Kingston over the 2021 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.

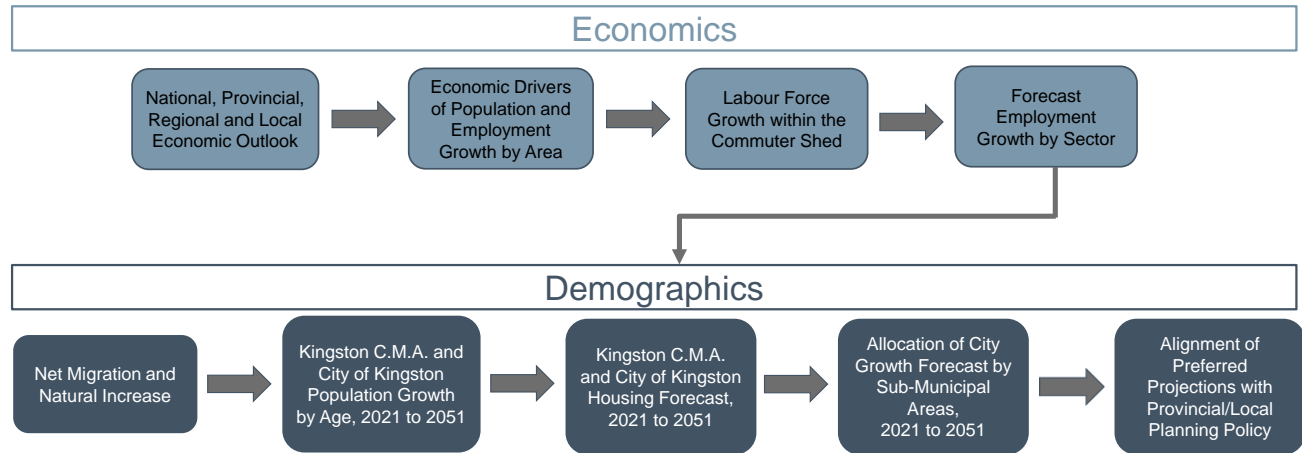
It is important to recognize that there is a direct link between provincial/regional economic growth trends and forecast net migration potential in the City of Kingston and the surrounding commuter-shed. Future population and employment growth in the City of Kingston is strongly correlated with the growth outlook and competitiveness of the economy within the City of Kingston, the Kingston C.M.A., and the broader economic region. This represents a fundamental starting point in addressing the forecast population growth potential in the City of Kingston. As illustrated in Figure 1-1, this approach models the macro-economic and regional demographic/socio-economic trends that are anticipated to influence the employment and population structure of the

[1] Province of Ontario Projection Methodology Guideline: A Guide to Projecting Population, Housing Need, Employment and Related Land Requirements. 1995.



Kingston C.M.A. and the City of Kingston within the context of provincial, national, and global trends.

Figure 1-1
Growth Forecast Approach



The employment base within the City of Kingston and the surrounding commuter-shed can be grouped into two broad categories – export-based sectors and community-based sectors. The latter primarily refers to local population serving employment. Export-based sectors comprise industries (i.e., economic clusters) that produce goods that reach markets outside the community (agriculture and primary resources, manufacturing, research and development as 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, and 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. As such, economic growth represents a key driver of net migration and, ultimately, the growth of the working-age population and their dependents (i.e., children, spouses not in the labour force, others). In contrast, population growth of the City’s 65+ population will be largely driven by the aging of the City’s existing population and, to a lesser extent, the attractiveness of the City to new seniors.



There are also a number of local factors that are anticipated to influence the amount, type, and location of development within the City of Kingston. Such factors include:

- The City's competitive position relative to surrounding municipalities within the regional market area;
- The supply of available urban serviced and serviceable lands;
- Local real-estate market conditions within the ownership and rental housing market; and
- Housing affordability, to name a few.

It is recognized that there are more than 34,000 students attending local post-secondary institutions within the City, and a portion of this population is not recognized in the permanent population and housing base as reported by the Statistics Canada Census. As such, permanent and student population trends have been considered both historically and in the long-term growth analysis. The City's student population and housing growth potential is also influenced by a number of macro-economic and local factors, such as national and provincial population growth trends by age, university enrolment trends, forecast demand associated with foreign students, on-campus versus off-campus student housing supply opportunities, and provincial education policies.

It is noted that the population forecast methodology takes into account the unique demographic characteristics associated with the non-permanent resident population by distinguishing this population segment from the age-specific growth forecast model previously mentioned in section 1.2. It is important to understand future demographic trends associated with both the permanent and non-permanent resident population within the City of Kingston 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 Kingston's non-permanent resident population is largely represented by a temporary cohort which is typically concentrated between the ages of 15 and 34 and is represented largely by foreign students and, to a lesser extent, skilled workers and their families. This approach was employed to develop a "bottom-up" non-permanent resident population forecast which is then tested against total net migration and population levels anticipated throughout the Kingston C.M.A. and the City to the year 2051.



Lastly, provincial and local planning policy can also influence the location, built form/ density, and rate of residential and non-residential development activity. Additional details regarding the forecast approach and key assumptions are provided in Appendix B.



Chapter 2

Overview of the Macro- Economic Outlook and Regional Trends



2. Overview of the Macro-Economic Outlook and Regional Trends

This chapter provides a brief overview of recent macro-economic, provincial, and regional economic trends that are anticipated to continue to influence the population and housing growth outlook for the City of Kingston and the Kingston C.M.A. over the next three decades.

2.1 Economic Outlook

The economic outlook for the City of Kingston and the Kingston C.M.A. is influenced by broader macro-economic trends and regional growth drivers. The International Monetary Fund forecasts global economic growth will continue to expand by 3.2% in 2024 and 3.3% 2025, similar to the growth rate observed in 2023. Global inflation is expected to gradually decrease from 6.8% in 2023, reaching 5.9% in 2024 and 4.5% in 2025.^[1] This outlook is based on assumptions on the anticipated decline in interest rates, declining inflation, a related softening in labor markets, and pass-through effects from earlier and ongoing declines in relative energy prices.

In Canada, similar to most developed and developing nations, the national economy experienced a sharp downturn in 2020 due to the response to coronavirus disease (COVID-19) policy measures, followed by a sharp economic recovery in 2021 and 2022. Following this strong recovery, gross domestic product (G.D.P.) growth in Canada and Ontario decreased to 1.2% and 1.4%, respectively in 2023. BMO Capital Markets has forecast that G.D.P. in 2024 will grow at 1.4% in Ontario and 1.1% overall for Canada, and in 2025 will increase to 2.1% for Ontario and 1.8% for Canada.^[2]

It is important to recognize there are macro-economic headwinds influencing the near-term economic outlook at the national, provincial, and regional level. These factors include, but are not limited to, persistently higher than targeted global and national inflation levels and the sustained economic impacts associated with a high interest rate

^[1] International Monetary Fund, World Economic Outlook, World Economic Outlook, April 2024: *Steady but Slow: Resilience amid Divergence*, April 16, 2024 and July 26, 2024.

^[2] BMO Provincial Economic Outlook for Aug. 30, 2024.



environment and quantitative tightening by the Bank of Canada.^[1] More specifically, rising public-sector debt due to the pandemic response measures and increasing housing debt loads as a result of high housing appreciation, particularly in Canada's largest urban centres is of key concern. Since 2022 the Canadian housing market has shown moderate signs of cooling in most regions due to the high interest rate environment; however, rising borrowing costs and rental rates continue to pose increasing challenges associated with housing affordability. These impacts, combined with broader inflationary concerns, may result in potential near-term setbacks in the economic recovery path for Ontario, and more broadly for Canada. Despite these concerns, the long-term economic and housing outlook for Eastern Ontario and Kingston remains positive as the region continues to be attractive to international investment and newcomers alike. For more detailed information on the macro-economic and regional trends, please refer to the City of Kingston Employment Lands Review Report.

2.2 COVID-19 and the Changing Nature of Work

In addition to its broader impacts on the economy, COVID-19 also accelerated changes in work and commerce as a result of technological disruptions which were already taking place prior to the pandemic. Today, businesses are increasingly required to rethink the way they conduct business with an increased emphasis on remote work enabled by technologies such as virtual private networks, virtual meetings, cloud technology, other remote work collaboration tools and artificial intelligence. These disruptive forces continue to broadly impact the nature of employment by place of work and sector, and have a direct influence on commercial, institutional, and industrial real estate space needs.

As of 2016, it was estimated that approximately 4.7% of the City of Kingston's workforce was working from home on a full-time basis. This estimate has increased to just over 6% in 2024.^[2] This estimate excludes hybrid workers, who are captured as residents with a usual place of work. From a municipal planning and urban development

^[1] Quantitative tightening is a process whereby a central bank reduces the supply of money circulating in the economy by selling its accumulated assets, mainly bonds.

^[2] 2024 estimated by Watson & Associates Economists Ltd.



perspective, it is important to consider the impact of hybrid workers when assessing non-residential space needs, particularly in the office sector.

In addition to work at home employment, there are workers within the City of Kingston who have no fixed place of work (N.F.P.O.W.).^[1] The percentage of workers within the City who reported N.F.P.O.W. was approximately 7% in 2016 and has since remained relatively stable.^[2]

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 remain relatively high in the City of Kingston over the long term, driven by continued growth in knowledge-based employment sectors and technological advancement.

2.3 Provincial Economic Outlook within the Broader Canadian and Global Context

2.3.1 Canadian Immigration Trends

In November 2023, the Canadian federal government released its Immigration Levels Plan for the next three years. Canada has continued to raise its immigration targets and aims to welcome 485,000 new permanent residents in 2024, 500,000 in 2025, and 500,000 in 2026. The federal government will be stabilizing its targets for permanent residents at 500,000 per year after 2026 to allow for successful integration and sustainable growth. Immigration accounts for almost 100% of Canada's labour force growth and nearly 80% of its population growth. With 960,000 currently unfilled

^[1] Statistics Canada defines N.F.P.O.W. 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.”

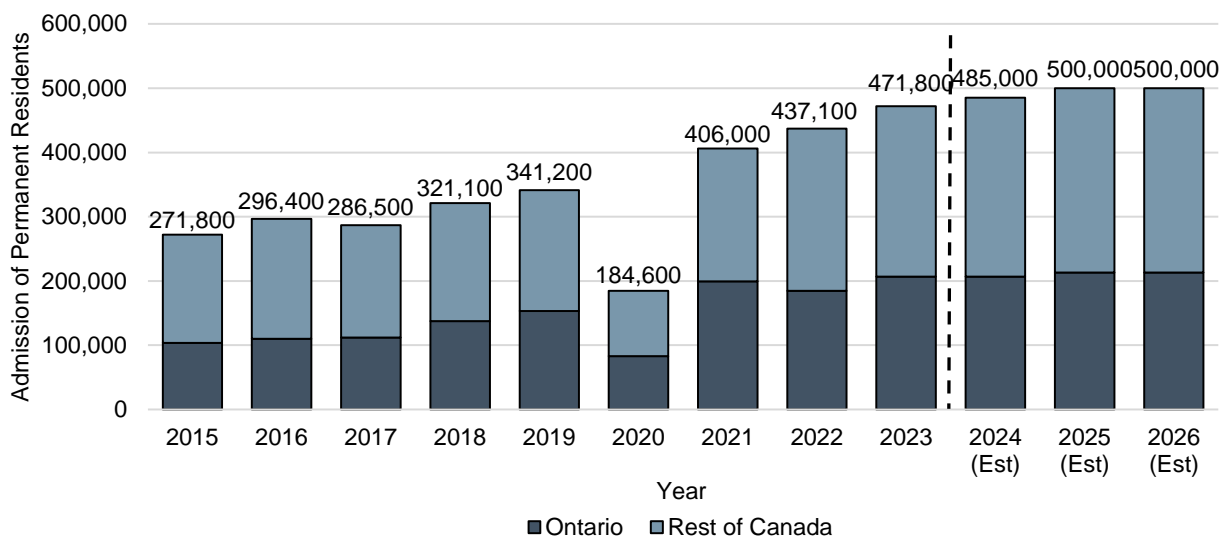
^[2] Work at home and N.F.P.O.W. employment derived from the 2016 and 2021 Statistics Canada Censuses data. It is noted that the 2021 Census data may not be reliable due to the timing of enumeration coinciding with COVID-19.



positions across all sectors and an estimated worker-to-retiree ratio of only 3:1 by 2030, Canada has a strong economic need for increased immigration.^{[1] [2]}

Figure 2-1 summarizes annual admissions to Canada and Ontario since 2015. In 2020, national and provincial immigration levels sharply declined due to COVID-19. Immigration in 2021 rebounded strongly, resulting in 406,000 permanent residents admitted to Canada in 2021, roughly half of which were accommodated in the Province of Ontario that year. Based on 2022 and 2023 data and looking forward through 2024 and beyond, immigration levels to Canada and Ontario are anticipated to remain strong, exceeding pre-pandemic averages between 2015 and 2019.

Figure 2-1
Admission of Permanent Residents in Ontario and Canada
Historical (2015 to 2022) and Forecast (2023 to 2026)



Source: 2015 to 2023 derived from Immigration, Refugees and Citizenship Canada April 30, 2024 data. 2024 to 2026 federal targets from Government of Canada's Immigration Levels Plan from 2024 to 2026, and Ontario target estimated based on historical share of about 45% of the

[1] <https://www.canada.ca/en/immigration-refugees-citizenship/news/notices/supplementary-immigration-levels-2024-2026.html>

[2] <https://www.canada.ca/en/immigration-refugees-citizenship/news/2022/02/infographic-immigration-and-canadas-economic-recovery.html>



Canadian Permanent Residents Admission from 2018 to 2022, by Watson & Associates Economists Ltd.

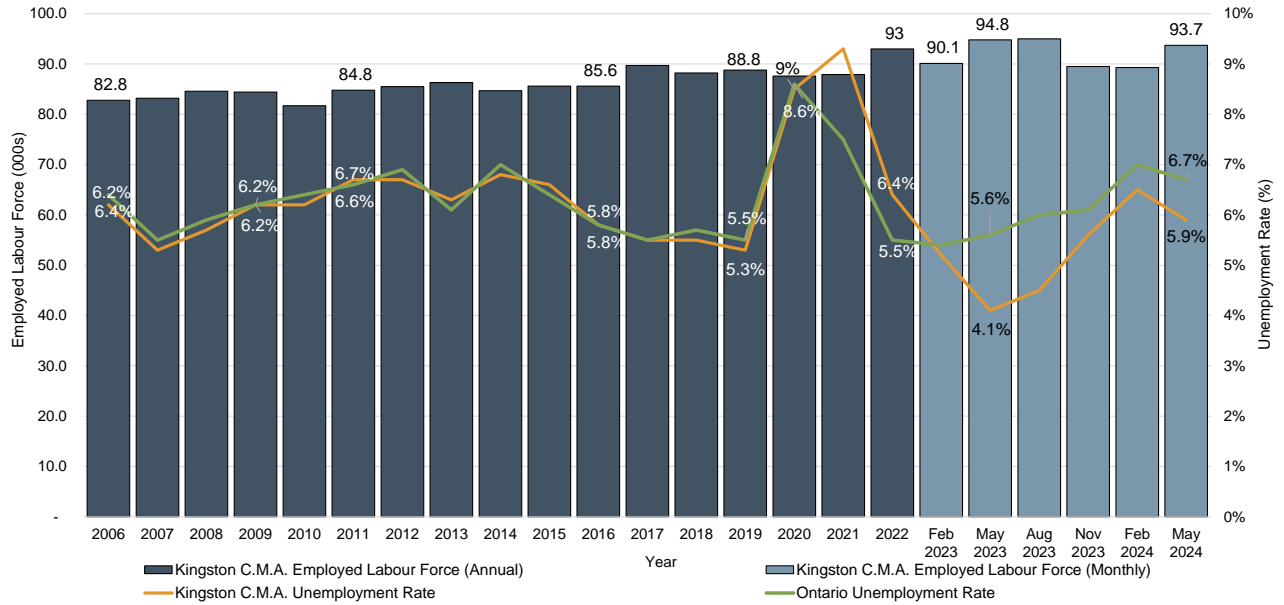
2.4 Regional Labour Force Trends

Figure 2-2 summarizes the total employed labour force and unemployment rate trends for the Kingston C.M.A. Census labour force data is not available for the City of Kingston post-2021, but it is captured in the Kingston C.M.A. by the Statistics Canada Labour Force Survey. Key labour trends during this period and implications are summarized below as follows:

- From 2007 to 2010, the employed labour force declined, coinciding with the 2008/2009 global economic recession.
- Since 2011, the Kingston C.M.A. economy has shown signs of recovery, with steady overall growth in the employed labour force and a declining unemployment rate leading up to the COVID-19 pandemic in early 2020.
- Following the economic recovery from the initial pandemic lockdowns in 2020 and 2021, the labour force for the Kingston C.M.A. steadily recovered, reaching new record highs.
- The Kingston C.M.A. unemployment rate peaked at 9% in 2021, coinciding with the COVID-19 pandemic, but has subsequently fallen to 6% as of 2024, driven by steady economic growth.
- To ensure that economic growth is not constrained by labour shortages, continued effort will be required by the municipalities within the Kingston C.M.A. (working with their public- and private-sector partners) to explore ways to attract and accommodate new skilled and unskilled working residents within a broad range of ownership and rental housing options.



Figure 2-2
Kingston C.M.A. Labour Force Trends, 2007 to Year-to-Date 2024



Note: Statistics Canada Labour Force Survey and Census labour force statistics may differ.
Source: Statistics Canada Data Tables 14-10-0096-01, 14-10-0385-01, 14-10-0378-01, 14-10-0327-01, and 14-10-0017-01. By Watson & Associates Economists Ltd., 2024.



2.5 Regional Demographic Trends

2.5.1 Eastern Ontario Population Growth Trends

Figure 2-3 compares the most recent Ministry of Finance Summer 2023 population projections for Eastern Ontario with the previous Ministry of Finance population projections prepared between 2017 and 2023.^[1] Key observations include the following:

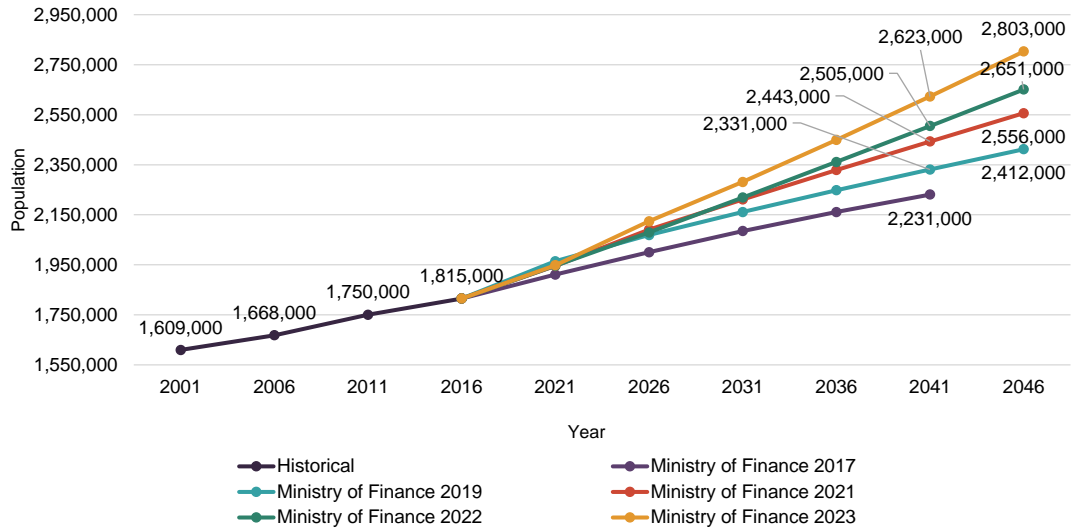
- The Ministry of Finance has been progressively increasing its growth projections for Eastern Ontario on an annual basis since 2017;
- Under the Summer 2023 Ministry of Finance forecast, Eastern Ontario is projected to reach a permanent population of 2.6 million by 2041. This represents an increase of 392,000 people in Eastern Ontario by 2041 relative to the 2017 Ministry of Finance projections; and
- Population growth in Eastern Ontario is expected to grow at a steady annual rate of 1.5% under the Summer 2023 Ministry of Finance projections.^[2] This represents a long-term annual population growth rate comparable to the Province-wide average.

^[1] Eastern Ontario includes the Kingston C.M.A. and the City of Kingston.

^[2] An increase from 0.8% annual population growth for Eastern Ontario, as per the 2017 Ministry of Finance projections.

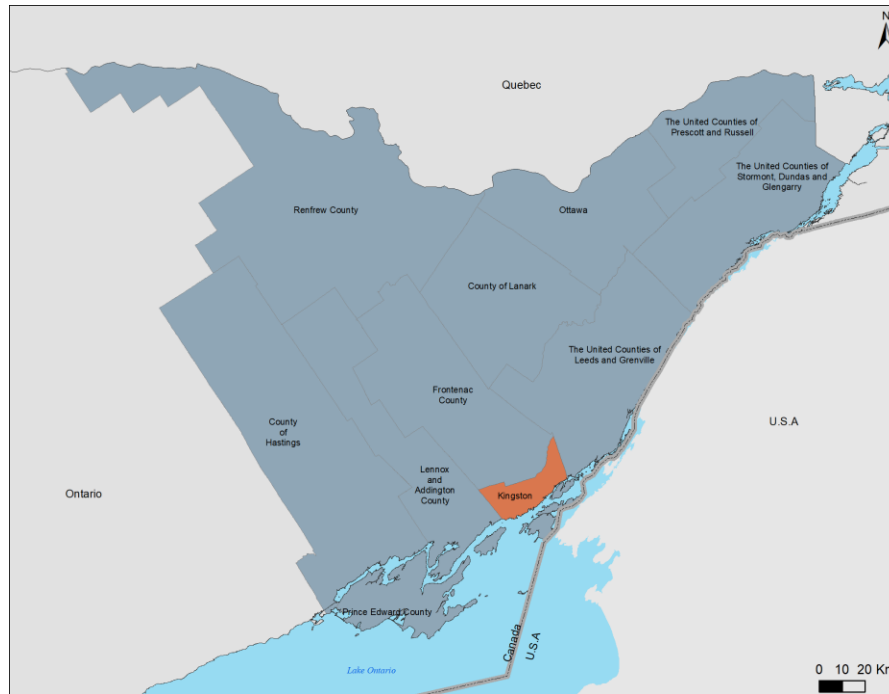


Figure 2-3
Eastern Ontario Population Projections, 2016 to 2046



Source: Historical from Statistics Canada Census 2001 to 2021. Ministry of Finance projections from Spring 2017, Summer 2019, Spring 2021, Summer 2022, and Summer 2023 releases, summarized by Watson & Associates Economists Ltd.

Map 2-1
Eastern Ontario



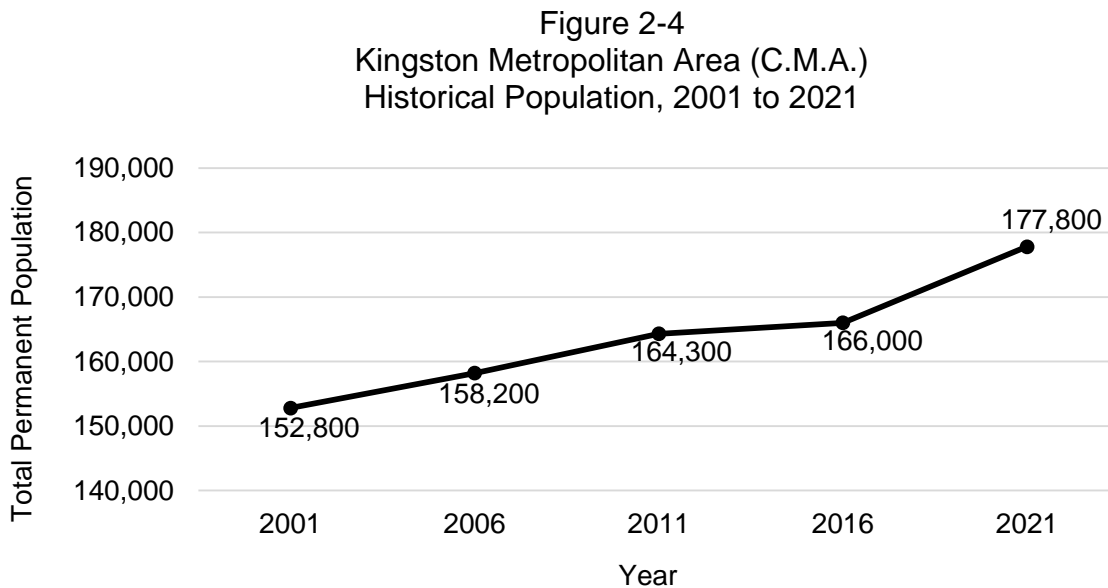


2.5.2 Kingston C.M.A. Growth Trends

2.5.2.1 Kingston C.M.A. Population Growth, 2001 to 2021

Figures 2-4 and 2-5 summarize the historical population for the Kingston C.M.A. provided by Statistics Canada from 2001 to 2021. Key observations are as follows:

- The 2021 population for the Kingston C.M.A. is 177,800 and is tracking noticeably higher from 2016 to 2021 compared to historical levels from 2001 to 2016;^[1] and
- Between 2001 and 2021, the City of Kingston population share of the Kingston C.M.A. was relatively stable from 78% to 77%.



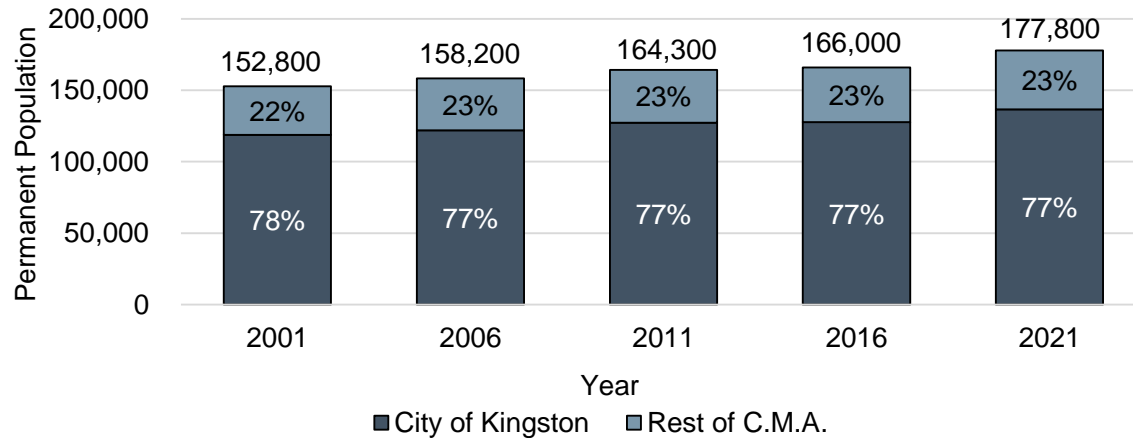
Note: Figures include net Census undercount. Figures have been rounded.

Source: Derived from Statistics Canada Census data, 2001 to 2021, by Watson & Associates Economists Ltd.

^[1] 2001 and 2021 Census population has been adjusted for the net Census undercount.



Figure 2-5
City of Kingston
Share of Kingston C.M.A. Population, 2001 to 2021



Note: Population includes net Census undercount.

Source: Derived from Statistics Canada Census data, 2001 to 2021, by Watson & Associates Economists Ltd.

2.5.2.2 Kingston C.M.A. Historical Net Migration by Type, 2001 to 2022

Canada's attractiveness to immigrants largely depends on the Country's economic and labour force outlook relative to other employment markets on a global level. Similar to the nation as a whole, population growth at the Kingston C.M.A. level will be heavily driven by net migration. Net migration can be broken into three broad categories, including:

- **International net-migration** – international immigration less emigrants, plus net non-permanent residents;
- **Inter-provincial net-migration** – In-migration less out-migration from other Canadian provinces/territories; and
- **Intra-provincial net migration** – In-migration less out-migration from elsewhere within the Province of Ontario.

