



## Addendum

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Our ref MA41022/03

Date 29 May 2013

**Subject Mid-2002 to Mid-2010 Sub-national Population Estimates revised following the 2011 Census**

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### 1.0 Introduction

1.1 This Addendum should be read in conjunction with the Hearing Statement entitled '*Implications of the 2011-based CLG Household Projections: Lichfield, Tamworth and Cannock Chase Housing Requirement Update*' (17 May 2013) and produced by Nathaniel Lichfield and Partners [NLP] on behalf of the three south-east Staffordshire Councils.

1.2 The sub-national population estimates for England and Wales for mid-2002 to mid-2010 were revised by ONS following the 2011 Census and released on 30 April 2013. The revised series provides a consistent time-series of population estimates to mid-2011 for each local authority in England and Wales.

1.3 The former mid-2002 to mid-2010 estimates were based on population change since mid-2001. However, any estimates are subject to uncertainty, and particularly so for measures of internal and international migration. As there is no means of verifying the true population in any year between censuses, the amount of uncertainty inevitably accumulated as the decade progressed. The 2011 Census and the resulting mid-2011 estimates provide a new base point at which certainty is much greater. Therefore, by revising the mid-2002 to mid-2010 estimates to bring them into line with the Census-based mid-2011 estimates, ONS created a more accurate and consistent series. This can now be used directly as a base for other population statistics such as population projections, population estimates by ethnic group and population estimates for small geographic areas<sup>1</sup>.

1.4 The implication for NLP's Housing Needs (HEaDROOM) Study for the three east Staffordshire districts of Cannock Chase, Lichfield and Tamworth, is that new and more robust data is now available to inform the housing model. Specifically, as part of this revised series, past trend estimates of migration have been revised from those which ONS previously used. Previous trends

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<sup>1</sup> ONS (30 April 2013): Statistical Bulletin: Population Estimates for England and Wales, Mid-2002 to Mid-2010 Revised (Subnational), p2

were drawn from the estimates within the Mid-Year Estimates series built up from a Census 2001 base. This new series fully reflects the Census 2011 results.

1.5 NLP has re-visited the HEaDROOM analysis to incorporate two new migration trend scenarios incorporating the latest CLG 2011-based (interim) household projections and the updated ONS mid-year sub-national population and migration estimates for 2001-2011. Similar assumptions have been made concerning vacancy rates, unemployment, headship rates and economic activity as in the May 2013 update. The output sheets are provided in Appendix 1, whilst a summary of the key assumptions is provided in Appendix 2. The new scenarios are as follows:

- 1 **Long Term Past Migration Trends** – A demographic-led scenario modelled on the basis of past migration trends in Cannock Chase, Lichfield and Tamworth districts over the past 10 years;
- 2 **Short Term Past Migration Trends** – A demographic-led scenario modelled on the basis of past migration trends in Cannock Chase, Lichfield and Tamworth districts over the past 5 years.

## 2.0 Results

### Scenario L: Long Term Past Migration Trends

2.1 Migration is an important driver of population growth in all three south east Staffordshire Councils, but particularly so for Lichfield District. In order to understand the sensitivity of the housing requirements figure to changes in migration rates, this scenario - examining long term past migration trends - incorporates the average rate of internal and international migration over the past ten years. These rates are shown in Table 2.1.

Table 2.1 Long Term Annual Average Migration Trends (Mid-2002 – Mid-2011)

Migration Type	Cannock Chase	Lichfield	Tamworth
Domestic Migration In	+3,338	+4,935	+2,734
Domestic Migration Out	-3,269	-4,315	-2,950
<b>Net Domestic Migration</b>	<b>+69</b>	<b>+620</b>	<b>-216</b>
International Migration In	+101	+220	+159
International Migration Out	-99	-138	-114
<b>Net International Migration</b>	<b>+2</b>	<b>+83</b>	<b>+45</b>
<b>Total Net Migration</b>	<b>+71</b>	<b>+703</b>	<b>-171</b>

Source: ONS mid-year sub-national population estimates for mid-2002 to mid-2011, revised following the 2011 Census (30 April 2013)

2.2 This scenario is a reasonable proxy for what can be expected to occur in migration terms going forward, particularly as these long term past trends show that migration has fluctuated significantly during this period, and therefore this scenario represents a ‘smoothed’ trend. For the south east Staffordshire HMA as a whole, this scenario would lead to a growth in the population totalling c.22,390 by 2028, of which 9,254 would be from natural change and 13,135 from net in-migration. The table indicates that migration is by far the greatest driver of population growth in Lichfield with natural change playing a subordinate role, whilst for both Tamworth and Cannock Chase the reverse is true.

Table 2.2 Summary of Long Term Annual Average Migration Trends Scenario L 2011-28

2011-28	Cannock Chase	Lichfield	Tamworth	South East Staffordshire
Population Change	+4,702	+11,546	+6,140	+22,388
of which Natural Change	+4,244	-1,820	+6,829	+9,254
of which Net Migration	+458	+13,366	-689	+13,135
Household Change	+3,851	+6,473	+3,939	+14,263
Dwelling Change	+3,966	+6,680	+4,036	+14,682
Dwellings p.a.	<b>+233</b>	<b>+393</b>	<b>+237</b>	<b>+864</b>
Economic Activity	-1,815	+752	-875	-1,938
Jobs	-459	+1,274	+89	+904

Source: NLP Analysis Using PopGroup

2.3 This scenario would lead to household growth totalling 14,260 between 2011 and 2028 in the HMA. Taking account of the dwelling vacancy and second home rate, this generates a requirement for 14,682 new dwellings over the 17-year period in the HMA, equivalent to **864 dpa**. At district level, this equates to 233 dpa in Cannock Chase; 393 dpa in Lichfield and 237 dpa in Tamworth.

#### Scenario M: Short Term Past Migration Trends

2.4 The short term past migration trends scenario is similar to Scenario L, in that it is based on past observed trends. However, it is based upon only the previous five years of migration, during which there has been a lower observed level of net domestic in-migration and lower levels of net international in-migration as well. Therefore, this scenario is based upon the migration levels outlined in Table 2.3.

Table 2.3 Short Term Annual Average Migration Trends (Mid-2007 – Mid-2011)

Migration Type	Cannock Chase	Lichfield	Tamworth
Domestic Migration In	+3,245	+4,803	+2,709
Domestic Migration Out	-3,283	-4,301	-2,887
<b>Net Domestic Migration</b>	<b>-38</b>	<b>+502</b>	<b>-178</b>
International Migration In	+118	+254	+189
International Migration Out	-103	-163	-117
<b>Net International Migration</b>	<b>+15</b>	<b>+91</b>	<b>+72</b>
<b>Total Net Migration</b>	<b>-22</b>	<b>+593</b>	<b>-106</b>

Source: ONS mid-year sub-national population estimates for mid-2007 to mid-2011, revised following the 2011 Census (30 April 2013)

2.5 This scenario would lead to a population increase of 21,540 over the period 2011 to 2028 in the HMA. This would comprise 9,233 more people associated with natural change factors and 12,307 from net in-migration. Similar patterns are observed as before, with in-migration driving growth in Lichfield in stark contrast to Cannock Chase and Tamworth. This would lead to a growth in the number of households in the south east Staffordshire HMA of 13,960 between 2011 and 2028, which would equate to a total dwelling requirement of 14,368 dwellings. This would be the equivalent of **845 dpa**, a slightly lower rate than the longer term trends would suggest.

2.6 As illustrated in Table 2.4, at district level, this equates to 220 dpa in Cannock Chase; 379 dpa in Lichfield and 246 dpa in Tamworth. These figures are lower for Cannock Chase and Lichfield than the long term trend scenario suggested, but slightly higher for Tamworth.

