



**City of Kingston  
Report to Council  
Report Number 21-161**

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**To:** Mayor and Members of Council  
**From:** Paige Agnew, Commissioner, Community Services  
**Resource Staff:** Tim Park, Acting Director, Planning Services  
**Date of Meeting:** June 22, 2021  
**Subject:** Lifecycle Fiscal Impacts of Development

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**Council Strategic Plan Alignment:**

Theme: Council requests

Goal: See above

**Executive Summary:**

The Lifecycle Fiscal Impacts of Development study was initiated in response to a Council motion which directed staff to undertake a review to determine the operating and capital cost impacts of new development over the long-term, relative to the revenue generated through the taxation of such development. In November 2017, Planning Services retained Watson & Associates Economists Ltd. to undertake the study.

The study includes an evaluation of the costs and revenues associated with residential and non-residential uses within different geographic contexts and identifies the density and type of development that provide for the greatest level of cost recovery to the City. The intent of the study is to draw observations from the analysis that can be used to inform strategic growth management decisions. As such the study should not be considered for site or application specific decisions. To assist with strategic growth management, a spreadsheet model has been provided to the City to allow the City to run alternative development scenarios. This report presents the findings of the study and also includes a discussion of the key takeaways for the City.

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**Recommendation:**

**That** Council receive the Lifecycle Fiscal Impacts of Development, City of Kingston, Final Report dated March 23, 2021, Exhibit A to Report Number 21-161, in fulfillment of the City's contract with Watson & Associates Economists Ltd.

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**Authorizing Signatures:**

ORIGINAL SIGNED BY COMMISSIONER

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**Paige Agnew, Commissioner,  
Community Services**

ORIGINAL SIGNED BY CHIEF  
ADMINISTRATIVE OFFICER

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**Lanie Hurdle, Chief  
Administrative Officer**

**Consultation with the following Members of the Corporate Management Team:**

Peter Huigenbos, Commissioner, Business, Environment & Projects

Brad Joyce, Commissioner, Corporate Services

Jim Keech, President & CEO, Utilities Kingston Not required

Desirée Kennedy, Chief Financial Officer & City Treasurer

Sheila Kidd, Commissioner, Transportation & Public Works Not required

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**Options/Discussion:**

On August 9, 2016, Council passed the following motion regarding the preparation of a Lifecycle Fiscal Impacts of Development study:

**Whereas** many cities across North America have discovered that low density suburban development can create significant life-cycle costs that can, over time, have significant impacts on municipalities; and

**Whereas** fiscal prudence would suggest that a comprehensive life-cycle and operational cost analysis of low density development that will require initial and long term investments from the municipality;

**Therefore Be It Resolved That** staff develop a methodology to define life cycle and operational cost analysis as described in the Official Plan section 9.11.2; and

**That** this life cycle and operational cost analysis or fiscal impact study consider all present and future, capital and operating costs to the City of Kingston such as (but not limited to) road lighting, road cleaning, road painting, snow clearing (road and sidewalk), traffic management and traffic lights, garbage pickup and disposal, recycling pickup and disposal, landscaping, tree trimming, pot hole filling, crack filling, micro-surfacing, road repaving, drain clearing, road reconstruction, and the increased capital and operating costs of services (such as transit, police, fire, ambulance, recreation, parks, libraries, etc.) and compare these costs to the expected tax revenue generated as a result of the development; and

**That** a Life Cycle Fiscal Impact Study to measure the operating and capital cost impacts of new development be incorporated as a project in the 2017 capital budget in the amount of \$45,000.

In November 2017, Planning Services retained Watson & Associates Economists Ltd. to undertake this study.

**Methodology**

The Lifecycle Fiscal Impacts of Development study measures the fiscal impacts of growth as anticipated within the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046". The study considered the full cost accounting obligations of new development, including operating and lifecycle capital costs of service on an annualized basis at full development.

The study took the following items into consideration:

- Anticipated **development forecast** for the City to the year 2046, using the projections of development types from the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046" Study for three broad geographic areas within the Urban Boundary – Kingston West, Kingston Central and Kingston East. Within these geographic

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areas, sample properties for a variety of residential and non-residential development types were considered, reflecting the potential mix of future development within the respective areas. The areas considered in Kingston West, Kingston Central and Kingston East included:

- Kingston West: Cataraqui North, Westbrook and Bayridge;
- Kingston Central: Near Queen's Campus, North King's Town and Williamsville Main Street; and
- Kingston East: Greenwood Park.

This approach was taken in consideration of development implications for both greenfield and infill development locations. The following development types were considered:

- residential: low density (single-detached, semi-detached, second residential units), medium density (townhouses, row houses, duplex, triplex, quad, six-plex), and high density (condominium, apartment, and retirement homes); and
- non-residential: office (commercial, institutional), commercial/retail (big box retail, street-oriented), and industrial ( manufacturing, warehousing).

Assessed market values for each sampled property were taken from the Municipal Property Assessment Corporation's (MPAC) assessment database to calculate expected incremental property taxation revenues. Property tax revenues were determined based on actual taxes paid by each sampled property. Occupancy (i.e. persons per unit) estimates were developed for the sampled properties to calculate the per unit net operating costs. Non-tax revenues were estimated for each development type based on the City's 2020 Budget, assessed on a per capita/per employee basis.

- **Capital infrastructure expenditures** required to service the anticipated development over the forecast period to support the servicing needs (roads, fire, parks and recreation, etc.) was derived from the City's [2019 Development Charges Background Study](#);
- Incremental **operating expenditures** anticipated over the forecast period arising from new development included the following:
  - program service costs assessed based on anticipated population and employment; and
  - incremental operating expenditures associated with new capital works emplacement;
- Incremental **operating revenues** commensurate with growth included the following:

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- incremental property tax revenues as residential, commercial, and industrial building activity occurs over the forecast period,
- new non-tax revenues associated with new development, reflecting anticipated user fees, permits, licences, and other revenues associated with service program demands arising from population and employment growth (Utilities Kingston costs of service were not considered within the scope of the study as the focus is on property tax impacts and these services are fully recovered through user fees).

Using the above, the overall fiscal impact on the City's net levy over the forecast period was determined. This is the sum of the anticipated development and incremental net expenditures relative to the property taxes generated, at current tax rates, over the forecast period. The study indicates that where net expenditures exceed anticipated property tax revenues, forecast development will apply increasing upward pressure on property tax rates. Where property tax revenues exceed net expenditures, additional revenues will help to offset deficits projected for other development types, or support future budget requirements.

### Summary of Fiscal Impact Analysis

Table 1 summarizes the net levy fiscal impacts on a per dwelling unit basis for different types of residential uses, and on a per 1,000 square feet of gross floor area basis for various non-residential development, in 2020 dollars.

**Table 1: Fiscal Impact Summary for Residential and Non-Residential Developments (2020 Dollars)**

Type	Average assessed value	2020 Property tax revenue	2020 Net operating expenditure	Incremental facility/equipment operating expenditures	2020 Operating surplus	Incremental life cycle capital expenditures	Incremental local service capital expenditures	2020 Surplus/deficit
Single detached, semi-detached	408,099	4,614	2,023	347	2,244	1,685	1,131	-572
With second residential unit	363,376	4,067	2,754	473	841	2,294	1,131	-2,584
Rowhouse, townhouse	243,544	2,741	1,584	272	886	1,319	354	788
High rise condominium	472,790	5,273	1,151	198	3,924	959	96	2,869
High rise apartment	188,373	2,105	1,151	198	756	959	96	-299
Commercial retail	151,021	3,276	585	242	2,449	1,072	293	1,084
Commercial office	142,315	3,185	836	346	2,004	1,532	376	96
Industrial	68,913	1,954	641	265	1,047	1,176	567	-695

Within the residential development types, the study shows that the average high-rise condominium dwelling unit would produce the maximum net annual surplus. The study indicates that these surplus revenues for high rise condominium developments are supported by relatively higher levels of property assessment per capita as compared to low and medium density

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development types, as well as the lower occupancy of these dwelling units and lower local service infrastructure requirements. The study found that single or semi-detached homes with second residential units would produce the highest annual deficit as there appears to be no marginal increase in property taxation revenue generated by units with second residential units. Moreover, the added service demands associated with the increase in occupancy for these types of units results in higher net deficits.

Based on the current average assessed value per residential unit in the respective geographies, the study found the following:

- Low density residential development within the Near Queen's Campus area would fiscally perform better as compared to the other areas, generating surplus revenues of \$2,738 per unit. Similar development in the Greenwood Park area would fiscally perform worse at an annual deficit of \$1,668 per unit.
- For second residential units, the Near Queen's Campus would fiscally perform better as it has a comparative advantage in assessed value to the other surveyed areas of the City.
- Medium density residential development within the Cataraqui North area would fiscally perform better compared to the other areas, generating an annual deficit of \$313 per unit. Similar developments in the North King's Town area would fiscally perform worse at an annual deficit of \$1,640 per unit.
- High rise condominiums would fiscally perform better in the Near Queen's Campus area, which produces higher than average annual surplus revenues per unit. Comparatively, similar developments within the Cataraqui North area would produce the lowest per unit assessed values for the surveyed geographic areas.
- High rise apartment residential would fiscally perform better in Greenwood Park, and worse in the Near Queen's Campus area, given that property assessment values across the surveyed geographic areas of the City for these types of residential dwelling units is generally consistent.

Of the non-residential developments, commercial retail developments would produce the maximum net annual surplus. The study indicates that the marginal increase in net expenditures generated by this type of development over the forecast period would be fully recovered through the incremental assessment and tax revenues generated. For non-residential developments, the study made the following observations:

- Commercial retail assessed values are generally consistent throughout the City, with lower than average assessed values witnessed in the sampled areas of Near Queen's Campus and Westbrook.
- For commercial office developments, property assessment values per 1,000 square feet of gross floor area are relatively consistent across the surveyed geographic areas, with higher than average assessed values witnessed in the Near Queen's Campus area.

Table 2 below summarizes the fiscal impacts of development by geographic area, based on the overall weighting of development within the City's "Population, Housing and Employment

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Growth Forecast, 2016 to 2046” Study. The study anticipates land development across the three geographic areas to consist of 75% residential and 25% non-residential.

- Development within Kingston West would comprise 80% residential and 20% non-residential. Based on this weighting of development, Kingston West would produce an annual fiscal deficit per net hectare of \$13,460 for full lifecycle cost obligations. This would equate to an increase to 2020 tax rates of 15% to fully fund these obligations.
- Kingston Central would consist of 69% residential and 31% non-residential. Kingston Central would produce an annual fiscal surplus of \$2,309 per hectare. The comparative fiscal benefits exhibited in the infill and intensification area of Kingston Central arises for the higher density per hectare, and the fiscal surpluses generated by high density condominium developments to cross subsidize deficits of other development types. Additionally, the comparative fiscal benefits exhibited in Kingston Central arise due to the higher forecast amounts of office and retail commercial development and minimal forecast industrial development.
- Kingston East would consist of 65% residential and 35% non-residential. Kingston East forecast development would produce an annual fiscal deficit of \$24,464 per hectare or requiring 2020 tax rate increases of 33% to achieve full cost recovery.