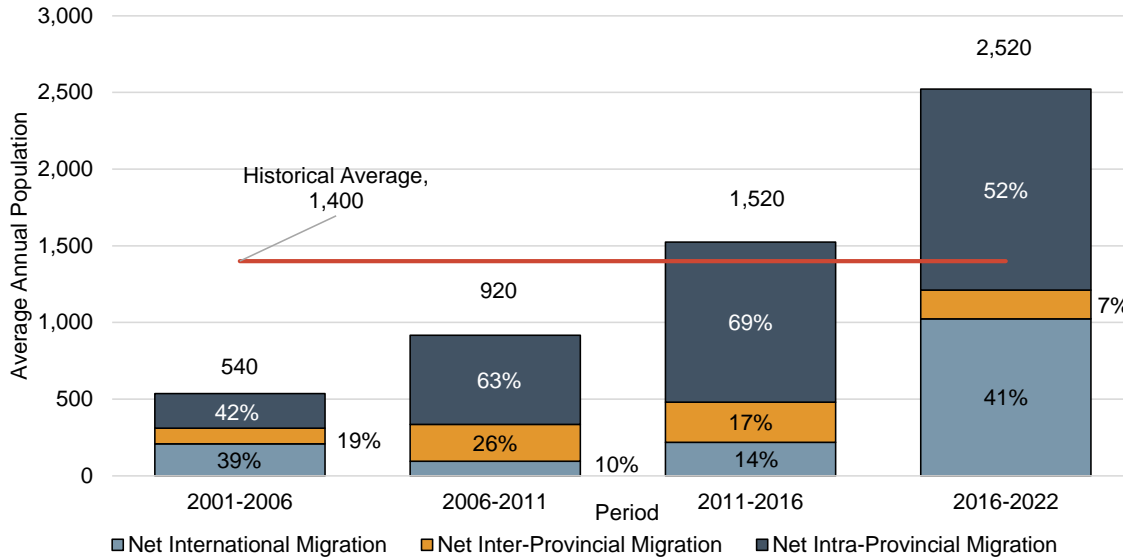


Figure 2-6 illustrates the historical net migration trends for the Kingston C.M.A. as provided by Statistics Canada from 2001 to 2022. Key observations include the following:

- Net migration within the C.M.A. steadily increased over the 2016 to 2022 period relative to previous recent Census periods. During the post-2022 period, near-term net migration levels are estimated to be higher compared to average levels achieved between 2016 and 2022 in accordance with post-censal population estimates; and
- The Province as a whole also experienced stronger net migration levels during the 2016 to 2022 period relative to the previous Census periods between 2001 and 2016, driven by higher federal immigration targets in recent years and a gradual recovery in economic conditions across Ontario since approximately 2014. The increase experienced in the Kingston C.M.A. has been driven by an increase in international migration relative to previous Census periods; however, intra-provincial migration still represents approximately half the migration to the Kingston C.M.A., in addition to some inter-provincial migration.



Figure 2-6
Kingston C.M.A.
Historical Net Migration Trends, 2001 to 2022



Note: Figures have been rounded and are not adjusted for the residual deviation.
Source: Statistics Canada Table 17-10-0136-01, Components of Population Change by Census Metropolitan Area, by Watson & Associates Economists Ltd.

Figure 2-7 illustrates the share of intra-provincial and inter-provincial migration (migration from other provinces/territories within Canada) to the Frontenac Census Division from 2015 to 2020. Key observations include:

- Central Ontario, also referred to as the Greater Golden Horseshoe, accounted for 28% of in-migration to the Frontenac Census Division, with one in five migrants specifically coming from the Greater Toronto and Hamilton Area;
- The Ottawa Economic Region accounted for 20% of migration, while the rest of Ontario made up 31% of migration; and
- Migration to the Frontenac Census Division from outside Ontario comprised 21% of all migration within Canada.



Figure 2-7
Frontenac Census Division
Historical Intra and Inter-Provincial Migration by Area, 2015 to 2020

Census Division	Share of Migration from Canadian Census Divisions to Frontenac Census Division, 2015 to 2020
Greater Toronto and Hamilton Area	20%
Greater Golden Horseshoe Outer-Ring	9%
Greater Golden Horseshoe Total	28%
Ottawa Economic Region	20%
Remaining Ontario	31%
Ontario Total	79%
Outside Ontario	21%
Total	100%

Source: Derived from Statistics Canada custom data by Watson & Associates Economists Ltd., 2023



2.6 Observations

Future population and employment growth potential for the Kingston C.M.A. is largely tied to the regional economy in Eastern Ontario and the Province as a whole. Economic opportunities are an important factor driving increased employment growth, local business investment, and labour force demand to the Kingston C.M.A. These forces have an impact on future population growth patterns. Please refer to the City of Kingston Employment Land Strategy report for further details on economic and employment trends driving growth the City of Kingston and the Kingston C.M.A.

The Ministry of Finance's population growth outlook for Eastern Ontario has been increasing since 2017, and the Kingston C.M.A. experienced a notable increase in population growth between 2016 and 2021 and during the post-2021 period. This growth is attributed to an outflow of intra-provincial migration largely from the Greater Golden Horseshoe and the Ottawa Economic Region, and from an increase in international migration. Despite the near-term economic headwinds discussed in this chapter, the longer-term economic and housing outlook for Eastern Ontario and the Kingston C.M.A. remains very positive. Looking forward, the attractiveness of the Kingston C.M.A. as a place to live and work for new immigrants and the retention of the existing labour force base will be crucial in sustaining future growth. It is anticipated that future population growth for the Kingston C.M.A. will continue to be driven by outward growth pressures from the Greater Golden Horseshoe and the Ottawa Economic Region (intra-provincial migration) and from international migration.



Chapter 3

Economic, Demographic, and Housing Trends within the City of Kingston and the Surrounding Market Area



3. Economic, Demographic, and Housing Trends within the City of Kingston and the Surrounding Market Area

This chapter provides a summary of recent demographic and housing trends for the City of Kingston and the surrounding market area. It is noted that the historical time periods considered throughout this chapter vary in accordance with data availability.

3.1 Review of Historical Demographic Trends in the City of Kingston

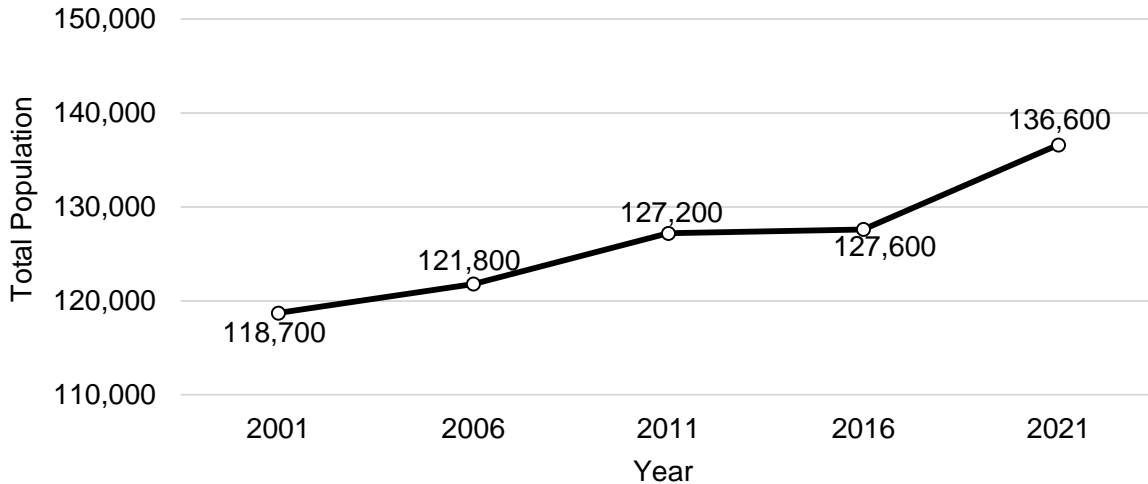
3.1.1 *City of Kingston Historical Permanent Population Trends, 2001 to 2021*

Figure 3-1 summarizes the historical population for the City of Kingston, as provided by Statistics Canada from 2001 to 2021. Similar to the broader Kingston C.M.A., the 2021 population for the City of Kingston (136,600 people including the net Census undercount) is tracking noticeably higher from 2016 to 2021 compared to historical levels experienced from 2001 to 2016.^[1]

[1] The 2001 and 2021 Census population has been adjusted for the net Census undercount.



Figure 3-1
City of Kingston
Historical Population Growth, 2001 to 2021



Note: Population includes net Census undercount.

Source: Derived from Statistics Canada Census data, 2001 to 2021, by Watson & Associates Economists Ltd.

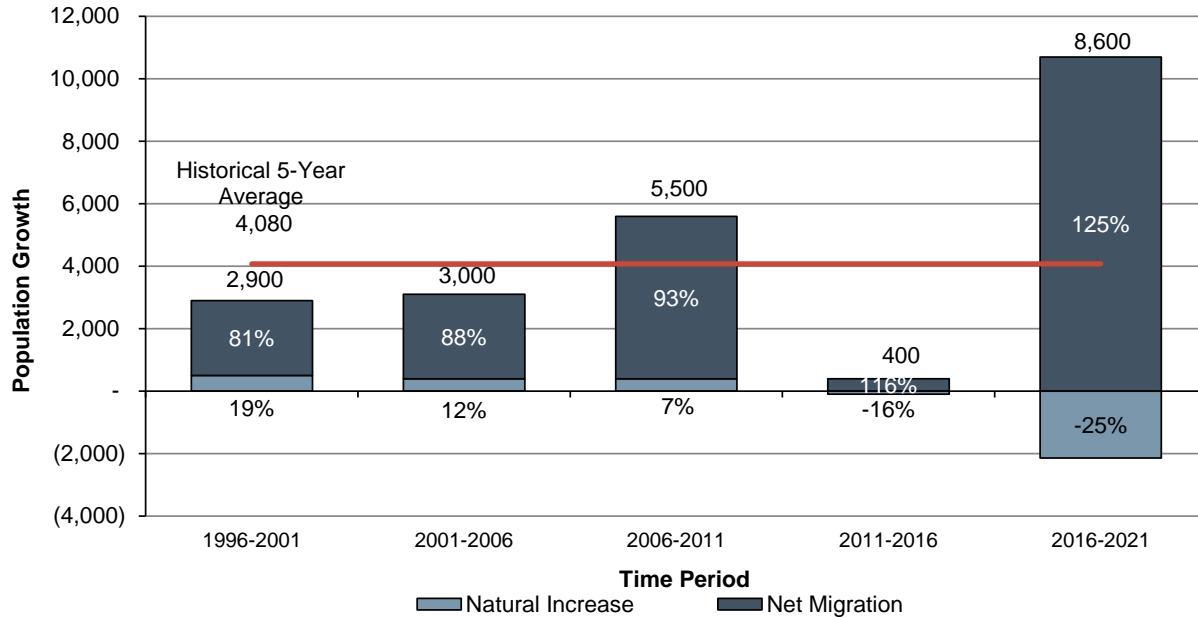
3.1.2 City of Kingston Components of Permanent Population Growth, 1996 to 2021

Figure 3-2 summarizes historical trends regarding natural increase and net migration for the City of Kingston from 1996 to 2021. Key observations include the following:

- Over the 25-year period from 1996 to 2021, the City of Kingston added just over 800 people per year to its population base (an average of approximately 4,100 per five-year Census period).
- During the 1996 to 2021 period, net migration as a percentage of population growth steadily increased from 81% to 125%.
- Over time, natural increase slowly decreased as a share of population growth from 19% between 1996 and 2001 to -25% between 2016 to 2021.
- This decrease in the share of population growth associated with natural increase is a result of the aging of the population. Looking forward, the City will be increasingly reliant on net-migration as a source of population growth as the population continues to age.



Figure 3-2
City of Kingston
Historical Components of Population Growth, 1996 to 2021



Note: Population figures prior to 2001 include the City of Kingston, the Township of Kingston, and the Township of Pittsburgh. Population includes Census undercount of approximately 3.1%. Forecast population figures have been rounded.
Source: Data derived from Statistics Canada’s Demography Division by Watson & Associates Economists Ltd.

3.2 Review of Recent Permanent Households Trends in the City of Kingston

3.2.1 Historical Residential Building Permit Activity by Dwelling Type for the City of Kingston, 2008 to 2023

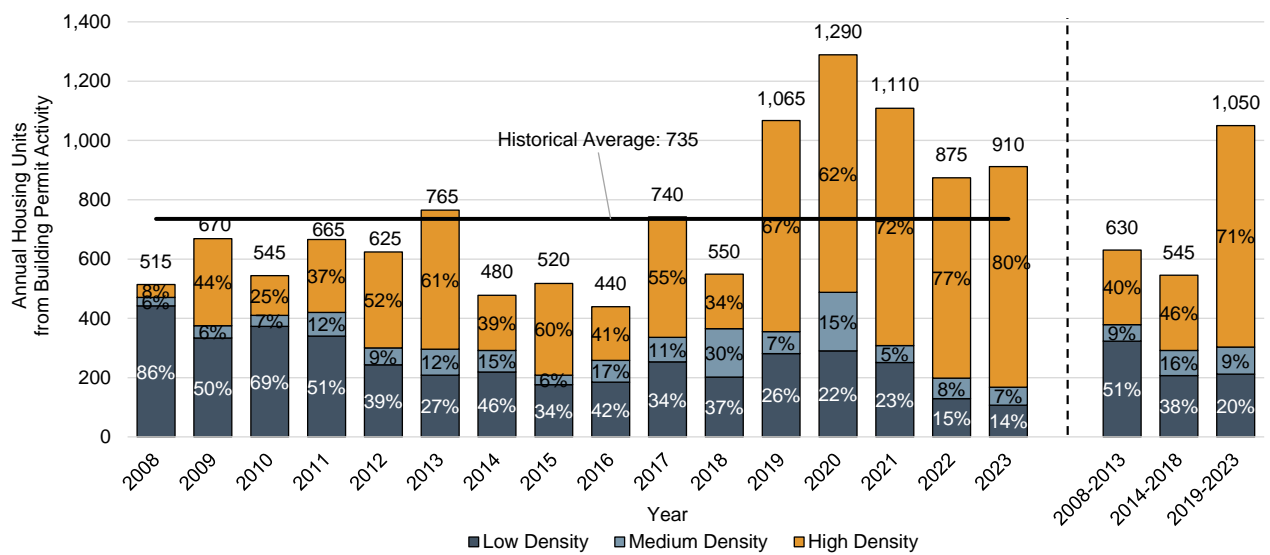
Figure 3-3 summarizes historical trends regarding residential building permit activity (new units) for the City of Kingston during the 2008 to 2023 period. Over this recent historical period:

- The City of Kingston issued an average of approximately 735 residential building permits per year related to new residential dwellings.



- The average rate of residential building permit activity significantly increased during the 2019 to 2023 period, partly driven by a large number of permits issued for new high-density residential dwellings.
- The share of residential building permits issued for low-density housing progressively decreased from 51% during the 2008 to 2013 period to 38% during the 2014 to 2018 period, and to 20% during the 2019 to 2023 period.

Figure 3-3
City of Kingston
Historical Housing Units from Building Permit Activity, 2008 to 2023



Notes:

- Figures have been rounded.
- Low density includes singles and semi-detached, medium density includes townhouses and apartments in duplexes, and high density includes bachelor, 1-bedroom, and 2-bedroom+ apartments.

Source: Derived from building permit data provided by the City of Kingston, 2008 to 2023, by Watson & Associates Economists Ltd.

3.2.2 Housing Headship Rates, 2001 to 2021

A headship rate is defined as the ratio of primary household maintainers, or heads of households, by major population age group (i.e., cohort).^[1] Between 2001 and 2021, the

^[1] It is noted that each household is represented by one household maintainer.



City's total headship rate increased modestly from 0.39 to 0.42 (refer to Appendix C 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. 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 persons per unit trends for the City of Kingston, which is further discussed in Chapter 5.

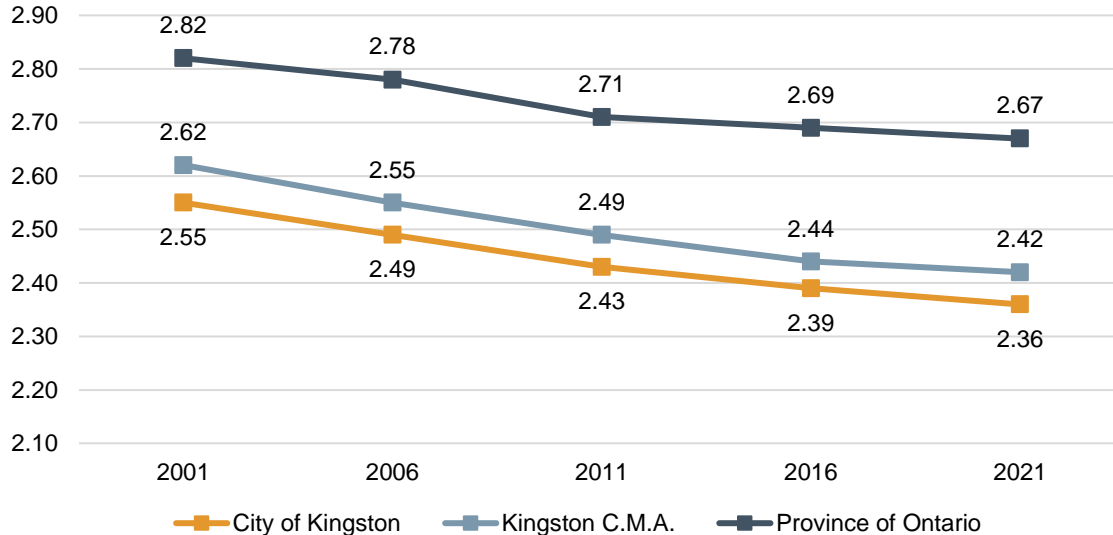
3.2.3 Persons per Housing Unit, 2001 to 2021

Figure 3-4 summarizes the historical persons per unit for the City of Kingston from 2001 to 2021 in accordance with Statistics Canada Census data. For comparative purposes, persons per unit data for the Kingston C.M.A. and the Province of Ontario has also been provided. Key observations include the following:

- The average persons per unit for the City of Kingston has steadily declined over the 20-year historical period. This trend was also observed in the Kingston C.M.A. and the Province of Ontario for the same time period.
- In 2021, the average persons per unit for the City of Kingston was 2.36, which is lower than the Kingston C.M.A. average of 2.42, and well below the provincial average of 2.67.



Figure 3-4
City of Kingston
Historical Persons Per Unit, 2001 to 2021



Note: The City of Kingston and Kingston C.M.A. persons per unit includes a 2021 Census undercount estimated at 3.03%, Ontario persons per unit includes a 2021 Census undercount estimated at 3.17%. Please note, undercount may vary by period.
Source: Data from Statistics Canada Census 2001 to 2021 derived by Watson & Associates Economists Ltd., 2024.

3.2.4 City of Kingston Housing Price Trends

Economic conditions and housing prices play key roles in shaping housing development trends. Over the past two decades, Eastern Ontario municipalities have experienced a steady increase in housing prices driven by a number of factors, including steady net migration, rising land prices and development costs, low mortgage rates relative to longer-term historical averages, and an increase in national money supply through quantitative easing led by the Bank of Canada. Generally, strong fundamentals associated with the Canadian economy and political landscape have also attracted a steady stream of local and foreign investment to Ontario businesses and the real estate market (e.g., the favourable Canadian/U.S. exchange rate, stable banking sector, competitive education system, etc.).

Figure 3-5 summarizes annual historical trends in average single-family housing prices for Kingston and Area from 2013 to 2023. For comparative purposes, average single-



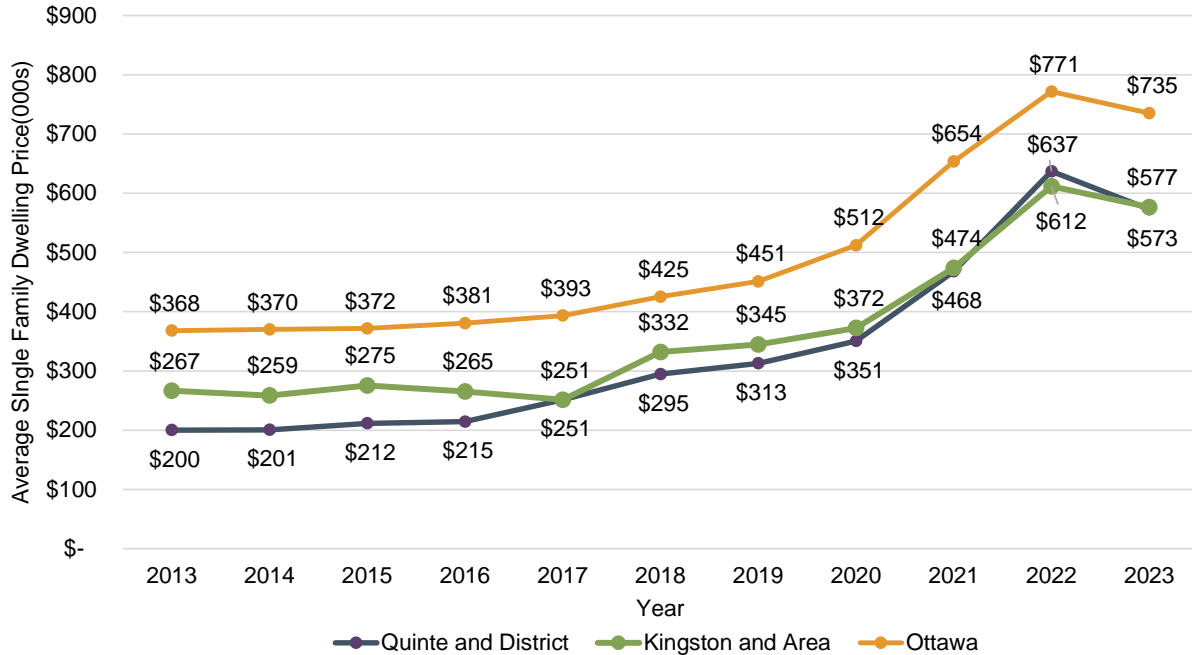
family housing prices have also been provided for Quinte and District, and the City of Ottawa. Between 2013 and 2023, the average price of a single-family dwelling in Kingston and Area increased from \$265,000 to \$577,000, representing an annual housing appreciation rate of 8%. Comparatively, Kingston and Area experienced slightly faster housing price appreciation relative to the City of Ottawa (7%) and a lower price appreciation relative to Quinte and District (11%).

Most recently, the COVID-19 pandemic has accelerated housing price appreciation across Canada since mid-2020 (including the Kingston C.M.A. and the City of Kingston), following a sharp reduction in mortgage rates as of March 2020. It is noted that housing prices peaked across most regions of the Province in February/March 2022 following a series of increases to the prime interest rate, which rose from 2.45% in November 2022 to 6.95% as of June 2024. Since the early 2022 real estate peak, average housing prices in Kingston are estimated to have fallen by approximately 15% by mid-2023, and the increase in prime interest rates further reduced housing affordability for new homebuyers.^[1]

^[1] 2024 Q2 sales data in Kingston and Area decreased compared to 2023 Q2, 1.6% on a year-over-year basis.



Figure 3-5
City of Kingston and Comparator Regions
Average Housing Prices, Average Single-Family Dwelling Price, 2013 to 2023



Notes: Figures have been rounded.

Quinte and District includes Belleville, Quinte West, Prince Edward, Madoc, Marmora, Stirling, Tweed, Brighton, Trent Hills, Colborne, and Deseronto areas. Kingston and Area includes the County of Frontenac (Kingston, North Frontenac Township, Central Frontenac Township, South Frontenac Township, and Frontenac Islands Township), the County of Lennox and Addington includes Greater Napanee, Stone Mills Township, Addington Highlands Township, and Loyalist Township, and the County of Leeds.

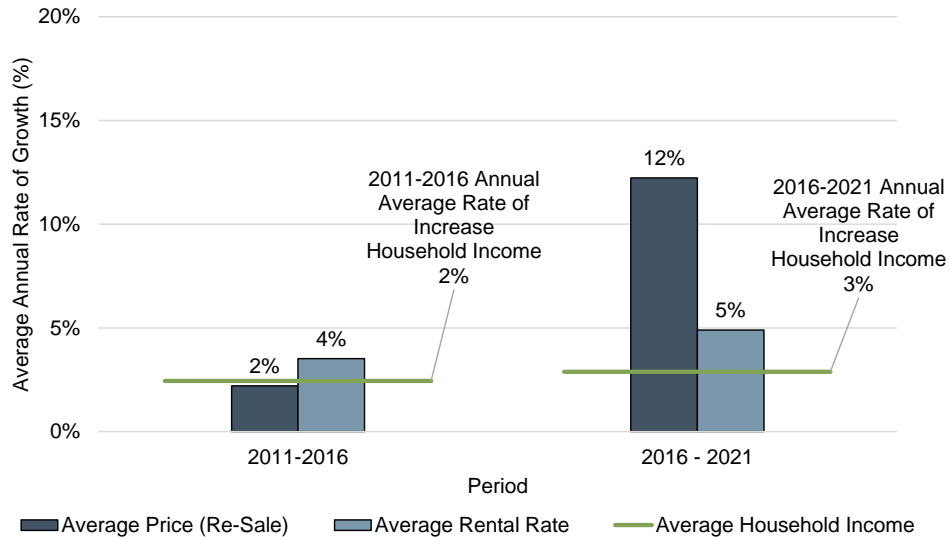
Source: MLS Home Price Index Benchmark Price, summarized by Watson & Associates Economists Ltd.

Figure 3-6 summarizes the average household income, average re-sales, and average monthly rental rate in the City of Kingston from 2011 to 2021. The average annual rate of household income growth increased by 2% and 3% for the 2011 to 2016 and 2016 and 2021 periods, respectively. The average annual growth rate for re-sale housing units increased at the rate comparable with household income during the 2011 to 2016 period, but significantly outpaced household income in the 2016 to 2021 period. The rate of increase for rents was higher than the rate of increase for household income in both periods. The rate of increase in rents was greater than re-sale prices in the 2011 to 2016 period; however, the increase in re-sale prices was noticeably higher in the 2016



to 2021 period. In accordance with the above, household income levels within the City of Kingston have not kept pace with housing prices or rents, which has eroded housing affordability over the past five years.

Figure 3-6
City of Kingston
Average Household Price and Average Household Incomes



Source: Derived from MLS Home Price Index Benchmark Price, CMHC Rental Market Survey, Statistics Canada Census data 2016 and 2021, and National Household Survey 2011 by Watson & Associates Economists Ltd.

Rising housing carrying costs in the City of Kingston will continue to generate demand for a broad range of housing by structure type and tenure, to accommodate a diverse range of newcomers by age and household income who are anticipated to contribute to the City’s growing population base. Providing a broad market choice in housing and affordability is an increasingly important consideration for Kingston. The City of Kingston Housing Needs Assessment Report provides further details on existing conditions and trends of the City’s ownership and rental housing market and housing needs.^[1]

^[1] City of Kingston Housing Needs Assessment, Watson & Associates Economists Ltd., July 31, 2023.



3.3 City of Kingston Post-Secondary Student Population

Within the City of Kingston there are three main post-secondary institutions, including Queen’s University, St. Lawrence College (Kingston Campus), and the Royal Military College of Canada. As of 2021, there are approximately 34,000 full-time students attending these three post-secondary institutions within the City.^[1] 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 those who live on campus, off campus with parents, as well as the remaining residents living off campus primarily in rental housing, as illustrated in Figure 3-7.

A portion of the post-secondary student population is not captured in the Statistics Canada Census data. More specifically, of the 2021 full-time enrolment, an estimated 51% (17,500 students), are not captured in the 2021 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.

