

FINAL REPORT

PREPARED BY HEMSON FOR THE CITY OF EDMONTON

CITY PLAN GROWTH SCENARIOS RELATIVE FINANCIAL ASSESSMENT

February 13, 2020

*This technical study was initiated to inform the development of The City Plan.
The technical studies were considered alongside public engagement, modelling
and professional judgment to determine overall outcomes for The City Plan.*



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EXECUTIVE SUMMARY

The City of Edmonton is currently undertaking the development of its new City Plan, which will help to guide the city as it grows toward an ultimate population of two million. As part of this work, Hemson Consulting Ltd. is assisting the City in undertaking a Relative Financial Assessment of growth scenarios in order to build an understanding of the relative capital and operating cost impacts of various forms of growth.

This report presents the results and observations of the comparative assessment of the City Plan Land Use Concept against a Business As Usual scenario. It is intended to provide financial context and help to guide future planning and investment decisions as the City Plan implementation moves forward.

The study process involved extensive consultation with City staff across various service areas in the development of a Relative Financial Assessment Model. Following final approval of the Relative Financial Assessment Study, a user-friendly, Excel-based model will be delivered to City staff for future sensitivity testing. Results are summarized as follows:

- Overall, the analysis shows that the City Plan Land Use Concept is more financially efficient than the Business As Usual scenario. This is primarily due to the more compact and strategic development patterns offered by the City Plan. By containing future development within the City's current urban boundary, the need for new road infrastructure is reduced, along with fire stations, recreation facilities, and libraries. Some of these savings are offset by higher transit costs; both capital and operating.
- Anticipated costs related to the City boundary expansion required under the Business As Usual scenario further strengthen the comparative financial performance of the City Plan Land Use Concept.
- The City Plan Land Use Concept involves greater investments in transit infrastructure and public realm improvements. Some cost savings are found by focusing the greatest level of investment within the City Plan's strategically located network of nodes and corridors. Increased transit ridership and active transportation results in a range of non-fiscal benefits including personal health benefits and reduced greenhouse gas emissions.

- Assessment growth is anticipated to be slightly stronger under the City Plan Land Use Concept. This is due to a higher proportion of development being located in central areas of the city, which is typically assessed at higher values than suburban development. This further strengthens the financial performance of the City Plan.
- After accounting for potential capital costs, operating cost impacts, and non-tax revenue, the total increase in net levy requirement (i.e. total City revenues from taxation) at City Plan build-out (2065) is calculated at 8% lower than the Business As Usual scenario. The required residential tax rate is calculated at 5% lower at build-out.

These comparative results are summarized in the table below.

SERVICE	TOTAL AT 2065 (\$MILLIONS)		
	CITY PLAN LAND USE CONCEPT	BUSINESS AS USUAL	CITY PLAN RELATIVE TO BUSINESS AS USUAL
Expenditures			
Capital	\$27,215.4	\$30,220.7	-10%
Operating	\$5,400.8	\$5,282.2	2%
Assessment Growth			
Taxable	\$391.1	\$383.9	2%
Weighted*	\$575.9	\$571.4	0.6%
Taxation			
Increase in Net Levy Requirement	95%	103%	-8%
Residential Tax Rate	0.749%	0.788%	-5%

**Weighted assessment adjusts non-residential assessment by existing tax ratios to derive a total residential equivalent assessment.*

The City Plan Land Use Concept supports Edmonton's strategic objectives while promoting long-term fiscal sustainability. In addition to fiscal benefits, it offers high quality public spaces, efficient transit connections, and a range of housing options for residents, while helping to protect the natural environment.

1. INTRODUCTION AND STUDY BACKGROUND

The City of Edmonton is currently undertaking the development of its City Plan, which will serve as a new comprehensive Municipal Development Plan, Transportation Master Plan, and strategic policy document to guide the city as it grows toward a population of two million. The draft City Plan land use concept has been established and was presented to Urban Planning Committee on September 17, 2019. The City Plan is anticipated to move forward to formal public hearing in the spring of 2020.

As part of this work, Hemson Consulting Ltd. has assisted the City in undertaking financial assessments of a number of growth scenarios to build an understanding of the potential long-term City cost and revenue impacts of various forms of growth and development.

This report presents the methodology, results and observations of the Hemson's relative financial assessment of the draft City Plan Land Use Concept against a "Business As Usual" growth scenario. It is intended to provide a comparative fiscal analysis of alternative development patterns and to be used as a tool to inform future land use policy and infrastructure investment decisions.

Financial impacts are only one consideration in the land use planning process. It is important that the results of this analysis be viewed in the context of the City's broader strategic objectives, such as:

- Providing equitable access to high quality City services, amenities, and gathering places integrated with transportation infrastructure and connections;
- Providing a broader range of industry, business, and employment in Edmonton;
- Preserving the city's heritage assets while supporting growth;
- Protecting the environment through good design and conscious development decisions; and
- Providing a range of housing options for residents, including attainable and affordable housing.

This report is structured as follows:

- Section II introduces the study process and provides background on the City Plan Land Use Concept.
- Section III describes the methodology, assumptions, and limitations of the study.
- Section IV includes the comparative analysis of capital and operating costs anticipated under the City Plan Land Use Concept and Business As Usual scenario.
- Section V provides a revenue comparison of the two growth scenarios, with a focus on assessment growth potential.
- Section VI provides a summary of key observations and brings the financial analyses together into a tax levy and tax rate impact assessment.
- Section VII concludes the report with a set of recommendations.

2. STUDY PROCESS AND BACKGROUND

The following describes Hemson's study process, including the growth scenarios and land use concepts evaluated at each stage of the process.

A. RELATIVE FINANCIAL ASSESSMENT STUDY PROCESS

The City Plan Relative Financial Assessment study process began in early 2019. The study was generally undertaken in two stages:

i. Interim Analysis

The study began with a high-level comparative evaluation of four conceptual growth scenarios established by City staff. Each of the growth scenarios was designed to accommodate an ultimate City population of approximately 2.0 million, as well as 1.1 million jobs. This represents total growth of 1.1 million people and 526,000 jobs from the 2016 Census base. These four conceptual growth scenarios are described as follows:

- **City I – Central City** focused growth within the city's core areas, and particularly within the Central and Scona districts.
- **City II – Node City** included intensification at key nodes, located throughout the city, to promote the development of vibrant urban places.
- **City III – Corridor City** focused development along key transit corridors across the city.
- **Business As Usual** reflects historical growth patterns, including a relatively high proportion of suburban greenfield development. Due to the nature of these growth patterns, City staff have determined that an additional, non-geographically specified area outside of the current City boundaries would be required in order to accommodate population growth to 2.0 million and employment growth to 1.1 million. This area is referred to throughout this report as the "Future Additional Lands".

During this stage of the study, Hemson consulted with City staff representatives of various service areas such as Roads, Parks and Open Space, Transit, Library, Fire and Police on the potential impacts of each of the four growth scenarios on their servicing needs. The Relative Financial Assessment Model was then developed, and used to assess

the potential capital and operating costs associated with each of the four growth scenarios.

Hemson's Interim Summary Report, released in August 2019, summarized the results of this work. The Node City and Central City scenarios were found to be the most fiscally efficient, primarily due to the concentration of public realm investments within well-defined locations in the city, combined with relatively high assessment growth and tax revenue potential. These results, summarized in Table 1, were, in part, used to assist City staff in developing the City Plan Land Use Concept.

Table 1. Interim Analysis: Summary of Results

	CITY I CENTRAL CITY	CITY II NODE CITY	CITY III CORRIDOR CITY	BUSINESS AS USUAL
Expenditures				
Capital Expenditures	Medium	Medium	Highest	Lowest
Operating Expenditures	Medium	Lowest	Medium	Lowest
Assessment Growth				
Taxable	Highest	Medium	Medium	Lowest
Weighted	Highest	Medium	Lowest	Medium
Overall Fiscal Ranking	2	1	4	3

It is noted that the interim analysis calculated high capital costs under the Corridor City scenario due to assumptions around significant streetscaping investments along all identified corridors. However, the approach and assumptions were revisited as part of the detailed analysis process and a differentiated approach toward the hierarchy of corridors (i.e. primary, secondary) was taken. As a result, overall corridor streetscaping cost assumptions related to the City Plan Land Use Concept are substantially lower.

ii. Detailed Analysis

Following further progress on the City Plan work, Hemson undertook a detailed comparative analysis of the Land Use Concept against the Business As Usual scenario. The City Plan Land Use Concept was established by City staff based on the evaluations of the conceptual growth scenarios in the earlier stages of the study. It is representative of a combination of the planning principles behind those growth scenarios, and directs much of the City's future residential and non-residential development within a strategically defined network of nodes and corridors. Once again, the City Plan Land Use Concept

accommodates an ultimate City population of approximately 2.0 million, as well as 1.1 million jobs.

At the early stages of the detailed analysis process, Hemson held a second round of in-person meetings with service area representatives to:

- Review the capital infrastructure and operating data provided as part of the interim analysis;
- Make any necessary refinements to the Business As Usual data; and
- Evaluate the potential capital and operating needs associated with implementation of the City Plan Land Use Concept.

The Relative Financial Assessment Model was then refined to allow for a more detailed comparison of these two scenarios. Ongoing discussions with service area staff were held throughout this process. The results of the detailed analysis are described in this report and are intended to support the finalization and approval of the City Plan.

As a next step, Hemson will further tailor the financial model for staff use through the coming years to help track City Plan implementation progress. Moving forward, the City may use this user-friendly model as a tool to track and test the impacts of growth and development, capital investment decisions, and fiscal policies. Staff will also be able to adjust model assumptions such as capital induced operating impacts, assessment values, and non-tax revenue streams.

B. THE CITY PLAN LAND USE CONCEPT

The City Plan Land Use Concept was developed through a highly collaborative process involving extensive technical analyses and public engagement. The land use concept is integrated with a mass transit network, accommodating much of the future population and employment growth within strategically located nodes and corridors as well as the city centre.

