

Demographic Report 2016



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Background

Between April 6 and May 31, 2016, the City of Spruce Grove conducted a municipal census of its residents. The overall population observed in the city was 33,640, an increase of 5% in population since the previous year municipal census (2015).

Unlike the five year Federal Census, the municipal census has no legislated mandate. The rationale for conducting the municipal census in an Alberta city like Spruce Grove is to capture the remarkable growth for planning and funding purposes. The municipal census questions in 2016 are limited to a few dwelling questions: structure type and usual number of people resident in the household, enumeration source and for those not captured online a query toward the barriers that may have prevented online enumeration of the household. At the individual level questions of age, gender and location of employment were asked.

Nearly 47% of the households completed the 2016 census online. The remainder (53%) of household enumeration was conducted door-to-door, neighbour proxy and by telephone. Verification of over 1,000 households by telephone, as required by Alberta Municipal Affairs, yielded a 1.3% error rate.

Over 99% of the City of Spruce Grove population was counted in the 14,716 addresses listed in Table 1. Of these addresses, 12,650 residential addresses were occupied. Only 4.5% of the occupied addresses were completed by the administrator (2.2%) or proxy information from a neighbour (2.3%).

This report contains the findings from the census data, provides an overview of the implications of the data on the community and future planning as well as provides recommendations for future census projects.

Table 1: Addresses listed by status City of Spruce Grove 2016

Status	Count	Percent
Bareland	1,091	7.4
Completed	12,650	86
Under Construction	237	1.6
Vacant	707	4.8
Zero No Count	31	0.2
Total	14,716	100

Item Non-Response

Of the 12,650 occupied residential addresses, 542 residences or 4.3% did not report a structure type and 8.3% (1,063) declined to answer the question on why they decided not to complete the census online. The impact of declining to answer the structure type does inflate the average number of persons per household from 2.66 to 2.69 when no response is factored out.



Of the 33,640 individual level responses, 5.8% or 1,942 individuals were recorded as "decline to answer" on a question of employment location. 1,220 (3.6%) declined to answer gender and 1,125 (3.3%) residents did not provide an age category. Overall, item non-response is limited and adjustments could be made with the 2016 Federal Census data for the City of Spruce Grove if required.

20 years of Population Growth

An increase of 5% population growth was observed between the municipal censuses of 2015 and 2016. The increase is less than the 8.5% growth observed between the municipal censuses of 2014 and 2015. Over the five year period 2011 to 2016 the growth rate is calculated as 5.1% per year. Figure 1 shows the growth between 1996 and 2016. Bars in green are estimates for years when the census was not conducted.

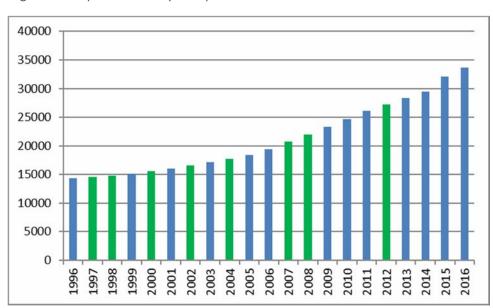


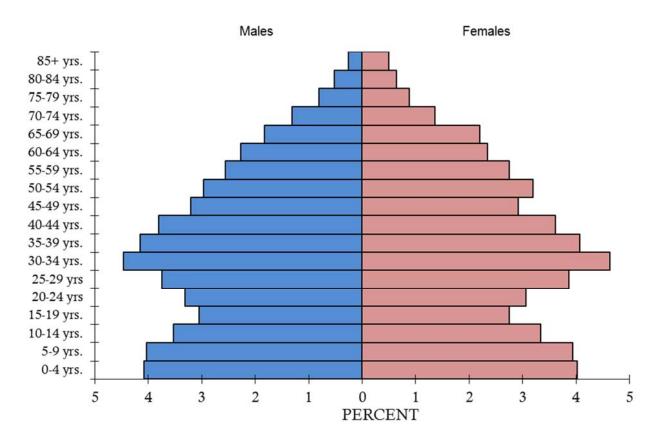
Figure 1: Population City of Spruce Grove 1996 to 2016

The growth rate per year between 1996 and 2016 is calculated as 4.4%. Growth in the City of Spruce Grove is comparable to growth in some other communities within the Capital Region. Further comparisons should be made when the 2016 Federal Census figures for other Capital Region municipalities are available from Statistics Canada.



Age and Gender Distribution, City of Spruce Grove 2016

Figure 2: Age and gender distribution City of Spruce Grove 2016



The distribution of age and gender as shown in Figure 2 shows the largest age group as 30 to 34 years of age followed by 35 to 39. As expected, females outnumber the males in the older age groups 65 and over. In comparison to 2015, a slight increase is noted in the younger age groups, 0 to 4 and 5 to 9 years of age.

The estimated average age of residents in the 2016 City of Spruce Grove census from the grouped data is 33.3 years of age. The average age of males is 32.9 years of age and for females is 33.6 years of age. The estimated median age is 32 years of age. In other words, half of the population is below 32 years of age and half of the population is over 32 years of age. The median age for both males and females is also 32 years of age.



City of Spruce Grove 2011 to 2016

In the five year period between 2011 and 2016, some comparisons can be made between the 2011 Federal Census for the City of Spruce Grove and the 2016 Municipal Census. In 2011, the median age observed in the City of Spruce Grove was 33.7 years of age with a median age of 33.2 for males and 34.1 years of age for females. In 2011, the median age for the City of Spruce Grove was well below the 2011 provincial median age of 36.5 years. In 2016, the estimated median age is lower than 2011. It is expected that the median age for the province will continue to be higher than the City of Spruce Grove in 2016.

Table 2: Population by broad age groups, gender and population change City of Spruce Grove 2011 and 2016

	2011	2016	change	% change
All				
Total	26,715	32,286*	5,571	20.9%
0 to 14	5,660	7,403	1,743	30.8%
15 to 64	18,305	21,555	3,250	17.8%
65 and over	2,210	3,328	1,118	50.6%
Males				
Total	13,110	16,113	3,003	22.9%
0 to 14	2,960	3,760	800	27.0%
15 to 64	9,115	10,829	1,714	18.8%
65 and over	1,040	1,524	484	46.5%
Females				
Total	13,060	16,173	3,113	23.8%
0 to 14	2,705	3,643	938	34.7%
15 to 64	9,190	10,726	1,536	16.7%
65 and over	1,165	1,804	639	54.8%

^{*}Residents that did not answer the age and gender questions in the census are factored out.

Table 2 shows city population between 2011 and 2016 of three broad age groups; 0 to 14 years, 15-64 years, and 65 and over. Between 2011 and 2016, the population in all three age groups has increased. The largest percentage increase is noted in the population aged 65 and over. The largest numerical increases are noted in the largest span of ages 15 to 64.



Number of Persons in Household

Table 3 shows the distribution of one person, two person, three person, four person and five or more persons recorded in the household.

Table 3: Number of persons in the household City of Spruce Grove 2016

Number of people in household	Count	Percent
One person	2,670	21.1
Two person	4,325	34.2
Three person	2,175	17.2
Four person	2,222	17.6
Five or more persons	1,257	9.9
Total	12,649*	100
* One group dwelling factored out		

34% of the households in the City of Spruce Grove are two person households. 44% of households have three or more persons.

The average number of persons per household is 2.66. Table 4 shows the average number of persons per dwelling with one group factored out since the usual number residents recorded in the dwelling was 51 which does not adequately reflect the dwelling type. The average is slightly higher (2.69) since those who did not provide an answer to dwelling type were also factored out with an average of 1.97 persons per household. Clearly, the highest number of persons per household is found in single detached dwellings.

Table 4: Dwelling type by average number of persons per household City of Spruce Grove 2016

Dwelling type	Average	Count
Decline to answer	1.97	542
Group Care Facility	1.07	228
Mobile home	2.21	301
Multi-unit dwelling	1.83	1,810
Row housing	2.51	688
Semi detached	2.55	1,409
Single detached	2.99	7,671
Total	2.66	12,649*

^{*}Group accommodation of over 50 people factored out

If we multiply the average person per household (2.66) by the number of residential dwellings (12,649) the estimated population for the City of Spruce Grove in 2016 is 33,646 persons comparable to the 33,640 enumerated.