3.4 Observation

Over the past 20 years, the City of Kingston has experienced steady population growth with noticeably stronger growth since 2016. Population growth is occurring across all major demographic groups (i.e. children, adults and seniors), largely driven by steady net migration across all age groups. Kingston’s recent increase in population growth has been fueling steady housing construction throughout the City, with new dwellings units from resident building permit activity between 2018 to 2023 notably higher relative to historical levels from 2008 to 2017. Historically, residential development activity within the City of Kingston has provided a broad range of housing options in ground-oriented housing forms (i.e. singles/semi-detached and townhouses) and apartments. During the most recent period from 2018 to 2023, however, the City has experienced a shift toward

^[1] Based on enrolment data from the post-secondary institutions and government sources.



a higher share of high-density housing forms, which have accounted for over two-thirds of all residential construction in terms of new units.

Kingston's highly skilled labour force is attractive for both international and locally based industries. The City offers a high concentration of post-secondary and government institutions, which has served as a catalyst for the continued economic growth of the City's "knowledge-based" and "creative class" economy as well as supporting service sectors. The City also has a competitive but diminishing inventory of vacant employment lands to accommodate future industrial growth. These economic opportunities are expected to attract a growing skilled labour force to the City of Kingston. Further, Kingston offers a high quality of life and is consistently ranked as one of the best communities in Canada in which to live and attract skilled labour. The City is anticipated to continue accommodating increased labour force and population growth, with a growing share of young adults and new families seeking competitively priced home ownership and rental opportunities.

It is important to recognize that the demographic and socio-economic characteristics and trends explored in this chapter, as they relate to the development of the City's new O.P., 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.



Chapter 4

Population, Housing and Employment Forecast for the Kingston C.M.A., 2021 to 2051



4. Population, Housing and Employment Forecast for the Kingston C.M.A., 2021 to 2051

4.1 Introduction

In accordance with the recent demographic, economic and socio-economic trends discussed in Chapters 2 and 3, as well as the anticipated growth drivers/disruptors discussed in Section 4.2, three long-term population, housing and employment forecasts, including a Medium or “recommended” Growth Scenario have been prepared for the Kingston C.M.A. to the year 2051. Growth Scenarios for the City of Kingston are presented in Chapter 5. In developing the C.M.A.’s and City’s long-term population forecast, consideration has also been given to the long-term population, housing and employment growth outlook for the surrounding economic region.

4.2 Key Economic Drivers and Assumptions of the Kingston C.M.A. and the City of Kingston

The following provides a summary of the key growth assumptions which inform the Low, Medium and High Growth Scenarios for the City of Kingston and Kingston C.M.A. from 2021 to 2051. These assumptions are discussed below.

4.2.1 Macro-Economic Trends

- The COVID-19 pandemic had a significant economic impact on the national and provincial economy in 2020 and 2021, as measured in terms of G.D.P. COVID-19 and the current economic headwinds discussed in Section 2.1 are anticipated to continue to influence global and national macro-economic conditions for several years to come.
- The Ontario economy experienced a sharp contraction in 2020, before rebounding in 2021 and 2022. G.D.P. growth in Ontario declined to 1.4% in 2023 largely due to inflationary pressures and a high-interest rate environment. BMO Capital Markets has forecast that G.D.P. will grow at 1.4% in Ontario in 2024 and 1.1% overall for Canada, increasing to 2.1% for Ontario and 1.8% for Canada by 2025.



- Under the Low Growth Scenario, it is assumed that the provincial economy will underperform, on average, relative to near-term and ongoing G.D.P. forecasts, while the Medium and High Growth Scenarios respectively assume that the provincial G.D.P. growth will meet or exceed near-term provincial forecasts on an ongoing basis.

4.2.2 National Immigration Trends

- Since the COVID-19 outbreak, Canada has continued to raise its immigration targets and aims to welcome 485,000 new permanent residents in 2024, rising to 500,000 residents in 2025 and 2026. The federal government will be stabilizing targets for permanent residents at 500,000 per year after 2026 to allow for successful integration and sustainable growth. Actual immigration in 2021 rebounded strongly with 406,000 permanent residents admitted to Canada in 2021, 437,100 in 2022, and 471,800 in 2023. Roughly half of total national immigration was accommodated in the Province of Ontario last year.^[1]
- Under the Low Growth Scenario, it is assumed that national immigration will underperform relative to federal targets over the 2021 to 2051 planning horizon. The Medium Growth Scenario assumes national immigration targets will be met, while the High Growth Scenario assumes that immigration targets will be exceeded.

4.2.3 City of Kingston and Kingston C.M.A. Economic Trends

- Under the Low Growth Scenario, it is forecast that the City of Kingston and the Kingston C.M.A. population growth rate will be comparable to the Summer 2023 M.O.F. projections for the Frontenac C.D. and subsequent M.O.F. population projection updates. The M.O.F. projects the Frontenac County C.D. population will grow at an annual rate of 1.0% to 2046.
- Under the Medium Growth Scenario, the City of Kingston and the Kingston C.M.A. are anticipated to outperform the Summer 2023 M.O.F. projections, while under the High Growth Scenario, the Kingston C.M.A. and the City are projected

[1] <https://www.canada.ca/en/immigration-refugees-citizenship/news/notices/supplementary-immigration-levels-2024-2026.html>



to significantly outperform the Summer 2023 M.O.F. projections and subsequent provincial projection updates for this area.

- The City of Kingston comprised 75% of housing, 77% of population and 85% of employment growth in the Kingston C.M.A. from 2006 to 2021. This trend is anticipated to continue to slightly varying degrees over the forecast period under each of the long-term growth scenarios.
- Under the Medium Growth Scenario, it is assumed that the share of population growth allocated to the City of Kingston will modestly increase between 2021 and 2051 to 78%, while the share of employment growth will increase to 89% between 2023 and 2051.
- Employment growth in the Kingston C.M.A. economy represents a key driver of population growth to the City of Kingston. With respect to commuting trends, 87% of City of Kingston residents work within the City, while 13% work outside the City.^[1] The City of Kingston is assumed to continue to represent an employment hub and the primary location of new housing within the context of the surrounding commuter-shed.
- Steady future economic growth is anticipated across the Kingston C.M.A., most notably associated with the recently announced Umicore electric vehicle battery manufacturing facility in Loyalist Township. This new \$1.5 billion facility will be developed on a 350-acre lot and bring more than 600 new jobs to the area.^[2] Such developments are anticipated to generate indirect jobs in the regional economy, in addition to induced economic impacts associated with the re-spending of labour income (i.e., household spending) throughout the Kingston C.M.A. and beyond.³
- Given the competitive position of existing and planned Employment Areas in the City of Kingston (as measured in terms of location/access to major North American employment markets and large population centres, parcel size, price

^[1] Based on Statistics Canada 2016 Census data. 2021 Census commuting trend results have not been utilized due to a significant increase in work at home employment captured due to Census enumeration occurring during the provincial COVID-19 lockdown from April 1, 2021 to June 14, 2021.

^[2] <https://globalnews.ca/news/9533043/loyalist-township-battery-plant-land-preparation/>

^[3] It is noted that Umicore recently announced on July 26, 2024 that it has halted the construction of the proposed battery plant in Loyalist Township.



per acre, and competitive development costs, etc.), the City is anticipated to achieve a relatively stronger rate of industrial absorption over the long-term planning horizon under all three growth scenarios.

- Anticipated export-based job growth (i.e., industrial and commercial office jobs) within the City of Kingston and the Kingston C.M.A. also generates population-related employment to service the needs of the growing employment and population base (e.g., retail, accommodation and food, personal services and institutional services). This would include the planned expansion to the Kingston General Hospital.
- Employment growth comprises two major categories, export-related and community-related employment:
 - Community-related job growth is tied to population growth. These jobs provide services such as retail, entertainment, and hospitality to the community. Under the Low Growth Scenario, relatively lower population growth compared to the other scenarios requires less community-based employment to service the needs of the population. As the population forecast increases under the Medium and High Growth Scenarios, more community-based jobs are required to provide services to the increased population.
 - Export-related jobs are largely industrial-based and consist of industries such as manufacturing and logistics. Local factors that can influence export-related employment growth within the C.M.A. and City include, but are not limited to, price of industrial lands, availability of serviced and ready to develop industrial lands with a broad range of sizes, access to labour force, and localized supply-chain opportunities. These local factors are anticipated to influence the share of industrial employment accommodated within the City of Kingston within the broader region under each long-term growth scenario.

4.2.4 Demographic Trends

- The Kingston C.M.A. and City of Kingston's population is aging, driven by the Baby Boomer age group (the generation born between 1946 and 1964). Refer to sections 4.3 and 5.1 for additional details.
- The mortality rate in the C.M.A. and City is forecast to increase from 2021 to 2051 due to the aging of the population. Additionally, there is downward pressure on births as the population ages. These demographic factors have generated a



steady decline, and now negative trend, in the Kingston C.M.A. and City's population growth from natural increase (i.e., births less deaths).

- From 2006 to 2021, the Kingston C.M.A. and City of Kingston experienced average net migration of 6,300 and 5,100 people annually, respectively. Under all growth scenarios, annual net migration for both the Kingston C.M.A. and City is forecast to be considerably higher relative to 2006 to 2021 levels. Progressively higher net migration levels are assumed for the Medium and High Growth Scenarios, relative to the Low Growth Scenario.
- Net migration impacts the population age structure. As the existing population ages, the Kingston C.M.A. and City of Kingston will become increasingly dependent on net-migration to maintain its existing share of younger age groups. Under the Low Growth Scenario, a larger share of the population will be older by 2051 due to lower levels of net-migration in younger age groups. Under the Medium and High Growth Scenarios, the population age structure is forecast to remain relatively younger due to higher net-migration levels associated with working-age residents and their families.

4.3 Kingston C.M.A. Long-Term Population Growth Forecast, 2021 to 2051

4.3.1 Kingston C.M.A. Long-Term Population Growth Scenarios, 2021 to 2051

Building on the key growth assumptions identified in section 4.2, three long-term permanent population and housing forecasts have been prepared for the Kingston C.M.A. Figures 4-1 and 4-2 summarize the three long-term C.M.A. population growth scenarios to the year 2051, including a Low Growth Scenario, Medium Growth Scenario, and a High Growth Scenario. Key observations include:

Low Scenario:

Under the Low Growth Scenario, the Kingston C.M.A.'s permanent population base will grow at an average annual rate of 1.0% per year. This represents an average annual growth rate that is above the historical growth rate of 0.76% achieved between 2001 and 2021. The population is forecast to increase moderately between 2021 and 2051 by 62,900 people, from 177,800 to 240,700, respectively.



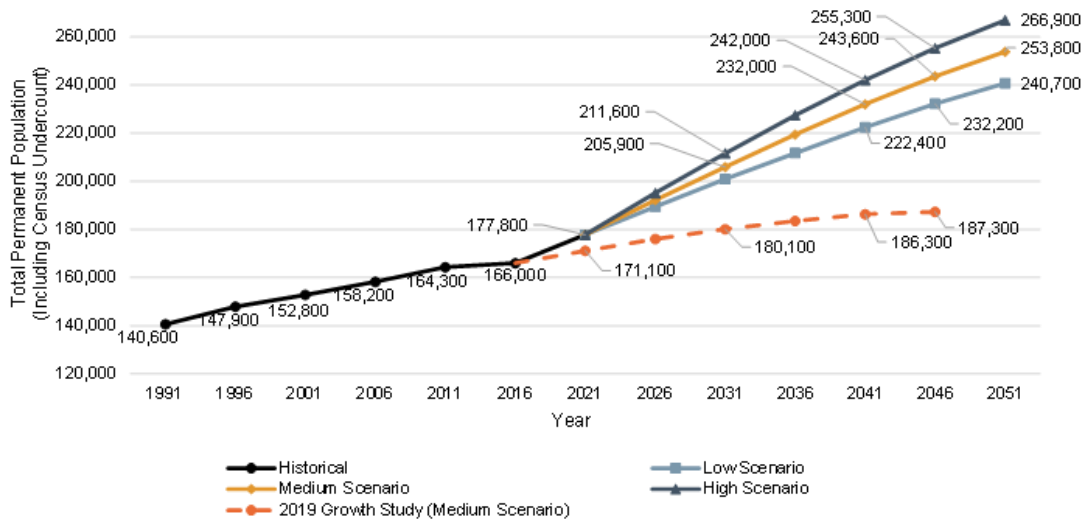
Medium Scenario:

The Kingston C.M.A.’s permanent population is forecast to grow at an annual rate of approximately 1.2% under the Medium Growth Scenario. The C.M.A.’s population is expected to reach 253,800 by 2051, representing an increase of approximately 76,000 from 2021 to 2051.

High Scenario:

Under the High Growth Scenario, the Kingston C.M.A. permanent population base is forecast to grow at an average annual rate of 1.4% per year. The population is anticipated to grow by approximately 89,100 people, increasing from 177,800 in 2021 to 266,900 in 2051.

Figure 4-1
City of Kingston
Long-Term Permanent Population Growth Scenarios, 2021 to 2051



Note: Population includes net Census undercount and has been rounded.

Source: Historical derived from Statistics Canada Census and Demography Division data, 1991 to 2021. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 forecast by Watson & Associates Economists Ltd.



4.3.2 Kingston C.M.A. Reference Population Forecast, 2021 to 2051

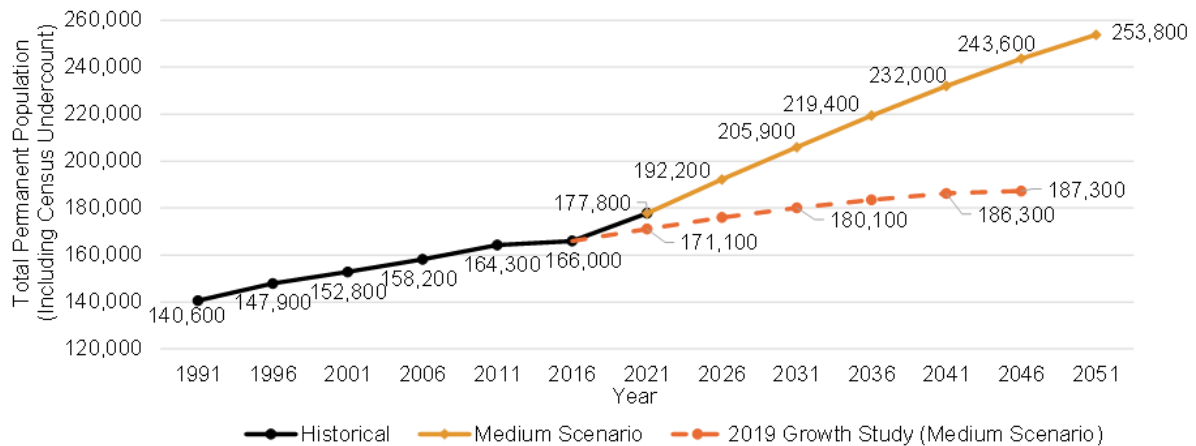
Based on our review, the Medium Growth Scenario represents the “most plausible growth forecast scenario for the Kingston C.M.A. for the following reasons:

1. It represents a reasonable future rate of population growth relative to the surrounding municipalities and sub-regions of Eastern Ontario regarding historical and forecast trends.
2. The level of permanent population growth in the 15 to 64 population age group is reasonable, given the forecast economic growth in the local and regional economy.
3. Forecast net migration levels are higher but appropriate relative to historical trends experienced over the past 15 years, particularly during the post-2016 period. Forecast net migration trends are reflective of steady growth anticipated in the local and regional economy, forecast work at home opportunities, as well as the attractiveness of the C.M.A. to empty nesters and seniors as a retirement/semi-retirement destination.

For these reasons, the Medium Growth Scenario is the recommended scenario for the purposes of long-range population, housing and employment forecasting and urban land needs analysis for the Kingston C.M.A. (refer to Figure 4-3). Additional details regarding the Medium (Recommended) Growth Scenario are provided in Appendix D.



Figure 4-3
Kingston C.M.A., Population Scenario Forecast, 2001 to 2051
Medium (Recommended) Growth Scenario



Note: Population includes net Census undercount and has been rounded.

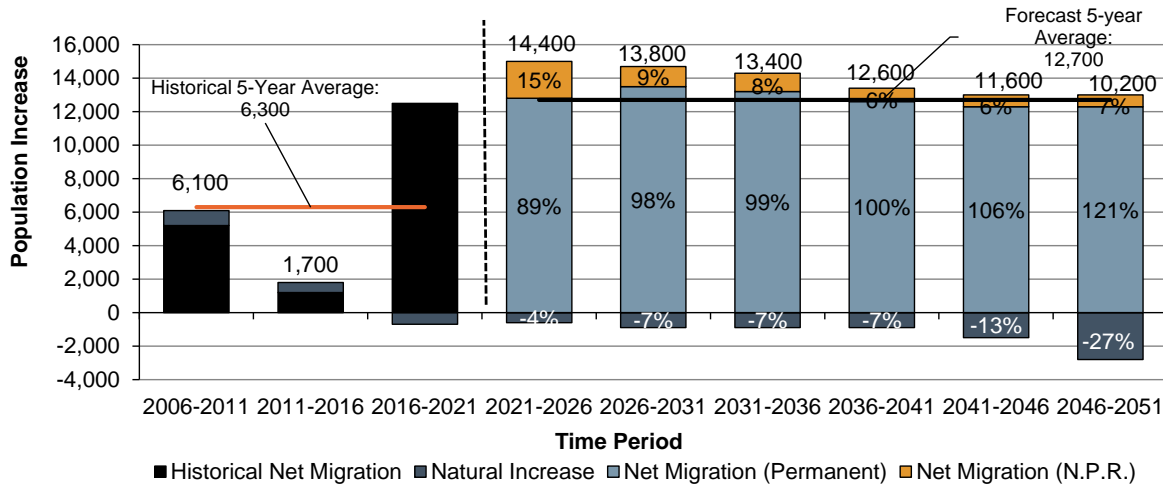
Source: Historical derived from Statistics Canada Census and Demography Division data, 1991 to 2021. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 forecast by Watson & Associates Economists Ltd.

4.3.3 Kingston C.M.A. Components of Permanent Population Growth, 2021 to 2051 (Recommended Scenario)

Figure 4-4 summarizes the components of population growth for the Kingston C.M.A. over the 2006 to 2021 historical period as well as the 2021 to 2051 forecast period. As summarized below, natural increase made up a small share of population growth during the 2006 to 2016 period and resulted in negative growth in the most recent 2016 to 2021 historical period. Natural increase over the forecast period is expected to continue this trend of negative population growth, decreasing from -4% of growth to -27% by the 2046 to 2051 period. Net-migration is expected to form a larger share of population growth in the forecast period to offset the negative growth from natural increase, increasing from 89% to 121% by the 2046 to 2051 period. Non-permanent resident population is expected to decline from 15% in the 2021 to 2026 period to 7% by the 2046 to 2051 period.



Figure 4-4
Kingston C.M.A.
Components of Population Growth



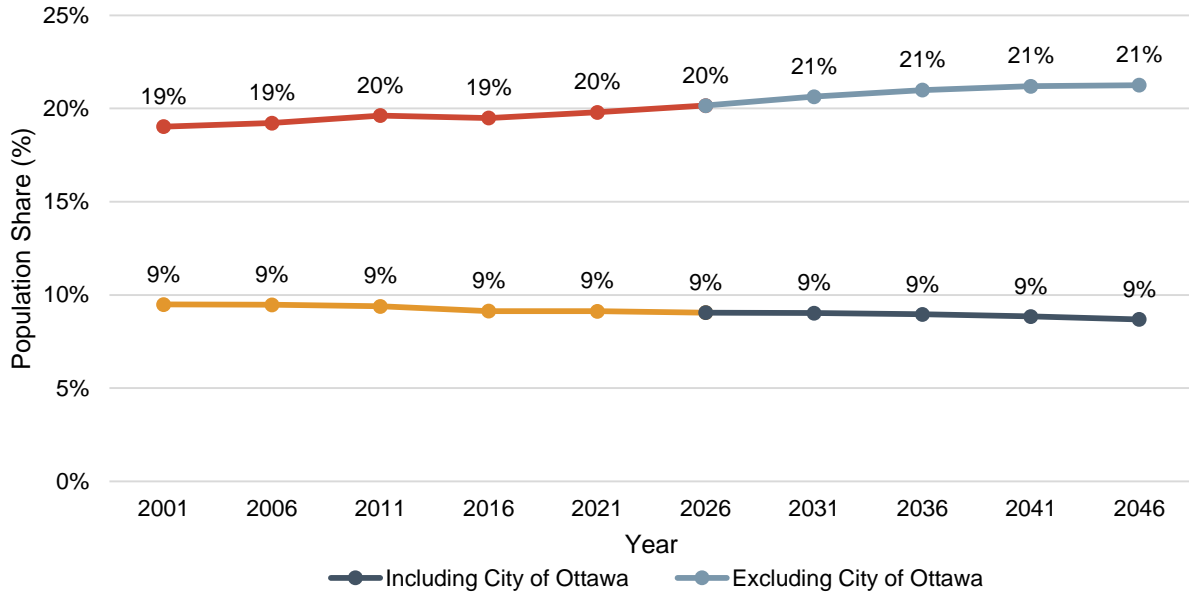
Source: Historical derived from Statistics Canada data, and forecast by Watson & Associates Economists Ltd.

4.3.4 Kingston C.M.A. Population Share Relative to Eastern Ontario

Figure 4-5 summarizes the share of the Kingston C.M.A. population and compares it to Eastern Ontario from 2001 to 2046, in accordance with the Medium Scenario prepared herein and the Summer 2023 M.O.F. forecast summarized in Section 2.5. As illustrated below, the Kingston C.M.A. total population in 2021 accounted for roughly 9% of Eastern Ontario’s population. Over the forecast period, the Kingston C.M.A. population share is forecast to remain at 9% of the total population of Eastern Ontario. Excluding the City of Ottawa, the Kingston C.M.A. population share to Eastern Ontario is forecast to increase from 20% in 2021 to 21% by 2046.



Figure 4-5
Kingston C.M.A.
Population Share Relative to Eastern Ontario,¹ 2001 to 2041



Source: Data from Statistics Canada Census 2001 to 2021. 2026 to 2041 Kingston C.M.A. forecast prepared by Watson & Associates Economists Ltd. 2026 to 2046 Eastern Ontario and City of Ottawa forecast from Ministry of Finance Population Projections, Summer 2023.

Note: Population figures include a Census undercount.

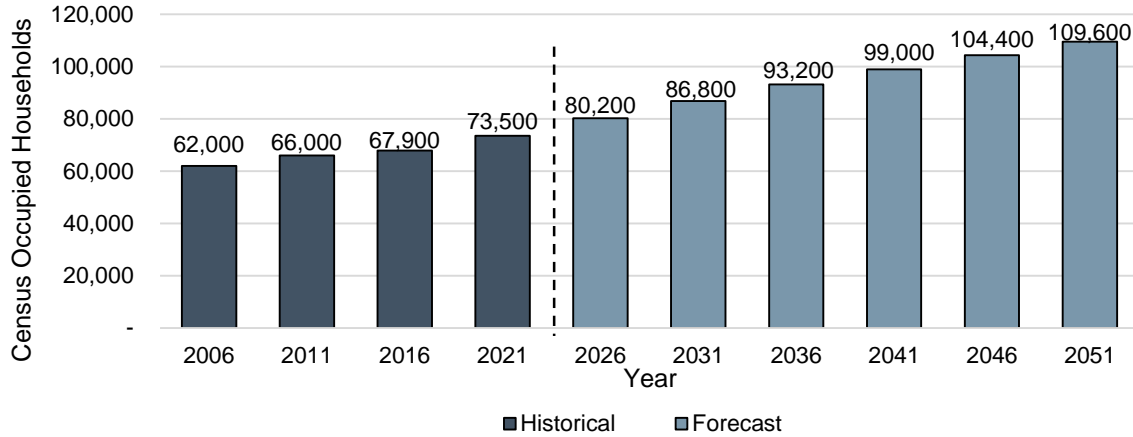
4.4 Kingston C.M.A. Long-Term Housing Growth, 2021 to 2051

Figures 4-6 and 4-7 summarizes total and incremental housing for the historical period (2006 to 2021) and the 2021 to 2051 forecast period for the Kingston C.M.A. in accordance with the Medium Scenario. During the 2006 to 2021 period, the Kingston C.M.A. experienced an increase of 11,500 housing units. Over the forecast period from 2021 to 2051 the housing base across the Kingston C.M.A. is forecast to increase by 36,100 to 109,600 total housing units by 2051, representing an annual average of 1,200.

[1] For comparative purposes, the City of Ottawa is included and excluded in this analysis.

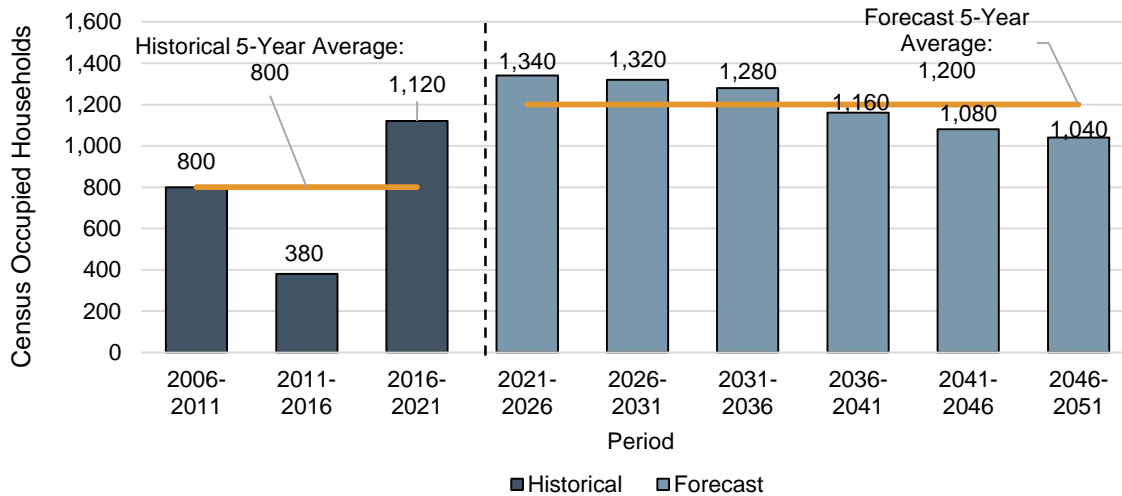


Figure 4-6
Kingston C.M.A.
Total Housing Forecast – Medium Scenario, 2006 to 2051



Source: 2006 to 2021 derived from Statistics Canada Census data. 2021 to 2051 forecasted by Watson & Associates Economist Ltd.

Figure 4-7
Kingston C.M.A.
Incremental Housing Forecast – Medium Scenario, 2006 to 2051



Source: 2006 to 2021 derived from Statistics Canada Census data. 2021 to 2051 forecasted by Watson & Associates Economist Ltd.



