

OTTAWA PUBLIC LIBRARY

LIBRARY FACILITIES INVESTMENT AND GROWTH PLANNING STUDY

2016



Final Report

Ottawa Public Library / Bibliothèque publique d'Ottawa

Ottawa Public Library Facilities Investment and Growth Planning Study

Final Report

June 13, 2016



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Key Points

The growth projection is largely unchanged since the previous Facilities Investment and Growth Planning Study was completed in 2010 – with the exception that the City’s official plan policies are encouraging a more “compact” development pattern emphasising growth close to employment centres and stations along the rapid transit lines.

The per capita level of library space in the City of Ottawa is lower than many other cities in Ontario (including Windsor, Thunder Bay and Toronto) and the facility service level in Ottawa is at risk of further erosion in the absence of a continuous program of branch expansion that keeps pace with population growth.

The projected service level “gap” is concentrated in the suburban communities outside the Greenbelt with the current unmet need being greatest in Barrhaven / Riverside South. A continuation of growth will open gaps in Orléans and then in Kanata (later in the projection horizon). There are also service gaps in the four rural quadrants – with the largest current service gap being in Rural North East.

A \$34.6 Million capital program comprising three new facilities – a new branch in Riverside South and new branches in Orléans and Barrhaven – will largely remove the service gap in the suburban communities through to 2023. This \$34.6 Million capital program includes an allocation of \$9.8 Million to collections.

Assuming development in the City resumes the pace anticipated in the Official Plan (OP) projection, future development charge revenue plus the current development charge reserve will not be sufficient to fund this \$34.6 Million capital program (to 2023). In addition to the funds in the DC Reserve, OPL will need to allocate \$5.6 Million of its financial resources to meet its statutory contribution to the DC Eligible portion of the program plus fund the DC ineligible portions of the capital program. In addition, the operating budget will need augmentation to accommodate the additional facilities.

Although service needs will continue to expand post 2023 as the city grows, the way in which those needs are met is likely to continue to evolve. OPL has a successful, flexible program of alternate service delivery including a popular bookmobile program and has been developing experience with self service kiosks – a program element which may be expanded to other locations including stations along the rapid transit system. As digital formats and RFID technology make OPL’s collections more easily accessible and manageable on a city-wide basis, the physical space required in each branch to house collections is reduced providing additional opportunities to expand meeting space.

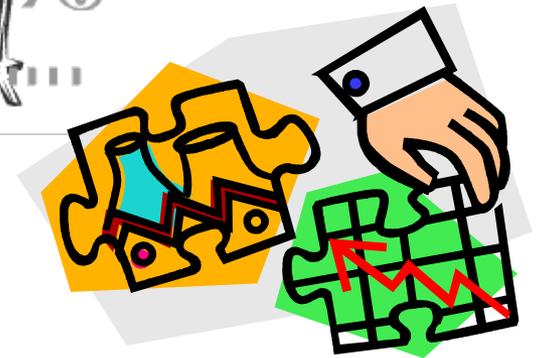
Recommendations

The following is recommended:

1. Apply development charges revenue to build three new facilities in the rapidly growing suburban communities that will assist in closing the service level gaps identified in this study (prioritized based on projected levels of growth by zone). This represents a \$34.6 Million capital program (facility construction and collections).
2. Request sufficient PAYG funding from the City to ensure that implementation of the facilities plan set out in this report. OPL will require \$18.3 Million to 2023 for the statutory contribution required to leverage the Development Charge funding for growth projects and to fund the portion of the program not eligible for DC funding (i.e. project components addressing existing populations, not growth). Of this, \$12.7 Million is currently available from the OPL Development Charge Reserve Fund. The danger in not closing the service gap is twofold: first, several areas in the city will remain deficient in service provision and second, the rate at which future development charges can be levied will decline as the average level of service provision declines due to lack of new construction (fueling a downward spiral in Development Charge revenue eligibility).
3. Encourage the City to increase the contribution rate for Lifecycle funding to allow OPL to implement a more aggressive, staged asset renewal plan.
4. Expand Alternate Service Delivery to augment service provision in areas of the city that have service gaps that are not eligible for Development Charge sponsored projects or represent service gaps that are not practical to address through branch expansion due to the dispersed nature of the settlement pattern.

Section 1 - Study Design

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Context

The Ottawa Public Library (OPL) has implemented a number of studies over the past fifteen years to assess the need for future investments in library facilities. Danix Management Limited was retained to prepare an analysis of growth in the City of Ottawa and to make recommendations for future library facilities (excluding the Ottawa Central Library).

The results of the 2016 Library Facilities Investment and Growth Planning Study are reported here.

This report builds upon the recommendations made in the previous Facility Investment and Growth Planning Study (Danix Management Limited, 2010), updated to reflect changes since 2010 including: recent population growth and future growth projections, facility development and emerging pressures.

Currently, OPL has 33 branches located throughout the city. Just over half of these facilities are dedicated library buildings while the remainder share buildings which provide other municipal service (e.g. co-located with a recreation or community centre) or are located in shopping malls.

Although differing in scope and configuration, each library facility provides a range of information and collections services, public internet access stations and specialized technology to make library services accessible to all members of the public including people with disabilities. Increasingly Ottawa public library branches are viewed as vital community hubs and gathering spaces where people connect to share, create and collaborate.

Library services are also delivered through Alternate Service Delivery modalities including the Bookmobile program, book vending kiosks and community outreach programs including homebound. Of increasing importance is the delivery of a wide range of library services through OPL's virtual presence – the “34th Branch”.

In addition to buildings providing branch services, administrative and support services are located at the Ottawa Public Library Materials Centre, the Richard Scott Building and at Ben Franklin Place.

Study Objectives

The following were established as the objectives for this study:

- Analyze growth trend projections in the City of Ottawa between 2016 and 2031,
- Assess the impact of these projected trends on the requirements for future or expanded facilities* of the Ottawa Public Library,
- Assess funding available for future facilities* as identified in the City of Ottawa Development Charges Bylaw,
- Assess the degree to which Development Charge funding will be able to fund a branch expansion program for under serviced areas of the City,
- Make recommendations for new or expanded facilities* including service augmentation through alternate service delivery.

** as per the study mandate, this review of OPL requirements excludes analysis and recommendations relating to a new Ottawa Central Library facility.*

Study Process

The study was developed in four stages:

- **Stage 1 – Background Research**

During this Stage, the consultant reviewed the findings of the previous growth planning study and reports and data sources relating to the facility inventory, levels of service delivery and emerging pressures. The analytical framework for the needs assessment was established during this stage.

- **Stage 2 – Needs Assessment**

In Stage 2, the consultant developed a detailed needs assessment beginning with a review of the population projections underpinning the City's official plan, re-cast to reflect OPL's service geography. Detailed projections for 2023 and 2031 were provided by the City, broken down to a fine level of geography (traffic zones). A gap analysis was prepared comparing level of branch service provision throughout the City. The results of the needs assessment were then used to prepare a Growth Facilities Plan.

- **Stage 3 – Investment Plan**

During this Stage, the Investment Plan was prepared. The Investment Plan intersects the Growth Facilities Plan with the projected funding capacity of OPL. The Investment Plan identifies the timing for capital expenditure aligned to a projection of available funding from Development Charge revenues.

- **Stage 4 – Report and Presentation**

In this Stage the consultant synthesized the outcomes from all previous tasks, including the incorporation of feedback from the OPL review team, to produce this Report.

Reports and Data Sources Reviewed

As part of the Background Review, a number of studies and data sources were reviewed, including:

- 2010 Facilities Investment and Growth Planning Study (Danix Management Limited)
- City of Ottawa Population Projections 2023 / 2031 by Traffic Zone (City of Ottawa)
- OPL Library of the Future and the Employee Imagine Campaign (13 Dec. 2013)
- OMBI Data (2014 Results)
- OPL AODA Facilities Accessibility Project Work Schedule
- Facility Lifecycle Information 2010 – 2020 (OPL)
- OPL Listing of Projects / Investments by City Ward
- OPL Capital Budget (2016)
- 2014 Development Charge Background Study - Libraries (City of Ottawa with Watson & Associates Economists Ltd.) and its addenda
- OPL Development Charges Strategic Framework – Projects Listing

Analytical Framework

The analysis underpinning the Needs Assessment was framed by: **geography**; **projection interval** and **service delivery typology**. Each of these is briefly discussed below.

□ **Geography**

Several elements of geography were considered. These included: traffic zones (the small zones for which the growth projections were supplied), the City's Official Plan which divides the City into major land use policy zones, and the City of Ottawa Development Charge schedule which is based on three large zones (Urban, Suburban and Rural).

These various "geographies" were integrated into "12 Zones": three urban zones inside the Greenbelt (Central*, Centrepointe and Greenboro), three suburban zones outside the limits of the federal Greenbelt (Kanata, Barrhaven /Riverside South and Orléans), and four rural "quadrants" (North-west, South-west, South-east and North-east). *The Central zone was further subdivided into three sub-zones to provide a more fine-grained analysis of growth pressures in the inner area.

□ **Projection Interval**

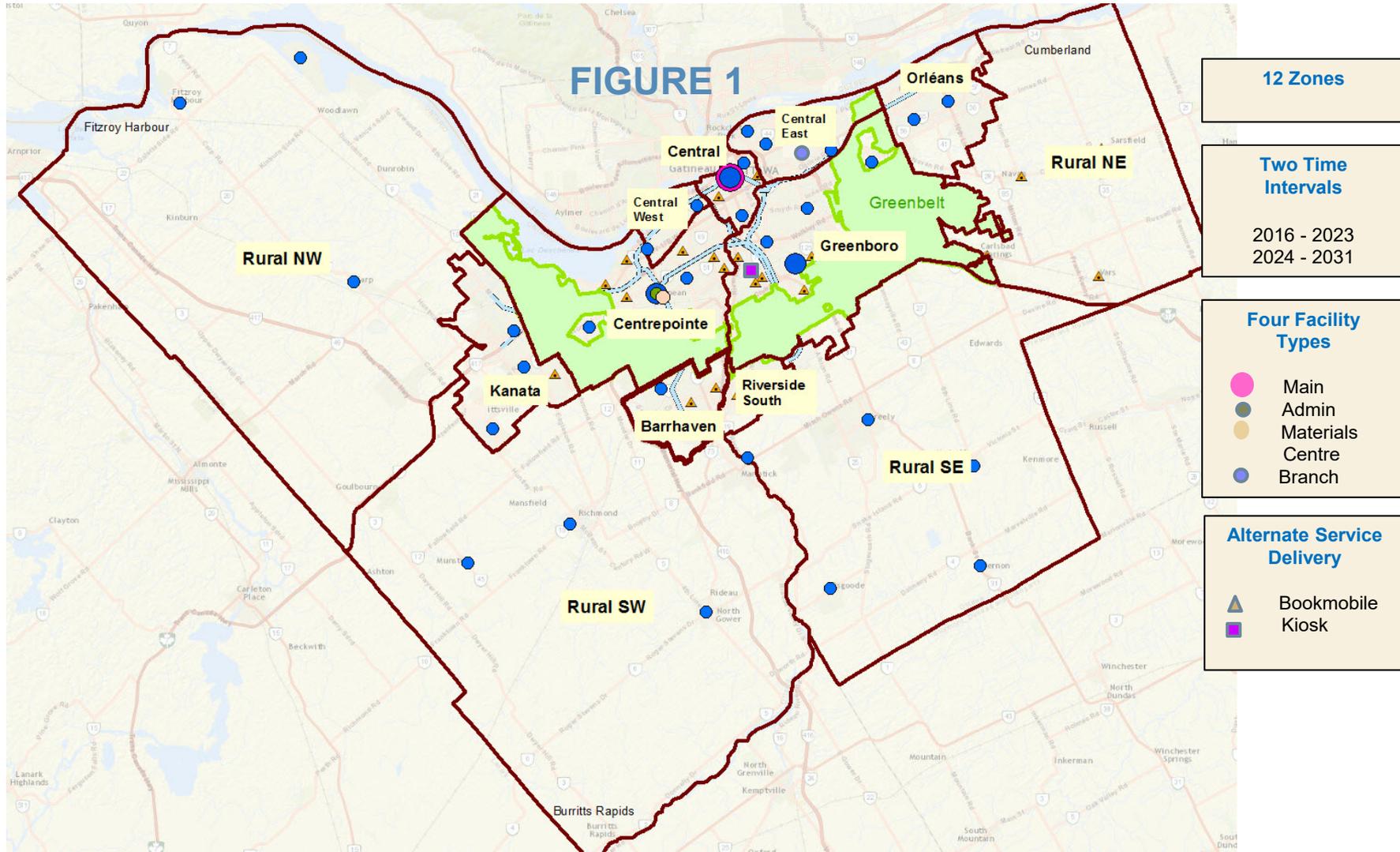
The detailed population and household data supplied to the consultant (on a traffic zone basis) included data sets for the following three dates: 2011, 2023 and 2031. The 2011 data distributes the most recent Census population count. The 2023 and 2031 data sets, based on the Official Plan projection ("compact scenario" distributed into Traffic Zones), were used as the basis for preparing a medium-term and long-term projection of library service needs.