Employment Location

For Spruce Grove residents over the age of 14, there was a question, that if they were employed, what was the location of their employment. Figure 3 shows that of the 18,348 that responded to the question, 41.8% are employed in the Greater Edmonton area, 26% are employed in the City of Spruce Grove and 12% are employed in Parkland County or nearby Stony Plain.

While some declined to answer (5.8%), a sizeable proportion (17.5%) indicated that they were not employed. Table 5 shows a distribution of employment location by gender. 30% of females over the age of 14 reported not working while only 18.7% of males reported that they were not currently employed. Females were also more likely than males to report the City of Spruce Grove as the location of their employment.

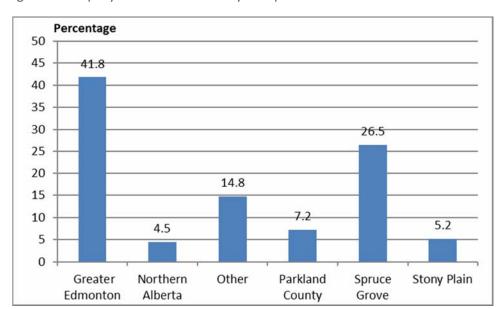


Figure 3: Employment location City of Spruce Grove 2016

Table 5: Employment by gender City of Spruce Grove 2016

Location of employment	Male	Female	Total
Greater Edmonton	37.5%	25.8%	31.6%
Northern Alberta	5.9%	1.0%	3.4%
Other	12.8%	9.5%	11.1%
Parkland County	7.5%	3.4%	5.5%
Spruce Grove	15.1%	24.9%	20.1%
Stony Plain	2.6%	5.3%	3.9%
Not currently employed	18.7%	30.0%	24.4%
Total	100.0%	100.0%	100.0%



Enumeration Zones within the City of Spruce Grove 2016

In 2014, the enumeration of the City of Spruce Grove was divided into 16 zones. Four zones were subdivided in 2015 for a total of 20 enumeration zones. This delineation was carried into the 2016 census. Table 6 and Figure 4 show population by zone for 2015 and 2016 and the change over the two censuses.

Table 6: Population change 2015-2016, City of Spruce Grove

Zone	2015	%	2016	%	Change %
101.1 Harvest Ridge (North)	1,043	3.3	1,065	3.2	2.1%
101.2 Harvest Ridge (South)	1,494	4.7	1,666	5	11.5%
102.1 Spruce Ridge	1,375	4.3	1,351	4	-1.7%
102.2 Legacy Park, Spring Gate	1,423	4.4	1,647	4.9	15.7%
103.0 Deer Park	1,130	3.5	1,185	3.5	4.9%
104.1 Heatherglen	1,516	4.7	1,556	4.6	2.6%
104.2 McLaughlin	1,250	3.9	1,587	4.7	27.0%
105.0 Westgrove, Mobile City Estates	1,934	6	1,907	5.7	-1.4%
106.0 Aspenglen, Jesperdale	1,775	5.5	1,941	5.8	9.4%
107.0 Millgrove	1,608	5	1,589	4.7	-1.2%
108.0 Fieldstone, Linkside	1,691	5.3	1,665	4.9	-1.5%
109.0 Woodhaven, Woodside	1,914	6	1,934	5.7	1.0%
110.0 City Centre	1,848	5.8	1,889	5.6	2.2%
111.0 Stoneshire, Hilldowns	1,417	4.4	1,613	4.8	13.8%
112.0 Brookwood	2,060	6.4	2,075	6.2	0.7%
113.0 Broxton Park	1,360	4.2	1,325	3.9	-2.6%
114.1 Spruce Village	2,327	7.3	2,314	6.9	-0.6%
114.2 Kenton, Greenbury, Prescott	957	3	1,470	4.4	53.6%
115.0 Grove Meadows	1,603	5	1,565	4.7	-2.4%
116.0 Lakewood	2,311	7.2	2,296	6.8	-0.6%
Total	32,036	100	33,640	100	5.0%



Linkside Westwind Zone-103 Zone-101.1 Zone-106 Zone-108 4.9% Zone-111 2.1% 9.4% -1.5% 13.8% Zone-114.1 -0.6% Hilldown Zone-101.2 11.5% Zone-115 Zone-104.1 2.6% 53.6% Zone-107 Zone-109 Zone-112 -1.2% 1% 0.7% McLaught Zone-102.1 -1.7% Zone-104.2 Zone-102.2 27% Zone-110 15.7% Zone-116 -2.6% 2.2% -0.6% Westgrove Commercia Madison Industrial Industrial Zone-105 -1.4% Campsite Spruce Business Park South Industrial SPRUCE GROVE NAIT Population Change 2015 - 2016

Figure 4: Population change 2015-2016 City of Spruce Grove

Eight zones showed a slight decrease in population between the 2015 and 2016 censuses, while 12 zones showed increases in population. The largest increase in population was observed in the northeastern neighbourhoods of Kenton, Greenbury and Prescott (zone 114.2) where the population increased 54% since 2015.

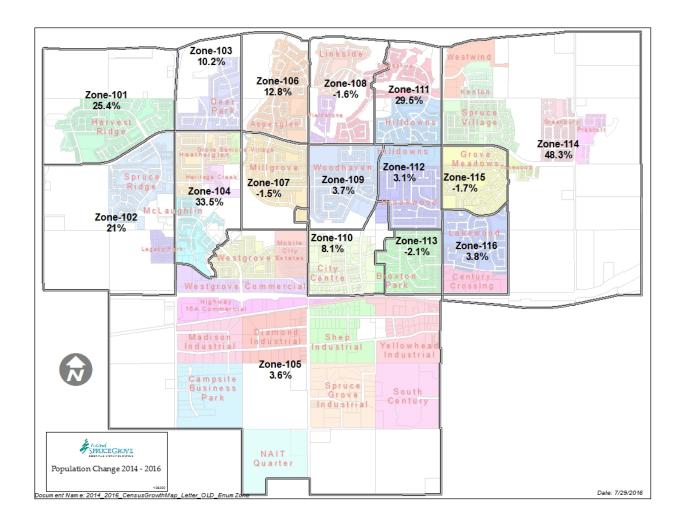
Table 7 and Figure 5 show the change over time 2014 to 2016 using the zone configuration of 2014. The change between 2014 and 2016 shows a slight decline in population for three zones and increase in population in thirteen zones. Once again, the largest increase (48.3%) was recorded in the northeastern neighbourhoods of Spruce Village, Kenton, Greenbury, and Prescott (zone 114.2).



Table 7: Population change by zone 2014 – 2016, City of Spruce Grove

Zone (2014 boundaries)	2014	2015	2016	2014-2015	2015-2016	2014-2016
				% change	%change	%change
101 Harvest Ridge	2,177	2,537	2,731	16.5%	7.6%	25.4%
102 Spruce Ridge, Legacy Park Spring Gate	2,477	2,798	2,998	13.0%	7.1%	21.0%
103 Deer Park	1,075	1,130	1,185	5.1%	4.9%	10.2%
104 Heatherglen/McLaughlin	2,355	2,766	3,143	17.5%	13.6%	33.5%
105 Westgrove, Mobile City Estates	1,841	1,934	1,907	5.1%	-1.4%	3.6%
106 Aspenglen, Jesperdale	1,721	1,775	1,941	3.1%	9.4%	12.8%
107 Millgrove	1,614	1,608	1,589	-0.4%	-1.2%	-1.5%
108 Fieldstone, Linkside	1,692	1,691	1,665	-0.1%	-1.5%	-1.6%
109 Woodhaven, Woodside	1,865	1,914	1,934	2.6%	1.0%	3.7%
110 City Centre	1,748	1,848	1,889	5.7%	2.2%	8.1%
111 Stoneshire, Hilldowns	1,246	1,417	1,613	13.7%	13.8%	29.5%
112 Brookwood	2,013	2,060	2,075	2.3%	0.7%	3.1%
113 Broxton Park	1,354	1,360	1,325	0.4%	-2.6%	-2.1%
114 Spruce Village, Kenton,						
Greenbury, Prescott	2,551	3,284	3,784	28.7%	15.2%	48.3%
115 Grove Meadows	1,592	1,603	1,565	0.7%	-2.4%	-1.7%
116 Lakewood	2,212	2,311	2,296	4.5%	-0.6%	3.8%
Total	29,533	32,036	33,640	8.5%	5.0%	13.9%

