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Planning. Design. Economics.

**Staffordshire Moorlands 2012-based
SNHP Update**

January 2016 Revision

Staffordshire Moorlands District Council

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1.0 Introduction

Background to the Study

- 1.1 Nathaniel Lichfield & Partners [NLP] produced a Strategic Housing Market Assessment [SHMA] on behalf of the two local authorities of High Peak Borough Council [HPBC] and Staffordshire Moorlands District Council [SMDC] in April 2014. The identification of objectively assessed need [OAN] for housing was at the heart of the study, based upon a range of housing, economic and demographic factors, trends and forecasts. This sought to provide the Councils with evidence on the future housing need of their districts to help them plan for future growth and make informed policy choices on the level of housing requirement through the development plan preparation process.
- 1.2 Following on from the preparation of the SHMA, the demographic data which underpinned NLP's modelling work was updated by ONS. This new data, the 2012-based Sub-National Population Projections [SNPP], was published on 29th May 2014. The latest projections were based on the 2012 mid-year population estimates published in June 2013 and a set of underlying demographic assumptions regarding fertility, mortality and migration, based on local trends.
- 1.3 NLP analysed this updated data and prepared the Housing Needs Study 2012-based SNPP Update, which was issued to both Councils in August 2014.
- 1.4 The 2012-based Sub-National Household Projections [SNHP] were released on 27th February 2015 and supersede the 2011-based (Interim) SNHP. The 2012-based SNHP incorporate the ONS 2012-based SNPP published on 28th May 2014 and further information from the Census 2011 where available.
- 1.5 The latest SNHP were released following SMDC's adoption of their Core Strategy on 26th March 2014. Policy SS2 (Future Provision of Development) states that *'the Council will undertake and complete an early and comprehensive review of the Core Strategy by 2016 to cover the period 2016-2031 to ensure that future provision will continue to adequately meet objectively assessed needs and reflect development potential'*.
- 1.6 The Inspector concluded in his Report to Staffordshire Moorlands District Council that *'an early review would provide a basis for taking account of longer term requirements and would have the added advantage that the policies for affordable housing provision could be re-assessed as the housing market responds to an improving economy. It would also provide an opportunity to update the evidence base. In these particular circumstances I believe a commitment to an early review would ensure a sound basis for the strategy'*¹.

¹ Report on the Examination into Staffordshire Moorlands Core Strategy Local Plan, Inspector Whitehead, 2nd January 2015

- 1.7 This revision to the July 2015 report has been prepared to take into account the latest information released since summer 2015 as well as relevant Planning Inspector's Reports & High Court Judgements² on approaches to defining housing OAN. It takes on board new Annual Population Survey [APS] data, the 2014 Mid-Year Population Estimates and the latest unemployment data in the PopGroup modelling.

Staffordshire Moorlands Core Strategy & Supporting Evidence Base

- 1.8 The Staffordshire Moorlands Core Strategy [SMCP] covers the period between 2006 and 2026. Policy SS2 (Future Provision of Development) indicates that the Council will make provision for an additional 6,000 dwellings over the period 2006-2026 at an average annual development rate of 300 dwellings.
- 1.9 The housing requirement figure as set out in the SMCP was informed by the conclusions of the 2010 Housing Requirements Paper. Following the adoption of the Core Strategy, NLP prepared a Strategy Housing Market Assessment [SHMA] and Housing Needs Report (April 2014) and a subsequent Housing Needs Study 2012-based SNPP Update (August 2014) for SMDC.
- 1.10 The initial PopGroup modelling used to inform the housing OAN range in the April 2014 SHMA was based on the most up to date information available at the time. The modelling utilised the 2011-based SNPP, whilst the headship rates were derived from the 2011-based SNHP to 2021, indexed to the 2008-based household projections thereafter.
- 1.11 During the modelling exercise, NLP factored in economic and demographic needs amongst other considerations including market signals and affordability concerns. NLP excluded outliers and unrealistic scenarios at the top and bottom ends of the OAN range and came to the conclusion that the most appropriate housing OAN range for Staffordshire Moorlands should be 260-440 dwellings per annum [dpa].
- 1.12 Following on from the initial PopGroup modelling exercise, NLP prepared the Housing Needs Study 2012-based SNPP Update in August 2014. This Update was undertaken to take account of the latest 2012-based SNPP. Other inputs were also updated where more recent information was available. The 2014 Update concluded that if the 2012-based SNPP had been available when the original study had been conducted, a lower housing OAN range of 210-430 dpa would have been recommended to reflect the significant reduction in population growth in the population projections released by the ONS.
- 1.13 This range encompassed the Oxford Economics Job Growth projections and would allow the District to meet its demographically-driven housing needs in full.