□ **Service Delivery Typology**

The consultant was supplied with a facility inventory listing all library facilities. For the purpose of this study, the facilities were classified into four "types"; Main, Branches, Admin and Materials Centre. Also considered were alternate service delivery modalities (bookmobile and kiosk).

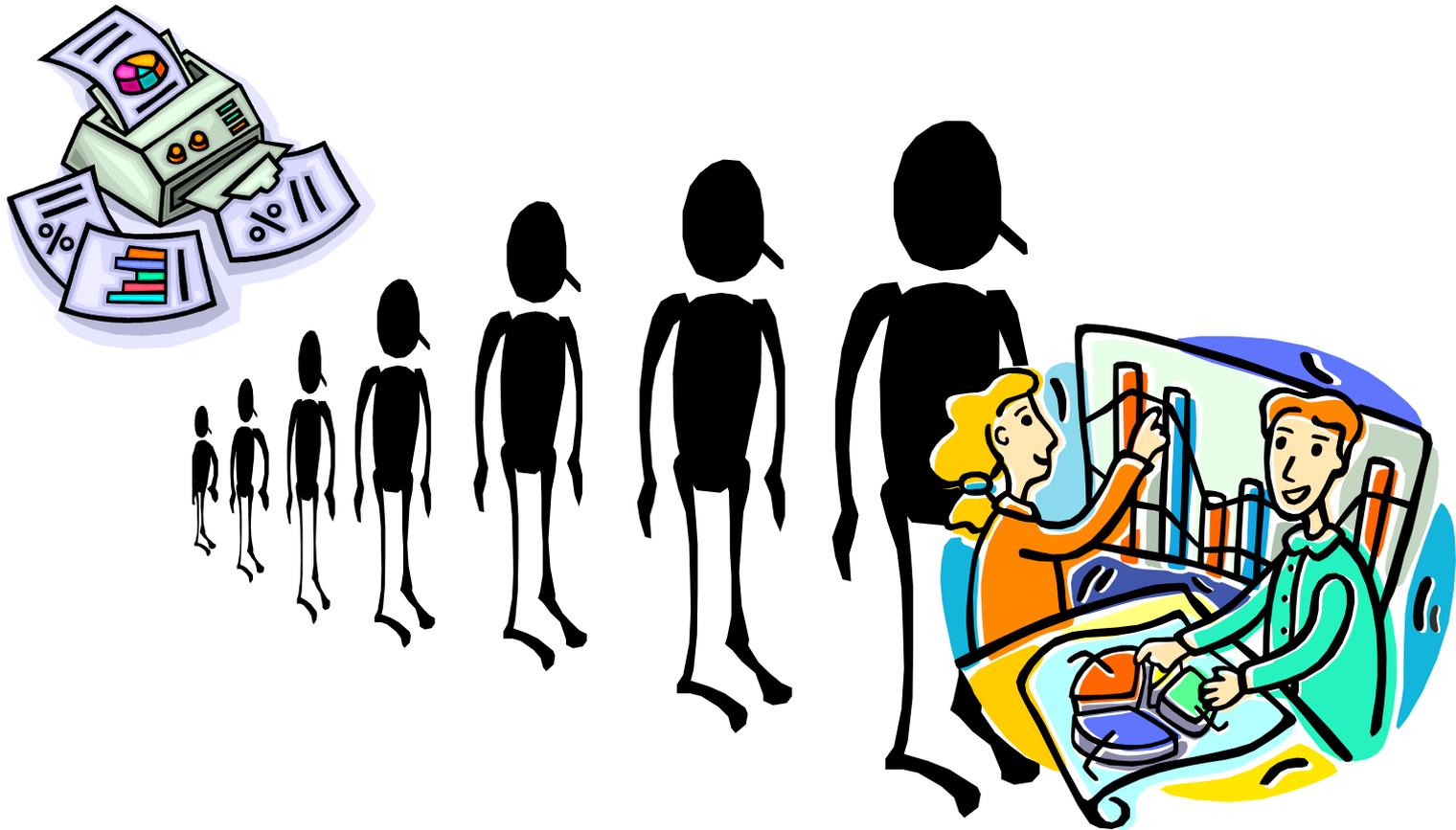
Analytical Framework

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Section 2 - Growth Projection

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Data Sources

The population growth trend and projection illustrated on the next slide spans the time period 2006 through 2031.

Several data sources were combined for this projection.

The 2006 and 2011 population totals are from the Census of Canada (after adjustment for undercount).

Detailed distribution of the 2011 population value was obtained from a data file supplied by the Research and Forecasting Section, City of Ottawa. This file included population and household numbers for each of approximately 1,350 dissemination areas.

The projection of the 2023 and 2031 population values were extracted from data files also supplied by the Research and Forecasting Section. These files also comprised population and household numbers for each of 400 traffic zones

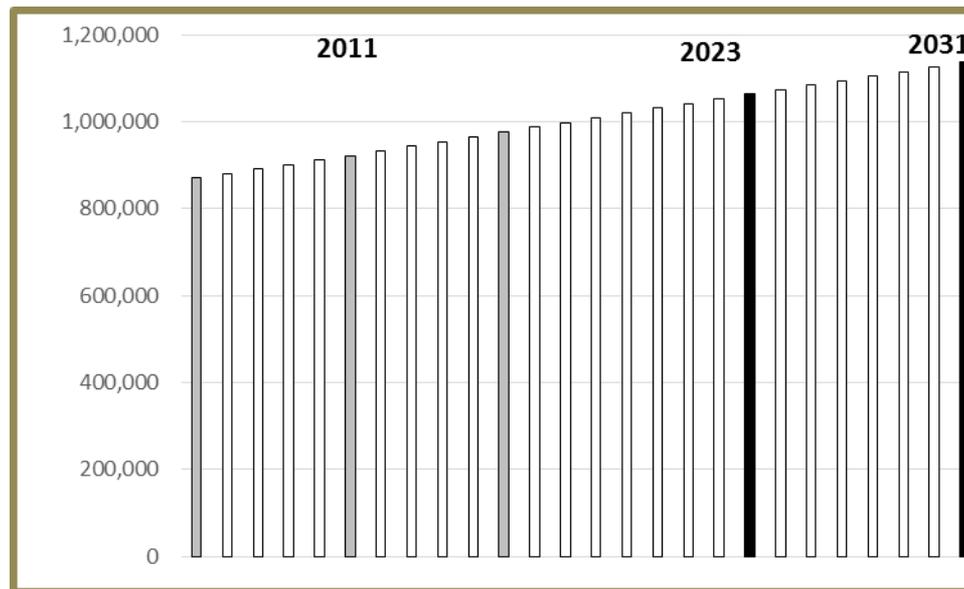
Four main data points anchor the projection used in this study, as illustrated in Figure 2 on the next slide. The values for 2006 and 2011 are Census counts while the values for 2023 and 2031 are derived from the City of Ottawa Official Plan projections. The 2016 population value is an estimate prepared by City staff.

To assist in the preparation of the needs analysis, the Official Plan projection was recast to create a series of annual values from 2011 through 2031. These annual values are straight-line “interpolations” developed by dividing the intervals (between 2011 and 2023 and between 2024 and 2031) into equal growth increments.

The detailed breakdown of the growth projection into 400 traffic zones facilitated the mapping of projected growth patterns, summarized into the 12 large zones developed for the 2016 Library Facilities Investment and Growth Planning Study (LFIGPS).

Population Trend and Projection

FIGURE 2



The grey bars for 2006 and 2011 are Census counts.

The grey bar for 2016 is a current population estimate.

The black bars are taken from the City of Ottawa Official Plan projection.

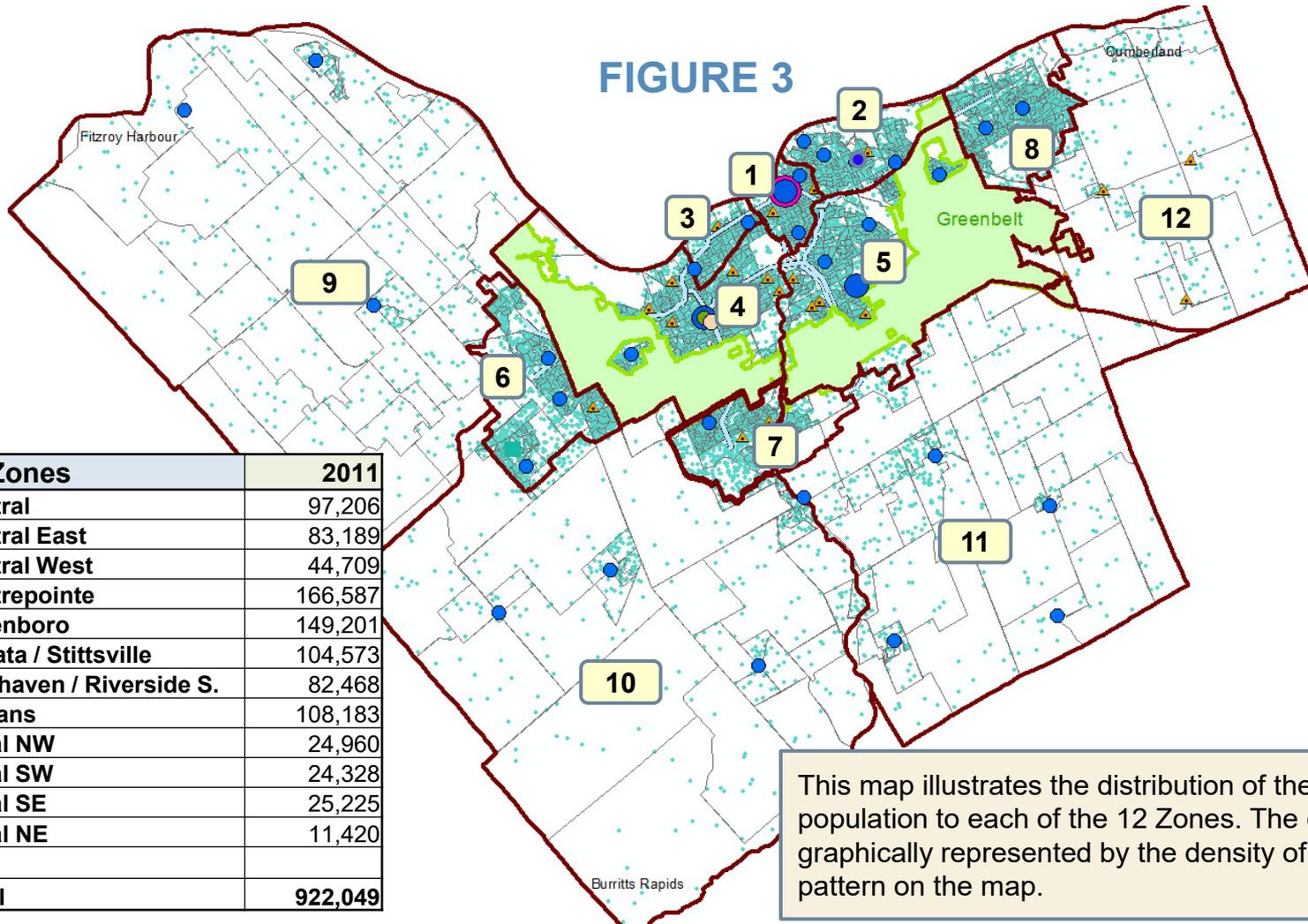
Sources: 2006 and 2011 from Census of Canada; 2023 and 2031 are from the City of Ottawa Official Plan; other years including 2016 have been interpolated.

The growth projection underpinning this study, as illustrated above, reflects the City's Official Plan projection which was used to set the current Development Charge schedule and in this study to identify projects related to projected growth.