Figure 5: Population change by zone 2014 - 2016



Demographics by Zone

Table 8: Zone characteristics of gender, average household size, age, City of Spruce Grove 2016

			Average	Median	Average
Zone	Male	Female	Persons Per Household	Age	Age
101.1 Harvest Ridge (North)	50.7%	49.3%	2.99	32	29.9
101.2 Harvest Ridge (South)	49.9%	50.1%	2.91	27	27.3
102.1 Spruce Ridge	46.8%	53.2%	1.88	32	37.4
102.2 Legacy Park, Spring Gate	51.2%	48.8%	3.14	32	28.0
103.0 Deer Park	49.4%	50.6%	3.07	37	33.7
104.1 Heatherglen	49.0%	51.0%	2.73	32	32.7
104.2 McLaughlin	49.1%	50.9%	2.2	27	29.8
105.0 Westgrove, Mobile City Estates	50.1%	49.9%	2.64	37	36.4
106.0 Aspenglen, Jesperdale	49.6%	50.4%	3.08	32	30.3
107.0 Millgrove	51.3%	48.7%	2.89	37	36.4
108.0 Fieldstone, Linkside	50.2%	49.8%	2.73	47	42.1
109.0 Woodhaven, Woodside	50.5%	49.5%	2.63	42	38.3
110.0 City Centre	47.3%	52.7%	1.9	37	39.3
111.0 Stoneshire, Hilldowns	49.9%	50.1%	2.81	32	34.1
112.0 Brookwood	50.2%	49.8%	2.52	32	35.7
113.0 Broxton Park	50.6%	49.4%	2.61	37	38.2
114.1 Spruce Village	50.1%	49.9%	2.98	27	25.8
114.2 Kenton, Greenbury, Prescott	50.4%	49.6%	2.78	27	27.0
115.0 Grove Meadows	51.1%	48.9%	2.85	32	33.5
116.0 Lakewood	50.1%	49.9%	2.81	32	31.9
Total	49.9%	50.1%	2.66	32	33.3

Table 8 shows a number of demographic characteristics by zone in the City of Spruce Grove in 2016. Overall, there are more females than males. Twelve zones have more males than females enumerated. The largest gap is noticed in Spruce Ridge where there is a 6.4 percentage point difference. Table 8 also shows the average number of people per household, median and average age for each of the twenty zones. The zone with the highest average number of persons per household (3.14) includes the western areas of Legacy Park and Spring Gate (zone 102.2). Spruce Ridge (zone 102.1) with an average of 1.88 persons per household is the lowest. City Centre (zone 110) also average lower than two people in a household at 1.9.



The areas with an older population are Fieldstone and Linkside (zone 108) with a median age of 47 years, followed by Woodhaven, Woodside (zone 109) with a median age of 42 years. Five zones have a median age of 27 years. Generally speaking, areas with a younger median age also tend to have a lower average age.

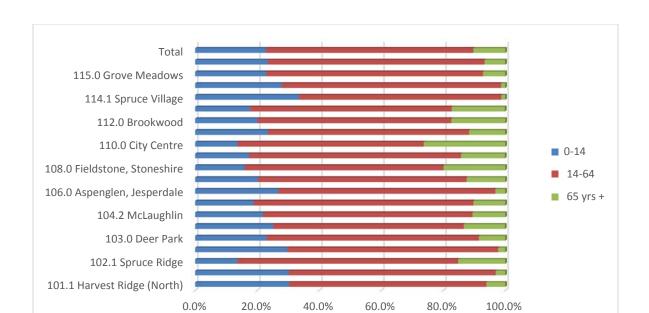


Figure 6: Three age groups by zone, City of Spruce Grove 2016

Figure 6 shows three age groups, 0 to 14 years, 15 to 64 years and 65 and over years of age by the 20 zones. All zones show that most of the population is in the largest age group 15 to 64. Five zones, Kenton-Greenbury-Prescott (zone 114.2), Spruce Village (zone 114.1), Aspenglen-Jesperdale (zone 106), Legacy Park-Spring Gate (zone 102.2) and Harvest Ridge South (zone 101.2) have less than 5% in the senior 65 and over age group. In addition, zones with a lower proportion of seniors also tend to have a larger proportion of the population in the 0 to 14 age category.

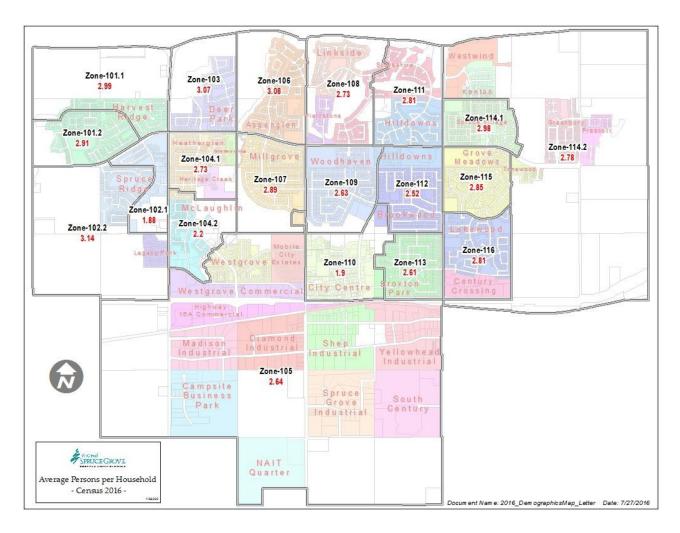
Table 9 shows the distribution of household sizes by zone for 2016. For the most part, two person households dominate most of the twenty zones. One person households are more common in McLaughlin (zone 104.2) and City Centre (zone 110).

Figure 7 shows a map of the average persons per household in each zone across the city.

Table 9: Household sizes by zone, City of Spruce Grove 2016

Zone	1 person	2 person	3 person	4 person	5+ person	Total
101.1 Harvest Ridge (North)	14.6%	30.6%	16.0%	25.3%	13.5%	100.0%
101.2 Harvest Ridge (South)	15.6%	26.4%	24.5%	21.3%	12.2%	100.0%
102.1 Spruce Ridge	40.7%	40.7%	12.3%	4.3%	2.1%	100.0%
102.2 Legacy Park, Spring Gate	11.6%	26.9%	18.3%	28.1%	15.1%	100.0%
103.0 Deer Park	11.4%	30.8%	17.4%	25.6%	14.8%	100.0%
104.1 Heatherglen	20.0%	33.9%	13.7%	22.6%	9.8%	100.0%
104.2 McLaughlin	38.7%	28.2%	15.5%	11.8%	5.8%	100.0%
105.0 Westgrove, Mobile City Estates	19.9%	36.4%	20.0%	13.5%	10.2%	100.0%
106.0 Aspenglen, Jesperdale	10.0%	30.8%	20.3%	25.1%	13.8%	100.0%
107.0 Millgrove	12.8%	39.7%	14.2%	19.5%	13.8%	100.0%
108.0 Fieldstone, Linkside	11.1%	47.0%	13.9%	17.0%	10.8%	100.0%
109.0 Woodhaven, Woodside	18.6%	38.3%	18.1%	16.2%	8.8%	100.0%
110.0 City Centre	45.8%	33.8%	11.0%	6.1%	3.3%	100.0%
111.0 Stoneshire, Hilldowns	14.6%	36.1%	17.6%	20.9%	10.8%	100.0%
112.0 Brookwood	24.1%	35.9%	18.1%	12.8%	9.1%	100.0%
113.0 Broxton Park	18.3%	40.6%	15.6%	15.2%	10.3%	100.0%
114.1 Spruce Village	17.1%	25.7%	19.9%	23.6%	13.6%	100.0%
114.2 Kenton, Greenbury, Prescott	15.7%	33.8%	21.2%	18.9%	10.4%	100.0%
115.0 Grove Meadows	13.8%	34.8%	19.1%	21.7%	10.6%	100.0%
116.0 Lakewood	16.8%	32.4%	19.8%	20.8%	10.2%	100.0%
Total	21.1%	34.2%	17.2%	17.6%	9.9%	100.0%

Figure 7: Average household size City of Spruce Grove 2016



Since the last census in 2015, there have been changes in multiple person households with percentage point changes between 2016 shown in Table 10. Overall, there is a slight shift toward one person households and a smaller shift toward 5 or more person households. Table 11 shows the enumerated counts in 2016 by household size by zone.