Table 2.4 Summary of Short Term Annual Average Migration Trends Scenario M 2011-28

2011-28	Cannock Chase	Lichfield	Tamworth	South East Staffordshire
Population Change	+4,114	+10,872	+6,555	+21,540
of which Natural Change	+4,219	-1,840	+6,854	+9,233
of which Net Migration	-106	+12,712	-299	+12,307
Household Change	+3,637	+6,235	+4,087	+13,960
Dwelling Change	+3,746	+6,435	+4,188	+14,368
Dwellings p.a.	<b>+220</b>	<b>+379</b>	<b>+246</b>	<b>+845</b>
Economic Activity	-2,142	+397	-636	-2,381
Jobs	-699	+967	+282	+550

Source: NLP Analysis Using PopGroup

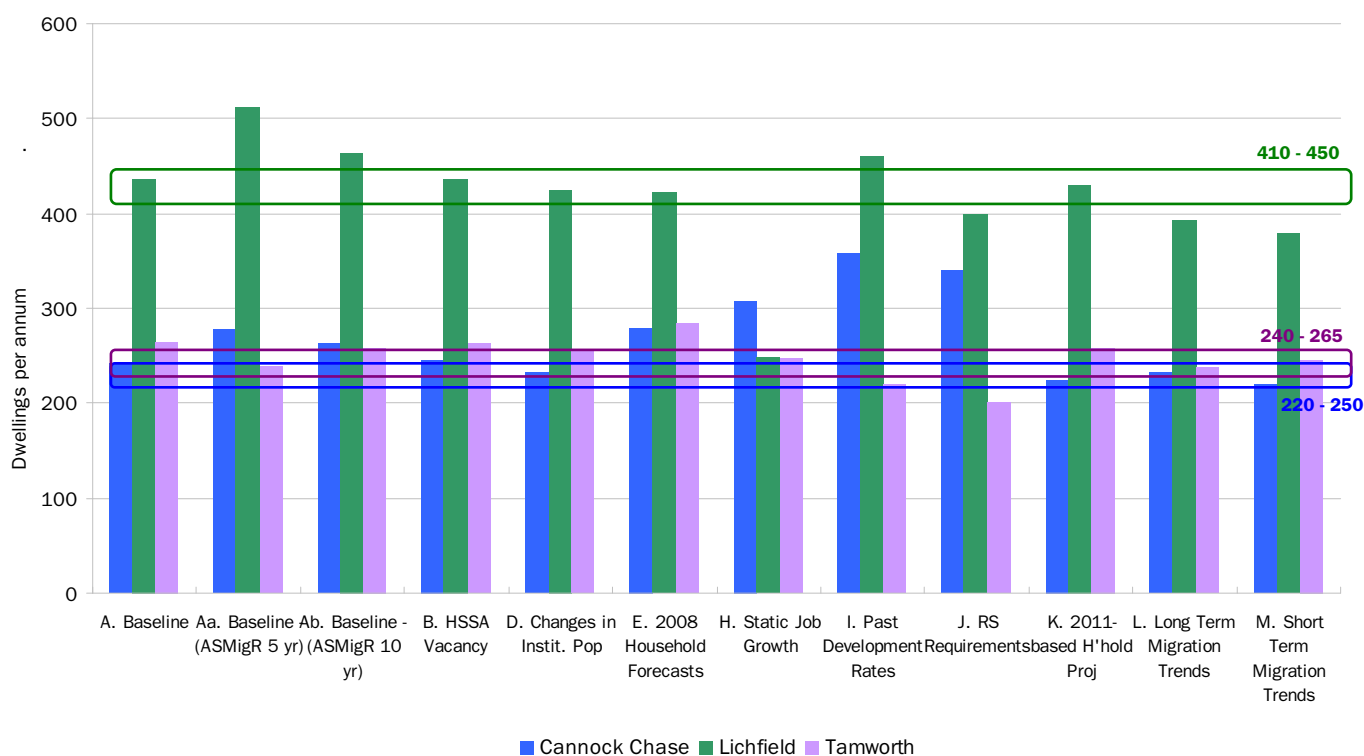
3.0

**Conclusions**

3.1

Figure 3.1 demonstrates the extent to which the updated migration statistics underpinning Scenarios L and M compare with the previously modelled scenarios (excluding the less realistic/unsustainable projections) and the (updated) recommended range for each of the three districts. It is re-iterated that the previous HEaDROOM report sought to balance the various economic, social and environmental sustainability criterion to inform a suitable housing requirement for each of the three districts, which is beyond the scope of this Addendum.

Figure 3.1 Summary of Retained Scenarios, including 2011-based CLG Household Projections



Source: NLP Analysis of PopGroup Outputs

3.2

As can be seen in Figure 3.1, the more recent estimates of migration trends demonstrate lower levels of housing requirement, associated with lower levels of net in-migration, in **Lichfield**. The figures of 393 dpa and 379 dpa for Scenarios L and M respectively are both below the recommended range of 410-450 dpa. This lends further weight towards justifying a figure towards the lower end of this range.

3.3

The **Cannock Chase** migration scenario figures of 233 dpa (K) and 220 dpa (L) sit either side of the 2011-based household projection scenario of 224 dpa. Furthermore, they are significantly below the original range of 250-280 dpa, which was subsequently reduced to 220-250 dpa in the 2013 HEaDROOM

update. The latest migration statistics therefore add further validity to the reduction in housing requirement, particularly towards the lower end of this revised range.

- 3.4 The migration trend scenario figures of 237 dpa (K) and 246 dpa (L) for **Tamworth** are both lower than both the previous PopGroup Baseline (264 dpa) and the latest household projections (259 dpa for Scenario K). The latest scenarios suggest a figure towards the lower end of the recommended range of 240-265 dpa.
- 3.5 For **south-east Staffordshire** as a whole, the migration-led scenarios both lend further weight towards the need for a lower range of housing requirements than was originally set out in the 2011 HEaDROOM report (900-995 dpa). As such, they suggest that for the HMA as a whole, a range of 870-965 dpa (as set out in the 2013 Housing Needs Study Update) and particularly the lower end of that range, would be appropriate for the area moving forward to 2028.
- 3.6 The overall 903 dpa figure that the three Councils are currently planning to provide to meet the needs of residents in their respective (emerging) Local Plans sits within this range.

# Appendix 1 HEaDROOM Modelling Results

Population Estimates and Forecasts

10-Year Migration Trends

Components of Population Change

Cannock Chase

Year beginning July 1st .....

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Births</b>																									
Male	636	636	639	634	628	620	611	604	597	590	582	573	565	557	549	542	537	534	531	529	528	529	530	532	
Female	605	606	608	604	598	590	582	575	569	562	554	546	538	530	523	517	512	508	505	504	503	504	505	507	
All Births	1,241	1,242	1,247	1,239	1,227	1,210	1,192	1,179	1,166	1,151	1,136	1,118	1,103	1,087	1,073	1,059	1,049	1,042	1,036	1,033	1,032	1,032	1,035	1,039	
TFR	2.03	2.03	2.03	2.01	1.99	1.96	1.94	1.92	1.91	1.90	1.89	1.88	1.87	1.86	1.85	1.84	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Deaths</b>																									
Male	441	437	431	437	444	445	447	450	456	461	466	470	475	479	484	491	498	505	511	518	524	530	532	536	
Female	451	443	434	439	443	440	440	440	443	448	450	453	457	461	467	473	480	486	492	498	505	512	518	525	
All deaths	892	880	864	876	887	885	887	891	899	909	916	924	932	940	952	964	978	992	1,003	1,016	1,029	1,041	1,050	1,060	
SMR: males	115.7	111.3	106.2	104.5	102.8	99.9	97.2	94.8	93.0	91.2	89.3	87.5	85.8	84.2	82.6	81.5	80.2	79.3	78.1	77.2	76.2	75.3	73.8	72.7	
SMR: females	114.2	109.8	105.4	104.3	102.6	99.9	97.5	95.3	93.4	92.0	89.8	87.9	86.2	84.5	83.3	81.8	80.5	79.2	77.9	76.7	76.0	74.9	73.8	72.8	
SMR: male & female	115.0	110.5	105.8	104.4	102.7	99.9	97.4	95.0	93.2	91.6	89.6	87.7	86.0	84.3	83.0	81.6	80.4	79.3	78.0	76.9	76.1	75.1	73.8	72.8	
Expectation of life	79.9	80.2	80.5	80.7	80.8	81.0	81.2	81.4	81.5	81.7	81.8	82.0	82.1	82.2	82.4	82.5	82.6	82.7	82.8	82.9	83.0	83.1	83.2	83.3	

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>In-migration from the UK</b>																									
Male	1,560	1,594	1,625	1,629	1,659	1,666	1,675	1,681	1,688	1,695	1,678	1,648	1,650	1,650	1,650	1,649	1,648	1,645	1,643	1,641	1,639	1,637	1,635	1,634	
Female	1,651	1,677	1,707	1,710	1,734	1,738	1,740	1,743	1,744	1,747	1,724	1,690	1,688	1,688	1,688	1,689	1,690	1,693	1,695	1,697	1,699	1,701	1,703	1,704	
All	3,211	3,270	3,332	3,340	3,393	3,404	3,415	3,424	3,432	3,441	3,400	3,338	3,338	3,338	3,338	3,338	3,338	3,338	3,338	3,338	3,338	3,338	3,338	3,338	
SMigR: males	30.9	31.5	32.1	32.1	32.7	32.8	33.1	33.3	33.6	33.8	33.5	33.1	33.2	33.2	33.3	33.3	33.3	33.3	33.3	33.2	33.2	33.1	33.0	32.9	
SMigR: females	32.3	32.8	33.4	33.5	34.0	34.1	34.3	34.5	34.7	34.9	34.6	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.0	34.0	33.9	