Figure 1 illustrates the planned network of nodes and corridors connected by efficient mass transit. The City Plan Land Use Concept is expected to provide a number of non-financial benefits over the Business As Usual scenario, including preserving land by containing growth within the City's urban boundary, promoting active forms of transportation and reducing automobile use, and reducing greenhouse gas emissions. In

addition to these benefits, compact urban growth can often result in long-term fiscal efficiencies.

Table 2 compares the City’s development forecast under the City Plan Land Use Concept to the Business As Usual scenario. Both scenarios are designed to accommodate an ultimate population of approximately 2.0 million people, along with 1.1 million jobs. While the City Plan accommodates this growth within the current urban boundary, the Business As Usual scenario requires “Future Additional Lands” of an estimated 5,000 hectares in order to meet these targets, due to its higher rates of low density, suburban development.

It is noted that the reference year 2018 is used for the purposes of this analysis, rather than the City Plan base year of 2020. This aligns with the 2018 City budget information used within the Financial Assessment Model and reference point used as the basis for capital needs discussions with City staff.

The City Plan is expected to result in a high proportion of medium- and high-density residential unit growth. These units are likely to be more compact than low density development, with lower average household occupancy rates. This results in a greater number of residential units to accommodate the same population.

The City Plan is also expected to accommodate higher rates of growth in commercial employment uses such as office and retail, much of which will be centered in urban locations of the city, and lower rates of traditional industrial and institutional employment uses than the Business As Usual scenario. Some institutional uses (e.g. medical offices) are anticipated to be housed within urban commercial and mixed use building typologies, rather than in traditional institutional building typologies. It is noted that financial factors such as employment density and assessment values can be more reflective of building typology than employment sector. As such, some institutional employment has been captured under the “Commercial” category for the purposes of the financial assessment.

By comparison, the Business As Usual scenario is expected to lead to significant growth in industrial employment (e.g. manufacturing), primarily in suburban locations, as well as institutional employment (e.g. medical, education) in more traditional buildings. These types of industrial and institutional employment are typically associated with lower employment densities, and more floor space per worker, than employment in commercial or urban mixed-use building typologies. This results in higher forecasted building Gross Floor Area (GFA), which has a corresponding impact on forecasted assessment growth.

Figure 1. City Plan Land Use Concept

Source: City of Edmonton

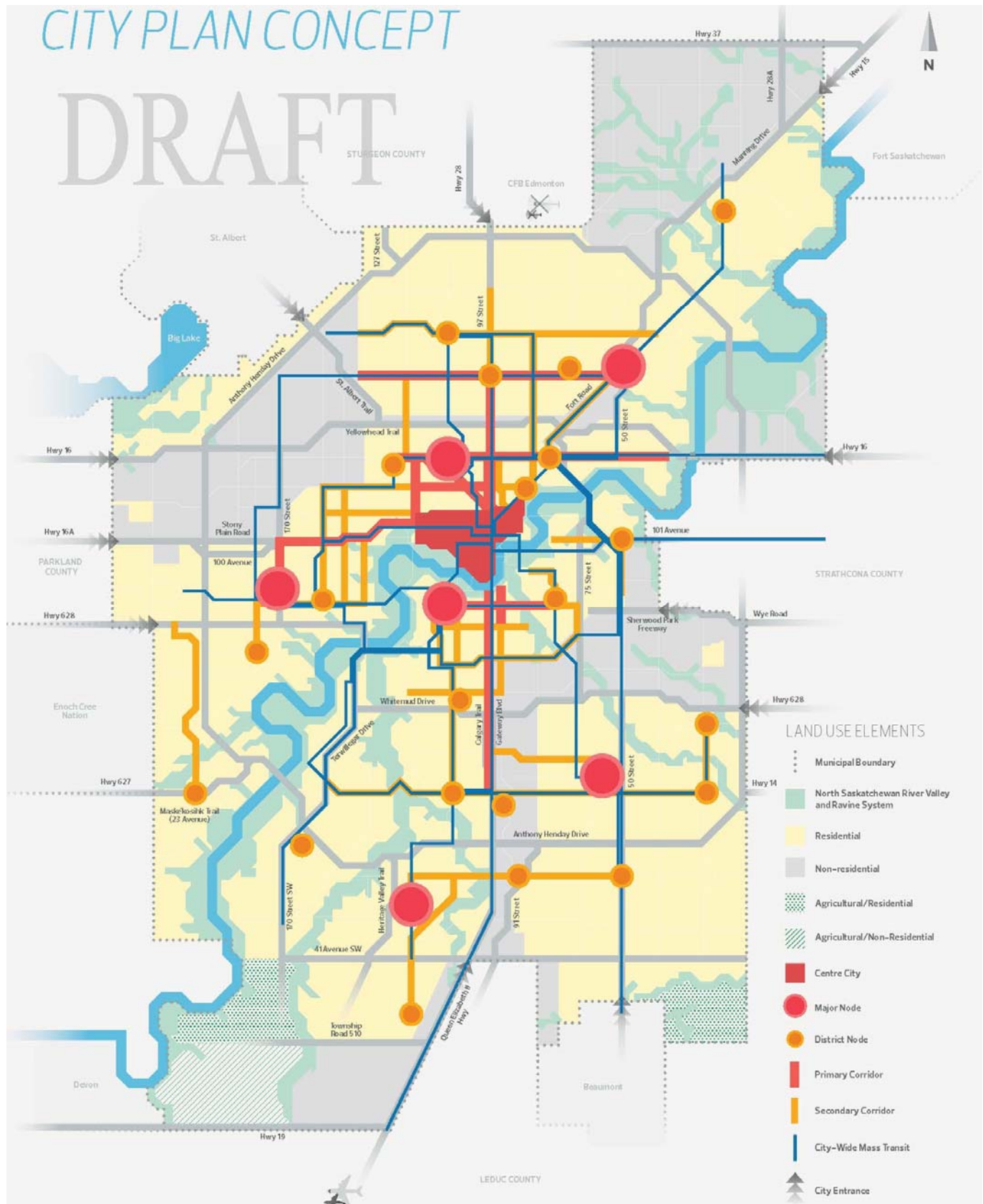


Table 2. Development Forecast Comparison: City Plan Land Use Concept vs. Business As Usual Scenario.

	CITY PLAN		BUSINESS AS USUAL	
	#	%	#	%
Population				
Population at 2018	941,300		941,300	
Population at 2065	2,004,000		2,000,000	
Change	1,062,700	113%	1,058,700	112%
Household Growth by Type				
Low Density	122,100	27%	200,600	50%
Medium Density	149,000	33%	116,700	29%
High Density	186,800	41%	87,100	22%
Total	457,900	100%	404,400	100%
Average Household Occupancy				
PPU at 2018	2.44		2.44	
PPU at 2065	2.37		2.53	
Change	(0.06)	-3%	0.09	4%
Employment				
Employment at 2018	585,600		585,600	
Employment at 2065	1,101,100		1,099,900	
Change	515,500	88%	514,300	88%
Employment Growth by Category				
Commercial	372,900	72%	181,300	35%
Industrial	121,800	24%	223,100	43%
Institutional	20,800	4%	110,000	21%
Total	515,500	100%	514,400	100%
New Non-Residential Gross Floor Area (m2)				
Commercial	13,096,600	43%	6,344,500	19%
Industrial	14,301,000	47%	20,148,600	60%
Institutional	3,022,600	10%	7,150,500	21%
Total	30,420,200	100%	33,643,600	100%

Many of the City's service areas are financially impacted by the location and nature of development. For example, new suburban or greenfield development often requires more road infrastructure than urban redevelopment and intensification, while intensification can lead to higher costs in certain service areas such as parks and transit, as demand for urbanized and heavily utilized public spaces grows along with transit ridership in urban areas. In addition, different types of built form, unit types, and density yield different property assessment values and therefore tax revenues.

Table 3 below provides a summary of the breakdown of development across the City's Developing and Redeveloping areas under each of the two growth scenarios. For the purposes of the Relative Financial Assessment Study, the Developing Area is considered to be lands outside of Anthony Henday Drive, while the Redeveloping Area is considered to be located within the boundary marked by Anthony Henday Drive. Development within the Business As Usual scenario also accounts for the Future Additional Lands.

Further details on the distribution of population and employment growth across planning districts under each scenario are included in the Appendix.

Table 3. Comparison of Developing and Redeveloping Area Population and Employment Growth, City Plan Land Use Concept vs. Business As Usual

	CITY PLAN LAND USE CONCEPT	BUSINESS AS USUAL*
Redeveloping Area		
Population Growth	650,511 61%	302,310 29%
Household Growth	294,905 64%	135,598 34%
Employment Growth	296,319 57%	161,317 31%
Developing Area (*including Future Additional Lands)		
Population Growth	412,160 39%	756,404 71%
Household Growth	162,955 36%	268,748 66%
Employment Growth	219,181 43%	353,028 69%

3. METHODOLOGY AND ASSUMPTIONS

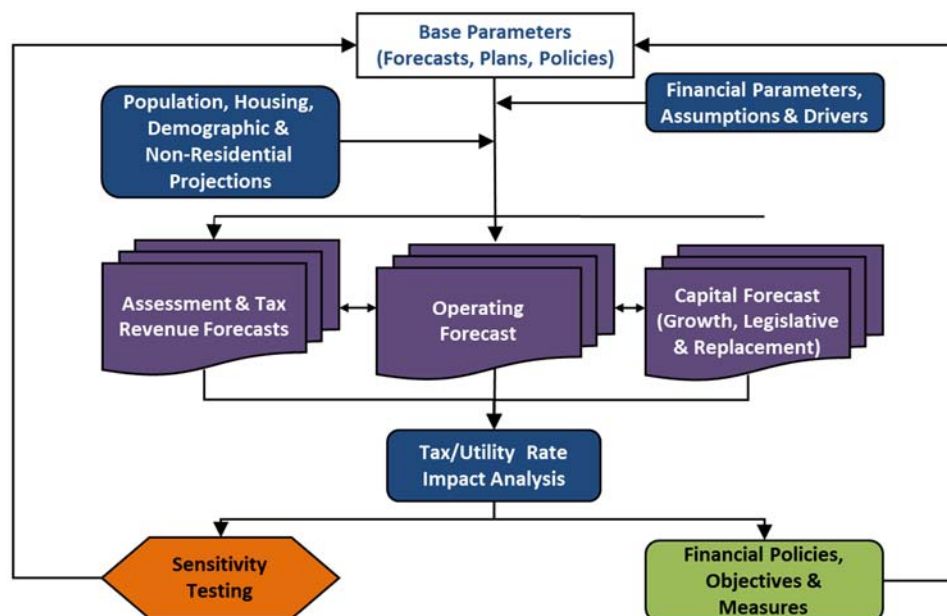
This section provides an overview of the Relative Financial Assessment Model as well as key study assumptions and limitations to be considered.

