Report for:

Borough of Broxbourne Council

Partial Review of Objectively Assessed Housing Need

Final Report

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Contents

Summary

1.   This report provides a partial update to the Review of Objectively Assessed Housing Need – May 2016 (2016 Review). The timing of the update has been driven by publication of new data from the Office for National Statistics (ONS) and the Department for Communities and Local Government (CLG). In particular, this includes new (2014-based) population and household projections and mid-year population estimates (MYE) up to 2015.

2.   The 2016 Review concluded that there was a need for 419 dwellings per annum to be provided each year from 2014 to 2031. This figure was based on the 2012-based CLG household projections (the latest available at the time) and includes uplifts to take account of vacant dwellings and increasing household formation amongst the population aged 25-34; the analysis also took account of the latest (2014) mid-year population estimates. The analysis generally found a good match between population growth and economic forecasts, and did not identify any need to increase the figure as a result of affordable housing need.

3.   This study has also assessed housing need for a 17-year period (2016-33), but is focussed primarily on demographic data – it is not a full update, and for example does not reconsider affordable housing need. Using a 2016 start date is consistent with the latest date for which a baseline position can be established; if using this date in the Local Plan, the Council need not include any shortfall in provision prior to this date, although past shortfall should be considered as part of the market signals analysis (and this has been carried out in this report).

4.   Compared with the 2012-based CLG household projections, the 2014-based version shows a slightly higher level of household growth. The 2014-based projections are showing an increase in the number of households in the Borough of 6,933 over the 2016-33 period – about 5% higher than the 2012-based projections; this is despite overall population growth being virtually identical in each of the projection releases. Overall, the differences between the 2014- and 2012-based projections are not substantial.

5.   Analysis of the detail behind the latest population projections (particularly looking at migration) shows that population growth is projected to be in-line with (actually slightly higher than) past trends, whilst net migration is projected to be somewhat higher than past trends. This all points to a situation where official projections are unlikely to be underestimating future population growth (and hence housing need).

6.   A range of sensitivity scenarios were developed using different assumptions about future migration. Overall, these alternatives did not suggest that there was any need to move away from official projections when considering trend-based needs (this is the same conclusion as drawn in the 2016 Review).

7.   The analysis has also considered data sitting behind the latest (2014-based) CLG household projections – this was particularly in terms of age specific household representative rates (HRRs). The analysis was particularly focussed on looking at any evidence of suppression of household formation. Whilst it was observed that household formation rates amongst the population aged 25-34 had fallen, it was not entirely clear if this was due to a suppression of household formation or due to changes in the population structure. Hence it was concluded that the 2014-based rates are reasonable to use in the analysis. This conclusion was also reached in the 2016 Review and it should be noted that the HRRs in both the 2012- and 2014-based CLG household projections are virtually identical.

8.   Overall, and including an allowance for vacant homes (drawn from the Council Tax Register), it was concluded that the demographic housing need sat in the range of 394-413 dwellings per annum. If the analysis is run on a consistent basis to the 2016 Review, then the need is shown to be for 409 dwellings per annum. This figure excludes any adjustment for market signals and compares with a figure of 399 as set out in the 2016 Review.

9.   To complete the analysis of demographic trends, the study has looked at the interaction between Broxbourne and London (in terms of migration flows) and also up-to-date projections developed by the Greater London Authority (GLA). Because the SNPP is projecting for migration to be substantially higher in the future than past trends, it is not considered appropriate to increase 'need' to take account of the possibility of changes to migration dynamics between London and Broxbourne. In terms of GLA projections, it is clear that these confirm the projections in this report as being of the right sort of level – the GLA project very slightly lower levels of housing need than are shown in this report.

10.   The analysis in this report has also update information about economic growth; drawing from a new releases of the East of England Forecasting Model (EEFM). The latest (2016) EEFM is forecasting a higher level of future job growth in the Borough than previous releases. However, this is not driven by substantially higher levels of population growth (when compared with the 2014-based SNPP). Compared with previous releases, the 2016 EEFM is expecting a greater increase in the local employment rate and therefore a greater proportion of the population who are working. The EEFM works the data through into an estimate of the 'demand for dwellings' and this suggests a need for around 10 dwellings per annum more than is shown in official (CLG) household projections. It is not considered that this difference is sufficiently large, so as to set aside the official projections as being the best source of data to inform housing need in the Borough.

11.   The analysis provided a selected update to the assessment of market signals in the 2016 Review. This was particularly in relation to the past delivery of housing; this analysis showed that the Borough had gone from a situation where there was an over delivery of housing (2001-14) to one of under-delivery (looking at the 2006-16 period). This suggested that a response to market signals would be appropriate (also recognising the modest pressures noted in the 2016 Review). It was concluded that an uplift of 10% due to market signals would be appropriate. This uplift is to be applied to the start point (CLG) projections and suggested an OAN in Broxbourne of 454 dwellings per annum for the 2016-33 period. A figure of 454 dwellings per annum represents a need for about 7,700 dwellings over the 2016-33 period, this is some 700 more than shown in the CLG household projections; an uplift of this magnitude would help to meet any suppressed needs, as well as providing an increased delivery of more affordable housing.

12.   The final updating of analysis in the 2016 Review was to look at increasing the formation rates of the population aged 25-34. In the 2016 Review this was called a 'market signals uplift', although in this report a different approach has been taken (to apply a 10% uplift to the housing need shown in official projections). Increasing the formation rates, such that they return to 2001 levels by 2033, sees the estimate of need increase by around 23-28 dwellings per annum (about 6%-7% uplift) and suggests an annual housing need for 432 dwellings in the 2016-33 period; as this figure is lower than the 454 dwellings per annum derived by looking at a 10% uplift for market signals, it does not feature in the final OAN calculation. This figure (the 432) is comparable in methodology terms with a figure of 419 dwellings per annum as set out in the 2016 Review.

13.   Overall, the analysis in this report suggests that need is higher when looking at more up-to-date sources of information than was the case at the time of the 2016 Review. The main difference is that the Borough has gone from a situation where there was a surplus of housing delivery, to one of shortfall; this has led to a different approach to dealing with market signals with the conclusion being that the OAN should build in a 10% uplift from the CLG start point (a need for 413 dwellings per annum). The OAN is therefore concluded to be for 454 dwellings per annum over the 2016-33 period.

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1.   Introduction

Introduction

1.1   Justin Gardner Consulting (JGC) has been commissioned by Broxbourne Council to provide a partial update to the Review of Objectively Assessed Housing Need – May 2016 (2016 Review). The timing of the update has been driven by publication of new data from the Office for National Statistics (ONS) and the Department for Communities and Local Government (CLG). In particular, this includes new (2014-based) population and household projections and mid-year population estimates (MYE) up to 2015.

1.2   The 2016 Review was structured in line with Planning Practice Guidance (PPG) to provide conclusions about the objectively assessed housing need (OAN). The core analysis covered trend-based demographic projections, economic-led projections, affordable housing need and market signals – the 2016 Review also briefly considered the need for specialist housing for older people. In this partial update, the main focus is on demographic projections; although consideration is also give to new economic forecasts (in the East of England Forecasting Model (EEFM)) and market signals. The analysis in this report does not provide any update to the analysis of affordable housing need, although the potential for higher delivery of affordable housing is considered as part of the conclusions on market signals.

National Planning Policy

1.3   National planning policy requires Councils to define the *'full, objectively assessed need for market and affordable housing in the housing market area'* (National Planning Policy Framework (NPPF), paragraph 47). This provides a starting point for considering policies for housing provision. The assessment must 'leave aside' constraint factors (including land availability and Green Belt) however these are relevant in drawing together evidence and testing options in the development of local plans. This update and the 2016 Review do not set targets for housing provision, but form part of the evidence base for the setting of targets.

1.4   Government's Planning Practice Guidance (PPG) sets out how the objectively assessed need for housing should be defined. It sets out that the starting point should be the latest official household projections (from the Department for Communities and Local Government (CLG)) – any changes to these projections *'need to be clearly explained and justified on the basis of established sources of robust evidence'* (2a-017). Consideration then needs to be given to economic growth, market signals and affordable housing need.

1.5   On the 7th February 2017, the Government published a new Housing White Paper *'Fixing our broken housing market'*. Whilst the White Paper makes reference to standardising methodologies for assessing housing need; at the time of writing it is not considered that there is anything substantial within the document (and supporting documents) that means an assessment set against the current PPG is inappropriate at the time of writing. The White Paper also broadens the definition of affordable housing (although the definition of affordable housing need remains unchanged).

2016 Review of Objectively Assessed Housing Need

1.6   The latest full assessment of housing need can be found in the May 2016 Review of Objectively Assessed Housing Need (also produced by JGC). This document runs through the various stages of the PPG in terms of assessing housing need:

- Trend-based Demographic Projections;
- Economic-led Projections;
- Affordable Housing Need; and
- Market Signals

1.7   The 2016 analysis concludes a need for 419 dwellings per annum in the Borough over the 2014-31 period. This figure is based on the 2012-based CLG household projections (the latest available at the time) and includes uplifts to take account of vacant dwellings and increasing household formation amongst the population aged 25-34; the analysis also took account of the latest (2014) mid-year population estimates. The analysis generally found a good match between population growth and economic forecasts, and did not identify any need to increase the figure as a result of affordable housing need. The overall conclusions on OAN can be found in Section 7 of the 2016 Review.

Plan/Projection Periods

1.8   The analysis in this report looks at needs in the period from 2016 to 2033. The start date has been selected as this is the latest date for which baseline information is readily available (notably data about completions and the current stock of housing), with the end date representing a 15-year period from the likely date of adoption of the Local Plan (under the assumption of a 2018 adoption).

1.9   Given the start date of 2016, there is no need to consider any shortfall in provision prior to 2016, as the evidence in this report essentially 'resets the clock'. This position is supported by a High Court ruling; Zurich Assurance Ltd vs Winchester City Council and South Downs National Park Authority of March 2014 and more recently by the Secretary of State (APP/C1570/A/14/2213025) in August 2016 where it was confirmed that there is no requirement to add to the housing need to cater for any shortfall calculated against years preceding the base-year of the plan.

1.10   That said, any shortfall in past delivery should be analysed as one of the market signals (in terms of PPG) and this may provide some evidence that the future housing target should be increased. This point is discussed in the market signals section of this report.

2.   Trend-based Demographic Projections

Introduction

2.1   The sections to follow give consideration to demographic evidence of housing need and trend-based projections. Such projections are emphasised in the NPPF (para 158) which states that local planning authorities should prepare a SHMA to identify the scale of housing which *'meets household and population projections, taking account of migration and demographic change'*. The analysis broadly follows the same set of stages as the 2016 Review, but with data updated to take account of:

- 2014-based subnational population projection (SNPP)
- 2014-based household projection
- 2015 mid-year population estimates (MYE)
- Housing completions (2015-16)

Components of Past Population Change

2.2   The figure and table below consider the drivers of population change in Broxbourne from 2001 to 2015. Population change is largely driven by natural change (births minus deaths) and migration although within ONS data there is also a small other changes category (mainly related to armed forces and prison populations) and an unattributable population change (UPC) – this is an adjustment made by ONS to mid-year population estimates where Census data has suggested that population growth had either been over- or under-estimated in the inter-Census years. Because UPC links back to Census data a figure is only provided for years up to 2011.

2.3   The figure shows that natural change is a key driver of population change. Throughout the period studied, natural change has been positive and at a level averaging around 480 more births each year than deaths. Migration is also a significant component, although this is quite variable over time. Net migration (combining internal (i.e. moves from one part of the Country to another) and international migration) shows figures varying from a net out-migration of 540 in 2003/4 to a net in-migration of 437 in 2004/5. The average level of migration for the whole of the period studied is just 20 people per annum – made up of net international migration of 82 people each year and net internal out-migration of 62. Other changes are quite small whilst UPC can be seen to be positive for those years where data is available. This suggests that the ONS components of change may have previously under-estimated population growth in Broxbourne – this could potentially have an impact on forward projections. The implication of UPC for housing need is discussed later in this report.

2.4   Focussing on the data for 2014-15 (which is new data compared with that available at the time of the 2016 Review) it can be seen that population growth was fairly modest – 469 additional people, lower than for any year back to 2004/5. This lower level of population growth has been driven by a high level of internal out-migration (359 more people are estimated to have left the Borough to move to other parts of the Country than have moved from other parts of the Country); this compares with a situation where internal migration has broadly been in balance over the past decade or so.

