

TOPIC PAPER

LOCAL DEVELOPMENT FRAMEWORK

RESEARCH REPORT

POPULATION TOPIC PAPER

Updated February 2011



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1.0 Introduction

- 1.1 This population paper has been prepared to inform the Woking Borough Council Infrastructure Delivery Plan (IDP). The IDP is a key document in the evidence base for the Council's Local Development Framework (LDF) and any future planning obligations tariff or Community Infrastructure Levy.
- 1.2 By estimating future population and demographic change in the Borough the appropriate level of infrastructure and services, to match the level of development set out in the Local Development Framework, can be planned for.
- 1.3 This paper outlines the current Borough population profile, household structure, employment population and school numbers and examines how they are projected to change between now and 2027.
- 1.4 The main source of information is the ONS 2008-based Subnational Population Projections for England (revised May 2010). Unless otherwise stated the data and figures in this report are sourced from this dataset. It is however important to note that many organisations use different data sources and methods of projection to estimate the future population and infrastructure needs for Woking. Therefore this report includes a variety of data sources and projections to ensure the information is consistent with Borough service providers. Please note numbers provided are rounded to the nearest thousand and may not add up due to rounding.

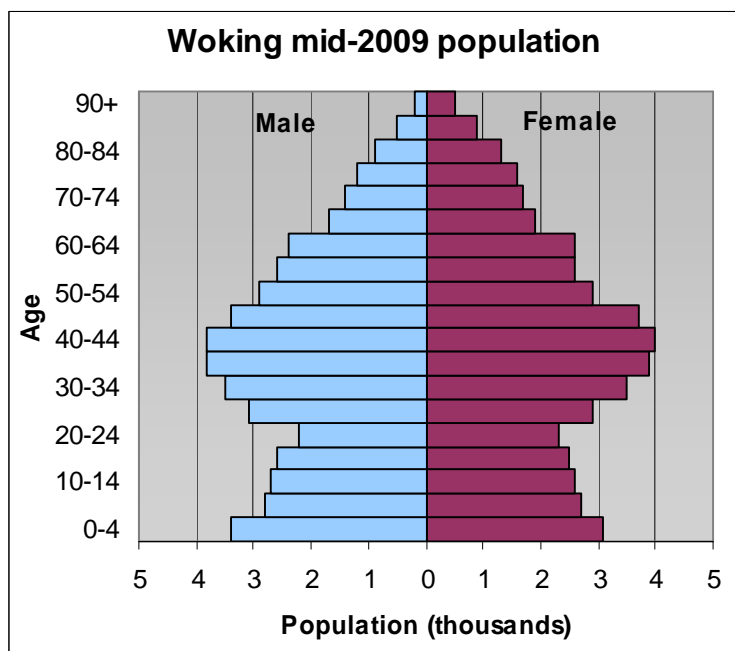
2.0 Current population

- 2.1 The mid-2009 resident population in Woking Borough is estimated to be 92,400¹. This is a projected increase of 800 people since the previous year. Children aged under 16 represent around one in five of the total population – a trend observed nationally. The proportion of the population of retirement age² is smaller, representing around one in six of the total population.
- 2.2 Figure 1 is a population pyramid which shows the distribution of the age and sex structure of the Borough's population. Each bar represents a particular age group and the length illustrates the number of people who are within that age category. The shape of the pyramid has been estimated by the ONS population model, taking into account births, deaths and migration in to and out of the borough.

¹ Source: ONS mid-year population estimates 2009 for UK, 2010

² The state pension age in 2009 was 60 for women and 65 for men

Figure 1: Woking population pyramid, 2008



- 2.3 Up to around the age of 75 the number of males and females are fairly equal. However from this age the number of females outweighs the male population. This is due to the fact that women at this age have higher life expectancy and also because of the higher male mortality during the Second World War.
- 2.4 People of working age (aged 16-64 for males and 16-59 for females) account for 62 percent of the total population in Woking. The pyramid shows the baby boom of the 1960s, with age groups 35-39 years and 40-44 years, accounting for the highest proportion of the total population. Fertility levels have also increased in recent years, as shown by the higher number of 0 to 4 year olds compared to the number of 5 to 9 year olds in the Borough.
- 2.5 There is a clear narrowing of the pyramid of males and females aged 20 to 24 in Woking. This likely due to the high education levels in the Borough and people within this age group moving away from home to attend university.