A. RELATIVE FINANCIAL ASSESSMENT MODEL STRUCTURE

Figure 2 below provides a schematic overview of the financial assessment model structure. The base parameters of the model, or primary inputs, include financial documents such as capital and operating budgets, current financial planning policies, and projections of the capital needs of each growth scenario. Other key inputs to the model include growth and development forecasts (e.g. population, household and employment growth) and other capital induced (e.g. staff hired to operate a new recreational facility) and/or other operating impacts.

The model accounts for municipal expenditures, including capital and operating costs, as well as revenues anticipated from assessment (property taxes) and any non-tax revenues such as grants and user fees. The result is an estimate of the potential net impacts of expenditures less revenues (tax, user fee, and other), resulting in a tax rate/utility impact assessment. This assessment can be used to evaluate the overall and relative affordability of the growth scenarios.

Figure 2. Financial Model Structure



B. GENERAL ASSUMPTIONS AND STUDY LIMITATIONS

The financial assessment is informed based on information provided by the City. Generally, 2019 Capital and Operating budgets as well as relevant financial plans and policies (e.g. taxation and off-site levy policies) inform the base model.

City staff within each service area were consulted to determine capital infrastructure needs to build-out under the City Plan Land Use Concept and Business As Usual scenario. These capital infrastructure needs were determined based on the projected population, household, and employment growth within each of the City's 15 planning districts under each of the two scenarios. The current capacity of any existing infrastructure was considered, along with differences in infrastructure needs and costing across various geographic locations. Staff were asked to identify costs associated with the growth-related portion of capital projects only (e.g. new facilities, or new gross floor area associated with a facility expansion project). For the purposes of the comparative analysis, it is assumed that the ongoing lifecycle costs of maintaining the City's existing infrastructure are constant across both scenarios.

For the Business As Usual scenario, staff and Hemson worked to develop all necessary assumptions for the non-geographically specified Future Additional Lands, which serves as a hypothetical 16th planning district for the purposes of the financial assessment. For each service area, capital cost assumptions were based on current and/or future anticipated service levels in comparable Developing Areas of the city.

The anticipated costs and revenues by planning district were then rolled up to the city-wide level to allow for an overall comparison of the two scenarios. The results of the financial forecast represent the ultimate build-out of each of the two scenarios. For the purposes of the model, full build-out is anticipated to occur in 2065 although the model assumes a constant rate of growth and capital investment and does not include a more detailed annualized assessment. However, the results of the build-out comparative assessment contained in this report are considered valid and robust. It is noted that following this comparative assessment, the user-friendly model delivered to City staff will include capabilities to adjust projects, costs, and timing as City Plan implementation moves forward.

The financial forecast does not consider increases in capital and/or operating costs resulting from inflation. Excluding the net effects of inflation on future expenditures allows for a comparative impact of the growth scenarios over the long-term planning period to full build-out. All costs are represented in current (2019) dollars.

For the purposes of the financial assessment it is assumed that the City will continue with the “status quo” approach to utilizing property taxes, off-site levies, and other funding sources; in other words, the current financial policies and practices are maintained into the future. Once again, staff may utilize the model in the future to test new financial policies, offsite levies, and other funding tools.

Finally, the model primarily considers the following City-owned and operated services:

- Roads and Related
- Transit
- Parks and Open Space
- Recreation Facilities
- Police
- Fire
- Library
- Waste Management
- General Government

Utilities services, owned and operated by EPCOR (i.e. Sanitary & Drainage, Water, Power), have been considered at a higher level through consultations with the appropriate staff, and commentary on the relative impact of each growth scenario on the provision of those services is included in the report. However, detailed utility rate impact analyses have not been conducted due to the high level of detail that could be provided at this time.

4. CAPITAL AND OPERATING COST COMPARISON

Details of the relative anticipated capital and operating impacts of the City Plan Land Use Concept against the Business As Usual scenario is described in this section. The impacts are described by City service area. Overall, the City Plan is anticipated to result in initial capital cost savings, as well as long-term fiscal efficiencies related to lifecycle costs. From an operating cost perspective, the two scenarios are comparable; this is largely due to higher transit investment and ridership under the City Plan, whereas the initial costs of transit infrastructure emplacement typically receive significant upper level government funding.

A. RELATIVE GROWTH-RELATED CAPITAL COSTS

The overall results of the growth-related capital forecast component of the financial assessment model are summarized in Table 4 and Table 5 below. The anticipated growth-related capital needs by each service area were derived through extensive consultations with service area staff. While the total anticipated growth-related capital costs for each City service are shown below, utilities services, owned and operated by EPCOR, were assessed at a higher level for comparative purposes only. It is noted that the City services costs shown represent the City's share of the cost of emplacement of growth-related infrastructure, and exclude any significant anticipated upper level government (Transit) and developer (Roads and Related) shares. Infrastructure lifecycle costs are assessed separately under Section B.

Table 4. Relative Growth-Related Capital Forecast Summary at Build-Out, City Services

SERVICE	TOTAL AT 2065 (\$MILLIONS)		
	CITY PLAN LAND USE CONCEPT	BUSINESS AS USUAL	CITY PLAN RELATIVE TO BUSINESS AS USUAL
Roads and Related	\$8,742.2	\$12,326.4	\$ (3,584.1)
Transit	\$4,077.8	\$3,416.9	\$660.9
Parks & Open Space	\$6,310.7	\$6,125.0	\$185.7
Recreation Facilities	\$3,946.7	\$4,171.7	\$ (225.0)
Police	\$590.9	\$590.9	\$-
Fire	\$537.5	\$682.9	\$ (145.4)
Library	\$318.7	\$337.0	\$ (18.3)
Waste Management	\$ 976.3	\$846.3	\$130.0
General Government	\$1,714.5	\$1,723.6	\$ (9.1)
TOTAL	\$27,215.4	\$30,220.7	\$(3,005.3) <i>(-10%)</i>

Table 5. Relative Growth-Related Capital Forecast Summary at Build-Out, EPCOR Services

SERVICE	CITY PLAN LAND USE CONCEPT RELATIVE TO BUSINESS AS USUAL		
	HIGHER OR LOWER	MAGNITUDE	MARGIN OF ERROR
Water	Lower	-8%	-50% to +100%
Drainage	Lower	-5%	+/- 100%
Power	Lower	-5%	+/- 50%
SUMMARY	Lower	-5%	+/- 100%

Overall, the City Plan Land Use Concept is anticipated to result in growth-related City services capital cost savings of about 10%, or \$3.0 billion, as compared to Business As Usual. The majority of these cost efficiencies relate to the Roads and Related service area; as the City Plan constrains development to within the existing urban boundary, and prioritizes transit and active modes of transportation, less road infrastructure will be required than under the Business As Usual scenario. Similarly, less Recreation Facilities, Fire, and Library infrastructure will be required to serve the more compact growth and development. There are also cost savings within the General Government service category due to the added urban boundary expansion costs under the Business As Usual scenario.

The City Plan is associated with greater investments in Transit and Parks and Open Space, and Waste Management as compared with Business As Usual, due to its greater rates of urbanization. It is supported by a comprehensive mass transit plan which will connect key nodes and corridors across the city, with the objective of reducing automobile dependence. It also will involve greater investments in high quality, heavily utilized urban parks and public realm improvements. Finally, it is noted that waste collection costs may be slightly higher in order to serve a larger proportion of multi-unit residential developments.

Finally, cost savings may also be anticipated with respect to utilities services. This is primarily due to lower linear infrastructure requirements associated with more compact growth patterns. Overall, the high-level estimate of utilities services capital cost savings associated with the City Plan is approximately 5%. It is important to note that due to the high-level nature of the utilities analysis, a significant margin of error has been attributed and as such, these results are not definitive. The City and EPCOR may wish to explore these potential servicing needs further through future master servicing studies.

Further detail on the service-specific cost comparisons is provided across the following pages.

i. Roads and Related

Roads and transportation infrastructure comprises the most significant share of all anticipated tax-supported City costs as Edmonton's population grows to 2 million. The City Plan Land Use Concept results in an estimated \$3.6 billion in cost savings related to Roads and Related infrastructure, as compared with the Business As Usual scenario. This represents a cost reduction of about 29%.