Figure 2.1: Components of population change, mid-2001 to mid-2015 – Broxbourne
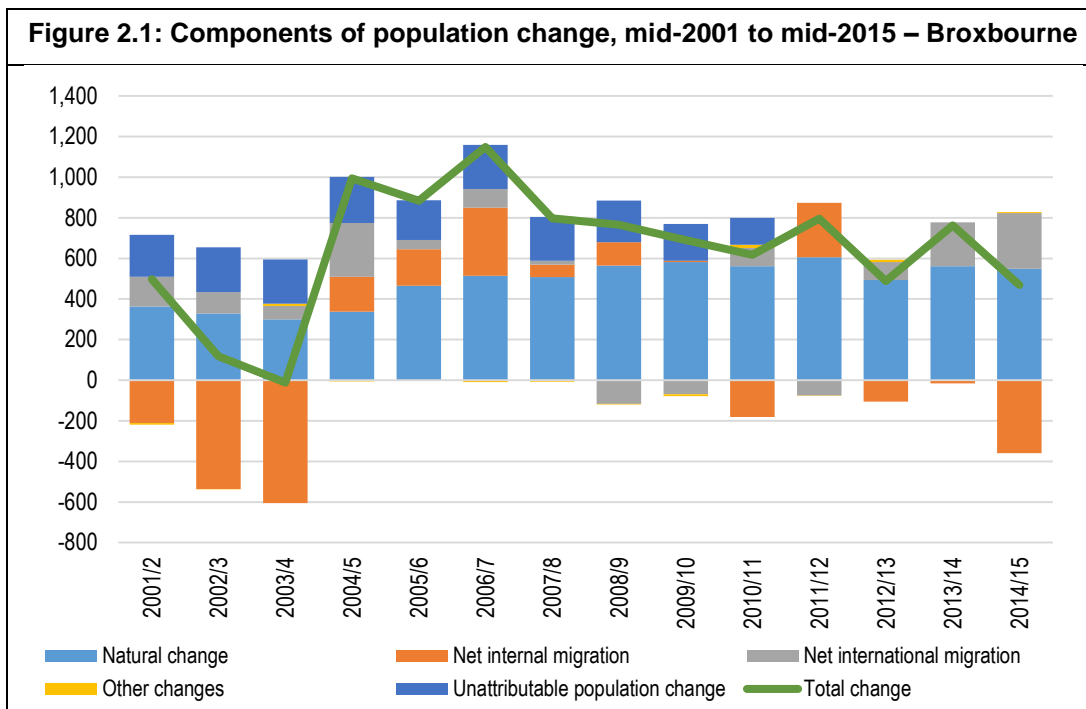
Source: ONS

Figure 2.2: Components of population change, mid-2001 to mid-2015 – Broxbourne					
Year	Natural change	Net internal migration	Net international migration	Other changes	Other (unattributable)	Total change
2001/2	362	-211	148	-8	206	497
2002/3	328	-536	106	-1	220	117
2003/4	300	-606	66	11	217	-12
2004/5	337	173	264	-6	227	995
2005/6	465	180	46	-3	196	884
2006/7	514	336	92	-10	217	1,149
2007/8	507	63	18	-8	217	797
2008/9	565	115	-117	-3	205	765
2009/10	582	6	-69	-10	181	690
2010/11	561	-182	91	15	132	617
2011/12	605	268	-75	-3	0	795
2012/13	494	-105	88	11	0	488
2013/14	562	-15	216	0	0	763
2014/15	548	-359	275	5	0	469

Source: ONS

Demographic Evidence of Housing Need – Start Point

2.5   The PPG [2a-015] states that *'household projections published by the Department for Communities and Local* Government *should provide the starting point estimate of overall housing need. The household projections are produced by applying projected household representative rates to the population projections published by the Office for National Statistics. Projected household representative rates are based on trends observed in Census and Labour Force Survey data'.*

2.6   The most up-to-date projections are the 2014-based CLG household projections published in July 2016. These projections were underpinned by ONS (2014-based) subnational population projections (SNPP) – published in May 2016. The table below sets out levels of household growth expected by the CLG household projections in the 2016-33 period. Data is also provided for Broxbourne, Hertfordshire, the East of England region and England for comparative purposes.

2.7   Across the Borough, the CLG household projections show household growth of about 6,900 – this is a 17% increase; below the equivalent figure for Hertfordshire (20%) and the East of England (18%), but above the equivalent figure for England (16%).

Figure 2.3: Household change 2016 to 2033 (2014-based CLG household projections)				
	Households 2016	Households 2033	Change in households	% change
Broxbourne	39,624	46,557	6,933	17.5%
Hertfordshire	483,395	581,993	98,598	20.4%
East of England	2,563,166	3,018,411	455,245	17.8%
England	23,228,921	26,897,561	3,668,640	15.8%

Source: CLG household projections

2.8   It is also possible to compare the 2014-based household projections with the previous full set of projections (the 2012-based SNPP – as used in the 2016 Review); this comparison is shown in the table below. This shows that the latest projections indicate a slightly higher level of household growth over the 2016-33 period (317 additional households – 5% higher). This is a higher level of difference than seen in the other areas shown in the table below.

Figure 2.4: Projected household growth (2016-2033) – comparing projection releases				
	2012-based	2014-based	Difference	% difference from 2012-based
Broxbourne	6,616	6,933	317	4.8%
Hertfordshire	97,691	98,598	907	0.9%
East of England	453,265	455,245	1,980	0.4%
England	3,626,424	3,668,640	42,216	1.2%

Source: CLG household projections

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2.9 Whilst the 2014-based data is the latest 'official' population projection and therefore forms the start point for analysis in line with the PPG, it is worth testing the assumptions underpinning the projection to see if it broadly reasonable in the local context – this involves considering both the population projections (the SNPP from ONS) and also the way CLG have converted this data into households. The analysis below initially considers the validity of the population projections and their consistency with past trends, before moving on to consider past trend data in more detail, and also data released since the population projections were published (in particular, ONS has subsequently published new mid-year population estimates for 2015).

2014-based Subnational Population Projections (SNPP)

2.10 The latest SNPP were published by ONS on the 25th May 2016. They replaced the 2012-based projections. Subnational population projections provide estimates of the future population of local authorities, assuming a continuation of recent local trends in fertility, mortality and migration which are constrained to the assumptions made for the 2014-based national population projections. The new SNPP are largely based on trends in the 2009-14 period (2008-14 for international migration trends).

2.11 They are not forecasts and do not attempt to predict the impact that future government or local policies, changing economic circumstances or other factors might have on demographic behaviour. The primary purpose of the subnational projections is to provide an estimate of the future size and age structure of the population of local authorities in England. These are used as a common framework for informing local-level policy and planning in a number of different fields as they are produced in a consistent way.

Overall Population Growth

2.12 The table below shows projected population growth from 2016 to 2033 in each of Broxbourne and a range of comparator areas. The data shows that the population of the Borough is projected to grow by around 13,400 people; this is a 14% increase – above that projected for England but below that projected across Hertfordshire; there is little difference in the figures when comparing Broxbourne and the East of England region.

| Figure 2.5: Projected population growth (2016-2033) – 2014-based SNPP				
	Population 2016	Population 2033	Change in population	% change
Broxbourne	97,151	110,526	13,375	13.8%
Hertfordshire	1,178,526	1,373,992	195,466	16.6%
East of England	6,126,015	6,983,270	857,255	14.0%
England	55,218,701	61,490,636	6,271,935	11.4%

Source: ONS

2.13	It is also possible to compare the 2014-based SNPP with the previous full set of projections (the 2012-based SNPP); this comparison is shown in the table below. This shows that the latest projections show a virtually identical level of population growth (29 fewer people) over the 2016-33 period. Regionally and nationally however, the latest population projections are showing population growth to be around 4% higher than in the previous (2012-based) release. These findings are interesting given that Broxbourne shows a higher difference in terms of household growth (shown above).

Figure 2.6: Projected population growth (2016-2033) – comparing projection releases				
	2012-based SNPP	2014-based SNPP	Difference	% difference from 2012-based
Broxbourne	13,404	13,375	-29	-0.2%
Hertfordshire	189,700	195,466	5,766	3.0%
East of England	826,900	857,255	30,355	3.7%
England	6,002,700	6,271,935	269,235	4.5%

Source: ONS

2.14	The figure below shows past and projected population growth in the period 2001 to 2033. The data also plots a linear trend line for the last five years for which data is available (2010-15) and also longer-term periods from 2005 to 2015 (a 10-year trend) and 2001-15 (14-years). The data shows that the population is projected to grow at a rate which is consistent with, but slightly above that seen in past trends (regardless of the period studied). This analysis would suggest that the SNPP is not underestimating future population growth and also suggests that the SNPP is a reasonable trend-based projection.

Figure 2.7: Past and projected population growth – 2014-based SNPP – Broxbourne

Source: ONS

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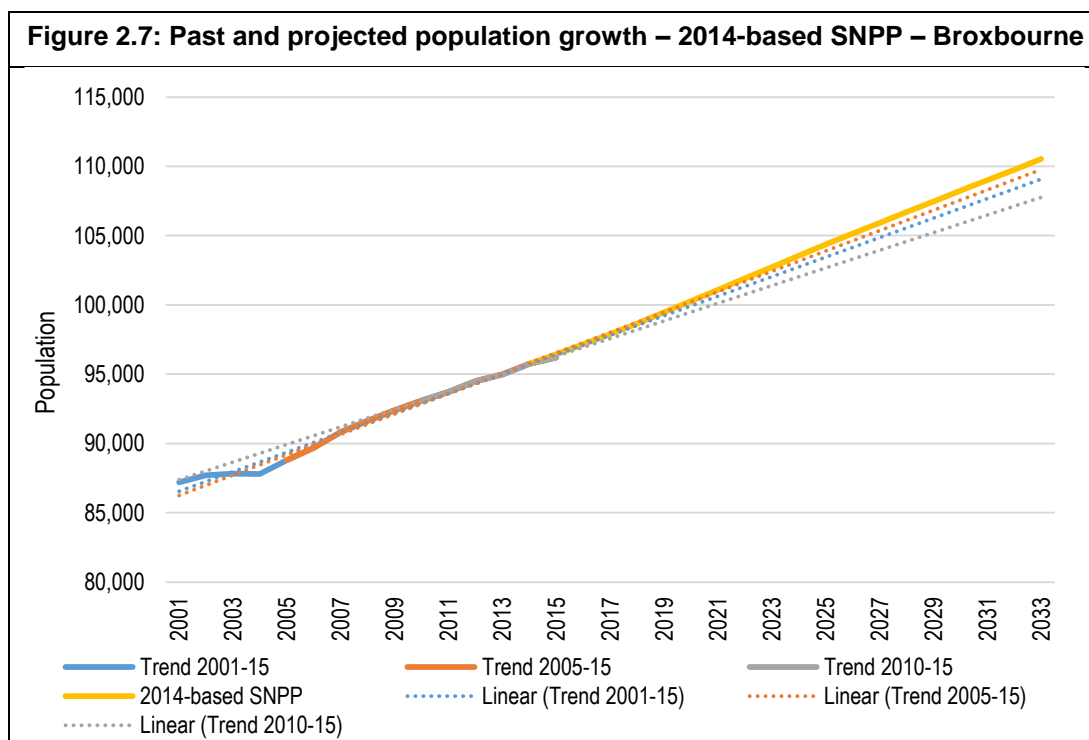
2.15   One final point with regard to the SNPP, is to bring this together with the components of change data discussed earlier in this section – in particular the latest (2015) ONS mid-year population estimates (MYE). Whilst the view is that the SNPP looks to be a sound projection in terms of future population growth, there is inevitably some uncertainty. The 2015 MYE shows that the 2014-based SNPP over-estimated future population for Broxbourne – this is shown in the table below. Across the Borough, the SNPP projected that the population would increase by 688 people, whereas the MYE shows a population growth of 469; this is a difference of 219 people.