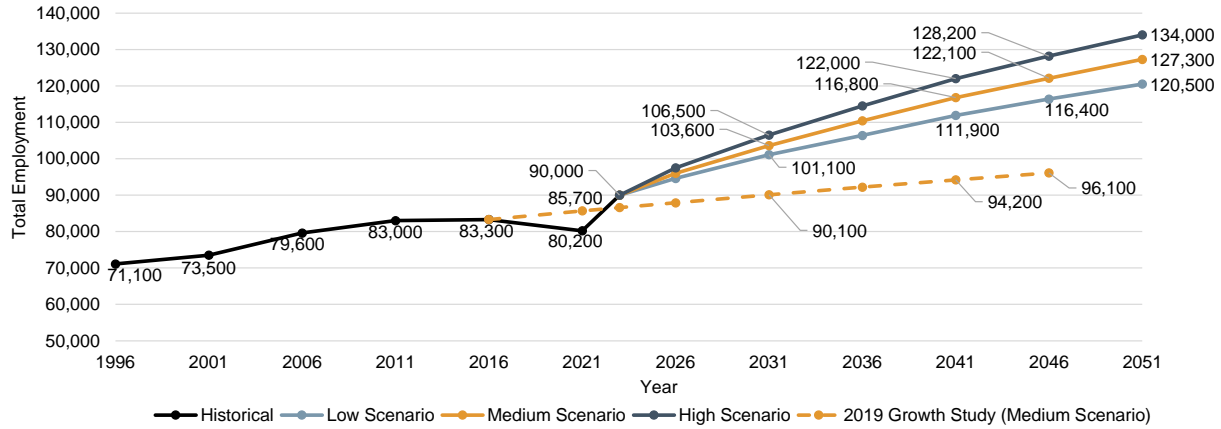
4.5 Kingston C.M.A. Long-Term Employment Growth, 2023 to 2051

Figure 4-8 summarizes the Kingston C.M.A. employment forecast scenarios, while Figure 4-9 summarizes the forecast employment activity rate (ratio of jobs to population) under the Medium Employment Scenario. Key observations include:

- Under the Low Scenario, the Kingston C.M.A. the employment base is forecast to increase to 120,500, increasing by 30,500 jobs over the forecast period, or growing at a rate of 1.0% annually.
- Under the Medium Scenario, the Kingston C.M.A. employment base is forecast to increase from 90,000 to 127,300, increasing by 37,300 jobs over the forecast period, or growing at an annual rate of 1.2%;
- Under the High Scenario, the employment base is forecast to increase to 134,000, increasing by 44,000 jobs over the forecast period, or growing at an annual rate of 1.4%; and
- The employment activity rate for the Kingston C.M.A. is forecast to remain stable over the long-term under the Medium Scenario.



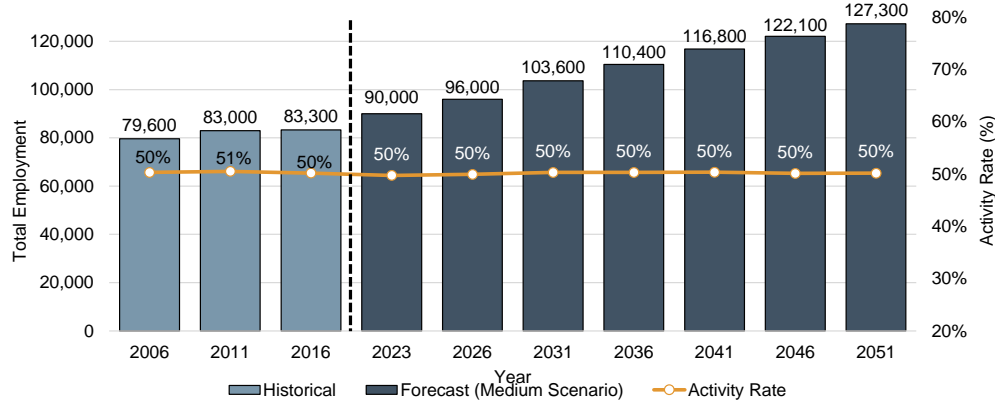
Figure 4-8
Kingston C.M.A.
Employment Forecast Scenarios, 2023 to 2051



Notes: Employment includes work at home and no fixed place of work. Statistics Canada 2021 Census place of work employment data has been reviewed. The 2021 Census employment results have not been utilized due to a significant increase in work at home employment captured due to Census enumeration occurring during the provincial COVID-19 lockdown from April 1, 2021 to June 14, 2021.

Source: Historical derived from Statistics Canada Census 2006 to 2021. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2023 to 2051 forecast by Watson & Associates Economists Ltd.

Figure 4-9
Kingston C.M.A.
Medium (Recommended) Employment Forecast and Activity Rate, 2023 to 2051





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



Chapter 5

Population, Housing and Employment Forecast for the City of Kingston, 2021 to 2051



5. Population, Housing and Employment Forecast for the City of Kingston, 2021 to 2051

5.1 City of Kingston Long-Term Permanent Population Growth, 2021 to 2051

5.1.1 *City of Kingston Long-Term Population Growth Scenarios, 2021 to 2051*

Building on the key growth assumptions identified in Section 4.2, three long-term permanent population and housing forecasts have been prepared for the City of Kingston. Figures 5-1 and 5-2 summarize the three long-term City-wide permanent population and housing growth scenarios to the year 2051, including a Low Growth Scenario, Medium Growth Scenario, and a High Growth Scenario. Chapter 7 provides additional details for the City of Kingston total population forecast, which comprises the permanent population and students not captured in the Census. Key observations for the permanent population and housing forecast include:

Low Scenario:

- Under the Low Growth Scenario, the City of Kingston's permanent population base is forecast to grow at an average annual rate of 1.0% per year. This represents an average annual growth rate that is above the historical growth rate of 0.7% achieved between 2001 and 2021. Under this scenario the City's population is forecast to increase moderately between 2021 and 2051 by 50,000 people, from 136,600 to 186,600, respectively.
- Permanent households are expected to increase from 57,800 to 80,800, growing at a rate of 1.1% annually over the 30-year forecast period. Annual forecast housing growth is anticipated to average approximately 770 new units per year, a significant increase from the historical average of 560 housing units added annually to the City from 2001 to 2021.

Medium Scenario:

- The City of Kingston's permanent population is forecast to grow at an annual rate of approximately 1.2% under the Medium Growth Scenario. The City's



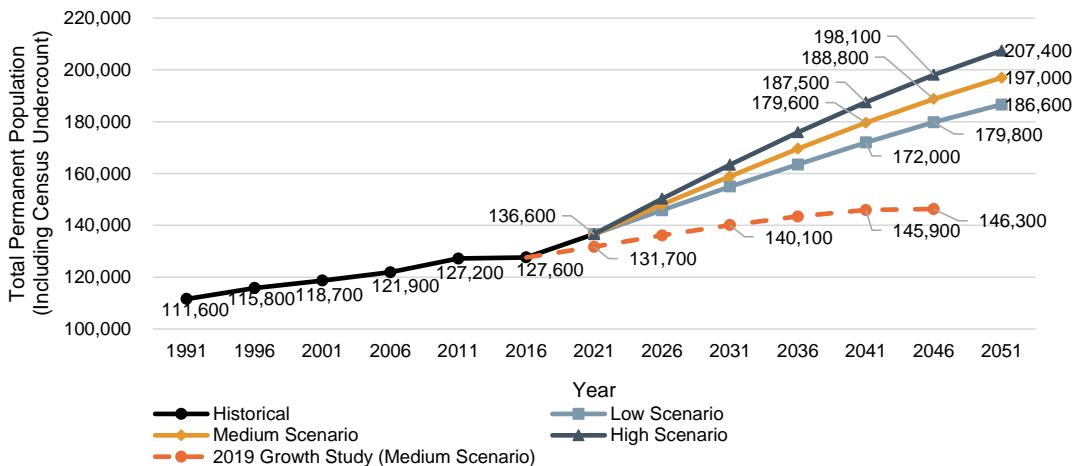
permanent population is expected to reach 197,000 by 2051, representing an increase of approximately 60,400 from 2021 to 2051.

- Over the 2021 to 2051 period, permanent households are expected to increase from 57,800 to 84,800, growing at a rate of 1.3% annually. Under the Medium Scenario, annual forecast permanent housing growth is expected to average 900 new units per year.

High Scenario:

- Under the High Growth Scenario, the City of Kingston’s permanent population base is forecast to grow at an average annual rate of 1.4% per year. The population is anticipated to grow by approximately 70,800 people, increasing from 136,600 in 2021 to 207,400 in 2051.
- Over the 2021 to 2051 period, permanent households are expected to increase from 57,800 to 88,500, growing at a rate of 1.4% annually. Under the High Scenario, annual forecast permanent housing growth is expected to average 1,020 new units per year.

Figure 5-1
City of Kingston
Long-Term Permanent Population Growth Scenarios, 2021 to 2051

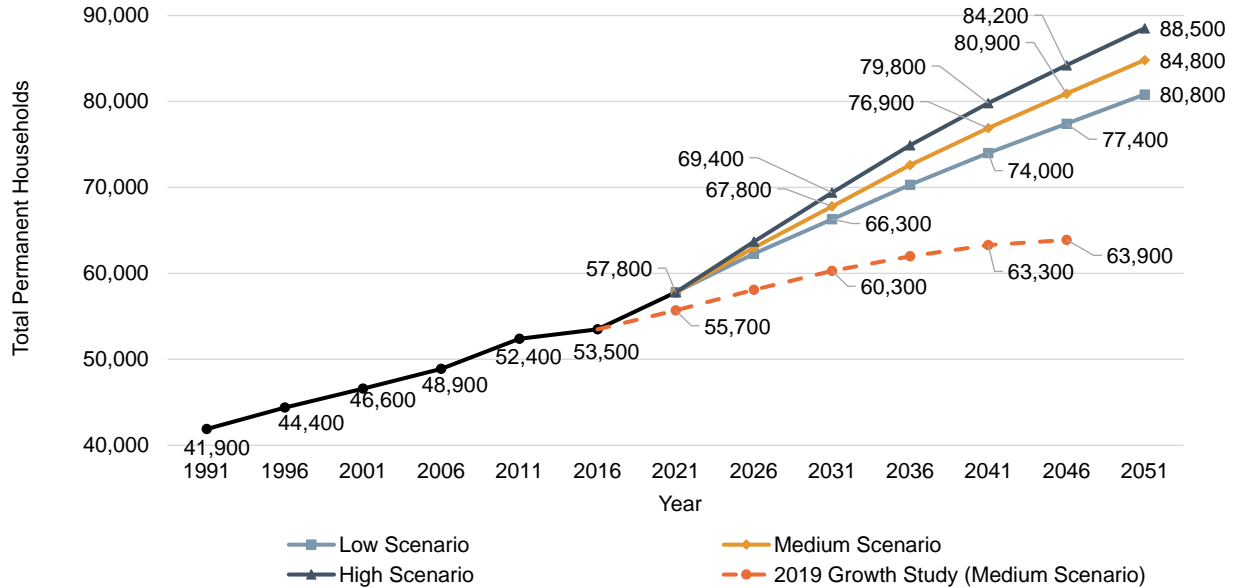


Note: Population includes net Census undercount and has been rounded.

Source: Historical derived from Statistics Canada Census and Demography Division data, 1991 to 2021. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 forecast by Watson & Associates Economists Ltd.



Figure 5-2
City of Kingston
Long-Term Permanent Households Growth Scenarios, 2021 to 2051



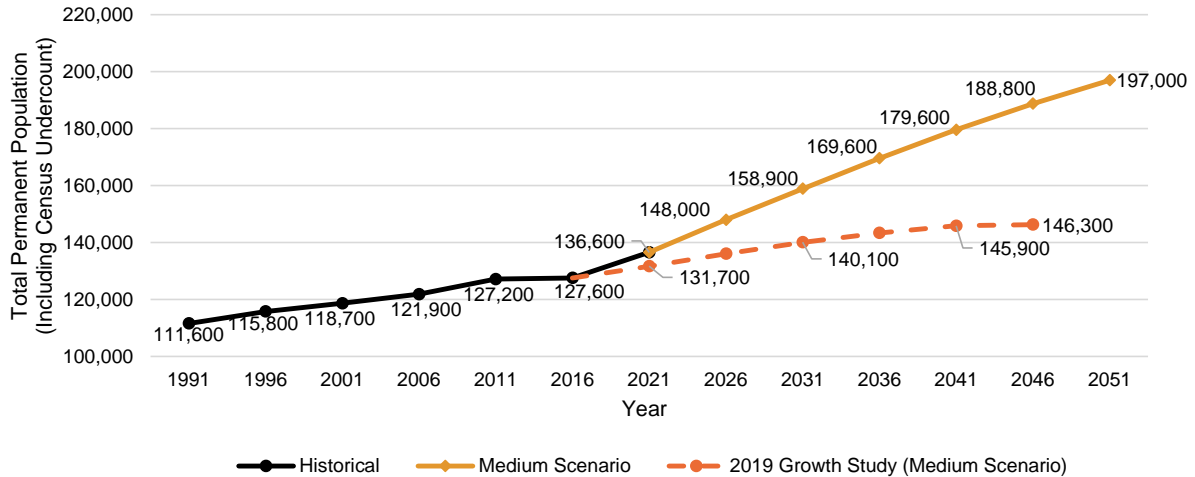
Note: Population includes net Census undercount and has been rounded.
Source: Historical derived from Statistics Canada Census data, 1991 to 2021. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 forecast by Watson & Associates Economists Ltd.

5.1.2 City of Kingston Reference Population Forecast, 2021 to 2051

Based on a review of the Kingston C.M.A. long-range population growth forecast, as well as a review of local development trends and opportunities within the City, the Medium Growth Scenario represents the “most plausible” growth forecast scenario for the City of Kingston. For these reasons, the Medium Growth Scenario is the recommended scenario for the purposes of long-range population, housing and employment forecasting and urban land needs analysis for the City of Kingston (refer to Figure 5-3). Additional details regarding the Medium (Recommended) Growth Scenario are provided in Appendix E and F.



Figure 5-3
City of Kingston, Population Scenario Forecast, 2001 to 2051
Medium (Recommended) Growth Scenario



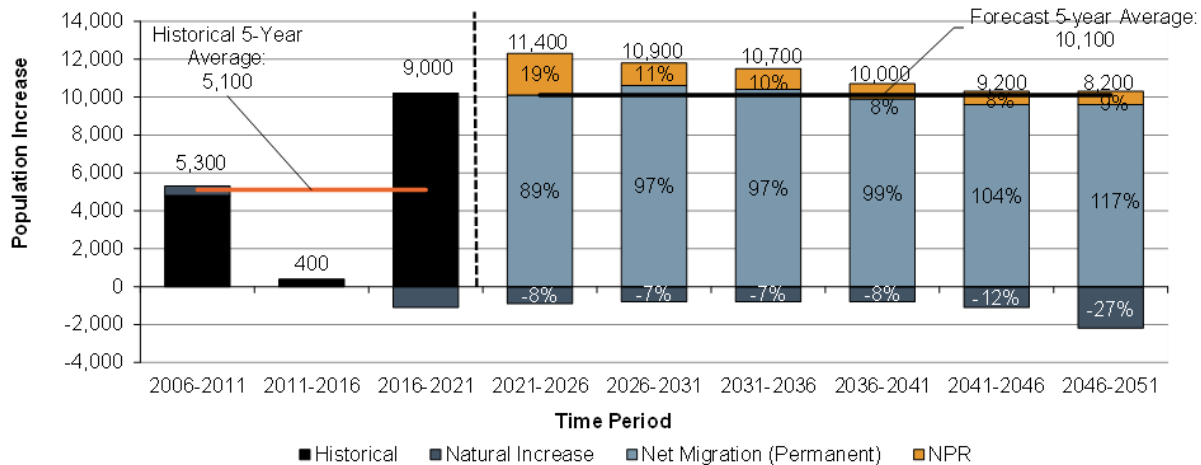
Note: Population includes net Census undercount and has been rounded.
Source: Historical derived from Statistics Canada Census and Demography Division data, 1991 to 2021. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 forecast by Watson & Associates Economists Ltd.

5.1.3 City of Kingston Components of Permanent Population Growth, 2021 to 2051 (Reference Scenario)

Figure 5-4 summarizes the components of population growth for the City of Kingston over the 2006 to 2021 historical period as well as the 2021 to 2051 forecast period. Similar to the Kingston C.M.A., natural increase (birth less deaths) comprised a small share of population growth over the 2006 to 2016 period and resulted in negative growth in the most recent 2016 to 2021 historical period. Over the forecast period, natural increase is expected to continue this trend of negative population growth, decreasing from -8% of growth to -27% by the end of forecast period, between 2046 and 2051. Net migration is expected to form a greater share of population growth in the City over the next three decades, increasing from 89% of total population growth between 2021 to 2026 to 117% between 2046 to 2051. The share of non-permanent residents to total population is forecast to decline from 19% in the 2021 to 2026 period to 9% by the 2046 to 2051 period.



Figure 5-4
City of Kingston
Components of Population Growth



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

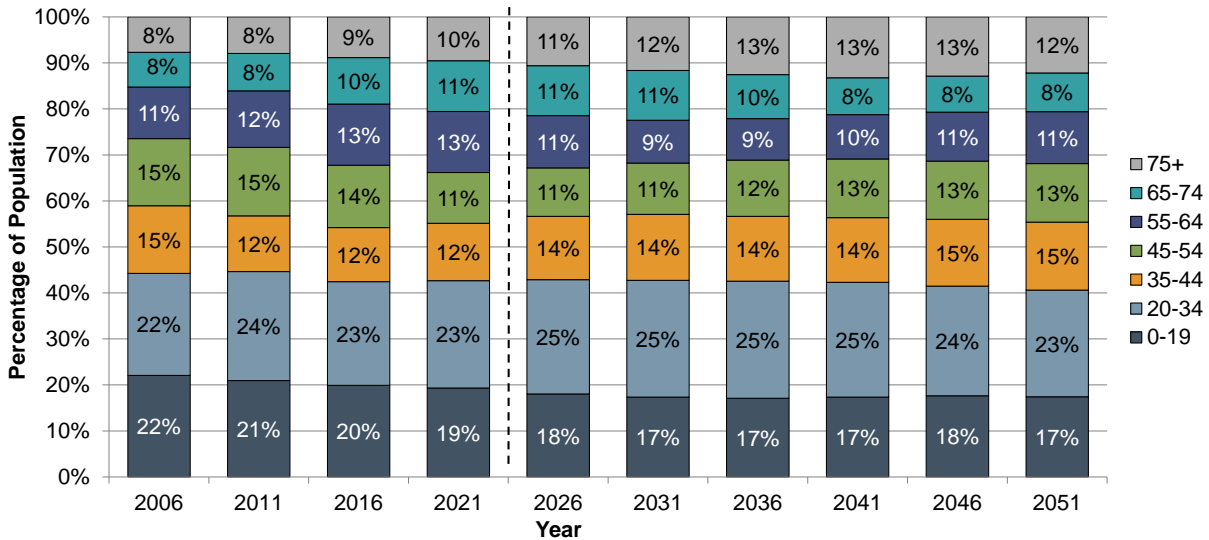
5.1.4 City of Kingston Permanent Population Forecast by Major Age Group

Figure 5-5 summarizes the Medium Growth Scenario population forecast by major age group from 2021 to 2051. Key observations include the following:

- The population is expected to age, with the proportion of the 75+ age group expected to increase from 10% to 12% between 2021 and 2051;
- The population in the 55 to 74 age group (empty nesters and younger seniors) is expected to decrease from 24% to 19% between 2021 and 2051;
- Kingston's young adult/adult population (20 to 54 years of age) is the largest age group and is forecast to increase from 46% to 51% of the population from 2021 to 2051; and
- The percentage of population in the 0 to 19 age cohort (youth population) is expected to slightly decline from 19% to 17% between 2021 and 2051.



Figure 5-5
City of Kingston
Forecast Permanent Population by Age Structure, 2021 to 2051
Medium (Recommended) Growth Scenario



Note: Population includes net Census undercount.

Source: Historical derived from Statistics Canada Census and Demography Division data, 2006 to 2021. 2021 to 2051 forecast by Watson & Associates Economists Ltd.

5.2 City of Kingston Permanent Households Growth Forecast, 2021 to 2051

5.2.1 Total Housing Forecast, 2021 to 2051

Figures 5-6 and 5-7 summarize the city-wide total permanent housing forecast and the city-wide annual incremental housing forecast from 2021 to 2051. Historical Census housing trends are provided for historical context. Key observations are as follows:

- Over the 2021 to 2051 forecast period, permanent households are expected to increase from 57,800 to 84,800, growing at a rate of 1.3% annually.
- Annual forecast housing growth is expected to average 900 units per year, a significant increase from the historical average of 595 units annually.
- Overall average household occupancy levels (persons per unit) are expected to decline from 2.36 in 2021 to 2.32 in 2051, largely as a result of the aging of the population.

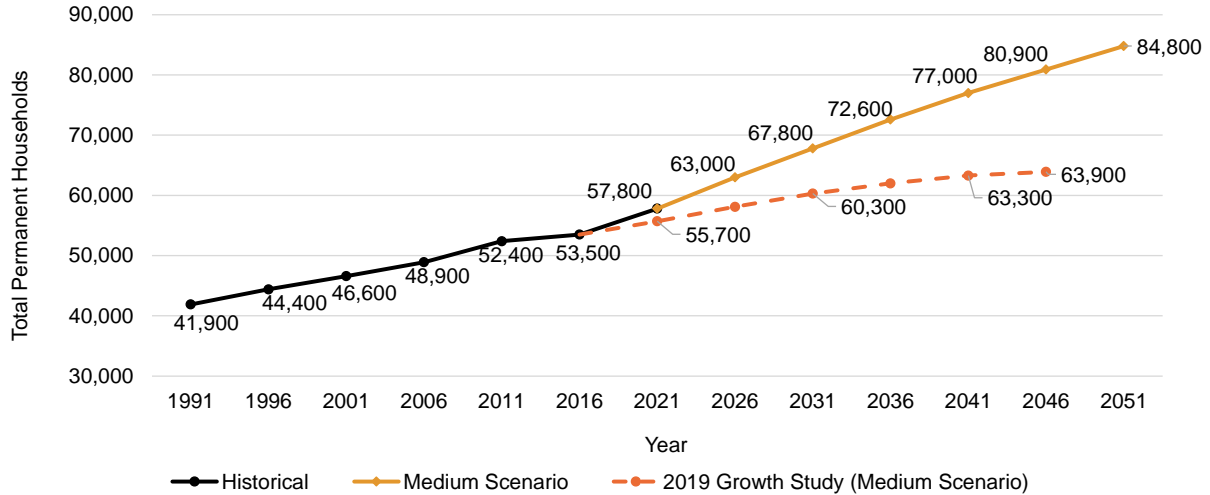


- It is important to note that the permanent housing forecast does not include student housing needs not captured in the Census (refer to sections 4.4 and 4.5.). Additional housing needs have also been identified in the near-term to address existing housing deficiencies in the rental housing market as well as current non-market housing needs.^[1]
- Taking into account the City's total housing needs, including student housing needs not captured in the Census, the City's 10-year annual housing forecast is to increase by 14,000 total housing units, or approximately 1,400 units per year.
- The recommended housing forecast exceeds the 10-year housing target of 8,000 units, as set out in the Bill 23 Municipal Housing Pledge by the Province of Ontario. The recommended housing forecast also exceeds the four-year housing target of 1,200 units annually set by City of Kingston Council.
- In order to achieve this level of housing growth and provide diverse housing options to accommodate the needs of the community, the City is exploring a range of development regulatory incentives and financial incentives.

[1] City of Kingston, Housing Needs Assessment. July 26, 2023. Watson & Associates Economists Ltd.

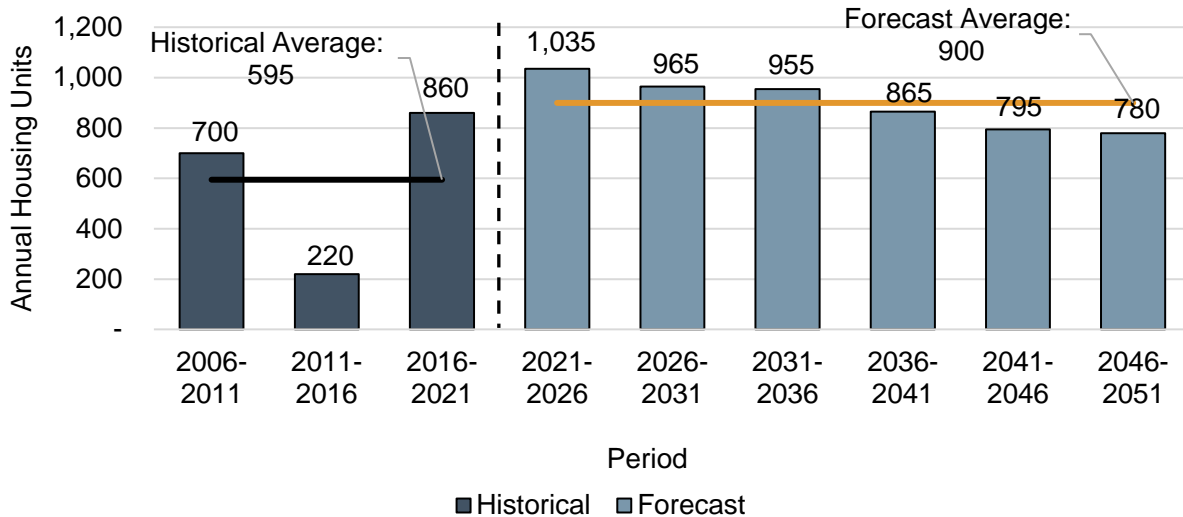


Figure 5-6
City of Kingston, Total Permanent Household Forecast, 2021 to 2051
Medium (Recommended) Scenario



Source: Historical derived from Statistics Canada Census data, 1991 to 2021. 2021 to 2051 forecast by Watson & Associates Economists Ltd.

Figure 5-7
City of Kingston, Incremental Annual Permanent Household Forecast, 2021 to 2051
Medium (Recommended) Scenario



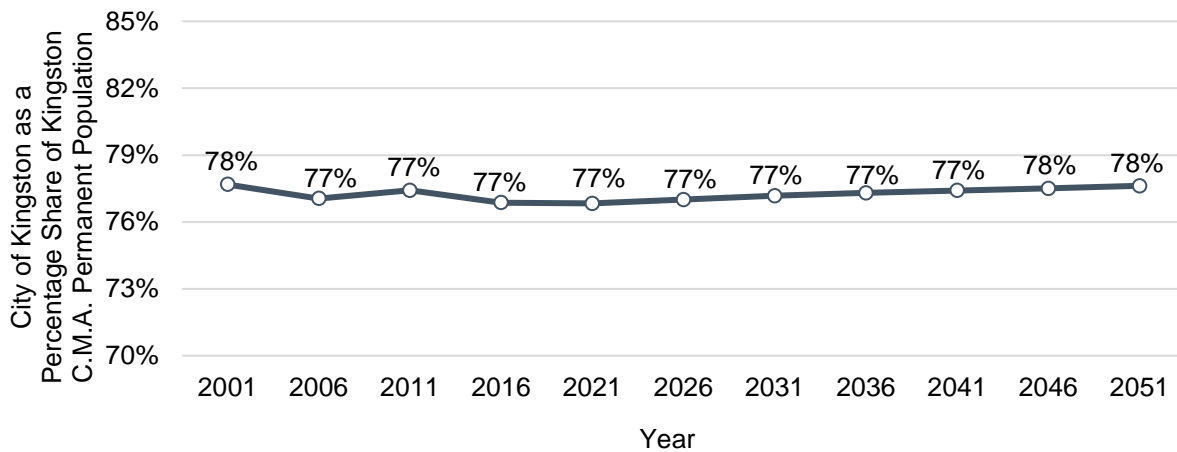
Source: Historical derived from Statistics Canada Census data, 2001 to 2021. 2021 to 2051 forecast by Watson & Associates Economists Ltd.



5.3 City of Kingston Population and Households as a Share of the Kingston C.M.A., 2006 to 2051

Figure 5-8 summarizes the share of the City of Kingston as a proportion of the total Kingston C.M.A. permanent population. Historically, the share of Kingston’s population has been relatively steady at 78% to 77% from 2001 to 2022. Over the 2021 to 2051 forecast period, this share is forecast to remain relatively constant from 77% to 78%.

Figure 5-8
City of Kingston
Share of Kingston C.M.A. Permanent Population, 2001 to 2051
Medium (Recommended) Growth Scenario



Source: Historical derived from Statistics Canada Census data, 1991 to 2021. 2021 to 2051 forecast by Watson & Associates Economists Ltd.