As shown in Figure 3, this differential is driven by the following:

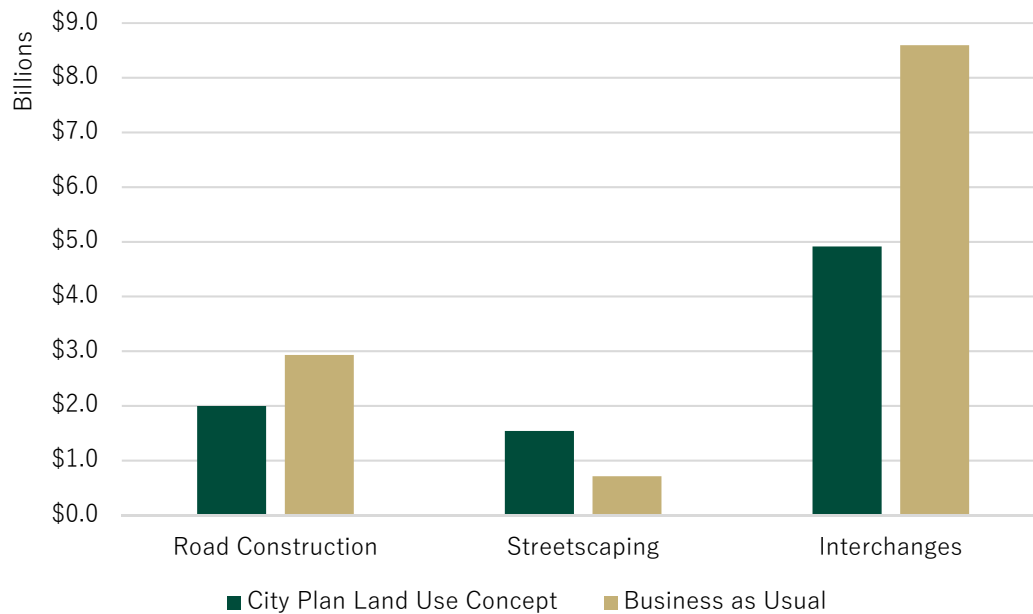
1. **Road Construction:** The City Plan prioritizes transit and active transportation, which is supported by more compact development. As a result, fewer additional lane kilometers are required as compared with the Business As Usual scenario. More roadway construction is required under the Business As Usual scenario, primarily in automobile-oriented suburban or Developing Areas of the city, including the non-specified Future Additional Lands. In total, the City Plan is anticipated to require about 1,110 additional road lane kilometers, whereas 1,930 additional lane kilometers would be required under Business As Usual. The cost of the additional road construction under Business As Usual is estimated at \$932 million.

It is noted that these road construction costs are net of anticipated Arterial Roadway Assessment (ARA) developer contributions in Developing Areas, which are higher under the Business As Usual scenario (\$941 million) than the City Plan scenario (\$353 million). Provincial costs associated with expansions to Anthony Henday Drive are also excluded.

2. **Interchanges:** The City Plan concept also requires fewer new highway interchanges as compared with Business As Usual, once again due to the more compact development contained within the current City boundaries. Many of the additional interchanges required under the Business As Usual scenario are associated with the additional Future Additional Lands. Interchanges are a significant cost which make up a large proportion of the overall Roads and Related infrastructure costs, and are \$3.7 billion more under Business As Usual.

These road and interchange construction costs are partially offset by the streetscaping costs anticipated under the City Plan Land Use Concept. The City Plan prioritizes high quality pedestrian connections and other public spaces, and these public realm investments are anticipated to further promote active modes of transportation and help to reduce automobile dependency over time. The streetscaping costs are approximately \$828 million more under the City Plan.

Figure 3. Roads and Related Total Growth-Related Cost Comparison



ii. Transit

As part of the City Plan, a comprehensive Mass Transit Study has been prepared to offer efficient connections between key nodes and corridors across the city, substantially increase overall transit ridership, and reduce automobile ownership and use. The planned transit network was assessed using the assumption that it would include an integrated network of commuter rail, LRT, BRT, and conventional bus routes. As a result, the City Plan Land Use Concept is associated with an overall transit investment of \$661 million more than the Business As Usual scenario, or 19% higher.

This Transit capital cost comparison is net of anticipated upper level government grants, estimated at 67% of all initial capital costs. However, the City will be responsible for operating and maintaining the full transit network over time. This increased transit investment and ridership results in a range of non-fiscal benefits for Edmonton and its residents.

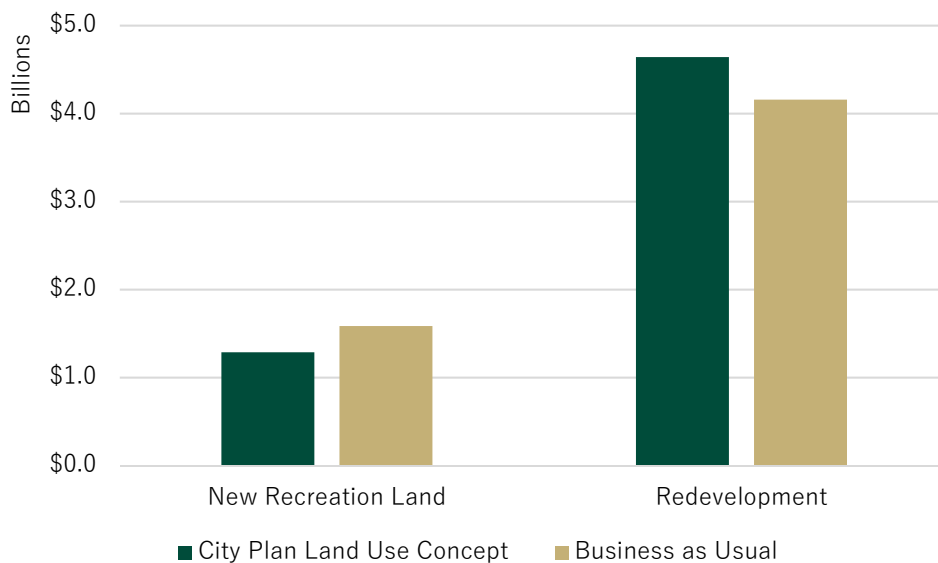
iii. Parks and Open Space

The City Plan Land Use Concept is slightly more costly than Business As Usual from a Parks and Open Space perspective, at a differential of about \$186 million or 3%. While the Business As Usual scenario would require more hectares of additional parkland in order to

serve growth in Developing Areas and the Future Additional Lands, this will be offset by urban park acquisition and redevelopment projects under the City Plan (Figure 4).

Acquiring parkland in core and mature areas is typically more costly to the City than in new growth areas, where land costs are typically lower and parkland is often dedicated as part of development projects. Further, heavily utilized urban parks and open spaces typically require the provision of hardscaped areas and a variety of recreational features, which can be more costly than suburban parkland acquisition and development. These urbanization projects are expected to enliven key nodes and corridors across the city and support more compact and efficient forms of development.

Figure 4. Parks and Open Space Total Growth-Related Cost Comparison



iv. Recreation Facilities

The City Plan Land Use Concept allows for some efficiencies in the provision of Recreation Facilities, at a cost savings of approximately \$225 million, or 5%, over the Business As Usual scenario. This is due to additional facilities required to serve growth in Developing Areas under the Business As Usual scenario, including Rabbit Hill, as well as the Future Additional Lands. It also accounts for facility expansions in central areas under the City Plan, including the Central and 118 Avenue planning districts, as well as an additional facility in the Central planning district.

v. Police

Infrastructure costs related to Police services are driven by overall city-wide population and employment growth, and are anticipated to be consistent across both the City Plan Land Use Concept and the Business As Usual scenario. The Police services costs shown in Table 4 include facilities, land, vehicles, and personal police equipment.

vi. Fire

Fire services capital needs are impacted by the location and distribution of development, as it is critical to maintain response times under each scenario. Due to dispersed growth, additional fire stations would be required under the Business As Usual scenario. These additional stations further trigger the need for additional vehicles and equipment. The result is a cost savings of approximately \$145 million, or 21%, under the City Plan Land Use Concept.

vii. Library

Library services capital needs are slightly lower under the City Plan Land Use Concept than under the Business As Usual scenario, at a differential of about \$18 million or 5%. While additional branches will be required to serve population growth in centrally located planning districts, the Business As Usual scenario will require greater investment in Developing districts and the Future Additional Lands.

viii. Waste Management

Waste Management services are slightly more costly in urbanized areas due to the need for specialized bins, vehicles, and other equipment. As such, Waste Management capital costs under the City Plan concept are estimated at about \$130 million, or 15%, higher than Business As Usual.

ix. General Government

Other City services (e.g. corporate services, administration, planning) are encompassed under the General Government category. The differential between the City Plan Land Use Concept and Business As Usual scenario within this category is related only to the urban boundary expansion. Typically, a boundary expansion would require the neighbouring municipality to be compensated, along with significant legal and consulting fees. The City

Plan benefits from containing growth within the current City boundary, and therefore does not require these additional costs.

x. Utilities Services

Anticipated capital infrastructure needs for Utilities Services were provided by EPCOR. The magnitude of the costs provided were preliminary and confidential in nature, and as such a high-level comparative summary is provided in Table 6.

The City Plan Land Use Concept is anticipated to be more efficient than the Business As Usual scenario from a Water, Drainage, and Power services perspective. Less linear (e.g. watermain, sewer) infrastructure is anticipated to be required under each of these services as development is contained within the current City boundary. In addition, some minor non-linear (e.g. treatment plant) cost savings are anticipated for Water and Power services. As shown in Table 6, the estimate of utilities services capital cost savings associated with the City Plan is approximately 5%. These cost savings would benefit developers and rate payers, who share in a portion of the growth-related costs for utilities.

It is important to note that this analysis was completed at a high level, and the anticipated capital costs have been assigned a significant margin of error. As such, it is not possible to determine with certainty whether the City Plan will result in any significant cost savings. As City Plan implementation moves forward and detailed engineering work is completed, this comparative analysis may be revisited.

Table 6. EPCOR Services Total Growth-Related Cost Comparison

SERVICE	CITY PLAN LAND USE CONCEPT RELATIVE TO BUSINESS AS USUAL		
	HIGHER OR LOWER	MAGNITUDE	MARGIN OF ERROR
Water			
Linear Assets	Lower	-11%	
Non-Linear Assets	Lower	-6%	
<i>Subtotal</i>	<i>Lower</i>	<i>-8%</i>	<i>-50% to +100%</i>
Drainage			
Linear Assets	Lower	-7%	
Non-Linear Assets	Equal	0%	
<i>Subtotal</i>	<i>Lower</i>	<i>-5%</i>	<i>+/- 100%</i>
Power			
Linear Assets	Lower	-8%	
Non-Linear Assets	Lower	-1%	
<i>Subtotal</i>	<i>Lower</i>	<i>-5%</i>	<i>+/- 50%</i>
SUMMARY	Lower	-5%	+/- 100%

B. LIFECYCLE COST COMPARISON

The anticipated lifecycle costs associated with the growth-related capital infrastructure were also considered for comparative purposes. As the asset management requirements for the City's current infrastructure assets are anticipated to be similar across both scenarios, those costs are excluded from this comparative discussion. Where an existing facility is being expanded, or replaced with a larger facility, only the additional cost, or incremental cost, has been captured as growth-related and included in this analysis.