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Out-migration to the UK</b>																									
Male	1,636	1,636	1,661	1,663	1,681	1,675	1,676	1,672	1,667	1,669	1,690	1,626	1,624	1,621	1,618	1,619	1,619	1,621	1,619	1,615	1,614	1,612	1,613	1,612	
Female	1,687	1,693	1,707	1,697	1,726	1,721	1,709	1,704	1,701	1,690	1,710	1,643	1,645	1,648	1,651	1,650	1,650	1,648	1,654	1,655	1,657	1,656	1,656	1,657	
All	3,323	3,330	3,368	3,360	3,407	3,396	3,385	3,376	3,368	3,359	3,400	3,269	3,269	3,269	3,269	3,269	3,269	3,269	3,269	3,269	3,269	3,269	3,269	3,269	
SMigR: males	32.4	32.4	32.8	32.8	33.1	33.0	33.1	33.1	33.1	33.1	33.3	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.8	32.7	32.5	32.4	32.4	32.4	
SMigR: females	33.0	33.1	33.4	33.3	33.8	33.8	33.7	33.7	33.8	33.8	34.3	33.1	33.2	33.3	33.3	33.3	33.3	33.2	33.2	33.2	33.2	33.1	33.0	33.0	

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>In-migration from Overseas</b>																									
Male	66	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	
Female	59	47	47	47	47	47	47	47	47	47	47	47	47	48	48	48	48	48	48	48	48	48	48	48	
All	125	100	100	100	100	100	100	100	100	100	100	101	101	101	101	101	101	101	101	101	101	101	101	101	
SMigR: males	18.9	15.1	15.1	15.1	15.1	15.1	15.1	15.2	15.3	15.4	15.7	15.8	15.9	16.0	16.0	16.0	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.0	
SMigR: females	16.9	13.5	13.5	13.5	13.5	13.6	13.7	13.7	13.8	13.9	14.0	14.2	14.4	14.5	14.6	14.6	14.7	14.7	14.7	14.7	14.6	14.6	14.6	14.6	

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Out-migration to Overseas</b>																									
Male	48	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	
Female	37	44	44	44	44	44	44	44	44	44	44	43	43	43	43	43	43	43	43	43	43	43	43	43	
All	85	100	100	100	100	100	100	100	100	100	99	99	99	99	99	99	99	99	99	99	99	99	99	99	
SMigR: males	13.7	16.1	16.1	16.0	16.0	16.0	16.1	16.2	16.3	16.4	16.4	16.5	16.6	16.7	16.7	16.8	16.8	16.8	16.8	16.8	16.8	16.7	16.7	16.7	
SMigR: females	10.6	12.5	12.5	12.5	12.6	12.6	12.7	12.7	12.8	12.9	13.0	13.0	13.1	13.2	13.2	13.3	13.3	13.4	13.4	13.4	13.3	13.3	13.3	13.3	

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Migration - Net Flows</b>																									
UK	-111	-59	-35	-21	-14	+8	+30	+49	+64	+82	0	+69	+69	+69	+69	+69	+69	+69	+69	+69	+69	+69	+69	+69	
Overseas	+40	0	0	+0	0	0	0	0	0	0	0	+2	+2	+2	+2	+2	+2	+2	+2	+2	+2	+2	+2	+2	

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Summary of population change</b>																									
Natural change	+349	+362	+383	+362	+340	+325	+306	+288	+267	+242	+220	+195	+171	+147	+121	+95	+72	+50	+33	+17	+2	-9	-14	-21	
Net migration	-71	-59	-35	-21	-14	+8	+30	+49	+64	+82	0	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	+71	
Net change	+277	+303	+348	+342	+326	+332	+336	+337	+331	+324	+220	+266	+242	+218	+192	+166	+143	+121	+104	+88	+73	+62	+57	+50	

Summary of Population estimates/forecasts

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Population at mid-year</b>																									
0-4	5,815	5,840	5,866	5,912	5,990	6,037	6,015	5,972	5,913	5,850	5,785	5,717	5,655	5,590	5,522	5,452	5,379	5,312	5,252	5,201	5,161	5,134	5,110	5,114	
5-10	6,501	6,591	6,723	6,836	6,931	6,91																			