5.4 City of Kingston Long-Term Employment Growth, 2023 to 2051

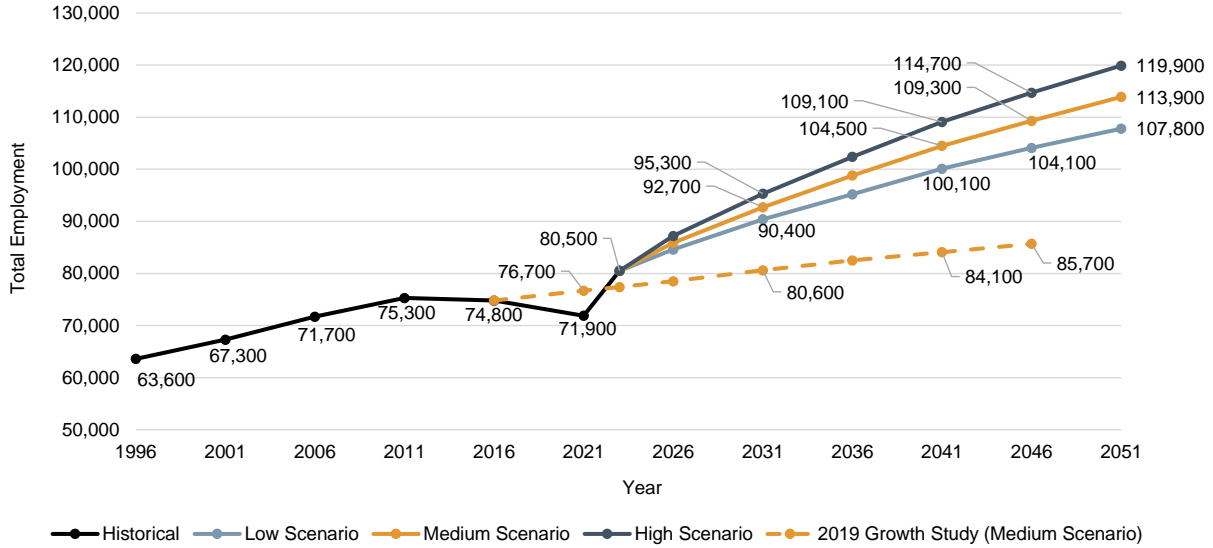
Figure 5-9 summarizes the City of Kingston. employment forecast scenarios, while Figure 5-10 summarizes the forecast employment activity rate (ratio of jobs to population) under the Medium (Recommended) Employment Scenario. Figure 5-11 illustrates the City’s employment forecast by sector. Key observations include:



- Under the Low Scenario, the City of Kingston employment base is forecast to increase to 107,800, increasing by 27,300 jobs over the forecast period, or growing at a rate of 1.0% annually.
- Under the Medium (Recommended) Scenario, the City of Kingston employment base is forecast to increase from 80,500 to 113,900, increasing by 33,400 jobs over the forecast period, or growing at an annual rate of 1.2%;
- Under the High Scenario, the employment base is forecast to increase to 119,300, increasing by 39,400 jobs over the forecast period, or growing at an annual rate of 1.4%; and
- The employment activity rate for the City of Kingston is forecast to remain stable over the long-term under the under the Medium (Recommended) Scenario.
- The City is forecast to accommodate a broad range of employment types from 2023 to 2051, with 31% of City-wide job growth in the institutional sector, 31% in the commercial/institutional sector, 22% in the industrial sector, 9% no fixed place of work jobs, and 7% work at home jobs.



Figure 5-9
City of Kingston
Employment Forecast Scenarios, 2023 to 2051



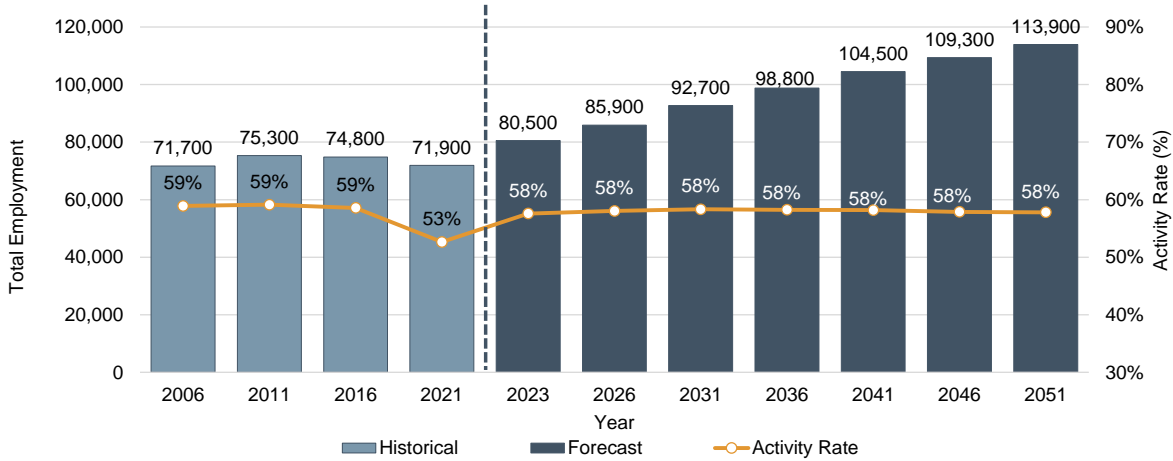
Notes:

- Employment includes work at home and no fixed place of work.
- Statistics Canada 2021 Census place of work employment data has been reviewed. The 2021 Census employment results have not been utilized due to a significant increase in work at home employment captured due to Census enumeration occurring during the provincial COVID-19 lockdown from April 1, 2021 to June 14, 2021.

Source: Historical derived from Statistics Canada Census 2006 to 2021. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2023 to 2051 forecast by Watson & Associates Economists Ltd.

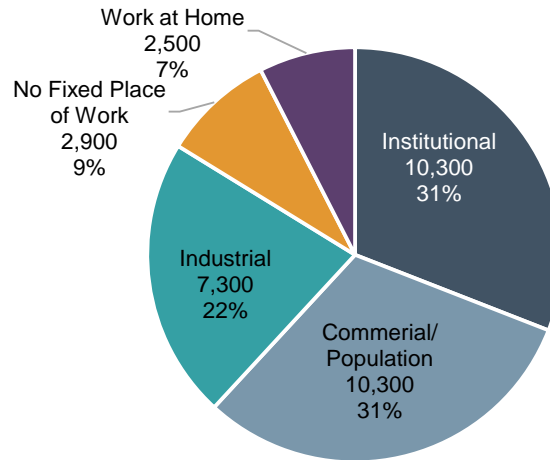


Figure 5-10
City of Kingston.
Medium (Recommended) Employment Forecast and Activity Rate, 2023 to 2051



Source: 2006-2021 data from Statistics Canada Census; forecast prepared by Watson & Associates Economists Ltd.

Figure 5-11
City of Kingston
Medium (Recommended) Employment Forecast by Sector, 2023 to 2051



Source: Watson & Associates Economists Ltd.



Chapter 6

City of Kingston Post- Secondary Student Forecast, 2021 to 2051



6. City of Kingston Post-Secondary Student Forecast, 2021 to 2051

6.1 Approach to City of Kingston Student Enrolment Forecast, 2021 to 2051

Post-secondary students are an important part of the City of Kingston as they contribute to the vibrancy, diversity and economic strength of this area. It is recognized that there are approximately 34,000 full-time students attending local post-secondary institutions within the City. 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.^[1] As part of this analysis, population growth associated with post-secondary students not captured in the census population has been “layered” onto the base 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 (2021) full-time students was assessed with respect to the share of domestic (i.e., local, Greater Toronto and Hamilton Area (G.T.H.A.), other Ontario, out of province) and international students. This was completed through a review of available enrolment data from the three 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 (2021) residency of Kingston’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

^[1] Reflects full-time enrolment at Queen’s University, St. Lawrence College (Kingston Campus), and the Royal Military College of Canada in 2021.



institutions, 2021 census data, as well as through consultation with the City of Kingston Planning Services Department.

The post-secondary student population not captured in the census data was estimated to total 17,500 in 2021. Full-time post-secondary enrolment forecasts were prepared for each of Kingston's three post-secondary institutions which involved the following:

- Determination of current (2021) full-time enrolment by geographic location in Canada (i.e., local – City of Kingston and area, the G.T.H.A., rest of Ontario, Canada (excluding Ontario) and corresponding capture rates^[1] 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 2021 to 2051 period. Growth projections for Ontario were based on Ministry of Finance (M.O.F.) growth projections, while Canadian growth projections (excluding Ontario) were derived from Statistics Canada;
- With capture rates held constant using the 2021 data, forecast undergraduate enrolment by geographic zone was identified to 2051 in five-year increments. Future graduate level enrolment growth at Queen's University 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;
- In the development of the short-term forecast (i.e. 2021 to 2026), the analysis also considers actual enrolment levels through 2022, enrolment reports;^[2] 2020 to 2025 Strategic Mandate Agreements between Ontario and Queens University and St. Lawrence College; and

^[1] Refers to the share of population aged 18-24 in the identified markets enrolled in the undergraduate level programs full-time at Kingston's post-secondary schools.

^[2] Enrolment reports include Queens University Short Term Enrolment Projections 2022-2025 Report, March 2022.



- Discussions with representatives of the post-secondary institutions were also held to help inform the broader level assumptions utilized to develop the enrolment growth forecasts.

6.2 City of Kingston Student Enrolment Forecast, 2021 to 2051

Based on the methodology presented in section 6.1, a long-term (2021 to 2051) aggregate post-secondary student enrolment forecast for Kingston was prepared reflecting growth potential within the city's three post-secondary institutions. Figures 6-1 and 6-2 illustrate the total full-time post-secondary student enrolment forecast and growth rate. Full-time enrolment is forecast to increase from 34,000 in 2021 to 48,300 by 2051, an increase of 42% (14,300 students) over the forecast period (1.2% annual growth rate). Additional details regarding the post-secondary student forecast are provided in Appendix G.

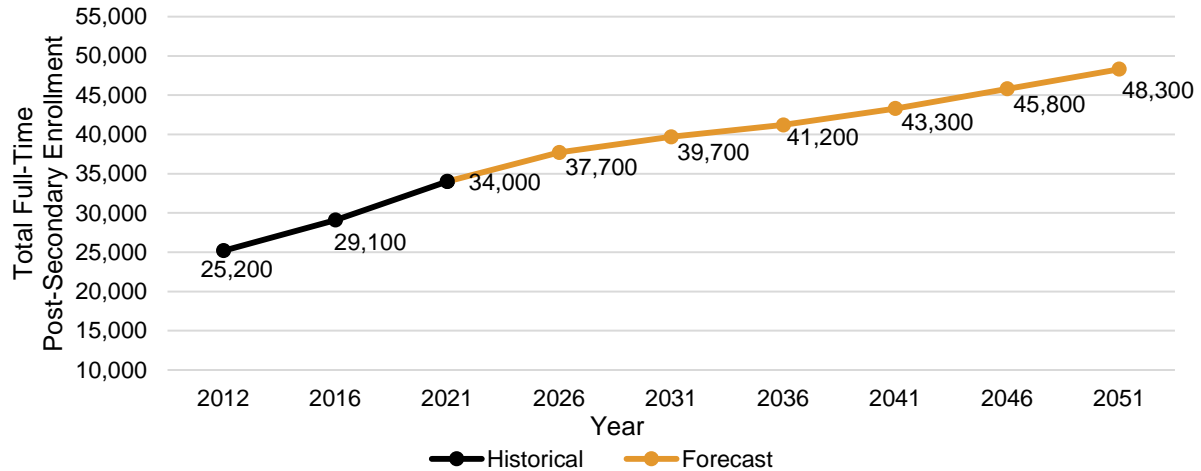
Recent full-time post-secondary student enrolment growth in Kingston has been relatively strong. During the 2012 to 2021 period, full-time enrolment growth increased at an average annual rate of 3.4%.^[1] Over the short term (i.e. 2021 to 2026), full-time enrolment growth is expected to continue being strong with an annual growth rate of 2.1%, coinciding with growth in the non-permanent resident population which includes international students. Post-2026, full-time enrolment is forecast to moderate to an annual growth rate of approximately 1.0%. 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, the Government of Canada announcement to lower non-permanent resident admissions and place a cap on student visas, and the increased global competition related to post-secondary international student attraction.^[2]

[1] Derived from Province of Ontario, Ministry of Training, Colleges and Universities data.

[2] <https://globalnews.ca/news/10397176/trudeau-temporary-immigration-canada/>



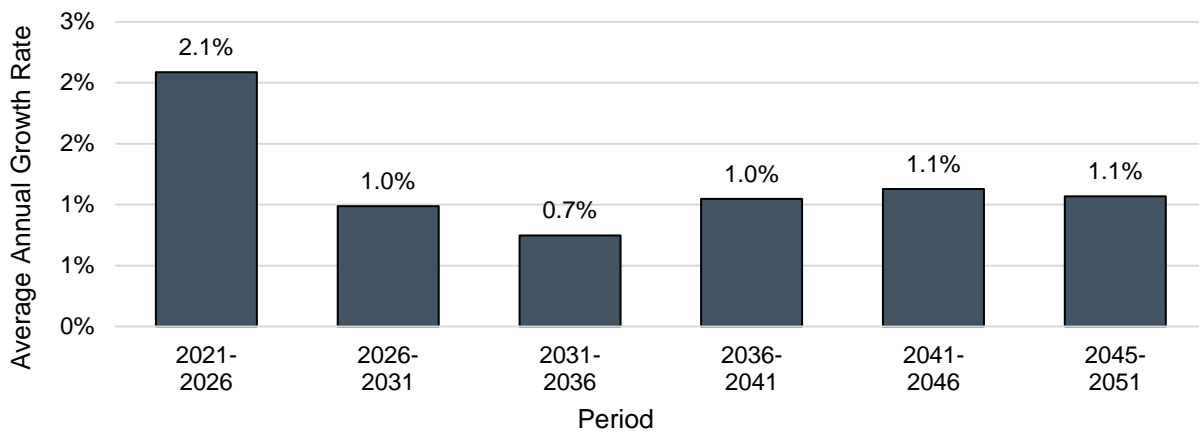
Figure 6-1
City of Kingston
Full-Time Post-Secondary Student Enrolment, 2012 to 2051



Note: Figures have been rounded.

Source: 2016 and 2021 derived from post-secondary institution enrolment reports and Province of Ontario University and College Enrolment data, by Watson & Associates Economists Ltd.

Figure 6-2
City of Kingston
Full-Time Post-Secondary Student Enrolment Annual Growth Rate, 2021 to 2051



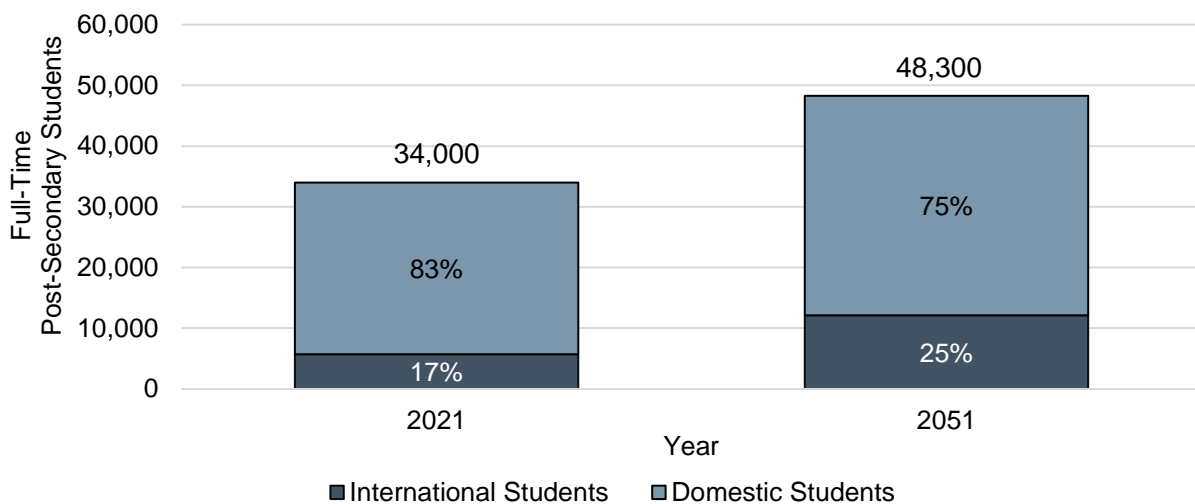
Note: Actual future student population may be impacted by a number of factors that affect student enrolment at post-secondary institutions, including changes in government policy related to enrolment and funding.

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 17% in 2021 to 25% in 2051, as illustrated in Figure 6-3. Conversely, the share of domestic students is expected to decrease from 83% to 75% during the same period.

Figure 6-3
City of Kingston
Geographic Origin of Full-Time Post-Secondary Student Enrolment, 2021 vs. 2051



Source: Watson & Associates Economists Ltd.

Based on anticipated growth trends in enrolment by geographic location and local residency patterns, Figure 6-4 illustrates post-secondary enrolment growth and associated housing needs not captured in the Census for the City of Kingston. Key findings are as follows:

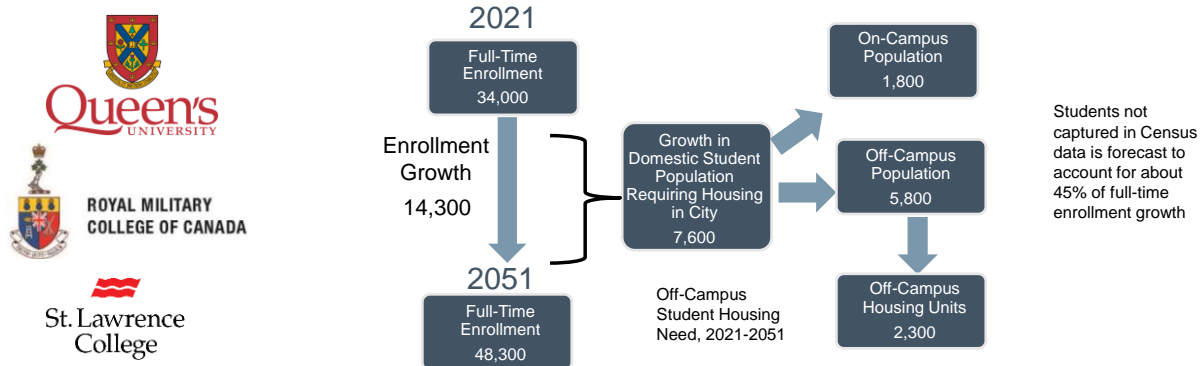
- Full-time post-secondary student enrolment in the City of Kingston is forecast to increase from 34,000 in 2021 to 48,300 by 2051, an increase of 42% (14,300 students) over the forecast period (1.2% annual growth rate).^[1]

^[1] Post-secondary institutions include Queen’s University, St. Lawrence College, and the Royal Military College of Canada.



- It is anticipated that 53% of forecast full-time post-secondary enrolment growth over the 2021 to 2051 period will reflect growth in domestic students requiring housing in the City. Domestic students that don't require housing in Kingston comprise 2% of future enrolment growth; international students comprise the remaining 45% of enrolment growth. International student growth is captured as part of the non-permanent resident population which is included in the permanent population and housing data. ^[1]
- It is forecast that approximately 1,800 of the students not captured in the Census (24% of total) will be accommodated in on-campus residences. The remaining 76% or 5,800 students are anticipated to be accommodated in off-campus housing. This generates the need for approximately 2,300 off-campus dwelling units to accommodate post-secondary students not captured in the Census over the 2021 to 2051 period. ^[2]

Figure 6-4
City of Kingston
Post-Secondary Student Forecast, 2021 to 2051



Notes: Figures may not sum precisely due to rounding. All international student growth is assumed to be captured as part of the non-permanent population which comprises the Census population and associated housing.

Source: Student population and housing forecast based on enrolment projections prepared by Watson & Associates Economists Ltd.

^[1] Existing and future non-permanent population is distinctly layered on top of the City's permanent population by Watson.

^[2] These housing needs reflect domestic student living off-campus who are counted elsewhere in Canada during Census enumeration but require local housing while they are studying at one of the post-secondary institutions in the City of Kingston.



Chapter 7

City of Kingston Total Population and Housing Forecast (Including Students Not Captured by Census), 2021 to 2051



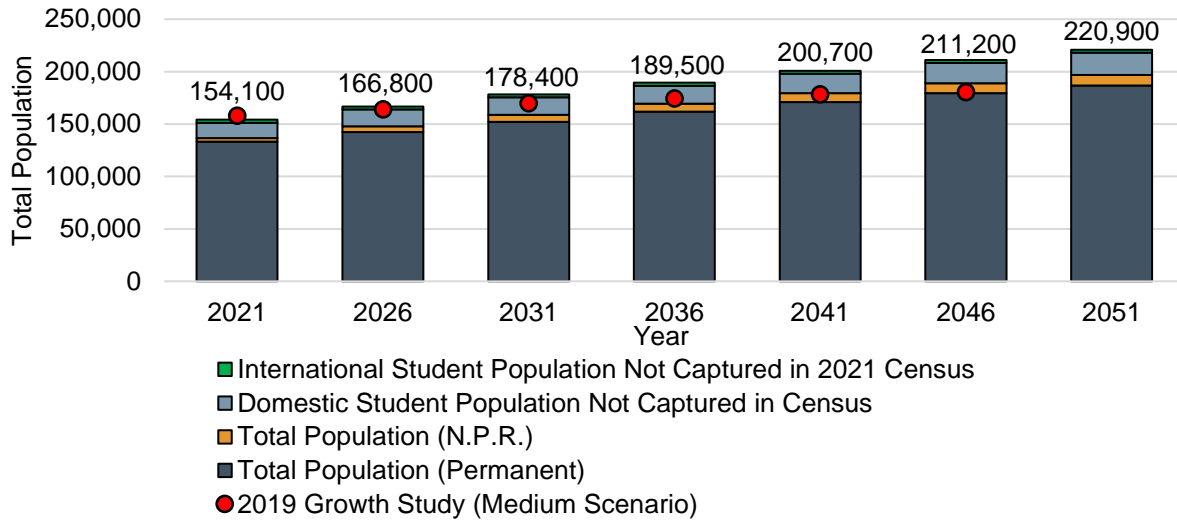
7. City of Kingston Total Population and Housing Forecast (Including Students Not Captured by Census), 2021 to 2051

Figure 7-1 summarizes the City of Kingston total population forecast, which comprises the permanent population and students not captured in the Census. Figure 7-2 illustrates the associated total housing needs of the permanent population and off-campus student households not captured by the Census. Additional details regarding the population and housing not captured by the Census are provided in Appendix G. Key observations are as follows:

- Over the 30-year forecast period, the permanent population in the City of Kingston is forecast to grow by 60,400, or 1.2% annually. Permanent households in the City of Kingston are forecast to grow by 27,000, or 1.3% annually.
- The student population not captured in the Census is forecast to grow by 6,400, or 1.0% annually over the 30-year period. Student households not captured in the Census are forecast to grow by 2,300, or 1.2% annually;
- Overall, the total population is forecast to increase by 66,800, or 1.2% annually from 2021 to 2051, reaching a total population in 2051 of approximately 220,900.
- City of Kingston Census households are expected to grow by an additional 27,700 units over the 30-year period, while student housing not captured in the census is expected to increase by 2,300 units during the same time frame. Over the 30-year forecast period, Census housing is expected to average approximately 900 new households annually or by an average of 4,500 households every five years. Student housing not captured in the Census is expected to grow roughly at 75 new units per year or an average of 970 housing units over each five-year period.



Figure 7-1
City of Kingston
Total Population (Permanent & Student) Forecast, 2021 to 2051
Medium (Recommended) Growth Scenario



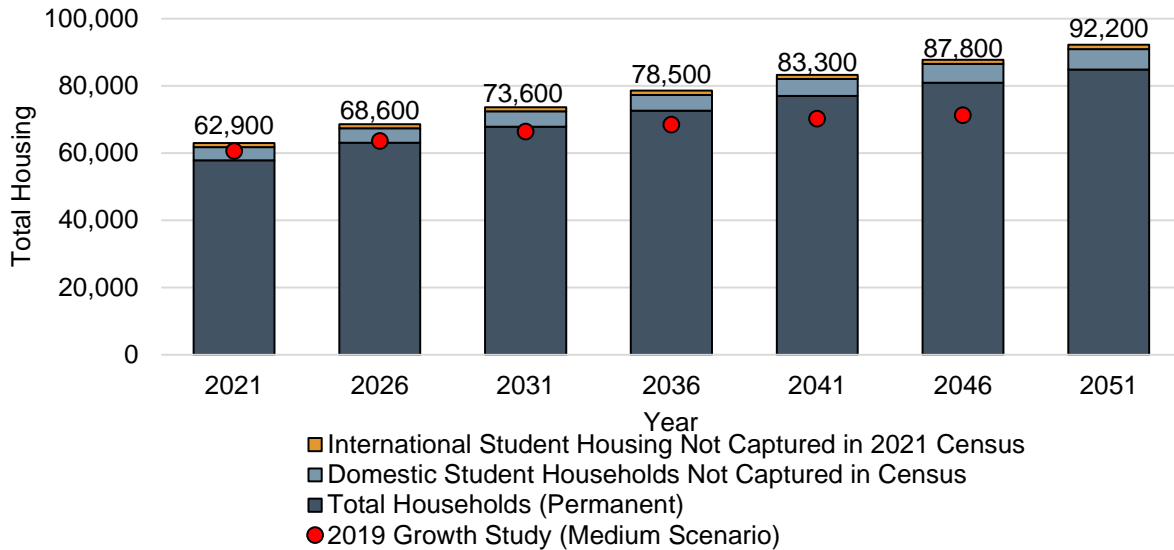
Notes:

- Figures may not sum precisely due to rounding.
- Population includes the net Census undercount.
- All post-secondary international student growth from 2021 to 2051 is captured as part of the non-permanent resident population which comprises the Census population and associated housing.

Source: 2021 derived from Statistics Canada Census data and a review of student population not captured in the Census by Watson & Associates Economists Ltd. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 forecast by Watson & Associates Economists Ltd.



Figure 7-2
City of Kingston
Total Housing (Permanent & Student) Forecast, 2021 to 2051
Medium (Recommended) Growth Scenario



Notes:

- Figures may not sum precisely due to rounding.
- All post-secondary international student growth from 2021 to 2051 is captured as part of the non-permanent resident population which comprises the Census population and associated housing.

Source: 2021 derived from Statistics Canada Census data and a review of student population not captured in the Census by Watson & Associates Economists Ltd. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 forecast by Watson & Associates Economists Ltd.



Chapter 8

City of Kingston Population, Housing and Employment Allocations



8. City of Kingston Population, Housing and Employment Allocations

The following chapter summarizes the allocation of forecast population and housing growth within the City of Kingston in accordance with the Medium (Recommended) Growth Scenario. Allocations are provided for the following areas with mapping in Appendix H:

- Population and housing allocations by planning policy area: Built-Up Area (B.U.A.), Designated Greenfield Area (D.G.A.) and Rural Area;
- Population, housing and employment allocations by Sub-Area: Kingston North, Kingston East, Kingston Central and Kingston West;
- Population, housing and employment allocation by Water and Wastewater Catchment Area: Central, East, West, Cana, and no City servicing.

In developing the City's growth allocations, consideration has been given to a range of assumptions regarding long-range growth targets as well as residential supply and demand factors, including:

Growth Targets:

- 60% intensification target, with 60% of annual housing growth from 2023 to 2051 allocated within the City of Kingston B.U.A.; and
- City-wide density target of at least 50 people and jobs per hectare on vacant D.G.A. lands.

Local Supply Factors:

- Supply of potential future housing stock in the development process by housing structure type and development approval status;
- Current inventory of net vacant designated urban "greenfield" lands not currently in the development approvals process;
- Non-residential developments based on discussions with City staff;
- The availability of serviced employment land supply (i.e., serviced and ready to develop employment lands) and future planned greenfield development opportunities on vacant designated employment lands within Kingston;



- Consideration of water and wastewater servicing capacity and potential long-term solutions to overcome constraints (where identified) based on ongoing discussions with staff;
- Residential and non-residential intensification opportunities; and
- Provincial and local planning policy direction regarding forecast residential and employment growth.