Figure 2.8: Projected and estimated level of population growth 2014-15			
	2015 MYE	2014-based SNPP	Difference
Broxbourne	+469	+688	-219

Source: ONS

2.16   Given that population accounts for 94% of household growth (CLG Statistical Release, 2014-based Household Projections: England, 2014-2039, July 2016), this data would suggest that the 2014-based household projections will be over-estimating household growth in the Borough. Whilst the publication of one year of additional data should not be seen as indicating any particular trend, it is the case that the lower level of population growth is likely to ultimately play out in lower levels of growth (both population and household) in the next (2016-based) round of official projections.

Migration levels in the SNPP

2.17   The table below brings together a series of average net migration levels in both past trends and the projection (a range of different time periods are analysed). This shows that projected net migration to the Borough is notably higher than has been seen in any past trend period. This provides support for the view previously expressed that the SNPP is unlikely to be under-estimating future population growth (when based on past trends). Because the projections in this report run from 2016, this is taken as the base date for analysis of future figures.

Figure 2.9: Average net migration in a range of past and projected time periods (annual averages)			
	Average net migration		
	Internal net-	International net-	Total net-
Past 14-years (2001-15)	-62	82	20
Past 10-years (2005-15)	31	57	87
Past 5-years (2010-15)	-79	119	40
Next 5-years (2016-21)	162	82	244
Next 10-years (2016-26)	187	73	260
Next 14-years (2016-30)	198	71	269
Next 17-years (2016-33)	207	70	276

Source: ONS

2.18   Some caution should however be exercised when comparing past trend levels of net migration with a future projection. The main reason for this is that ONS, in constructing the SNPP, do not just look at the level of migration, but consider the age/sex profile of migrants and the locations from which people are likely to move to- and from- (they also look separately at in- and out-migration, rather than net migration). This methodology (which is considered to be sound) means that net migration levels can go up or down as the age structure of areas changes. Regardless of this, the finding that future migration is projected to be above past trends, does suggest that the projections are unlikely to under-estimate future population growth in the Borough.

Alternative Demographic Scenarios

2.19   As noted above, the SNPP looks to be a sound projection with regard to population growth in the Borough. However, it is noted that levels of migration and population growth have been variable over time. On this basis, it would be reasonable to consider alternative (sensitivity) scenarios – such an approach is set out in para 2a-017 of the PPG which states *'plan makers may consider sensitivity testing, specific to their local circumstances, based on alternative assumptions in relation to the underlying demographic projections…'.*

2.20   The sensitivity scenarios take account of longer-term migration trends and also the 'unattributable' component of population change within ONS population data for the 2001-11 period. Additionally, data from the ONS 2015 mid-year population estimates (MYE) is considered. The analysis below therefore considers four potential sensitivities to the figures. These can be described as:

- Implications 2015 mid-year population data – 2014-based SNPP (+MYE)
- Implications of 14-year migration trends, fixed migration rates – 14-year migration (fixed)
- Implications of 14-year migration trends, variable migration rates – 14-year migration (variable)
- Implications of Unattributable Population Change (UPC) and 14-year migration trends (fixed) – 14-year fixed (+UPC)
- Implications of Unattributable Population Change (UPC) and 14-year migration trends (variable) – 14-year variable (+UPC)

2.21   A 14-year period has been used to provide consistency with the 2016 Review. In the Review, projections were developed on the basis of 13-year trends (2001-14); and so the updating is consistent with this, but adding in a further year of data (for 2014-15). The range of scenarios developed have been designed to as closely as possible match those developed in the 2016 Review. There are however some methodological differences which are discussed as relevant below.

2014-based SNPP (+MYE)

2.22   This projection takes assumptions from the 2014-based SNPP, but overwrites the population projection figures for 2015 by those in the ONS MYE (by age and sex). Moving forward from 2015, this sensitivity uses the same birth and death rates as contained in the 2014-based SNPP and the actual projected migration figures (by age and sex). Due to age structure differences in the MYE compared to the projection, this does mean that population growth from 2015 onwards does not exactly match that in the actual projections as published.

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2.23   Additionally, a further step has been undertaken to provide a consistent 2016 base. For this the modelling has included an assumption about net completions and modelled (just for 2015/16) what level of migration this might imply. A total of 177 net completions has been assumed and this gives rise to a net out-migration of 347 people (based on the same age/sex structure of in- and out-migration as underpins the 2014-based SNPP).

2.24   Hence this sensitivity essentially updates the base position using more recent data. It should be noted that the 2016 baseline established in this sensitivity has been consistently used for all of the other sensitivity scenarios.

14-year migration (fixed)

2.25   This projection uses information about migration levels in the 14-year period (2001-15) and models a scenario where the average level of migration is equal to that seen over the 14-year period. The level of migration is treated as fixed for the whole of the period studied and is split between internal and international migration. As can be seen from analysis above, this scenario essentially assumes net migration of 20 people per annum, made up of 82 international migrants (net) and a net out-migration of 62 people to other parts of the Country. This scenario is equivalent to one developed in the May 2016 Review although it has become more common place in analysis of this nature to consider variable migration (i.e. to recognise that levels of migration might change as the age structure develops).

14-year migration (variable)

2.26   This projection uses information about migration levels in the 14-year period (2001-15); the scenario therefore includes the most up-to-date MYE figures (for 2015). The projection does not just look at the migration figures and roll these forward but recognises that migration can be variable over time as the age structure changes. With international migration, this projection also takes account of the fact that ONS are projecting for international net migration to decrease in the longer-term.

2.27   To overcome the issue of variable migration, the methodology employed looks at the share of migration in the Borough compared to the share in the period feeding into the 2014-based SNPP (which is 2009-14 for internal migration and 2008-14 for international migration). Where the share of migration is higher in the 14-year period, the projection applies an upward adjustment to migration, and vice versa. Additional adjustments are made to take account of differences in the age structure of migrants (although this only has a modest impact). As noted above, this (variable) projection was not previously run in the 2016 Review, but it is considered prudent to do this now as most studies would look at potential changes in migration levels moving forward.

14-year migration (+UPC) – 2 scenarios

2.28   As noted earlier there is a notable level of Unattributable Population Change (UPC) in the ONS data for 2001-11 in Broxbourne. In this instance UPC is positive, this suggests that the components of change feeding into the SNPP may under-estimate migration and population growth.

2.29   It is generally accepted that UPC arises due to two main reasons; a) the misrecording of population in the 2001 and/or 2011 Census or b) the misrecording of migration in the 2001-11 period. It is unknown to what extent each of these is influencing the levels of UPC shown in Broxbourne, however the size of the UPC adjustment made by ONS is worthy of note.

2.30   The PAS Technical Advice Note makes a number of comments about UPC, and their consideration in demographic projections, the core conclusions can be found in paragraphs 6.34 and 6.35 (quoted below). Given the scale of UPC in the area, it is considered prudent to look at demographic scenarios with a specific adjustment.

'In local authorities where the UPC is large, we would suggest that housing needs assessments sensitivity-test the impact of including the UPC in past migration flows, and also that they interrogate the data closely for any local evidence of the causes of UPC… In the light of this analysis plan-makers may take a view that the UPC, or part of it, should be included in the base period as past migration'.

2.31   Whilst making an adjustment for UPC could be an alternative scenario, it is not considered, on its own, to be a robust alternative to the SNPP. The main reasons for this are that it is unclear if UPC is related to migration and more importantly, due to changes in the methods used by ONS to measure migration it is most probable that any errors are focussed on earlier periods (notably 2001-6) and therefore a UPC adjustment for more recent data would not be appropriate. On this basis, whilst it is not considered that UPC should be included on its own as a projection to take forward into the modelling of objectively assessed need it is considered that there is merit in looking at UPC when also considering longer-term trends.

2.32   Hence, this sensitivity projection takes the outputs from the long-term (14-year) migration scenario (variable) and makes a further additional adjustment for UPC. For the purposes of analysis, it has been assumed that UPC is a one-off adjustment and takes account of the age structure as shown by ONS.

2.33   For information, the age structure of UPC is shown in the figure below (this is the total for the 2001-11 period). The analysis shows that much of the UPC is concentrated in younger age groups; in housing need terms this means that UPC might have a fairly limited impact, this is due to household representative rates (discussed later in this section) in these age groups being lower than for older age cohorts. The overall positive level of UPC will however have a upward impact on household growth when modelled.

Figure 2.10: Total Unattributable Population Change by age (2001-11) – Broxbourne
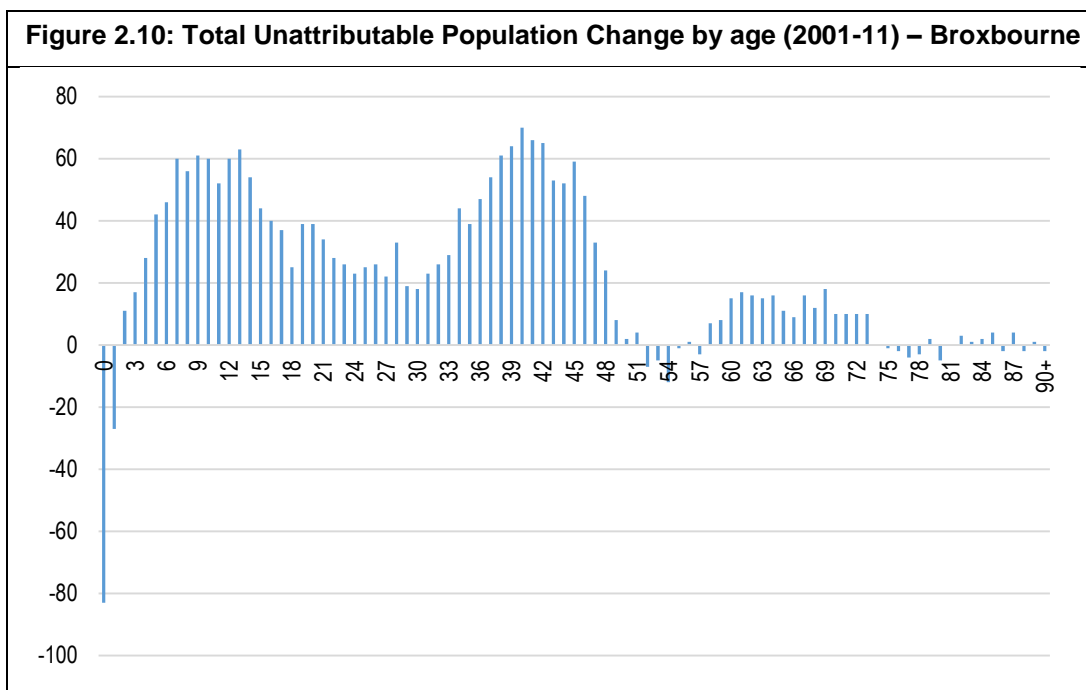
Source: ONS

2.34 It should additionally be noted that the 2016 Review also provided a sensitivity with a UPC adjustment. However, the two are not directly comparable. In the 2016 Review, the adjustment was made to the SNPP (whereas in this case it is an adjustment to 14-year migration trends), additionally, the adjustment made in 2016 was modelled as an adjustment to migration. Neither of these are now considered as the most robust way to look at UPC. As noted, UPC is likely to be more associated with older data (and hence more relevant to look at adjustments to long-term trends), whilst it is not really appropriate to look at UPC as a migration adjustment due to it being a one-off 'accountancy' adjustment.

Outputs from different demographic projections

2.35 The table below shows the estimated level of population growth in the SNPP and the alternative projections developed. Across the Borough, the SNPP shows population growth (2016-33) of 13.8% - this figure decreases slightly when more recent population and migration data is included in the modelling (i.e. to include 2015 MYE data and a rebasing to 2016). When looking at 14-year trends the projected population growth is either notably lower than the SNPP or broadly similar. When the data is overlaid with an adjustment for UPC the figures increase and show a range of population growth both above and below the SNPP.

| Figure 2.11: Projected population growth (2016-2033) – alternative scenarios – Broxbourne				
	Population 2016	Population 2033	Change in population	% change
2014-based SNPP	97,151	110,526	13,375	13.8%
2014-based SNPP (+MYE)	96,379	109,519	13,141	13.6%
14-year migration (fixed)	96,379	104,544	8,166	8.5%
14-year migration (variable)	96,379	109,735	13,357	13.9%
14-year fixed (+UPC)	96,379	106,562	10,184	10.6%
14-year variable (+UPC)	96,379	111,753	15,375	16.0%

Source: Demographic projections

Appropriateness of alternative scenarios

2.36   Having developed a range of scenarios, it is worth briefly considering which are the most appropriate to use when taking the data forward into estimates of housing need. The 2014-based SNPP is the only projection that is directly linked to official projections and should therefore be given some credence. It is also the projection which is identified in the PPG as the start point for the analysis of housing need.