**Population Estimates and Forecasts**

**10-Year Migration Trends**

**Components of Population Change**

**Lichfield**

	Year beginning July 1st .....																								
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Births</b>																									
Male	546	544	544	539	542	538	534	533	533	532	530	528	522	517	510	503	498	493	490	487	485	484	483	485	
Female	520	518	518	513	516	513	509	508	507	507	505	503	498	492	486	479	474	470	466	464	462	461	460	462	
All Births	1,066	1,063	1,062	1,052	1,059	1,051	1,044	1,041	1,040	1,039	1,035	1,030	1,020	1,009	996	983	972	963	956	951	947	944	944	946	
TFR	2.01	2.00	1.99	1.96	1.96	1.95	1.91	1.89	1.88	1.87	1.86	1.85	1.84	1.84	1.83	1.82	1.82	1.82	1.82	1.82	1.81	1.81	1.81	1.81	
<b>Deaths</b>																									
Male	480	492	497	506	515	525	536	545	555	566	577	587	596	606	617	628	640	650	661	671	681	690	699	707	
Female	538	540	542	546	550	556	560	567	574	584	592	604	611	622	630	641	653	668	681	694	707	723	736	747	
All deaths	1,018	1,032	1,039	1,053	1,065	1,081	1,096	1,112	1,130	1,151	1,169	1,191	1,207	1,227	1,247	1,269	1,293	1,318	1,341	1,365	1,389	1,413	1,435	1,454	
SMR: males	101.1	99.5	97.0	95.0	93.1	91.3	89.6	87.7	86.1	84.6	83.1	81.7	80.3	79.0	78.0	77.1	76.2	75.2	74.4	73.7	73.1	72.3	71.6	71.0	
SMR: females	110.9	108.6	106.0	103.9	101.3	99.4	97.1	95.2	93.2	91.7	89.6	88.2	86.4	85.2	83.6	82.4	81.3	80.5	79.5	78.8	78.0	77.5	76.9	76.0	
SMR: male & female	106.1	104.1	101.5	99.4	97.1	95.3	93.3	91.4	89.6	88.0	86.3	84.9	83.3	82.0	80.7	79.7	78.7	77.8	76.9	76.2	75.5	74.9	74.2	73.5	
Expectation of life	81.0	81.1	81.3	81.5	81.7	81.9	82.0	82.2	82.4	82.5	82.7	82.8	82.9	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.9	84.0	84.0	
<b>In-migration from the UK</b>																									
Male	1,933	2,430	2,436	2,448	2,449	2,477	2,484	2,493	2,521	2,526	2,527	2,355	2,359	2,361	2,361	2,362	2,360	2,358	2,358	2,356	2,352	2,348	2,346	2,345	
Female	2,151	2,695	2,705	2,712	2,710	2,739	2,743	2,751	2,779	2,781	2,773	2,580	2,576	2,574	2,574	2,575	2,577	2,577	2,579	2,583	2,587	2,589	2,590	2,590	
All	4,084	5,125	5,141	5,160	5,159	5,216	5,227	5,244	5,300	5,307	5,300	4,935	4,935	4,935	4,935	4,935	4,935	4,935	4,935	4,935	4,935	4,935	4,935	4,935	
SMigR: males	39.4	49.4	49.4	49.8	49.8	49.8	49.8	49.8	50.0	50.5	50.6	50.5	46.9	47.0	46.9	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	
SMigR: females	45.1	56.5	56.7	56.8	56.5	57.0	56.9	57.0	57.4	57.3	56.9	52.8	52.7	52.5	52.4	52.3	52.2	52.0	51.7	51.5	51.3	51.2	51.0	50.9	
Migrants input	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Out-migration to the UK</b>																									
Male	1,690	2,144	2,146	2,148	2,143	2,164	2,157	2,152	2,171	2,167	2,165	2,077	2,079	2,077	2,072	2,083	2,079	2,074	2,068	2,072	2,073	2,070	2,068	2,066	
Female	1,846	2,331	2,313	2,292	2,298	2,320	2,316	2,305	2,329	2,326	2,336	2,236	2,238	2,243	2,242	2,243	2,246	2,241	2,247	2,243	2,242	2,245	2,247	2,249	
All	3,536	4,475	4,459	4,440	4,441	4,484	4,473	4,456	4,500	4,493	4,500	4,315	4,315	4,315	4,315	4,315	4,315	4,315	4,315	4,315	4,315	4,315	4,315	4,315	
SMigR: males	34.5	43.6	43.5	43.4	43.2	43.6	43.3	43.2	43.5	43.4	43.3	41.4	41.3	41.2	41.3	41.1	41.0	40.7	40.6	40.5	40.3	40.1	40.0	40.0	
SMigR: females	38.7	48.9	48.5	48.0	47.9	48.3	48.1	47.8	48.1	47.9	47.9	45.8	45.7	45.7	45.6	45.4	45.3	45.2	45.1	44.8	44.6	44.4	44.3	44.2	
Migrants input	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>In-migration from Overseas</b>																									
Male	152	160	160	160	160	160	160	160	160	160	159	117	117	117	117	117	117	117	117	117	117	117	117	117	
Female	133	140	140	140	140	140	140	140	140	140	141	103	103	103	103	103	103	103	103	103	103	103	103	103	
All	285	300	300	300	300	300	300	300	300	300	300	220	220	220	220	220	220	220	220	220	220	220	220	220	
SMigR: males	45.9	47.9	47.7	47.5	47.6	47.6	47.6	47.6	47.7	47.8	47.9	35.2	35.4	35.5	35.7	35.7	35.6	35.6	35.5	35.4	35.2	35.1	34.9	34.9	
SMigR: females	42.5	44.5	44.3	44.2	44.1	44.1	44.2	44.2	44.3	44.3	44.4	32.7	32.8	33.0	33.1	33.2	33.3	33.3	33.2	33.1	33.0	32.9	32.8	32.7	
Migrants input	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Out-migration to Overseas</b>																									
Male	75	111	111	111	111	111	111	111	111	111	111	76	76	76	76	76	76	76	76	76	76	76	76	76	
Female	60	89	89	89	89	89	89	89	89	89	89	62	62	62	62	62	62	62	62	62	62	62	62	62	
All	135	200	200	200	200	200	200	200	200	200	200	138	138	138	138	138	138	138	138	138	138	138	138	138	
SMigR: males	22.6	33.3	33.1	33.0	33.0	33.0	33.1	33.2	33.2	33.3	33.3	23.0	23.1	23.2	23.3	23.3	23.3	23.3	23.2	23.2	23.1	23.0	22.9	22.8	
SMigR: females	19.2	28.3	28.1	28.1	28.0	28.0	28.0	28.0	28.1	28.2	28.2	19.5	19.6	19.7	19.8	19.9	19.9	19.9	19.9	19.8	19.8	19.7	19.6	19.5	
Migrants input	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Migration - Net Flows</b>																									
<b>UK</b>																									
Overseas	+548	+650	+681	+720	+719	+731	+753	+787	+800	+814	+800	+620	+620	+620	+620	+620	+620	+620	+620	+620	+620	+620	+620	+620	
Overseas	+150	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	+82	
<b>Summary of population change</b>																									
Natural change	+48	+31	+23	-1	-6	-30	-52	-71	-90	-112	-134	-161	-187	-219	-251	-286	-321	-354	-385	-415	-442	-469	-491	-508	
Net migration	+698	+750	+781	+820	+819	+831	+853	+887	+900	+914	+900	+702	+702	+702	+702	+702	+702	+702	+702	+702	+702	+702	+702	+702	
Net change	+746	+781	+804	+819	+813	+801	+801	+816	+810	+802	+766	+541	+515	+483	+451	+416	+348	+317	+287	+260	+233	+211	+194	+194	
<b>Summary of Population estimates/forecasts</b>																									
<i>Population at mid-year</i>																									
0-4	5,285	5,336	5,431	5,517	5,623	5,646	5,641	5,625	5,603	5,588	5,566	5,550	5,522	5,489	5,445	5,393	5,333	5,271	5,210	5,156	5,110	5,075	5,048	5,029	5,020
5-10	6,457	6,593	6,704	6,805	6,818	6,994	7,098	7,177	7,284	7,377	7,500	7,529	7,495	7,448	7,401	7,357	7,302	7,253	7,205	7,152	7,086	7,012	6,935	6,857	6,785
11-15	5,846	5,811	5,695	5,620	5,638	5,642	5,742	5,894	5,998	6,047	6,134	6,215	6,299	6,405	6,507	6,656	6,832	7,036	7,268	7,527	7,812	8,121	8,454	8,811	9,189
16-17	2,507	2,410	2,415	2,458	2,409	2,325	2,270	2,248	2,254	2,342	2,347	2,386	2,506	2,518	2,507	2,489	2,550	2,674	2,718	2,722	2,709	2,699	2,682	2,648	2,623
18-59 Female, 64 Male	56,550	56,448	56,374	56,314	56,489	56,610	56,809	56,857	56,948	57,044	57,085	56,967	56,902	56,822	56,634	56,451	56,298	56,158	56,054	55,989	55,945	55,962	55,988	56,036	
60-65-74	15,842	16,306	16,842	17,594	17,559	17,130	17,077	16,969	16,832	16,899	16,653	16,544	16,616	16,805	17,086	17,460	17,785	18,010	18,276	18,644	19,114	19,642	19,165	19,257	
75-84	6,123	6,403	6,726	7,083	7,353	7,612	8,029	8,452	8,953	9,409	9,759	10,360	10,843	11,074	11,243	11,390	11,543	11,518	11,259	11,128	11,138	10,856	10,744	10,754	10,819
85+	2,301	2,392	2,451	2,542	2,673	2,825	2,956	3,136	3,283	3,463	3,614	3,829	4,035	4,273	4,480	4,687	4,981	5,307	5,658	5,998	6,239	6,724	7,089	7,302	7,453
Total	100,911	101,657	102,438	103,242	104,061	104,874	105,675	106,476	107,232	108,103	108,905	109,670	110,212	110,726	111,210	111,661	112,076	112,457	112,805	113,122	113,409	113,669	113,902	114,113	114,308
<b>Population impact of constraint</b>																									
Number of persons	+960	+1,666	+50	+81	+120	+119	+31	+53	+87	+0	+14	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Households</b>																									
Number of Households	41,324	41,733	42,157	42,578	43,029	43,439	43,840	44,209	44,596	44,984	45,368	45,821	46,204	46,559	46,894	47,241	47,528	47,797	48,051						