Incorporating the respective development across the three geographic areas would produce a weighted overall deficit of \$7,701 per hectare. The study suggests that to achieve full lifecycle funding, 2020 tax rate would be required to increase by 7%.

**Table 2: Fiscal Impacts of Development by Geographic Area (2020 Dollars)**

Area	Residential		Non-Residential		Total 2020 Surplus/deficit per hectare	Total 2020 Tax revenues per hectare	Full lifecycle cost tax impact
	Net developable land (hectare)	2020 Surplus/deficit per hectare	Net developable land (hectare)	2020 Surplus/deficit per hectare			
Kingston West	80%	-13,330	20%	-13,970	-13,460	87,437	-15%
Kingston Central	69%	-3,473	31%	15,335	2,309	155,001	1%
Kingston East	65%	-23,304	35%	-26,590	-24,464	73,256	-33%
Total Kingston	75%	-8,135	25%	-6,378	-7,701	105,817	-7%

### Study Observations and Conclusions

The study provides the following observations and conclusions:

- At current tax rates, taxation revenues sufficiently offset incremental annual net service/program and facility/equipment-related maintenance operating expenditures for all development types and all surveyed development areas.
- Assessing the fiscal impacts for different development types from a full costs accounting lifecycle perspective, only high-density condominium, commercial office and commercial



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retail developments would produce sufficient property tax revenues to fund these costs. For all other development types, the analysis indicates that increases to current 2020 tax rates would be required to fund the full lifecycle costs of development.

- Affordable housing development types, such as rental apartment and single detached dwellings with second residential units, generally produce poorer fiscal outcomes than other residential development types. Initiatives to promote these types of development could be fiscally supported if balanced with higher amounts of condominium and non-residential commercial developments.
- The need for increases to current property tax rates to address full cost lifecycle accounting requirements should be considered in the context of the City's Asset Management Plan. As most municipal property tax rates do not reflect the full cost lifecycle accounting of services currently, the required increase to meet current obligations relative to the 7% increase in forecast tax rates herein, would provide perspective if future development is accretive (i.e. characterized by gradual growth or increase) and would serve to reduce future City-wide tax rate increases absent development.
- Considering the locations of future development, developments within the Kingston Central area generally produce better fiscal outcomes than forecasts for Kingston West and Kingston Central areas. This is reflective of higher assessed values (particularly within the Near Queen's Campus area), higher development densities, lower local services infrastructure requirements due to the anticipated mix of development types, and the balance of forecast condominium and nonresidential commercial development.

The study provides the following potential considerations for the City that may serve to incentivize developments with relatively higher fiscal returns to balance broader development objectives:

- targeted development charges policies,
- use of scoped community benefit charges,
- planning policy incentives, and
- community improvement plans.

The Mayor's Task Force on Housing has recommended that City staff undertake an analysis of different tools that are available to assist with bringing more affordable housing to the market. Staff will be presenting addressing the initiatives of the Mayor's Task Force in 2022, and the analysis contained herein can be used to inform the undertaking.

### **Key Takeaways for the City**

The Lifecycle Fiscal Impacts of Development study is one of the many considerations in the land use planning process. It is important to note that while the study provides one layer of information and insight to guide future strategic thinking around growth management, it is not a

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definite answer. The analysis presented in the study will assist staff in understanding the fiscal impacts of various forms of residential and non-residential developments within different geographic areas of the City. The study implies that more compact and strategic development patterns within the central area of the City are more financially efficient. The findings of this study will also be used to inform future land use planning policy which supports provincial planning policy objectives and the desire to make fiscally responsible decisions pertaining to growth in the City, especially in the context of the next Official Plan review, for example to analyze changes in land use policies such as those around density, to determine the appropriate mix of residential and non-residential development that minimize fiscal impacts on taxpayers, or for potential urban boundary adjustment discussions.

An ideal situation would be where growth pays for itself. However, it is reasonable to assume that certain types of developments which have a negative fiscal impact on the City may still achieve public interest objectives and the City's overall planning goals. An example is second residential units in low density forms of housing, which according to the study produce the highest annual deficit because of no marginal increase in property taxation revenue generated by units with second residential units. Second residential units contribute to an increase in the supply and range of affordable rental units while providing financial benefits to homeowners, making more efficient use of existing transportation infrastructure and housing stock, help municipalities work towards their goals regarding affordable housing, gentle intensification, and climate change targets, and provide a number of benefits to the wider community (including creating jobs in construction, providing more housing options for extended families, elderly parents, or live-in caregivers).

Another example is industrial uses, which according to the study produce the highest deficit amongst non-residential uses. However industrial uses contribute to a strong and diversified economic base within the City. It is also important to note that the Lifecycle Fiscal Impacts of Development study is not an economic impact analysis, and as such does not consider any direct and indirect impacts on the economy from development, such as new jobs, disposable income and consumer spending. Because of the above-noted reasons, the results of this study should be viewed in the context of the City's strategic priorities and goals, including:

- Demonstrating leadership on climate action.
- Pursuing development of all types of housing City-wide through intensification and land use policies.
- Building a significant number of new residential units with a range of affordability.
- Promoting secondary suites and tiny homes.
- Implementing a zoning framework to further facilitate the development of secondary suites.
- Supporting new and existing businesses.
- Creating innovation hubs that build on our local strengths in partnership with others.

As mentioned earlier, assessed market values for each sampled property were taken from the Municipal Property Assessment Corporation's (MPAC) assessment database to calculate expected incremental property taxation revenues. The MPAC data reflects current values as at

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January 1, 2016 and MPAC has not confirmed the details of its next reassessment. When current assessment values are updated, (especially for properties with second residential units), the assumptions in this study may need to be refined, potentially improving or reducing the performance of specific development types relative to overall Lifecycle costs.

As mentioned in the Lifecycle Fiscal Impacts of Development study, the City is in the process of completing an Asset Management Plan (AMP). The AMP is a comprehensive document outlining the management of the City's infrastructure and appropriate levels of ongoing capital funding for asset lifecycle requirements. Information regarding asset inventory replacement costs, estimated useful life and annual funding levels will ultimately be informed, and the assumptions in the Lifecycle Fiscal Impacts of Development study may need to be refined, as the AMP is finalized.

Staff note that this study used the anticipated development forecast from the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046" Study, which was based on the 2016 Census. Results of the 2021 Census are anticipated later this year, which would show if the growth projected in the study was higher or lower than what was projected for the city.

**Existing Policy/By-Law:**

Provincial Policy Statement, 2020

City of Kingston Official Plan

**Notice Provisions:**

None

**Accessibility Considerations:**

None

**Financial Considerations:**

None

**Contacts:**

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**Other City of Kingston Staff Consulted:**

None

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**Exhibits Attached:**

Exhibit A - Lifecycle Fiscal Impacts of Development, Final Report



# Lifecycle Fiscal Impacts of Development

## City of Kingston

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Final Report

March 23, 2021

Watson & Associates Economists Ltd.  
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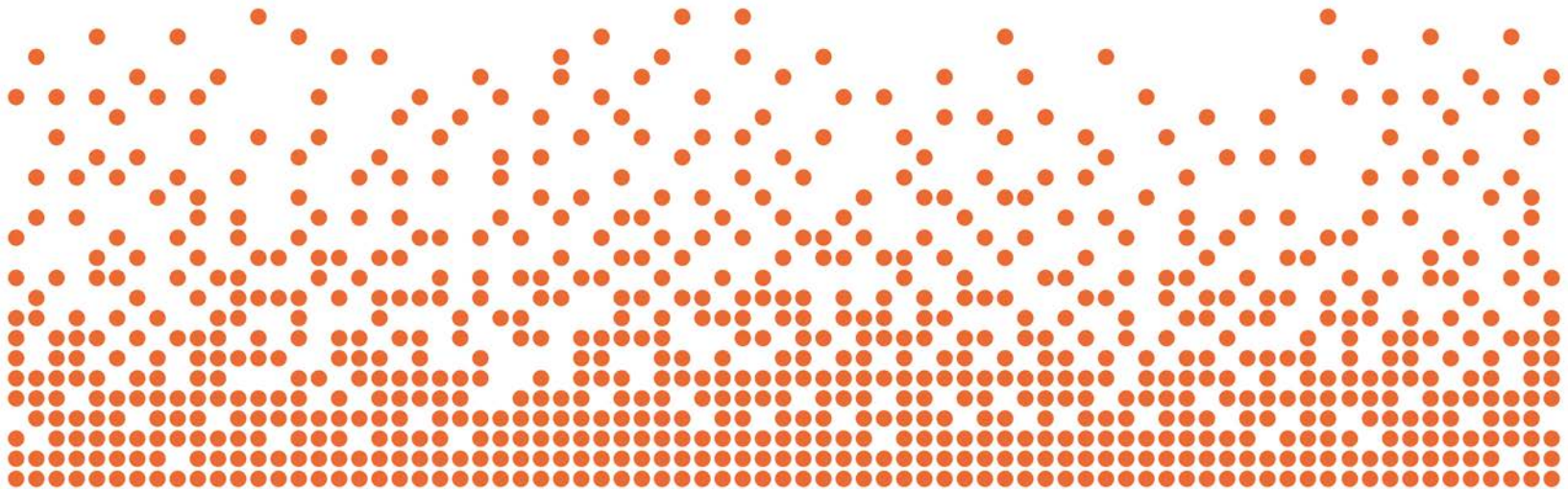
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# Chapter 1

## Introduction





# 1. Introduction

The City of Kingston (City) has retained Watson & Associates Economists Ltd. (Watson) to undertake a study to consider the fiscal impacts of development. The intent of the Fiscal Impact Study (FIS) is to draw observations from the analysis that can be used to inform strategic growth management decisions<sup>1</sup>. To aid in these decisions, a spreadsheet model has been provided in addition to the report to allow the City to run alternative development scenarios.

The analysis considers the fiscal impacts of development from a full cost accounting perspective, i.e. measuring the incremental operating and capital cost impacts of development relative to the City's 2020 tax rates. This accounting includes not only the recognition of the additional operating costs of services demanded by new development, but also the additional maintenance and lifecycle costs associated with the incremental growth-related assets required to meet the service demands of future development. These capital costs are informed by the City's 2019 Development Charges Background Study and survey of subdivision of agreements to quantify the local service assets installed by developers as condition of development agreements that are later assumed by the City.

To further assist the strategic growth management decisions, the analysis considers the amount, type and location of development within the City in accordance with the assumptions of the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046" Study. This allows the City to understand the fiscal impacts of various types of residential and non-residential development and the demands placed on services by occupants relative to current assessed values. As the assessed values are influenced by location, particularly for residential developments, the FIS analyzed types of development within three broad geographic areas within the City's Urban Boundary, including Kingston West, Kingston Central and Kingston East.