Population in the City of Ottawa is expected to increase from 922,000 in 2011 to 1,053,000 by 2023 and then to 1,136,000 by 2031. Overall, this projection is nearly identical to the projection used in the 2010 Library Facilities Investment and Growth Planning Study. The distribution of the 2011 population is illustrated on Figure 3 which follows.

2011 Population Distribution

FIGURE 3



12 Zones		2011
1	Central	97,206
2	Central East	83,189
3	Central West	44,709
4	Centrepoint	166,587
5	Greenboro	149,201
6	Kanata / Stittsville	104,573
7	Barrhaven / Riverside S.	82,468
8	Orléans	108,183
9	Rural NW	24,960
10	Rural SW	24,328
11	Rural SE	25,225
12	Rural NE	11,420
Total		922,049

This map illustrates the distribution of the 2011 population to each of the 12 Zones. The distribution is graphically represented by the density of the dot pattern on the map.

Growth Projection Summary

According to the City of Ottawa's Official Plan projection, the total population for the City will reach 1.14 Million by 2031.

Based on this projection, the compound annual growth rate will average approximately 1.2%% from 2011 through to 2023. The growth rate is then projected to decelerate – to an annual rate just under 1% between 2024 and 2031. The **growth increment** (actual increase in the number of persons per year) **will remain above 10,000 per year throughout the entire projection period.**

The City's growth in population is projected to be largely suburban oriented. Over 75% of the total increase in the City's population 2011 through 2023 will occur in the suburban communities located just outside the Greenbelt. The suburban share is then projected to decline to 40% from 2024 through 2031 as the level of intensification inside the Greenbelt increases.

The four rural quadrants (combined) will account for 8% of total population growth through to 2023, rising to 12% for the balance of the projection period.

From 2011 through 2023, the growth in the number of Adults will dominate (two thirds of total growth). From 2024 through 2031 Seniors will then dominate growth (60% of the total).

The growth in Pre-schoolers and Kids through the planning horizon will be modest and there will be an absolute decline in the number of Youth.

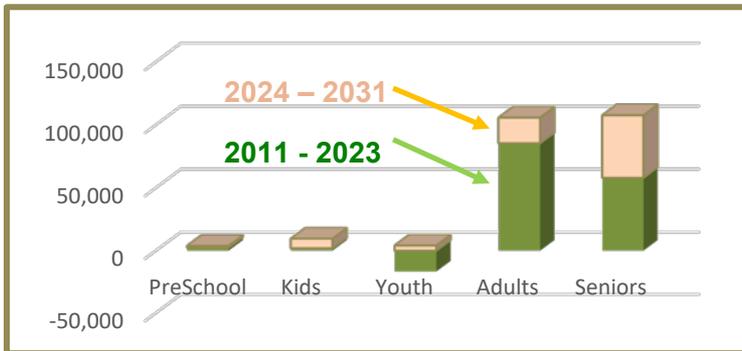
The charts and maps that follow illustrate various aspects of the growth projection, setting the stage for a projection of future library facility requirements.

Key Growth Statistics

Projected Growth Rate and Growth Increment in the City of Ottawa 2011 to 2031

	Compound Growth Rate	Annual Growth Increment
2011 to 2023	1.22%	10,932
2024 to 2031	0.95%	10,401

Projected Population By Age Group



Official Plan Population Projection by 12 Zones

12 Zones	2011	2023	2031	2011 to 2023	2024 to 2031
Central	97,206	105,824	116,359	8,618	10,535
Central East	83,189	88,992	97,340	5,803	8,348
Central West	44,709	45,568	48,658	859	3,090
Centrepointe	166,587	164,695	173,503	-1,892	8,808
Greenboro	149,201	156,158	164,419	6,957	8,261
Kanata / Stittsville	104,573	141,055	157,983	36,482	16,928
Barrhaven / Riverside S.	82,468	121,461	127,544	38,993	6,083
Orléans	108,183	133,028	143,371	24,845	10,343
Rural NW	24,960	26,496	28,881	1,536	2,385
Rural SW	24,328	29,396	34,370	5,068	4,974
Rural SE	25,225	27,943	30,232	2,718	2,289
Rural NE	11,420	12,617	13,185	1,197	568
Total	922,049	1,053,233	1,135,845	131,184	82,612

Sources:

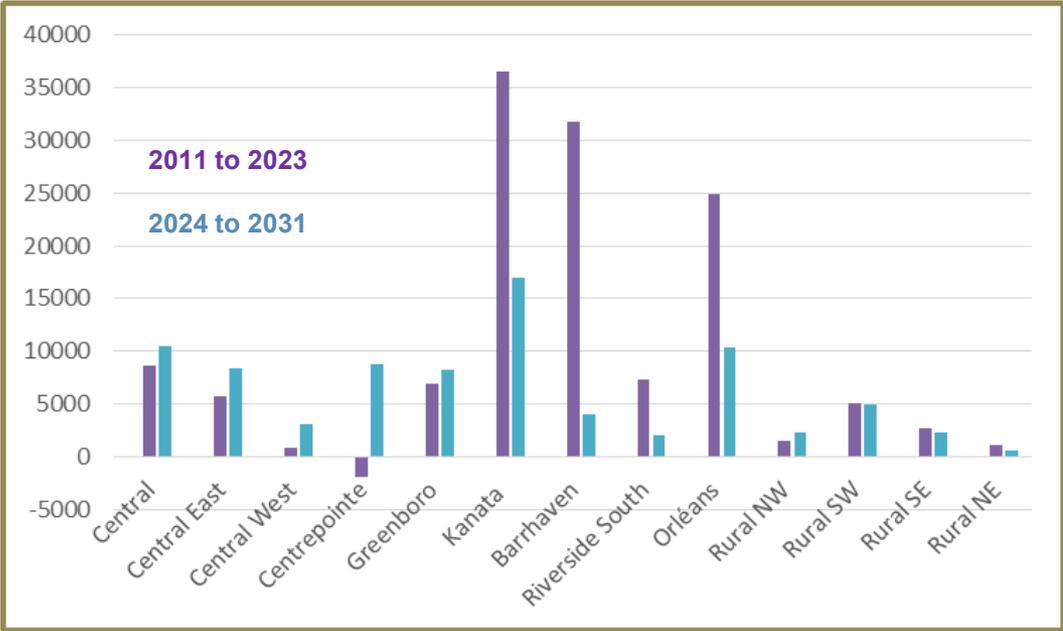
City of Ottawa
 Infrastructure Services and Community Sustainability Dept.
 Research and Forecasting Section

Aggregation to Twelve Zones by Danix Management Limited

2011 is the most recent year for which Census population counts are available.

Distribution of Population Growth

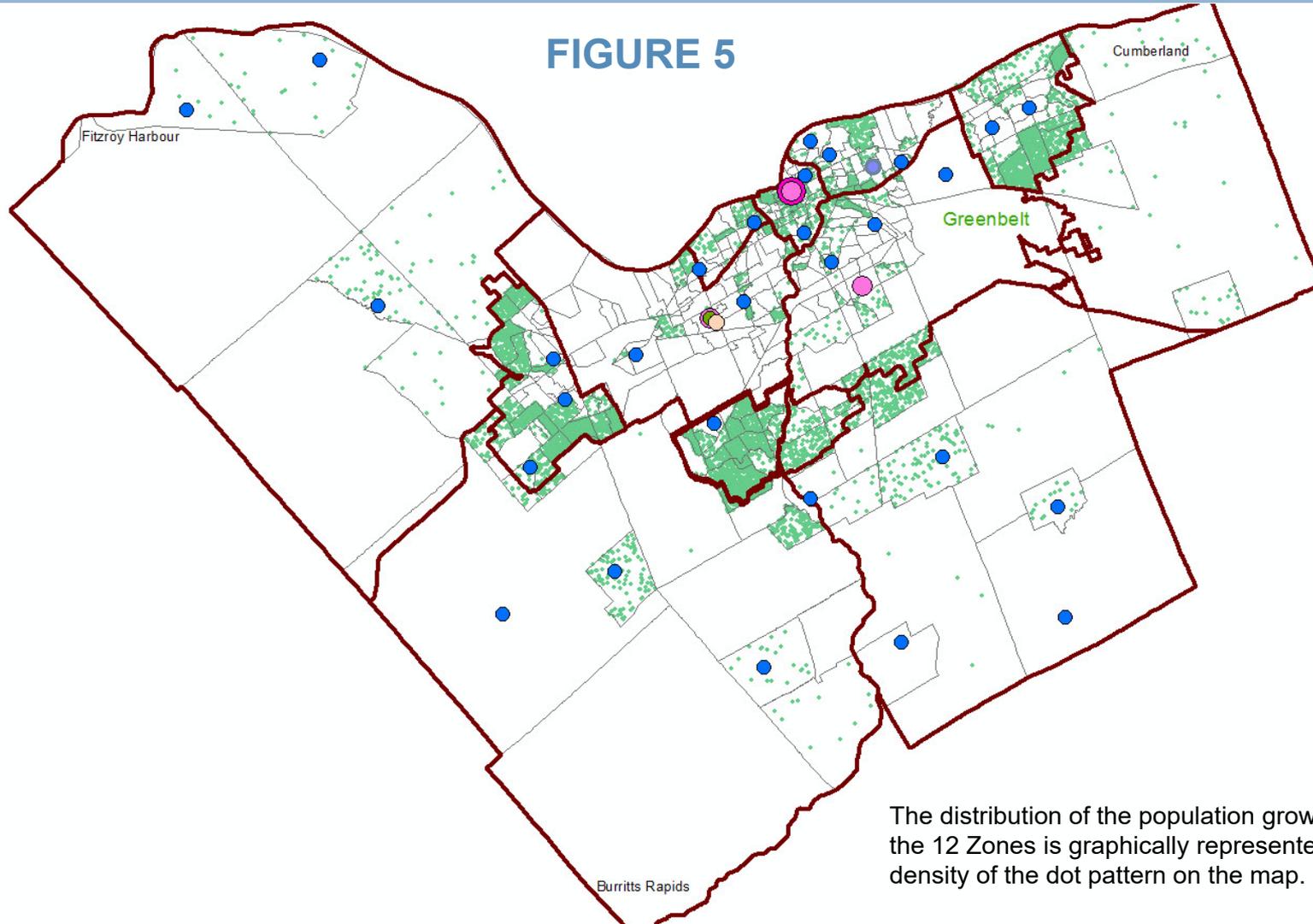
FIGURE 4



Most of the growth will occur in the suburban districts outside the Greenbelt. However, later in the projection period residential intensification inside the Greenbelt is expected to accelerate. Official Plan policies encourage development in support of a “compact” urban form with significant amounts of new development focused close to employment nodes and near stations on the routes of the expanding rapid transit system.