Demand Factors:

- Historical population, housing by structure type and employment activity based on 2001 to 2021 Statistics Canada (Census) data;
- A review of historical residential building permit activity (new units only) by structure type;
- Historical employment trends (i.e., review of established and emerging employment clusters), non-residential construction activity, and recent employment land absorption rates;
- Historical commuting trends and anticipated employment growth opportunities within the surrounding market area;
- A review of local employment opportunities;
- Market demand for residential intensification; and
- The appeal of the City's areas to a broad range of demographic groups, including students, young adults, families, empty nesters and seniors.

8.1 City of Kingston Population, Housing and Employment Allocations by Planning Policy Area

In accordance with the supply and demand factors, Figure 8-1 summarizes the permanent population and housing growth forecast for the City of Kingston by planning policy area from 2021 to 2051. Key observations include:

- The B.U.A. comprises 60% of permanent housing and 53% of permanent population growth in the City of Kingston. The Kingston B.U.A. is forecast to grow by 32,300 people and 16,170 households over the 30-year forecast period. Within the B.U.A. housing growth is composed of 2% low-density, 20% medium-density and 78% high-density housing units, and makes up 86% of all high-density growth in the City.



- It is important to note that in addition the permanent population and housing growth, the post-secondary student population and housing forecast of 6,400 people and 2,300 households will be accommodated in the B.U.A.
- Low-density housing opportunities are limited in the B.U.A. due to the low availability of vacant residential land to accommodate this form of housing. However, the area has notable intensification opportunities through gentle intensification for medium-density households to accommodate missing middle development, and high-density development opportunities.
- Growth in the D.G.A. comprises 44% of the City's population and 38% of its housing growth from 2021 to 2051. The area is forecast to grow by 26,700 people and 10,370 households over the 30-year forecast period. Housing growth comprises 45% low-density, 35% medium-density, and 20% high-density units, providing a range of housing options to accommodate broad range of demographics and family structures. The D.G.A. is anticipated to accommodate 85% of the City's low-density housing growth from 2021 to 2051.
- The Rural Area is forecast to growth by 1,500 people and 450 low-density households from 2021 to 2051, comprising 2% of the City's growth. It is important to note that growth in the Rural Area is composed from Kingston North, and parts of the Kingston West and Kingston East Sub-Area.
- Please note for the purposes of land needs assessment the Community Area Land Needs and Intensification Analysis Report utilizes a 2024 to 2051 forecast period, whereas the figures presented herein are provided over a 2021 to 2051 forecast period in accordance with Census periods.



Figure 8-1
City of Kingston
Permanent Population and Housing Growth by Planning Policy Area, 2021 to 2051
Medium (Recommended) Growth Scenario

Planning Policy Area	Population ^[1]	Low Density Units ^[2]	Medium Density Units ^[3]	High Density Units ^[4]	Total Residential Units	Residential Unit Growth Share
Built-Up Area	32,300	360	3,230	12,580	16,170	60%
Designated Greenfield Area	26,700	4,660	3,630	2,080	10,370	38%
Rural	1,500	450	0	0	450	2%
City of Kingston	60,400	5,470	6,860	14,660	26,980	100%

^[1] Population includes net Census undercount estimated at approximately 3.1%

^[2] Includes single and semi-detached houses.

^[3] Includes townhouses and apartments in duplexes.

^[4] Includes bachelor, 1-bedroom, 2-bedroom+ apartment units and secondary suites.

Note: Figures have been rounded and may not add up precisely.

Source: Watson & Associates Economists Ltd.

8.2 City of Kingston Population, Housing and Employment Allocations by Sub-Area

Figure 8-2 illustrates permanent population and housing growth in the City of Kingston by Sub-Area, including: Kingston North, Kingston East, Kingston Central and Kingston West. Key observations include:

- Kingston West is forecast to grow by 24,900 people and 10,610 households from 2021 to 2051, comprising 41% and 39% of the City's population and housing growth, respectively. Future housing growth provides a broad range of structure option with 27% low-density, 29%, medium-density and 45% high-density housing units.
- Kingston Central is forecast to increase by 20,500 people and 10,100 households over the 30-year forecast period, comprising 34% of the City's population and 37% of its housing growth. The Kingston Central housing mix is



weighed towards high-density units which comprises 72% of the housing growth within this area. It is important to note that in addition to the permanent population and housing growth, the post-secondary student population and housing forecast of 6,400 people and 2,300 households will be accommodated in Kingston Central.

- The permanent population in Kingston East is forecast to increase by 14,100 people and 6,000 households from 2021 to 2051, comprising 23% and 22% of the respective population and housing growth for this area. Forecast housing growth in Kingston East comprises 35% low-density, 20% medium-density, and 45% high-density households.
- Kingston North is forecast to grow by 900 people and 270 low-density households from 2021 to 2051, comprising 1% of the City's growth largely in the Rural Area.

Figure 8-2
City of Kingston
Permanent Population and Housing Growth by Sub-Area, 2021 to 2051
Medium (Recommended) Growth Scenario

Sub-Area	Population ^[1]	Low Density Units ^[2]	Medium Density Units ^[3]	High Density Units ^[4]	Total Residential Units	Residential Unit Growth Share
Kingston North	900	270	0	0	270	1%
Kingston East	14,100	2,100	1,220	2,680	6,000	22%
Kingston Central	20,500	240	2,610	7,250	10,100	37%
Kingston West	24,900	2,850	3,030	4,730	10,610	39%
City of Kingston	60,400	5,470	6,860	14,660	26,980	100%

^[1] Population includes net Census undercount estimated at approximately 3.1%

^[2] Includes single and semi-detached houses.

^[3] Includes townhouses and apartments in duplexes.

^[4] Includes bachelor, 1-bedroom, 2-bedroom+ apartment units and secondary suites.

Note: Figures have been rounded and may not add up precisely.

Source: Watson & Associates Economists Ltd.



The City of Kingston employment growth forecast by sector for the Medium (Recommended) Scenario from 2023 to 2051 is summarized in Figure 8-3. Key observations include:

- Kingston West is forecast to grow by 13,400 jobs and comprise 40% of the City's total employment growth from 2023 to 2051. The area will accommodate a broad range of employment uses and represents the City's largest industrial growth area accommodating two-thirds of Kingston's industrial growth.
- Employment in Kingston Central is forecast to increase by 11,200 jobs or 35% of the City's total employment growth from 2023 to 2051. Kingston Central is forecast to accommodate approximately three-fifths of the City's institutional employment growth to 2051, driven by growth of the City's post-secondary institutions, government and healthcare services.
- Kingston East is forecast to increase by 7,640 jobs and comprises 23% of the City's total employment growth to 2051. The area will accommodate a broad range of industrial, commercial and institutional uses, in addition to work and no fixed place of work jobs.
- Employment is forecast to increase by 480 jobs in Kingston North over the 2023 to 2051 period, comprising 1% of the City's employment growth over the same time period.

For additional information related to the employment forecast, please refer to the City of Kingston Employment Lands Review Report.



Figure 8-3
City of Kingston
Employment Growth by Sector and Sub-Area, 2023 to 2051
Medium (Recommended) Growth Scenario

Sub-Area	Primary ^[1]	Work at Home	Industrial	Commercial/ Population-Related	Institutional	N.F.P.O.W. ^[2]	Total Employment	Total Employment Growth Share
Kingston North	80	40	140	160	20	40	480	1%
Kingston East	0	580	1,890	2,420	2,080	670	7,640	23%
Kingston Central	0	850	500	3,510	6,010	980	11,850	36%
Kingston West	0	1,030	4,800	4,250	2,150	1,190	13,420	40%
City of Kingston	80	2,500	7,330	10,340	10,260	2,880	33,390	100%

[1] Primary employment includes agriculture, forestry, fishing, hunting, mining and oil and gas extraction industries.

[2] Statistics Canada defines no fixed place of work (N.F.P.O.W.) 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."

Note: Figures have been rounded and may not add up precisely.

Source: Watson & Associates Economists Ltd.



8.3 City of Kingston Population, Housing and Employment Allocations by Water and Wastewater Catchment Area

Figures 8-3 to 8-7 summarize permanent population, housing, and employment growth in the City of Kingston by Water and Wastewater Catchment Area, including East, Central, West, Cana, and no Municipal Servicing. Key observations include:

- The Kingston West Water and Wastewater Catchment Areas are forecast to grow by 24,900 people and 10,610 households from 2021 to 2051, comprising 41% and 39% of the City's population and housing growth, respectively. Employment in Kingston West is forecast to increase by 13,400 jobs and comprise 40% of the City's total employment growth from 2023 to 2051.
- The Kingston Central Water and Wastewater Catchment Areas are forecast to increase by 20,500 people and 10,100 households over the 30-year forecast period, comprising 34% and 37% of the City's population and housing growth. It is important to note that in addition to the permanent population and housing growth, the post-secondary student population and housing forecast of 6,400 people and 2,300 households will be accommodated in Kingston Central. Employment in Kingston Central is forecast to increase by 11,200 jobs or 35% of the City's total employment growth from 2023 to 2051.
- The permanent population in the Kingston East Water and Wastewater Catchment Areas is forecast to increase by 13,600 people and 6,800 households from 2021 to 2051, comprising 23% and 22% of the respective population and housing growth for this area. Kingston East is forecast to increase by 7,640 jobs, comprising 23% of the City's total employment growth to 2051.
- The Cana Water Serviced Area is not forecast to accommodate additional population and employment over the 2021 to 2051 forecast period.
- Areas with no City Water or Wastewater servicing are forecast to grow by 1,500 people and 450 low-density households from 2021 to 2051, comprising 2% of the City's growth and composed of areas in the Kingston North and East Sub-Areas. Employment with no City Water and Wastewater servicing is forecast to increase by 600 jobs, comprising 2% of the City's employment growth from 2023 to 2051.



Figure 8-4
City of Kingston
Permanent Population and Housing Growth by Water Catchment Area, 2021 to 2051
Medium (Recommended) Growth Scenario

Water Catchment Area	Population ^[1]	Low Density Units ^[2]	Medium Density Units ^[3]	High Density Units ^[4]	Total Residential Units	Residential Unit Growth Share
East	13,600	1,920	1,220	2,680	5,820	22%
Central	20,500	240	2,610	7,250	10,100	37%
West	24,900	2,850	3,030	4,730	10,610	39%
Cana	0	0	0	0	0	0%
No Municipal Water	1,500	450	0	0	450	2%
City of Kingston	60,400	5,470	6,860	14,660	26,980	100%

^[1] Population includes net Census undercount estimated at approximately 3.1%

^[2] Includes single and semi-detached houses.

^[3] Includes townhouses and apartments in duplexes.

^[4] Includes bachelor, 1-bedroom, 2-bedroom+ apartment units and secondary suites.

Note: Figures have been rounded and may not add up precisely.

Source: Watson & Associates Economists Ltd.



Figure 8-5
City of Kingston
Employment Growth by Water Catchment Area, 2023 to 2051
Medium (Recommended) Growth Scenario

Water Catchment Area	Primary ^[1]	Work at Home	Industrial	Commercial/Population-Related	Institutional	N.F.P.O.W. ^[2]	Total Employment	Total Employment Growth Share
East	0	560	1,890	2,320	2,080	650	7,500	22%
Central	0	850	1,000	3,510	6,010	980	12,350	37%
West	0	1,030	4,290	4,250	2,150	1,190	12,910	39%
Cana	0	0	0	0	0	0	0	0%
No Municipal Water	80	60	140	250	20	70	620	2%
City of Kingston	80	2,500	7,330	10,340	10,260	2,880	33,390	100%

^[1] Primary employment includes agriculture, forestry, fishing, hunting, mining and oil and gas extraction industries.

^[2] Statistics Canada defines no fixed place of work (N.F.P.O.W.) 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."

Note: Figures have been rounded and may not add up precisely.

Source: Watson & Associates Economists Ltd.



Figure 8-6
City of Kingston
Permanent Population and Housing Growth by Wastewater Catchment Area,
2021 to 2051
Medium (Recommended) Growth Scenario

Wastewater Catchment Area	Population ^[1]	Low Density Units ^[2]	Medium Density Units ^[3]	High Density Units ^[4]	Total Residential Units	Residential Unit Growth Share
East	13,600	1,920	1,220	2,680	5,820	22%
Central	20,500	240	2,610	7,250	10,100	37%
West	24,900	2,850	3,030	4,730	10,610	39%
Cana	0	0	0	0	0	0%
No Municipal Water	1,500	450	0	0	450	2%
City of Kingston	60,400	5,470	6,860	14,660	26,980	100%

^[1] Population includes net Census undercount estimated at approximately 3.1%

^[2] Includes single and semi-detached houses.

^[3] Includes townhouses and apartments in duplexes.

^[4] Includes bachelor, 1-bedroom, 2-bedroom+ apartment units and secondary suites.

Note: Figures have been rounded and may not add up precisely.

Source: Watson & Associates Economists Ltd.



Figure 8-7
City of Kingston
Employment Growth by Sector Wastewater Catchment Area, 2023 to 2051
Medium (Recommended) Growth Scenario

Wastewater Catchment Area	Primary ^[1]	Work at Home	Industrial	Commercial/ Population-Related	Institutional	N.F.P.O.W. ^[2]	Total Employment	Total Employment Growth Share
East	0	560	1,890	2,320	2,080	650	7,500	22%
Central	0	850	500	3,510	6,010	980	11,850	35%
West	0	1,030	4,800	4,250	2,150	1,190	13,420	40%
No Municipal Wastewater	80	60	140	250	20	70	620	2%
City of Kingston	80	2,500	7,330	10,340	10,260	2,880	33,390	100%

^[1] Primary employment includes agriculture, forestry, fishing, hunting, mining and oil and gas extraction industries.

^[2] Statistics Canada defines no fixed place of work (N.F.P.O.W.) 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."

Note: Figures have been rounded and may not add up precisely.

Source: Watson & Associates Economists Ltd.



Chapter 9

Conclusions



9. Conclusions

This growth forecast for the Kingston C.M.A. and the City of Kingston has been provided within the context of macro-economic conditions, as well as region-wide and local development trends. A detailed review has also been undertaken with respect to the impacts of changing demographic and socio-economic trends regarding the City's permanent and study population base on the City's long-term population and employment growth outlook. The key findings of the growth forecast are discussed below.

Macro-Economic and Regional Trends

- The population growth outlook for Eastern Ontario, which includes the Kingston C.M.A. and the City of Kingston, has progressively strengthened over the past decade following a steady provincial economic recovery from the 2008/2009 global financial crisis.
- The regional economy has also shown a strong rebound since COVID-19, with the Kingston C.M.A.'s employed labour force at a record high and an unemployment rate at an all-time low.
- Near-term provincial G.D.P. growth slowed notably in 2023 and has continued to slow in 2024 due to the high cost of borrowing and persistent inflation at levels above target by the Bank of Canada. While national and provincial G.D.P. is anticipated to rebound by 2025/2026 in response to recent and anticipated interest rate cuts by the Bank of Canada, we would note that macro-economic conditions across Canada and Ontario have softened within the past year. As a result, the national housing market recently started to show signs of cooling with respect to sales and price appreciation. These trends, however, vary by region across Canada. Comparatively, the housing market across the Kingston C.M.A. has softened since the height of the pandemic with respect to sales, housing starts, and housing prices.
- The industrial sector across the regional economy was slow to recover from the 2008/2009 global economic downturn; however, since 2015 the City has experienced steady economic growth across its export-based sectors. Competitively priced employment lands continue to attract demand to the City of Kingston for new industrial development and expansion.



- Immediately following the onset of the pandemic, Canada's federal government increased its immigration targets, which are now set at 500,000 new permanent residents in 2025 and 2026. Recent data indicates that a growing share of new Canadians are choosing to reside in the Kingston C.M.A. and the City of Kingston.
- As a result of these broader economic and demographic trends, the Kingston C.M.A. and the City of Kingston experienced relatively stronger population, housing, and employment growth over the past decade, compared to previous historical periods. Both the City and the C.M.A. are tracking higher relative to the population forecasts prepared under the 2019 Growth Projections Study.
- While it is important to recognize slowing global economic trends and a weaker near-term economic outlook, the provincial and regional economy is anticipated to steadily expand over the medium to long term, driving relatively stronger population growth from net migration to the Kingston C.M.A. and the City.
- In turn, relatively stronger net migration over the long term is anticipated to generate steady demand for new ownership and rental housing to accommodate the City's growing permanent and student population base.

City of Kingston Recommended Population, Housing, and Employment Growth Forecast

- Under the Medium Growth Scenario, the total population, which includes the permanent population (permanent and non-permanent residents adjusted for the net Census undercount) and students not captured by the Census, is forecast to grow from 154,100 in 2021 to 220,900 in 2051, an increase of 66,800 people.
- The total housing forecast, including households occupied by the permanent population and off-campus student households not captured by the Census is expected to grow from 62,900 in 2021 to 92,200 in 2051, an increase of 29,300 households.
- The Medium Growth Scenario represents the "recommended" growth forecast scenario for the City of Kingston for long-range planning purposes. Over the 2021 to 2051 period, under the Medium Growth Scenario the permanent population is forecast to grow from 136,600 to 197,000, increasing at a rate of 1.2% annually. This is noticeably higher relative to the historical annual growth rate of 0.7% achieved from 2001 to 2021.



- An additional 27,000 new permanent households will need to be constructed within the City between 2021 and 2051 to accommodate future population growth. It is important to note that the permanent housing forecast excludes student housing needs not captured in the Census. Additional housing needs have also been identified in the near term to address existing housing deficiencies in the rental housing market and current non-market housing needs.^[1]
- Housing preferences by structure type are anticipated to gradually shift towards medium- and high-density housing forms over the long term due largely to the aging of the population and from continued upward pressure on housing prices. The City of Kingston 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 the permanent population. The 2021 to 2051 permanent housing forecast comprises 20% low-density, 25% medium-density, and 54% high-density households.
- Full-time post-secondary student enrolment is forecast to increase from 34,000 in 2021 to 48,300 in 2051. Of this total, 6,400 students are identified as not captured in the Census. These students are anticipated to live off-campus, resulting in the need for an additional 2,300 housing units not captured in the permanent housing forecast.
- Taking into account the City's total housing needs, including student housing needs not captured in the Census, the City's 10-year annual housing forecast is just over 1,400 units per year or 14,000 total housing units.
- The recommended housing forecast exceeds the 10-year housing target of 8,000 units, as set out in the Bill 23 Municipal Housing Pledge by the Province of Ontario. The recommended housing forecast also exceeds the four-year housing target of 1,200 units annually, as set by City of Kingston Council.
- The City of Kingston employment is forecast to increase from 80,500 to 113,900, increasing by 33,400 jobs across a broad range of sectors to provide services to the increasing population and accommodate strong industrial demand.

^[1] City of Kingston, Housing Needs Assessment. July 26, 2023. Watson & Associates Economists Ltd.



City of Kingston Recommended Population, Housing and Employment Growth Forecast Allocations

Planning Policy Area Allocations

- Over the 2021 to 2051 forecast period, 60% of future permanent housing growth or 16,170 units is forecast to be accommodated in the B.U.A. The B.U.A. has limited opportunities to accommodate low-density housing due to the low availability of vacant residential land; however, there are opportunities to accommodate missing-middle medium-density and high-density housing development through intensification.
- The City's D.G.A. is forecast to accommodate 38% of the City's future housing unit growth from 2021 to 2051, providing a broad range of housing options and 85% of the City's total low-density housing growth to 2051.
- The Rural Area is forecast to accommodate 450 low-density housing units from 2021 to 2051.

Sub-Area Allocations

- Kingston West is anticipated to represent the City's largest urban growth area over the next three decades. The area is forecast to accommodate approximately two-fifths of the City's population and employment growth, including half the City's low-density housing and two-thirds of its industrial growth.
- Kingston Central is anticipated to accommodate just over one-third of the City's population and 35% of its employment growth to 2051, including half the City-wide high-density housing units and three-fifths of the institutional employment growth.
- Just under one-quarter of the City's population and employment growth to 2051 is anticipated to be accommodated in Kingston East, providing a broad range of housing and employment options.
- Kingston North is forecast to accommodate 1% of the City's population and employment growth.
- It is important to note that in addition to the permanent population and housing growth identified above, 6,400 post-secondary students within 2,300 new dwellings are forecast in Kingston Central.



Water and Wastewater Catchment Areas

- The Kingston West Water and Wastewater Catchment Areas are forecast to comprise 41% and 39% of the City's population and housing growth from 2021 to 2051, respectively. Employment in Kingston West is forecast to accommodate 40% of the City's total employment growth from 2023 to 2051.
- The Kingston Central Water and Wastewater Catchment Areas are forecast to accommodate 34% and 37% of the City's 2021 to 2051 population and housing growth, respectively. The area will also accommodate the post-secondary student population and housing not captured in the Census. Kingston Central is forecast to account for 35% of the City's total employment growth to 2051.
- Kingston East Water and Wastewater Catchment Areas are forecast to comprise 23% and 22% of the City's population and housing growth, respectively, and 23% of the City's total employment growth from 2023 to 2051.
- The Cana Water Serviced Area is not forecast to accommodate additional population and employment to 2051.
- Areas with no City Water or Wastewater servicing are forecast to account for 2% of the City's population, housing, and employment growth to 2051. This growth is composed of areas in the Kingston North and East Sub-Areas.

This population, housing, and employment growth analysis forms an important foundational report and integral component to each of the other technical reports prepared as part of the City's Growth Analysis and Urban Land Needs Assessment Study process. This report informs a number of variables that are further explored through the Community Area Land Needs and Intensification Analysis Report, Employment Land Needs Review Report, and the Commercial Land Needs Review and Strategic Directions.^[1]

^[1] City of Kingston Community Area Land Needs and Residential Intensification Analysis Report, July 2024; and City of Kingston Commercial Land Needs Review and Strategic Directions, August 2024. City of Kingston Employment Land Needs Review Report, August 2024.

Appendices



Appendix A

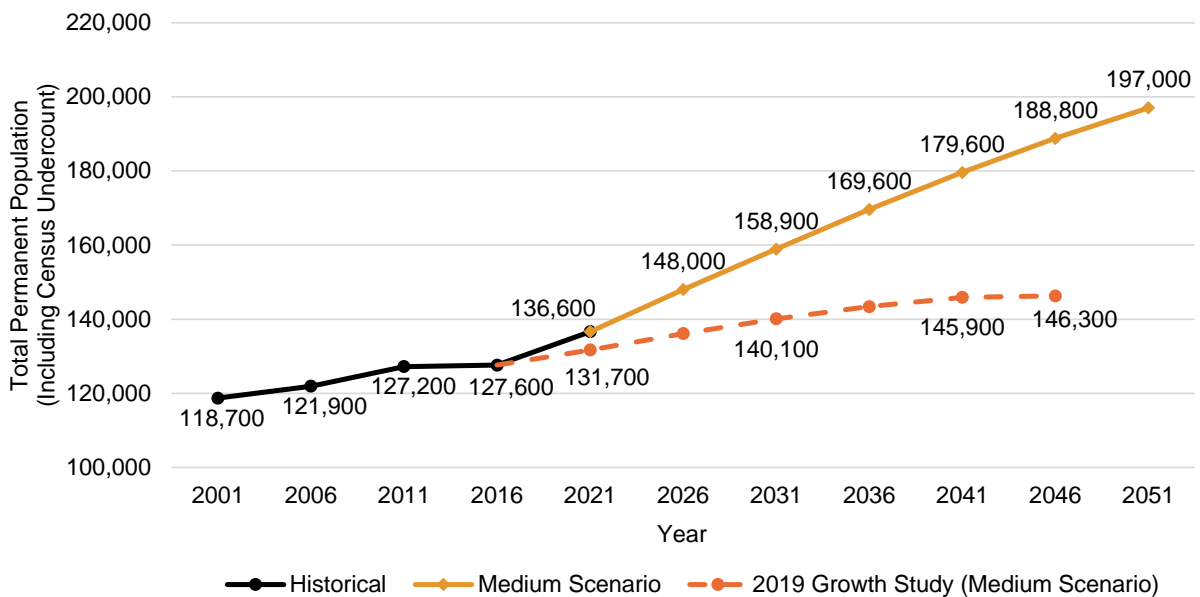
City of Kingston Population, Housing and Employment Projection Comparison



Appendix A: City of Kingston Population, Housing and Employment Projection Comparison

Figures A-1 and A-2 compares the permanent population and households in the City of Kingston, respectively, from the 2019 Growth Study to the current Reference Scenario presented in this report. The previous 2019 study projected that the City of Kingston would achieve a population of 131,700 by 2021, however, the 2021 population for the City of Kingston is reported at 136,600, a difference of 4,900 people.

Figure A-1
City of Kingston
Population Forecast Comparison

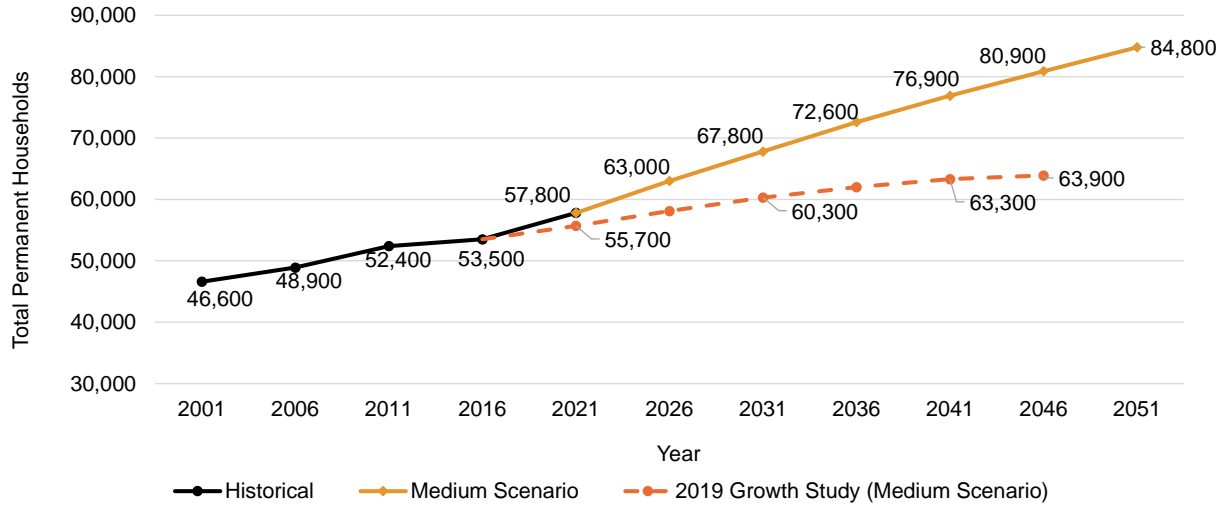


Source: 2001 to 2021 derived from Statistics Canada Census data. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 by forecasted by Watson & Associates Economist Ltd.

Figure A-2 summarizes the permanent household forecast from the previous 2019 projections study to this current one. It is noted that the previous household estimates underestimated the 2021 Census actuals by roughly 2,100 units.