2.37   The projection linked to 14-year migration trends should be given some weight. As the analysis of housing need has developed over time, it has become common practice to consider longer-term trends as well as the most recent official projections. The main 14-year based projection (variable) does however show a very similar level of population growth as the SNPP (with fixed assumptions being somewhat lower). This longer period might be described as being more 'stable'.

2.38   Additionally, it is notable that the two 14-year based scenarios which include a UPC adjustment sit both above and below the SNPP/14-year (variable) scenarios and could arguably be given some consideration, however, it is noted that including UPC within projections is not an approach universally supported by planning inspectors. The level of UPC in Broxbourne is however notable and this point should not be entirely ignored, particularly if looking back to 2001, and therefore including a base period where UPC is more likely to be influenced by the poor recording of migration data.

2.39   Hence, overall, whilst the modelling to follow continues to look at the six scenarios developed it is considered in drawing conclusions about a reasonable level of population growth to plan for that the official (2014-based) SNPP should be the main one used to understand potential housing need (including adjustments for more up-to-date information). Using the SNPP is consistent with conclusions in the 2016 Review and can be supported by the range of scenarios developed; notably long-term trends showing an almost identical level of population growth.

Household Growth (Household Representative Rates (HRRs)

2.40   Having studied the population size and the age/sex profile of the population the next step in the process is to convert this information into estimates of the number of households in the area. To do this the concept of household representative rates (HRR) is used. HRRs can be described in their most simple terms as the number of people who are counted as heads of households (or in this case the more widely used Household Reference Person (HRP)).

2.41   On the 12th June 2016, CLG published a new set of (2014-based) household projections – the projections contain two core analyses. The Stage 1 household projections project HRRs based on data from the 1971, 1981, 1991, 2001 and 2011 Censuses with outputs for age, sex and marital status. For younger age groups greater weight was given in the CLG projections methodology to the dampened logistical trend than the simple logistics trend; the effect of which is to give greater weight to the shorter-term trends.

2.42   The Stage 2 household projections consider household types and the methodology report accompanying the projections is clear that these projections are based on just two data points – from the 2001 and 2011 Census. Overall outputs on total household growth are constrained to the totals from the Stage 1 Projections. This means that both sets of projections show the same level of overall household growth (when set against the last set of SNPP) but some of the age specific assumptions differ. Differences can however occur between the Stage 1 and 2 HRRs when modelled against different population projections (due to differences in the age structure).

2.43   Overall, it is considered that the Stage 1 projections should be favoured over the Stage 2 figures for the purposes of considering overall household growth; this is for two key reasons: a) the Stage 1 figures are based on a long-term time series (dating back to 1971 and using 5 Census data points) whereas the Stage 2 figures only look at two data points (2001 and 2011) and b) the Stage 2 figures are constrained back to Stage 1 values, essentially meaning that it is the Stage 1 figures that drive overall estimates of household growth in the CLG household projections themselves. The analysis to follow therefore focuses on Stage 1 figures.

2.44   The figure below shows how Stage 1 figures differ for different age groups (and provides a comparison with data for the East of England and England). It is evident from the analysis that HRRs amongst households in their late 20s and early 30s fell slightly over the 2001-11 decade – the projections are however suggesting that this trend will stop and the HRR will begin to rise, at a rate notably above the comparator areas. The 2014-based household projections also expect HRRs amongst older age groups to fall over time. Given improving life expectancy this 'trend' looks to be reasonable (as it would be expected that more people would remain living as couples).

2.45   It should also be noted that the household representative rates in the 2014-based projections are virtually identical to those in the 2012-based release (equivalent 2012-based figures were presented in Figure 2.13 of the 2016 Review). This is to be expected given that both sources draw predominantly from the same data (Census data up to and including 2011).

Figure 2.12: Projected household representative rates by age of head of household – Broxbourne
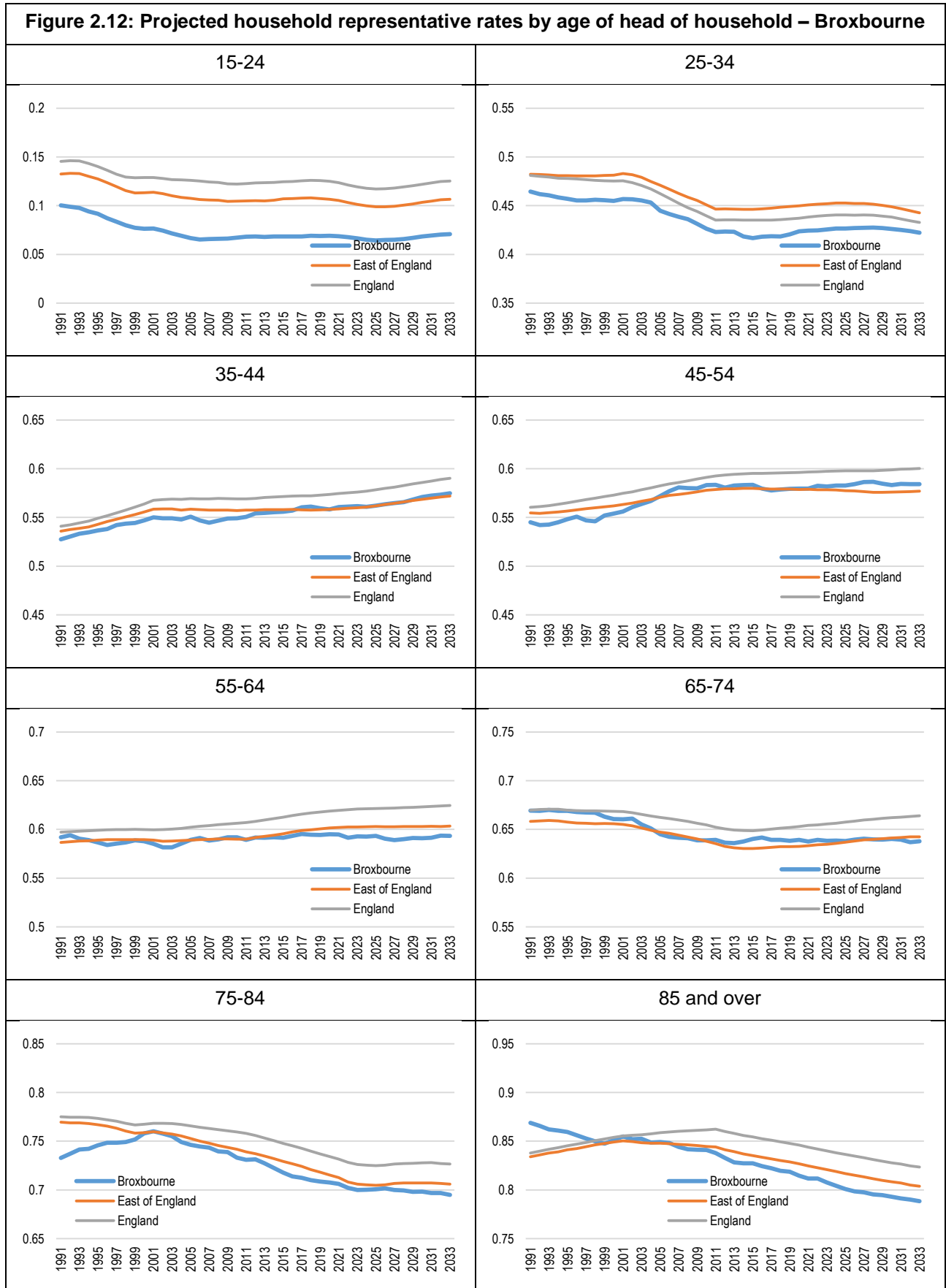
Source: Derived from CLG data

Critical Review of Headship Rates

2.46   The headship rates in the 2014-based CLG household projections should not be used uncritically. Paragraph 2a-015 of the PPG is clear that the *'household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are not captured in past trends'*. Essentially this is suggesting, where the projections include a suppression of household formation that some sort of adjustment should be made.

2.47   It is not straightforward to determine if the projections contain any level of suppression (either in the past or projected forward) given that household formation rates can be influenced by a range of factors. One person to recognise this was the late Alan Holmans in the September 2013 Town and Country Planning Association (TCPA) publication *'new estimates of housing demand and need in england, 2011 to 2031'* where he stated:

         'The working assumption in this study is that a considerable part but not all of the 375,000 shortfall of households relative to trend was due to the state of the economy and the housing market. 200,000 is attributed to over-projection of households due to the much larger proportion of recent immigrants in the population, whose household formation rates are lower than for the population as a whole. This effect will not be reversed. The other 175,000 is attributed to the economy and the state of the housing market and is assumed to gradually reverse'.

2.48   Broadly what Mr Holmans was saying is that about half of changes to household formation are due to market factors and about half due to international migration. Whilst the international migration impact is not expected to change (in terms of household structures), any suppression as a result of the economy and housing market could improve in the future.

2.49   In interpreting the view of Mr Holman's, it is worth noting that he only had access to data from the 2011-based 'interim' household projections, which unlike the 2014-based release only looked at trends in the 2001-11 period. Focussing on the 25-34 age group (the only one that arguably shows any suppression) it is clear moving forward from 2011 that the latest (2014-based) projections are showing a break from the 2001-11 trend and are therefore not building in any future suppression.

2.50   This view is supported by subsequent articles on the topic of household formation rates. One of note is *new estimates of housing requirements in england, 2012 to 2037* (Neil McDonald and Christine Whitehead – TCPA – November 2015). In this it is stated that:

         'The 2012-based projections, which use the 2011 Census and up-to-date population figures, are more immediately relevant and more strongly based than earlier estimates. The latest projections can therefore be taken as a reasonable indication of what is likely to happen to household formation rates if recent trends continue. This is because, although economic growth might be expected to increase the household formation rate, there are both longer-term structural changes and other factors still in the pipeline (such as welfare reforms) that could offset any such increase'

2.51   Whilst this refers to the 2012-based projections, it is the case that the household formation rates in the 2014-based figures are almost identical. Overall, on the basis of the evidence available, it is not clear if the 2014-based household formation rates include any degree of suppression (there is certainly no evidence of additional suppression post-2011); these rates can therefore realistically be used to assess levels of household growth when set against population projections.

2.52   However, it should be noted that the 2016 Review included a sensitivity around household representative rates, whereby it was assumed that the rate for the 25-34 age group would return to the level seen in 2001. This analysis was included within the section on market signals and for consistency has also been repeated in the relevant section of this report.

Housing Need (linked to 2014-based headship rates)

2.53   The analysis below brings together outputs in terms of household growth and housing need using the 2014-based headship rates and the full range of scenarios developed. To convert households into dwellings the data includes an uplift to take account of vacant homes. This has been based on 2016 Council Tax data with a summary of the key statistics shown below (and compared with data for England). This shows that the total number of dwellings is some 1.3% higher than the number of occupied homes (which is taken as a proxy for households) and hence household growth figures are uplifted by 1.3% to provide an estimate of housing need. It is assumed that such a level of vacant homes will allow for movement within the housing stock and includes an allowance for second homes.

Figure 2.13: Vacant homes (Council Tax data)		
	Broxbourne	England
Dwellings	40,203	23,862,835
Second Homes	92	246,540
Other vacant homes	419	443,197
Total vacant	511	689,737
Total occupied	39,692	23,173,098
Vacancy allowance	1.3%	3.0%

Source: CLG

2.54   It should be noted that the use of Council Tax data varies from the analysis undertaken in the 2016 Review (which used 2011 Census data). Consequently, the estimates of the proportion of vacant homes has declined from 4.1% to 1.3%. This will have a slight downward impact on estimates of housing need, although it is considered that the Council Tax source at the current time is the most robust information to use; using Council Tax data has also become a standard method for looking at vacant homes in analysis of this nature.

2.55   The analysis shows an overall housing need for 413 dwellings per annum across Broxbourne when using the 2014-based SNPP as the underlying population projection. This figure decreases slightly (to 409) when the assumptions include MYE data for 2015 and a rebasing to 2016. With long-term (14-year) migration assumptions the housing need is shown to be for between 300 and 394 dwellings per annum, and with a UPC adjustment the figures are increased by around 47 dwellings per annum.