Lifecycle costs are represented as annual asset management provisions for infrastructure replacement. These provisions are calculated for each asset based on their estimated useful life and the anticipated cost of replacement. The aggregate of all individual provisions form the required annual capital provision for each service area.

For the purposes of this high-level analysis, an average useful life assumption of 50 years was applied to all infrastructure. An interest rate of 3.5% was applied. These assumptions and approach are reasonable and appropriate for this level of comparative analysis; the fiscal model being left with the City allow for further refinement of asset management needs. Results are shown in Table 7 and Table 8 and are represented in current (2019) dollars.

Generally, the differences between the future replacement values and annual asset management provisions calculated between the two scenarios are proportionate to the differences in initial capital discussed in the previous section. There are two key exceptions:

- The Roads and Related asset management provisions include shares of road assets initially funded through the ARA contributions. It is assumed that maintenance of these arterial roads will fall under the City's responsibility; and
- The Transit asset management provisions include assets initially funded through upper level government grants. As grants were assumed to fund two thirds of the initial capital costs, Transit services represents a much higher proportion of the overall anticipated lifecycle costs.

Overall, the City Plan Land Use Concept remains fiscally preferable over the Business As Usual scenario from an asset management perspective, consistent with the differences in capital investment. The annual asset management provision associated with the City Plan is approximately \$475,000, or 8%, lower than Business As Usual.

It is noted that utilities services were excluded from this analysis due to the confidential and high-level nature of the data provided by EPCOR. However, utilities lifecycle costs are anticipated to be proportionate to the costs of the initial capital investment. As such, minor cost savings are anticipated under the City Plan.

Table 7. City Plan Land Use Concept - Asset Management Provision for Growth-Related Infrastructure

	FUTURE REPLACEMENT VALUE (\$000)	ANNUAL PROVISION (\$000)
Roads and Related	\$ 218,418	\$1,667
Transit	\$ 201,099	\$ 1,535
Parks & Open Space	\$ 137,895	\$ 1,053
Recreation Facilities	\$ 80,887	\$ 617
Police	\$ 11,677	\$ 89
Fire	\$ 10,691	\$ 82
Library	\$ 6,494	\$ 50
Waste Management	\$ 22,705	\$173
Total	\$ 689,866	\$5,266

Table 8. Business As Usual - Asset Management Provision for Growth-Related Infrastructure

	FUTURE REPLACEMENT VALUE (\$000)	ANNUAL PROVISION (\$000)
Roads and Related	\$325,042	\$2,481
Transit	\$154,992	\$1,183
Parks & Open Space	\$133,577	\$1,020
Recreation Facilities	\$ 86,120	\$657
Police	\$11,677	\$89
Fire	\$ 14,072	\$107
Library	\$6,919	\$53
Waste Management	\$ 19,682	\$150
Total	\$ 752,079	\$ 5,741

C. RELATIVE OPERATING BUDGET IMPACTS

It is recognized that the added capital infrastructure will result in additional annual operating costs for the City. Operating costs include the annual costs associated with maintenance activities and other staffing needs induced by the capital infrastructure, but do not include costs associated with asset repair and replacement. The operating assumptions used in the analysis are based on information from individual service areas or the prevailing operating costs and non-tax revenues by service while factoring in population and employment growth to build-out as well as the additional capital costs incurred throughout the period.

i. Assumptions

For the services of Fire, Police and Library, operating cost impacts over the period were provided by City staff. Roads and Related, Transit, Parks & Open Space and Recreation Facilities are driven by the increased capital costs incurred over the period by assuming an operating cost per dollar of capital incurred. Lastly, Waste Management and General Government are driven by the growth projected to 2065. Using the City's operating budgets as a base, a dollar per household and dollar per capita and employment was determined for Waste Management and General Government, respectively.

Non-tax revenue drivers were established through discussions with City staff and with reference to historical budget details, and vary by service area. Most service areas are driven by population growth, population and employment growth, or household growth.

Under the City Plan concept, an additional factor of 10% was added to the Parks and Open Space and Recreation Facilities non-tax revenue forecasts. This is intended to account for greater population within catchment areas of urban parks and recreational facilities.

In the case of Transit services, it is assumed that under the Business As Usual scenario, as ridership increases proportionately with transit investment, the City will continue to recover a constant share of annual operating costs (approximately 41%) through fare box revenues. Under the City Plan, due to greater investment in higher order transit, it is anticipated that fare box revenues will increase to 45% of operating costs. This change is reflective of comparable municipalities with higher order transit such as Ottawa and Calgary which have historically achieved operating cost recoveries of 50% or more through fare box revenues.

ii. Operating Expenditures

The analysis indicates that the operating impacts amongst the two scenarios are relatively similar, with the City Plan Land Use Concept having slightly higher operating cost impacts by 2065. These expenditures can be attributed to larger transit investment requirements and higher costs for waste management to service high-density buildings. Table 9 below summarizes the comparative assessment of operating expenditures at build-out.

Table 9. Assessment of Total Annual Operating Expenditures to Build-Out

	CITY PLAN LAND USE CONCEPT (\$MILLIONS)	BUSINESS AS USUAL (\$MILLIONS)
Roads and Related	\$221.3	\$230.3
Transit	\$1,267.3	\$1,175.3
Parks & Open Space	\$336.8	\$329.3
Recreation Facilities	\$188.7	\$197.7
Police	\$832.9	\$832.9
Fire	\$336.4	\$354.2
Library	\$82.2	\$83.9
General Government	\$1,680.7	\$1,649.1
Waste Management	\$454.6	\$429.4
TOTAL	\$5,400.8	\$ 5,282.2

Operating costs associated with EPCOR-owned and operated utilities services are anticipated to increase in relation to the required capital investment under each scenario.

It is anticipated that the City Plan will offer some fiscal efficiencies in the operation of these services over the Business As Usual scenario.

iii. Non-Tax Revenues

Using the assumptions listed above, relative non-tax revenue impacts can be determined over the period. For the purposes of this analysis, non-tax revenues include sources such as user fees, fines, grants, and investment earnings, and exclude utility fees.

At 2065, the City Plan non-tax revenues are anticipated to be slightly higher than the Business As Usual scenario, as shown in Table 10 below. This is primarily due to higher anticipated Transit fare box revenues. Increased Parks and Open Space and Recreation Facilities user fees are also anticipated, as well as revenues related to Waste Management and other General Government fees driven by household unit growth. Additional details related to non-tax revenues are discussed in Chapter 5.

Table 10. Assessment of Total Annual Non-Tax Revenues to Build-Out

	CITY PLAN LAND USE CONCEPT (\$MILLIONS)	BUSINESS AS USUAL (\$MILLIONS)
Roads and Related	\$93.2	\$93.1
Transit	\$579.5	\$507.3
Parks & Open Space	\$113.2	\$108.0
Recreation Facilities	\$154.4	\$147.4
Police	\$139.0	\$138.8
Fire	\$4.4	\$4.4
Library	\$19.0	\$19.1
General Government	\$1,082.7	\$1,049.4
Waste Management	\$513.7	\$484.8
TOTAL	\$2,699.2	\$2,552.3

5. REVENUE COMPARISON

The City of Edmonton relies on a range of funding sources to cover capital and operating costs associated with the various service areas, including but not limited to property taxes, developer contributions, user fees, and upper level government grants. The City's current use of these funding source is summarized in Table 11 below.

Table 11. Primary Funding Sources By City Service Area

SERVICE AREA	PROPERTY TAXES	DEVELOPER CONTRIBUTIONS	USER FEES	UPPER LEVEL GOVERNMENT GRANTS
Roads and Related	Capital & Operating	Growth-Related Capital		Capital & Operating
Transit	Capital & Operating		Operating	Capital & Operating
Parks & Open Space	Capital & Operating			Capital & Operating
Recreation Facilities	Capital & Operating		Operating	Capital & Operating
Police	Capital & Operating			Capital & Operating
Fire	Capital & Operating			Capital & Operating
Library	Capital & Operating			Capital & Operating
Waste Management			Capital & Operating	Capital & Operating
General Government	Capital & Operating			Capital & Operating

This section presents a comparative analysis of the municipal revenue potential under each scenario. The primary focus of this analysis is on assessment and taxation. User fees, developer contributions, and other revenue implications are discussed at a high level.

A. ASSESSMENT AND TAXATION

Total property assessment values will increase in the City of Edmonton in relation to the residential and non-residential growth forecasts under the City Plan Land Use Concept as well as the Business As Usual scenario. The Relative Financial Assessment Model includes a comparison of anticipated assessment at build-out. This section describes the assumptions used as well as the results of the analysis.

The results are presented in terms of “taxable” and “weighted” assessment growth potential:

- “Taxable” assessment refers to the actual anticipated assessment value under each land use type (in 2019 dollars), and does not account for differences in taxation rates; whereas
- “Weighted” assessment accounts for differences in taxation rates and reinstates all assessment value into residential equivalent assessment. Currently, the City’s non-residential tax rate is generally 2.81 times the residential rate. As such, the anticipated total non-residential assessment value is weighted at a factor of 2.81. Once again, all values are presented in current (2019) dollars.

i. Residential and Non-Residential Assessment Assumptions

The residential forecast is based on typical assessed values by housing type and by area of the city (Table 12). These values were derived from current assessed values of recently constructed (2013-2018) residential units across the city. The categories of Low Density, Medium Density, and High Density units are consistent with the residential land use categories used in the City’s growth forecasts for each scenario, as well as their corresponding zoning categories.

It was found that residential units within Redeveloping Areas (within Anthony Henday Drive) are generally assessed at higher values than units within Developing Areas (outside of Anthony Henday Drive).

Table 12. Residential Assessment Assumptions (per unit)

RESIDENTIAL LAND USE	ASSESSMENT ASSUMPTION PER UNIT	
	DEVELOPING AREA	REDEVELOPING AREA
Low Density	\$420,000	\$620,000
Medium Density	\$230,000	\$260,000
High Density	\$250,000	\$350,000

The non-residential forecast is based on typical assessed values per square metre of building space (Table 13). Once again, the values were derived from current assessed values of recently constructed (2013-2018) non-residential buildings across the city. The categories of Commercial, Institutional, and Industrial are consistent with the non-residential land use categories used in the growth forecasts for each scenario and their corresponding zoning categories. Generally, no significant variation was found between Developing and Redeveloping Areas, and as such city-wide assessment assumptions are used.