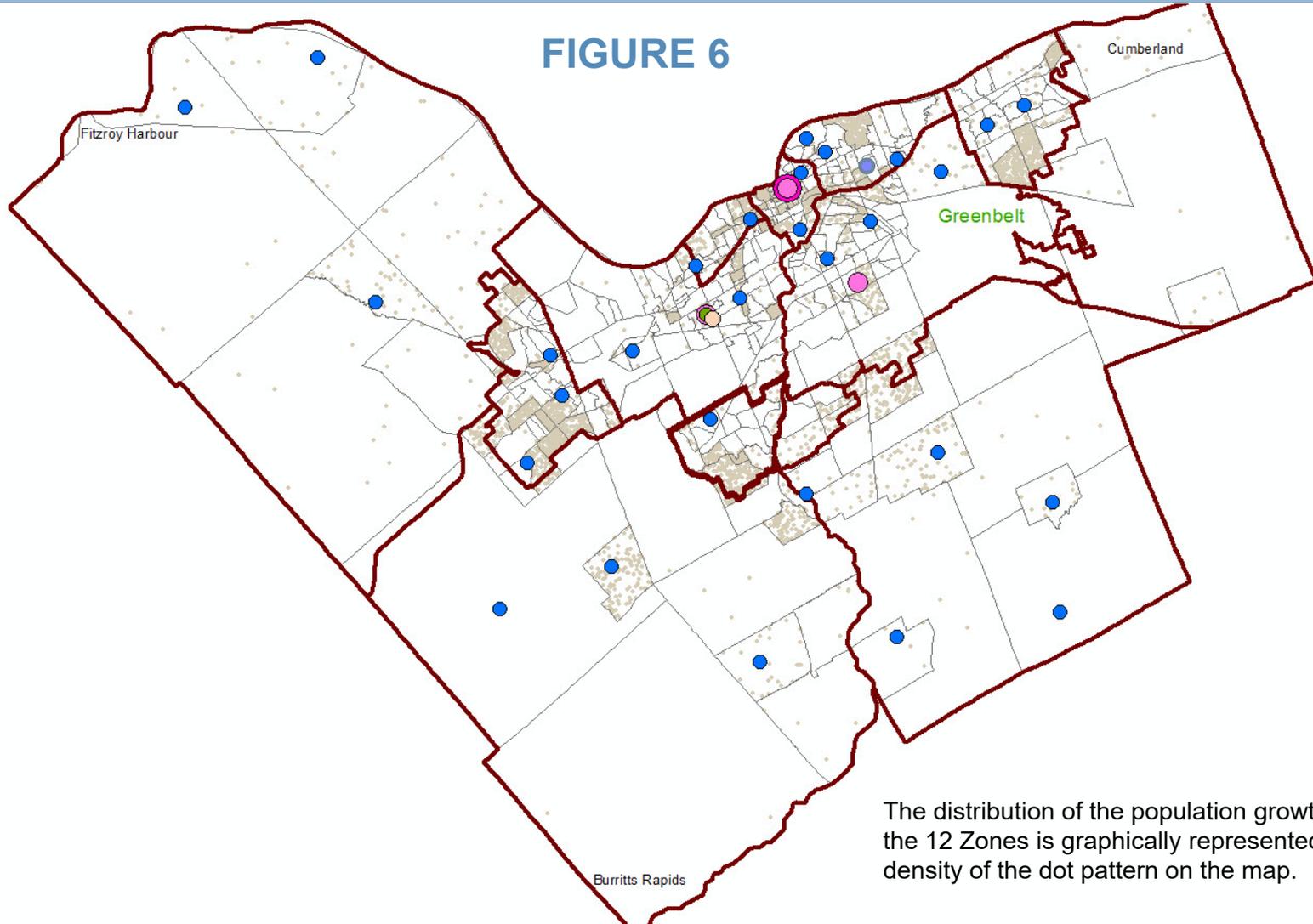
The dominant demographic change is the progressive aging of the Baby Boomers.

Population Growth 2011 to 2023



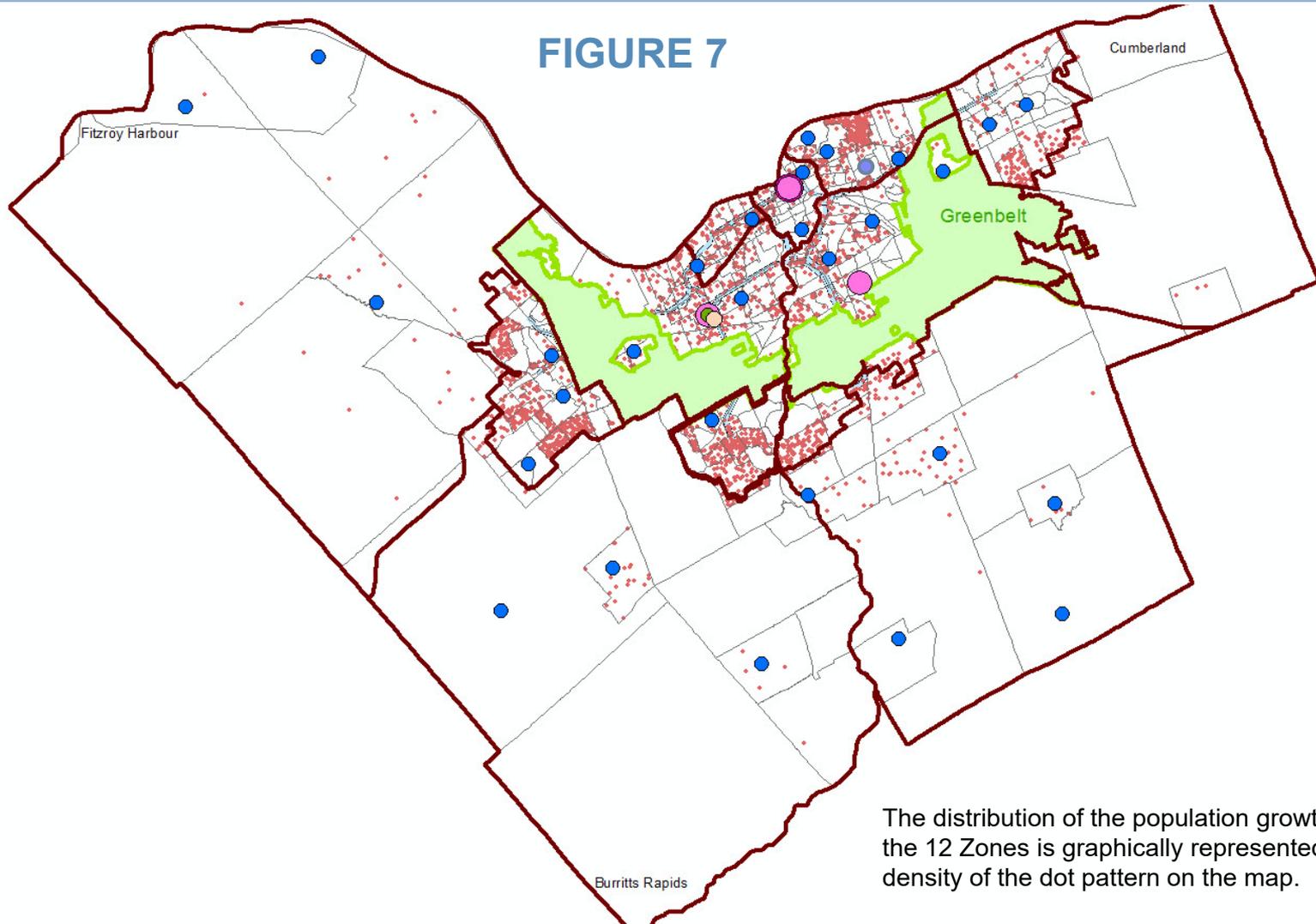
The distribution of the population growth to each of the 12 Zones is graphically represented by the density of the dot pattern on the map.

Population Growth 2024 to 2031

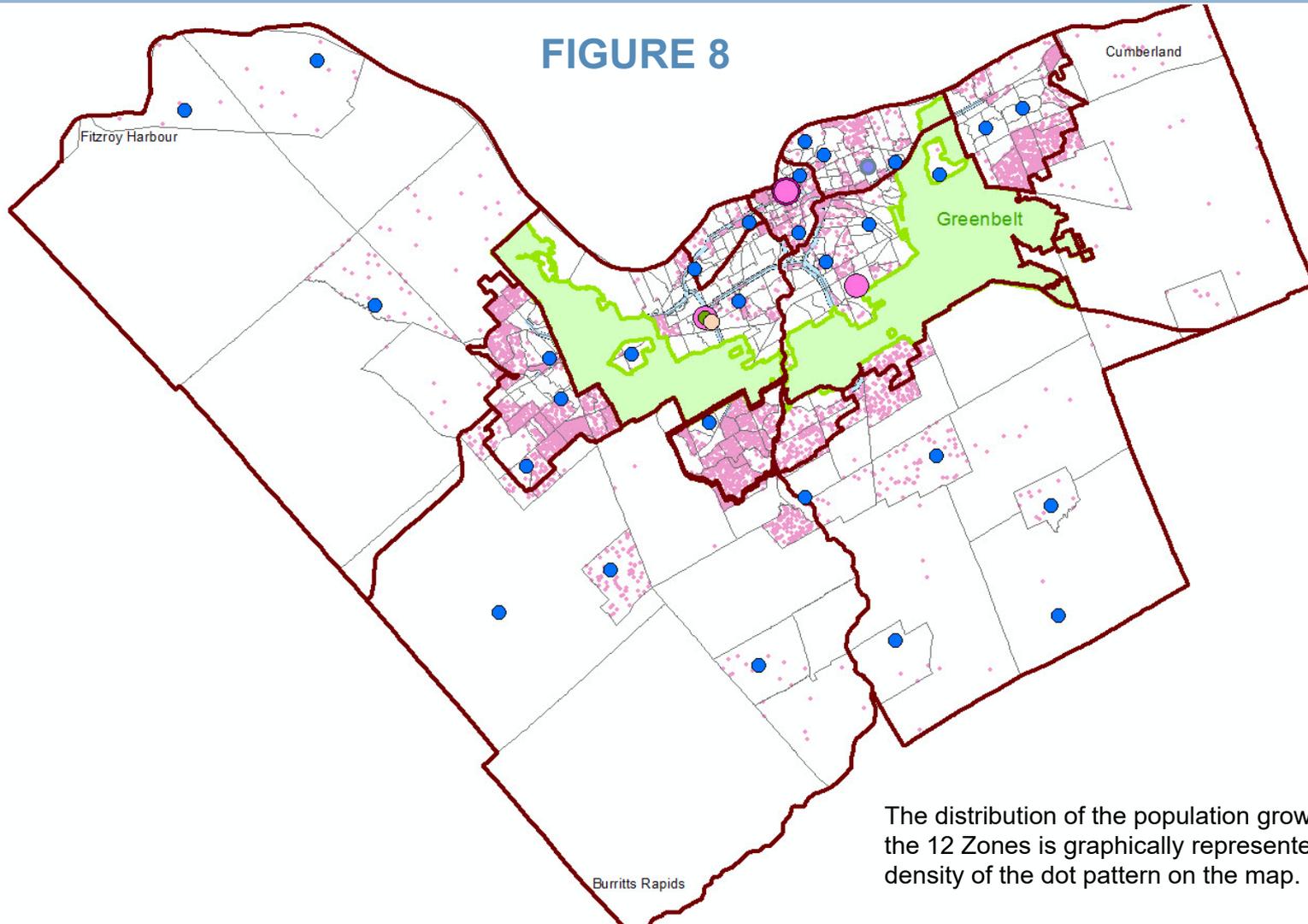


The distribution of the population growth to each of the 12 Zones is graphically represented by the density of the dot pattern on the map.

Preschoolers and Kids 2011 to 2023



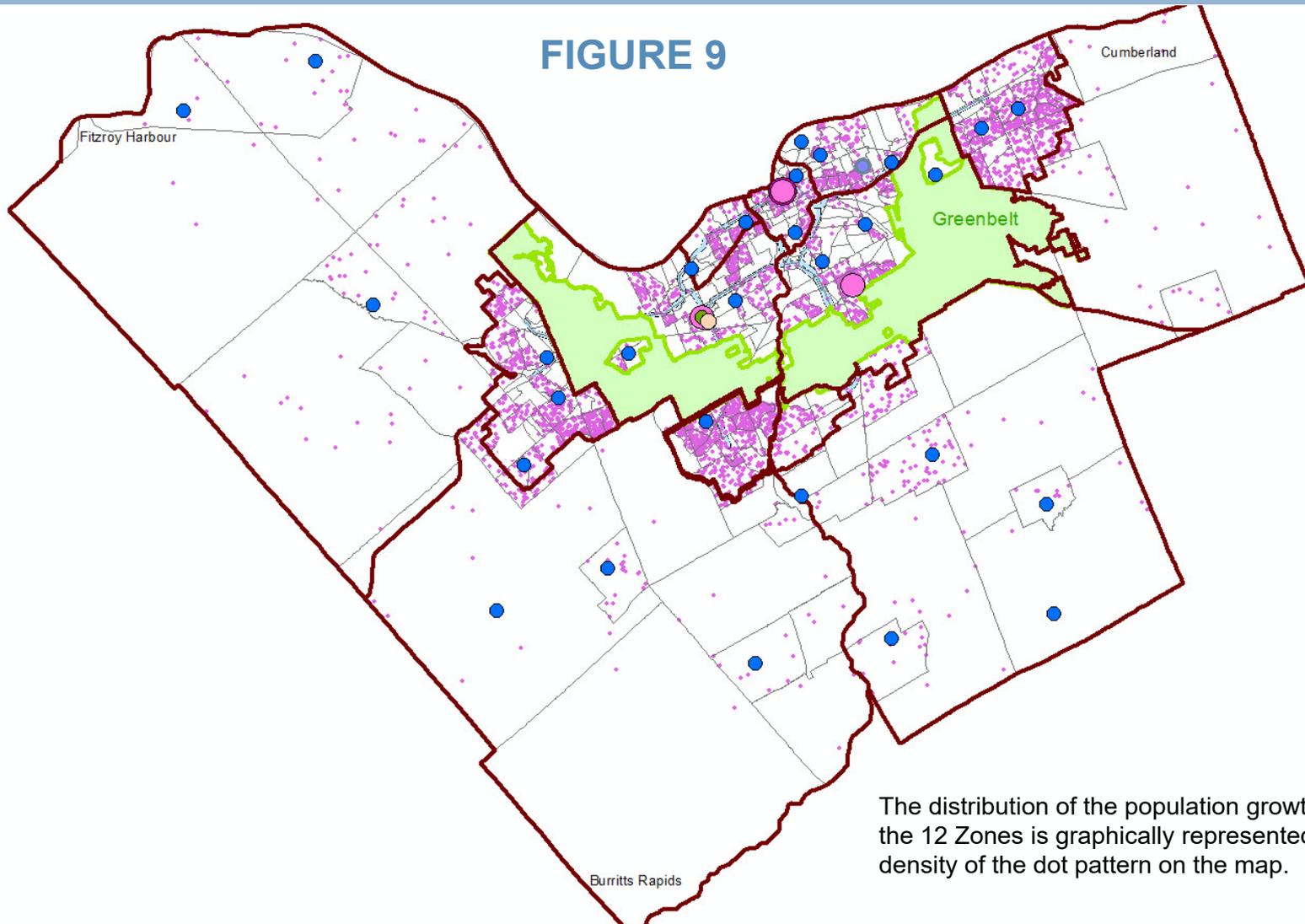
Adults 2011 to 2023



The distribution of the population growth to each of the 12 Zones is graphically represented by the density of the dot pattern on the map.