3.0 Future population

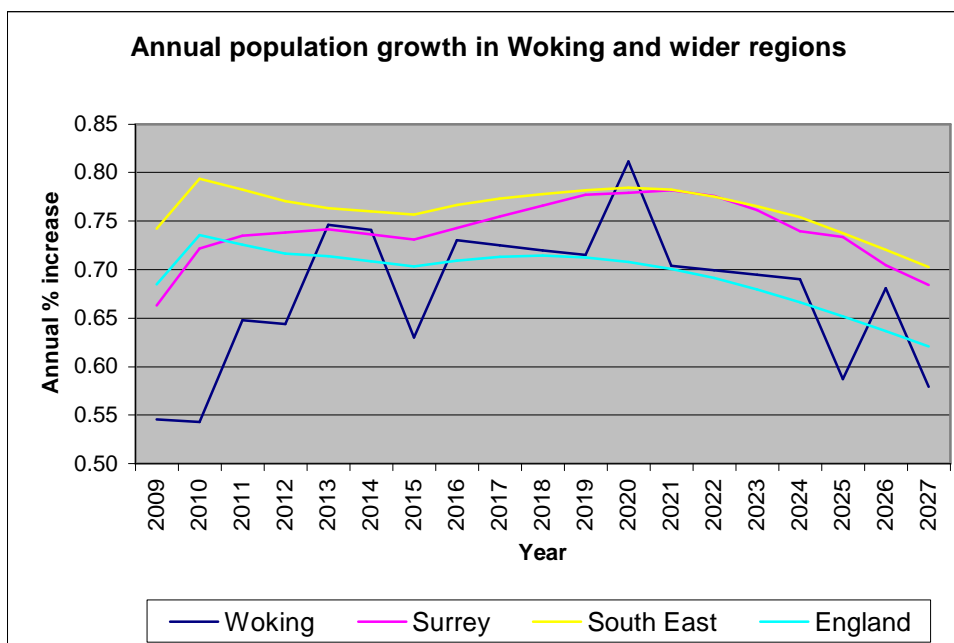
3.1 The resident population in the Borough was 91,100 in 2007. This is estimated to increase to 97,200 by 2017 and 104,100 by 2027, around 14 percent increase over the period. From 2007 the five year period with the highest population growth rate is 2017-2022, as shown in Table 1 below. The lowest growth period is 2007-2012.

Table 1: Population growth in Woking, 2007-2027

Population growth (%)				
2007-2012	2012-2017	2017-2022	2022-2027	2007-2027
2.96%	3.63%	3.70%	3.27%	14.27%

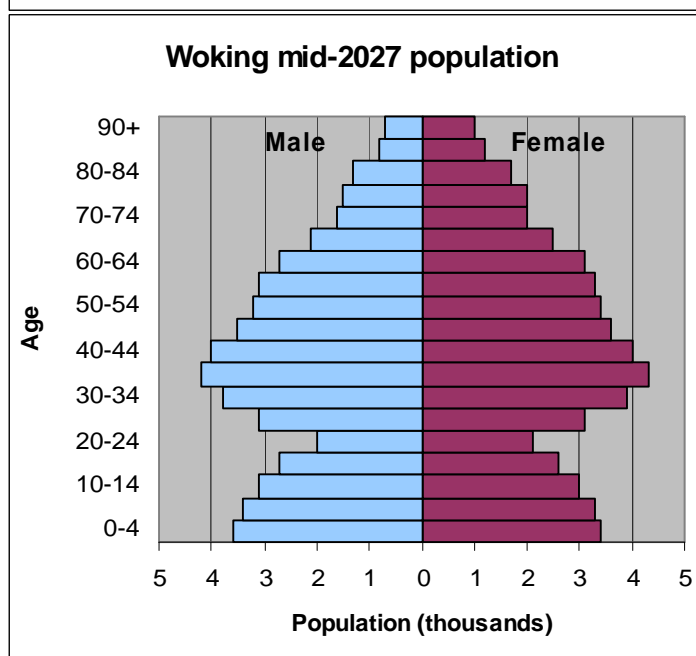
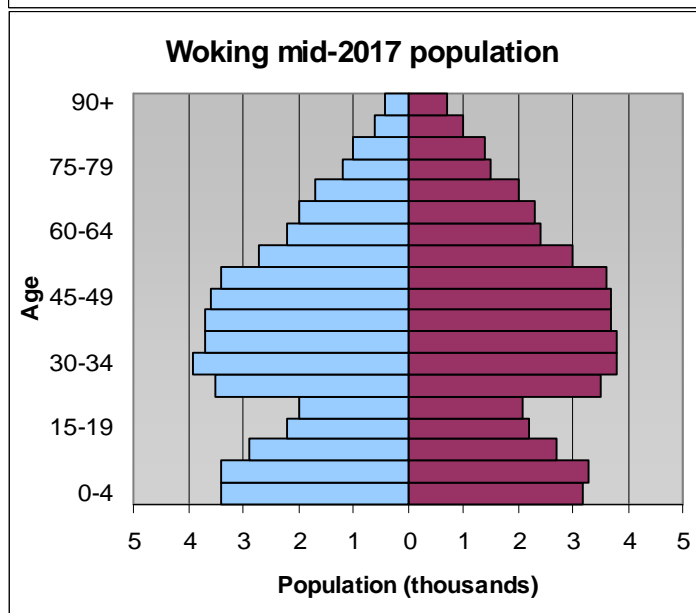
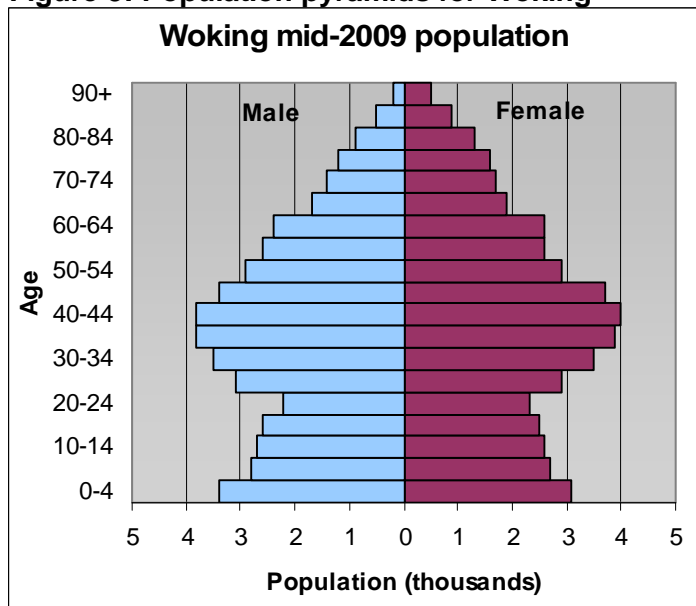
3.2 Compared to wider regions, shown in Figure 2 below, Woking’s annual population growth is more volatile compared to Surrey, the South East and England. The highest percentage increase is anticipated to be between 2019 and 2020. Overall the population is projected to increase by less than one percent a year.