²Oadby and Wigston Borough Council vs. SoS for Communities and Local Government and Bloor Homes Limited: [2015] EWHC 1879 (Admin), dated 03/07/15. Kings Lynn and West Norfolk Borough Council vs. SoS for Communities and Local Government and Elm Park Holdings Ltd: [2015] EWHC 2464 (Admin), dated 09/07/15

1.14

As discussed above, this note will seek to consider the full implications of the latest 2012-based SNHP on the Council's OAN.

2.0 **Methodology behind the 2012 SNHP**

The Methodology

- 2.1 The headline figures from the latest 2012 based SNHP were released by CLG on 27th February 2015 and supersede the 2011-based (Interim) SNHP. The 2012-based SNHP incorporate the ONS 2012-based SNPP (published on 28th May 2014) and further information from the Census 2011.
- 2.2 The methodology for the 2012-based SNHP broadly follows that used for the 2011-based and 2008-based projections. The 2011-based SNHP included some changes that were required to incorporate valuable information from the 2011 Census. Since then further information from the 2011 Census has become available and has been incorporated into the 2012-based SNHP; where possible, building on the approach used for the 2011-based SNHP.
- 2.3 The household projections are compiled using a two stage process. Stage One produces the national and local projections for the total number of households by age group and marital status group over the projection period. The total number of households in each local area forms the basis of the control totals for Stage Two of the projection methodology, which provides the detailed household type breakdown by age.
- 2.4 Stage One applies projected household membership rates to a projection of the private household population disaggregated by age, sex and marital status and summing the resulting projections of household representatives. The method uses a simplified three way relationship categorisation to represent marital / cohabitational status. The categories are 'in couples' (including married couples who are living together and cohabiting couples); 'separated marrieds', 'divorced and widowed not in couples'; and 'people not in couples' (not cohabiting, never married). This is an aggregation of the detailed categories in the previous CLG (Household Projection System, known as HOPS) model which captures the key household formation characteristics of the relationship status groups while retaining relative simplicity.
- 2.5 As in the 2011-based projections, the projection methodology for Stage One from the 2008-household projection has been maintained but adapted. The 2012-based projections includes information from the 2011 Census which, together with data from the Labour Force Survey (LFS), has been used to update the estimates for the 2011 point that are then used in the household projections methodology at a national level.
- 2.6 The updated national projections are then used to control a set of projections for regions and local authorities that have been derived by applying projections of the household representative rates by sex, age and status to the 2012-based household population by sex, age and status. The regional and local authority projection is then controlled to the 2011 Census aggregate household representative rate.

- 2.7 The projections methodology uses time-series modelling which weights together simple and dampened logistic trends. Cohort modelling is not used. The simplified time-series based projections are referred to as the Stage One projections to distinguish them from the detailed projections by household type described in Stage Two. There are six key components to the household projections produced in Stage One each of which is given in detail below:
- 1 Population projections
 - 2 Marital status composition
 - 3 Institutional population
 - 4 Household representative rates
 - 5 LFS adjustments
 - 6 Regional and local household projections
- 2.8 The importance of the household projections to planning is emphasised in the Planning Practice Guidance which states that "*household projections produced by the Department for Communities and local Government should provide the starting point estimate of overall housing need*"³. Therefore, the new household projections represent an important milestone in providing evidence to inform objective assessments of housing need.
- 2.9 However, they do not represent the whole picture, because:
- a They are based upon applying headship rates (rates of household formation) to the already released ONS 2012-based SNPP. These underlying population projections are trend based, reflecting migration patterns seen over the recession and may not be reliable in all areas. Significantly, they are already becoming outdated, with the 2012-based SNPP at the national level underestimating net in-migration to the UK by 170,000 persons over the past two years (2012/13 and 2013/14) compared with what ONS now know actually occurred.
 - b They reflect a long term and structural under-supply of housing over the long term, during periods of both recession and growth. Since 2001 an average of 135,000 dwellings in England have been completed each year, far short of what is needed, and there has been a 16% decline in the number of completions since the start of the millennium. Lack of dwellings constrains household formation and this historic and long term under-supply will have influenced what are firmly trend-based projections.
 - c They are influenced by recessionary trends since 2007, including mortgage rationing, financial instability and acute affordability constraints. Although the methodology for the household projections draw upon household formation trends over a 40 year period since 1971, they still contain a 'recency bias' reflecting trends over the last 10 years much more than trends over the longer term. The projected average household size shows that household formation rates are increasing at a