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Figure 2.14: Projected housing need – range of demographic based scenarios and 2014-based headship rates – Broxbourne					
	Households 2016	Households 2033	Change in households	Per annum	Dwellings (per annum)
2014-based SNPP	39,621	46,556	6,935	408	413
2014-based SNPP (+MYE)	39,312	46,175	6,863	404	409
14-year migration (fixed)	39,312	44,348	5,036	296	300
14-year migration (variable)	39,312	45,930	6,618	389	394
14-year fixed (+UPC)	39,312	45,137	5,826	343	347
14-year variable (+UPC)	39,312	46,720	7,408	436	441

Source: Demographic projections

Demographic Interaction with London

2.56   The 2016 Review also considered the observation that since about 2008 (the onset of recession) there had been a reduction in net migratory movements from London to Broxbourne. It was also observed that the SNPP (2012-based at the time) was projecting for migration in the future to be substantially higher than past trends, and as a result it was not appropriate to make any adjustments for potential changes to migration. This view was agreed with in work undertaken by Edge Analytics for the Essex Planning Officers Association (EPOA); Edge ran a 'London sensitivity' projection, and this showed a lower level of need than the SNPP. The 2014-based SNPP also shows migration levels in the future to be somewhat higher than past trends and so this conclusion continues to hold true.

GLA population and household projections

2.57   In March 2017, the Greater London Authority (GLA) produced a new set of 2015-based population and household projections. At the time of writing, these had not been officially published, but the data for Broxbourne has been released and made available to allow for a comparison with figures in the report.

2.58   The main projection developed by the GLA is a 10-year migration scenario (assumed to be based on migration in the 2005-15 period). For Broxbourne, this shows population growth in the 2016-33 period of 13,344 people; this figure is virtually identical to the main projections used in this report (13,375 with the SNPP and 13,357 using long-term (14-year) migration trends. Hence the GLAs latest projections are highly supportive of the figures used/derived in this report.

2.59   In terms of household growth, the GLA (10-year) projection shows an increase in households (2016-33) of 6,531; this is lower than the increases shown in this report of 6,935 using the SNPP and 6,618 with 14-year migration trends. This would suggest that the analysis in this report is more likely to over- than under-estimate housing need. In terms of housing need, the GLA data only provides an annual average figure for the 2014-39 period; this is put at 399 dwellings per annum, again consistent with this report (which shows a range from 394-413 based on the main projections used/developed).

2.60   Overall, the GLAs latest projections provide substantial support for the analysis carried out in this report, typically showing consistent levels of population growth and housing need.

The impact of Brexit for population and household projections

2.61   One key question for this assessment is whether or not the United Kingdom leaving the European Union ('Brexit') will have any impact on future migration and population growth, and hence housing need, over the period to 2033. As a preamble, it should be stressed that the impact of Brexit is clearly unknown and so the analysis to follow is mainly discursive, highlighting a series of issues.

2.62   Initially, it is observed that one of the key parts of the Brexit 'pledge' is to reduce levels of immigration to the UK. Given that Brexit will impact on EU migration, an initial analysis considers trends in migration from EU countries. The table below shows net migration to the UK from 2010 to 2015 (figures are all for the year to December). This shows an average net migration of about 250,000 people, with this figure having been rising since 2012; the data also shows that an average of 40% of net migrants are from EU countries, and the remaining 60% from the rest of the World – the proportion of migrants from the EU has however been steadily rising over time.

2.63   This analysis would suggest that any reductions to EU migration will only impact on about two-fifths of the migrants seen to the UK in a typical year.

Figure 2.15: Net migration to the United Kingdom by broad location (2010-2015)					
	British	EU (not-British)	All other	Total *	% EU (excluding British)
2010	-43,000	77,000	217,000	256,000	26%
2011	-70,000	82,000	204,000	205,000	29%
2012	-63,000	82,000	157,000	177,000	34%
2013	-57,000	123,000	142,000	209,000	46%
2014	-55,000	174,000	194,000	313,000	47%
2015	-40,000	184,000	189,000	334,000	49%
Average	-55,000	120,000	184,000	249,000	40%

Source: ONS (* totals do not exactly match the sum of the figures due to adjustments made by ONS as a result of 2011 Census data)

2.64   To look at international migration at a local authority level, data has been taken from the Census about migrants in the year to 2011 – these figures only cover in-migration and not net flows (as in the table above). This shows that relative to other areas, Broxbourne sees a higher proportion of EU in-migrants. This would suggest that the migration impact of Brexit might be greater in the Borough than other locations (although it should be remembered that this data is only based on one year of information, and should therefore be treated with some caution). However, it should also be noted that international migration generally in the Borough is quite low. Using the ONS components of change data, it is calculated that international migration accounted for only 8% of in-migrants and 7% of out-migrants (over the 10-year period to 2015).

Figure 2.16: International in-migration (2011) – Census data				
		EU in-migration	Non-EU in-migration	Total in-migration
Broxbourne	Population	235	162	397
	% of population	59%	41%	100%
East of England	% of population	44%	56%	100%
England	% of population	42%	58%	100%

Source: Census 2011

2.65 The final issue to consider are the assumptions relating to international migration underpinning the latest (2014-based) ONS projections; this is important as this source drives assessments of need at a local level. The table below shows that ONS were projecting net international migration to be around 329,000 in 2014/15 (a figure close to the actual estimated level in MYE); moving forward they assume that net in-migration will reduce to 185,000 by 2020/21 (this figure is projected moving forward from that date); the 185,000 represents a 45% reduction on the 2015 net level and is 26% down on the 2010-15 average shown above.

Figure 2.17: Projected net migration – United Kingdom	
Period	Projected net migration
2014/15	329,000
2015/16	256,000
2016/17	232,000
2017/18	226,000
2018/19	206,000
2019/20	196,000
2020/21	185,000

Source: 2014-based ONS national population projections

2.66 On the basis of this analysis (i.e. reflecting the fact that much of the international migration is not EU related and the fact that ONS are already projecting a reduction in international migration) it is difficult to confidently say that Brexit will have any impact on migration levels, population growth and housing need. At the present time it is considered that using the latest official projections will provide the best estimates of future need. However, the figures should be kept under review, should there be any notable changes as a result of the UK leaving the EU. The next set of ONS projections to be produced (2016-based) will need to reflect a view about the impact of Brexit, and the Council should consider reviewing this evidence when it is released.

Conclusions on Trend-based Demographic Projections

2.67 Compared with the 2012-based CLG household projections, the 2014-based version shows a slightly higher level of household growth. The 2014-based projections are showing an increase in the number of households in the Borough of 6,933 over the 2016-33 period – about 5% higher than the 2012-based projections; this is despite overall population growth being virtually identical in each of the projection releases. Overall, the differences between the 2014- and 2012-based projections are not substantial.

2.68   Analysis of the detail behind the latest population projections (particularly looking at migration) shows that population growth is projected to be in-line with (actually slightly higher than) past trends, whilst net migration is projected to be somewhat higher than past trends. This all points to a situation where official projections are unlikely to be underestimating future population growth (and hence housing need).

2.69   A range of sensitivity scenarios were developed using different assumptions about future migration. Overall, these alternatives did not suggest that there was any need to move away from official projections when considering trend-based needs (this is the same conclusion as drawn in the 2016 Review).

2.70   The analysis has also considered data sitting behind the latest (2014-based) CLG household projections – this was particularly in terms of age specific household representative rates (HRRs). The analysis was particularly focussed on looking at any evidence of suppression of household formation. Whilst it was observed that household formation rates amongst the population aged 25-34 had fallen, there was no definitive evidence to indicate that this was due to suppression (rather than changes to population structure). Hence it was concluded that the 2014-based rates are reasonable to use in the analysis. This conclusion was also reached in the 2016 Review and it should be noted that the HRRs in both the 2012- and 2014-based CLG household projections are virtually identical.

2.71   Overall, and including an allowance for vacant homes (drawn from the Council Tax Register), it was concluded that the demographic housing need sat in the range of 394-413 dwellings per annum. If the analysis is run on a consistent basis to the 2016 Review, then the need is shown to be for 409 dwellings per annum. This figure excludes any adjustment for market signals and compares with a figure of 399 as set out in the 2016 Review.

3.   Economic-led Projections

Introduction

3.1   The 2016 Review considered economic forecasts from the East of England Forecasting Model (EEFM) to look at the relationship between job growth and housing need. At the time of the Review, three releases of EEFM data were available (2012, 2013 and 2014), subsequently a 2016 release has been made available, and this is studied in the analysis to follow (comparisons with the oldest (2012) data have been removed). Consistent with the 2016 Review, the analysis does not just look at overall job growth but also looks at some of the detail sitting behind the forecasts (e.g. in terms of population growth, employment rates and household growth/the demand for dwellings).

3.2   As with the 2016 Review, the key to the analysis is to understand if there is a significant mismatch between the assumptions in the EEFM and the outputs of the demographic projections.

Economic forecasts

3.3   Consideration has been given to the past three releases of the EEFM (2013, 2014 and 2016 baseline); noting that the 2016 Review also considered the 2012 release. This source provides an indication of the expected job growth at a local authority level and the table below shows the increase in the number of jobs expected in 2033 from 2016 levels. Over the 17-year period studied the EEFM expected an increase of around 3,100 jobs in the 2013 version; this more than doubles in the 2016 baseline – showing job growth of 7,500. It should be noted that both the 2013 and 2014 baseline do not include forecasts beyond 2031; the figures for 2033 have therefore been estimated based on extrapolating the trajectory in the years running up to 2031.

Figure 3.1: Employment increase (2016-33)				
Area	Jobs (2016)	Jobs (2033)	Change (2016-33)	% increase
2013 baseline	47,767	50,914	3,147	6.6%
2014 baseline	50,782	56,254	5,472	10.8%
2016 baseline	51,641	59,167	7,526	14.6%

Source: EEFM

3.4   The figure below shows past trends and the expected future change in the number of jobs in Broxbourne (back to 1991 (2001 in the case of the 2016 EEFM)). The data shows significant year on year variation in the past, this is likely to be due in part to the quality of data available and feeding into this analysis. Moving forward from about 2013, the data shows the very different trajectories in each of the 2013, 2014 and 2016 baseline estimates.

Figure 3.2: Past and projected number of jobs – Broxbourne
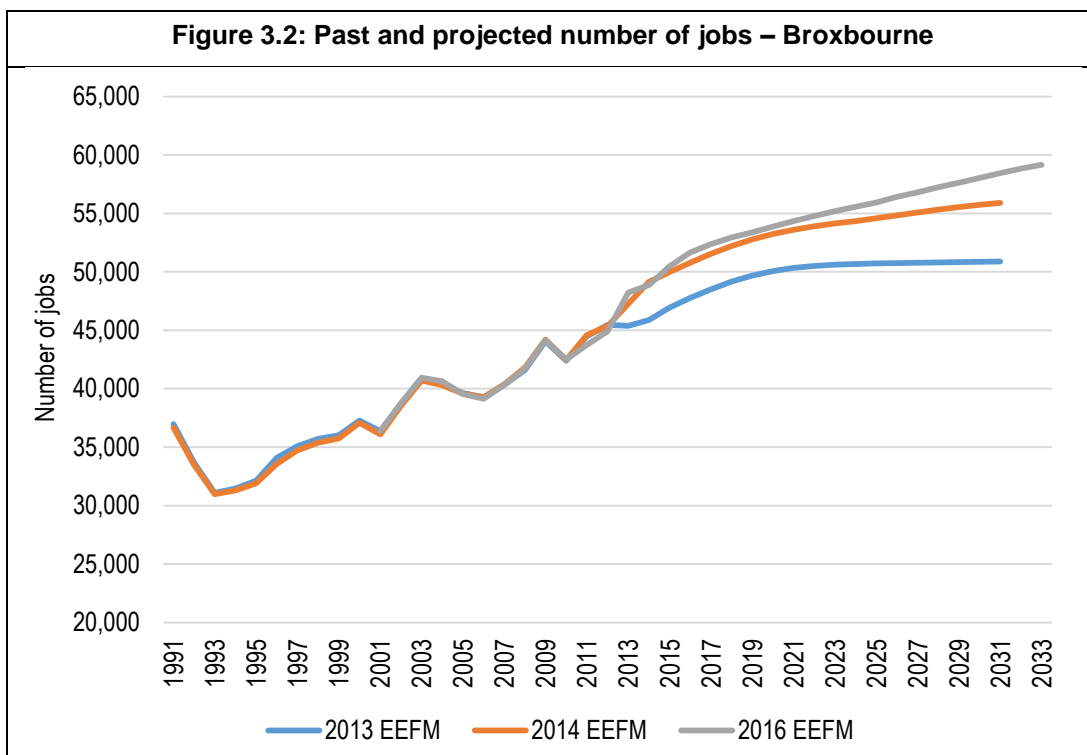
Source: EEFM

3.5 Whilst it is not unusual to see econometric forecasts showing quite different results over time there has to be some concern about the validity of such estimates when they change so markedly over such a short period of time. The significant variation in the forecast number of jobs in the Borough might give rise to a view that each forecast would require a different level of population growth and hence housing need (i.e. a higher population would be required to achieve more labour force growth to meet the forecasts with a greater level of job growth). Such an assumption would however be incorrect. Within the EEFM there are additional assumptions about population growth, commuting patterns, employment rates and double jobbing (although the latter is not expected to have a significant impact).