The following chapters summarize:

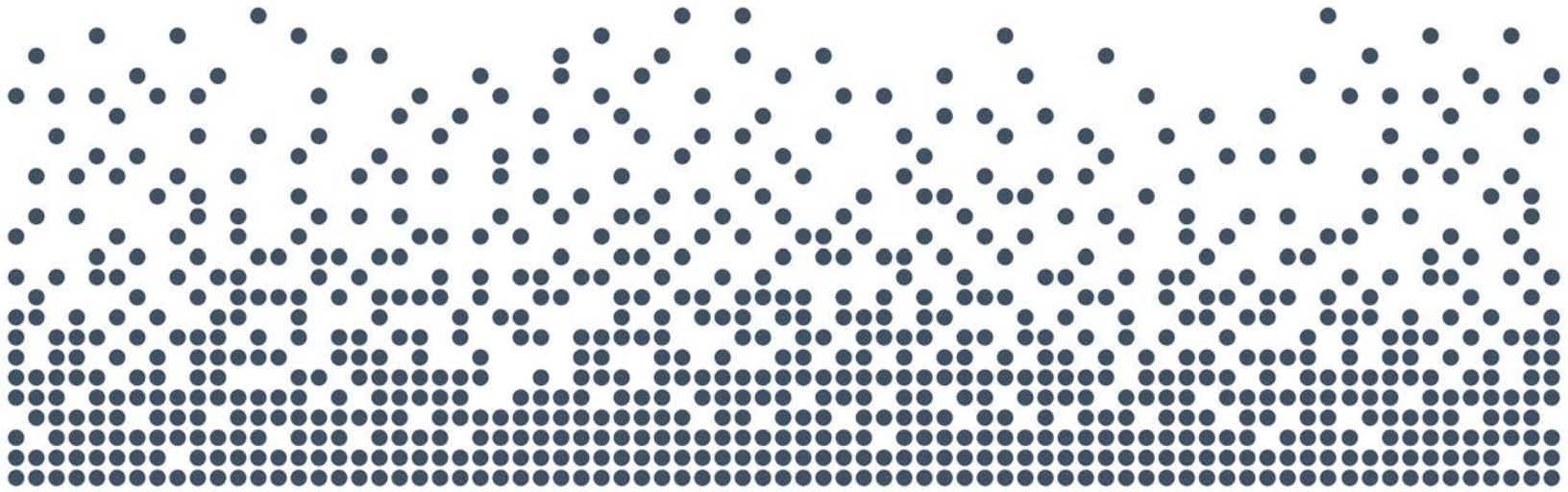
- The study methodology (Chapter 2)
- The fiscal impact analysis assumptions (Chapter 3)
- The fiscal impacts by development type (Chapter 4)

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<sup>1</sup> As such this report should not be considered for site or application specific decisions.



- The fiscal impact observations and conclusions by development location, and for the City's Urban Boundary in aggregate based on the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046" Study (Chapter 5).



# Chapter 2

## Methodology



## 2. Methodology

### 2.1 General Approach to the Fiscal Impact Study

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Figure 2-1 provides a schematic overview of the methodology undertaken for the purposes of this FIS, which is described as follows. The FIS considers the full cost accounting obligations of new development, including operating and lifecycle capital costs of service on an annualized basis at full development.

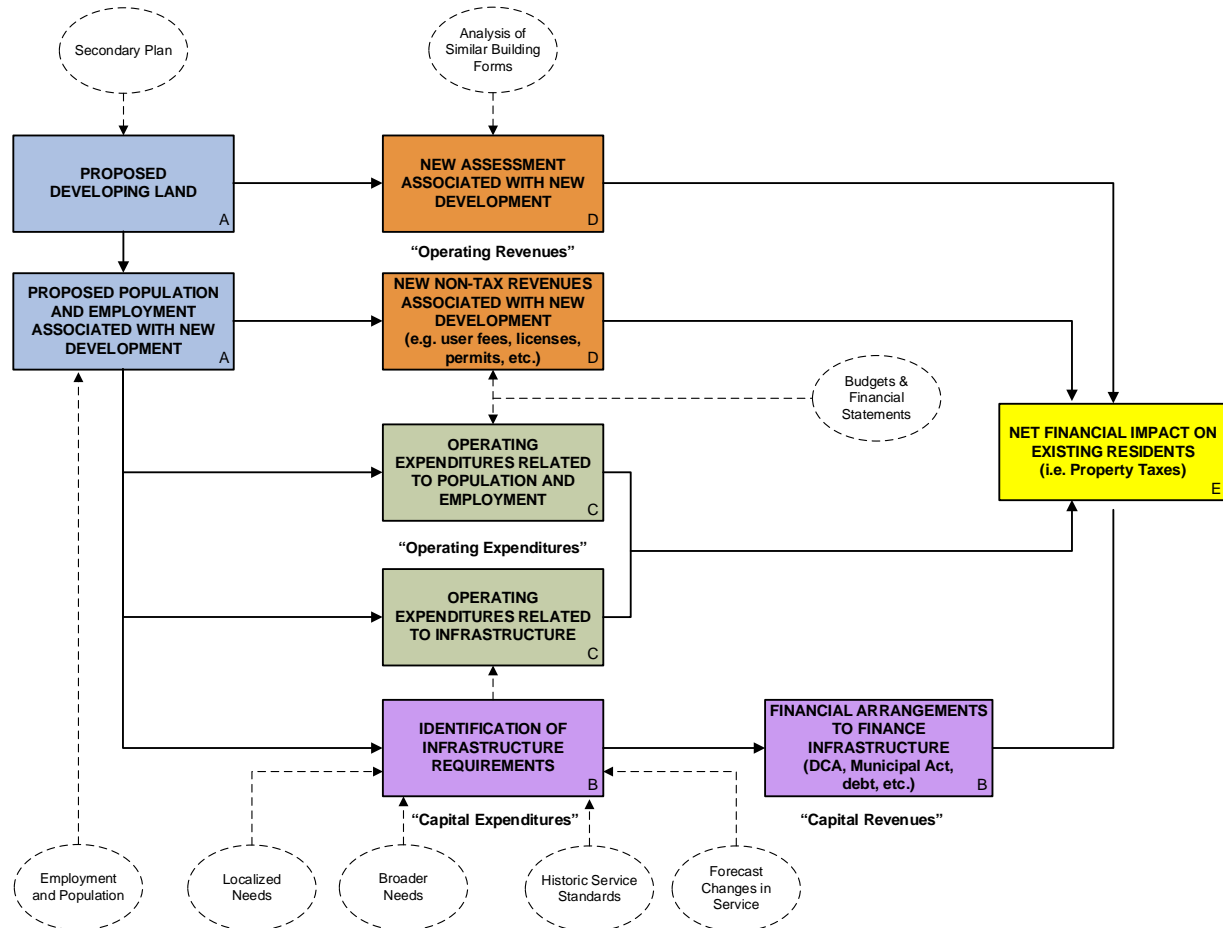
- Blue Boxes (labelled “A” in bottom right corner) – denote the anticipated development forecast for the City to the year 2046. The FIS employed the projections of development types from the City’s “Population, Housing and Employment Growth Forecast, 2016 to 2046” Study for three broad geographic areas to determine the weighed fiscal impacts per hectare of development.
- Fuchsia Boxes (labelled “B” in bottom right corner) – denote capital infrastructure required to service the anticipated development over the forecast period. The capital requirements to support the servicing needs (roads, fire, parks and recreation, etc.) were derived from the City’s 2019 Development Charges (D.C.) Background Study. Capital project costs contained therein have been indexed and associated project timing has been maintained. In addition to the future development-related capital costs, the analysis also identifies the additional lifecycle accounting requirements of local service capital assets emplaced by developers and assumed by the City.
- Green Boxes (labelled “C” in bottom right corner) – denote the incremental operating expenditures anticipated over the forecast period arising from new development. These expenditures comprise two parts: program service costs assessed on the basis of anticipated population and employment; and incremental operating expenditures associated with new capital works emplacement. Consideration of economies/diseconomies of scale have been provided in the incremental operating expenditure assessment reflective of anticipated future service levels.



- Orange Boxes (labelled “D” in bottom right corner) – denote incremental revenues commensurate with growth. The new assessment associated with development produces incremental property tax revenues as residential, commercial, and industrial building activity occurs over the forecast period. Moreover, new non-tax revenues associated with new development reflect anticipated user fees, permits, licences, and other revenues associated with service program demands arising from population and employment growth. Utilities Kingston costs of service have not been considered within the scope of the study as the focus is on property tax impacts and these services are fully recovered through user fees.
- Yellow Box (labelled “E” in bottom right corner) – denotes the overall fiscal impact on the City’s net levy over the forecast period. This is the summation of the anticipated development and incremental net expenditures relative to the property taxes generated, at current tax rates, over the forecast period. Where net expenditures exceed anticipated property tax revenues, forecast development will apply increasing upward pressure on property tax rates. Where property tax revenues exceed net expenditures, additional revenues may serve to support increased funding of future service levels, increases in infrastructure lifecycle spending, etc.



**Figure 2-1**  
**Overview of the Fiscal Impact Study Methodology**



## 2.2 Approach to City of Kingston Fiscal Impact Study

The FIS was designed to consider the fiscal impacts, in aggregate, for specific geographic areas on a per hectare basis. This approach is taken in consideration of development implications for different development types within greenfield and infill development locations. The assessment is based on the projected growth to 2046, as established in the City’s “Population, Housing and Employment Growth Forecast, 2016 to 2046” Study, and in consultation with City Planning Staff.

The Study has been designed to assess sampled developments within three separate geographic areas within the City’s Urban Boundary. Sampled properties have been aggregated into these respective areas to identify broader fiscal impacts including:



- Kingston Central – including Williamsville Main Street, Near Queen’s Campus Neighbourhood, and North King’s Town;
- Kingston West – including Cataraqui North, Westbrook, and Bayridge; and
- Kingston East – including Greenwood Park.