³ National Planning Practice Guidance: 2a-015-20140306

rate somewhere between the pre-recession 2008-based projections at the 2011-based interim projections.

- 2.10 These factors impact both the underlying population base as well as the household formation rates, combining to present a level of household growth at a national level substantially below a level that would truly reflect need and demand.

What do the projections mean for planning?

- 2.11 The Government's population and household projections will continue to act as the starting point for considering evidence of housing need, and for all their problems, they are as good a starting point as any. However, caution should be exercised when applying them in evidence. They can and should be subject to adjustment where specific evidence justifies it. The advice contained in the Practice Guidance, that the projections may require adjustment to reflect household formation having been suppressed historically by housing undersupply and worsening affordability, has been widely considered.
- 2.12 Many Planning Inspectors have taken the view that the 2011-based projections represented a suppression of household formation, particularly amongst younger age groups. This has been supported by analysis into the underlying projections such as the 'Holman Paper'⁴, and whilst the 2012-based are more optimistic in household formation rates than their 2011-based predecessors, they remain lower than long term trends would indicate. Some commentators have suggested that the new projections represent a 'new normal', with reduced household formation, compared to longer term trends, likely to continue irrespective of recessionary impacts. NLP considers that applying this approach to planning would be wrong.
- 2.13 It is imperative to view the new projections through the prism of the Framework. This seeks to 'boost significantly' the supply of housing to meet housing demand (including demand arising from household formation) and address affordability. Were the planning system to treat the lower levels of household formation as a 'new normal' it would 'lock in' the implications of housing under-supply impacting most of all on younger age groups, particularly those starting families. With the English Housing Survey having recently shown home ownership for younger age groups falling markedly, there are profoundly negative implications for economic and social well-being.

⁴ New Estimates of Housing Demand and Need in England, 2011 to 2031, Town & Country Planning Tomorrow Series Paper 16, Alan Holmans, 2013

3.0 2012-based SNHP for Staffordshire Moorlands District

3.1 This report incorporates the 2012-based SNHP and the most up to date data to assess the potential implications on objectively assessed housing need in Staffordshire Moorlands District. The 2012-based SNHP were the first full set of government projections (covering a full 25 year period) released since the 2008-based projections (December 2010), and are based on the 2012 SNHP (May 2014). Over the 25-year period (2012-2037) the SNHP project average annual household growth in Staffordshire Moorlands of 152. This is considerably lower than both the 2008-based and 2011-based SNHP, as shown in Table 3.1.

Table 3.1 Projected Household Growth in Staffordshire Moorlands

	2012-based Household Projections				2013-2033 annual H'Hold Growth		2012-2021 annual H'hold Growth	
	2012	2037	2012-2037	Annual H'holds	2012-SNHP	2008-SNHP	2012-SNHP	2011-SNHP
Staffordshire Moorlands*	41,967	45,771	3,804	152	168	250	187	222

Source: CLG 2008/2011/2012-based Household Projections

* Note – the time periods have been changed to align across the various SNHPs

Note: It is important to note that each of these household projections are based on their respective population projections. Hence applying household headship rates to different populations, (such as applying the 2011-based headship rates to the 2012-based population as in the previous update report) will result in a different household growth figure than those presented above.

3.2 The subsequent section analyses the underlying reasons behind the seemingly substantial change in the SNHP in order to assess whether sensitivity tests on the demographic-led scenarios may be necessary.