3.6 In this report (as with the 2016 Review), rather than seek to establish a link between the job forecasts and overall housing need using a standard methodology, the opportunity has been taken to understand other outputs from the EEFM (e.g. about population growth) to test if there is any evidence of a labour-force shortfall (or even surplus) in the Borough.

Population assumptions in the EEFM

3.7 Key to understanding whether any labour-force shortfall might be expected it is possible to analyse the levels of population growth underpinning the EEFM and how these compare with the SNPP – this is shown in the figure below. The figure shows that the various EEFM releases shows different, but similar levels of population growth in the period to 2031/33. The analysis also shows that the latest EEFM projects population growth to be slightly higher than the 2014-based SNPP.

3.8   Overall, the analysis suggests that the SNPP is providing a level of population growth that is consistent with the economic forecasts; the fact that the economic forecasts expect different levels of job growth therefore has no bearing on overall levels of population growth. There is clearly a significant degree of consistency between the EEFM and the SNPP. This finding is consistent with that in the 2016 Review.

Figure 3.3: Levels of population growth expected by the EEFM – Broxbourne
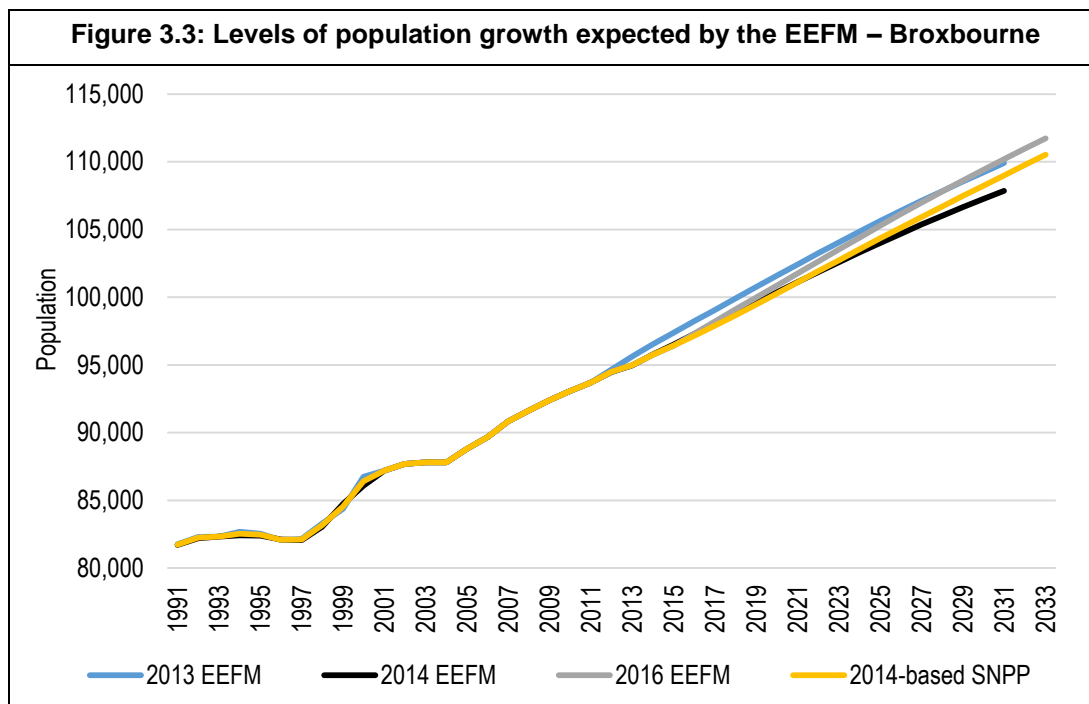
Source: EEFM and ONS

3.9   The table below confirms the analysis above. The most recent EEFM shows population growth that is slightly above the 2014-based SNPP, but previous releases are slightly below. Overall, differences between the SNPP and the EEFM are fairly slight. This again suggests, despite the different levels of job growth expected that population growth will be in-line with that expected in the 2014-based SNPP.

Figure 3.4: Projected population growth (2016-2033)				
	Population 2016	Population 2033	Change in population	% change
2014-based SNPP	97,151	110,526	13,375	13.8%
2013 EEFM baseline	98,229	111,256	13,027	13.3%
2014 EEFM baseline	97,280	109,037	11,757	12.1%
2016 EEFM	97,322	111,742	14,420	14.8%

Source: EEFM and ONS

Employment rates in the EEFM

3.10   The analysis also considers the residence employment rate assumptions assumed in the EEFM. This is based on the number of residents who are employed as a proportion of the population aged 16-74. The figure below shows in all cases that there is expected to be an increase in the employment rate. Of particular note is the rate change in the 2016 release, where it is expected to increase from 73.7% to 78.9% (from 2016 to 2033) – this is a significant change and would be expected to drive a notable increase in the resident workforce (to meet the job growth forecasts). Overall it is considered that the changes to employment rates (aligned with expected population growth) shows a good balance between employment forecasts and housing need.

3.11   It could be argued that the change in the rate shown in the 2016 EEFM is on the high side and that a lower rate change would drive a need for a higher population increase. However, to draw such a conclusion would be to ignore the integrated nature of the EEFM model. Any adjustments to the employment rate would need to be accompanied by adjustments to other parts of the model (such as overall job growth). All parts of the model interact together and so it is not possible to make selected adjustments. It may be necessary, in any more detailed update of the OAN, for the Council to consider the workings of the EEFM and possibly the views about economic growth from other forecasting houses (noting that the 2016 EEFM was produced by Cambridge Econometrics).

Figure 3.5: Employment rates expected by the EEFM – Broxbourne
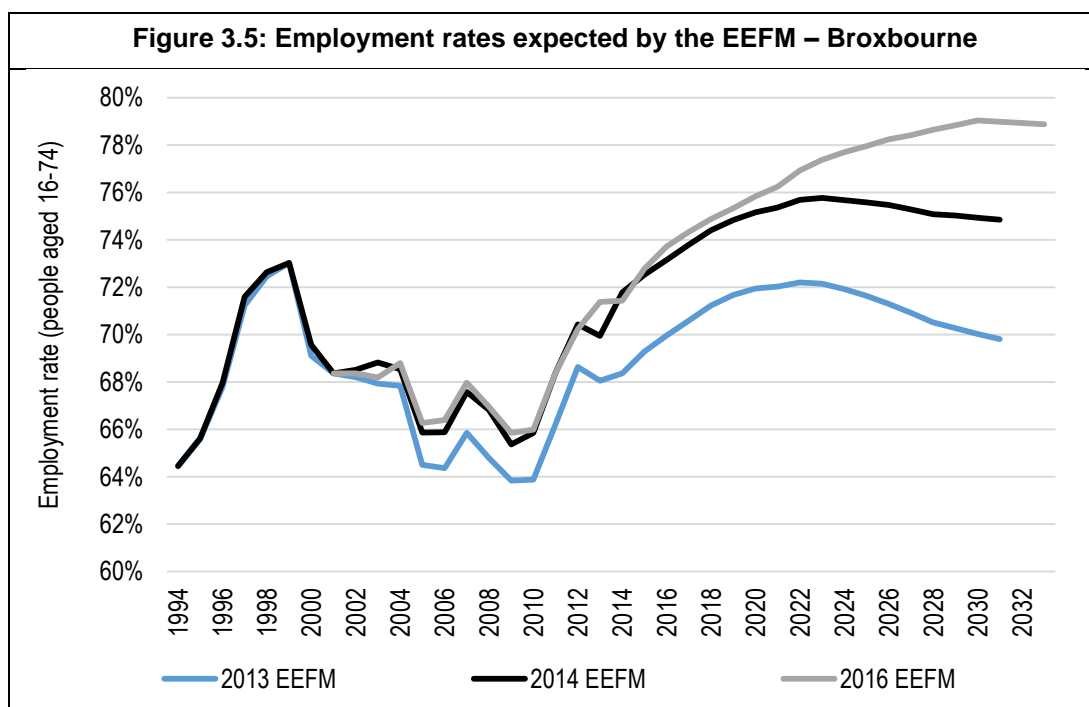
Source: EEFM

Number of households and the Demand for Dwellings

3.12   The final analysis considers the EEFM outputs with regard to the number of households and the 'Demand for Dwellings'. This is taken to be the EEFM estimates of the number of homes that will be required for the estimated growth in population. The methodology behind the dwelling figures is unclear, although it will be the case that none of the figures is able to reflect the 2014-based CLG household projections – these were not published at the time of the EEFM releases.

3.13   The table below shows that for the 2013 and 2014 EEFM releases, the number of dwellings required is below the number estimated by the 2014-based CLG projections; whereas the 2016 EEFM data is slightly higher (about 10 dwellings per annum higher). Whilst this difference (in the 2016 EEFM) is in an upward direct, it is not considered to be significant enough in scale to suggest any need for an uplift in housing numbers over and above that suggested by demographic data as a result of the need to support economic growth and a growth in the local labour force. This is however a point which could be reconsidered in any full OAN update.

Figure 3.6: Projected household and dwelling growth (2016-2033)					
	Households 2016	Households 2033	Change in households	% change	Demand for dwellings
2014-based SNPP	39,621	46,556	6,935	17.5%	7,025
2013 EEFM baseline	39,742	46,306	6,564	16.5%	6,746
2014 EEFM baseline	39,442	45,523	6,081	15.4%	6,250
2016 EEFM baseline	39,569	46,615	7,046	17.8%	7,202

Source: EEFM and ONS/CLG

Conclusions on Economic Growth

3.14   The latest (2016) EEFM is forecasting a higher level of future job growth in the Borough than previous releases. However, this is not driven by substantially higher levels of population growth (when compared with the 2014-based SNPP). Compared with previous releases, the 2016 EEFM is expecting a greater increase in the local employment rate and therefore a greater proportion of the population who are working. The EEFM works the data through into an estimate of the 'demand for dwellings' and this suggests a need for around 10 dwellings per annum more than is shown in official (CLG) household projections. It is not considered that this difference is sufficiently large, so as to set aside the official projections as being the best source of data to inform housing need in the Borough.

4.   Market Signals

Introduction

4.1   The 2016 Review included a full review of the various market signals set out in the PPG and concluded that *'in a local context, the analysis does not suggest any particular pressures in the Borough relative to other locations. However, when considered in a regional and national context, the picture is one of some particular pressures'* (para 5.41). In reaction to the market signals, the Review then modelled a scenario where household formation/representative rates were assumed to increase above the levels shown in the CLG household projections for specific age groups (those aged 25-34). This was deemed to be a reasonable adjustment for market signals.

4.2   This report does not seek to fully update all of the market signals in the 2016 Review; not least because for some (e.g. overcrowding) there is no new data available. The main focus below is about new dwelling completions, with a comparison between delivery and planned supply being one of the main market signals set out in the PPG. This market signal is arguably the main one that most directly supports a need to increase future supply in that it potentially has led to a situation whereby there are suppressed households not being picked up by the CLG household projections (this point was discussed in Section 2 of this report).