Table 10: Percentage point differences between 2015 and 2016, household sizes by zone, City of Spruce Grove

Zone	1 person	2 person	3 person	4 person	5+ person
101.1 Harvest Ridge (North)	3.3%	0.4%	-3.8%	-0.3%	0.4%
101.2 Harvest Ridge (South)	0.1%	-2.2%	3.4%	-0.2%	-1.1%
102.1 Spruce Ridge	2.2%	-0.4%	-0.4%	-1.6%	0.3%
102.2 Legacy Park, Spring Gate	1.8%	-0.9%	-2.8%	1.4%	0.4%
103.0 Deer Park	2.5%	-2.8%	0.6%	-1.2%	1.0%

104.1 Heatherglen	2.3%	0.3%	-3.7%	-0.5%	1.7%
104.2 McLaughlin	-2.6%	4.4%	-2.0%	-0.3%	0.4%
105.0 Westgrove, Mobile City Estates	2.0%	0.7%	-0.4%	-2.4%	0.2%
106.0 Aspenglen, Jesperdale	0.7%	1.0%	-1.1%	-3.3%	2.8%
107.0 Millgrove	1.5%	1.0%	-3.9%	2.3%	-0.9%
108.0 Fieldstone, Linkside	0.9%	1.4%	-1.4%	-1.6%	0.5%
109.0 Woodhaven, Woodside	-1.0%	1.2%	-1.0%	0.8%	0.1%
110.0 City Centre	1.7%	-3.3%	-0.3%	1.7%	0.3%
111.0 Stoneshire, Hilldowns	3.3%	-4.8%	1.5%	-1.5%	1.5%
112.0 Brookwood	0.5%	-2.5%	0.7%	0.3%	1.1%
113.0 Broxton Park	4.5%	-2.0%	-0.6%	-1.0%	-0.9%
114.1 Spruce Village	4.2%	-2.8%	-0.7%	-2.3%	1.4%
114.2 Kenton, Greenbury, Prescott	-1.6%	-0.6%	-0.3%	-0.1%	2.6%
115.0 Grove Meadows	2.1%	-0.8%	-0.1%	0.3%	-1.6%
116.0 Lakewood	1.4%	-2.4%	-0.2%	3.0%	-1.7%
Total	1.4%	-1.0%	-0.6%	-0.1%	0.4%

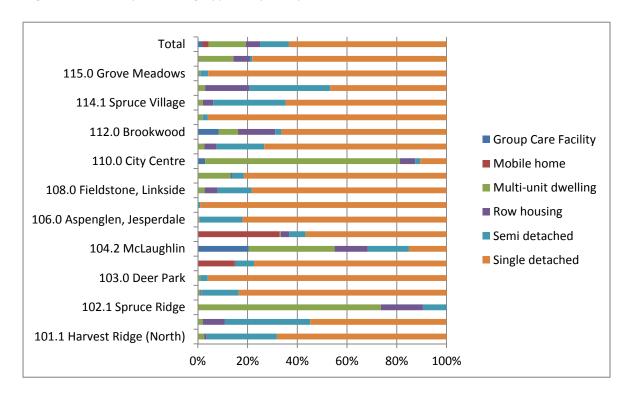
Table 11: Enumerated dwelling counts by household size, 2016, City of Spruce Grove

Zone	1 person	2 person	3 person	4 person	5 + person	Total
101.1 Harvest Ridge (North)	52	109	57	90	48	356
101.2 Harvest Ridge (South)	89	151	140	122	70	572
102.1 Spruce Ridge	292	292	88	31	15	718
102.2 Legacy Park, Spring Gate	61	141	96	147	79	524
103.0 Deer Park	44	119	67	99	57	386
104.1 Heatherglen	114	193	78	129	56	570
104.2 McLaughlin	279	203	112	85	42	721
105.0 Westgrove, Mobile City Estates	140	256	141	95	72	704
106.0 Aspenglen, Jesperdale	63	194	128	158	87	630
107.0 Millgrove	70	218	78	107	76	549
108.0 Fieldstone, Linkside	68	287	85	104	66	610
109.0 Woodhaven, Woodside	137	282	133	119	65	736
110.0 City Centre	456	336	109	61	33	995
111.0 Stoneshire, Hilldowns	84	207	101	120	62	574
112.0 Brookwood	199	296	149	106	75	825
113.0 Broxton Park	93	206	79	77	52	507
114.1 Spruce Village	133	200	155	183	106	777
114.2 Kenton, Greenbury, Prescott	83	179	112	100	55	529
115.0 Grove Meadows	76	191	105	119	58	549
116.0 Lakewood	137	265	162	170	83	817
	2,670	4,325	2,175	2,222	1,257	12,649



Dwelling Type by Zone

Figure 8: Zone by dwelling type City of Spruce Grove 2016



Most zones have a significant amount of single detached dwellings in their areas. Spruce Ridge (zone 102.1), McLaughlin (zone 104.2), and City Centre (zone 110) have more multi-unit dwellings in composition. These zones also have a lower person per household average (see Table 8). By zone, the composition typically reflects the pattern exhibited in Table 4, where the average per household varies by dwelling type. A breakdown of average per household for dwelling type for each zone is shown in Appendix 1.



Zone 103 Zone 106 Westwind Zone 101.1 Zone 108 Zone 111 7one 104.1 Zone 107 102.1 Zone 112 Zone 102.2 Zone 104.2 Zone 115 Zone 116 Zone 114.2 Westgrove Commercia Zone 110 Highway 16A Commercial **Enumeration Zone** Industrial Madison Industrial Shep Industrial by Dwelling Type Yellowhead Industrial Zone 105 400 Campsite Business Park Spruce Grove Industrial South Century Group Care Facility Mobile home Multi-unit dwelling Row housing SPRUCEGROVE NAIT Quarter Semi detached Census Zone by Dwelling Type Single detached

Figure 9: Zone by dwelling type, City of Spruce Grove 2016



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Employment by Zone

Most residents over the age of 14 in the City of Spruce Grove that were currently working, reported employment locations either in the Greater Edmonton area or in the City of Spruce Grove. 55% of the residents in Kenton-Greenbury-Prescott (zone 114.2) and in Spruce Village (zone 114.1) reported employment in the Greater Edmonton area. Only 24% of the residents in Woodhaven-Woodside (zone 110) reported working in the Greater Edmonton area; whereas 41% reported working in the City of Spruce Grove.

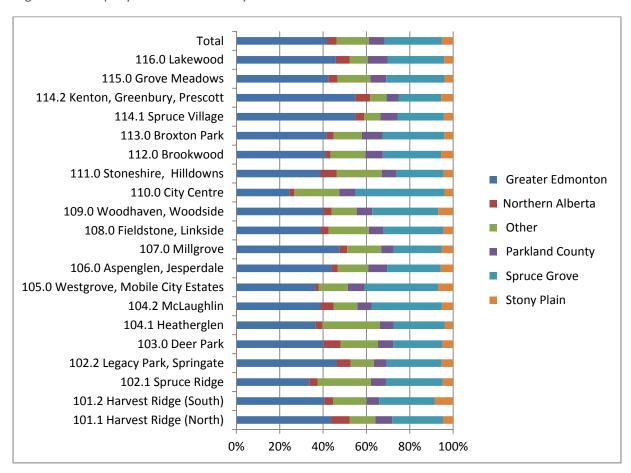


Figure 10: Employment location by zone

Building Status 2014-2016

In each of the past three censuses, information was collected on the number of dwellings under construction, vacant dwellings and for addressed properties with no development (bareland). Table 12 lists the building status by zone in the 2014 census using the enumeration zones of the day. A large number of units (348) were under construction in zone 114. The highest number vacancies were found in zones 102, 110 and 114. Zone 104 had the highest number of properties listed as bareland.