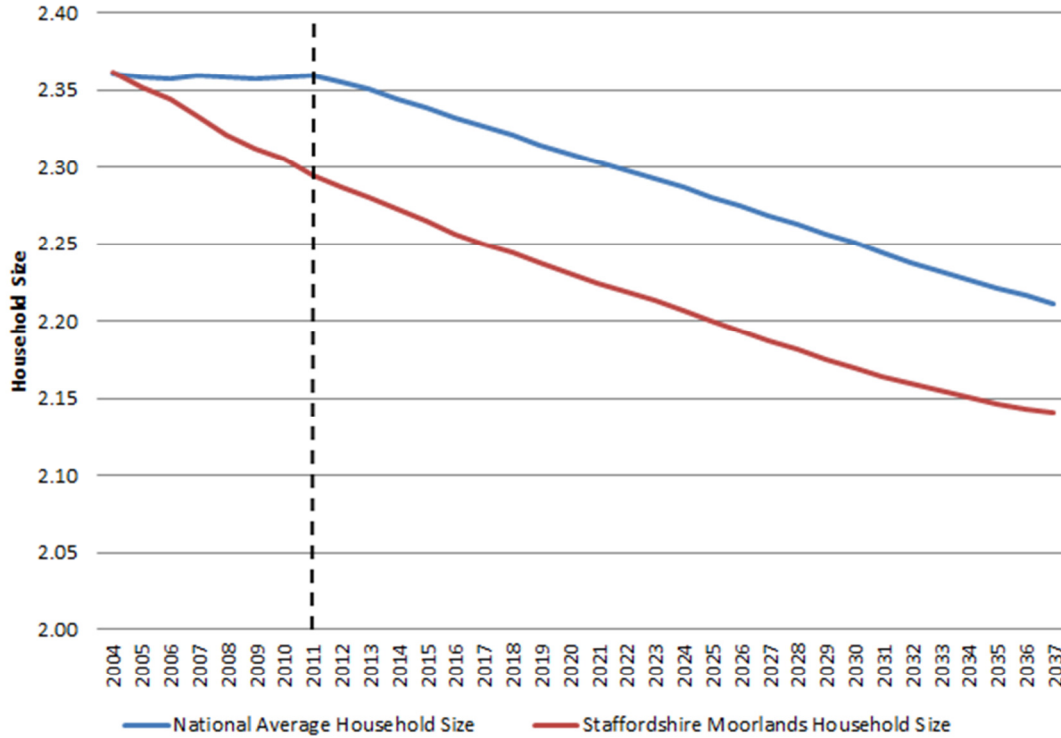
Household Formation

3.3 The 2012-based SNHP were, unlike their 2008-based counterparts, based on a period where household formation across England had slowed due to the impact of recessionary trends, namely a shortfall in supply and issues with affordability and mortgage availability. This meant that many households which would otherwise have formed (namely younger households), were not able to. Household projections (and household formation rates) are projections of recent trends – therefore trending forward suppressed household formation might not be representative of the true need for housing within an area.

3.4 In terms of average household size, Figure 3.1 compares Staffordshire Moorlands' rate of change against the national average over time. Both exhibit a clear downward trend from 2011 onwards. In 2004, the national and Staffordshire Moorlands' averages were identical (2.36); however, over the period 2004 to 2011, Staffordshire Moorlands' average household size declined significantly, from 2.36 to 2.29, whilst the national average remained

almost static (2.36 to 2.35). After 2011 the rate of change is almost parallel between the two. By 2031, the national average household size is projected to be 2.24, whilst Staffordshire Moorlands' is projected to be 2.16.

Figure 3.1 Average Household Size - National Average and Staffordshire Moorlands Average