**Population Estimates and Forecasts**

**5-Year Migration Trends**

**Components of Population Change**

**Cannock Chase**

	Year beginning July 1st .....																								
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Births</b>																									
Male	636	636	639	634	628	620	611	604	597	590	582	573	564	555	546	538	532	527	523	520	519	518	519	520	
Female	605	606	608	604	598	590	582	575	569	562	554	546	537	528	520	512	507	502	498	496	494	494	494	495	
All Births	1,241	1,242	1,247	1,239	1,227	1,210	1,192	1,179	1,166	1,151	1,136	1,118	1,100	1,083	1,066	1,050	1,038	1,029	1,021	1,016	1,013	1,012	1,013	1,016	
TFR	2.03	2.03	2.03	2.01	1.99	1.96	1.94	1.92	1.91	1.90	1.89	1.88	1.87	1.86	1.85	1.84	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	
<b>Deaths</b>																									
Male	441	437	431	437	444	445	447	450	456	461	466	470	475	479	483	490	496	504	510	516	522	527	529	533	
Female	451	443	434	439	443	440	440	440	443	448	450	453	457	460	467	472	479	485	490	496	503	509	515	521	
All deaths	892	880	864	876	887	885	887	891	899	909	916	924	932	939	950	962	975	989	1,000	1,012	1,024	1,036	1,044	1,054	
SMR: males	115.7	111.3	106.2	104.5	102.8	99.9	97.2	94.8	93.0	91.2	89.3	87.5	85.8	84.2	82.6	81.5	80.2	79.3	78.1	77.2	76.2	75.3	73.8	72.7	
SMR: females	114.2	109.8	105.4	104.3	102.6	99.9	97.5	95.3	93.4	92.0	89.8	87.9	86.2	84.5	83.3	81.8	80.5	79.2	77.9	76.7	76.0	74.9	73.8	72.8	
SMR: male & female	115.0	110.5	105.8	104.4	102.7	99.9	97.4	95.0	93.2	91.6	89.6	87.7	86.0	84.3	83.0	81.6	80.4	79.3	78.0	76.9	76.1	75.1	73.8	72.8	
Expectation of life	79.9	80.2	80.5	80.7	80.8	81.0	81.2	81.4	81.5	81.7	81.8	82.0	82.1	82.2	82.4	82.5	82.6	82.7	82.8	82.9	83.0	83.1	83.2	83.3	
<b>Deaths input</b>																									
<b>In-migration from the UK</b>																									
Male	1,560	1,594	1,625	1,629	1,659	1,666	1,675	1,681	1,688	1,695	1,676	1,602	1,604	1,604	1,604	1,604	1,603	1,601	1,599	1,597	1,595	1,593	1,591	1,590	
Female	1,651	1,677	1,707	1,710	1,734	1,738	1,740	1,743	1,744	1,747	1,724	1,643	1,641	1,641	1,641	1,641	1,642	1,644	1,646	1,648	1,650	1,652	1,654	1,655	
All	3,211	3,270	3,332	3,340	3,393	3,404	3,415	3,424	3,432	3,441	3,400	3,245	3,245	3,245	3,245	3,245	3,245	3,245	3,245	3,245	3,245	3,245	3,245	3,245	
SMigR: males	30.9	31.5	32.1	32.1	32.7	32.8	33.1	33.3	33.6	33.8	33.5	32.1	32.3	32.4	32.5	32.6	32.6	32.6	32.6	32.6	32.5	32.5	32.4	32.4	
SMigR: females	32.3	32.8	33.4	33.5	34.0	34.1	34.3	34.5	34.7	34.9	34.6	33.1	33.2	33.3	33.3	33.3	33.4	33.5	33.5	33.5	33.5	33.5	33.5	33.5	
<b>Migrants input</b>																									
<b>Out-migration to the UK</b>																									
Male	1,636	1,636	1,661	1,663	1,681	1,675	1,676	1,672	1,667	1,669	1,690	1,633	1,631	1,629	1,625	1,626	1,626	1,628	1,626	1,623	1,622	1,620	1,621	1,620	
Female	1,687	1,693	1,707	1,697	1,726	1,721	1,709	1,704	1,701	1,690	1,710	1,650	1,652	1,654	1,658	1,657	1,657	1,656	1,657	1,660	1,661	1,663	1,662	1,663	
All	3,323	3,329	3,368	3,360	3,407	3,396	3,385	3,376	3,368	3,359	3,400	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	
SMigR: males	32.4	32.4	32.8	32.8	33.1	33.0	33.1	33.1	33.1	33.3	33.8	32.8	32.9	32.9	32.9	33.0	33.1	33.2	33.2	33.1	33.1	33.0	33.0	33.0	
SMigR: females	33.0	33.1	33.4	33.3	33.8	33.8	33.7	33.7	33.8	33.8	34.3	33.3	33.4	33.5	33.6	33.6	33.7	33.7	33.7	33.7	33.7	33.7	33.7	33.7	
<b>Migrants input</b>																									
<b>In-migration from Overseas</b>																									
Male	66	53	53	53	53	53	53	53	53	53	53	62	62	62	62	62	62	62	62	62	62	62	62	62	
Female	59	47	47	47	47	47	47	47	47	47	47	56	56	56	56	56	56	56	56	56	56	56	56	56	
All	125	100	100	100	100	100	100	100	100	100	100	118	118	118	118	118	118	118	118	118	118	118	118	118	
SMigR: males	16.9	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.2	15.3	15.4	18.4	18.5	18.6	18.7	18.8	18.9	19.0	19.0	19.0	19.0	19.0	19.0	19.0	
SMigR: females	16.9	13.5	13.5	13.5	13.5	13.6	13.7	13.7	13.8	13.9	14.0	16.6	16.8	17.0	17.1	17.2	17.3	17.3	17.3	17.3	17.4	17.3	17.3	17.3	
<b>Migrants input</b>																									
<b>Out-migration to Overseas</b>																									
Male	48	56	56	56	56	56	56	56	56	56	56	58	58	58	58	58	58	58	58	58	58	58	58	58	
Female	37	44	44	44	44	44	44	44	44	44	44	44	45	45	45	45	45	45	45	45	45	45	45	45	
All	85	100	100	100	100	100	100	100	100	100	100	103	103	103	103	103	103	103	103	103	103	103	103	103	
SMigR: males	13.7	16.1	16.1	16.0	16.0	16.0	16.1	16.1	16.2	16.3	16.4	17.1	17.2	17.3	17.4	17.5	17.6	17.6	17.6	17.7	17.7	17.7	17.7	17.7	
SMigR: females	10.6	12.5	12.5	12.5	12.6	12.6	12.7	12.7	12.8	12.9	13.0	13.5	13.6	13.7	13.8	13.9	14.0	14.0	14.1	14.1	14.1	14.1	14.1	14.0	
<b>Migrants input</b>																									
<b>Migration - Net Flows</b>																									
UK	-111	-58	-35	-21	-14	+8	+30	+49	+64	+82	0	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	-38	
Overseas	+40	0	0	+0	0	0	0	0	0	0	0	+15	+15	+15	+15	+15	+15	+15	+15	+15	+15	+15	+15	+15	
<b>Summary of population change</b>																									
Natural change	+349	+362	+383	+362	+340	+325	+308	+288	+267	+242	+220	+195	+169	+144	+116	+88	+63	+40	+22	+4	-11	-24	-31	-38	
Net migration	-71	-59	-35	-21	-14	+8	+30	+49	+64	+82	0	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	
Net change	+277	+303	+348	+342	+326	+332	+336	+337	+331	+324	+220	+172	+146	+121	+93	+65	+40	+17	-1	-19	-34	-47	-54	-61	
<b>Summary of Population estimates/forecasts</b>																									
<i>Population at mid-year</i>																									
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	
0-4	5,815	5,840	5,866	5,912	5,990	6,037	6,015	5,872	5,913	5,850	5,785	5,717	5,647	5,573	5,496	5,416	5,333	5,255	5,185	5,124	5,075	5,038	5,013	4,997	4,991
5-10	6,501	6,591	6,723	6,836	6,831	6,915	6,935	6,979	7,022	7,073	7,147	7,179	7,140	7,082	7,008	6,926	6,844	6,760	6,675	6,586	6,494	6,400	6,306	6,220	6,143
11-15	6,028	5,820	5,545	5,389	5,370	5,327	5,437	5,564	5,692	5,730	5,794	5,771	5,815	5,855	5,913	5,996	6,044	6,021	5,976	5,912	5,843	5,772	5,705	5,637	5,565
16-17	2,581	2,504	2,592	2,517	2,355	2,260	2,186	2,120	2,095	2,180	2,201	2,257	2,354	2,349	2,347	2,304	2,298	2,377	2,437	2,448	2,446	2,428	2,400	2,368	2,339
18-59 Female, 64 Male	57,756	57,701	57,619	57,594	57,598	57,565	57,524	57,426	57,194	57,069	56,900	56,631	56,298	55,971	55,713	55,380	55,031	54,639	54,246	53,933	53,630	53,390	53,170	52,965	52,888
60-65-74	12,094	12,410	12,626	13,043	13,270	13,372	13,356	13,270	13,157	13,095	13,076	13,046	13,046	13,054	13,069	13,077	13,077	13,077	13,077	13,077	13,077	13,077	13,077	13,077	13,077
75-84	4,987	5,106	5,224	5,388	5,556	5,625	5,774	6,048	6,331	6,629	6,924	7,207	7,490	7,662	7,861	8,036	8,114	8,147	8,208	8,191	8,217	8,122	8,112	8,240	8,263
85+	1,820	1,887	1,974	2,049	2,109	2,179	2,267	2,344	2,419	2,498	2,612	2,750	2,887	3,029	3,165	3,245	3,381	3,579	3,775	3,982	4,145	4,452	4,672	4,854	5,027
<b>Total</b>	97,562	97,859	98,163	98,510	98,852	99,176	99,510	99,846	100,183	100,514	100,838	101,059	101,230	101,376	101,497	101,590	101,655	101,696	101,715	101,712	101,693	101,658	101,611	101,557	101,486
<b>Population impact of constraint</b>																									
Number of persons	+2,402	-79	-59	+65	+79	-14	+8	+30	+49	+64	+82														
<b>Households</b>																									
Number of Households	40,704	40,951	41,141	41,390	41,611	41,859	42,111	42,330	42,572	42,806	43,022	43,228	43,414	43,602	43,778	43,973	44,174	44,342	44,530	44,670	44,827	44,943	45,035	45,130	45,180
Change over previous year	+1,083	+247	+190	+221	+248	+252	+218	+243	+233	+216	+198	+186	+188	+176	+194	+201	+188	+198	+199	+157	+116	+92	+95	+49	
Number of supply units	41,320	42,174	42,370	42,638	42,853	43,109	43,369	43,594																	