Table 12: 2014 Building status by zone, City of Spruce Grove

Zone	Bareland	Completed	Under Construction	Vacant	Zero Count
101 Harvest Ridge	174	731	89	20	2
102 Spruce Ridge, Legacy Park Spring Gate	108	1,054	71	96	5
103 Deer Park	18	357	3	18	0
104 Heatherglen/McLaughlin	186	962	41	42	3
105 Westgrove, Mobile City Estates	1	707	0	33	2
106 Aspenglen, Jesperdale	90	555	14	9	1
107 Millgrove	0	549	0	4	0
108 Fieldstone, Linkside	0	613	1	6	0
109 Woodhaven, Woodside	0	728	0	10	8
110 City Centre	1	959	0	79	3
111 Stoneshire, Hilldowns	113	441	53	8	0
112 Brookwood	0	826	0	14	1
113 Broxton Park	0	498	0	9	6
114 Spruce Village, Kenton, Greenbury,					
Prescott	5	882	348	68	3
115 Grove Meadows	0	554	0	6	1
116 Lakewood	27	790	1	7	6
Total	723	11,206	621	429	41

In 2015, the number of occupied enumerated residences increased from 11,206 to 12,025 as shown in Table 13. The number of units listed as under construction decreased from 621 in 2014 to 389 in 2015. An increase in properties listed as bareland increased in zone 114 from 5 to 341. A decrease in properties listed as bareland occurred in zone 101. Overall more properties were listed as bareland in 2015. Vacancies remained roughly the same in the zones with a slight decline noted in zone 102 and an increase in vacancies noted in zone 110.

Table 13: 2015 Building status by zone, City of Spruce Grove

Zone	Bareland	Completed	Under	Vacant	Zero
			Construction	n	No Count
101.1 Harvest Ridge (North)	23	344	3	10	1

101.2 Harvest Ridge (South)	122	511	56	9	5
102.1 Spruce Ridge	36	715	13	27	9
102.2 Legacy Park, Spring Gate	59	450	42	43	8
103.0 Deer Park	26	369	14	10	1
104.1 Heatherglen	22	553	10	7	3
104.2 McLaughlin	120	572	52	34	0
105.0 Westgrove, Mobile City Estates	5	698	7	22	1
106.0 Aspenglen, Jesperdale	31	580	48	14	1
107.0 Millgrove	0	551	0	2	0
108.0 Fieldstone, Linkside	0	609	0	12	0
109.0 Woodhaven, Woodside	0	738	0	10	1
110.0 City Centre	2	990	1	95	6
111.0 Stoneshire, Hilldowns	118	504	41	16	5
112.0 Brookwood	0	838	0	19	3
113.0 Broxton Park	0	499	0	8	4
114.1 Spruce Village	2	773	0	15	0
114.2 Kenton, Greenbury, Prescott	339	358	101	69	6
115.0 Grove Meadows	0	548	0	12	0
116.0 Lakewood	25	825	1	12	0
Total	930	12,025	389	446	54

In the 2016 census, the number of occupied enumerated residences increased again from 12,025 to 12,650 as shown in Table 14. The number of properties listed as bareland increased as well from 930 to 1,091. The number of units listed as under construction also declined between 2015 and 2016 from 389 to 237 properties but not as sharp a decline as between 2014 and 2015. The number of vacancies increased substantially from 446 in 2015 to 706 in 2016. Lakewood showed the largest increase in vacancies from 12 properties in 2015 to 132 properties in 2016.

Table 14: 2016 Building status by zone, City of Spruce Grove

Zone	Bareland	Completed	Under	Vacant	Zero
			Construc	tion	Count
101.1 Harvest Ridge (North)	16	356	3	11	1
101.2 Harvest Ridge (South)	123	572	31	43	3
102.1 Spruce Ridge	88	718	14	37	3
102.2 Legacy Park, Spring Gate	155	524	9	11	0
103.0 Deer Park	60	386	3	13	1
104.1 Heatherglen	18	570	0	9	0
104.2 McLaughlin	87	721	9	61	4
105.0 Westgrove, Mobile City					
Estates	3	705	5	30	0
106.0 Aspenglen, Jesperdale	84	630	19	16	0



107.0 Millgrove	0	549	0	4	1
108.0 Fieldstone, Linkside	1	610	1	9	0
109.0 Woodhaven, Woodside	0	736	0	13	2
110.0 City Centre	2	995	45	125	7
111.0 Stoneshire, Hilldowns	172	574	10	29	2
112.0 Brookwood	0	825	0	36	0
113.0 Broxton Park	0	507	0	10	1
114.1 Spruce Village	0	777	0	34	0
114.2 Kenton, Greenbury, Prescott	256	529	88	71	3
115.0 Grove Meadows	0	549	0	12	2
116.0 Lakewood	26	817	0	132	1
Total	1,091	12,650	237	706	31

It is difficult to assess the trend in population increase by property status since units dwellings listed as under construction and/or vacant do not have any dwelling type attached to them in the census enumeration. Having this data would allow for some speculation in the average person per household.

Projected Growth by Zone 2017-2021

The normal course of population projections is to set a few scenarios for growth based on assumptions concerning fertility, migration and mortality. In a city like Spruce Grove, within the dynamic Capital region, where many of the municipalities have shared rapid growth, we can expect the population profile to include certain features. The mortality assumptions by age and gender would follow most other cities in the Capital region with little fluctuation expected. Fertility in Canada and Alberta is still well below the replacement level of an average of 2.1 births per woman. We would expect a higher fertility rate, maybe near replacement level, in the City of Spruce Grove than other areas in Alberta and Canada. The key component of growth in areas like the City of Spruce Grove is migration particularly a higher net migration of young adults. The influx of young adults in cities like Spruce Grove could compound the fertility rate that would result in a wider population base on the age and gender population pyramid. An older demographic profile would include a more rectangular shape of the population pyramid of age and gender and a higher median age. In the absence of more detailed indicators for the components of growth, typically growth patterns observed in previous censuses are applied to the base population for forecasts.

One method of estimation is to multiply the average number of persons per household with the number of expected dwellings to be occupied in the next few years. Table 15 shows the calculation of the number of units occupied multiplied by the average number of persons for each zone compared with the number enumerated in each area in the 2016 census.



Table 15: 2016 Enumerated population, average persons per household (PPH) and e stimated 2016 City of Spruce Grove

	2016	Average	Dwelling	2016
Zone	Enumerated	PPH	Count	Estimated
101.1 Harvest Ridge (North)	1,065	2.99	356	1,064
101.2 Harvest Ridge (South)	1,666	2.91	572	1,665
102.1 Spruce Ridge	1,351	1.88	718	1,350
102.2 Legacy Park, Spring Gate	1,647	3.14	524	1,645
103.0 Deer Park	1,185	3.07	386	1,185
104.1 Heatherglen	1,556	2.73	570	1,556
104.2 McLaughlin	1,587	2.2	721	1,586
105.0 Westgrove, Mobile City				
Estates	1,907	2.7	704	1,901
106.0 Aspenglen, Jesperdale	1,941	3.08	630	1,940
107.0 Millgrove	1,589	2.89	549	1,587
108.0 Fieldstone, Linkside	1,665	2.73	610	1,665
109.0 Woodhaven, Woodside	1,934	2.63	736	1,936
110.0 City Centre	1,889	1.9	995	1,891
111.0 Stoneshire, Hilldowns	1,613	2.81	574	1,613
112.0 Brookwood	2,075	2.52	825	2,079
113.0 Broxton Park	1,325	2.61	507	1,323
114.1 Spruce Village	2,314	2.98	777	2,315
114.2 Kenton, Greenbury, Prescott	1,470	2.78	529	1,471
115.0 Grove Meadows	1,565	2.85	549	1,565
116.0 Lakewood	2,296	2.81	817	2,296
Total using PPH method sum of				
columns	33,640	2.66	12,649*	33,632
Total Avg PPH * Dwelling count	33,640	2.66	12,649*	33,646

Note: One group dwelling factored out where the usual number of residents was over 50

Estimates for the number of dwellings and population by zone for 2017 to 2021 were calculated from the change in dwellings over 2015 to 2016 and average persons per household observed in the 2015 and 2016 censuses. The assumptions are the average number of persons per household in each zone will remain the same over the next three years and that the change in dwellings will reflect the same pattern observed between 2015 and 2016 also in each zone.

Table 16 shows the estimated number of dwellings and population by zone for 2017 to 2019. Appendix 2A shows the calculation for the years 2020 and 2021. The sum of the number of dwellings and population over the zones is larger than the number of dwellings and population when only totals are used in the calculations as shown on the bottom two rows of Table 16.