Rates of Development

4.3   The 2016 Review looked at delivery in the period from 2001 to 2014, and noted at that time that a cumulative surplus of 290 dwellings had been delivered. The data underpinning the 2016 Review was taken from the 2014 Annual Monitoring Report (AMR) and has now been updated to 2016; the 2016 AMR looked at completions back to 2006 (rather than 2001).

4.4   The latest data on completions shows a rather different picture (see table below). The Borough has moved from a situation where delivery has been above targets, to one where there is a notable shortfall. As of 2016, the AMR data is showing a shortfall in delivery of just over 800 homes, this shortfall having largely built up over the past five years (and particularly in the 2014-16 period).

Figure 4.1: Completions compared with targets (2006-16) – Broxbourne				
	Housing requirement	Gross completions	Net completions	Over/under-delivery
2006/7	270	287	260	-10
2007/8	270	298	281	11
2008/9	270	202	179	-91
2009/10	240	333	316	76
2010/11	252	278	271	19
2011/12	252	175	168	-84
2012/13	262	190	183	-79
2013/14	262	118	97	-165
2014/15	419	184	179	-240
2015/16	419	483	177	-242
Total	2,916	2,248	2,111	-805

Source: Table 1 of 2016 Annual Monitoring Report

4.5   The change in the position in relation to past delivery (coupled with some pressures identified in the 2016 Review) suggests that reconsideration of an uplift to take account of market signals (and the possibility of suppressed household formation) would be prudent. This is discussed below.

Uplift for Market Signals and Other Evidence

4.6   The analysis above has looked at past completion rates in the Borough. One further new analysis that can be studied is around price:income ratios. This forms part of a new ONS Housing affordability in England and Wales Statistical bulletin. The table below draws on ONS data published in March 2017 and looks at the ratio of house price to residence-based earnings; the figures are for lower quartile prices and earnings as this is the measure most conventionally used in analysis of this nature. Figures for the past three years have been averaged to allow for any anomalies and volatility which may occur from one year to the next. The analysis shows that the average affordability ratio in Broxbourne is above the national figure, broadly in-line with regional data and below the figure for Hertfordshire. On balance, this does suggest an affordability issue in Broxbourne that could provide justification for an uplift in the objectively assessed need (in the same ways as the completions data would suggest the need for an uplift).

Figure 4.2: Lower quartile ratio of house price to residence-based earnings				
	2014	2015	2016	Average
Broxbourne	8.18	8.85	10.80	9.28
Hertfordshire	9.30	10.25	11.18	10.24
South East	8.60	9.05	9.74	9.13
England	6.91	7.11	7.16	7.06

Source: ONS Ratio of house price to residence-based earnings data

4.7   The Council has explained that it is addressing the affordability issue by increasing the number of more affordable apartments within its overall supply. Whilst it is accepted that such a strategy would assist in meeting need, it is considered that a further notional increase in the need figure of a 10% market signals adjustment would be an appropriate response to addressing possible suppressed household formation and the affordability issue (alongside the observation of an under-delivery of housing).

4.8   The market signals uplift is to be applied to the start point for the assessment of need – this is the CLG household projections. For clarity, para 2a-019 of the PPG states that: *'the housing need number suggested by household projections (the starting point) should be adjusted to reflect appropriate market signals'* with the starting point having previously been defined in para 2a-015: *'household projections published by the Department for Communities and Local Government should provide the starting point estimate of the overall housing need'*.

4.9   Therefore, it is suggested that a 10% uplift should be applied to the need shown by the CLG projections of 413 dwellings per annum (including a vacancy allowance) – this gives an objectively assessed housing need of 454 dwellings per annum. Over the 2016-33 period, this uplift to the start point would represent an additional 700 homes.

4.10   Hence, on the basis of market signals, it is concluded that the OAN in Broxbourne from 2016-33 is for 454 dwellings per annum. This figure would allow for a greater proportion of affordable housing need to be met, as well as addressing any suppression of household formation in the period to 2016.

Household Formation Rate Sensitivity

4.11   To be consistent with the 2016 Review, a final analysis has been carried out to look at the implications of uplifting the household representative rates for people age 25-34. For the purposes of this document, this is mainly undertaken to see if this derives a higher OAN than the start point plus market signals discussed above, and is not additional to the analysis already undertaken.

4.12   The Review noted that *'A detailed interrogation of demographic dynamics in Broxbourne indicates that in demographic terms, the economic recession and changes to the housing market (such as restricted mortgage finance) over the 2001-11 decade is likely to have influenced – at least in part – a decline in household formation rates in younger people, particularly amongst those aged between 25 and 34. This is the one age group identified earlier as showing some degree of suppression when balancing past trends and the future projection'*. Looking at the 2014-based projections, a similar conclusion could arguably be drawn (although the existence or extent of any suppression cannot be definitively concluded from the available data).

4.13   In the 2016 Review, this sensitivity was undertaken following an analysis of a range of market signals (see Section 5 of the Review).

4.14   The Review ran a sensitivity analysis which considered and sought to quantify the implication of returning the household formation rates of the 25-34 age group back to 2001 levels in the period from 2015 to 2025 (and then tracking the rate changes in the 2012-based projections thereafter). In this study, the rate is assumed to return to 2001 levels by 2033 although in reality this makes little difference to the outputs (probably slightly increasing need).

4.15   As noted in the Review, this sensitivity in effect seeks to consider a scenario in which affordability and access to housing for younger households improves, and quantifies what level of housing provision might be associated with this, all other factors being equal. If achieved, the effect would be to reduce the proportions of shared/concealed households and persons within this age group living with parents.

4.16   The sensitivity analysis indicates that, all other things being equal, an uplift of around 25 homes per annum across the Borough would support an improvement in household formation rates amongst younger households. There is some variation depending on the scenario tested, but all are in the range of 23-28 additional homes per annum. All (bar one) of the figures in the table below are lower than the OAN of 454 (derived from adding 10% to the start point need for 413 dwellings per annum).

Figure 4.3: Projected housing need – range of demographic based scenarios and 2014-based headship rates (plus and uplift to the 25-34 age group) – Broxbourne					
	Households 2016	Households 2033	Change in households	Per annum	Dwellings (per annum)
2014-based SNPP	39,621	46,949	7,328	431	437
2014-based SNPP (+MYE)	39,312	46,568	7,256	427	432
14-year migration (fixed)	39,312	44,725	5,414	318	323
14-year migration (variable)	39,312	46,375	7,064	416	421
14-year fixed (+UPC)	39,312	45,533	6,222	366	371
14-year variable (+UPC)	39,312	47,183	7,872	463	469

Source: Demographic projections

Market Signals Conclusions

4.17   Overall, it is concluded that the housing need (OAN) in Broxbourne is for 454 dwellings per annum in the 2016-33 period. This is based on the most recent official projections, along with an allowance for vacant homes and an uplift to take account of market signals. This figure is somewhat higher than shown in the 2016 Review; where it was concluded that the need was for 419 dwellings per annum over the 2014-31 period. The increase is mainly driven by a reconsideration of the market signals evidence about past housing delivery and applying a percentage uplift; such an approach has been widely supported by planning inspectors.

Appendix 1: Detailed Demographic Modelling Outputs

PROJECTION: 2014-based SNPP

Components of change

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Births	1,271	1,279	1,287	1,300	1,304	1,307	1,307	1,306	1,302	1,296	1,290	1,286	1,282	1,280	1,279	1,281	1,284
Deaths	738	742	741	757	758	764	768	771	776	783	790	800	807	813	824	834	843
Natural change	586	532	537	546	543	545	543	540	535	526	513	500	486	475	467	455	447
In-migration	5,137	5,185	5,217	5,247	5,272	5,299	5,325	5,351	5,379	5,410	5,443	5,477	5,511	5,545	5,579	5,612	5,648
Out-migration	4,928	4,949	4,970	4,984	5,008	5,023	5,045	5,069	5,106	5,141	5,163	5,187	5,218	5,245	5,277	5,302	5,325
Net migration	208	236	247	263	264	277	280	281	273	269	279	290	293	300	302	310	323

Population (broad age groups)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Age 0-14	18,392	18,624	18,899	19,171	19,437	19,620	19,753	19,895	20,013	20,092	20,164	20,184	20,219	20,299	20,353	20,390	20,415	20,433
Age 15-29	17,065	16,974	16,832	16,684	16,525	16,488	16,513	16,546	16,573	16,678	16,795	16,937	17,095	17,217	17,388	17,602	17,845	18,105
Age 30-44	19,204	19,279	19,465	19,689	19,961	20,249	20,519	20,737	20,855	20,865	20,859	20,925	20,936	20,934	20,876	20,784	20,685	20,557
Age 45-59	20,420	20,548	20,584	20,551	20,565	20,428	20,280	20,135	20,106	20,138	20,109	20,033	20,001	20,014	20,106	20,197	20,342	20,572
Age 60-74	13,887	14,146	14,379	14,593	14,752	15,029	15,079	15,289	15,619	15,981	16,423	16,857	17,284	17,666	18,005	18,267	18,448	18,549
Age 75+	8,183	8,322	8,510	8,775	9,034	9,274	9,766	10,132	10,388	10,601	10,791	10,985	11,165	11,340	11,511	11,758	12,025	12,310
Total population	97,151	97,893	98,668	99,464	100,274	101,087	101,911	102,734	103,553	104,355	105,140	105,922	106,700	107,470	108,239	108,999	109,758	110,526
Change from previous year		742	775	796	810	813	823	824	819	802	784	782	778	770	769	760	759	768
Households	39,621	40,016	40,399	40,810	41,220	41,605	42,016	42,410	42,814	43,214	43,624	44,031	44,435	44,845	45,262	45,688	46,128	46,556
Change from previous year		368	395	383	410	411	385	411	394	404	401	409	408	404	409	417	426	441
Dwelling need		400	388	416	416	390	416	399	409	406	415	413	409	414	423	431	446	433
Households (25-34 uplift)	39,621	39,223	40,039	40,444	40,878	41,314	41,723	42,156	42,575	43,004	43,428	43,859	44,289	44,716	45,144	45,581	46,032	46,497
Change from previous year		368	418	405	435	436	408	434	419	429	423	432	430	426	429	436	451	465
Dwelling need		423	411	440	441	414	439	424	435	429	438	435	432	434	442	457	471	458

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PROJECTION: 2014-based SNPP (rebased for 2015 mid-year population estimates and 2015-16 completions)

Components of change

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Births	1,251	1,257	1,265	1,277	1,281	1,286	1,287	1,286	1,285	1,280	1,277	1,273	1,271	1,269	1,270	1,271	1,275
Deaths	739	742	740	756	757	762	765	767	773	779	788	796	804	809	820	829	838
Natural change	586	511	516	525	521	523	524	522	519	512	501	489	477	467	460	450	442
In-migration	5,137	5,185	5,217	5,247	5,272	5,299	5,325	5,351	5,379	5,410	5,443	5,477	5,511	5,545	5,579	5,612	5,648
Out-migration	4,928	4,949	4,970	4,984	5,008	5,023	5,045	5,069	5,106	5,141	5,163	5,187	5,218	5,245	5,277	5,302	5,325
Net migration	208	236	247	263	264	277	280	281	273	269	279	290	293	300	302	310	323