Figure 2: Annual population growth



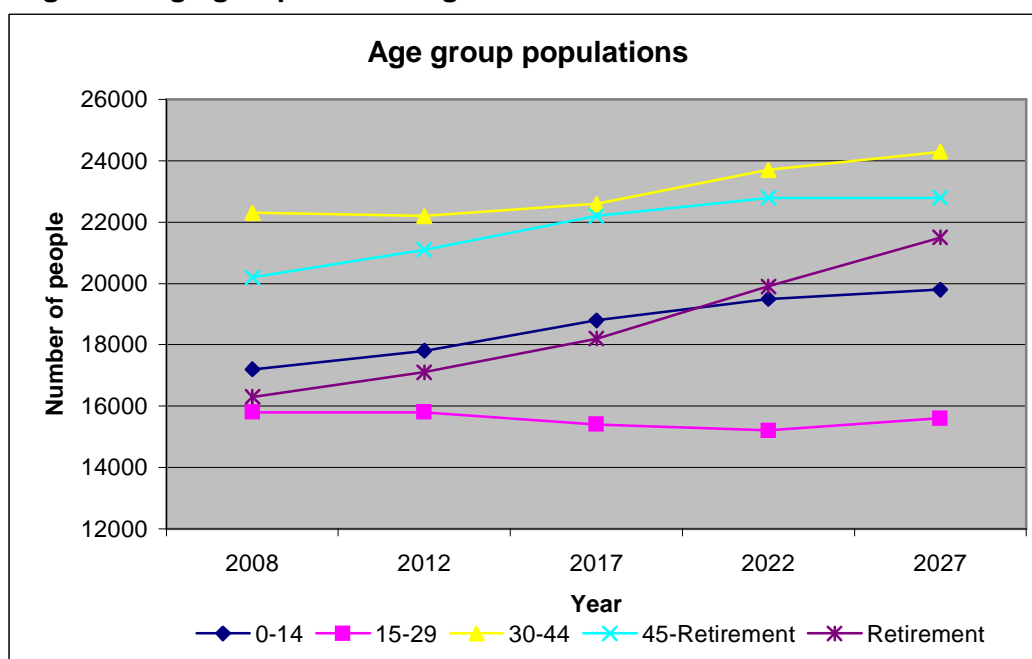
3.3 Figure 3 shows the estimated population structure in Woking in 2009, 2017 and 2027. The first population pyramid acts as a comparator to any future changes in the Borough’s population structure.