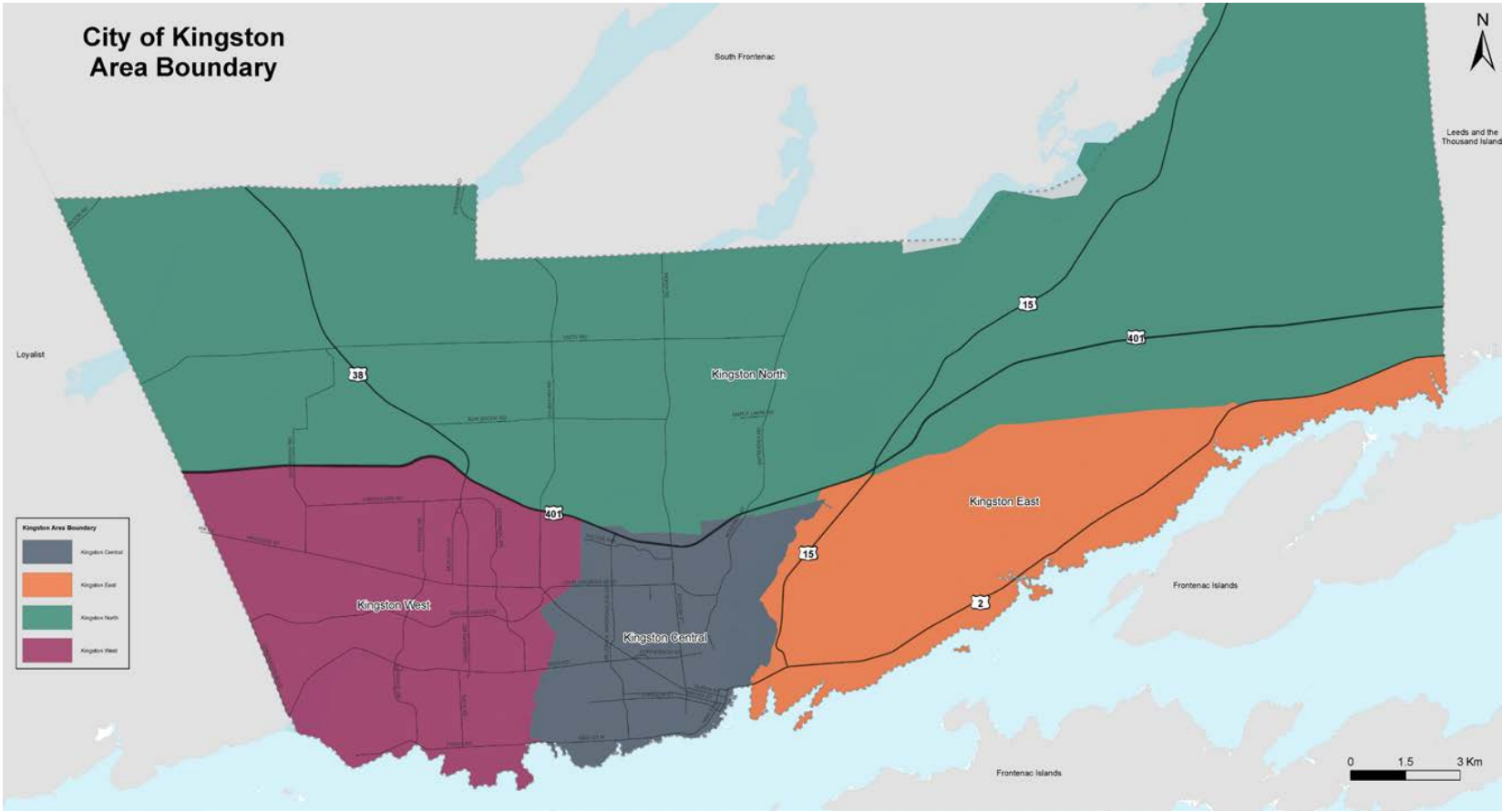
Kingston Central represents a mature urban area of the City with the greatest opportunities for future redevelopment of residential and mixed-use intensification and infill development. Kingston West includes sampled development reflecting newer construction, with density and composition similar to new greenfield subdivision developments. Kingston East includes development sampled from the Greenwood Park area, which is part of the Rideau Community Secondary Plan, representing recent construction in greenfield areas. Figure 2-2 illustrates the location of the broader geographic areas used in the FIS.

In addition to defining the geographic areas for study, preliminary discussions with City Planning Staff identified the following residential and non-residential development types for consideration in the FIS (Figure 2-3). The development sub-types were selected as they reflect the predominant built form which is anticipated to occur over the forecast period with each of the broader residential and non-residential development categories. It is appropriate to consider existing conditions and trends regarding residential occupancy, average floor space per worker and current assessed values for each of the respective residential and non-residential development sub-types identified as these inputs influence the results of the fiscal impact analysis.

The FIS sampled properties for each development type within the respective geographic areas identified above. Assessed market values for each sampled property were taken from the Municipal Property Assessment Corporation’s (MPAC’s) assessment database to calculate expected incremental property taxation revenues. Property tax revenues were determined based on actual taxes paid by each sampled property.



**Figure 2-2**  
**City of Kingston Geography Areas**







**Figure 2-3**  
**City of Kingston**  
**Summary of Anticipated Development Types**

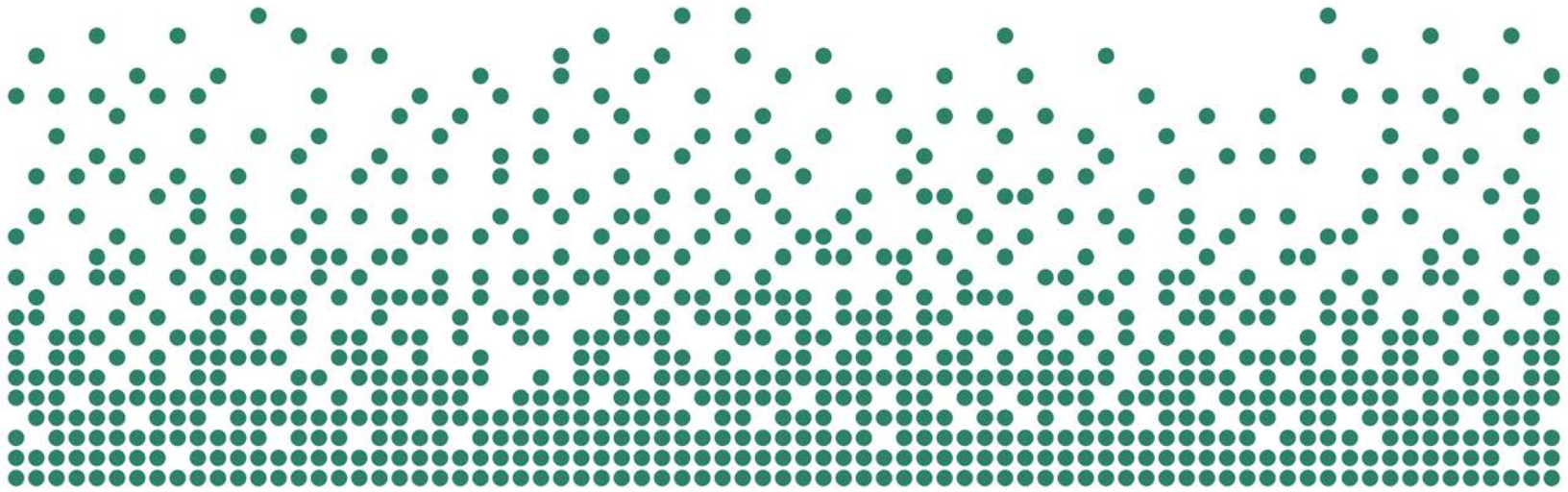
<u>Residential Development Types</u>	<u>Non-Residential Development Types</u>
<u>Low Density</u> <ul style="list-style-type: none"> <li>• Single/Semi-Detached</li> <li>• With Second Residential Units</li> </ul>	<u>Office</u> <ul style="list-style-type: none"> <li>• Commercial</li> <li>• Institutional</li> </ul>
<u>Medium Density</u> <ul style="list-style-type: none"> <li>• Townhouse</li> <li>• Row</li> <li>• Duplex, Triplex, Quad, Sixplex</li> </ul>	<u>Commercial/Retail</u> <ul style="list-style-type: none"> <li>• Big Box</li> <li>• Street-Oriented</li> </ul>
<u>High Density</u> <ul style="list-style-type: none"> <li>• Condominium</li> <li>• Apartment</li> <li>• Retirement Home</li> </ul>	<u>Industrial</u> <ul style="list-style-type: none"> <li>• Manufacturing</li> <li>• Warehousing</li> </ul>

Occupancy (i.e. persons per unit) estimates were developed for the sampled properties to calculate the per unit net operating costs. Non-tax revenues were estimated for each development type based on the City's 2020 Budget, assessed on a per capita/per employee basis and applied based on the underlying occupancy assumptions. Similarly, annual operating expenditure calculations were assessed on a per capita/per employee basis and applied to the underlying occupancy assumptions for each development type. Operating expenditures for each service are based on the City's 2020 Budget, with consideration for potential economies and diseconomies of scale reflective of anticipated future service levels.

Provision for per capita/per employee annual capital-related lifecycle accounting requirements is based on sampled subdivision agreements for local service capital assets and the City's 2019 D.C. Background Study. It is noted, however, that ultimately all analysis with respect to capital was undertaken on a City-wide basis to be consistent with the application of the City's development charges and taxation policies, and in recognition of broader system-wide service delivery. However, the assessment of local services and D.C. capital reflects development difference between greenfield and infill development areas, as well as development type occupancies.



Comparing the revenue and expenditure estimates provides net annual operating expenditures by development type and geographic area. These net annual operating expenditures are then aggregated based on the anticipated development type mix within each location to provide the overall fiscal impacts of development on a per hectare basis.



# Chapter 3

## Fiscal Impact Analysis



### 3. Fiscal Impact Analysis

#### 3.1 Development Forecast

The “Population, Housing and Employment Growth Forecast, 2016 to 2046” Study forecasts long-term population, housing and employment forecast for the City. Background data from this report informs the anticipated allocation of growth amongst the geographic areas within the City’s Urban Boundary as identified in Figure 2-2. For the purposes of the FIS, the forecast development types for each geographic area were assessed to determine the per hectare impacts.

Residential growth forecast by dwelling unit type and geographic area is summarized in Table 3-1. It is forecast that approximately 13,000 residential dwelling units would be constructed over the forecast period. Low density residential dwelling units total 4,044 (or 31%) of the total anticipated development, medium density totals 1,520 units (12%) and high density totals 7,476 units (57%). Low density dwellings with secondary units and high density dwelling units include 2,420 new post-secondary student dwelling units, with 80% of this forecast development expected to occur in high density buildings. The ownership structure of high density development is anticipated to remain consistent with the City historic activity, i.e. apartment development accounting for 85% of development and condominium 15%.

**Table 3-1  
City of Kingston  
2016-2046 Residential Growth Forecast by Geographic Area**

Geographic Area	Residential Dwelling Units (2016-2046)					
	Low	Low (w/ 2nd Unit)	Medium	Apartment	Condo	Total
Kingston West	3,020	-	950	2,295	405	6,670
	45%	0%	14%	34%	6%	100%
Kingston Central	40	484	440	3,966	700	5,630
	1%	9%	8%	70%	12%	100%
Kingston East	500	-	130	94	17	740
	68%	0%	18%	13%	2%	100%
Kingston Total	3,560	484	1,520	6,355	1,121	13,040
	27%	4%	12%	49%	9%	100%



The majority of that growth is projected to occur within the Kingston West Area, representing 51% (6,670 dwelling units) of the incremental residential development over the forecast period. Kingston Central represents the second largest area of residential growth, with 43% (5,630 dwelling units) of the incremental residential development anticipated to occur in this area over the forecast period to 2046. Residential development in Kingston West and Kingston East would account for 87% of low density development, with Kingston Central accounting for 62% of high density development.