Figure A-2
City of Kingston
Household Forecast Comparison



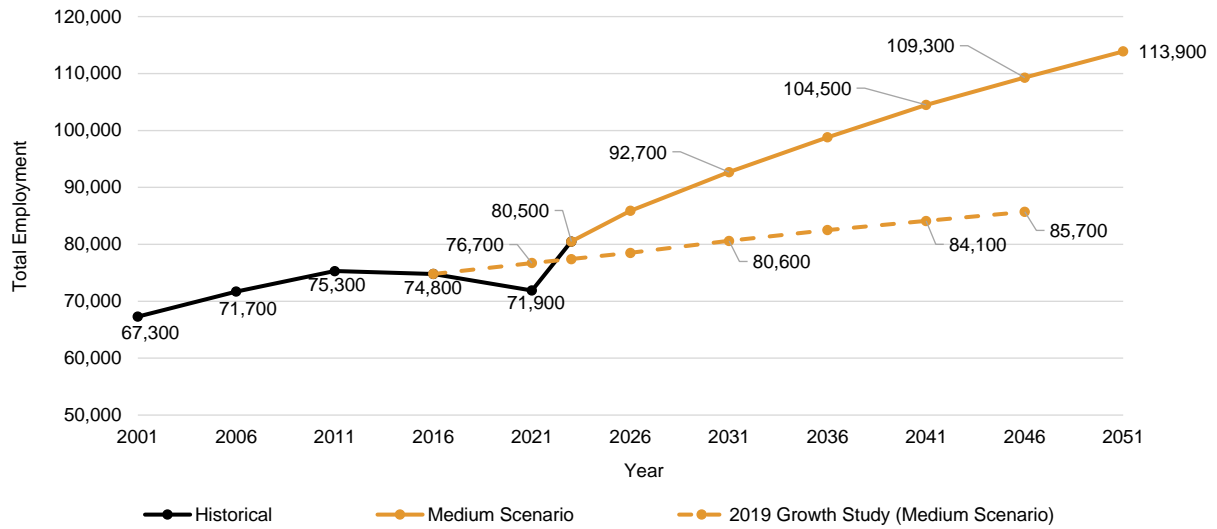
Source: 2001 to 2021 derived from Statistics Canada Census data. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 by forecasted by Watson & Associates Economist Ltd.

While the 2021 Census population is slightly higher than what the 2019 study projected, by 2046 this study diverges from the 2019 study regarding permanent population, with a difference of 42,500 persons. Similar to the permanent population forecast, by 2046, the 2019 study is significantly exceeded by this study, with the 2019 study having approximately 17,000 fewer housing units than the forecasted Base Case Scenario (63,900 housing units).

Figure A-3 presents the total employment forecast from the 2019 study compared to the Reference Scenario. In total, the previous 2019 study’s employment forecast for 2023 was exceeded by the 2023 employment estimate by approximately 3,100 jobs. The Medium (Recommended) Scenario long-term total employment is similar to the population and housing forecasts, showing significantly higher growth than the 2019 study. By 2046, the Medium (Recommended) Scenario is forecasted to reach 109,300 employees, a difference of 23,600 more jobs compared to the 2019 projections study.



Figure A-3
City of Kingston
Employment Forecast Comparison



Source: Historical derived from Statistics Canada Census and Demography Division data, 2006 to 2021. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 forecast by Watson & Associates Economists Ltd



Appendix B

Growth Forecast Approach and Methodology



Appendix B: Growth Forecast Methodology

Approach and Methodology

There are a number of local factors that are anticipated to influence the amount, type and location of development within the City of Kingston. Such factors include: the City's competitive position relative to surrounding municipalities within the regional market area, the supply of available urban serviced land, availability of future lands for urban expansion, local real-estate market conditions, and forecast trends in housing affordability, to name a few. The City's student population and housing growth potential is also influenced by a number of macro-economic and local factors, such as national and provincial population growth trends by age, university enrolment trends, forecast demand associated with foreign students, and on-campus vs. off-campus student housing supply opportunities. Lastly, provincial and local planning policy can also influence the location, built-form / density and rate of residential and non-residential development activity.

The population, household, and employment forecast methodology adopted for this study utilizes a combined forecasting approach that incorporates both the traditional "top-down" cohort-survival forecast methodology (i.e., population by age-cohort) and a "bottom-up" household formation methodology. This combined approach is adopted to ensure that both regional economic/demographic trends and local housing market conditions are adequately assessed in developing the long-term growth potential for the City of Kingston.

A.1 Economic Base Model

Local/regional economic activities can be divided into two categories: those that are "export-based," and those that are "community-based." The export-based sector comprises industries (i.e., economic clusters) that produce goods that reach markets outside the community (e.g., agriculture and primary resources, manufacturing, research and development). Export-based industries also provide services to temporary and second-home residents of the City of Kingston (hotels, restaurants, tourism-related sectors, colleges, and universities) or to businesses outside the region (specialized financial and professional, scientific and technical services). Community-based industries produce services that primarily meet the needs of the residents in the City (retail, medical, primary and secondary education, and personal and government



services). Ultimately, future permanent population and housing growth within the City of Kingston has been determined in large measure by the competitiveness of the export-based economy within the City of Kingston and the surrounding market area (Kingston C.M.A.).

On the other hand, population growth in the 75+ cohort will continue to be largely driven by the aging of the City's existing population and, to a lesser extent, the attractiveness of the City to older adults and seniors through net migration.

A.2 Cohort-Survival Population and Household Forecast Methodology

The cohort-survival population forecast methodology uses, as its base, population age groups by sex, and ages each group over time, taking into consideration age-specific death rates and age-specific fertility rates for the female population in the appropriate years (to generate new births). To this total, an estimated rate of net migration is added (in-migration to the municipality, less out-migration, by age group).

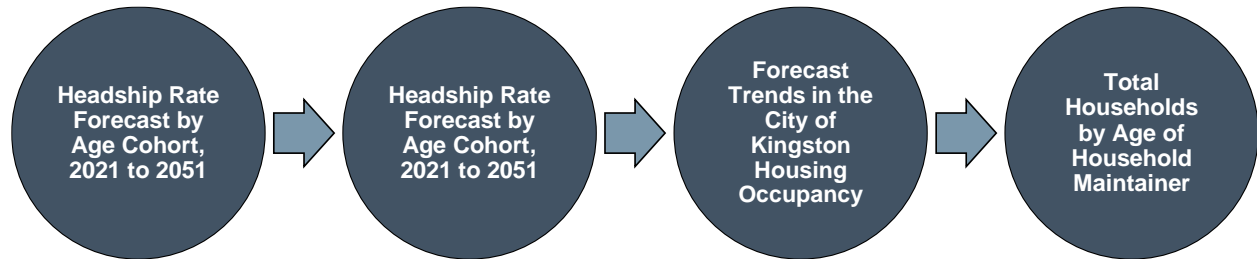
Forecast trends in population age structure provide important insights with respect to future housing needs based on forecast trends in average household occupancy. Total housing growth is generated from the population forecast by major age group using a headship rate forecast.

A headship rate is defined as the number of primary household maintainers or heads of households by major population age group (i.e., cohort). Average headship rates do not tend to vary significantly over time by major age group; however, the number of maintainers per household varies by population age group. For example, the ratio of household maintainers per total housing occupants is higher on average for households occupied by older cohorts (i.e., 55+ years of age) as opposed to households occupied by adults 29 to 54 years of age. This is important because, as the City of Kingston's population ages, the ratio of household maintainers is anticipated to increase. The average headship rate represents the inverse of the average number of persons per unit (P.P.U.). As such, as the City's population ages over time, the average P.P.U. is forecast to steadily decline as the ratio of household maintainers per total housing occupants increases. Figure B-1 summarizes the cohort-survival forecast methodology,



which is a provincially accepted approach to projecting population and the corresponding total household formation.^[1]

Figure B-1
Cohort-Survival Population and Household Forecast Methodology



This forecasting approach has been developed in accordance with the Ontario Provincial Projection Methodology Guidelines and industry best practices.^[2] This approach focuses on the rate of historical housing construction in the City of Kingston and the surrounding area, adjusted to incorporate supply and demand factors by geographic area, such as servicing constraints, housing units in the development process, and historical housing demand. Population is then forecast by developing assumptions on average household size by unit type, taking into consideration the higher average occupancy of new housing units and the decline in P.P.U. over time within existing households.

A.3 Employment Forecast

The long-term employment growth potential for the City of Kingston has been developed from the labour force growth forecast, which considers both the rate and age structure of forecast labour force growth over the 2021 to 2051 planning horizon. A long-term employment growth forecast by major employment sector/category (i.e., primary, industrial, commercial, institutional, work at home) was then established using a cluster

^[1] Projection Methodology Guideline. A Guide to Projecting Population, Housing Need, Employment and Related Land Requirements, 1995.

^[2] Projection Methodology Guideline. A Guide to Projecting Population, Housing Need, Employment and Related Land Requirements, 1995.



analysis and employment “activity rate” method.^[1] Please refer to the City of Kingston Employment Land Review Report for additional details.

When forecasting long-term employment, it is important to understand how employment growth in the City of Kingston by major employment category (i.e., industrial, commercial and institutional) is impacted by forecast labour force and population growth. Population-related employment (i.e., retail, schools, services, and commercial) is generally automatically attracted to locations convenient to residents. Typically, as the population grows, the demand for population-related employment also increases, to service the needs of the local community. Forecast commercial and institutional activity rates have been based on historical activity rates and employment trends, and future commercial and institutional employment prospects within a local and regional context. Similar to population-related employment, home-based employment is also anticipated to generally increase in proportion to population growth.^[2]

Industrial and office commercial employment (export-based employment), on the other hand, is not closely linked to population growth. This type of employment tends to be more influenced by broader market conditions (i.e., economic competitiveness, transportation access, access to labour, and distance to employment markets) and local site characteristics such as servicing capacity, highway access and exposure, site size/ configuration, physical conditions, and site location within existing and future Employment Areas throughout Kingston and the surrounding market area. As such, industrial employment (employment lands employment) is not anticipated to increase in direct proportion to population growth and has been based on a review of the following:

- Macro-economic trends influencing industrial and employment lands development (i.e., industrial and office employment) within Kingston and the surrounding market area);

^[1] An employment activity rate is defined as the number of jobs in a municipality divided by the number of residents.

^[2] Due to further advancements in telecommunications technology, it is anticipated that home-based employment activity rates may increase over the forecast period for the City.



- Historical employment trends (i.e., review of established and emerging employment clusters), non-residential construction activity, and recent employment land absorption rates; and
- The availability of serviced industrial and employment land supply and future planned greenfield development opportunities on vacant designated industrial and employment lands within Kingston and the surrounding market area.



Appendix C

City of Kingston Housing Headship Rates



Appendix C: City of Kingston Housing Headship Rates, 2001 to 2051

Year	Total	Under 25	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75+ years
2001	0.3925	0.0844	0.4386	0.5150	0.5547	0.5749	0.6205	0.6415
2006	0.4018	0.0830	0.4243	0.5140	0.5532	0.5918	0.6075	0.6518
2011	0.4121	0.1814	0.4350	0.5140	0.5696	0.5788	0.6411	0.6287
2016	0.4196	0.1782	0.4498	0.5069	0.5666	0.5827	0.6130	0.6132
2021	0.4234	0.1935	0.4422	0.5099	0.5594	0.5853	0.6091	0.6188
2026	0.4258	0.1935	0.4422	0.5099	0.5594	0.5853	0.6091	0.6188
2031	0.4269	0.1935	0.4422	0.5099	0.5594	0.5853	0.6091	0.6188
2036	0.4282	0.1935	0.4422	0.5099	0.5594	0.5853	0.6091	0.6188
2041	0.4284	0.1935	0.4422	0.5099	0.5594	0.5853	0.6091	0.6188
2046	0.4287	0.1935	0.4422	0.5099	0.5594	0.5853	0.6091	0.6188
2051	0.4306	0.1935	0.4422	0.5099	0.5594	0.5853	0.6091	0.6188

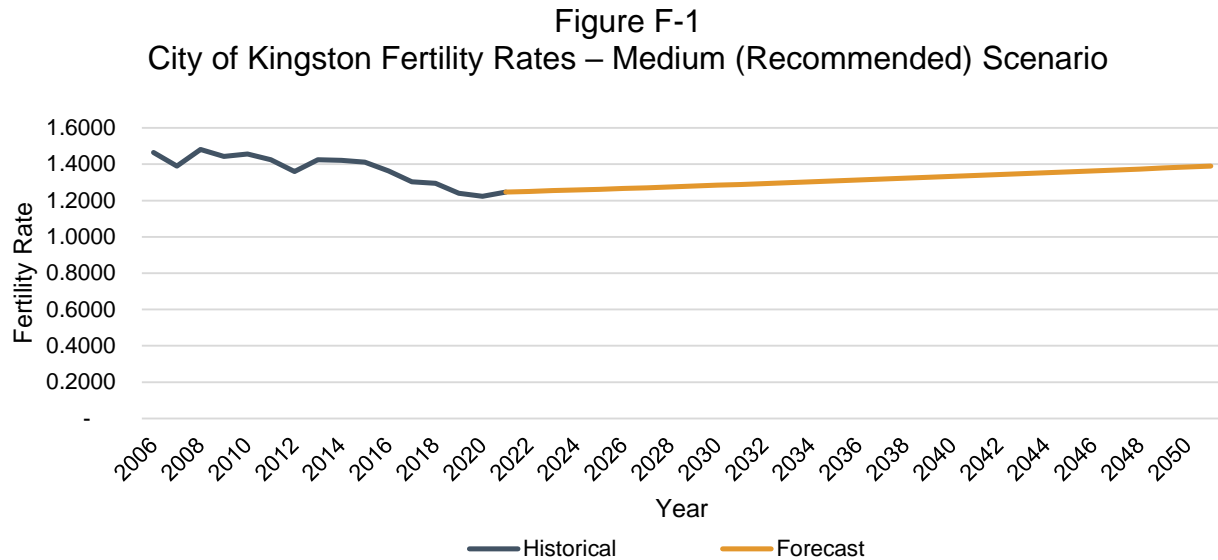


Appendix D

Kingston C.M.A. Population, Housing and Employment Forecast, 2021 to 2051



Appendix D: Kingston C.M.A. Permanent Population, Housing and Employment Forecast, 2021 to 2051

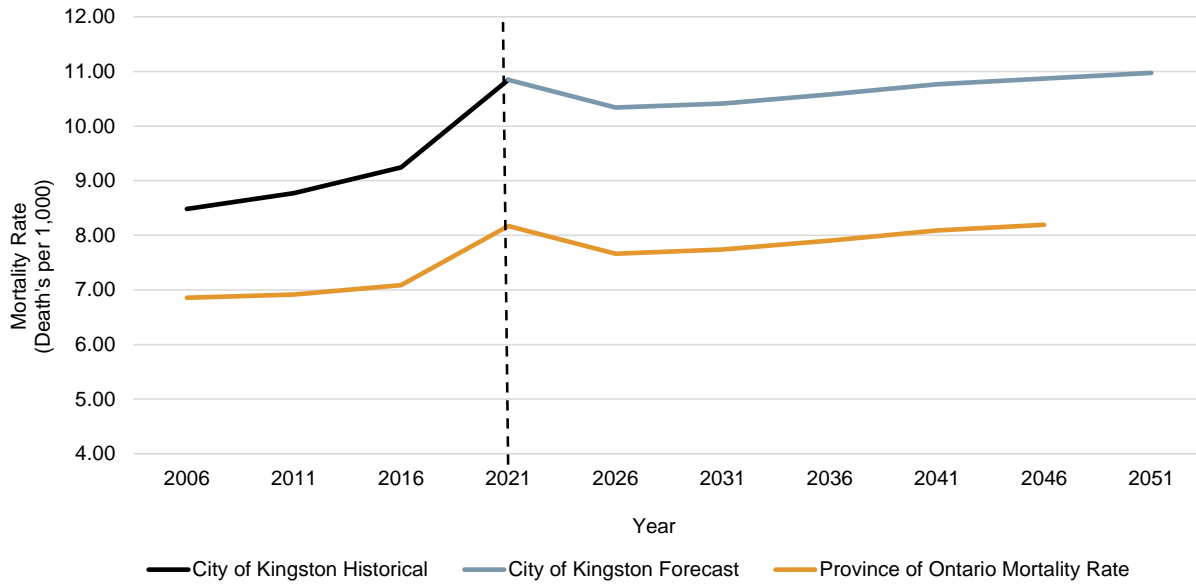


Source: Historical fertility rate data by age of mother provided by Vital Statistics, Ontario, Office of the Registrar General. Total fertility rate data provided by Statistics Canada Demography Division (Catalogue no. 91C0005). Fertility rate forecast prepared by Watson & Associates Economists Ltd.
 Note: Province of Ontario fertility rate forecast (reference scenario) is assumed to increase from 1.4 to 1.5 between 2023 and 2046, in accordance with Ministry of Finance (MoF), Ontario Population Projections Update, Spring 2023.

Period	Fertility Rate
Historical 10-Year (2012 to 2021)	1.3289
Historical 5 year (2017 to 2021)	1.2617
Forecast Fertility Rate	1.3145



Figure D-2
Kingston C.M.A. Mortality Rate – Medium (Recommended) Scenario



Source: Data from Statistics Canada Demography Division (Catalogue no. 91C0005). City of Kingston mortality rate from 2021 to 2051 forecast prepared by Watson & Associates Economists Ltd., 2024. Ontario mortality rate derived from 2021 to 2046 from Ontario Population Projections Update, Summer 2023, Ministry of Finance by Watson & Associates Economists Ltd., 2024



FigureD-3
Kingston C.M.A. Total Net Migration by Major Age Group – Medium (Recommended) Scenario

Cohort	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031	2031-2036	2036-2041	2041-2046	2046-2051
0-19	3,000	1,800	3,300	3,200	3,100	3,100	2,900	2,800	2,800
20-34	2,300	(1,400)	5,200	6,100	5,600	5,600	5,200	5,000	5,100
35-44	0	(500)	1,000	2,400	2,500	2,400	2,300	2,300	2,300
45-54	200	100	700	900	900	800	800	700	700
55-74	400	900	1,900	1,800	2,000	1,800	1,800	1,700	1,600
75+	(100)	300	400	500	600	500	500	500	400
Total	5,800	1,200	12,500	15,000	14,700	14,300	13,500	13,100	13,000

Note: Figures may not add precisely due to rounding.

Source: Data from Statistics Canada Demography Division (Catalogue no. 91C0005). 2021 to 2051 forecast prepared by Watson & Associates Economists Ltd., 2024.

Figure D-4
Kingston C.M.A. Net Migration by Major Age Group by Share– Medium (Recommended) Scenario

Cohort	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031	2031-2036	2036-2041	2041-2046	2046-2051
0-19	51%	154%	26%	21%	21%	21%	21%	21%	22%
20-34	39%	-122%	42%	41%	38%	39%	39%	39%	39%
35-44	0%	-39%	8%	16%	17%	17%	17%	18%	18%
45-54	3%	8%	6%	6%	6%	6%	6%	6%	6%
55-74	7%	75%	15%	12%	14%	13%	13%	13%	12%
75+	-1%	25%	3%	4%	4%	4%	4%	4%	3%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: Figures may not add precisely due to rounding.

Source: Data from Statistics Canada Demography Division (Catalogue no. 91C0005). 2021 to 2051 forecast prepared by Watson & Associates Economists Ltd., 2024.



Figure D-5
Kingston C.M.A. Permanent Population Forecast – Medium (Recommended) Scenario

Cohort	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
0-19	35,600	34,900	33,500	34,700	35,000	35,600	36,900	39,000	41,100	42,000
20-34	32,800	36,000	34,700	38,100	43,200	46,600	49,500	50,900	51,000	51,500
35-44	23,700	20,300	19,700	22,100	25,800	27,800	28,700	30,300	32,400	33,800
45-54	23,900	25,400	23,400	20,500	21,200	24,600	28,300	30,100	30,800	32,400
55-64	18,900	21,600	23,300	25,200	23,700	21,200	22,000	25,300	28,700	30,500
65-74	12,100	13,900	17,600	20,800	22,700	24,600	23,600	21,400	22,100	25,300
75+	11,300	12,200	13,800	16,300	20,700	25,400	30,400	35,100	37,400	38,400
Total	158,300	164,300	166,000	177,800	192,200	206,000	219,400	232,000	243,600	253,800

Note: Figures may not add precisely due to rounding.

Source: Data from Statistics Canada Demography Division (Catalogue no. 91C0005). 2021 to 2051 forecast prepared by Watson & Associates Economists Ltd., 2024.



Figure D-6
Kingston C.M.A. Permanent Population Forecast – Medium (Recommended) Scenario

Cohort	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
0-19	23%	21%	20%	20%	18%	17%	17%	17%	17%	17%
20-34	21%	22%	21%	21%	22%	23%	23%	22%	21%	20%
35-44	15%	12%	12%	12%	13%	13%	13%	13%	13%	13%
45-54	15%	15%	14%	12%	11%	12%	13%	13%	13%	13%
55-64	12%	13%	14%	14%	12%	10%	10%	11%	12%	12%
65-74	8%	8%	11%	12%	12%	12%	11%	9%	9%	10%
75+	7%	7%	8%	9%	11%	12%	14%	15%	15%	15%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: Figures may not add precisely due to rounding.

Source: Data from Statistics Canada Demography Division (Catalogue no. 91C0005). 2021 to 2051 forecast prepared by Watson & Associates Economists Ltd., 2024.



Figure D-7
Kingston C.M.A. Household Forecast – Medium (Recommended) Scenario

Year	Population (Including Census Undercount) ^[1]	Population (Excluding Census Undercount) ^[1]	Total Households	Persons Per Unit (P.P.U.) with Undercount	Person Per Unit (P.P.U.) without Undercount
Mid-2011	164,300	159,600	65,960	2.49	2.42
Mid-2016	166,000	161,200	67,920	2.44	2.37
Mid-2021	177,800	172,500	73,510	2.42	2.35
Mid-2026	192,200	186,500	80,210	2.40	2.33
Mid-2031	206,000	199,900	86,830	2.37	2.30
Mid-2036	219,400	212,900	93,220	2.35	2.28
Mid-2041	232,000	225,200	99,020	2.34	2.27
Mid-2046	243,600	236,400	104,395	2.33	2.26
Mid-2051	253,800	246,300	109,570	2.32	2.25
Mid-2011 to Mid-2016	1,700	1,600	1,960	-	-
Mid-2016 to Mid-2021	11,800	11,300	5,590	-	-
Mid-2021 to Mid-2031	28,200	27,400	13,320	-	-
Mid-2021 to Mid-2041	54,200	52,700	25,510	-	-
Mid-2021 to Mid-2051	76,000	73,800	36,060	-	-

^[1] Census undercount estimated at approximately 3.1%. Note: Figures may not sum precisely due to rounding.

^[2] Includes townhouses and apartments in duplexes.

^[3] Includes bachelor, 1-bedroom, 2-bedroom+ apartment units and secondary suites.

Note: The institutional population includes establishments primarily engaged in providing residential care combined with either nursing, supervisory or other types of care as required by the residents. These facilities are a significant part of the production process and the care provided is a mix of health and social services, with the health component being largely nursing services.

Source: 2011 to 2021 derived from Statistics Canada Census data. 2021 to 2051 by forecast by Watson & Associates Economists Ltd.



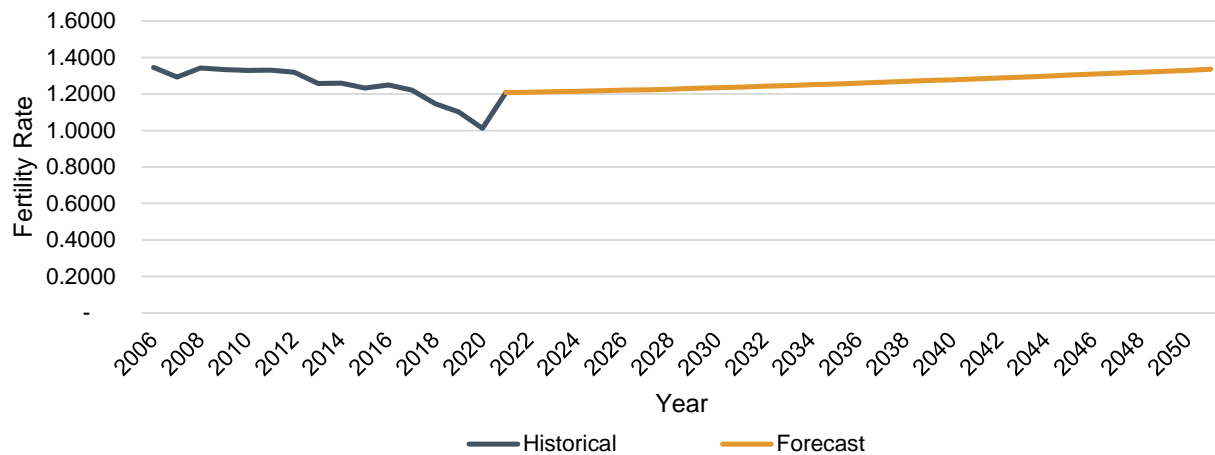
Appendix E

City of Kingston Permanent, Household and Employment Forecast, 2021 to 2051



Appendix E: City of Kingston Permanent Population, Housing and Employment Forecast, 2021 to 2051

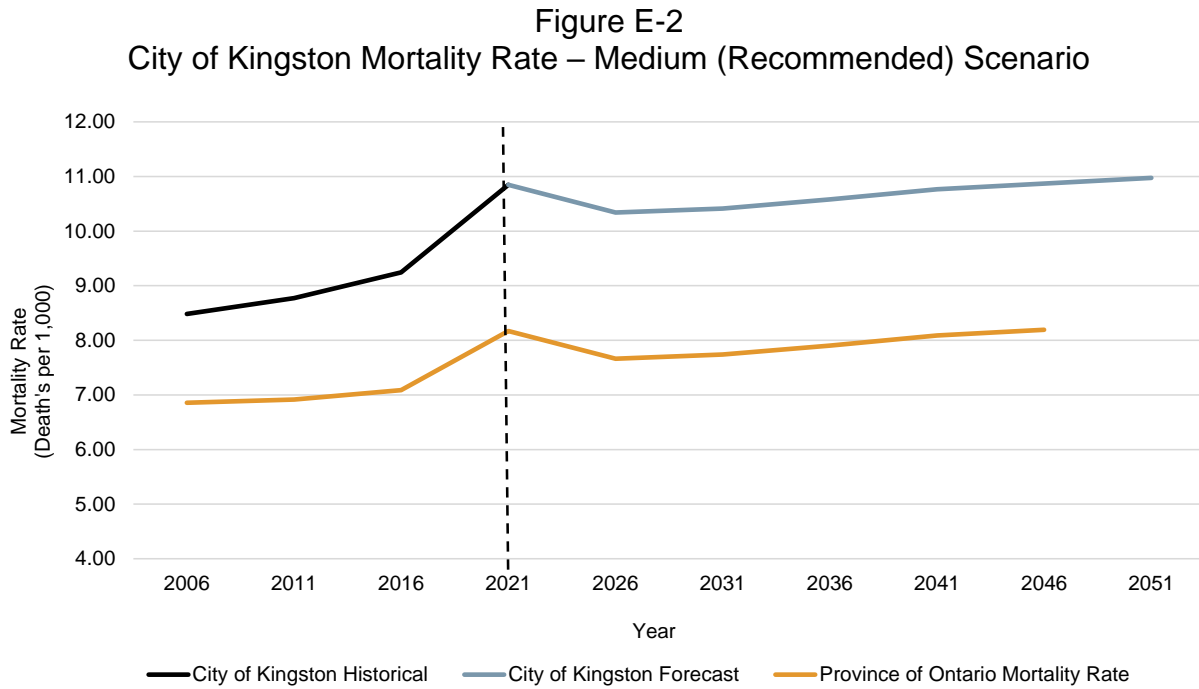
Figure E-1
City of Kingston Fertility Rates – Medium (Recommended) Scenario



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 1.5 to 1.6 between 2017 and 2041, in accordance with Ministry of Finance (MoF), Ontario Population Projections Update, Spring 2023

Period	Fertility Rate
Historical 10-Year (2012 to 2021)	1.2007
Historical 5 year (2017 to 2021)	1.1380
Forecast Fertility Rate	1.2652



Source: Data from Statistics Canada Demography Division (Catalogue no. 91C0005). City of Kingston mortality rate from 2021 to 2051 forecast prepared by Watson & Associates Economists Ltd., 2024. Ontario mortality rate derived from 2021 to 2046 from Ontario Population Projections Update, Summer 2023, Ministry of Finance by Watson & Associates Economists Ltd., 2024



Figure E-3
City of Kingston Total Net Migration by Major Age Group – Medium (Recommended) Scenario

Cohort	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031	2031-2036	2036-2041	2041-2046	2046-2051
0-19	2,100	1,500	2,800	2,700	2,600	2,500	2,400	2,300	2,300
20-34	2,600	(1,200)	5,000	5,900	5,300	5,300	4,900	4,700	4,800
35-44	(200)	(800)	400	1,700	1,700	1,700	1,600	1,600	1,600
45-54	100	(300)	400	500	500	400	400	400	400
55-74	400	500	1,100	1,000	1,100	1,000	900	900	800
75+	200	600	500	500	600	500	500	500	400
Total	5,000	400	10,200	12,300	11,700	11,500	10,800	10,300	10,400

Note: Figures may not add precisely due to rounding.