Figure 3: Population pyramids for Woking



- 3.4 The shape of Woking’s population pyramid is relatively stable between 2009 and 2027. Overall, the population is ‘greying’, with the percentage of people at retirement age gradually increasing whilst the percentage of children slightly declining over the next 17 years. Between 2009 and 2027 the proportion of people at retirement age and the proportion of children in 2009 were 17.79% and 22.12% respectively. By 2027 this is estimated to change to 20.65% retired and 22.07% children. This has pushed the median age group from 35-39 (in 2007 and 2017) to 40-44 (in 2027).
- 3.5 The composition of males and females changes over time. In 2009 there was a disproportionate number of males to females over the age of 75. This was due to the higher life expectancy of women in these age categories and the high mortality rate of men during the Second World War. In the subsequent population pyramids this difference becomes less apparent as the Second World War generation moves into their late 80/90s.
- 3.6 In Woking, there is expected to be an additional 4,600 older people (aged 65+) between 2010 and 2027, an increase of 33%. The ratio of people of working age to those over the age of 65 is expected to fall from 4.32 to 3.5 over this time period. Therefore, there will be fewer working age people in relation to retired people³. This will have significant implications as a larger elderly population will result in a higher proportion of people who rely on public subsidies to pay for care services and a change in the requirements for housing and care facilities in the borough.
- 3.7 As shown in Figure 4 below, the number of people in all age groups is increasing, with the exception of the 15-29 age group. The number of people at retirement age has the steepest increase over the 20 year period. Please see Appendix 1 for a further breakdown of age groups populations.

Figure 4: Age groups in Woking



Source: ONS 2008-based Subnational Population Projections, 2010

³ This ratio is expected to come back up slightly over the time period, as the state retirement age for men and women in 2027 will be 66 years

4.0 Household type

4.1 In Woking there were circa 38,000 households in 2008, which is set to increase by around 21% by 2033 to circa 48,000 households, as shown in Table 2 below.

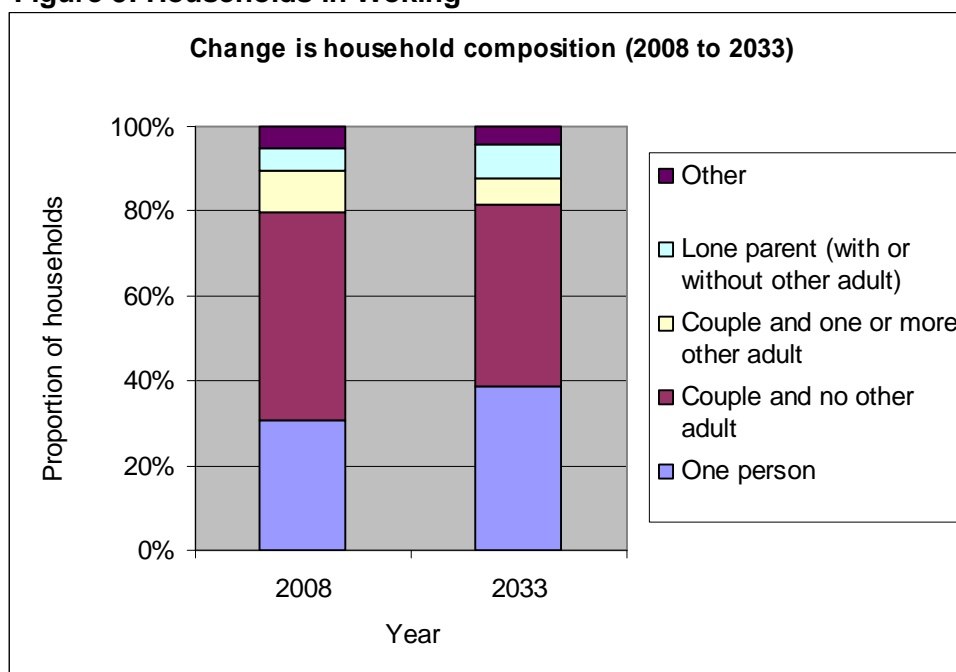
Table 2: Woking household projections 2008 - 2033

	2008	2013	2018	2023	2026	2028	2033
Number of households	38,000	40,000	42,000	44,000	45,000	46,000	48,000

Source: DCLG, 2008-based household projections, 2010

4.2 This increase in households is in part due to the growing population but also due to the changing household composition, leading to smaller households in the Borough, as shown in Figure 5. By 2033 it is estimated that the number of one person households will increase by 58% and account for 39% of all households – compared to 31% in 2008. At the same time the proportion of households formed of a couple and no other adult will fall from 49% to 43%, despite an 11% increase of this type of household between 2008 and 2033.

Figure 5: Households in Woking



Source: CLG, 2008-based Household Projections 2008-2033, 2010

4.3 According to the Chelmer Housing and Population Model, supplied by Surrey County Council, the average number of people living in a household in 2006 was estimated to be 2.33. This is expected to decrease, in line with national and regional trends.

4.4 The change in household size forms an important part of the demand for infrastructure and services. Appendix 2 calculates the estimated increase in population based on the level of proposed housing in borough between 2012-2027. The estimations look at the average size of dwellings being built in the borough and average number of people in a household by dwelling size.