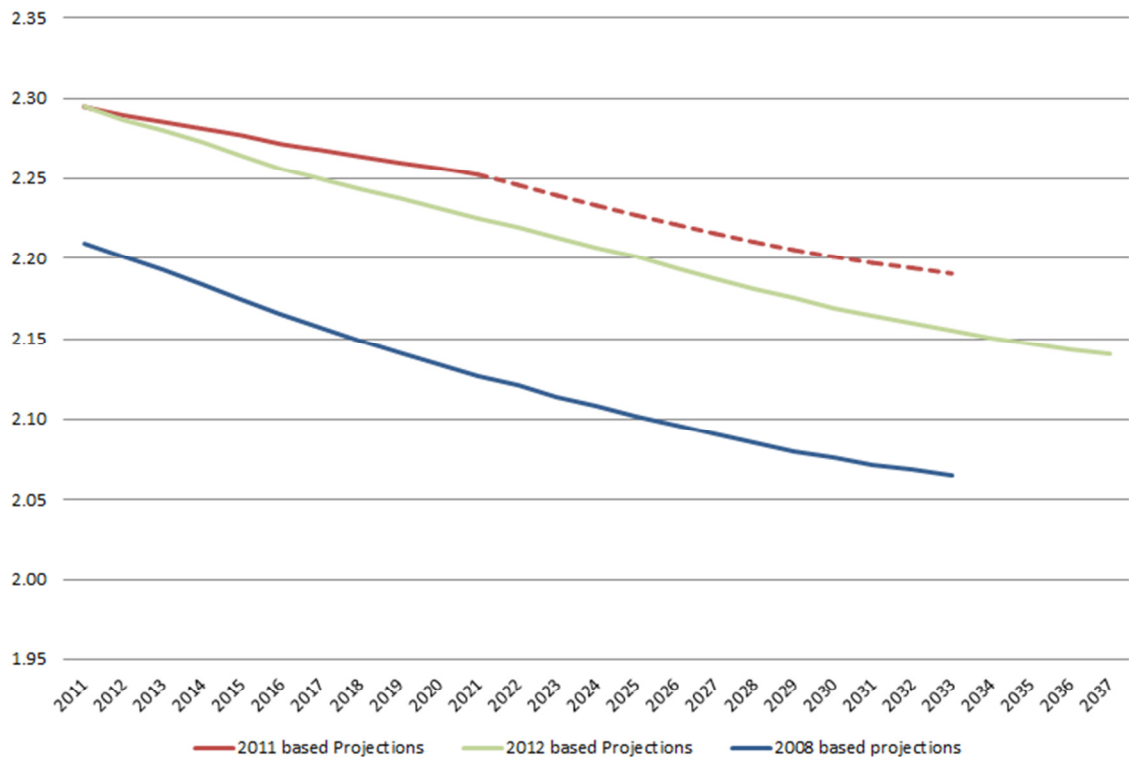


Source: NLP Analysis / CLG 2012-based Household Projections

3.5

The average household size, as projected by each of the household projections is shown for Staffordshire Moorlands in Figure 3.2. This indicates that the 2008-based projections had the steepest rate of change, with the 2011-based projections being (by far) the most pessimistic. The latest 2012 SNHP fall between the former two projections, although they are more closely aligned to the 2011-based projections. The annual rate of change between the 2008-based and 2012-based projections is similar, although the starting point for both is very different. At 2011, the 2008-based SNHP projected average household size to be 2.2 whilst the latter 2012-based projections indicate the average household size to be 2.3.

Figure 3.2 Comparison of Changes to the Average Household Size in Staffordshire Moorlands



Source: CLG 2008/2011/2012-based Sub-National Household Projections

Note 1: The 2011-based Projections have been indexed to the 2008-based projections post 2021. This is represented by the dashed line.