Source: Data from Statistics Canada Demography Division (Catalogue no. 91C0005). 2021 to 2051 forecast prepared by Watson & Associates Economists Ltd., 2024.

Figure E-4
City of Kingston Net Migration by Major Age Group by Share– Medium (Recommended) Scenario

Cohort	2006-2011	2011-2016	2016-2021	2021-2026	2026-2031	2031-2036	2036-2041	2041-2046	2046-2051
0-19	42%	370%	27%	22%	22%	22%	22%	22%	22%
20-34	51%	-290%	49%	48%	45%	46%	46%	46%	47%
35-44	-5%	-196%	4%	14%	15%	15%	15%	15%	16%
45-54	1%	-65%	4%	4%	4%	4%	4%	4%	4%
55-74	7%	138%	11%	8%	9%	8%	9%	8%	8%
75+	3%	144%	5%	4%	5%	5%	5%	5%	4%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: Figures may not add precisely due to rounding.

Source: Data from Statistics Canada Demography Division (Catalogue no. 91C0005). 2021 to 2051 forecast prepared by Watson & Associates Economists Ltd., 2024.



Figure E-5
City of Kingston Permanent Population Forecast – Medium (Recommended) Scenario

Cohort	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
0-19	26,900	26,600	25,400	26,400	26,700	27,600	29,000	31,200	33,300	34,300
20-34	27,100	30,100	28,800	31,900	36,800	40,300	43,200	44,800	45,000	45,700
35-44	17,900	15,400	15,000	17,000	20,400	22,800	23,900	25,300	27,400	29,100
45-54	17,800	18,900	17,300	15,100	15,600	17,700	20,700	22,900	23,900	25,100
55-64	13,700	15,600	17,000	18,100	16,800	14,800	15,300	17,300	20,100	22,200
65-74	9,200	10,300	12,900	15,100	16,100	17,200	16,200	14,400	14,800	16,600
75+	9,400	10,100	11,300	13,000	15,700	18,500	21,300	23,800	24,300	24,000
Total	121,900	127,200	127,600	136,600	148,000	158,900	169,600	179,600	188,800	197,000

Note: Figures may not add precisely due to rounding.

Source: Data from Statistics Canada Demography Division (Catalogue no. 91C0005). 2021 to 2051 forecast prepared by Watson & Associates Economists Ltd., 2024.



Figure E-6
City of Kingston Permanent Population Forecast – Medium (Recommended) Scenario

Cohort	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
0-19	22%	21%	20%	19%	18%	17%	17%	17%	18%	17%
20-34	22%	24%	23%	23%	25%	25%	25%	25%	24%	23%
35-44	15%	12%	12%	12%	14%	14%	14%	14%	15%	15%
45-54	15%	15%	14%	11%	11%	11%	12%	13%	13%	13%
55-64	11%	12%	13%	13%	11%	9%	9%	10%	11%	11%
65-74	8%	8%	10%	11%	11%	11%	10%	8%	8%	8%
75+	8%	8%	9%	10%	11%	12%	13%	13%	13%	12%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: Figures may not add precisely due to rounding.

Source: Data from Statistics Canada Demography Division (Catalogue no. 91C0005). 2021 to 2051 forecast prepared by Watson & Associates Economists Ltd., 2024.



Figure E-7
City of Kingston Household Forecast – Medium (Recommended) Scenario

Year	Population (Including Census Undercount) ^[1]	Population (Excluding Census Undercount) ^[1]	Singles & Semi-Detached Households	Multiple Dwelling Households ^[2]	Apartment Households ^[3]	Other Households	Total Households	Persons Per Unit (P.P.U.) with Undercount	Persons Per Unit (P.P.U.) without Undercount
Mid-2011	127,200	123,400	30,110	5,380	16,640	300	52,420	2.43	2.35
Mid-2016	127,600	123,800	30,690	5,650	16,880	300	53,510	2.38	2.31
Mid-2021	136,600	132,500	32,050	6,340	19,160	300	57,840	2.35	2.28
Mid-2026	148,000	143,500	33,090	7,090	22,530	300	63,020	2.35	2.28
Mid-2031	158,900	154,100	34,160	8,370	25,010	300	67,840	2.34	2.27
Mid-2036	169,600	164,500	35,180	9,680	27,460	300	72,620	2.34	2.27
Mid-2041	179,600	174,200	36,050	10,890	29,710	300	76,940	2.33	2.26
Mid-2046	188,800	183,100	36,810	12,040	31,790	300	80,930	2.33	2.26
Mid-2051	197,000	191,100	37,510	13,190	33,820	300	84,820	2.32	2.25
Mid-2011 to Mid-2016	400	400	580	270	240	0	1,090		
Mid-2016 to Mid-2021	9,000	8,700	1,360	690	2,280	0	4,330		
Mid-2021 to Mid-2031	22,300	21,600	2,110	2,030	5,850	0	10,000		
Mid-2021 to Mid-2041	43,000	41,700	4,000	4,550	10,550	0	19,100		
Mid-2021 to Mid-2051	60,400	58,600	5,460	6,850	14,660	0	26,980		

^[1] Census undercount estimated at approximately 3.1%. Note: Figures may not sum precisely due to rounding.

^[2] Includes townhouses and apartments in duplexes.

^[3] Includes bachelor, 1-bedroom, 2-bedroom+ apartment units and secondary suites.

Note: The institutional population includes establishments primarily engaged in providing residential care combined with either nursing, supervisory or other types of care as required by the residents. These facilities are a significant part of the production process and the care provided is a mix of health and social services, with the health component being largely nursing services.

Source: 2011 to 2021 derived from Statistics Canada Census data. 2021 to 2051 by forecast by Watson & Associates Economists Ltd.



Figure E-8
City of Kingston Employment Forecast – Medium (Recommended) Scenario

Period	Population Including Undercount	Primary Employment	Work at Home Employment	Industrial Employment	Commercial/ Population Related Employment	Institutional Employment	Total Employment	N.F.P.O.W. ^[1] Employment	Total Employment (Including N.F.P.O.W.)
Mid 2011	127,600	100	3,100	9,700	25,400	31,500	69,800	5,400	75,300
Mid 2016	136,600	200	3,500	9,400	25,800	30,400	69,300	5,500	74,800
Mid 2023	140,300	100	4,900	10,900	24,300	34,300	74,500	6,000	80,500
Mid 2026	148,000	100	5,200	12,100	25,800	36,200	79,500	6,400	85,900
Mid 2031	158,900	100	5,700	13,700	28,000	38,300	85,800	6,900	92,700
Mid 2036	169,600	100	6,100	14,900	30,000	40,000	91,200	7,500	98,600
Mid 2041	179,600	200	6,600	16,000	31,700	42,000	96,500	8,000	104,400
Mid 2046	188,800	200	7,000	17,100	33,300	43,300	100,900	8,400	109,400
Mid 2051	197,000	200	7,400	18,200	34,700	44,500	105,000	8,900	113,900
Mid 2011 - Mid 2016	9,000	100	400	-300	500	-1,100	-500	0	-500
Mid 2016 - Mid 2023	3,700	-100	1,400	1,500	-1,500	3,900	5,100	500	5,700
Mid 2023 - Mid 2026	7,700	0	300	1,300	1,500	1,900	5,000	400	5,400
Mid 2023 - Mid 2031	18,600	0	800	2,800	3,600	4,000	11,300	900	12,200
Mid 2023 - Mid 2036	29,300	100	1,200	4,000	5,700	5,700	16,700	1,500	18,200
Mid 2023 - Mid 2041	39,300	100	1,700	5,200	7,400	7,700	22,000	2,000	23,900
Mid 2023 - Mid 2046	48,500	100	2,100	6,200	9,000	9,100	26,500	2,400	28,900
Mid 2023 - Mid 2051	56,700	100	2,500	7,300	10,300	10,300	30,500	2,900	33,400

^[1] Statistics Canada defines no fixed place of work (N.F.P.O.W.) 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.

Source: 2011 to 2016 data from Statistics Canada Census. Forecast (2023 to 2051) prepared by Watson & Associates Economists Ltd.



Appendix F

City of Kingston Housing Units in Development Approvals Process



Appendix F: City of Kingston Housing Units in the Development Approvals Process

Figure F-1
City of Kingston Housing Units in the Development Approvals Process

Stage of Development	Singles & Semi-Detached	Multiples ^[1]	Apartments ^[2]	Total
Committed Units	992	1,404	1,732	4,128
% Breakdown	24%	34%	42%	100%
Pending Units	248	442	5,631	6,321
% Breakdown	4%	7%	89%	100%
Total	1,240	1,846	7,363	10,449
% Breakdown	12%	18%	70%	100%

^[1] Includes townhouses and apartments in duplexes.

^[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

Source: Derived from City of Kingston data by Watson & Associates Economists Ltd.



Appendix G

City of Kingston Student Population and Housing Forecast, 2021 to 2051



Appendix G: City of Kingston Student Population and Housing Forecast, 2021 to 2051

Figure G-1
City of Kingston Full-Time Post-Secondary Student Forecast, 2021 to 2051

Year		2021	2026	2031	2036	2041	2046	2051	2021-2051	
Total Post-Secondary	Full-time	34,000	37,700	39,600	41,100	43,300	45,800	48,300	14,300	
	Total	Domestic	28,300	29,900	30,700	31,200	32,600	34,400	36,200	7,900
		International	5,700	7,800	8,900	9,900	10,700	11,400	12,100	6,400
	Share	Domestic	83.2%	79.3%	77.5%	75.9%	75.3%	75.1%	74.9%	-8.3%
		International	16.8%	20.7%	22.5%	24.1%	24.7%	24.9%	25.1%	8.3%

Note: Figures may not add precisely due to rounding.

Source: 2021 derived from post-secondary institutional and government data, by Watson & Associates Economists Ltd.

Figure G-2
City of Kingston, Total Population Forecast (Permanent Population and Students not captured by Census) 2021 to 2051

Component of Population	2021	2026	2031	2036	2041	2046	2051	2021-2051
Total Population (Permanent)	133,300	142,500	152,200	161,900	171,000	179,500	186,900	53,600
Total Population (NPR)	3,300	5,500	6,700	7,700	8,600	9,300	10,100	6,800
Total Population	136,600	148,000	158,900	169,600	179,600	188,800	197,000	60,400
Domestic Student Population Not Captured in Census	14,700	16,000	16,700	17,100	18,300	19,600	21,100	6,400
International Student Population Not Captured in 2021 Census	2,800	2,800	2,800	2,800	2,800	2,800	2,800	0
City Population	154,100	166,800	178,400	189,500	200,700	211,200	220,900	66,800

Note: Figures may not sum precisely due to rounding. Population includes the net Census undercount. All post-secondary international student growth from 2021 to 2051 is captured as part of the non-permanent resident population which comprises the Census population and associated housing.

Source: 2021 derived from Statistics Canada Census data and review of student population not captured in the Census by Watson & Associates Economists Ltd. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 forecast by Watson & Associates Economists Ltd.



Figure G-3
City of Kingston, Total Household Forecast (Permanent Population and Students not captured by Census)
2021 to 2051

-	2021	2026	2031	2036	2041	2046	2051	2021-2051
Total Households (Permanent)	57,800	63,000	67,800	72,600	76,900	80,900	84,800	27,000
Domestic Student Households Not Captured in Census	3,900	4,300	4,500	4,700	5,100	5,600	6,100	2,300
International Student Housing Not Captured in 2021 Census	1,200	1,200	1,200	1,200	1,200	1,200	1,200	0
Total Households	62,900	68,600	73,600	78,500	83,300	87,800	92,200	29,200

Note: Figures may not sum precisely due to rounding. All post-secondary international student growth from 2021 to 2051 is captured as part of the non-permanent resident population which comprises the Census population and associated housing.
Source: 2021 derived from Statistics Canada Census data and review of student population not captured in the Census by Watson & Associates Economists Ltd. 2019 Growth Study (Medium Scenario) from City of Kingston Population, Housing and Employment Growth Forecast, 2016 to 2046, Final Report, March 5, 2019. 2021 to 2051 forecast by Watson & Associates Economists Ltd.



Figure G-4
City of Kingston Total Population (Permanent Population and
Students Not Captured by Census), 2021 to 2051

Year	Permanent Population ^[1]	Students Not Captured in Census ^[1]	Total Population ^[1]
<i>Mid-2021</i>	136,600	17,500	154,100
<i>Mid-2026</i>	148,000	18,800	166,800
<i>Mid-2031</i>	158,900	19,400	178,300
<i>Mid-2036</i>	169,600	19,800	189,400
<i>Mid-2041</i>	179,600	21,100	200,700
<i>Mid-2046</i>	188,800	22,400	211,200
<i>Mid-2051</i>	197,000	23,900	220,900
Mid-2021 to Mid-2031	22,300	1,900	24,200
Mid-2021 to Mid-2041	43,000	3,600	46,600
Mid-2021 to Mid-2051	60,400	6,400	66,800

^[1] Census undercount estimated at approximately 3.1%. Population including the undercount has been rounded.

Note: Numbers may not add up precisely due to rounding.

Source: Watson & Associates Economists Ltd., 2024.



Figure G-5
City of Kingston Total Housing (Permanent Households and Student Housing),
2021 to 2051

Year	Permanent Households	Off-Campus Domestic Student Households Not Captured in Census ^[1]	Total Housing Units
<i>Mid-2021</i>	57,840	3,860	61,700
<i>Mid-2026</i>	63,020	4,300	67,320
<i>Mid-2031</i>	67,840	4,530	72,370
<i>Mid-2036</i>	72,620	4,670	77,290
<i>Mid-2041</i>	76,950	5,090	82,040
<i>Mid-2046</i>	80,930	5,590	86,520
<i>Mid-2051</i>	84,820	6,120	90,940
Mid-2021 to Mid-2031	10,000	670	10,670
Mid-2021 to Mid-2041	19,110	1,230	20,340
Mid-2021 to Mid-2051	26,980	2,600	29,240

^[1] Housing units not captured in Census.

Note: Numbers may not add up precisely due to rounding.

Source: Watson & Associates Economists Ltd.

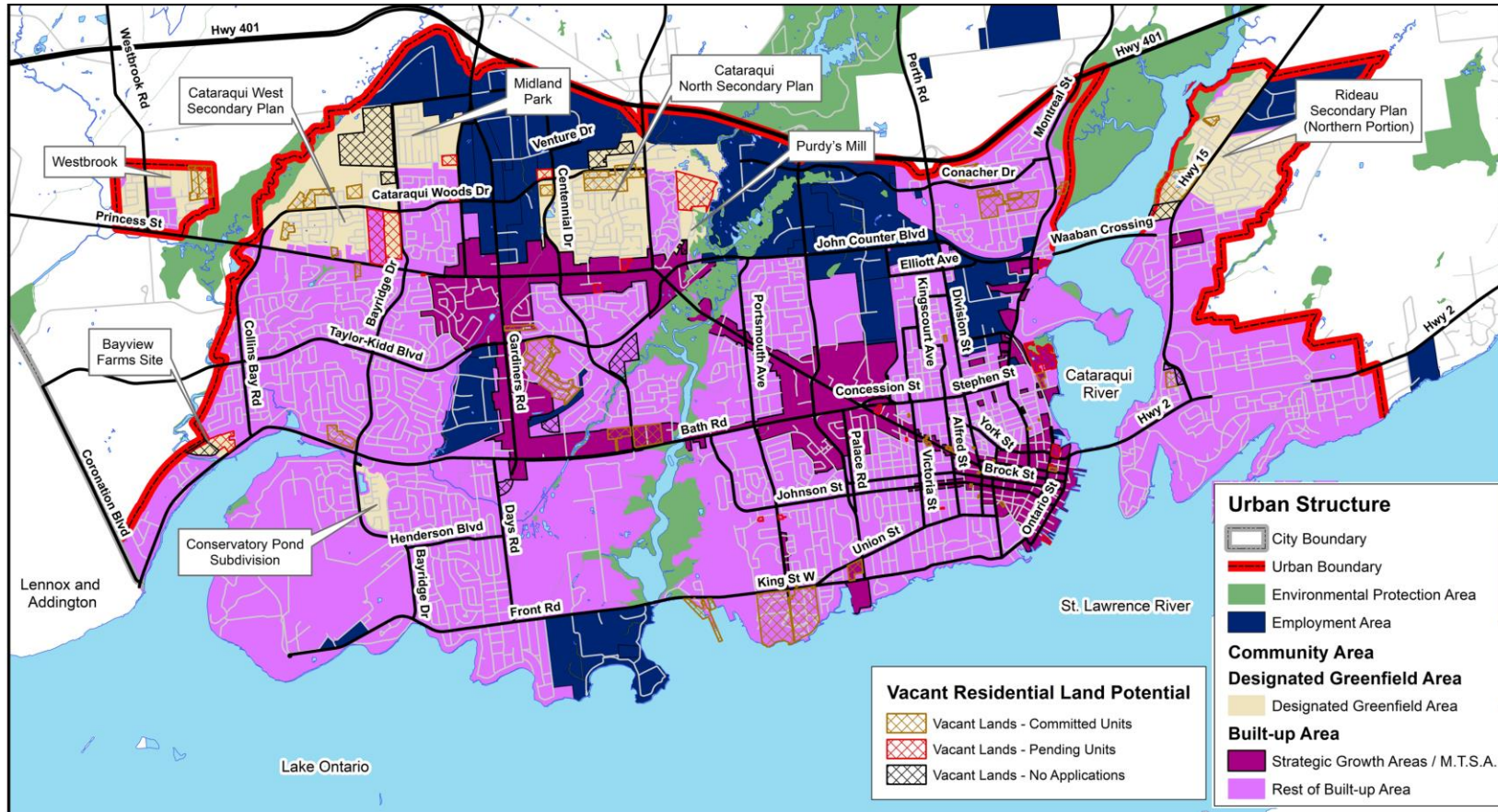


Appendix H

City of Kingston Allocation Mapping

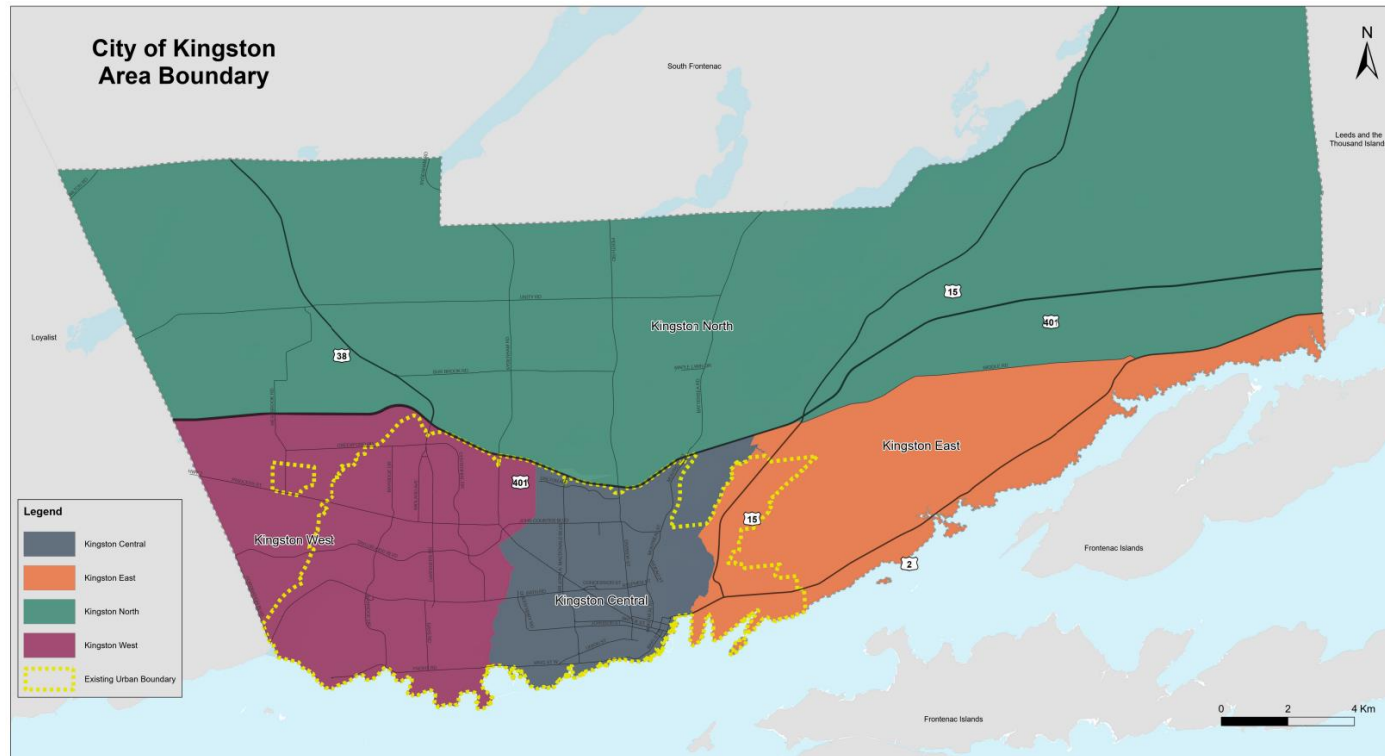


Map H-1
City of Kingston Draft Urban Structure – Key Growth Areas Assessed





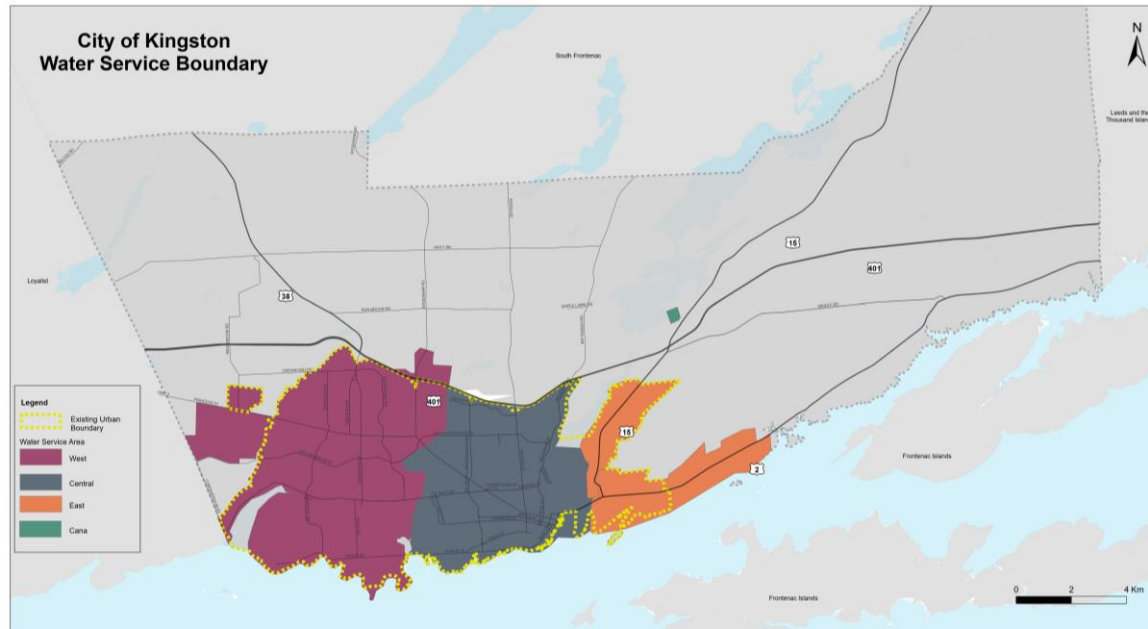
Map H-2 City of Kingston Sub-Area Boundary Map



Note: The Sub-Area boundary map illustrates the existing boundary as delineated as of August 2024. It is important to note that to accommodate growth to 2051 the urban boundary would require an expansion as identified in the City of Kingston Community Area Land Needs and Residential Intensification Analysis Report, July 2024; and City of Kingston Commercial Land Needs Review and Strategic Directions, August 2024. City of Kingston Employment Land Needs Review Report, August 2024.



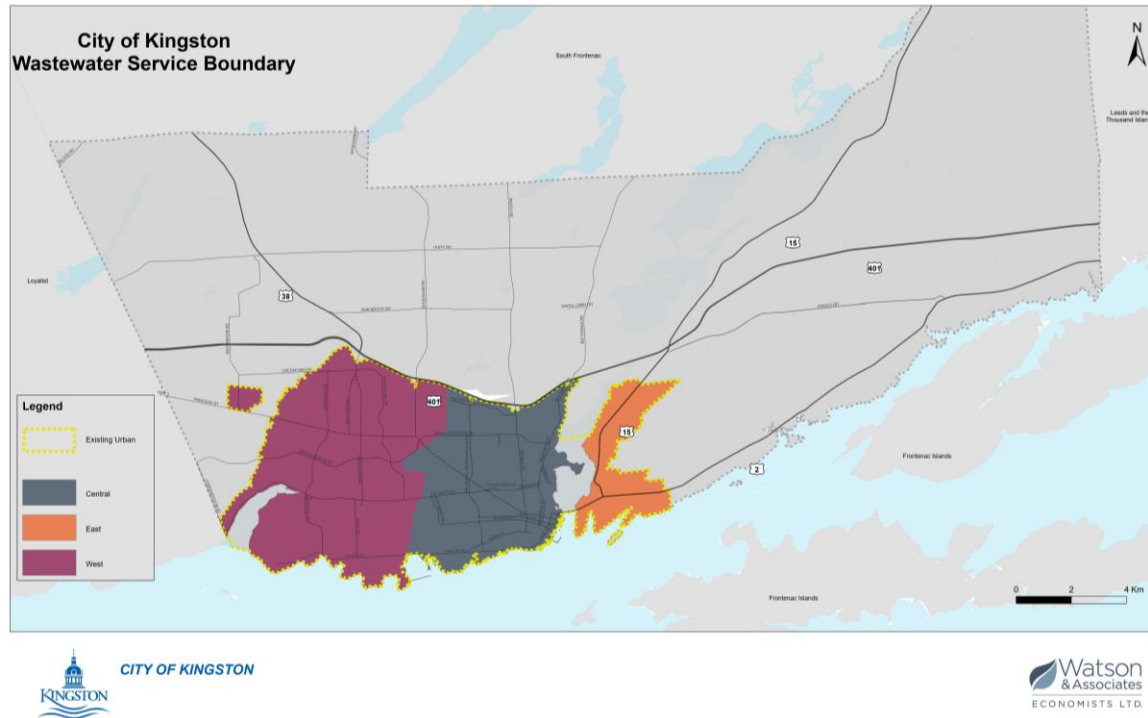
Map H-3
City of Kingston Existing Water Serviced Catchment Area Boundary Map



Note: The water serviced catchment area map illustrates the existing water serviced boundary as of August 2024. It is important to note that to accommodate growth to 2051 the water serviced area would require an expansion as identified in the City of Kingston Community Area Land Needs and Residential Intensification Analysis Report, July 2024; and City of Kingston Commercial Land Needs Review and Strategic Directions, August 2024. City of Kingston Employment Land Needs Review Report, August 2024.



Map H-4
City of Kingston Existing Wastewater Serviced Catchment Area Bounday Map



Note: The wastewater serviced catchment area map illustrates the existing wastewater serviced boundary as of August 2024. It is important to note that to accommodate growth to 2051 the wastewater serviced area would require an expansion as identified in the City of Kingston Community Area Land Needs and Residential Intensification Analysis Report, July 2024; and City of Kingston Commercial Land Needs Review and Strategic Directions, August 2024. City of Kingston Employment Land Needs Review Report, August 2024.