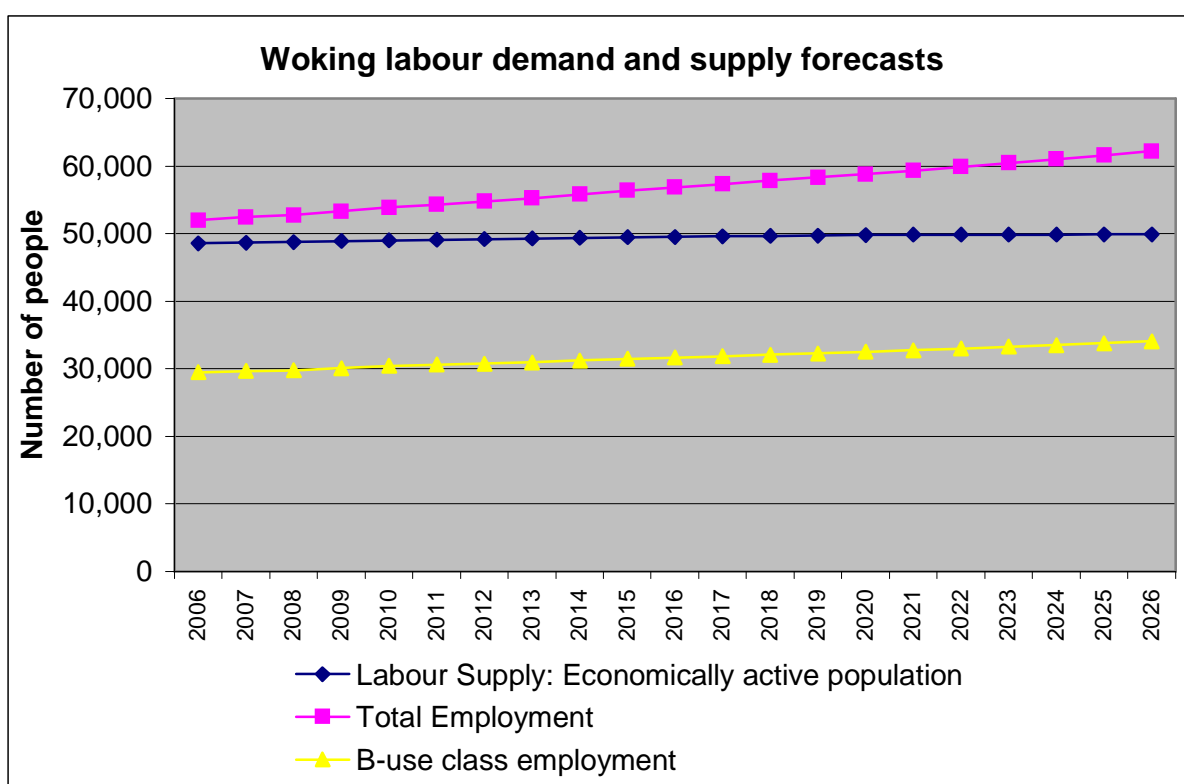
According to the calculations the estimated population living in the 4,380 planned dwellings will be between 6,482 and 8,191 people.

- 4.5 More detailed information regarding household types, sizes and tenure types can be found in the Strategic Housing Market Assessment, February 2009 and the Housing Topic Paper, August 2010.

5.0 Working population

- 5.1 Employment projections can give an indication of the daytime population in the Borough. Figure 6 below has been taken from the Woking Borough Council Employment Position Paper (January 2010), it can be seen that the labour supply curve is projected to be lower than the total employment, which is set to grow at a slower rate than total employment.
- 5.2 Consequently, Woking will be a net importer of workers of over 12,000 employees by 2026, shown in Table 3 below, as people commute into the borough to meet the demand for workers.
- 5.3 It is therefore expected that during working hours, the population will spike higher than the resident population due to the influx of workers. People are free to access healthcare and other services at their place of work and therefore provisions should be made for the working population and the means by which they travel into the borough.
- 5.4 Overall, employment estimates are rising and total employment is predicted to increase to circa 62,000 by 2026, a 15.9% increase from the 2010 estimate.