Table 13. Non-Residential Assessment Assumptions (per square meter)

NON-RESIDENTIAL LAND USE	CITY-WIDE ASSESSMENT ASSUMPTION PER SQ.M.
Commercial	\$2,400
Institutional	\$2,300
Industrial	\$1,400

ii. Current Taxable and Weighted Assessment

For reference, the city's total current (2018) residential and non-residential taxable and weighted assessment amounts are shown below in Table 14.

Of the total \$175.8 billion in taxable assessment, 75 per cent is currently associated with residential development while the remaining 25 per cent is associated with non-residential development. The total taxable assessment amounts to approximately \$186,800 per capita.

After applying a weighting factor to the non-residential assessment values based on the current non-residential tax ratio (2.81 times the residential rate), a total weighted assessment value of \$254.7 billion is calculated. Of this amount, 52 per cent is associated with residential development and 48 per cent is associated with non-residential

development. The total weighted assessment amounts to approximately \$270,600 per capita.

Table 14. Current Taxable and Weighted Assessment (2018)

TYPE	TAXABLE ASSESSMENT (\$000)	WEIGHTED ASSESSMENT (\$000)
Residential	\$132,337,000	\$132,337,000
<i>Per Capita</i>	<i>\$140,600</i>	<i>\$140,600</i>
<i>% of Total</i>	<i>75%</i>	<i>52%</i>
Non-Residential	\$43,508,000	\$122,388,000
<i>Per Employee</i>	<i>\$74,300</i>	<i>\$209,000</i>
<i>% of Total</i>	<i>25%</i>	<i>48%</i>
Total Assessment	\$175,845,000	\$254,724,000
<i>Per Capita</i>	<i>\$186,800</i>	<i>\$270,600</i>

iii. Taxable and Weighted Assessment at Build-Out

A summary of the results of the comparison of taxable assessment at build-out under the City Plan Land Use Concept against the Business As Usual scenario is shown in Table 15 below. The City Plan is anticipated to result in slightly higher overall taxable assessment, at 1.9% higher than the Business As Usual scenario. This is attributed to the residential forecast: higher rates of urban redevelopment and intensification are anticipated under the City Plan concept, as well as a greater number of residential units due to a greater proportion of smaller, high density units.

The Business As Usual scenario performs more strongly in terms of non-residential assessment growth. This is a result of this scenario having a higher proportion of industrial and institutional employment growth and associated building floorspace.

Table 15. Comparison of Total Taxable Assessment at Build-Out

TAXABLE ASSESSMENT (\$000)		
TYPE	CITY PLAN LAND USE CONCEPT	BUSINESS AS USUAL
Residential	\$289,196,000	\$280,545,000
<i>Per Capita</i>	<i>\$144,300</i>	<i>\$140,300</i>
<i>% of Total</i>	<i>74%</i>	<i>73%</i>
Non-Residential	\$101,914,000	\$103,389,000
<i>Per Employee</i>	<i>\$92,600</i>	<i>\$94,000</i>
<i>% of Total</i>	<i>26%</i>	<i>27%</i>
TOTAL	\$391,109,000	\$383,934,000
<i>Per Capita</i>	<i>\$195,200</i>	<i>\$192,000</i>

Table 16 compares weighted assessment at build-out. Once weightings are applied, the non-residential assessment differential is more pronounced, strengthening the Business As Usual scenario. The City Plan remains slightly stronger (0.6%) overall in terms of overall weighted assessment as compared with Business As Usual.

The total weighted assessment per capita is anticipated to increase from the current level of \$270,600 to \$287,400 under the City Plan, as compared with an increase to \$285,700 under the Business As Usual scenario. This reflects the higher assessment values associated with new development as compared with the prevailing overall current city average.

Table 16. Comparison of Total Weighted Assessment at Build-Out

WEIGHTED ASSESSMENT (\$000)		
TYPE	CITY PLAN LAND USE CONCEPT	BUSINESS AS USUAL
Residential	\$289,196,000	\$280,545,000
<i>Per Capita</i>	<i>\$144,300</i>	<i>\$140,300</i>
<i>% of Total</i>	<i>50%</i>	<i>49%</i>
Non-Residential	\$286,680,000	\$290,831,000
<i>Per Employee</i>	<i>\$260,400</i>	<i>\$264,400</i>
<i>% of Total</i>	<i>50%</i>	<i>51%</i>
TOTAL	\$575,876,000	\$571,376,000
<i>Per Capita</i>	<i>\$287,400</i>	<i>\$285,700</i>

B. DEVELOPER CONTRIBUTIONS

The Relative Financial Assessment Model assumes that the City's current financial policies and practices will continue into the future. Currently, offsite levies are imposed on developers, in the form of Arterial Roadway Assessment (ARA) contributions, to fund the first four lanes of new arterial roads in Developing Areas.

The City Plan Land Use Concept is expected to reduce the need for new road infrastructure as compared with the Business As Usual scenario. In particular, the infrastructure needs in Developing Areas is significantly reduced. As such, the total developer contribution requirement is expected to be substantially lower, potentially reducing the overall costs of development.

As the Business As Usual scenario requires significantly more suburban road infrastructure, ARA contributions are anticipated to be much higher overall under Business As Usual (\$941 million) as compared with the total for the City Plan (\$353 million).

It is recognized that the legislative context around offsite levies has changed. With the new Municipal Government Act, the City of Edmonton now has authority to use offsite levies to fund interchanges, community recreation facilities, libraries, police stations, and fire halls. As the City moves toward implementation of a new offsite levies bylaw for the services now enabled, the fiscal impacts in relation to the City Plan Land Use Concept may be tested through use of the Relative Financial Assessment Model.

C. USER FEES

The following impacts to user fees may be anticipated as City Plan implementation moves forward:

- **Utility rates may decline:** The City Plan Land Use Concept is anticipated to result in some fiscal efficiencies related to the provision of utilities infrastructure and services. As such, utility rates and average household charges may be slightly lower than under the Business As Usual scenario.
- **Total Transit fare box revenues will increase:** Implementation of the Mass Transit Study will lead to significant ridership growth over the Business As Usual scenario. This is anticipated to increase fare box revenues to 45% of transit operating costs, from the current 41%.

- **Parks and Recreation user fee revenues may increase:** The City Plan supports population and employment growth in urban areas that are well served by parks and recreation facilities. As the catchment population of these amenities increases, higher user fee revenues are anticipated.
- **Waste Management fees may increase:** Currently, waste collection is more costly for high density, multi-unit residential buildings than for single family homes. As the City Plan promotes more compact forms of development, average household waste management fees may increase slightly.

D. UPPER LEVEL GOVERNMENT GRANTS

The City receives funding from upper levels of government, through programs such as the Municipal Sustainability Initiative and Federal Gas Tax Fund, to cover a range of infrastructure and operating costs. While it is recognized that changes to the current Provincial funding framework have recently been announced, for the purposes of this comparative analysis it is assumed that overall grant revenues per capita and employment will remain in line with historical patterns over the long-term planning horizon as Edmonton's population grows to 2 million. As the Financial Assessment Model assumes that these revenues will generally increase proportionately with overall population and employment growth, forecasted grant revenues are comparable between the two scenarios. Any subsequent updates to this analysis can adjust project funding based on the prevailing programs and policies of the Provincial and Federal governments.

As discussed previously, upper level government grants are anticipated to continue to serve as the primary funding source for new transit infrastructure. The financial model assumes that on average, 67% of the costs of new transit infrastructure, including vehicles and equipment, will be funded through upper levels of government. As the City Plan requires a substantially greater investment in transit, grant amounts are anticipated to be proportionately higher than in the Business As Usual scenario.

6. SUMMARY OF OBSERVATIONS

Overall, the City Plan Land Use Concept is likely to be more financially efficient than the Business As Usual scenario. The overall comparative results are summarized in Table 17 and described below.

Table 17. Summary of Results of Comparative Analysis

SERVICE	TOTAL AT 2065 (\$MILLIONS)		
	CITY PLAN LAND USE CONCEPT	BUSINESS AS USUAL	CITY PLAN RELATIVE TO BUSINESS AS USUAL
Expenditures			
Capital	\$27,215.4	\$30,220.7	-10%
Operating	\$ 5,400.8	\$5,282.2	2%
Assessment Growth			
Taxable	\$391.1	\$383.9	2%
Weighted*	\$575.9	\$571.4	0.6%

The primary factor driving these results is the more compact and strategic development patterns offered by the City Plan. By containing future development within the City's current urban boundary, the need for new road infrastructure is greatly reduced, along with fire stations, recreation facilities, and libraries. Anticipated costs related to the City boundary expansion under the Business As Usual scenario further strengthen the relative financial performance of the City Plan Land Use Concept.

The City Plan Land Use Concept involves greater investments in transit infrastructure and public realm improvements that will have environmental benefits while improving the overall quality of life for Edmonton's residents. While these investments can be costly, cost savings are found by focusing the greatest level of investment within the City Plan's strategically located network of nodes and corridors.

Finally, assessment growth is anticipated to be slightly stronger under the City Plan Land Use Concept. This is due to a higher proportion of development being located in central areas of the city, which is typically assessed at higher values than suburban greenfield development. This further strengthens the financial performance of the City Plan.

The combined impacts of the anticipated capital costs, operating costs, assessment growth, and non-tax revenues are assessed through an overall comparative forecast of tax levy impacts. As shown in Table 18:

- The overall increase in the tax levy requirement at build-out is calculated at 8% lower than the Business As Usual scenario. This is after accounting for anticipated revenues from user fees, offsite levies, and upper level government grants.
- Overall assessment growth at build-out is anticipated to be slightly higher under the City Plan Land Use Concept, at 2% more than Business As Usual.
- The net impact is an overall residential tax rate that is anticipate to be 5% lower at build-out than under the Business As Usual scenario.