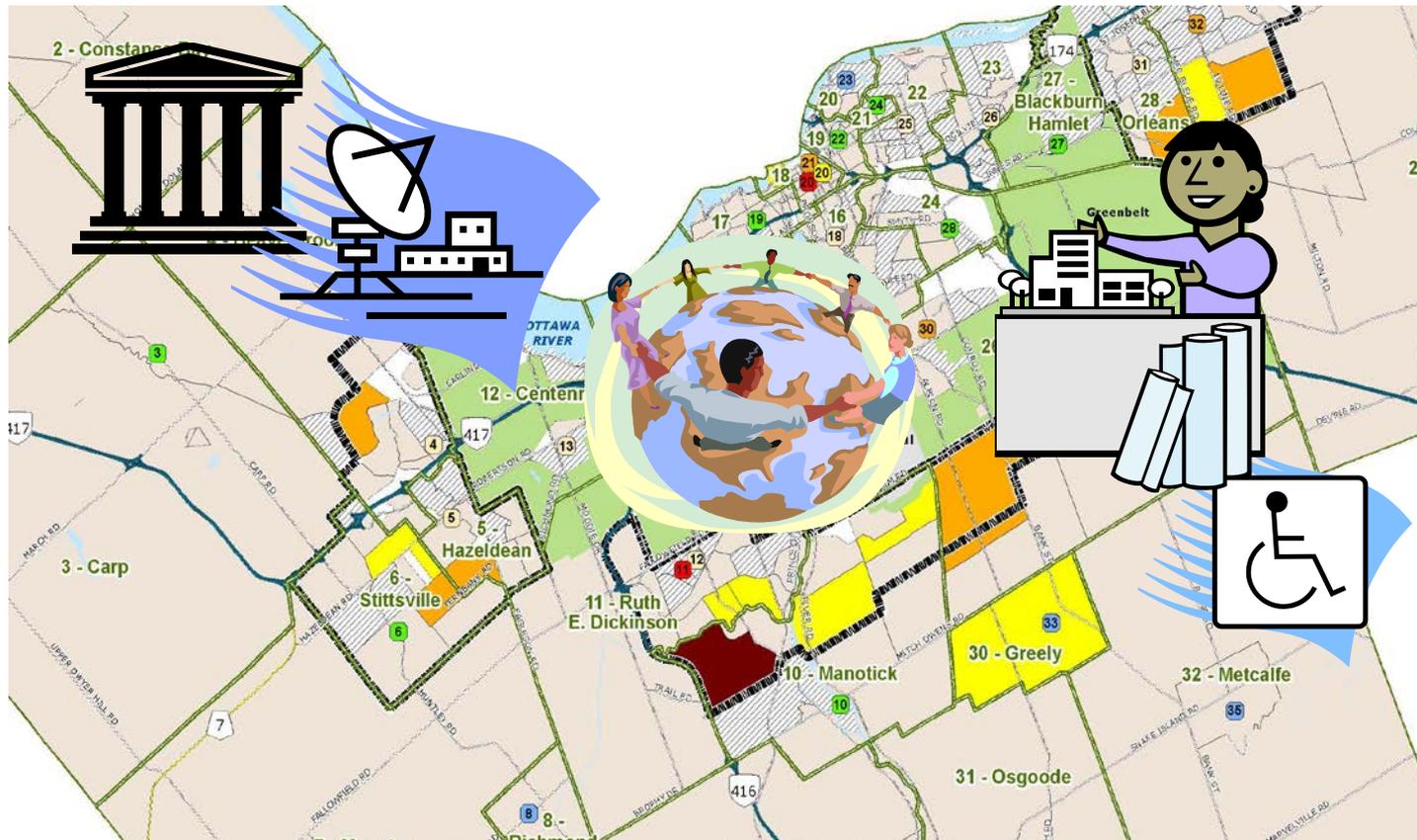
Seniors 2011 to 2023

FIGURE 9



The distribution of the population growth to each of the 12 Zones is graphically represented by the density of the dot pattern on the map.

Section 3 - Needs Assessment



Facility Inventory

The starting point for the needs assessment was to assemble a current inventory of existing OPL space, classified by facility type and location. The inventory was then sorted into the Twelve Zones (facilities not assigned to a specific zone are those providing “city wide” functions).

The inventory was adjusted to reflect changes since the 2010 LFIGPS. These inventory changes included: the expansion of the Constance Bay Branch (from 519 to 1,100 sq. ft.) the expansion of the Beaverbrook Branch (from 10,000 to 23,900 sq. ft.) and the expansion of the Emerald Plaza Branch (from 5,644 sq. ft. to 10,528 sq. ft.).

For this report, 30,000 square feet of the 120 Metcalfe Street facility was allocated to the “Branch” library function of the Central Zone with the remainder of the space allocated to the “Main” library function (City Wide).

A final adjustment was to remove from consideration, 4,356 square feet of “senior management administration” space at the Richard Scott facility (191 Laurier Ave.) to facilitate direct comparison to the inventory used by the City for Development Charge calculations.

2015 Sq. Ft. / 2016 OPL 12 Zones	2016 Facility Typology				
	Admin	Materials	Main	Branch	Grand Total
City Wide	16,384	21,000	60,418	0	97,802
Central				49,291	49,291
Central East				38,153	38,153
Central West				15,934	15,934
Centrepointe				67,057	67,057
Greenboro				59,024	59,024
Kanata				46,309	46,309
Barrhaven / Riverside S.				19,000	19,000
Orléans				41,682	41,682
Rural NW				7,546	7,546
Rural SW				10,797	10,797
Rural SE				9,246	9,246
Rural NE				0	0
Column Total	16,384	21,000	60,418	364,039	461,841

Facilities by 12 Zones	
Central	Barrhaven
Main	Ruth E. Dickinson
Rideau	Kanata
Sunnyside	Beaverbrook
Central East	Hazeldean
North Gloucester	Stittsville
Rockcliffe Park	Orleans
St-Laurent	Cumberland
Vanier	Orléans
Central West	Rural NW
Rosemount	Carp
Carlingwood (1/2)	Constance Bay
Centrepointe	Fitzroy Harbour
Carlingwood (1/2)	Rural SE
Emerald Plaza	Greely
Nepean Centrepointe	Metcalfe
Centennial	Osgoode
Greenboro	Vernon
Alta Vista	Rural SW
Elmvale Acres	Manotick
Greenboro	Munster
Blackburn Hamlet	North Gower
City Wide	Richmond
Main - Central	
Main - Admin	
OPL Materials Centre	

Note: Carlingwood allocated 1/2 to two zones

Facilities Service Standard (OMBI)

According to the Ontario Municipal Benchmarking Initiative, the Ottawa Public Library compares favourably regarding rates of use while having a relatively smaller physical footprint. The OMBI data provides an overall “snapshot” of service provision for a single year (the most recent data being 2014).

In comparison to other city libraries in Ontario (including Windsor, Thunder Bay and Toronto) the OPL is below average in provision of space. According to the OMBI methodology, OPL had 0.49 square feet per capita in 2014 compared to the OMBI provincial average of 0.56 square feet per capita.

For OPL, the challenge is to provide branch services to the very large geographic extent of the City of Ottawa which has large suburban communities separated from the inner urban areas by the federal Greenbelt and the difficulty of providing branch services to a dispersed rural population.

Note: to help address this challenge, areas inside the Greenbelt, the three suburban communities and the north east portion of the rural area are provided bookmobile service. The south west portion of the rural area is provided branch library service through an arrangement with the North Grenville Public Library.

The OMBI data is provided here for context. The service standard of most relevance, however, is the ten-year moving average that is used to justify the expenditure of development charge revenue to meet the need for new or expanded library facilities based on the growth in population. This second approach to calculating the service standard is discussed next.

Facilities Service Standard (DC Report)

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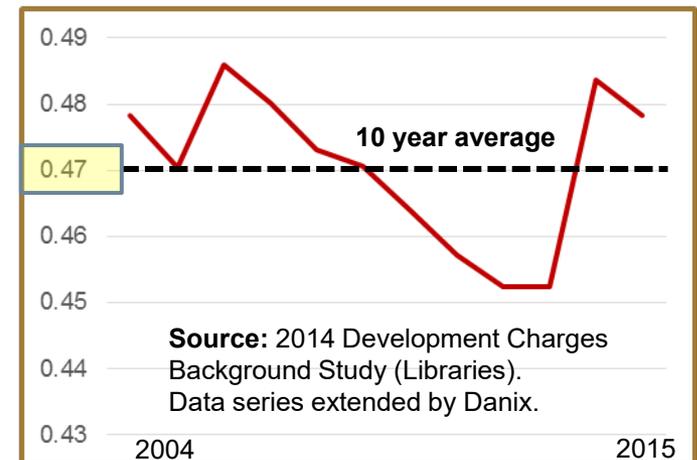
The recently published (2013) Development Charges Background Study includes a ten year history of per capita library space provision. Data extracted from that study are summarized in the plot at the top of this slide. The **ten year average level of service provision** reported in the DC Background Study was **0.47 sq. ft. per person** – which had been declining to 2013. The data series in the graph was then extended to show the impact of the additions to the branch network since 2013. These additions briefly restored the level of service provision to its 10 year average. The main message from the chart is that the level of **service provision can decline quickly whenever new construction does not keep pace with population growth.**

Note: the 0.47 sq. ft. per person metric calculated in the DC Background study is not directly comparable to the 0.49 sq. ft. per person OMBI data since the OMBI data is for a single year (2014) rather than a ten year average.

For the purposes of this study, the 0.47 service standard was then recalculated by removing the space providing “city-wide” functions (Main Library, administrative space and the Ottawa Public Library Materials Centre). This recalculation produces a ten year average of strictly **branch** library service provision so the relative level of branch library space provision across the City can be compared. Following this adjustment, **the ten year average level of “branch” service provision was found to be 0.40 sq. ft. per person** (down from 0.42 when the 2010 LFIGPS was prepared). The slight decline since 2010 results from the rate of branch expansion not keeping pace with population growth.

It is this metric (**0.40 sq. ft. per person**) that was adopted in this study to calculate the projected gap in branch service provision by zone.

**Overall Library Service Level
(sq. ft. / capita)**



Projected Space Requirements

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The provision of new or expanded library services to meet needs arising from “**growth**” is funded, in part, through Development Charges. The maximum rate that can be charged is based on the **average** service level actually provided over the previous ten years **applied to the projection of future population growth**.

Excluding the city-wide* functions (i.e. the Main Library, administrative space and the Ottawa Public Library Materials Centre), the average space provision for the branch component of the library system (i.e. branch services) averaged **0.40 square feet per person** over the past 12 years (i.e. including recent branch expansions).

For the purposes of measuring what additional branch facilities will be needed to accommodate growth, this study adopts 0.40 square feet per person as the relevant yardstick for projecting branch space provision in all 12 Zones.