Population (broad age groups)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Age 0-14	18,234	18,441	18,691	18,955	19,216	19,406	19,528	19,647	19,759	19,837	19,908	19,926	19,968	20,051	20,088	20,129	20,165	20,195
Age 15-29	16,884	16,807	16,687	16,535	16,379	16,354	16,412	16,472	16,487	16,548	16,680	16,805	16,928	17,055	17,241	17,445	17,662	17,898
Age 30-44	19,035	19,095	19,276	19,493	19,745	20,024	20,263	20,497	20,607	20,662	20,629	20,710	20,723	20,738	20,702	20,604	20,519	20,414
Age 45-59	20,275	20,410	20,446	20,415	20,442	20,283	20,126	19,936	19,923	19,951	19,934	19,850	19,848	19,834	19,925	20,032	20,162	20,388
Age 60-74	13,753	14,016	14,235	14,471	14,605	14,884	14,935	15,165	15,500	15,873	16,313	16,756	17,170	17,558	17,874	18,133	18,320	18,422
Age 75+	8,197	8,330	8,518	8,760	9,029	9,257	9,748	10,101	10,347	10,539	10,719	10,906	11,086	11,249	11,417	11,658	11,928	12,203
Total population	96,379	97,100	97,853	98,629	99,417	100,208	101,013	101,819	102,623	103,411	104,183	104,953	105,723	106,484	107,247	108,001	108,756	109,519
Change from previous year		721	753	776	788	791	804	806	804	788	772	771	769	762	762	755	755	763
Households	39,312	39,695	40,077	40,481	40,888	41,262	41,669	42,068	42,467	42,860	43,261	43,668	44,075	44,476	44,891	45,306	45,744	46,175
Change from previous year		368	383	382	404	406	374	407	399	399	392	401	407	407	401	415	415	438
Dwelling need		388	387	410	411	379	413	405	404	397	406	413	412	406	420	421	444	436
Households (25-34 uplift)	39,312	39,223	39,717	40,122	40,552	40,983	41,380	41,811	42,234	42,658	43,072	43,495	43,925	44,352	44,771	45,209	45,650	46,110
Change from previous year		368	406	405	430	431	396	431	423	424	414	423	430	428	419	438	441	461
Dwelling need		411	411	435	437	401	436	429	429	420	429	435	433	424	444	446	467	463

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PROJECTION: 14-year migration trends (fixed migration)

Components of change

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Births	1,251	1,253	1,255	1,260	1,258	1,257	1,252	1,244	1,237	1,227	1,218	1,210	1,203	1,197	1,194	1,191	1,190
Deaths	739	741	739	753	754	757	759	759	764	769	777	784	790	795	803	812	818
Natural change	586	511	512	516	507	505	500	493	485	473	458	442	427	413	403	390	379
In-migration	5,042	5,077	5,104	5,126	5,150	5,171	5,195	5,220	5,252	5,286	5,313	5,342	5,374	5,405	5,438	5,467	5,496
Out-migration	5,023	5,057	5,084	5,106	5,130	5,151	5,175	5,200	5,233	5,266	5,293	5,322	5,355	5,385	5,418	5,448	5,476
Net migration	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20

Population (broad age groups)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Age 0-14	18,234	18,407	18,614	18,828	19,029	19,154	19,206	19,249	19,282	19,280	19,269	19,204	19,158	19,153	19,101	19,055	19,002	18,944
Age 15-29	16,884	16,747	16,563	16,351	16,138	16,061	16,069	16,081	16,051	16,070	16,163	16,246	16,326	16,408	16,542	16,689	16,842	17,004
Age 30-44	19,035	19,043	19,161	19,307	19,482	19,678	19,828	19,971	19,987	19,954	19,835	19,826	19,748	19,674	19,555	19,380	19,223	19,049
Age 45-59	20,275	20,386	20,394	20,333	20,327	20,133	19,939	19,711	19,657	19,642	19,580	19,449	19,395	19,324	19,353	19,393	19,451	19,596
Age 60-74	13,753	14,005	14,209	14,429	14,545	14,804	14,834	15,041	15,351	15,698	16,111	16,524	16,906	17,260	17,542	17,767	17,919	17,985
Age 75+	8,197	8,323	8,503	8,735	8,994	9,211	9,689	10,029	10,261	10,440	10,607	10,780	10,944	11,091	11,242	11,465	11,714	11,966
Total population	96,379	96,911	97,444	97,984	98,514	99,042	99,565	100,082	100,590	101,085	101,565	102,029	102,477	102,912	103,336	103,749	104,150	104,544
Change from previous year		533	533	539	531	528	523	516	508	495	480	464	448	435	425	412	401	394
Households	39,312	39,627	39,929	40,247	40,559	40,837	41,141	41,434	41,724	42,009	42,303	42,598	42,888	43,169	43,459	43,748	44,055	44,348
Change from previous year		368	315	302	318	312	278	304	293	290	285	294	295	290	281	291	289	307
Dwelling need		319	306	322	316	281	308	297	294	288	298	299	293	285	294	293	311	297
Households (25-34 uplift)	39,312	39,223	39,649	39,974	40,317	40,654	40,953	41,281	41,596	41,910	42,216	42,531	42,848	43,156	43,454	43,767	44,079	44,407
Change from previous year		368	338	325	343	337	299	327	316	314	306	315	316	309	297	313	313	328
Dwelling need		342	329	348	341	303	331	320	318	310	319	320	313	301	317	317	332	322

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PROJECTION: 14-year migration trends (variable migration)

Components of change

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Births	1,251	1,255	1,262	1,272	1,276	1,281	1,283	1,284	1,286	1,286	1,287	1,289	1,292	1,297	1,304	1,310	1,319
Deaths	739	742	740	756	758	762	765	766	772	778	786	794	801	806	816	825	832
Natural change	586	511	514	521	516	518	519	519	518	514	508	501	495	491	491	488	486
In-migration	5,255	5,303	5,335	5,366	5,390	5,417	5,443	5,469	5,497	5,528	5,561	5,595	5,629	5,663	5,697	5,730	5,766
Out-migration	5,043	5,064	5,085	5,099	5,123	5,138	5,160	5,185	5,221	5,256	5,279	5,302	5,333	5,360	5,392	5,418	5,440
Net migration	211	239	250	266	267	280	283	284	276	272	282	293	296	303	305	313	326

Population (broad age groups)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Age 0-14	18,234	18,435	18,674	18,925	19,165	19,339	19,442	19,549	19,647	19,715	19,778	19,798	19,841	19,931	19,983	20,053	20,128	20,205
Age 15-29	16,884	16,905	16,893	16,849	16,795	16,861	17,005	17,144	17,239	17,380	17,590	17,758	17,916	18,070	18,269	18,474	18,686	18,911
Age 30-44	19,035	19,052	19,187	19,355	19,566	19,808	20,020	20,233	20,335	20,385	20,353	20,462	20,523	20,607	20,651	20,637	20,651	20,653
Age 45-59	20,275	20,383	20,394	20,345	20,364	20,202	20,052	19,870	19,852	19,869	19,837	19,740	19,715	19,669	19,727	19,799	19,887	20,068
Age 60-74	13,753	13,986	14,172	14,372	14,469	14,711	14,711	14,889	15,175	15,504	15,903	16,316	16,703	17,060	17,347	17,582	17,744	17,823
Age 75+	8,197	8,339	8,532	8,779	9,049	9,275	9,765	10,114	10,355	10,541	10,713	10,885	11,049	11,198	11,351	11,576	11,826	12,076
Total population	96,379	97,101	97,852	98,625	99,408	100,195	100,995	101,799	102,602	103,394	104,174	104,958	105,747	106,534	107,328	108,122	108,921	109,735
Change from previous year		722	751	773	783	787	800	804	804	792	780	784	788	787	794	793	799	814
Households	39,312	39,657	40,003	40,372	40,746	41,091	41,477	41,859	42,241	42,621	43,012	43,414	43,817	44,216	44,631	45,049	45,492	45,930
Change from previous year		368	345	346	369	375	345	386	382	382	380	391	401	403	399	416	417	444
Dwelling need		349	351	373	380	349	391	386	387	385	396	406	408	404	421	423	449	443
Households (25-34 uplift)	39,312	39,223	39,679	40,050	40,445	40,846	41,216	41,629	42,037	42,448	42,853	43,271	43,699	44,125	44,546	44,989	45,436	45,907
Change from previous year		368	368	370	395	401	369	413	408	411	406	418	427	427	421	443	447	470
Dwelling need		373	375	400	407	374	418	414	416	411	423	433	432	426	449	453	476	475

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PROJECTION: 14-year migration trends +UPC (adjustment to fixed migration assumptions)

Components of change

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deaths	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
In-migration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out-migration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net migration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Population (broad age groups)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Age 0-14	18,234	18,436	18,673	18,916	19,146	19,301	19,382	19,455	19,517	19,544	19,563	19,527	19,511	19,535	19,513	19,496	19,473	19,444
Age 15-29	16,884	16,774	16,617	16,432	16,246	16,197	16,231	16,270	16,268	16,314	16,433	16,544	16,651	16,760	16,921	17,095	17,275	17,464
Age 30-44	19,035	19,085	19,244	19,433	19,649	19,887	20,079	20,264	20,322	20,330	20,253	20,286	20,250	20,218	20,140	20,007	19,892	19,760
Age 45-59	20,275	20,396	20,414	20,362	20,366	20,182	19,998	19,779	19,735	19,730	19,678	19,556	19,512	19,451	19,490	19,540	19,607	19,762
Age 60-74	13,753	14,016	14,231	14,462	14,589	14,859	14,899	15,118	15,438	15,796	16,219	16,644	17,036	17,402	17,695	17,930	18,093	18,170
Age 75+	8,197	8,323	8,503	8,734	8,993	9,210	9,688	10,027	10,259	10,438	10,604	10,777	10,941	11,088	11,239	11,461	11,710	11,962
Total population	96,379	97,030	97,682	98,340	98,989	99,635	100,278	100,913	101,539	102,153	102,752	103,334	103,901	104,455	104,998	105,529	106,049	106,562
Change from previous year		651	652	658	649	646	642	635	627	614	599	582	567	553	543	531	520	513
Households	39,312	39,673	40,021	40,386	40,744	41,068	41,419	41,758	42,095	42,426	42,767	43,108	43,444	43,772	44,109	44,445	44,798	45,137
Change from previous year		368	361	348	365	359	324	351	339	337	331	340	342	336	328	337	336	353
Dwelling need		366	353	369	363	328	355	344	341	336	345	346	340	332	342	340	358	344
Households (25-34 uplift)	39,312	39,223	39,696	40,067	40,457	40,840	41,186	41,561	41,923	42,285	42,638	43,001	43,365	43,722	44,068	44,429	44,790	45,167
Change from previous year		368	384	371	390	383	346	374	363	361	353	363	364	357	346	361	361	376
Dwelling need		389	376	395	388	351	379	367	366	358	368	369	361	350	366	366	381	371

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PROJECTION: 14-year migration trends +UPC (adjustment to variable migration assumptions)

Components of change

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deaths	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Natural change	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
In-migration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out-migration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net migration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Population (broad age groups)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Age 0-14	18,234	18,465	18,733	19,013	19,283	19,486	19,619	19,755	19,882	19,980	20,072	20,122	20,194	20,313	20,395	20,495	20,599	20,705
Age 15-29	16,884	16,932	16,947	16,930	16,904	16,996	17,167	17,333	17,455	17,624	17,861	18,055	18,241	18,421	18,648	18,880	19,119	19,371
Age 30-44	19,035	19,094	19,271	19,480	19,733	20,018	20,270	20,526	20,669	20,761	20,772	20,922	21,025	21,151	21,237	21,265	21,320	21,364
Age 45-59	20,275	20,393	20,413	20,375	20,403	20,251	20,111	19,938	19,930	19,957	19,935	19,847	19,833	19,796	19,864	19,945	20,043	20,234
Age 60-74	13,753	13,997	14,194	14,405	14,512	14,765	14,777	14,966	15,262	15,602	16,011	16,435	16,833	17,201	17,500	17,745	17,918	18,008
Age 75+	8,197	8,338	8,532	8,778	9,048	9,273	9,764	10,113	10,353	10,538	10,710	10,883	11,046	11,195	11,348	11,573	11,822	12,072
Total population	96,379	97,219	98,089	98,981	99,883	100,789	101,707	102,630	103,552	104,462	105,361	106,264	107,171	108,077	108,990	109,902	110,821	111,753
Change from previous year		841	870	892	902	905	919	922	922	910	899	902	907	906	913	912	918	933
Households	39,312	39,703	40,095	40,510	40,932	41,323	41,755	42,183	42,612	43,038	43,476	43,924	44,373	44,819	45,281	45,745	46,236	46,720
Change from previous year		368	391	393	415	421	391	433	428	428	427	438	448	449	446	462	464	490
Dwelling need		396	398	420	426	396	438	433	434	432	444	454	455	451	468	470	496	490
Households (25-34 uplift)	39,312	39,223	39,726	40,142	40,584	41,032	41,449	41,909	42,364	42,822	43,275	43,741	44,216	44,691	45,160	45,652	46,147	46,666
Change from previous year		368	414	417	442	448	416	460	456	458	453	466	475	475	469	492	495	519
Dwelling need		419	422	448	454	422	466	461	464	459	472	481	481	475	498	502	525	524