Table 18. Tax Impact Analysis At Build-Out

SERVICE	CITY PLAN LAND USE CONCEPT	TOTAL AT 2065	
		BUSINESS AS USUAL	CITY PLAN RELATIVE TO BUSINESS AS USUAL
Total Increase in Levy Requirement	95%	103%	-8%
Total Assessment Growth	126%	124%	2%
Residential Tax Rate at Build-Out	0.749%	0.788%	-5%

It is important to note that many of the financial factors are likely to change as City Plan implementation moves forward, and as the Edmonton's financial policies and practices evolve. Through use of the Relative Financial Assessment Model, staff may continue to monitor the implications of planning policies, investment decisions, and financial practices.

7. RECOMMENDATIONS

The City Plan Land Use Concept is expected to bring a number of financial and non-financial benefits to Edmonton's residents. As City Plan implementation moves forward, its financial performance can be leveraged through strategic financial policies, as well as continued use of the Relative Financial Assessment Model.

A. MOVE FORWARD WITH THE CITY PLAN LAND USE CONCEPT

The City Plan Land Use Concept is expected to offer fiscal benefits as well as high quality public spaces, efficient transit connections, and a range of housing options for residents. It is expected to reduce automobile dependency and increase rates of transit use, walking, and cycling, while preserving environmental features.

By promoting compact development and containing future growth within the current City boundary, many of the City's infrastructure needs may be greatly reduced. As a result, lower overall taxation rates are anticipated. At the same time, these efficiencies could allow the City to invest in significant transit and public realm improvements as the population grows to 2 million.

B. CONTINUE TO LEVERAGE AVAILABLE FUNDING SOURCES

The City Plan presents an opportunity to review the City's current financial policies and practices to ensure available revenue sources continue to be leveraged and used in an equitable and efficient manner. Moving forward, it is suggested that the City:

- Consider reviewing its offsite levy structure to take advantage of the expanded capabilities offered under the new Municipal Government Act. Many municipalities across Canada use offsite levies to pay for a full range of growth-related infrastructure, including park development, recreation facilities, transit, and protective services infrastructure in addition to roads and other engineered services infrastructure. By ensuring that growth pays for growth, unnecessary burdens to existing tax payers can be avoided;
- Consider using debt for major long-term assets. Debt financing is most appropriate for major infrastructure projects with long benefitting horizons, such as LRT track construction, major facilities, and major road construction projects. Recovering for

these costs over a longer period of time can mitigate potential severe tax rate impacts; and

- Leverage any potential opportunities for upper level government grant funding.

C. MAINTAIN THE RELATIVE FINANCIAL ASSESSMENT MODEL

The Relative Financial Assessment Model can serve as a highly useful tool as City Plan implementation moves forward. It can be used to:

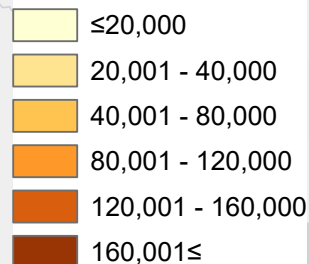
- Test the impacts of any changes to growth rates and development patterns;
- Evaluate land use and planning policies;
- Inform major infrastructure investment decisions;
- Anticipate any emerging financial risks;
- Adjust annual operating cost and revenue assumptions and drivers; and
- Assist in formulating new financial policies and practices.

It is recommended that a key staff member be identified to be responsible for maintaining the financial model on an annual basis. Coordination between planning, finance, engineering, and other service areas will be necessary as part of these processes.

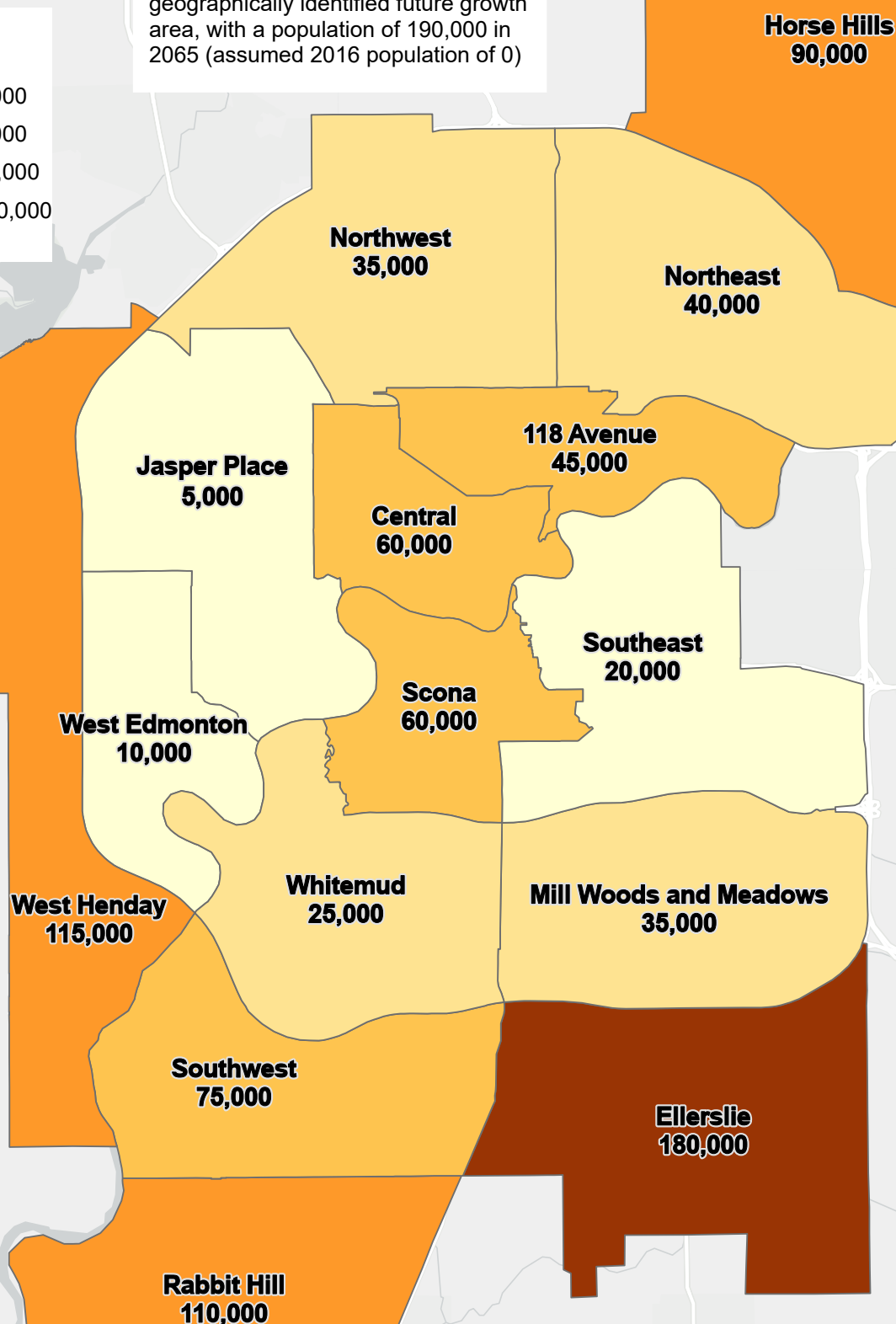
APPENDIX: POPULATION AND EMPLOYMENT GROWTH MAPPING

City Plan Scenario Business as Usual: Population Growth 2016-2065

Population Growth

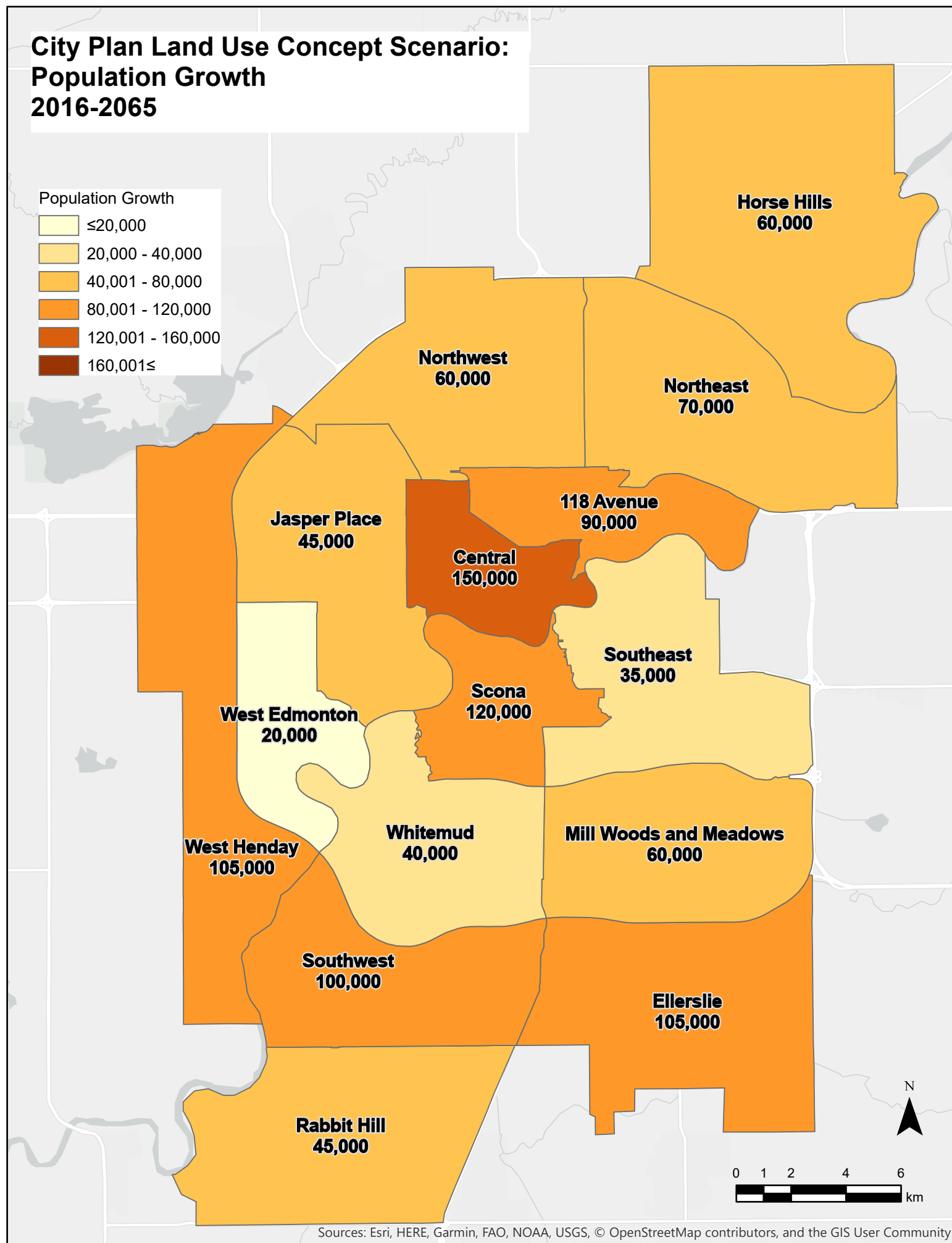
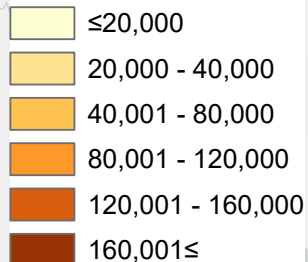