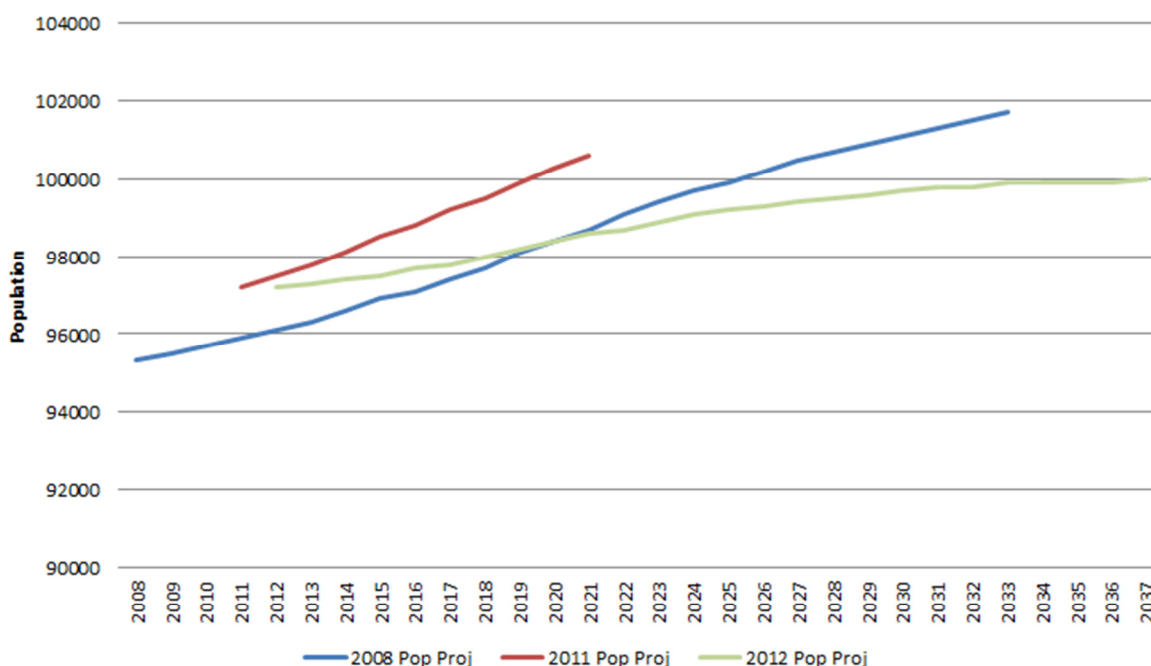
Population

- 3.6 The total population for Staffordshire Moorlands District as projected in the 2008, 2011 and 2012 SNPPs are shown in Figure 3.3. This partly explains the significant deviation between the household growth projections in Staffordshire Moorlands between the past iterations and the most recent 2012-based SNHP.
- 3.7 The 2008-based SNPP indicated steady population growth, from 95,300 in 2008 to 101,700 in 2033, an annual average increase of 256 persons. The starting point of the 2011-based projections is significantly higher than that projected in the 2008-based SNPP. Coupled with this the 2011-based population projections grow at a much higher annual average rate than the 2008-based equivalent (+340 persons).
- 3.8 The latest population projections are at variance with the previous projections and grow at a much slower rate of 112 per annum between 2012 and 2037. Although the latest projections start at a much higher point in 2012 when compared with the 2008-based projections, they grow at a much flatter rate and are surpassed in 2021. Compared to the 2008-based SNPP, the 2012 SNPP indicate that by 2033 there would be 1,800 fewer people living in Staffordshire Moorlands District despite starting from a point 1,100 higher in 2012. Combined with slightly lower rates of household formation rates when

compared to the 2008-based SNHP, it is unsurprising that household growth under the 2012-based projections is significantly lower.

- 3.9 Similarly, when compared to the 2011-based (Interim) SNPP, the 2012-based SNPP is 2,000 lower in 2021 despite starting just 200 lower in 2012. On average, this equates to average annual population growth of 200 lower than the 2011 projections. Despite the slightly higher household representation rates in the 2012 SNHP than their 2011 equivalents, this is insufficient to generate a higher level of household growth.