Residential development densities assume 15 units per hectare for low density development, 37 units per hectare for medium density development and 99 units per hectare for high density development. Applying these densities to the anticipated development by type in Table 3-1 produces a City-wide average density is approx. 33 units per net hectare. Kingston Central anticipated development equates to 60 units per net hectare, Kingston West 26 units per net hectare, and Kingston East 19 units per net hectare.

Table 3-2 summarizes the 2016-2046 employment forecast for the three geographic areas, excluding work at home employment and no fixed place of work<sup>2</sup> (NFPOW) employment. The impact on municipal services from work at home employees have already been included in the population forecast. The impacts of municipal services related to NFPOW employees have largely been included in the employment forecast by usual place of work (i.e. employment and gross floor area in the retail and accommodation sector generated from NFPOW construction employment). Usual place of work employment within the three geographic areas is projected to grow by 6,600 employees over the forecast period. Similar to residential development, non-residential employment growth is primarily projected to take place in Kingston West and Kingston Central, with 3,130 employees (47%) and 2,550 employees (39%), respectively.

Office employment growth is forecast to largely occur within Kingston Central, accounting for 58% of the total. Kingston West would account for the largest amount of forecast retail and industrial employment growth, representing 59% and 61% of the

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<sup>2</sup> Statistics Canada defines employees with no fixed place of work 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.”



respective total employment forecasts. Kingston Central accounts for the largest share of institutional forecast employment growth at 81% of the total.

**Table 3-2  
City of Kingston  
2016-2046 Non-Residential Employment Growth Forecast by Geographic Area**

Geographic Area	Non-Residential Employment (2016-2046)				
	Office	Retail	Industrial	Inst.	Total
Kingston West	1,060	830	1,240	230	3,130
	34%	27%	40%		100%
Kingston Central	1,850	400	300	1,450	2,550
	73%	16%	12%		100%
Kingston East	280	160	480	120	920
	30%	17%	52%		100%
Kingston Total	3,190	1,390	2,020	1,800	6,600
	48%	21%	31%		100%

Non-residential development densities assume 550 square feet per employee for commercial (i.e. office and retail) development, 1,300 square feet per employee for industrial development and 800 square feet per employee for institutional development. Applying these densities to the anticipated development by type in Table 3-2 produces a City-wide average density is approx. 51 employees per net hectare. Kingston Central anticipated development equates to 61 employees per net hectare, Kingston West 48 employees per net hectare, and Kingston East 44 employees per net hectare.

### 3.2 Property Value Assessment Estimates

To measure the net levy impacts by property type, and in aggregate, MPAC's assessment database was sampled to determine market comparables consistent with the underlying development forecast referenced above. This section of the report summarizes the results of the sampling of City properties undertaken to establish typical property value assessment estimates for various types of development, in accordance with the specified FIS development types. City Planning staff sampled development types with the respective geographic areas, with subsequent analysis of MPAC data



performed by Watson & Associates, to derive a representative sample of anticipated future development types.

In total, 386 properties (240 residential and 146 non-residential) were included in the sample that was used to establish typical property value assessment estimates. Of the sample, 225 properties were located in Kingston Central, 114 properties in Kingston West, and 47 in Kingston East. Figure 3-1 illustrates the distribution of sampled properties by geographic area.

The sampled properties were used to determine average property value assessment per residential dwelling unit and non-residential square foot of GFA in each geographic area. Chapter 4 summarizes the average assessed value and property tax revenues for each development type and geographic area.



Figure 3-1  
City of Kingston Geography Areas







### 3.3 Net Operating Expenditures

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The FIS evaluation measured the incremental service demands of development and the corresponding net operating expenditures on a service-by-service basis. The process considered the City's 2020 budgeted expenditures within all tax-based service areas. The following summarizes the process undertaken to arrive at the incremental net operating expenditures for the anticipated development over the forecast period.

For each service, the methodology removed one-time funding from the net expenditures recognizing no further incremental demand for services. Having isolated the reoccurring service demands for future development, operating expenditures and revenues within each service area were allocated between residential and non-residential uses to determine operating expenditures for current service level demands on a per capita and per employee basis. Most services were allocated between residential and non-residential benefits based on 2020 estimates of population and employment. However, for services that largely address resident demands (e.g. libraries, parks and recreation), 95% of annual operating expenditures and revenues were attributed to residential uses. This is consistent with the City's development charges allocation policies and reflects the minor benefits of these services accruing to employment-related demands.

Once operating expenditures and revenues were allocated between residential and non-residential uses, a determination was made whether these service demands are expected to grow in direct proportion to growth, or whether some economies or diseconomies of scale are likely to occur. For example, many of the City's internal support functions such as Financial Services and Human Resources are not expected to grow in direct proportion to growth since these functions are already well-established. However, in several cases spending requirements for a particular service were considered to be largely unaffected by growth. For example, in the cases of Council Administration, no incremental operating expenditures are anticipated with new development.

The City's 2020 net operating expenditures, adjusted for one-time expenditures and economies/diseconomies of scale, the level of service estimate for future development is \$731/capita and \$320/employee. In addition, incremental operating expenditures for maintenance of incremental infrastructure arising from the D.C. has also been forecast on a per capita and per employee basis. In this regard annual per capita and per



employee net expenditures of \$125 and \$132, respectively, have been applied in the FIS operating expenditure impacts.

### **3.4 Capital-Related Expenditures**

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Section 3.3 quantifies the incremental net operating expenditures for new development over the forecast period, based on anticipated service demands and current service levels. The incremental operating expenditures do not provide for annual capital-related expenditures, which form part of the annual net levy to provide funding for on-going rehabilitation and replacement of existing assets (and to fund ineligible growth-related capital expenditures). This section summarizes how these expenditures have been quantified and considered in the FIS analysis.

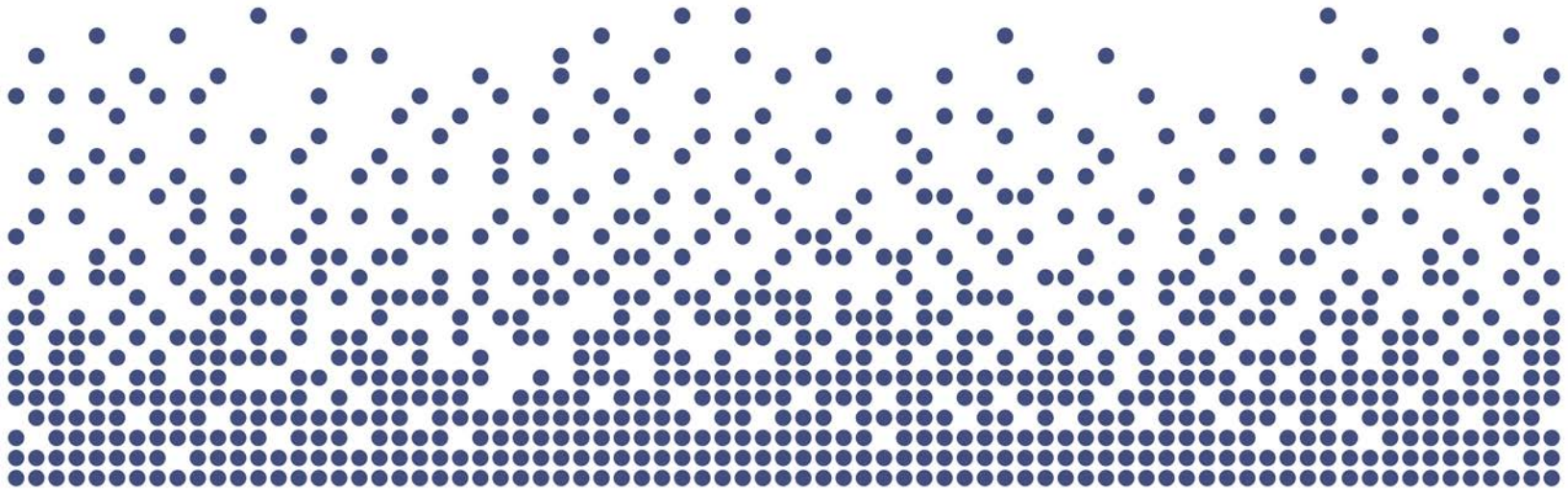
The City is in the process of completing an Asset Management Plan (AMP). The AMP is a comprehensive document outlining the management of the City's infrastructure and appropriate levels of ongoing capital funding for asset lifecycle requirements. Information regarding asset inventory replacement costs, estimated useful life and annual funding levels will ultimately be informed, and the assumptions herein refined, as the AMP is finalized. However, for the purposes of this FIS the lifecycle accounting capital needs were determined based on the City's 2019 D.C. Background Study and local service assets arising from a survey of development applications.

In the context of a fiscal impact analysis, incremental development-related capital expenditures are considered to be largely a null factor, falling outside of the analysis, as the City has the ability to recover most growth-related capital costs through D.C.s and the installation of local services by developers as condition of development agreements. However, it is recognized that development charges and local service installations results in on-going capital asset lifecycle costs (i.e. subsequent rehabilitation and replacement of infrastructure over its useful life).

Accounting for the on-going growth-related lifecycle costs for D.C. funded infrastructure, was calculated on a sinking-fund basis for the expected useful life of the incremental assets. These annual costs were divided by the incremental population and employment growth over the forecast period to determine the annual per capita and per employee costs, similar to the net operating expenditures analysis presented above. In total, the annual lifecycle costs associated with D.C. funded growth-related infrastructure emplaced over the forecast period is \$609/capita and \$587/employee.



The lifecycle costs for emplaced local services were developed based on a survey of conditions in recent development agreements within the City. Based on the review of emplaced infrastructure, a per residential dwelling unit and per employee annual lifecycle cost was determined. The per residential dwelling unit assumptions reflect a greater amount of emplaced local service infrastructure for low density development as compared to high density development. The per residential unit annual lifecycle cost assumptions for local services applied in the FIS include low density development \$1,131, medium density \$354 and high density \$96. The per employee annual lifecycle costs for local services total \$137.



# Chapter 4

## Fiscal Impacts by Development Type



## 4. Fiscal Impacts by Development Type

This section summarizes the net levy fiscal impacts on a per residential dwelling unit basis, and on a per 1,000 square feet of gross floor area basis for non-residential development. The development type analysis measures the fiscal impact for these types of development for each of the sampled developments identified within the geographic areas (as described in s. 2.2 of this report). The tables contained in this chapter measure the fiscal impact for annual operating expenditures, including incremental facility/equipment operating, as well as incremental lifecycle accounting for capital costs of D.C. and local service emplace infrastructure.