Figure 6: Woking Employment Projections



Sources: Experian® 2006 & 2009. Chelmer Population and Housing model, 2006

Table 3: Shortfall of labour supply in Woking

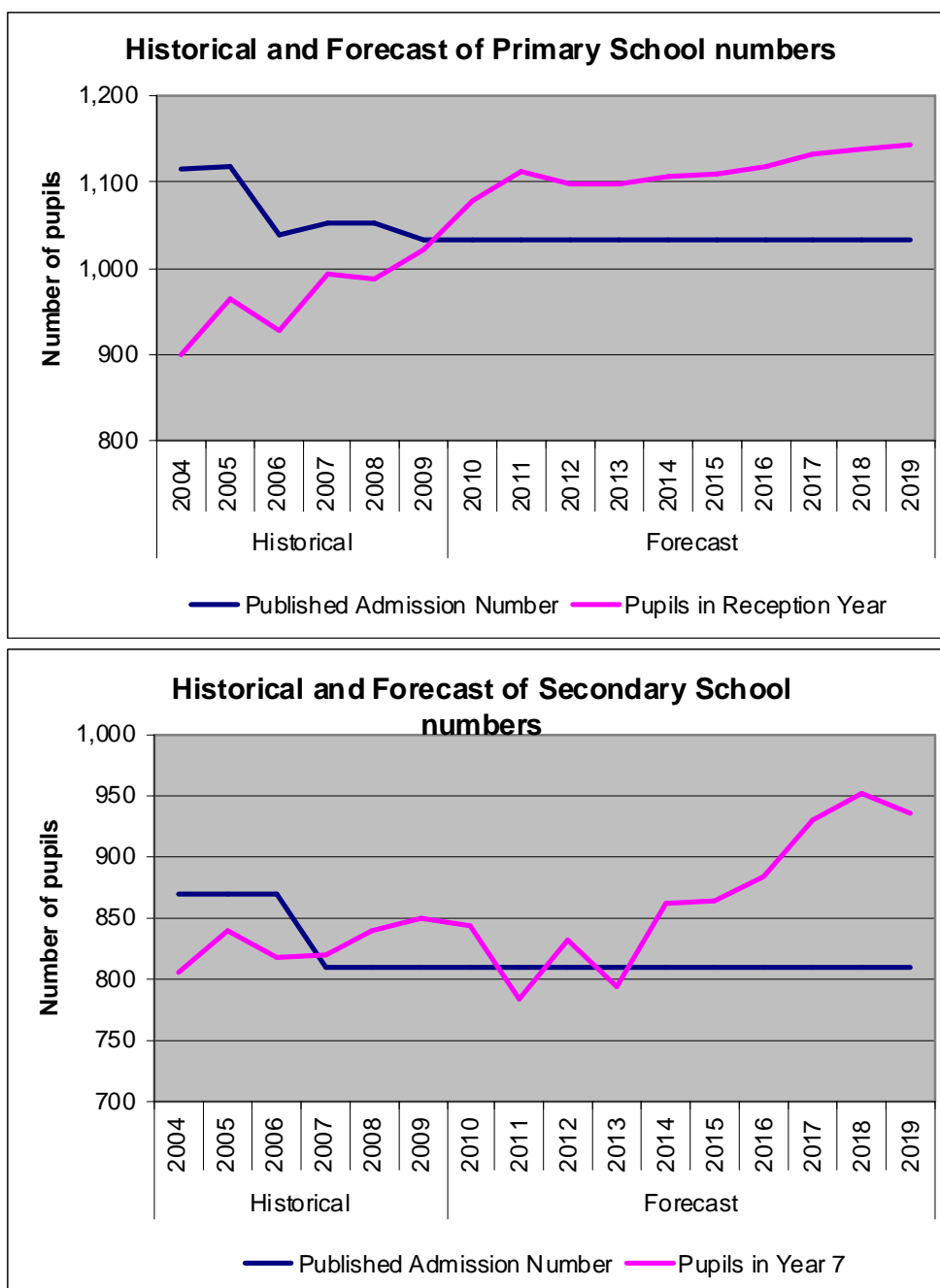
2007	2012	2017	2022	2026
-3,778	-5,583	-7,754	-10,038	-12,322

Sources: Experian® 2006 & 2009. Chelmer Population and Housing model, 2006

6.0 School Population

- 6.1 The Education Organisation Policies and Context 2010 report produced by Surrey County Council provides information of the current pattern of educational provision across the County and forecasts the number of pupils for future years attending primary and secondary schools. These are estimated based on demographic data, such as birth rate; planning developments; historic numbers on roll and patterns of demand and preference in the County – as some children will be sent to independent schools.
- 6.2 Figure 7 below shows the published admission numbers and number of pupils in primary and secondary schools in Woking.