Figure 3.3 Future Population Growth in Staffordshire Moorlands District

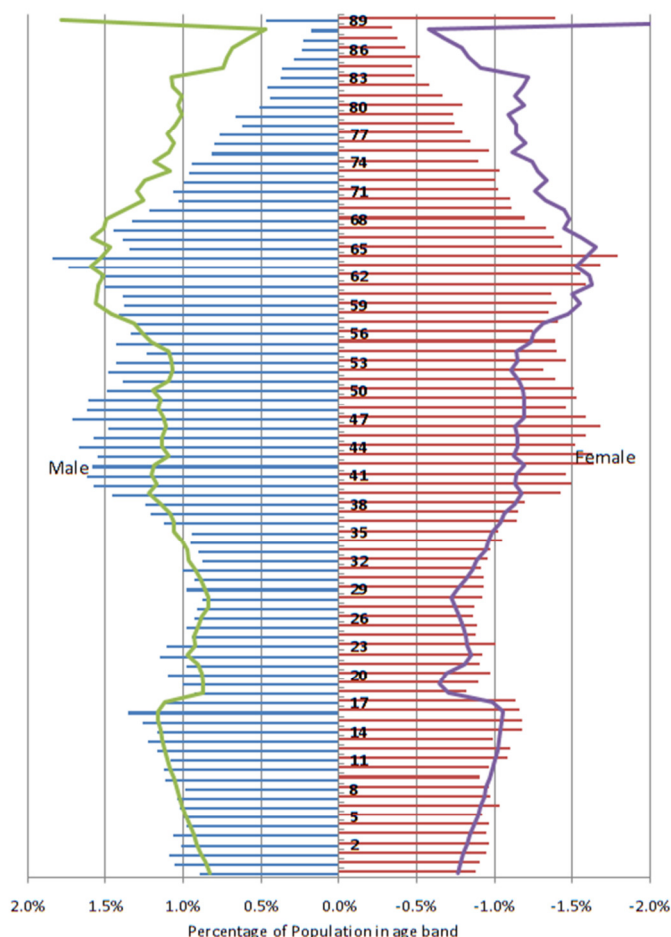


Source: ONS 2008/2011/2012 based Sub-National Population Projections

- 3.10 The age structure of the population is also an important consideration when examining household projections. This is because populations which are projected to see an increase in the number of older people (even when there is no population growth or even decline) are likely to see a growth in households; household size declines substantially as the head of the household ages.
- 3.11 The population age / sex structure of Staffordshire Moorlands is presented in Figure 3.4. It shows a decline in most of the age cohorts (both male and female) under the age of 65. The greatest change relates to the proportion of Staffordshire Moorlands' residents aged over 65 (both male and female) by 2031. In particular, the percentage of local residents over the age of 90 is expected to grow exponentially. The percentage of males aged over 90 more than trebles between 2012 and 2031, whilst the percentage of females aged over 90 more than doubles over the same time period.
- 3.12 In direct contrast, the percentage of males and females aged between 40 and 55 declines by 2,698 (23%) and 2,595 (22%) respectively. This must be framed in the context of overall population growth, hence the actual proportion

of people aged 40-55 declines significantly. It is therefore unsurprising that, with a considerable growth in the number of older people and the significant reduction in the numbers aged 40-55, this results in average household size reducing significantly, as this translates into smaller family units and more people living alone or in couples.

Figure 3.4 Population Age/Sex Structure in Staffordshire Moorlands, 2012-2031 (as projected in the 2012 SNPP)



Source: ONS 2012-based SNPP

Note: Outline shows year 2031

- 3.13 The 2014 Mid-Year Estimates [MYE] have now been released. The 2014 SNPP estimated that the population in Staffordshire Moorlands by 2014 would be 97,399. The 2014 MYE reported that the population in Staffordshire Moorlands actually rose to 97,763 an increase of 364 persons over and above the 2012-based SNPP estimates (or 0.4% overall).

Components of Change

- 3.14 An analysis of the four most recent comparable SNPPs for Staffordshire Moorlands District (Table 3.2) illustrates the differences in the components of change, underpinning the respective population projections. This is in addition

to the considerable differences in the level of population growth illustrated in Figure 3.3.

Table 3.2 Staffordshire Moorlands District Population Projections: Components of Change

Annual Average Change	2008-Based SNPP	2010-Based SNPP	2011-Based SNPP (Interim)	2012-Based SNPP
Births	800	840	900	800
Deaths	1,100	1,120	1,100	1,120
Natural Change	-300	-280	-200	-320
Domestic Migration In	4,000	3,960	3,900	3,640
Domestic Migration Out	3,400	3,440	3,400	3,200
International Migration In	100	200	200	120
International Migration Out	200	120	200	120
Net Annual Average	+500	+600	+500	+440

Source: ONS 2008, 2010, 2011 and 2012-based SNPPs

Note: figures do not sum due to rounding errors

- 3.15 Natural change is relatively consistent across all four population projections with births staying between 800-900 per annum across all of the projections. Deaths per annum are also consistent between 1,100 and 1,120 in all four projections. In terms of natural change, all four projections suggest negative natural change ranging from -200 (2011-based Interim SNPP) and -320 (2012-based SNPP).
- 3.16 The latest population projections have the highest negative natural change of the four projections and the lowest net annual migration figure of the four projections. Both elements combined result in net annual population increase of just 120 people compared to 320 under the 2010-based SNPP.
- 3.17 Comparing the migration estimates from the historic SNPPs is highly problematic, as the methodology altered significantly over time. For example:
- 1 The 2008-based SNPP used a different methodology for the distribution of internal and international migration than previous sets of projections as they incorporate further developments of the Migration Statistics Improvement Programme;
 - 2 The 2010-based SNPP used a different methodology for the distribution of international in-migrants, which in turn affected estimates of out-migrants, and also improvements to internal migration of students; and,
 - 3 The interim 2011-based SNPP used the mid-2011 population estimates rolled forward from the 2011 Census results as the base, but the

assumptions made on future migration trends were the same as those used in the 2010-based SNPP⁵.