These projected requirements (to 2031) were then compared to the existing levels of space provision to calculate a branch library facilities “gap”, as presented on the following slide.

The “gap” includes unmet needs recorded in the previous growth planning study plus new needs arising from the growth projection to 2031.

Note: the gap is further summarized into three “large zones” to align with the development charges schedule (as shown later on Slide 42).

- *It is an assumption of this study that the future needs for central library services will be addressed within the horizon of this growth study through the replacement (and expansion) of the existing Main Library.*

Gap Analysis

Based on achieving a library space provision of 0.40 square feet per person, the “gap” between the amount of space **required to accommodate growth** and the amount of space currently provided is nearly -29,000 square feet in 2016 (largely resulting from branch needs identified in the 2010 Development Charges Report that have yet to be addressed). Assuming no additional facilities were constructed, this gap would continue to grow, projected to reach 92,500 square feet by 2031 (the cumulative total through to 2031).

From the chart opposite, it can be seen that the gap is not evenly distributed. The largest “gap” in 2016 is in Barrhaven / Riverside South. By 2023, significant gaps will have also emerged in Orléans and Kanata. By 2031 a gap will have opened up inside the Greenbelt as well due to projected growth.

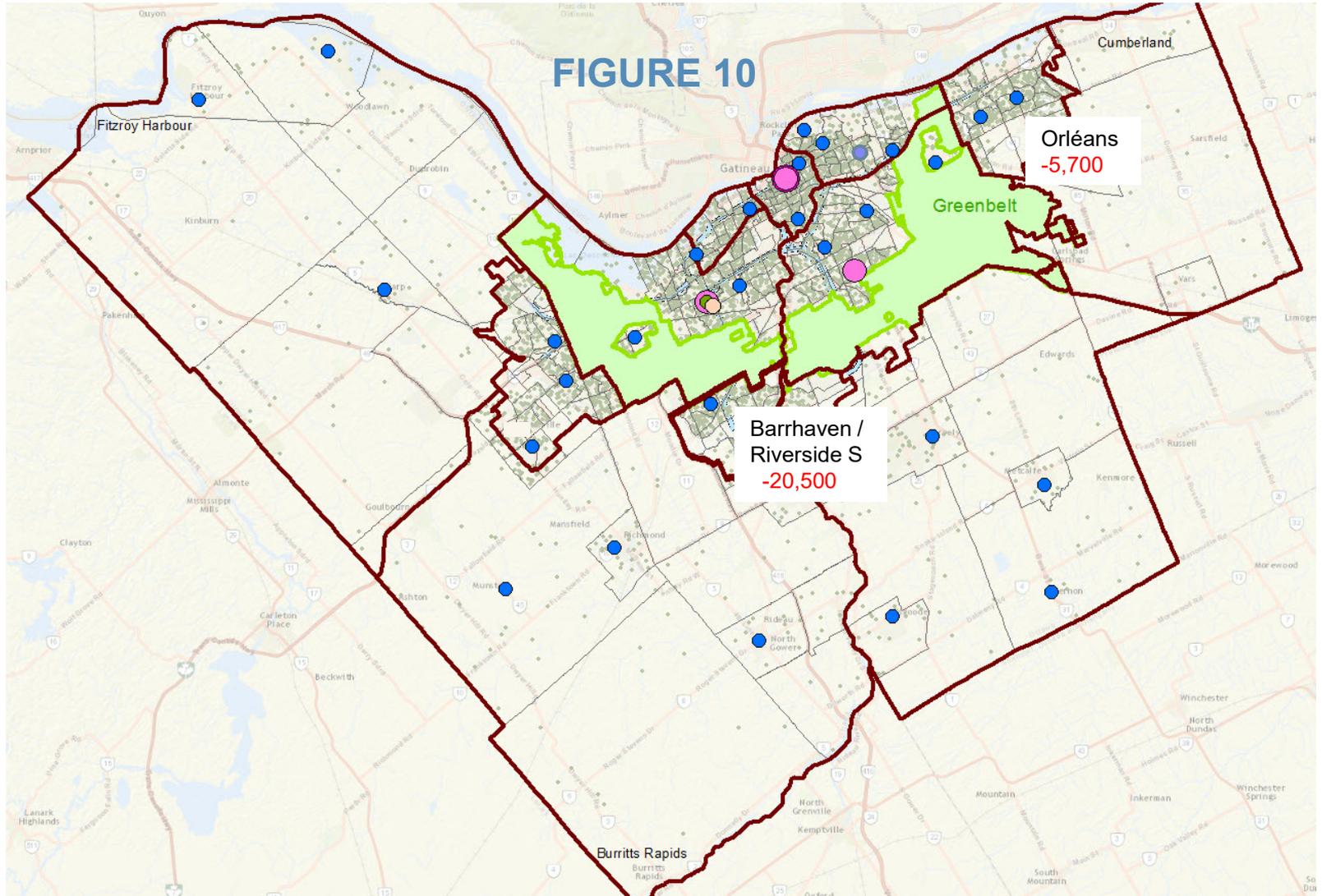
Projected Library Service Growth Gap by Zone (sq. ft.)			
12 Zones	2016	2023	2031
Central	-287	-2,298	-6,512
Central East	-193	-1,547	-4,887
Central West	-29	-229	-1,465
CentrepoinTE	63	505	-3,019
Greenboro	-232	-1,855	-5,160
Kanata / Stittsville	-1,601	-10,113	-16,884
Barrhaven / Riverside S.	-20,486	-29,584	-32,018
Orléans	-5,732	-11,529	-15,666
Rural NW	-51	-410	-1,364
Rural SW	-169	-1,351	-3,341
Rural SE	-91	-725	-1,640
Rural NE	-40	-319	-546
Total	-28,847	-59,457	-92,502

There are also small service gaps in the rural zones resulting from population growth, particularly in Rural SW.

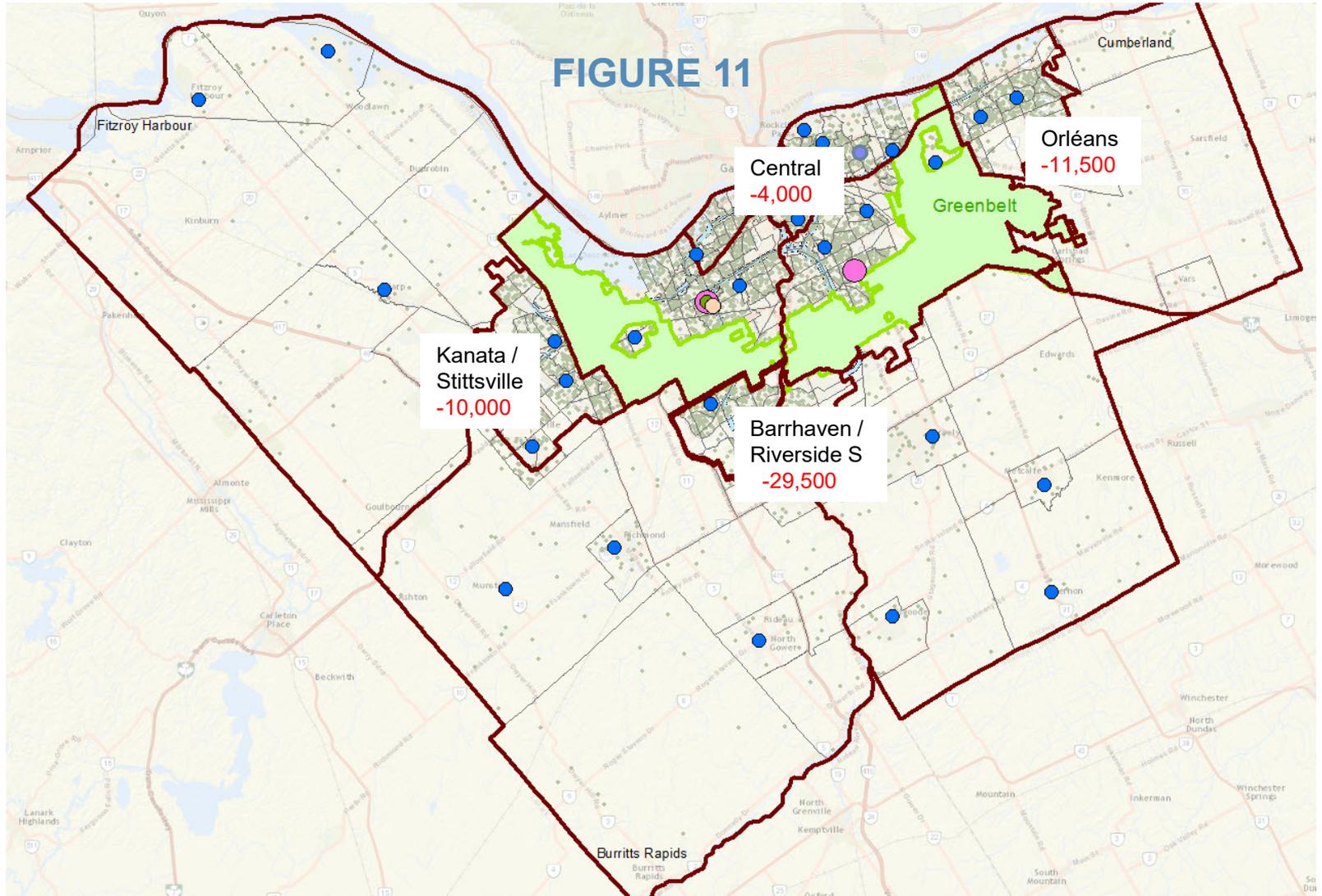
The next three slides illustrate the location and magnitude of the service gap through time.

Following the maps, the report identifies a Facilities Plan that identifies the recommended expansion of the OPL library system to address identified needs with a focus on projects required as a result of “growth” to the year 2023.

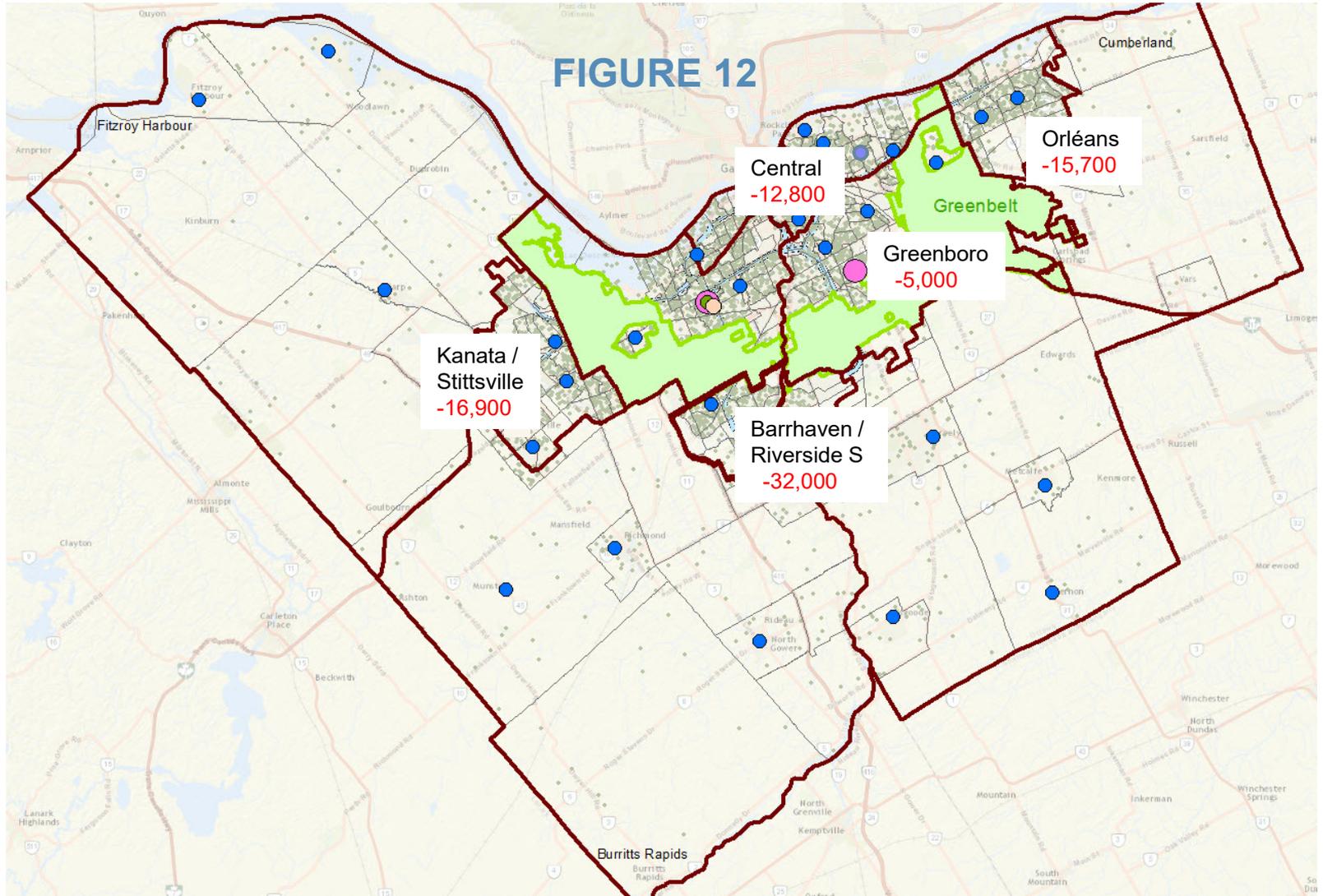
Facility Service Gaps in 2016



Facility Service Gaps by 2023



Facility Service Gaps by 2031



Increase in Service Gap By Zone, Over Time

Projected Growth Component of Facilities Service "GAP" (sq ft.) by 12 Zones (before addition of any new facilities)