Figure 7: Primary and Secondary School numbers in Woking



Source: Education Organisation Policies and Context 2010, SCC

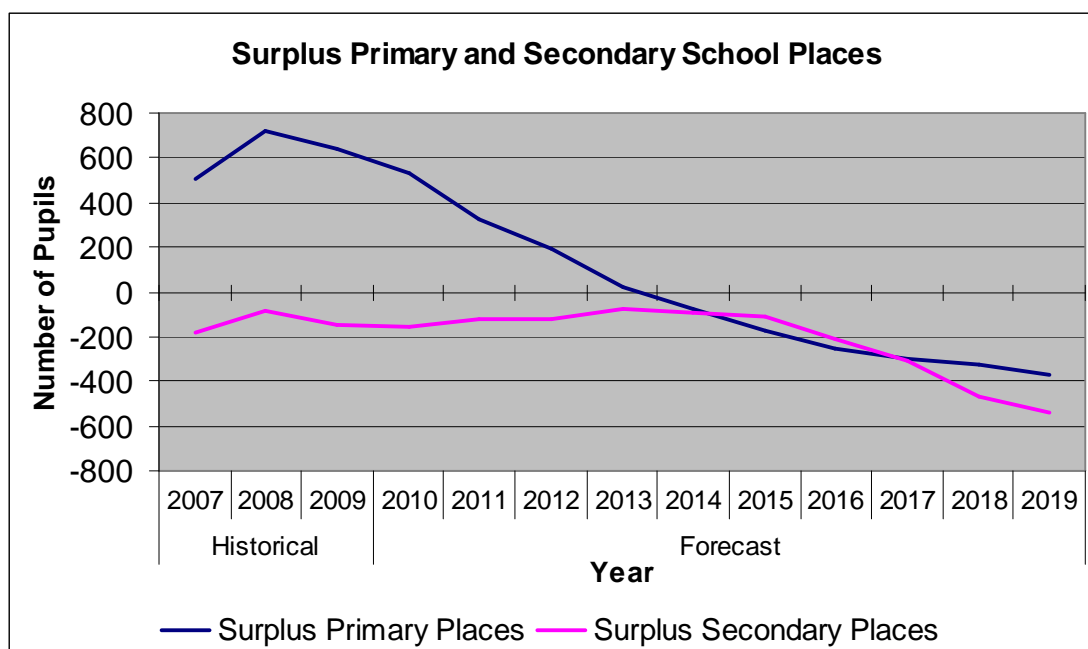
6.3 The primary school figures indicate there will be more children attending reception year than there are places, resulting in reception classes being oversubscribed from 2010. Secondary school numbers in the Borough fluctuate during the period 2007-2014, however from 2014 the number of pupils in Year 7 outweigh the number of places. Table 4 below shows the number of 'spare' places in reception and Year 7 classes in the Borough, whilst Figure 8 shows 'surplus' primary and secondary school places overall in the Borough.

Table 4: Spare school places in Woking

	Historical			Forecast									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Spare Reception Places	61	107	11	-45	-79	-63	-63	-73	-76	-84	-98	-105	-111
Spare Year 7 Places	-10	-29	-40	-33	26	-22	17	-52	-54	-74	-119	-142	-126

Source: Education Organisation Policies and Context 2010, SCC

Figure 8: Surplus primary and secondary school places in Woking



Source: Education Organisation Policies and Context 2010, SCC

6.4 As shown in Table 4 and Figure 8 above many of the school places are negative, therefore there are more pupils than places available and Surrey County Council will have to offer above Published Admission Numbers (PAN) to meet local demand. By 2019 there is estimated to be -369 primary school places and -542 secondary school places shortfall.

7.0 Conclusion

- 7.1 The population is estimated to continue growing between 2010 and 2027, leading to an increase of circa 11,500 people, a growth rate of 11% - which is lower in comparison to the growth rate of households. This is a result of the falling average household size. This will have implications on housing provision – increasing the number of homes demanded and changing the typical dwelling type demanded.
- 7.2 Furthermore the population looks to be ‘greying’ as people live longer and the number of people at retirement age increasing. This will have significant implications on required infrastructure and services, including healthcare, community and housing facilities. Whilst the number of school places are estimated to fall short of the required number of places in the Borough due to population growth and rising fertility levels.
- 7.3 Finally, it can be seen that Woking will continue to be a net importer of workers, as jobs exceed the locally economic active population. This will continue to have an impact on transport networks at peak times and the type of daytime infrastructure and services provided, particularly in and around town and business centres.