Population Estimates and Forecasts

5-Year Migration Trends

Components of Population Change

Lichfield

	Year beginning July 1st .....																								
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Births</b>																									
Male	546	544	544	539	542	538	534	533	533	532	530	528	521	514	507	499	492	487	482	478	475	473	472	472	
Female	520	518	518	513	516	513	509	508	507	507	505	503	496	490	483	475	469	463	459	455	452	450	449	449	
All Births	1,066	1,063	1,062	1,052	1,059	1,051	1,044	1,041	1,040	1,039	1,035	1,030	1,018	1,004	989	974	961	950	941	933	927	923	921	921	
TFR	2.01	2.00	1.99	1.96	1.95	1.93	1.91	1.89	1.88	1.87	1.86	1.85	1.84	1.84	1.83	1.82	1.82	1.82	1.82	1.82	1.81	1.81	1.81	1.81	
Births input																									
<b>Deaths</b>																									
Male	480	482	497	506	515	525	536	545	555	566	577	587	596	605	616	627	638	648	658	668	678	687	695	703	
Female	538	540	542	546	550	556	560	567	574	584	592	604	610	621	629	639	651	665	677	691	703	718	731	741	
All deaths	1,018	1,032	1,039	1,053	1,065	1,081	1,096	1,112	1,129	1,159	1,169	1,191	1,206	1,225	1,244	1,265	1,289	1,312	1,335	1,358	1,381	1,405	1,426	1,444	
SMR: males	101.1	99.5	97.0	95.0	93.1	91.3	89.6	87.7	86.1	84.6	83.1	81.7	80.3	79.0	78.0	77.1	76.2	75.2	74.4	73.7	73.1	72.3	71.6	71.0	
SMR: females	110.9	108.6	106.0	103.9	101.3	99.4	97.1	95.2	93.2	91.7	89.6	88.3	86.4	85.2	83.6	82.4	81.3	80.5	79.5	78.8	78.0	77.5	76.8	76.0	
SMR: male & female	106.1	104.1	101.5	99.4	97.1	95.3	93.3	91.4	89.6	88.0	86.3	84.9	83.3	82.0	80.7	79.7	78.7	77.8	76.9	76.2	75.5	74.9	74.2	73.5	
Expectation of life	81.0	81.1	81.3	81.5	81.7	81.9	82.0	82.2	82.4	82.5	82.7	82.8	82.9	83.1	83.2	83.3	83.4	83.5	83.6	83.7	83.8	83.9	84.0	84.0	
Deaths input																									
<b>In-migration from the UK</b>																									
Male	1,933	2,430	2,436	2,448	2,449	2,477	2,484	2,493	2,521	2,526	2,527	2,292	2,296	2,299	2,300	2,301	2,299	2,298	2,298	2,296	2,293	2,289	2,288	2,286	
Female	2,151	2,695	2,705	2,712	2,710	2,739	2,743	2,751	2,779	2,781	2,773	2,511	2,507	2,504	2,503	2,502	2,504	2,505	2,505	2,507	2,510	2,514	2,515	2,517	
All	4,084	5,125	5,141	5,160	5,159	5,216	5,227	5,244	5,300	5,307	5,300	4,803	4,803	4,803	4,803	4,803	4,803	4,803	4,803	4,803	4,803	4,803	4,803	4,803	
SMiGR: males	39.4	49.4	49.4	49.5	49.4	49.8	49.9	50.0	50.5	50.6	50.5	45.7	45.8	45.9	45.9	45.8	45.8	45.7	45.7	45.5	45.3	45.1	45.0	44.9	
SMiGR: females	45.1	56.5	56.7	56.8	56.5	57.0	56.9	57.0	57.4	57.3	56.9	51.4	51.3	51.2	51.2	51.1	51.0	50.8	50.7	50.6	50.4	50.4	50.4	50.3	
Migrants input																									
<b>Out-migration to the UK</b>																									
Male	1,890	2,144	2,146	2,148	2,143	2,164	2,157	2,152	2,171	2,167	2,165	2,070	2,072	2,071	2,066	2,078	2,073	2,069	2,064	2,068	2,069	2,067	2,065	2,063	
Female	1,840	2,331	2,313	2,292	2,298	2,320	2,316	2,305	2,329	2,328	2,335	2,231	2,229	2,230	2,235	2,223	2,228	2,232	2,237	2,233	2,232	2,234	2,236	2,238	
All	3,536	4,475	4,459	4,440	4,441	4,484	4,473	4,456	4,500	4,493	4,500	4,301	4,301	4,301	4,301	4,301	4,301	4,301	4,301	4,301	4,301	4,301	4,301	4,301	
SMiGR: males	34.5	43.6	43.5	43.4	43.2	43.6	43.3	43.2	43.5	43.4	43.3	41.2	41.3	41.3	41.2	41.4	41.3	41.2	41.0	41.0	40.9	40.7	40.6	40.5	
SMiGR: females	38.7	49.9	48.5	48.0	47.9	48.3	48.1	47.8	48.1	47.9	47.9	45.6	45.6	45.6	45.7	45.5	45.5	45.4	45.4	45.1	45.0	44.9	44.8	44.8	
Migrants input																									
<b>In-migration from Overseas</b>																									
Male	152	160	160	160	160	160	160	160	160	160	159	135	135	135	135	135	135	135	135	135	136	136	135	136	
Female	133	140	140	140	140	140	140	140	140	140	141	119	119	119	119	119	119	119	119	119	118	118	119	118	
All	285	300	300	300	300	300	300	300	300	300	300	254	254	254	254	254	254	254	254	254	254	254	254	254	
SMiGR: males	45.9	47.9	47.5	47.6	47.6	47.6	47.7	47.8	47.9	47.9	46.6	40.9	41.2	41.4	41.5	41.6	41.5	41.5	41.4	41.4	41.3	41.2	41.1	41.1	
SMiGR: females	42.5	44.5	44.3	44.2	44.1	44.1	44.2	44.2	44.3	44.3	44.4	37.7	38.0	38.2	38.4	38.6	38.7	38.8	38.8	38.7	38.7	38.6	38.5	38.4	
Migrants input																									
<b>Out-migration to Overseas</b>																									
Male	75	111	111	111	111	111	111	111	111	111	111	90	90	90	90	90	90	90	90	90	90	90	90	90	
Female	60	89	89	89	89	89	89	89	89	89	89	73	73	73	73	73	73	73	73	73	73	73	73	73	
All	135	200	200	200	200	200	200	200	200	200	200	163	163	163	163	163	163	163	163	163	163	163	163	163	
SMiGR: males	22.6	33.3	33.1	33.0	33.0	33.0	33.2	33.3	33.3	33.3	33.3	27.2	27.3	27.5	27.6	27.7	27.7	27.7	27.7	27.7	27.6	27.6	27.5	27.4	
SMiGR: females	19.2	28.3	28.1	28.1	28.0	28.0	28.0	28.1	28.1	28.1	28.2	23.0	23.2	23.4	23.5	23.6	23.7	23.8	23.7	23.7	23.7	23.6	23.6	23.5	
Migrants input																									
<b>Migration - Net Flows</b>																									
UK	+548	+650	+681	+720	+719	+731	+753	+787	+800	+814	+800	+502	+501	+502	+502	+502	+502	+502	+502	+502	+502	+502	+502	+502	
Overseas	+150	+100	+100	+100	+100	+100	+100	+100	+100	+100	+100	+91	+91	+91	+91	+91	+91	+91	+91	+91	+91	+91	+91	+91	
<b>Summary of population change</b>																									
Natural change	+48	+31	+23	-1	-6	-30	-52	-71	-90	-112	-134	-161	-189	-221	-255	-292	-328	-363	-396	-426	-454	-482	-505	-523	
Net migration	+698	+750	+781	+820	+819	+831	+853	+887	+900	+914	+900	+593	+593	+593	+593	+593	+593	+593	+593	+593	+593	+593	+593	+593	
Net change	+746	+781	+804	+819	+813	+801	+801	+816	+810	+802	+766	+432	+404	+372	+338	+301	+265	+230	+198	+168	+139	+111	+88	+70	

Summary of Population estimates/forecasts

	Population at mid-year																								
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
0-4	5,285	5,338	5,431	5,517	5,623	5,646	5,641	5,625	5,603	5,588	5,566	5,550	5,513	5,470	5,416	5,354	5,283	5,210	5,138	5,073	5,017	4,972	4,935	4,906	4,886
5-10	6,457	6,593	6,704	6,805	6,818	6,994	7,098	7,177	7,284	7,377	7,500	7,529	7,487	7,432	7,374	7,260	7,200	7,141	7,077	6,999	6,913	6,823	6,732	6,647	6,571
11-15	5,846	5,811	5,695	5,620	5,638	5,642	5,742	5,894	5,998	6,047	6,134	6,215	6,293	6,395	6,491	6,600	6,627	6,597	6,547	6,490	6,441	6,382	6,331	6,283	6,229
16-17	2,507	2,410	2,415	2,458	2,409	2,325	2,270	2,248	2,347	2,386	2,505	2,515	2,502	2,483	2,541	2,663	2,704	2,705	2,690	2,678	2,658	2,622	2,584	2,549	2,514
18-59Female, 64Male	56,550	56,446	56,374	56,314	56,489	56,610	56,809	56,857	56,948	57,044	57,085	57,128	56,898	56,785	56,618	56,359	56,107	55,886	55,677	55,504	55,369	55,255	55,201	55,158	55,131
60-65-74	15,842	16,286	16,942	16,994	17,059	17,202	17,180	17,087	16,969	16,826	16,699	16,553	16,396	16,200	16,071	15,954	15,849	15,754	15,668	15,592	15,525	15,465	15,410	15,359	15,311
75-84	6,123	6,403	6,726	7,083	7,612	8,029	8,452	8,953	9,409	9,759	10,080	10,388	10,638	10,825	11,029	11,273	11,522	11,793	12,081	12,390	12,720	13,070	13,439	13,826	14,230
85+	2,301	2,392	2,451	2,542	2,673	2,825	2,956	3,136	3,283	3,463	3,614	3,829	4,031	4,265	4,467	4,670	4,859	5,281	5,626	5,962	6,199	6,679	7,039	7,248	7,396
<b>Total</b>	100,911	101,657	102,438	103,242	104,061	104,874	105,675	106,476	107,292	108,103	108,905	109,670	110,403	111,107	111,787	112,452	113,103	113,740	114,364	114,976	115,575	116,162	116,736	117,298	117,849