While forecasting the number of dwellings and population by zone may be useful to see what would happen if the zone continues at the same rate in the future, it is highly unlikely that the growth patterns



in zone will remain the same for dwellings over the next few years. Therefore, it is recommended that the total calculation across zones be used.

When actual updated information on occupancy and vacancy are available, the revised inventory of occupied residences could be used along with the average number of persons per household to produce more accurate population estimates in a method known as the Housing Unit Method of population estimation.

Table 16: Estimated dwellings (Bldgs) and population 2017-2019 using average person perhousehold (PPH) and change in dwellings 2015 – 2016 by zone City of Spruce Grove

	2015- 2016	2015- 2016	2017		2018		2019	
Zone	Bldgs	Avg	Bldgs	Pop	Bldgs	Рор	Bldgs	Pop
	Change	PPH						
101.1 Harvest Ridge (North)	3.50%	3.01	368	1,109	381	1,148	395	1,188
101.2 Harvest Ridge (South)	11.90%	2.92	640	1,866	717	2,089	802	2,339
102.1 Spruce Ridge	0.40%	1.9	721	1,370	724	1,376	727	1,381
102.2 Legacy Park, Spring Gate	16.40%	3.15	610	1,922	711	2,238	827	2,606
103.0 Deer Park	4.60%	3.07	404	1,238	422	1,295	442	1,354
104.1 Heatherglen	3.10%	2.74	588	1,607	606	1,656	624	1,707
104.2 McLaughlin	26.00%	2.2	909	1,995	1,146	2,514	1,444	3,169
105.0 Westgrove, Mobile City								
Estates	1.00%	2.67	711	1,899	718	1,918	725	1,937
106.0 Aspenglen, Jesperdale	8.60%	3.07	684	2,101	743	2,282	807	2,479
107.0 Millgrove	-0.40%	2.91	547	1,589	545	1,583	543	1,578
108.0 Fieldstone, Linkside	0.20%	2.76	611	1,683	612	1,686	613	1,689
109.0 Woodhaven, Woodside	-0.30%	2.61	734	1,916	732	1,911	730	1,905
110.0 City Centre	0.50%	1.89	1,000	1,885	1,005	1,895	1,010	1,904
111.0 Stoneshire, Hilldowns	13.90%	2.81	654	1,837	745	2,092	848	2,383
112.0 Brookwood	-1.60%	2.49	812	2,022	800	1,991	787	1,960
113.0 Broxton Park	1.40%	2.67	514	1,370	521	1,389	529	1,409
114.1 Spruce Village	0.50%	3	781	2,339	785	2,351	789	2,363
114.2 Kenton, Greenbury, Prescott	47.80%	2.73	782	2,130	1,155	3,148	1,707	4,651
115.0 Grove Meadows	0.20%	2.89	550	1,590	551	1,592	552	1,595
116.0 Lakewood	-0.80%	2.81	810	2,272	803	2,253	796	2,234
Sum over zones			13,430	35,740	14,422	38,407	15,697	41,831
Total all zones	5.20%	2.66	13,306	35,395	13,998	37,235	14,726	39,171

Another method of estimating future growth, allowing many of the assumptions to carry on from previous years is to apply the growth rate observed in the previous censuses to the current base population. While it is unlikely that City of Spruce Grove will experience the type



of growth observed between 2014 and 2015 of 8.5%, the city would be more likely to experience the growth observed in the last 5 years around 5%.

Table 17 shows the growth rate between 2015 to 2016 censuses observed in each zone applied to the 2016 base population in each zone for the years 2017, 2018 and 2019. In Appendices 2A and 2B are calculations that extend the forecast by zone to 2021. Once again, the sum over the zones exceed the population estimated when only totals are used as shown on the bottom two rows of Table 17 and tables in Appendices 2A and 2B.

Table 17: Enumeration counts 2015-2016, percent change and estimated population 2017-2019, City of Spruce Grove

Zone	2015 Count	2016 Count	2015-2016 Change %	2017 Estimate	2018 Estimate	2019 Estimate
101.1 Harvest Ridge (North)	1,043	1,065	2.10%	1,087	1,110	1,134
101.2 Harvest Ridge (South)	1,494	1,666	11.50%	1,858	2,072	2,310
102.1 Spruce Ridge	1,375	1,351	-1.70%	1,327	1,304	1,281
102.2 Legacy Park, Spring Gate	1,423	1,647	15.70%	1,906	2,206	2,554
103.0 Deer Park	1,130	1,185	4.90%	1,243	1,303	1,367
104.1 Heatherglen	1,516	1,556	2.60%	1,597	1,639	1,682
104.2 McLaughlin	1,250	1,587	27.00%	2,015	2,558	3,248
105.0 Westgrove, Mobile City Estates	1,934	1,907	-1.40%	1,880	1,854	1,828
106.0 Aspenglen, Jesperdale	1,775	1,941	9.40%	2,123	2,321	2,538
107.0 Millgrove	1,608	1,589	-1.20%	1,570	1,552	1,533
108.0 Fieldstone, Linkside	1,691	1,665	-1.50%	1,639	1,614	1,589
109.0 Woodhaven, Woodside	1,914	1,934	1.00%	1,954	1,975	1,995
110.0 City Centre	1,848	1,889	2.20%	1,931	1,974	2,018
111.0 Stoneshire, Hilldowns	1,417	1,613	13.80%	1,836	2,090	2,379
112.0 Brookwood	2,060	2,075	0.70%	2,090	2,105	2,121
113.0 Broxton Park	1,360	1,325	-2.60%	1,291	1,258	1,225
114.1 Spruce Village	2,327	2,314	-0.60%	2,301	2,288	2,275
114.2 Kenton, Greenbury, Prescott	957	1,470	53.60%	2,258	3,468	5,328
115.0 Grove Meadows	1,603	1,565	-2.40%	1,528	1,492	1,456
116.0 Lakewood	2,311	2,296	-0.60%	2,281	2,266	2,252
Sum over zones	32,036	33,640		35,715	38,449	42,113
Total all zones	32,036	33,640	5.00%	35,324	37,093	38,950

Figure 11 shows the population growth for the City of Spruce Grove from 1996 to 2016 and the forecasted growth for five years to 2021. The growth assumption used for the five year forecast is that the change in the current housing capacity and average person per household observed



between 2015 and 2016 will extend over the next 5 years. Overall, the growth rate over the 25 years in this model is estimated at 4.54%. By the year 2020, the population will exceed 40,000 residents. Slightly lower population estimates for 2020 and 2021 are produced when it is assumed that the population will increase 5% a year past 2016 (Appendix 2B).

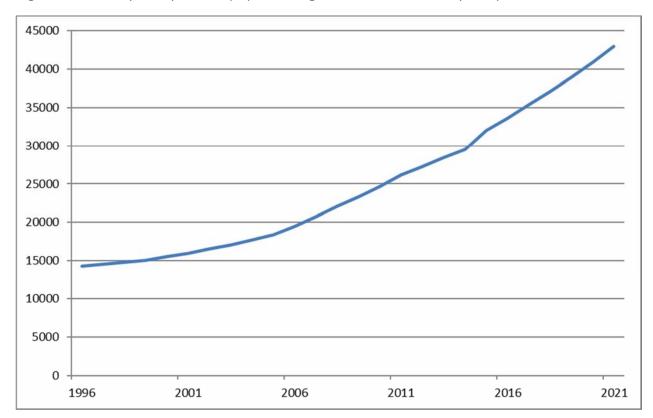


Figure 11: Twenty five years of population growth 1996-2021 City of Spruce Grove

Overview

The 2016 City of Spruce Grove census continues to show that the population has a younger age structure than the province. Attracting people over the age 20 and under the age of 50 in the stages of family formation typically will enhance the fertility rate. In addition, with more people aged 65 and older we can expect a demand for different types of housing oriented toward the group home or multiunit type associated with smaller household sizes.

Growth in the population of the City of Spruce Grove is closely linked to the economic drivers and growth experienced by the City of Edmonton and other close communities in the capital region. Communities in the capital region that are close to the City of Edmonton such as the cities of Spruce Grove, Leduc, St Albert, Fort Saskatchewan typically will have faster and more growth than communities that are farther away from the City of Edmonton in the capital region (i.e. Devon, Thorsby, Calmar, Warburg).