Appendix 1: Population figures by age groups, 2008-2017

Year	Age Groups					Total Population
	0-14	15-29	30-44	45-65	65+	
2008	17,200	15,800	22,300	22,800	13,400	91,600
2009	17,400	15,700	22,300	23,000	13,700	92,100
2010	17,600	15,700	22,200	23,200	13,900	92,600
2011	17,700	15,600	22,100	23,500	14,100	93,200
2012	17,800	15,800	22,200	23,700	14,500	93,800
2013	18,100	15,700	22,100	23,700	14,900	94,500
2014	18,100	15,700	22,300	23,900	15,100	95,200
2015	18,400	15,600	22,400	24,100	15,500	95,800
2016	18,500	15,500	22,400	24,300	15,700	96,500
2017	18,800	15,400	22,600	24,600	15,900	97,200
2018	19,000	15,300	22,700	24,800	16,000	97,900
2019	19,200	15,200	22,900	25,000	16,300	98,600
2020	19,400	15,100	23,100	25,200	16,400	99,400
2021	19,400	15,100	23,300	25,400	16,600	100,100
2022	19,500	15,200	23,700	25,500	16,900	100,800
2023	19,600	15,300	23,800	25,500	17,200	101,500
2024	19,500	15,400	24,000	25,700	17,500	102,200
2025	19,600	15,500	24,200	25,900	18,000	102,800
2026	19,600	15,500	24,200	26,000	18,200	103,500
2027	19,800	15,600	24,300	25,900	18,500	104,100
Pop. Change 2010 - 2027	2,200	-100	2,100	2,700	4,600	11,500
% Change 2010-2027	11.11	-0.64	8.64	10.42	24.86	11.05

Source: ONS 2008-based Subnational Population Projections, 2010

Appendix 2: Calculating the population gain from 4380 new dwellings

292 (housing allocation) x 15 (years of the Core Strategy) = 4380

The 2001 census found that on average 2.41 people lived in each household in the Borough. This was higher than the Surrey average (2.38) and the average household size in England (2.36).

Multiplying the household size average by the number of new dwellings would result in an inaccurate population figure because in line with national and regional trends, the average household size in Woking is expected to decline over time. The Chelmer Housing and Population model projects that by 2026 the average household size in Woking will have fallen to 2.12.

Furthermore, in recent years several developments have brought forward more flats and smaller units in the town and district centres, and many of the sites identified in the SHLAA will only be suitable for high density flatted development.

The Core Strategy seeks to locate over 50% of residential development in the Town Centre in areas suitable for high density. These units are likely to be much smaller than the typical family sized houses in the Borough and are expected to further push down the average household size.

Table A1: Average household size in Woking

	2006	2011	2016	2021	2026
Average household size	2.33	2.28	2.22	2.17	2.12

Source: Chelmer Housing and Population model, SEP dwelling controlled

Table A2: Tenure and household size by number of rooms

Number of habitable rooms	Number of households
1 room	330
2 rooms	1,123
3 rooms	3,764
4 rooms	6,138
5 rooms	8,612
6 rooms	6,452
7 rooms	3,879
8 or more rooms	6,644
Total	36,942

Source: 2001 Census, Table S051

Table A2 above has been used to calculate the number of people living in each size dwelling, as shown in the Table A3.

Table A3: Tenure and household size by number of rooms – total number of people

Number of people in household	Number of habitable rooms in household							
	1 room	2 rooms	3 rooms	4 rooms	5 rooms	6 rooms	7 rooms	8+ rooms
1 person	247	819	2,452	2,523	2,088	1,256	527	538
2 people	71	236	1,060	2,462	2,971	2,279	1,392	2,255
3 people	6	43	117	731	1,586	1,204	761	1,246
4 people	6	19	70	318	1,350	1,172	828	1,685
5 people	0	6	34	70	455	363	277	658
6 people	0	0	20	16	107	112	60	195
7 people	0	0	6	9	33	33	16	43
8 or more people	0	0	5	9	22	33	18	24
Total People	431	1526	5575	11493	21512	17096	10907	20479

Woking Borough Council

Finally, this has been used to calculate the average number of people per household based on the number habitable rooms in a dwelling (shown in the Table A4 below)

Table A4: People per dwelling based on number of habitable rooms

Number of habitable rooms in dwelling	1	2	3	4	5	6	7	8+
Average number of people per dwelling	1.306061	1.35886	1.481137	1.872434	2.49791	2.649721	2.811807	3.08233

Developments in the borough are monitored by the number of bedrooms, rather than the number of habitable rooms. It is therefore assumed studio flats have one habitable room, one bedroom flats have two habitable rooms, and so on. Table A5 below shows the number of dwellings built in the borough between 2007 and 2010 and the assumed number of habitable rooms.

Table A5: Housing completions by number of bedrooms in the Borough 2007-2010

Number of bedrooms	Studio & 1	2	3	4	5	Over 5	Total
Assumed number of habitable rooms	2	3 or 4	4+	>5	>5	>5	
2007/08	70	142	69	31	10	1	323
2008/09	111	158	64	46	21	1	401
2009/10	46	188	17	23	6	0	280
Total	227	488	150	100	37	2	1004
% of total	22.61%	48.61%	14.94%	9.96%	3.69%	0.20%	

Source: WBC, 2010

The figures show the most common type of dwelling built in the Borough over the past 3 years contain 3 or 4 habitable rooms. If the 2001 Census of Woking Borough homes with 3 and 4 habitable rooms are used as an average for the 4380 housing allocation this produces a total population of between 6,482 and 8,191 people for the new dwellings.