The individual development impact assessments are based on average market assessment data for each sampled geographic area. The City's 2020 property tax rates are applied to these average assessments to arrive at the estimated annual taxes paid. These revenues are compared with the annual net expenditure estimates per capita and per employee, for both operating and capital-related expenditures, applied to the underlying occupancy by development type to arrive at the annual service expenditure demands. Comparing the annual tax revenues with the net expenditure service demands provides a measure of the specific development type's impacts on the City's net levy (i.e. is the incremental tax revenues sufficient to fund the full lifecycle accounting costs).

### 4.1 Low Density - Single and Semi-Detached Residential Dwellings

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Table 4-1 summarizes the impacts for single and semi-detached residential dwelling units in the sampled developments. In 2020 dollars, average single and semi-detached residential dwellings units generated a net operating surplus of approximately \$2,244 per unit. At the full lifecycle accounting levels for incremental D.C. and local services, this net annual surplus would result in an annual deficit of \$572 per unit. Single and semi-detached residential dwellings constructed over the forecast period can be expected, on average, to require tax increases of 12% from current levels to fund the full cost accounting obligations of services.

By sampled geographic area, low density residential development within the Near Queen's Campus area would fiscally perform better compared to the other areas,



generating surplus revenues of \$2,738 per unit. Similar developments in the Greenwood Park area would fiscally perform worse at an annual deficit of \$1,668 per unit. These comparative differences are based on the current average assessed value per unit in the respective geographies.

**Table 4-1**  
**City of Kingston**  
**Fiscal Impact Summary for Low Density - Single and Semi-Detached Residential Dwelling Units (2020 dollars per dwelling unit)**

Low Density Residential	Average Assessed Value per Unit	2020 Property Tax Revenues per Unit	2020 Net Operating Expenditures per Unit	Incremental Facility/ Equipment Operating Expenditures	2020 Operating Surplus (Deficit) per Unit	Incremental Lifecycle Capital Related Expenditures	Incremental Local Service Capital Related Expenditures	2020 Surplus (Deficit) per Unit
Cataraqui North	371,600	4,056	2,023	347	1,686	1,685	1,131	(1,130)
Williamsville Main Street	375,442	4,422	2,023	347	2,052	1,685	1,131	(764)
Greenwood Park	329,300	3,518	2,023	347	1,148	1,685	1,131	(1,668)
Westbrook	379,833	4,146	2,023	347	1,776	1,685	1,131	(1,040)
Near Queen's Campus	672,821	7,925	2,023	347	5,555	1,685	1,131	2,738
North King's Town	335,727	3,954	2,023	347	1,584	1,685	1,131	(1,232)
Bayridge	391,972	4,279	2,023	347	1,908	1,685	1,131	(908)
<b>Municipal Average</b>	<b>408,099</b>	<b>4,614</b>	<b>2,023</b>	<b>347</b>	<b>2,244</b>	<b>1,685</b>	<b>1,131</b>	<b>(572)</b>

## 4.2 Low Density - Single Detached Dwellings with Second Residential Unit

Table 4-2 summarizes the impacts for single detached dwellings with second residential units in the sampled geographies. In 2020 dollars, average single detached dwelling with a second residential unit generated a net operating surplus of approximately \$841 per unit. At the full lifecycle accounting levels, this net annual surplus would result in an annual deficit of \$2,584 per unit. As such, single and semi-detached residential dwellings constructed over the forecast period can be expected, on average, to require tax increases of 64% from current levels to fund the full cost accounting obligations of services.

By comparison to single detached units without second residential units, there appears from the sampling to be no marginal increase in property taxation revenue generated by the additional residential unit. Moreover, the added service demands associated with the increase in occupancy for these types of units (i.e. 1.1 persons per unit) results in higher net deficits. This trend also holds in the Near Queen's Campus that has a comparative advantage in assessed value to the other surveyed areas of the City.



**Table 4-2**  
**City of Kingston**  
**Fiscal Impact Summary for Low Density - Single Detached Dwelling with Second Residential Units (2020 dollars per dwelling unit)**

Low density Residential (w/ 2nd Unit)	Average Assessed Value per Unit	2020 Property Tax Revenues per Unit	2020 Net Operating Expenditures per Unit	Incremental Facility/ Equipment Operating Expenditures	2020 Operating Surplus (Deficit) per Unit	Incremental Lifecycle Capital Related Expenditures	Incremental Local Service Capital Related Expenditures	2020 Surplus (Deficit) per Unit
Cataraqui North	342,333	3,737	2,754	473	510	2,294	1,131	(2,915)
Williamsville Main Street								
Greenwood Park	269,200	2,876	2,754	473	(350)	2,294	1,131	(3,776)
Westbrook	301,746	3,294	2,754	473	67	2,294	1,131	(3,358)
Near Queen's Campus	540,223	6,363	2,754	473	3,137	2,294	1,131	(289)
North King's Town								
Bayridge								
<b>Municipal Average</b>	<b>363,376</b>	<b>4,067</b>	<b>2,754</b>	<b>473</b>	<b>841</b>	<b>2,294</b>	<b>1,131</b>	<b>(2,584)</b>

### 4.3 Medium Density – Townhouse and Row Dwelling Units

Table 4-3 summarizes the impacts for medium density townhouse and row residential dwelling units. In 2020 values, average medium density residential dwelling units of this type generated a net operating surplus of approximately \$886 per unit, operating impacts similar to average single detached dwelling units with a second residential unit. At the full lifecycle accounting levels, these developments would produce a net annual deficit of \$788 per unit. On average, medium density residential dwellings constructed over the forecast period can be expected, to require tax increases of 29% from current levels to fund the full cost accounting obligations of services.

While the net operating surplus is comparable to a single detached dwelling with a second residential unit, the full lifecycle accounting impacts are considerably less. This is due to the lower average occupancy and local service infrastructure requirements for medium density residential developments as compared to low density developments with the higher exhibited occupancy in secondary residential units.

By sampled geographic area, medium density residential development within the Cataraqui North area would fiscally perform better compared to the other areas, generating an annual deficit of \$313 per unit. Similar developments in the North King's Town area would fiscally perform worse at an annual deficit of \$1,640 per unit. These comparative differences are based on the current average assessed value per unit in the respective geographies.



**Table 4-3**  
**City of Kingston**  
**Fiscal Impact Summary for Medium Density – Townhouse and Row Residential Dwelling Units (2020 dollars per dwelling unit)**

Medium density Residential	Average Assessed Value per Unit	2020 Property Tax Revenues per Unit	2020 Net Operating Expenditures per Unit	Incremental Facility/ Equipment Operating Expenditures	2020 Operating Surplus (Deficit) per Unit	Incremental Lifecycle Capital Related Expenditures	Incremental Local Service Capital Related Expenditures	2020 Surplus (Deficit) per Unit
Cataraqui North	294,667	3,216	1,584	272	1,361	1,319	354	(313)
Williamsville Main Street	217,805	2,565	1,584	272	710	1,319	354	(964)
Greenwood Park	261,800	2,797	1,584	272	942	1,319	354	(732)
Westbrook	258,200	2,818	1,584	272	963	1,319	354	(711)
Near Queen's Campus	268,438	3,162	1,584	272	1,306	1,319	354	(367)
North King's Town	160,357	1,889	1,584	272	33	1,319	354	(1,640)
Bayridge								
<b>Municipal Average</b>	<b>243,544</b>	<b>2,741</b>	<b>1,584</b>	<b>272</b>	<b>886</b>	<b>1,319</b>	<b>354</b>	<b>(788)</b>

#### 4.4 High Density – High-Rise Condominium Dwelling Units

Table 4-4 summarizes the impacts for high-rise condominium residential dwelling units. In 2020, average high-rise condominium dwellings unit generated a net operating surplus of approximately \$3,924 per unit. At the full lifecycle accounting levels these development types would continue to produce a net annual surplus of \$2,869 per unit. These surplus revenues are supported by relatively higher levels of property assessment per capita as compared to low and medium density development types, as well as the lower occupancy of these dwelling units and lower local service infrastructure requirements.

Surplus revenues in excess of full lifecycle accounting could be used to offset deficits exhibited for other development types, suppressing property tax increases in aggregate. It should be noted however that the City's condominium development only represent 15% of all high density residential dwelling units. As such, an increased proportion of this ownership type of development over the forecast period would serve to improve the City aggregate fiscal position.

Similar to other residential dwelling unit types, there appears to be a market assessment comparative advantage for high density condominium development with the Near Queen's Campus area, which produces higher than average annual surplus revenues per unit. Comparatively, similar developments within the Cataraqui North area would produce the lowest per unit assessed values for the surveyed geographic areas.





**Table 4-4**  
**City of Kingston**  
**Fiscal Impact Summary for High Density – High-Rise Condominium Residential Dwelling Units (2020 dollars per dwelling unit)**

High density Residential (Condo)	Average Assessed Value per Unit	2020 Property Tax Revenues per Unit	2020 Net Operating Expenditures per Unit	Incremental Facility/ Equipment Operating Expenditures	2020 Operating Surplus (Deficit) per Unit	Incremental Lifecycle Capital Related Expenditures	Incremental Local Service Capital Related Expenditures	2020 Surplus (Deficit) per Unit
Cataragui North	321,488	3,465	1,151	198	2,117	959	96	1,061
Williamsville Main Street	331,677	3,861	1,151	198	2,513	959	96	1,458
Greenwood Park	476,248	5,023	1,151	198	3,675	959	96	2,619
Westbrook	476,248	5,133	1,151	198	3,785	959	96	2,730
Near Queen's Campus	892,066	10,385	1,151	198	9,037	959	96	7,981
North King's Town	335,557	3,906	1,151	198	2,558	959	96	1,503
Bayridge	476,248	5,133	1,151	198	3,785	959	96	2,730
<b>Municipal Average</b>	<b>472,790</b>	<b>5,273</b>	<b>1,151</b>	<b>198</b>	<b>3,924</b>	<b>959</b>	<b>96</b>	<b>2,869</b>

## 4.5 High Density – High-Rise Apartment Dwelling Units

Table 4-5 summarizes the impacts for high-rise apartment residential dwelling units at full lifecycle accounting. By comparison with high-rise condominium dwelling units, both units exhibit the same occupancy levels (i.e. 1.6 persons per unit) and thus the same service demands. However, property tax revenues generated for apartment dwelling units are lower than high density condominiums, averaging \$2,105/unit as compared to \$5,273/unit, for the surveyed properties respectively. This is due in part to the change in property tax ratios for New Multi-Residential properties (i.e. tax ratio of 1) compared with Multi-Residential properties (i.e. tax ratio of 1.7). As the intent of the analysis is to measure the fiscal impacts of new development over the forecast period, the New Multi-Residential tax rate has been applied to determined taxation revenues per unit.

As such, in 2020 values, average high-rise apartment dwelling units generated a net operating surplus of approximately \$756 per unit. At the full lifecycle accounting levels, this unit would produce a net annual deficit of \$299 per unit. High-rise apartment units constructed over the forecast period can be expected to require tax increases of 14% from current levels to fund the full cost accounting obligations of services. Property assessment values across the surveyed geographic areas of the City for these types of residential dwelling units are generally consistent.