Once additional information from the 2016 federal census is made available for other communities in



the capital region, comparisons of growth and age structure should be made for the City of Spruce Grove and communities such as cities of Edmonton, Leduc, St. Albert, Fort Saskatchewan, towns of Beaumont, Stony Plain, Morinville, and the hamlet of Sherwood Park.

Future growth in an era of recent economic instability in the province will probably foster competition for internal migrants between municipalities within the capital region. On the one hand, cities like Spruce Grove will continue to attract young couples with families from larger cities like Edmonton. The growth of the City of Spruce Grove is also linked to the economic drivers and growth in the rest of the province and Canada. A recent trend downward with interprovincial migration to the province will see areas competing for fewer migrants from other parts of Canada. Higher density housing with multiunit dwellings may be subjected to higher vacancy rates when unemployment increases, particularly in males when construction and activity in the oil and gas sector declines. On the other hand, the province is offsetting the loss in interprovincial migrants with increased international migration. Communities such as the City of Spruce Grove may be able to capitalize on this positive net inflow by providing the type of dwellings required for multi-generational families, and the infrastructure and services required for certain migration streams from the Americas, the Philippines, the Middle East and Europe.

Two types of zone profiles emerge in the City of Spruce Grove, one comprised of older areas in the city where the average and median age are high, vacancy rates are typically low and the structures are predominately single detached residences with a lower than average persons per household (<.266). Neighbourhoods in these zones may see slight population decline or marginal increase. Until older structures are replaced with newer units with higher density, it is unlikely to see rapid population growth in these areas in the near future.

The second type of profile are zones where the type of dwelling units are newer and mixed, with many properties under construction and more bareland properties added. The density in an area may be increased if more multi-unit dwellings are constructed and occupied. Typically, the median and average ages are lower than the overall city and older neighbourhoods. Here, the average person per household will be higher for certain types of dwellings and lower when multi-unit dwellings are added. In the short run, it is this type of zone that will show increased population in the City of Spruce Grove providing that vacancy rates do not substantially increase.

In forecasting additional years past 2016, the trends observed between 2015 and 2016 were used rather than the growth observed between 2014 and 2015. The assumptions are that areas that were losing population in 2016 would continue to do so in the future, and areas that are growing will continue to increase in population in the future.

Using the average person per household observed in 2015-2016 and applying the average to the number of dwellings shows a forecast of 40,000+ residents in the City of Spruce by the year 2020. Applying the average growth rate of 5% to the total population of the City of Spruce Grove shows slightly less population by 2020 than the method based on dwelling units and average household size. In both scenarios, when the growth of the zones is extended past 2016, the sum of the population over zone is higher than the estimates calculated from the total.



Recommendations

- Compare the 2016 federal census subdivision data for the City of Spruce Grove to the 2016 municipal census and compare the City of Spruce Grove census data to other municipalities in the Capital region when the data become available.
- Reduce the error in the type of dwelling in enumeration by having the enumerator make an assessment or use an alternate database for assessing the structure type.
- Consider the collection of additional fields in enumeration including structure type on vacant and properties under construction.
- Consider additional questions in the municipal census such as the year when the residence was built and a question on mobility with the residential moves in the past year. The latter question would be useful to assess the location of migrants prior to residency at the enumerated address in the City of Spruce Grove.
- Consider the collection of single ages in enumeration rather than grouped ages.
- Reclassify group facilities such as hotels away from an aggregate number to single or double occupancy units.
- Since the municipal census is directed more toward a headcount and is not mandatory ensure that the enumeration practice continues using neighbour response. This proxy source of information is especially critical in the tabulation of the most important census variable the usual number of residents in the household.
- Standardize the census databases with a common unique linking identification number to
 household address to examine the transition of a household address from bareland to under
 construction to occupancy or vacancy in each zone across census years.
- Reconfigure past census data to current boundaries based on household address listings.



Appendix 1: Average person per household by dwelling type by zone

		Average	Dwelling
Zone	Dwelling Type	PPH	Count
101.1 Harvest Ridge (North)	Mobile home	1.00	1
	Multi-unit dwelling	2.00	8
	Row housing	2.33	3
	Semi detached	2.44	99
	Single detached	3.29	238
	Total	3.00	349
101.2 Harvest Ridge (South)	Multi-unit dwelling	2.18	11
	Row housing	2.90	50
	Semi detached	2.73	192
	Single detached	3.08	307
	Total	2.93	560
102.1 Spruce Ridge	Multi-unit dwelling	1.78	473
	Row housing	2.27	109
	Semi detached	2.51	61
	Single detached		
	Total	1.93	643
102.2 Legacy Park, Spring Gate	Multi-unit dwelling	2.40	5
	Row housing	3.00	2
	Semi detached	2.70	76
	Single detached	3.29	421
	Total	3.19	504
103.0 Deer Park	Multi-unit dwelling	1.75	4
	Semi detached	2.18	11
	Single detached	3.14	362
	Total	3.09	377
104.1 Heatherglen	Mobile home	2.29	83
	Multi-unit dwelling	1.00	1
	Row housing	1.00	2
	Semi detached	1.85	41
	Single detached	2.92	435
	Total	2.74	562
104.2 McLaughlin	Group Care Facility	1.02	129
	Multi-unit dwelling	2.00	217
	Row housing	2.49	84
	Semi detached	3.08	104
	Single detached	3.29	95
	Total	2.24	629