Population impact of constraint

Number of persons	+960	+1,666	+50	+81	+120	+119	+31	+53	+87	+0	+14														
<b>Households</b>																									
Number of Households	41,324	41,733	42,157	42,578	43,029	43,439	43,840	44,209	44,596	44,984	45,368	45,821	46,166	46,483	46,779	47,086	47,331	47,560	47,771	47,944	48,119	48,258	48,393	48,547	4

**Population Estimates and Forecasts**

**5-Year Migration Trends**

**Components of Population Change**

**Tamworth**

Year beginning July 1st .....

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
<b>Births</b>																									
Male	553	562	563	557	552	549	544	539	536	532	527	522	514	507	499	493	488	484	481	480	479	479	480	482	
Female	526	535	536	531	526	523	518	514	510	506	502	497	490	482	476	470	465	461	458	457	456	456	457	459	
All Births	1,079	1,097	1,098	1,088	1,079	1,072	1,062	1,053	1,046	1,038	1,030	1,018	1,004	989	975	963	953	945	940	937	935	935	937	941	
TFR	2.13	2.16	2.15	2.12	2.09	2.07	2.05	2.03	2.02	2.01	2.00	1.98	1.97	1.96	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.93	1.93	1.93	
<b>Deaths</b>																									
Male	266	271	276	278	288	292	298	303	308	315	320	325	328	332	336	342	345	350	357	361	365	369	373	377	
Female	312	311	312	308	313	314	315	316	322	327	331	337	339	343	349	354	360	366	373	380	386	391	399	405	
All deaths	578	582	588	586	601	607	613	622	630	642	651	661	667	676	685	696	705	716	730	741	751	760	772	782	
SMR: males	98.7	95.8	93.1	89.7	88.5	86.0	84.2	82.0	80.0	78.4	76.7	75.0	73.0	71.6	70.1	68.8	67.3	66.1	65.2	64.1	63.0	61.9	60.9	59.9	
SMR: females	111.6	108.9	106.3	102.6	101.6	99.3	96.8	94.8	92.9	91.4	89.6	88.0	85.8	84.2	82.9	81.5	80.3	79.0	78.1	77.2	76.1	75.1	74.5	73.6	
SMR: male & female	105.3	102.4	99.7	96.0	94.9	92.4	90.1	88.1	86.1	84.5	82.7	81.1	79.0	77.5	76.1	74.7	73.3	72.1	71.2	70.2	69.1	68.1	67.2	66.3	
Expectation of life	80.4	80.6	80.9	81.1	81.2	81.4	81.6	81.8	81.9	82.1	82.3	82.4	82.6	82.7	82.8	82.9	83.0	83.2	83.2	83.2	83.3	83.4	83.5	83.6	
Deaths input																									
<b>In-migration from the UK</b>																									
Male	1,459	1,252	1,382	1,388	1,390	1,447	1,452	1,480	1,463	1,487	1,468	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,326	1,326	1,326	1,325	1,323	1,323	
Female	1,566	1,449	1,477	1,477	1,476	1,523	1,548	1,549	1,550	1,532	1,382	1,382	1,382	1,382	1,382	1,382	1,382	1,382	1,383	1,383	1,383	1,384	1,386	1,386	
All	3,025	2,801	2,859	2,865	2,865	2,971	2,976	3,028	3,032	3,037	3,000	2,709	2,709	2,709	2,709	2,709	2,709	2,709	2,709	2,709	2,709	2,709	2,709	2,709	
SMiGR: males	36.2	33.5	34.1	34.1	34.0	35.3	35.4	36.0	36.0	36.2	35.7	32.2	32.3	32.4	32.4	32.4	32.3	32.3	32.3	32.2	32.1	32.0	31.8	31.8	
SMiGR: females	37.8	34.8	35.4	35.4	35.2	36.3	36.3	36.9	36.9	37.0	36.6	33.0	33.1	33.1	33.1	33.1	33.1	33.1	33.0	32.9	32.8	32.7	32.6	32.5	
Migrants input																									
<b>Out-migration to the UK</b>																									
Male	1,572	1,440	1,464	1,465	1,462	1,458	1,456	1,479	1,478	1,475	1,494	1,438	1,440	1,438	1,436	1,438	1,436	1,436	1,439	1,437	1,435	1,433	1,433	1,432	1,431
Female	1,391	1,460	1,479	1,472	1,474	1,473	1,470	1,495	1,492	1,491	1,506	1,449	1,447	1,449	1,451	1,449	1,451	1,448	1,450	1,452	1,454	1,454	1,455	1,456	
All	3,163	2,900	2,943	2,938	2,936	2,931	2,926	2,974	2,970	2,965	3,000	2,887	2,887	2,887	2,887	2,887	2,887	2,887	2,887	2,887	2,887	2,887	2,887	2,887	
SMiGR: males	39.0	35.6	36.1	36.0	35.8	35.6	35.5	36.0	35.9	35.9	36.3	34.9	35.1	35.1	35.1	35.1	35.0	35.0	34.9	34.8	34.7	34.6	34.4	34.3	
SMiGR: females	38.5	35.1	35.5	35.2	35.1	35.1	35.0	35.6	35.5	35.5	35.9	34.6	34.7	34.7	34.8	34.7	34.7	34.6	34.6	34.5	34.4	34.3	34.2	34.2	
Migrants input																									
<b>In-migration from Overseas</b>																									
Male	124	108	109	109	109	109	109	109	109	110	110	104	104	104	104	104	104	104	104	104	104	104	104	104	
Female	105	92	91	91	91	91	91	91	91	90	85	85	85	85	85	85	85	85	85	85	85	85	85	85	
All	229	200	200	200	200	200	200	200	200	200	189	189	189	189	189	189	189	189	189	189	189	189	189	189	
SMiGR: males	14.2	38.8	38.4	38.5	38.4	38.4	38.5	38.5	38.6	38.7	38.9	38.9	37.1	37.4	37.5	37.7	37.8	37.8	37.7	37.5	37.4	37.3	37.2	37.2	
SMiGR: females	36.8	31.9	31.7	31.6	31.5	31.4	31.4	31.3	31.3	31.4	31.5	29.9	30.1	30.3	30.5	30.6	30.7	30.7	30.7	30.7	30.7	30.6	30.5	30.4	
Migrants input																									
<b>Out-migration to Overseas</b>																									
Male	60	57	57	57	57	114	114	115	115	115	67	67	67	67	67	67	67	67	67	67	67	67	67	67	
Female	45	43	43	43	43	86	86	85	85	85	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
All	105	100	100	100	100	200	200	200	200	200	117	117	117	117	117	117	117	117	117	117	117	117	117	117	
SMiGR: males	21.4	20.3	20.3	20.2	20.2	40.3	40.4	40.5	40.6	40.7	23.9	24.0	24.2	24.3	24.4	24.4	24.4	24.4	24.3	24.2	24.1	24.0	24.0	24.0	
SMiGR: females	15.8	14.9	14.9	14.8	14.8	29.6	29.6	29.5	29.5	29.6	29.7	17.5	17.6	17.7	17.8	17.9	18.0	18.0	18.0	18.0	17.9	17.9	17.9	17.8	
Migrants input																									
<b>Migration - Net Flows</b>																									
UK	-138	-98	-84	-73	-71	+39	+49	+55	+62	+72	0	-178	-178	-178	-178	-178	-178	-178	-178	-178	-178	-178	-178	-178	
Overseas	+124	+100	+100	+100	0	0	0	0	0	0	+72	+72	+72	+72	+72	+72	+72	+72	+72	+72	+72	+72	+72	+72	
<b>Summary of population change</b>																									
Natural change	+501	+515	+511	+501	+478	+466	+449	+431	+416	+396	+378	+357	+337	+313	+290	+267	+248	+229	+210	+195	+184	+175	+165	+158	
Net migration	-14	+1	+16	+27	+29	+39	+49	+55	+62	+72	0	-106	-106	-106	-106	-106	-106	-106	-106	-106	-106	-106	-106	-106	
Net change	+487	+516	+527	+528	+507	+505	+498	+486	+478	+468	+378	+251	+231	+207	+184	+161	+142	+123	+104	+89	+78	+69	+59	+52	
<b>Summary of Population estimates/forecasts</b>																									
Population at mid-year																									
0-4	5,074	5,178	5,215	5,275	5,352	5,424	5,424	5,396	5,357	5,321	5,285	5,245	5,191	5,133	5,071	5,006	4,939	4,875	4,817	4,768	4,730	4,703	4,686	4,678	4,679
5-10	5,460	5,486	5,686	5,859	5,879	5,968	6,103	6,223	6,274	6,331	6,404	6,471	6,544	6,608	6,654	6,700	6,744	6,785	6,822	6,855	6,884	6,909	6,930	6,948	6,964
11-15	4,830	4,804	4,593	4,470	4,526	4,503	4,506	4,619	4,796	4,845	4,935	5,003	5,100	5,145	5,203	5,275	5,340	5,334	5,300	5,256	5,212	5,166	5,118	5,066	5,012
16-17	1,975	1,920	2,003	2,019	1,889	1,844	1,845	1,765	1,699	1,620	1,569	1,537	1,500	1,463	1,426	1,389	1,352	1,315	1,278	1,241	1,204	1,167	1,130	1,093	1,056
18-59 Female, 64 Male	45,726	45,631	45,502	45,402	45,496	45,488	45,438	45,380	45,330	45,205	45,092	45,047	44,849	44,703	44,524	44,402	44,305	44,166	43,995	43,880	43,756	43,700	43,592	43,564	43,589
60-65-74	9,165	9,533	9,999	10,356	10,750	11,190	11,720	12,330	13,020	13,790	14,640	15,570	16,590	17,710	18,940	20,280	21,730	23,290	24,970	26,780	28,730	30,830	33,080	35,500	38,100
75-84	3,467	3,578	3,698	3,851	4,013	4,113	4,257	4,452	4,730	5,072	5,494	5,998	6,544	7,129	7,754	8,420	9,126	9,872	10,658	11,484	12,350	13,256	14,20		