**Table 4-5  
City of Kingston  
Fiscal Impact Summary for High Density – High-Rise Apartment Residential  
Dwelling Units (2020 dollars per dwelling unit)**

High density Residential (Apartment)	Average Assessed Value per Unit	2020 Property Tax Revenues per Unit	2020 Net Operating Expenditures per Unit	Incremental Facility/ Equipment Operating Expenditures	2020 Operating Surplus (Deficit) per Unit	Incremental Lifecycle Capital Related Expenditures	Incremental Local Service Capital Related Expenditures	2020 Surplus (Deficit) per Unit
Cataragui North	202,233	2,180	1,151	198	831	959	96	(224)
Williamsville Main Street	187,611	2,184	1,151	198	836	959	96	(220)
Greenwood Park	222,477	2,324	1,151	198	975	959	96	(80)
Westbrook								
Near Queen's Campus	162,277	1,889	1,151	198	541	959	96	(515)
North King's Town	167,266	1,947	1,151	198	599	959	96	(457)
Bayridge								
<b>Municipal Average</b>	<b>188,373</b>	<b>2,105</b>	<b>1,151</b>	<b>198</b>	<b>756</b>	<b>959</b>	<b>96</b>	<b>(299)</b>

## 4.6 Non-Residential – Commercial Retail Developments

The net impacts of non-residential developments are presented per 1,000 square feet (sq.ft.) of gross floor area (GFA) basis. Table 4-6 summarizes the average GFA impacts for non-residential commercial retail developments. In 2020 dollars, commercial retail developments generated a net operating surplus of approximately \$2,449 per 1,000 sq.ft. of GFA. At the full lifecycle accounting levels, this net annual surplus would decrease to \$1,084 per 1,000 sq.ft. of GFA. For commercial retail developments constructed over the forecast period, the marginal increase in net expenditures generated by this type of development would be fully recovered through the incremental assessment and tax revenues generated. Retail assessed values are generally consistent throughout the City, with lower than average assessed values witnessed in the sampled areas of Near Queen's Campus and Westbrook.

**Table 4-6  
City of Kingston  
Fiscal Impact Summary for Non-Residential – Commercial Retail Developments  
(2020 dollars per 1,000 sq.ft. of GFA)**

Retail	Average Assessed Value per 1,000 sq.ft. of GFA	2020 Property Tax Revenues per 1,000 sq.ft. of GFA	2020 Net Operating Expenditures per 1,000 sq.ft. of GFA	Incremental Facility/ Equipment Operating Expenditures	2020 Operating Surplus (Deficit) per 1,000 sq.ft. of GFA	Incremental Lifecycle Capital Related Expenditures	Incremental Local Service Capital Related Expenditures	2020 Surplus (Deficit) per 1,000 sq.ft. of GFA
Cataragui North	144,381	3,081	447	185	2,449	820	202	1,427
Williamsville Main Street	160,774	3,706	727	301	2,678	1,333	415	930
Greenwood Park	170,775	3,532	641	265	2,625	1,176	293	1,156
Westbrook	72,351	1,544	494	204	846	905	96	(155)
Near Queen's Campus	116,175	2,678	491	203	1,983	901	184	898
North King's Town	161,965	3,733	558	231	2,944	1,024	324	1,596
Bayridge								
<b>Municipal Average</b>	<b>151,021</b>	<b>3,276</b>	<b>585</b>	<b>242</b>	<b>2,449</b>	<b>1,072</b>	<b>293</b>	<b>1,084</b>



## 4.7 Non-Residential – Commercial Office Developments

Table 4-7 summarizes the per GFA impacts for non-residential commercial office developments. In 2020 values, commercial office developments generated a net operating surplus of approximately \$2,004 per sq.ft. of GFA. At the full lifecycle accounting levels, the net annual surplus would decrease to \$96 per 1,000 sq.ft. of GFA. Similar to commercial retail developments, for commercial office developments constructed over the forecast period, on average, it is anticipated that the marginal increase in net expenditures generated by this type of development would be recovered through the incremental assessment and tax revenues generated. Property assessment values per 1,000 sq.ft. of GFA are relatively consistent across the surveyed geographic areas, with higher than average assessed values witnessed in the Near Queen's Campus area of the City.

**Table 4-7**  
**City of Kingston**  
**Fiscal Impact Summary for Non-Residential – Commercial Office Developments**  
**(2020 dollars per 1,000 sq.ft. of GFA)**

Office	Average Assessed Value per 1,000 sq.ft. of GFA	2020 Property Tax Revenues per 1,000 sq.ft. of GFA	2020 Net Operating Expenditures per 1,000 sq.ft. of GFA	Incremental Facility/ Equipment Operating Expenditures	2020 Operating Surplus (Deficit) per 1,000 sq.ft. of GFA	Incremental Lifecycle Capital Related Expenditures	Incremental Local Service Capital Related Expenditures	2020 Surplus (Deficit) per 1,000 sq.ft. of GFA
Cataraqui North	108,789	2,322	888	367	1,067	1,629	380	(942)
Williamsville Main Street	122,903	2,833	527	218	2,088	966	225	896
Greenwood Park	121,984	2,523	1,082	447	993	1,985	463	(1,454)
Westbrook								
Near Queen's Campus	245,207	5,652	1,321	546	3,784	2,424	565	795
North King's Town	112,692	2,598	621	257	1,720	1,139	319	262
Bayridge								
<b>Municipal Average</b>	<b>142,315</b>	<b>3,185</b>	<b>836</b>	<b>346</b>	<b>2,004</b>	<b>1,532</b>	<b>376</b>	<b>96</b>

## 4.8 Non-Residential – Industrial Developments

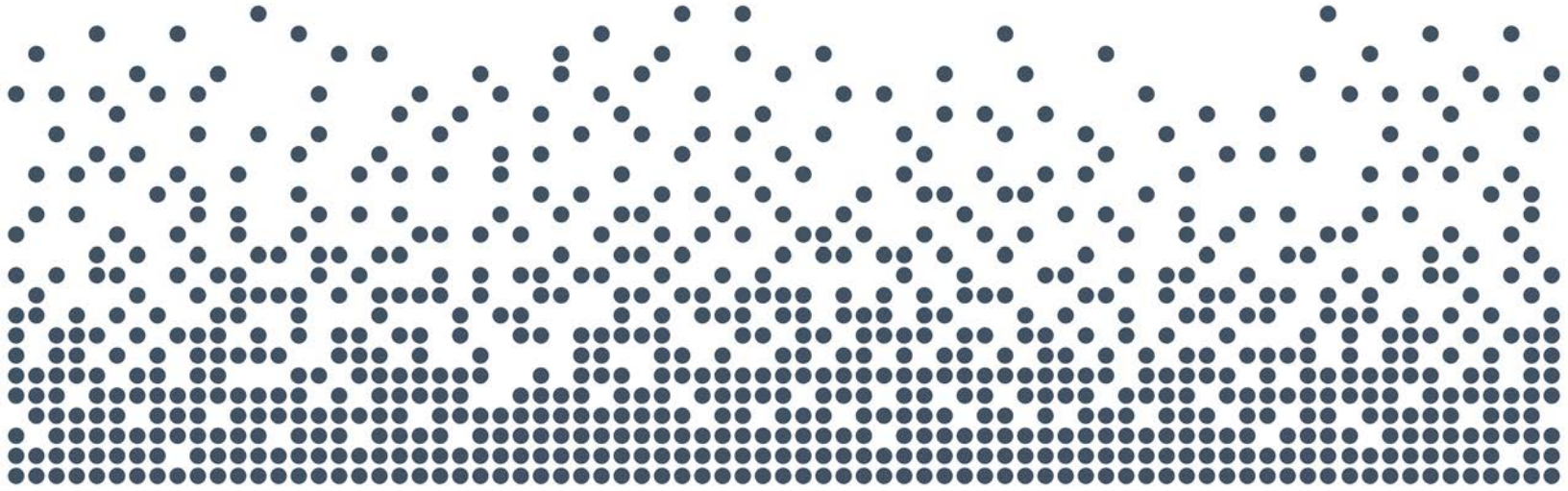
Based on the limited sample provided for industrial development (Table 4-8), this development type produces annual net surplus taxation revenues of \$1,047 per 1,000 sq.ft. of GFA for operating costs. However, when considered on a full lifecycle accounting basis, at 2020 tax rates, this type of development would produce an annual deficit of \$695 per 1,000 sq.ft. of GFA. This is generally inconsistent with traditional municipal study that industrial developments produce annual taxation revenues in excess of the marginal costs of service received. This could relate, in part, to the City's tax ratio policy. On average, industrial development constructed over the forecast



period can be expected, to require tax increases of 36% from current levels to fund the full cost accounting obligations of services.

**Table 4-8**  
**City of Kingston**  
**Fiscal Impact Summary for Non-Residential – Industrial Developments**  
**(2020 dollars per 1,000 sq.ft. of GFA)**

Industrial	Average Assessed Value per 1,000 sq.ft. of GFA	2020 Property Tax Revenues per 1,000 sq.ft. of GFA	2020 Net Operating Expenditures per 1,000 sq.ft. of GFA	Incremental Facility/ Equipment Operating Expenditures	2020 Operating Surplus (Deficit) per 1,000 sq.ft. of GFA	Incremental Lifecycle Capital Related Expenditures	Incremental Local Service Capital Related Expenditures	2020 Surplus (Deficit) per 1,000 sq.ft. of GFA
Cataraqui North	68,913	1,954	641	265	1,047	1,176	567	(695)
Williamsville Main Street								
Greenwood Park								
Westbrook								
Near Queen's Campus								
North King's Town								
Bayridge								
<b>Municipal Average</b>	<b>68,913</b>	<b>1,954</b>	<b>641</b>	<b>265</b>	<b>1,047</b>	<b>1,176</b>	<b>567</b>	<b>(695)</b>



# Chapter 5

## Fiscal Impacts by Development Type



## 5. Fiscal Impacts by Development Area

This section summarizes fiscal impacts for the three geographic areas, i.e. Kingston West, Kingston Central and Kingston East, and in combination. The assessment is based on the fiscal impacts by development type for each of the surveyed development areas as presented in Chapter 4 and incorporates the development forecast assumptions for each of these areas as provided in the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046" Study and summarized in Chapter 2 herein.

### 5.1 Residential Fiscal Impacts by Geographic Area

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Table 5-1 summarizes the fiscal impacts for residential development by geographic area. The first part of the table provides the full cost lifecycle accounting fiscal impacts by dwelling unit type for each of the surveyed developments, as summarized in Chapter 4. The per dwelling unit impacts are then presented on a per net hectare (ha.) of development area, based on the underlying development type and density assumptions of the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046" Study. The second half of the table then aggregates these observations by geographic area, comprising the averages of each surveyed development in the respective geographic area, as summarized in Chapter 2.