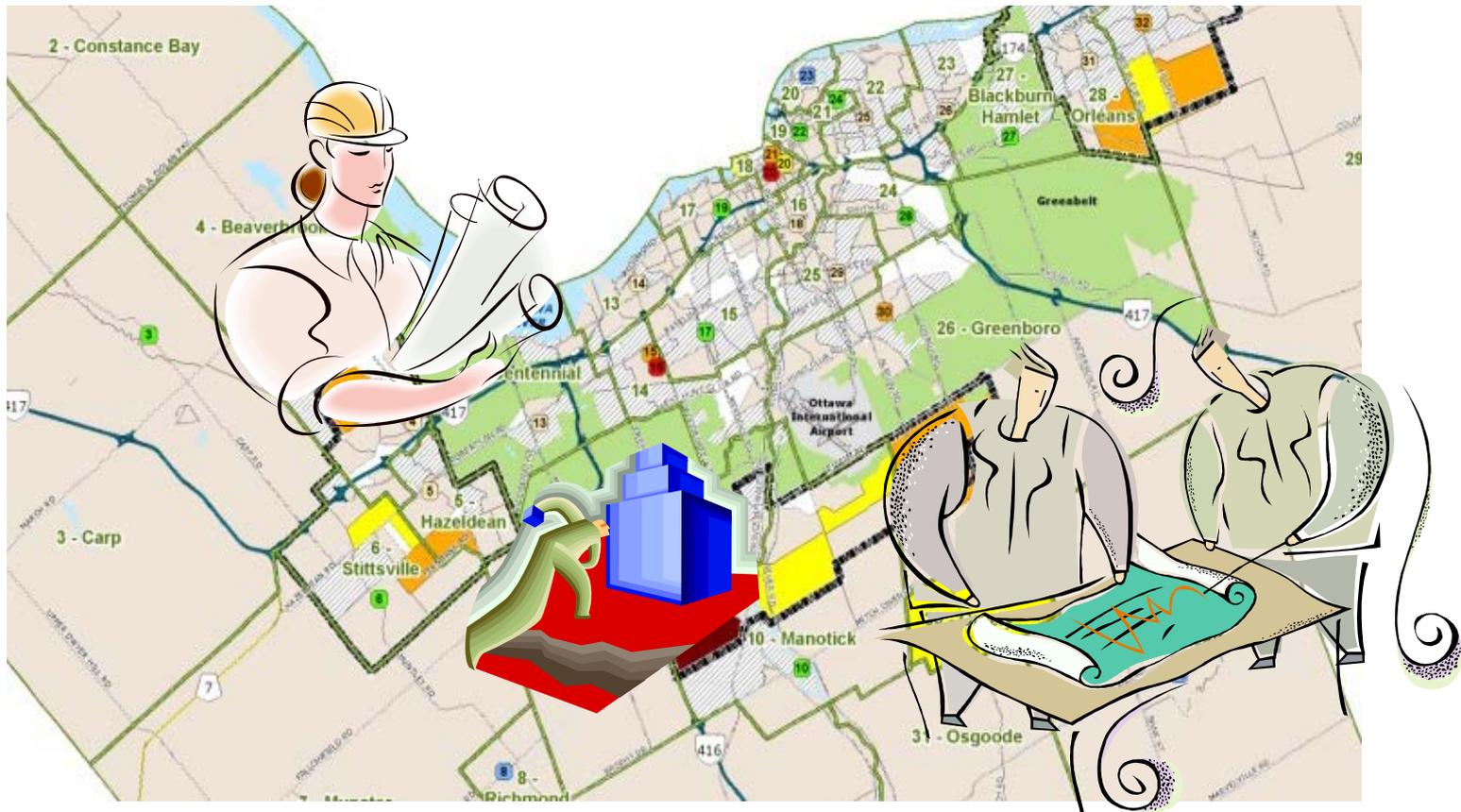
12 Zones	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Central	-287	-575	-862	-1,149	-1,436	-1,724	-2,011	-2,298	-2,825	-3,352	-3,878	-4,405	-4,932	-5,459	-5,985	-6,512
Central East	-193	-387	-580	-774	-967	-1,161	-1,354	-1,547	-1,965	-2,382	-2,800	-3,217	-3,634	-4,052	-4,469	-4,887
Central West	-29	-57	-86	-115	-143	-172	-200	-229	-384	-538	-693	-847	-1,002	-1,156	-1,311	-1,465
Centrepointe	63	126	189	252	315	378	441	505	64	-376	-817	-1,257	-1,697	-2,138	-2,578	-3,019
Greenboro	-232	-464	-696	-928	-1,160	-1,391	-1,623	-1,855	-2,268	-2,681	-3,094	-3,507	-3,920	-4,334	-4,747	-5,160
Kanata / Stittsville	-1,601	-2,817	-4,033	-5,249	-6,465	-7,681	-8,897	-10,113	-10,959	-11,806	-12,652	-13,499	-14,345	-15,191	-16,038	-16,884
Barrhaven / Riverside S	-20,486	-21,786	-23,086	-24,385	-25,685	-26,985	-28,285	-29,584	-29,889	-30,193	-30,497	-30,801	-31,105	-31,409	-31,713	-32,018
Orléans	-5,732	-6,560	-7,388	-8,217	-9,045	-9,873	-10,701	-11,529	-12,046	-12,564	-13,081	-13,598	-14,115	-14,632	-15,149	-15,666
Rural NW	-51	-102	-154	-205	-256	-307	-358	-410	-529	-648	-767	-887	-1,006	-1,125	-1,244	-1,364
Rural SW	-169	-338	-507	-676	-845	-1,014	-1,183	-1,351	-1,600	-1,849	-2,098	-2,346	-2,595	-2,844	-3,092	-3,341
Rural SE	-91	-181	-272	-362	-453	-544	-634	-725	-839	-954	-1,068	-1,183	-1,297	-1,412	-1,526	-1,640
Rural NE	-40	-80	-120	-160	-200	-239	-279	-319	-348	-376	-404	-433	-461	-490	-518	-546
Total	-28,847	-33,220	-37,593	-41,966	-46,339	-50,711	-55,084	-59,457	-63,588	-67,718	-71,849	-75,979	-80,110	-84,241	-88,371	-92,502

The projection of branch service “Need” is calculated based on a space standard of .40 sq. ft. per person applied to the population projection of the City Official Plan (for the “compact scenario”). The “Gap” is projected by comparing the projected service needs to accommodate growth to the OPL facility inventory as it existed in 2016, assuming no facility additions.

As highlighted in green shading on the chart above, the service gap is greatest in the three growing suburban communities lying just outside the Greenbelt – accounting for over 85% of the total service gap to 2023.

Addressing the suburban service gap is the primary focus of the investment plan presented later in this report. Well over half of the suburban service gap is attributed to Barrhaven / Riverside South. By 2023 there are also a significant gaps to be addressed in Orléans and Kanata (with the need to address the gap in Orléans occurring earlier in the projection period).

Section 4 - Facilities Plan



Projected Service Level

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As discussed previously, the facility “gap” analysis has been based on the amount of **branch** library space expansion that would be required to achieve a space provision of 0.40 square feet per person applied to the growth in population in each of the Zones **through to 2031**.

A set of new facilities or expansions totaling 85,000 sq. ft. of additional library space would be required to close the service gap (except the gap in the rural areas) - blue line on graph.

The main components are:

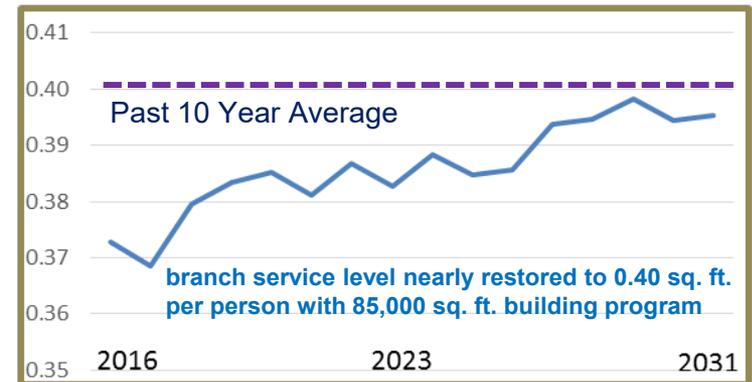
- A new Branch to serve residents in the Riverside South community,
- Augmentation of Central Library facility services,
- New Branches or expansions in Orléans, Barhaven and later in Kanata,
- An expansion of facility services in the Greenboro zone.

The map following illustrates the distribution of the facility program that would be required to implement this program, including the requirement for new facilities and through the expansion of existing facilities.

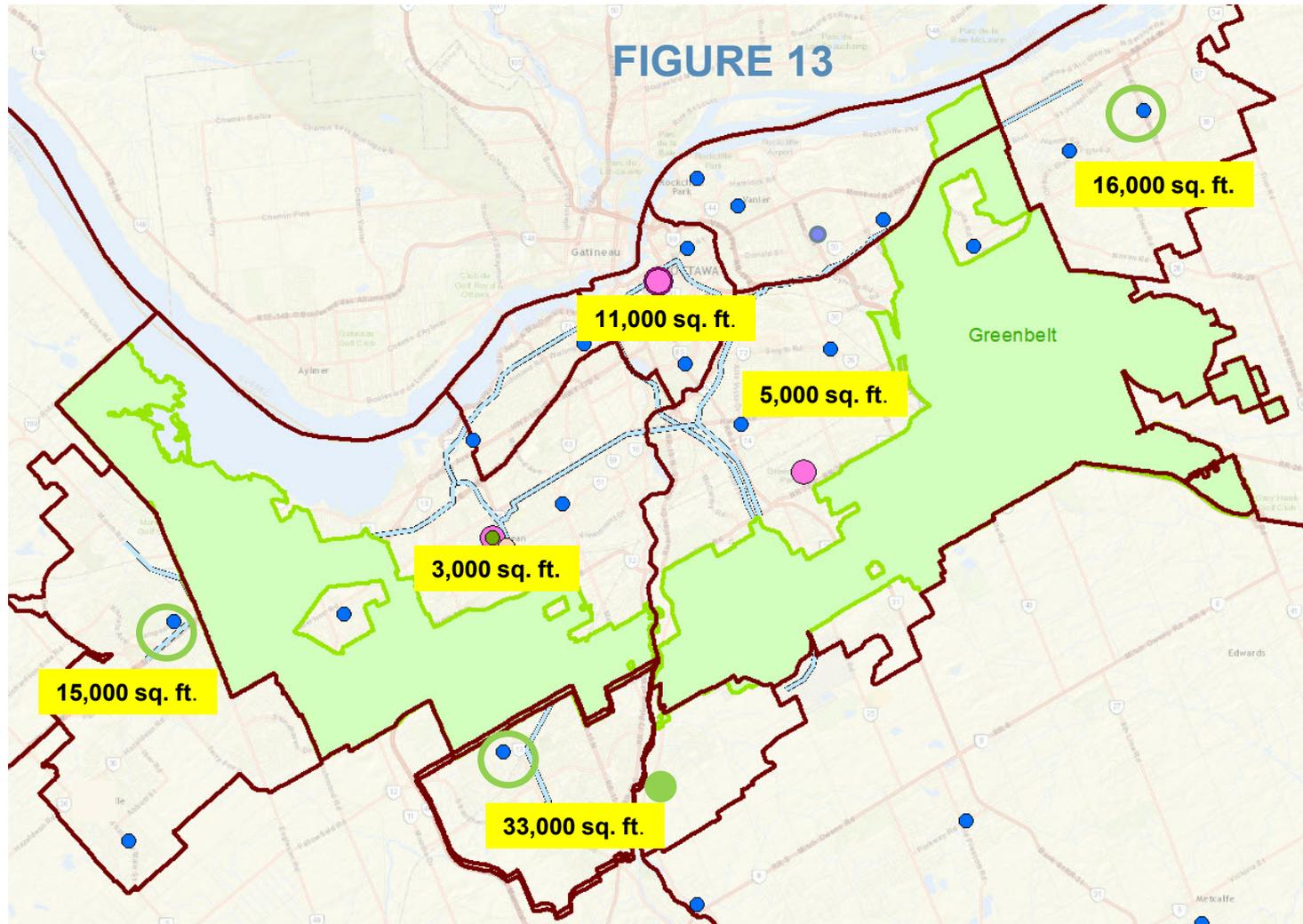
In total, the 85,000 sq. ft. building program to address the projected service gap to 2031 represents a very ambitious construction program (in the order of **\$ 50 M** not including collections), not all of which can be funded from Development Charges Revenue.