Multi-unit dwelling 1.50 2	105.0 Westgrove, Mobile City Estates	Mobile home	2.19	217
Row housing 2.45 22		Multi-unit dwelling	1.50	2
Single detached 2.92 374 Total 2.67 658 106.0 Aspenglen, Jesperdale Group Care Facility 3.50 2 Multi-unit dwelling 1.00 2 Row housing 1.00 1 Semi detached 2.72 107 Single detached 3.18 512 Total 3.09 624 107.0 Millgrove Multi-unit dwelling 1.00 1 Semi detached 2.00 4 Single detached 2.92 535 Total 2.91 540 108.0 Fieldstone, Linkside Multi-unit dwelling 1.69 16 Row housing 1.61 31 Semi detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 100.0 Ci			2.45	22
Total 2.67 658 106.0 Aspenglen, Jesperdale Group Care Facility 3.50 2 Multi-unit dwelling 1.00 2 Row housing 1.00 1 1 1 1 1 1 1 1 1		Semi detached	3.07	43
Multi-unit dwelling		Single detached	2.92	374
Multi-unit dwelling 1.00 2 Row housing 1.00 1 Semi detached 2.72 107 Single detached 3.18 512 Total 3.09 624 107.0 Millgrove Multi-unit dwelling 1.00 1 Semi detached 2.00 4 Single detached 2.92 535 Total 2.91 540 108.0 Fieldstone, Linkside Multi-unit dwelling 1.69 16 Row housing 1.61 31 Semi detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 100.0 City Centre Group Care Facility 1.00 28 <td></td> <td>Total</td> <td>2.67</td> <td>658</td>		Total	2.67	658
Row housing 1.00 1 Semi detached 2.72 107 Single detached 3.18 512 Total 3.09 624 107.0 Millgrove Multi-unit dwelling 1.00 1 Semi detached 2.00 4 Single detached 2.92 535 Total 2.91 540 108.0 Fieldstone, Linkside Multi-unit dwelling 1.69 16 Row housing 1.61 31 Semi detached 1.86 80 Single detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 110.0 City Centre Group Care Facility 1.00 28	106.0 Aspenglen, Jesperdale	Group Care Facility	3.50	2
Semi detached 2.72 107 Single detached 3.18 512 Total 3.09 624 107.0 Millgrove Multi-unit dwelling 1.00 1 Semi detached 2.00 4 Single detached 2.92 535 Total 2.91 540 108.0 Fieldstone, Linkside Multi-unit dwelling 1.69 16 Row housing 1.61 31 Semi detached 1.86 80 Single detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached		Multi-unit dwelling	1.00	2
Single detached 3.18 512 Total 3.09 624 107.0 Millgrove Multi-unit dwelling 1.00 1 Semi detached 2.00 4 Single detached 2.92 535 Total 2.91 540 108.0 Fieldstone, Linkside Multi-unit dwelling 1.69 16 Row housing 1.61 31 Semi detached 1.86 80 Single detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached		Row housing	1.00	1
Total 3.09 624		Semi detached	2.72	107
107.0 Millgrove Multi-unit dwelling 1.00 1		Single detached	3.18	512
Semi detached 2.00 4 Single detached 2.92 535 Total 2.91 540 108.0 Fieldstone, Linkside Multi-unit dwelling 1.69 16 Row housing 1.61 31 Semi detached 1.86 80 Single detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.87 15 Row housing 2.54 100 Semi detached 2.04 108		Total	3.09	624
Single detached 2.92 535 Total 2.91 540 108.0 Fieldstone, Linkside Multi-unit dwelling 1.69 16 Row housing 1.61 31 Semi detached 1.86 80 Single detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detac	107.0 Millgrove	Multi-unit dwelling	1.00	1
Total 2.91 540 108.0 Fieldstone, Linkside Multi-unit dwelling 1.69 16 Row housing 1.61 31 Semi detached 1.86 80 Single detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detac		Semi detached	2.00	4
108.0 Fieldstone, Linkside Multi-unit dwelling 1.69 16 Row housing 1.61 31 Semi detached 1.86 80 Single detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care F		Single detached	2.92	535
Row housing 1.61 31 Semi detached 1.86 80 Single detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 <td< td=""><td></td><td>Total</td><td>2.91</td><td>540</td></td<>		Total	2.91	540
Semi detached 1.86 80 Single detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62	108.0 Fieldstone, Linkside	Multi-unit dwelling	1.69	16
Single detached 2.98 461 Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Row housing	1.61	31
Total 2.72 588 109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Semi detached	1.86	80
109.0 Woodhaven, Woodside Multi-unit dwelling 1.52 94 Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Single detached	2.98	461
Row housing 2.50 4 Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Total	2.72	588
Semi detached 3.21 34 Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62	109.0 Woodhaven, Woodside	Multi-unit dwelling	1.52	94
Single detached 2.79 581 Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Row housing	2.50	4
Total 2.64 713 110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Semi detached	3.21	34
110.0 City Centre Group Care Facility 1.00 28 Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Single detached	2.79	581
Multi-unit dwelling 1.79 742 Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Total	2.64	713
Row housing 2.67 58 Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62	110.0 City Centre	Group Care Facility	1.00	28
Semi detached 1.79 19 Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Multi-unit dwelling	1.79	742
Single detached 2.54 100 Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Row housing	2.67	58
Total 1.90 947 111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Semi detached	1.79	19
111.0 Stoneshire, Hilldowns Multi-unit dwelling 1.87 15 Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Single detached	2.54	100
Row housing 2.50 28 Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Total	1.90	947
Semi detached 2.04 108 Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62	111.0 Stoneshire, Hilldowns	Multi-unit dwelling	1.87	15
Single detached 3.08 415 Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Row housing	2.50	28
Total 2.82 566 112.0 Brookwood Group Care Facility 1.09 68 Multi-unit dwelling 2.32 62		Semi detached	2.04	108
112.0 BrookwoodGroup Care Facility1.0968Multi-unit dwelling2.3262		Single detached	3.08	415
Multi-unit dwelling 2.32 62		Total	2.82	566
	112.0 Brookwood	Group Care Facility	1.09	68
Row housing 2.68 120		Multi-unit dwelling	2.32	62
		Row housing	2.68	120



	Semi detached	2.55	20
	Single detached	2.69	533
	Total	2.52	803
113.0 Broxton Park	Multi-unit dwelling	2.00	10
	Semi detached	2.50	10
	Single detached	2.67	474
	Total	2.65	494
114.1 Spruce Village	Multi-unit dwelling	2.20	15
	Row housing	2.03	30
	Semi detached	2.70	211
	Single detached	3.35	470
	Total	3.09	726
114.2 Kenton, Greenbury, Prescott	Multi-unit dwelling	2.60	15
	Row housing	2.69	91
	Semi detached	2.45	166
	Single detached	3.12	239
	Total	2.81	511
115.0 Grove Meadows	Group Care Facility	3.00	1
	Multi-unit dwelling	4.00	4
	Row housing	3.00	1
	Semi detached	2.56	16
	Single detached	2.86	504
	Total	2.86	526
116.0 Lakewood	Multi-unit dwelling	1.76	113
	Row housing	2.63	52
	Semi detached	2.57	7
	Single detached	3.05	615
	Total	2.83	787
Total	Group Care Facility	1.07	228
	Mobile home	2.21	301
	Multi-unit dwelling	1.83	1,810
	Row housing	2.51	688
	Semi detached	2.55	1,409
	Single detached	2.99	7,671
	Total	2.69	12,107*

^{*}Note that an accommodation of where the usual number of residents in the household was recorded as 51 persons was omitted from the calculation of average pph and 542 households declined to answer what structure type the residence could be classified as.



Appendix 2A: Projected growth in dwellings and population 2020 - 2021

Α	Average		2020		2021
	PPH 2015-				
Zone	2016	Bldgs	Pop	Bldgs	Pop
101.1 Harvest Ridge (North)	3.01	408	1,229	423	1,272
101.2 Harvest Ridge (South)	2.92	898	2,618	1,005	2,930
102.1 Spruce Ridge	1.90	730	1,387	733	1,393
102.2 Legacy Park, Spring Gate	3.15	963	3,035	1,122	3,534
103.0 Deer Park	3.07	462	1,417	483	1,482
104.1 Heatherglen	2.74	643	1,760	663	1,814
104.2 McLaughlin	2.20	1,820	3,995	2,294	5,036
105.0 Westgrove, Mobile City Estates	2.67	733	1,956	740	1,976
106.0 Aspenglen, Jesperdale	3.07	877	2,692	953	2,924
107.0 Millgrove	2.91	541	1,572	539	1,566
108.0 Fieldstone, Linkside	2.76	614	1,692	615	1,694
109.0 Woodhaven, Woodside	2.61	728	1,900	726	1,895
110.0 City Centre	1.89	1,015	1,914	1,020	1,923
111.0 Stoneshire, Hilldowns	2.81	966	2,714	1,100	3,090
112.0 Brookwood	2.49	775	1,930	763	1,900
113.0 Broxton Park	2.67	536	1,428	543	1,448
114.1 Spruce Village	3.00	793	2,376	797	2,388
114.2 Kenton, Greenbury, Prescott	2.73	2,522	6,872	3,727	10,155
115.0 Grove Meadows	2.89	553	1,598	554	1,601
116.0 Lakewood	2.81	790	2,215	783	2,196
Total sum over zone		17,368	46,299	19,584	52,219
Total estimated overall	2.66	15,491	41,207	16,296	43,348



Appendix 2B: Estimated population by zone 2019 – 2021

	2015-2016	2019	2020	2021
Zone	Change %			
101.1 Harvest Ridge (North)	2.11%	1,134	1,158	1,182
101.2 Harvest Ridge (South)	11.51%	2,310	2,576	2,873
102.1 Spruce Ridge	-1.75%	1,281	1,259	1,237
102.2 Legacy Park, Spring Gate	15.74%	2,554	2,956	3,421
103.0 Deer Park	4.87%	1,367	1,433	1,503
104.1 Heatherglen	2.64%	1,682	1,727	1,772
104.2 McLaughlin	26.96%	3,248	4,123	5,235
105.0 Westgrove, Mobile City				
Estates	-1.40%	1,828	1,803	1,778
106.0 Aspenglen, Jesperdale	9.35%	2,538	2,775	3,035
107.0 Millgrove	-1.18%	1,533	1,515	1,497
108.0 Fieldstone, Linkside	-1.54%	1,589	1,565	1,541
109.0 Woodhaven, Woodside	1.04%	1,995	2,016	2,037
110.0 City Centre	2.22%	2,018	2,062	2,108
111.0 Stoneshire, Hilldowns	13.83%	2,379	2,708	3,083
112.0 Brookwood	0.73%	2,121	2,136	2,152
113.0 Broxton Park	-2.57%	1,225	1,194	1,163
114.1 Spruce Village	-0.56%	2,275	2,263	2,250
114.2 Kenton, Greenbury, Prescott	53.61%	5,328	8,183	12,570
115.0 Grove Meadows	-2.37%	1,456	1,422	1,388
116.0 Lakewood	-0.65%	2,252	2,237	2,222
Sum over columns		42,114	47,112	54,048
Total	5.00%	38,950	40,900	42,948