On a per hectare basis, the Near Queen's Campus area would produce a fiscal surplus of \$35,516 per ha. All of the other surveyed developments would generate fiscal deficits ranging from \$11,966/ha. in Bayridge to \$29,450/ha. in North King's Town. In the context of the broader geographic areas, the greenfield development area of Kingston West and Kingston East would generate per hectare deficits of \$13,330 and \$23,304 respectively. The largely infill and intensification development within Kingston Central would produce a per hectare deficit of \$3,473.

The overall weighting of development within the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046" Study would produce an annual fiscal deficit per net residential hectare of \$8,135. In the context of 2020 tax rates, this would equate to a tax rate increase of approximately 8% to fund the full lifecycle costs of residential development, increasing the weighted per hectare tax revenue from \$107,474 to \$115,610.



The comparative fiscal benefits exhibited in the infill and intensification area of Kingston Central arises for the higher density per hectare, i.e. 60 units per ha. as compared to 26 units/ha. in Kingston West and 19 units/ha. in Kingston East, and the fiscal surpluses generated by high density condominium developments to cross subsidize deficits of other development types.

**Table 5-1**  
**City of Kingston**  
**Residential Fiscal Impacts by Geographic Area (2020 dollars per hectare)**

Area	2020 Surplus/(Deficit) per Dwelling Unit					2020 Total Surplus/(Deficit) per Hectare					
	Low	Low (w/ 2nd Unit)	Medium	Apartment	Condo	Low	Low (w/ 2nd Unit)	Medium	Apartment	Condo	Total
Catarauqui North	(1,130)	(2,915)	(313)	(224)	1,061	(13,301)		(1,157)	(2,003)	1,675	(14,785)
Williamsville Main Street	(764)	(2,584)	(964)	(220)	1,458	(324)	(13,247)	(4,491)	(9,227)	10,804	(16,485)
Greenwood Park	(1,668)	(3,776)	(732)	(80)	2,619	(21,754)		(2,482)	(195)	1,127	(23,304)
Westbrook	(1,040)	(3,358)	(711)	(299)	2,730	(12,243)		(2,631)	(2,674)	4,308	(13,240)
Near Queen's Campus	2,738	(289)	(367)	(515)	7,981	1,160	(1,480)	(1,712)	(21,616)	59,163	35,516
North King's Town	(1,232)	(2,584)	(1,640)	(457)	1,503	(522)	(13,247)	(7,644)	(19,176)	11,139	(29,450)
Bayridge	(908)	(2,584)	(788)	(299)	2,730	(10,684)		(2,916)	(2,674)	4,308	(11,966)

Area	2020 Surplus/(Deficit) per Dwelling Unit					2020 Total Surplus/(Deficit) per Hectare					
	Low	Low (w/ 2nd Unit)	Medium	Apartment	Condo	Low	Low (w/ 2nd Unit)	Medium	Apartment	Condo	Total
Kingston West	(1,026)	(2,952)	(604)	(274)	2,174	(12,076)		(2,235)	(2,450)	3,430	(13,330)
Kingston Central	247	(1,819)	(990)	(397)	3,647	105	(9,324)	(4,615)	(16,673)	27,035	(3,473)
Kingston East	(1,668)	(3,776)	(732)	(80)	2,619	(21,754)		(2,482)	(195)	1,127	(23,304)
<b>Total Kingston</b>	(572)	(2,584)	(788)	(299)	2,869	(5,231)	(3,212)	(3,075)	(4,879)	8,262	(8,135)

## 5.2 Non-Residential Fiscal Impacts by Geographic Area

Table 5-2 summarizes the fiscal impacts for non-residential development by geographic area. The first part of the table provides the full cost lifecycle accounting fiscal impacts by non-residential development type (i.e. office, retail and industrial) for each of the surveyed developments. The per 1,000 square foot of GFA impacts are then presented on a per net hectare (ha.) of development area, based on the underlying non-residential development mix and density assumptions of the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046" Study. The second half of the table then aggregates these observations by geographic area, comprising the averages of each surveyed development in the respective of the broader geographic areas (i.e. Kingston West, Kingston Central and Kingston East).

On a per hectare basis, the areas of Williamsville Main Street, Near Queen's Campus, and North King's Town would produce a fiscal surpluses ranging from \$20,176/ha. to \$8,272/ha. All of the other surveyed developments would generate fiscal deficits ranging from \$8,769/ha. in Bayridge to \$26,590/ha. in Greenwood Park. In the context



of the broader geographic areas, Kingston West and Kingston East would generate per hectare deficits of \$13,970 and \$26,590 respectively. By comparison, Kingston Central would produce a per hectare surplus of \$15,335. The overall weighting of development within the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046" Study would produce an annual fiscal deficit per net non-residential hectare of \$6,378. In the context of 2020 tax rates, this would equate to a tax rate increase of approximately 6% to fund the full lifecycle costs of non-residential development, increasing the weighted per hectare tax revenue from \$100,770 to \$107,148.

The comparative fiscal benefits exhibited in Kingston Central arises for the higher forecast amounts of office and retail commercial development and minimal forecast industrial development.

**Table 5-2**  
**City of Kingston**  
**Non-Residential Fiscal Impacts by Geographic Area (2020 dollars per hectare)**

Area	2020 Surplus/(Deficit) per 1,000 sq.ft. of GFA			2020 Total Surplus/(Deficit) per Hectare			
	Office	Retail	Industrial	Office	Retail	Industrial	Total
Cataraqui North	(942)	1,427	(695)	(8,447)	10,015	(17,237)	(15,669)
Williamsville Main Street	896	930	(695)	21,766	4,882	(6,472)	20,176
Greenwood Park	(1,454)	1,156	(695)	(10,708)	4,864	(20,746)	(26,590)
Westbrook	96	(155)	(695)	857	(1,091)	(17,237)	(17,471)
Near Queen's Campus	795	898	(695)	19,314	4,716	(6,472)	17,558
North King's Town	262	1,596	(695)	6,366	8,379	(6,472)	8,272
Bayridge	96	1,084	(695)	857	7,611	(17,237)	(8,769)

Area	2020 Surplus/(Deficit) per 1,000 sq.ft. of GFA			2020 Total Surplus/(Deficit) per Hectare			
	Office	Retail	Industrial	Office	Retail	Industrial	Total
Kingston West	(250)	785	(695)	(2,244)	5,512	(17,237)	(13,970)
Kingston Central	651	1,141	(695)	15,815	5,992	(6,472)	15,335
Kingston East	(1,454)	1,156	(695)	(10,708)	4,864	(20,746)	(26,590)
<b>Total Kingston</b>	<b>(36)</b>	<b>991</b>	<b>(695)</b>	<b>(333)</b>	<b>9,176</b>	<b>(15,221)</b>	<b>(6,378)</b>





### 5.3 Overall Fiscal Impacts of Forecast Development

Table 5-3 summarizes the fiscal impacts of development by geographic area, and in combination, based on the overall weighting of development within the City’s “Population, Housing and Employment Growth Forecast, 2016 to 2046” Study. The City forecast study anticipates land development across the three geographic areas to consist of 75% residential and 25% non-residential. Development within Kingston West would comprise 80% residential and 20% non-residential, Kingston Central would consist of 69% residential and 31% non-residential, and Kingston East 65% residential and 35% non-residential.

Based on this weighting of development, Kingston West would produce an annual fiscal deficit per net hectare of \$13,460 for full cost lifecycle accounting obligations. This would equate to an increase to 2020 tax rates of 15% to fully fund these obligations. Kingston Central would produce an annual fiscal surplus of \$2,309 per ha. Kingston East forecast development would produce an annual fiscal deficit of \$24,464 per ha. or requiring 2020 tax rate increases of 33% to achieve full cost accounting recovery. Incorporating the respective development across the three geographic area would produce a weighted overall deficit of \$7,701/ha. To achieve full cost lifecycle accounting levels, 2020 tax rate would be required to increase by 7%.

**Table 5-3**  
**City of Kingston**  
**Overall Fiscal Impacts by Geographic Area (2020 dollars per hectare)**

Area	Residential		Non Residential		Total 2020 Surplus/ (Deficit) per Ha	Total 2020 Tax Revenues per Ha	Full Lifecycle Cost Tax Impact
	Net Developable Land (Ha)	2020 Surplus/ (Deficit) per Ha	Net Developable Land (Ha)	2020 Surplus/ (Deficit) per Ha			
Kingston West	80%	(13,330)	20%	(13,970)	(13,460)	87,437	-15%
Kingston Central	69%	(3,473)	31%	15,335	2,309	155,001	1%
Kingston East	65%	(23,304)	35%	(26,590)	(24,464)	73,256	-33%
<b>Total Kingston</b>	<b>75%</b>	<b>(8,135)</b>	<b>25%</b>	<b>(6,378)</b>	<b>(7,701)</b>	<b>105,817</b>	<b>-7%</b>



## 5.4 Observations and Conclusions

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The following observations and conclusions are provided from the assessment herein. These observations are provided to guide the strategic growth management decisions of the City. The findings of these analysis by development type and location can be used by the City to assess alternative growth scenarios beyond those considered herein based on the City's "Population, Housing and Employment Growth Forecast, 2016 to 2046" Study.

- At current tax rates, taxation revenues sufficiently offset incremental annual net service/program and facility/equipment-related maintenance operating expenditures for all development types and all surveyed development areas.
- Assessing the fiscal impacts for different development types from a full costs accounting lifecycle perspective, only high density condominium, commercial office and commercial retail developments would produce sufficient property tax revenues to fund these costs. For all other development types, the analysis indicates that increases to current 2020 tax rates would be required to fund the full lifecycle costs of development.
- Affordable housing development types, such as rental apartment and single detached dwellings with second residential units, generally produce poorer fiscal outcomes than other residential development types. Initiatives to promote these types of development could be fiscally supported if balanced with higher amounts of condominium and non-residential commercial developments.
- The need for increases to current property tax rates to address full cost lifecycle accounting requirements should be considered in the context of the City's Asset Management Plan. As most municipal property tax rates do not reflect the full cost lifecycle accounting of services currently, the required increase to meet current obligations relative to the 7% increase in forecast tax rates herein, would provide perspective if future development is accretive and would serve to reduce future City-wide tax rate increases absent development.
- Considering the locations of future development, developments within the Kingston Central area generally produce better fiscal outcomes than forecasts for Kingston West and Kingston Central areas. This is reflective of higher assessed



values (particularly within the Near Queen's Campus area), higher development densities, lower local services infrastructure requirements due to the anticipated mix of development types, and the balance of forecast condominium and non-residential commercial development.

Potential considerations for the City that may service to incentivize developments with relatively higher fiscal returns to balance broader development objectives may include targeted development charges policies, use of scoped community benefit charges, planning policy incentives, and community improvement plans. The Mayor's Task Force on Housing has recommended that City staff undertake an analysis of different tools that are available to assist with bringing more affordable housing to the market. Staff will be presenting addressing the initiatives of the Mayor's Task force in the coming year, and the analysis contained herein can be used to inform the undertaking.