A more modest construction program that addresses most of the **needs to 2023 in the strongly growing suburban areas outside the Greenbelt** is presented in the Investment Plan section of this report, which follows.

Projected Branch Service Level



Facility Expansion to Close Gap to 2031



Section 5 - Investment Plan

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Budget Structure

This section of the report examines the projected capital cost of implementing the Facilities Plan to 2023 in relation to the funding that may be available to support growth related projects.

The OPL capital budget recognizes three classes of capital expenditures. Capital expenditures include all projects that become an asset of OPL, improve the value of an asset, or prolong the life of an asset. Assets include facilities, collections, furniture, technology and vehicles (including Bookmobile). The budget recognizes:

Growth includes expansion to library services driven by growth (the subject of this study). The main source of funding for these projects is revenue collected from Development Charges. The Development Charge By-law is reviewed every five years and is updated based on the average level of service provision in the City over the past ten years. By statute, all projects to be considered for DC funding must be supported by a growth study and a portion of the funding for the program of growth related projects **must** come from sources other than Development Charges.

Renewal of City Assets (which include major repairs and renovations to the existing inventory) are paid from the General Reserve Fund managed by OPL. A significant source of revenue for the General Reserve Fund is PAYG (pay-as-you-go), an annual contribution that the Ottawa Public Library (OPL) receives from the City to fund the OPL capital program. OPL also receives a specific allocation of City funds directed to life cycle renewal.

Strategic Initiatives are projects that increase or improve the functionality of existing assets or, in some instances, include the development of new facilities (such as the proposed new Ottawa Central Library). These projects are funded from the General Reserve Fund. Major projects, such as the proposed new Ottawa Central Library, typically require special one-time, project specific contributions from the City and OPL funding partners.

The following pages discuss the amount of funding that will be required to support “Growth” and “Renewal”. The costs and funding for strategic initiatives (including the new Central Library) are not within the scope of this study.

Leveraging DCs to Meet Growth

The projects identified in this Library Facilities Investment and Growth Planning Study include projects identified in the 2013 Development Charges background study and projects required **to address the identified growth needs** – in particular, the growing needs in **suburban communities** outside the Greenbelt **to 2023** as illustrated on the map which follows.

Service Gap Due to Growth by 3 Large Area Zones			
12 LFIGPS Zones	3 DC Large Areas	Service Gap by 2023	Service Gap by 2031
Central	Inside Greenbelt	-5,425	-21,042
Central East			
Central West			
Centrepointe			
Greenboro			
Kanata / Stittsville	Outside Greenbelt	-51,227	-64,568
Barrhaven / Riverside S.			
Orléans			
Rural NW	Rural	-2,805	-6,891
Rural SW			
Rural SE			
Rural NE			
Total		-59,457	-92,502

The Service Gap presented in the table above is cumulative through the projection period, measured before any new projects are built.

To be eligible for development charge funding, each **Facility** project has to be identified within a growth study.

In this regard, the DC Bylaw recognizes three “Large Areas” with respect to facilities:

- Inside Greenbelt
- Outside Greenbelt, and
- Rural

In the chart opposite the branch service gaps have been summarized by Large Area and broken into two projection periods.

Collections are considered on a City-wide basis as collections can be accessed by residents from all parts of the City through centralized distribution via inter-branch loans, kiosks, bookmobile etc.

Note: the Development Charges Bylaw is subject to future updates on or before 2018 and again in 2023 providing additional opportunities to adjust plans for new facilities to best align with pressures from emerging needs and changes in facility configurations to best match the evolution of service delivery.

Capital Program – Growth Projects to 2023

Building Program	2016	2017	2018	2019	2020	2021	2022	2023	Residual Gap at 2023
Central Library Facility Services					Central Library Facilities Services				1,003
South Urban and East Urban			Riverside South		Orleans		Barrhaven		-18,649
Rural									-2,805

The capital program totals **\$34.6 M** of which **\$30.0 M** is eligible for DC Funding

This program of projects addresses two thirds of the service gap in the suburban zone to 2023.

The small legacy gap in the Rural Zone remains unaddressed.

By 2023 the OPL DC Reserve will require **\$ 5.6 M** augmentation even given a projection of DC revenue (\$16.3 M) that is higher than currently assumed by the City.

COST and FUNDING of GROWTH FACILITIES - CAPITAL PROGRAM (\$,000)									
	2016	2017	2018	2019	2020	2021	2022	2023	Total to 2023
Studies	86	500	150			300			1,036
Construction			7,500	3,919	3,240		5,000		19,659
Collections	1,368		1,600		1,586	1,586	1,586	1,586	9,312
Total DC Eligible	1,454	500	9,250	3,919	4,826	1,886	6,586	1,586	30,007
Total DC Non-Eligible	82	56	934	435	2,243	117	639	83	4,590
Total Program	1,536	556	10,184	4,354	7,069	2,003	7,225	1,669	34,597
Estimated Annual DCs Envelope	1,554	1,554	2,000	2,100	2,200	2,300	2,300	2,300	16,308
DC Reserve Closing Balance	12,674	13,672	5,488	3,234	-1,636	-1,338	-6,264	-5,633	-5,633
Min OPL Contribution (PAYG)	145	50	925	392	483	189	659	159	3,001

OPL will need to contribute \$3.0 M as a statutory contribution funding to access the Development Charge Revenue.

Capital Program – Growth Projects beyond 2023

Looking beyond 2023 there will be additional unmet needs to be satisfied – a result of service gaps not addressed by the proposed construction program to 2023 plus the projected continuation of growth beyond 2023 throughout all areas of the city – urban, suburban and rural.

A combination of branch expansion with alternate service delivery would appear to provide the greatest degree of flexibility as needs continue to evolve – both in terms of the growing and aging population and the changing ways in which an increasing range of library services are delivered.

For the urban areas inside the Greenbelt and the suburban communities lying just outside, there may be opportunities to strengthen / expand selected branches to function as community hubs, with ancillary “alternate services” used to augment access to library services where needed through bookmobile stops and kiosks / return bins (potentially located at transit stations, community centres and shopping centres – wherever large numbers of people congregate) .

Similarly, for the rural areas there may be opportunities for expanding library services by using OPL’s online “virtual” services (34th branch) to record “service orders” and then leveraging existing community hubs in the rural area that attract large numbers of people on a frequent basis as the points for “service fulfillment” through alternate service delivery modalities (for example, by co-locating a kiosk / return bin at community recreation centres combined with a weekly bookmobile stop to provide direct access to library staff for enquiries, library cards etc.).

Development Charge Deficiencies

The formula for calculating the Development Charge schedule has four structural deficiencies :

First, the maximum “quantity” at which the development charge fee schedule is struck is based on the past 10 year average level of service provision. In situations where the service level is declining, the development charge schedule becomes locked into a level of provision inadequate to fund a “catch up”.

Second, the maximum “quality” at which the development charge fee schedule is struck is based on the unit value of the inventory, averaged over the past ten years. New facilities typically cost more than the legacy value so the quality standard built into the development charge fee schedule does not have the capacity to fully fund construction at current pricing. For example, the unit value for the inventory used in the development charge by-law calculation (based on an average over the past decade) is \$379 / sq. ft. whereas the cost for construction of the Beaverbrook Branch was closer to \$550 / sq. ft. This creates a significant funding gap that needs to be closed through alternate sources of revenue.

Third, Development Charge revenue is collected at the rate development happens, not the rate it is planned. Due to a recent slowdown in construction, DC revenue generation has fallen considerably short of the OP growth projection. The uncertainty of the revenue stream makes investment planning difficult as new facilities require long lead times to ensure proper planning, site acquisition and partnership agreements to be negotiated.

Fourth, at a minimum, 10% of the growth related costs that are included in the development charge calculation must, by statute, be contributed from OPL’s other funding sources (PAYG / General Reserves).

In summary, development charge revenue will not be adequate to completely fund all of the cost of providing library facilities to meet the needs of the capital program described in the earlier slides . Approximately \$ 34.6 M will be needed by OPL over the next seven years for the program. Of this \$16.3 M will come from DC revenue with the remaining \$ 18.3 M to come from the DC Reserve fund (\$12.7 M), PAYG and OPL’s General Reserve Fund.



Asset Renewal

The OPL branch inventory has a value of approximately \$175 M based on replacement at today's construction value. This estimate includes the value of all branches but excludes Main Library, the Ottawa Public Library Materials Centre, furniture or collections*.

An ideal capital repair and maintenance budget would be calculated based on an annual contribution rate of 2% of the replacement value of the building inventory (in this case, \$3.5 M per year). Very few organizations achieve this ideal, including the City of Ottawa. However, there is growing recognition of the importance of properly funding lifecycle maintenance and asset renewal.

The long term target contribution rate for the City as recommended by City staff is a more modest contribution rate of 1% of replacement value. At this more modest target, OPL would require \$1.75 M annually to fund asset renewal.

Asset renewal is paid through an allocation of a centralized Lifecycle fund managed by the City. In 2016, the OPL allocation was \$0.935 M – roughly half the 1% contribution target that may be required over the long term to keep the OPL branch inventory in good repair.

OPL should support efforts to increase funding for facilities renewal towards a target contribution rate of 1%.

** Note: the future Central Library facility when delivered will not affect this estimate as the current Main Library is not included in the calculation of replacement value presented above and therefore does not influence the estimate of the contribution rate required to fund asset renewal for the remainder of the library branch network.*

Investment Strategy - achieving sustainability

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The PAYG contribution from the City in the 2016 capital budget is \$2.6 Million plus \$0.9 Million allocated from the City's lifecycle asset renewal fund.

Given all the requirements currently funded from PAYG and the many needs for branch maintenance and retrofit, the annual contribution made by the City may need to be increased to ensure OPL can fund the facilities required to accommodate growth and to fund an ongoing program of asset renewal.

The following is recommended:

1. Apply development charges revenue to build three new facilities in the rapidly growing suburban communities that will assist in closing the service level gaps identified in this study (prioritized based on projected levels of growth by zone). This represents a \$34.6 Million capital program (facility construction and collections).
2. Request sufficient PAYG funding from the City to ensure that implementation of the facilities plan set out in this report. OPL will require \$18.3 Million to 2023 for the statutory contribution required to leverage the DC funding for growth projects and to fund the portion of the program not eligible for DC funding (i.e. project components addressing existing populations, not growth). Of this, \$12.7 Million is currently available from the OPL DC Reserve Fund. The danger in not closing the service gap is twofold: first, several areas in the city will remain deficient in service provision and second, the rate at which future development charges can be levied will decline as the average level of service provision declines due to lack of new construction (fueling a downward spiral in DC revenue eligibility).
3. Encourage the City to increase the contribution rate for Lifecycle funding to allow OPL to implement a more aggressive, staged asset renewal plan.
4. Expand Alternate Service Delivery to augment service provision in areas of the city that have service gaps that are not eligible for Development Charge sponsored projects or represent service gaps that are not practical to address through branch expansion due to the dispersed nature of the settlement pattern.