Note: Scenario includes a non-geographically identified future growth area, with a population of 190,000 in 2065 (assumed 2016 population of 0)



City Plan Land Use Concept Scenario: Population Growth 2016-2065

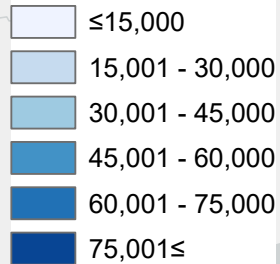
Population Growth



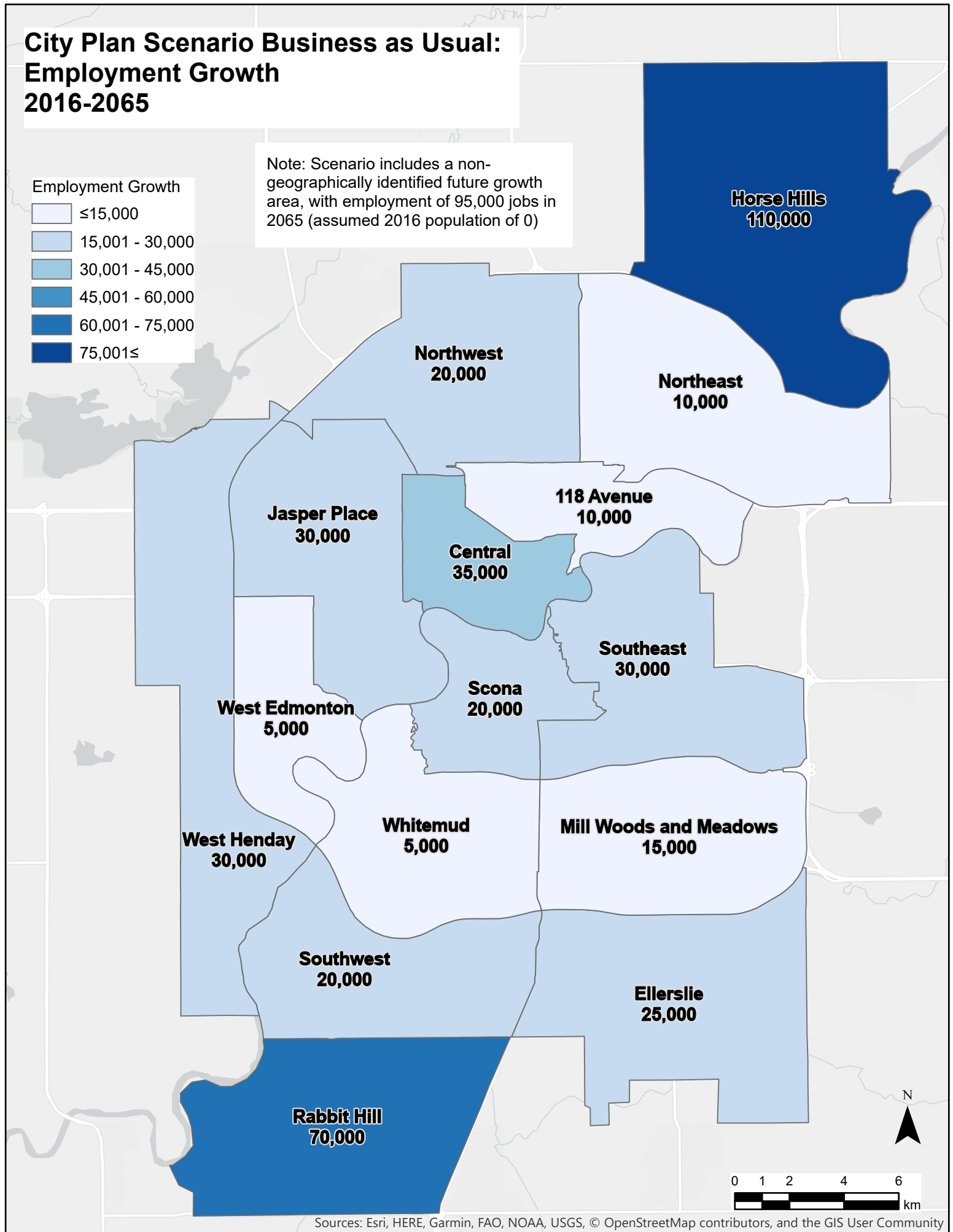
APPENDIX: POPULATION AND EMPLOYMENT GROWTH MAPPING

City Plan Scenario Business as Usual: Employment Growth 2016-2065

Employment Growth

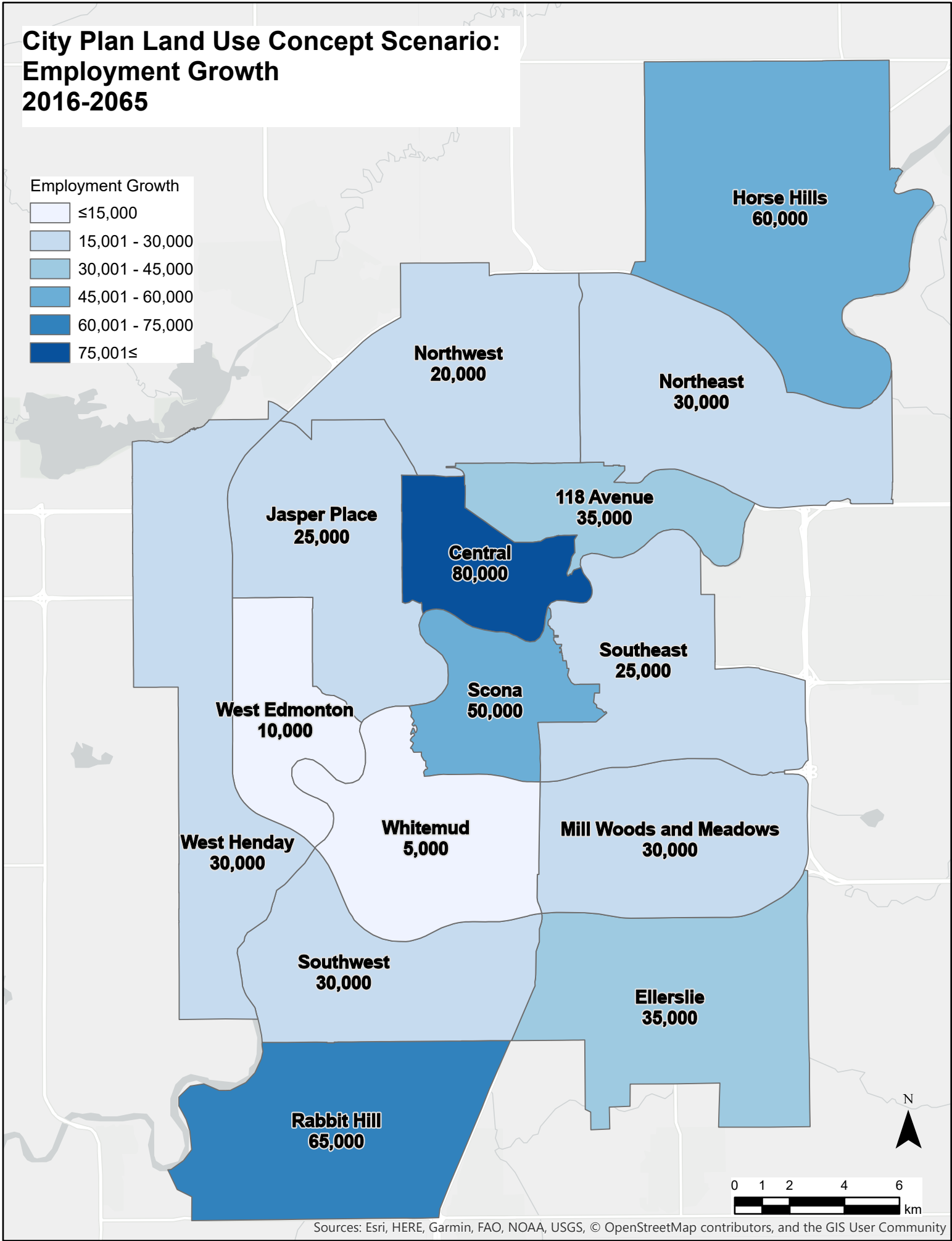
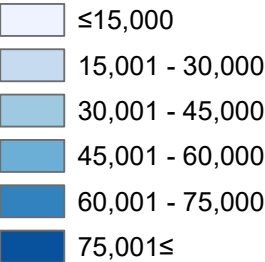


Note: Scenario includes a non-geographically identified future growth area, with employment of 95,000 jobs in 2065 (assumed 2016 population of 0)



City Plan Land Use Concept Scenario: Employment Growth 2016-2065

Employment Growth



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