## Appendix 2      Inputs and Assumptions

DEMOGRAPHIC		Scenarios L & M: Past Migration Trends
<b>Population</b>		
<b>Baseline Population</b>	A 2010 baseline population is taken from the 2010 Mid-year population estimates for the three south-east Staffordshire districts, split by age cohort and gender. The population for 2011-2021 is constrained to the 2011-based SNPP for the three districts, by age and sex.	
<b>Births</b>	Future change assumed in the Total Fertility Rate [TFR] uses the birth projections from the ONS 2010-based Interim SNPP. This in turn is used to derive future projected TFRs through PopGroup.	
<b>Deaths</b>	Future change assumed in the SMR uses the death projections from the ONS 2010-based Interim SNPP. This in turn is used to derive future projected SMRs through PopGroup.	
<b>Internal Migration</b>	Gross domestic in and out migration flows are adopted based on forecast migration in Cannock Chase District, Lichfield District and Tamworth Borough from the ONS 2010-based SNPP for 2010, and using the 2011-based Interim SNPP for the actual internal migration flows 2011-2021. This is the sum of internal migration (elsewhere in England) and cross-border migration (elsewhere in the UK) (SNPP Table 5). Internal migration includes moves to all other Local Authority areas, including to neighbouring areas (i.e. a move of two streets might be classed as internal migration if it involves a move to another LA area). Beyond 2021, gross domestic internal migration flows are adopted based on average gross past trends for the past 5/10 years.	
<b>International Migration</b>	Gross international in and out migration flows are adopted based on forecast migration in Cannock Chase District, Lichfield District and Tamworth Borough from the ONS 2010-based SNPP for 2010, and using the 2011-based Interim SNPP for the actual internal migration flows 2011-2021. Beyond 2021, Gross international migration flows are adopted based on average gross past trends for the past 5/10 years.	
<b>Propensity to Migrate (Age Specific Migration Rates)</b>	Age Specific Migration Rates (ASmigR) for both in and out domestic migration are based upon the age profile of migrants to and from Cannock Chase, Lichfield and Tamworth in the 2010-based SNPP. These identify a migration rate for each age cohort within each District (for both in and out flows separately) which is applied to each individual age providing an Age Specific Migration Rate. This then drives the demographic profile of those people moving into and out of each District (but not the total numbers of migrants).	
<b>Housing</b>		
<b>Headship Rates</b>	Headship rates that are specific to Cannock Chase, Lichfield and Tamworth districts and forecast over the period to 2021 were taken from the government data which was used to underpin the 2011-based CLG household forecasts and applied to the demographic forecasts for each year as output by the PopGroup model. These headship rates were split by age cohort and by household typology. These are the most up-to-date headship rates available at the time of writing. Beyond 2021 this is assumed to resume the long term trends identified within the 2008-based household projections with index trends from the 2008-based projections applied to the 2021 end point of the 2011-based household projections.	

DEMOGRAPHIC	Scenarios L & M: Past Migration Trends
<b>Population not in households</b>	The number of population not in households (e.g. those in institutional care) is similarly taken from the assumptions used to underpin the 2011-based CLG household forecasts. No change is assumed to the rate of this from the CLG identified rate.
<b>Vacancy / 2nd Home Rate</b>	A vacancy and second homes rate is applied to the number of households, representing the natural vacancies/not permanently occupied homes which occur within the housing market. This means that more dwellings than households are required to meet needs. The vacancy/second home rate in Lichfield totals 3.1% (estimated using data from the Council Tax Base for Formula Grant Purposes (October 2011), held constant over the forecast period. The equivalent figures for Cannock Chase and Tamworth were 2.9% and 2.4% respectively.
Economic	
<b>Economic Activity Rate</b>	<p>Age and gender specific economic activity rates are used. The basis for this is ONS 2006-based National Labour Force Projections. The economic activity annual growth rates for each age cohort from these national projections are applied to the Census 2001 economic activity profile for the three districts across the forecast period. At 2011 these have been rebased from their 2011 estimate using a uniform adjustment to all age cohorts to meet current total economic activity in the districts from the Annual Population Survey (APS). These are assumed to remain the same as the projection with the exception of an adjustment to take account of changing pension ages beyond that already taken into account in the ONS 2006-based projections (i.e. to account for pension age increases for both men and women above age 65).</p> <p>In this regard, 1% has been added to the female 60-64 age cohort activity rates in 2011, 2% in 2012, 3% in 2013 and so forth up to 8% in 2018. This 2018 rate has then been held constant across the remainder of the forecasting period. Furthermore, 1% has been added to the Male 65-69 and Female 65-69 age cohorts' economic activity rates in 2019 and 2% in 2020. These 2020 rates were then held constant across the forecasting period.</p>
<b>Commuting Rate</b>	<p>A standard net commuting rate is inferred through the modelling using a Labour Force Ratio which is worked out using the formula: (A) Number of employed workers living in area ÷ (B) Number of workers who work in the area (number of jobs).</p> <p>For Cannock Chase District, data from the 2011 APS and 2011 BRES identifies an LF ratio of 1.265 (43,700 employed people ÷ 34,532 jobs in Cannock Chase).</p> <p>For Lichfield District, data from the 2011 APS and 2011 BRES identifies an LF ratio of 1.101 (45,400 employed people ÷ 41,240 jobs in Lichfield).</p> <p>For Tamworth Borough, data from the 2011 APS and 2011 BRES identifies an LF ratio of 1.148 (31,100 employed people ÷ 27,080 jobs in Tamworth).</p> <p>This has not been flexed over the forecasting period with no assumed increase or reduction in net commuting rates.</p>



DEMOGRAPHIC	Scenarios L & M: Past Migration Trends
<b>Unemployment</b>	<p>To calculate the unemployment rate, NLP took Jan 2011–Dec 2011 NOMIS unemployment figures (9.3% for Cannock Chase, 6.2% for Lichfield and 9.8% for Tamworth) to equate to the 2011 rates, and the Jan 2012–Dec 2012 NOMIS unemployment figures (7.6% for Cannock Chase, 5.0% for Lichfield and 8.1% for Tamworth) to equate to the 2012 rates . NLP kept this figure constant for 2013 and 2014 to reflect initial stabilisation at the current high rate, and then gradually reduced the rate on a linear basis to the 7-year average (06-12) of 7.1% for Cannock Chase, 4.8% for Lichfield and 7.2% for Tamworth over a five year time frame.</p> <p>This figure was then held constant to the end of the forecasting period on the grounds that as the economy grows out of recession unemployment is likely to fall back to a similar rate as seen pre-recession.</p>