3.18

Whilst the 2012-based SNPP methodological approach to migration may be seen as being statistically sound in that it uses the most up-to-date data that is internally consistent, it is important to note that much of the background trend data covers a period of time (2007/08 to 2011/12 for internal migration and 2006/07 to 2011/12 for international migration) affected by the recession and unprecedented economic downturn. ONS evidence⁶ suggests that the level of internal migration within the UK and net international migration into the UK reduced during the recession, and it is possible that this trend-based evidence may have suppressed future estimates of migration to / from the District.

⁵ ONS SNPP Quality and Methodology Information 25th September 2012

⁶ ONS (July 2011): News Release: New Evidence shows how the recession is hitting UK households

4.0

PopGroup Model Run Updates

Introduction

4.1

Taking forward the methodological approach outlined in detail in the two previous Housing Needs Study documents for the District, the following scenarios were re-modelled to take into account the 2012-based SNHP data:

Demographic-led Projections:

- a **Updated PopGroup 2012-based SNHP:** This scenario represents a projection of the demographic shift based on current factors and recent trends in Staffordshire Moorlands District, aligning household growth to the 2012-based SNHP. It takes account of dwelling vacancy rates in order to derive a housing need figure from the projections in household growth.

Sensitivity Tests:

- i **Scenario Aa: Partial Catch-Up Headship Rates** – Using the 2012-based headship rates as a starting point, it is projected that by 2033 (starting after 2017 to allow for full economic recovery) headship rates for the younger adult age groups⁷ will have caught up half of the difference between the 2012 and 2008-based SNHP headship rates. The underlying population upon which this scenario is based is the same as Scenario A, i.e. the 2012-based SNHP;
- ii **Scenario Ab: 2013 & 2014 MYE** – Using the 2013 & 2014 MYE and applying the fertility, mortality, migration and headship rates from the 2012-based household projections thereafter.
- iii **Scenario Ac: 2013 & 2014 MYEs + Partial Catch-Up Headship Rates** – As Ab, but incorporation of partial catch up headship rates on the same basis of Scenario Aa;
- b **Natural Change** – In and out-migration is reduced to zero, hence growth is driven purely by natural change, or the interaction between births and deaths;
- c **Zero Net Migration** – Whereby the annual international and domestic migration flows under the baseline scenario are equalised to result in a net migration of zero (i.e. an identical number of people move into the area as leave the District);
- d **Short Term Migration Trends** - based on average gross flows of internal and international migration in Staffordshire Moorlands over the five year period 2008/09 to 2012/13 as taken from the ONS MYE Series, assuming Staffordshire Moorlands will continue to see migration at a level in line with recent trends;

⁷ As defined by males and females in the age groups 15-19, 20-24, 25-29 and 30-34.

- e **Long Term Migration Trends** – as above, but using a ten year migration average, from 2002/03 to 2012/13, assuming Staffordshire Moorlands will continue to see migration in line with levels on average over the last decade.

Employment-led Projections

- f **Oxford Economics Job Growth** – A ‘policy-off’ trend scenario based upon Oxford Economics local area-based econometric model. This provides potential unconstrained employment growth in Staffordshire Moorlands (+2,250 jobs 2012-2031) over the Plan period.

Sensitivity Test:

- i **Scenario Fa: Oxford Economics Job Growth + 5% Reduction in Out-Commuting** - This scenario applies the above assumption whilst factoring in a 5% reduction in out-commuting over the period 2012-2031;
- g **Policy On Job Growth Target** – A ‘Policy-on’ trend scenario based upon the Council’s realistic economic objectives whilst factoring in increased economic growth in the key sectors in line with the regional average. This provides unconstrained employment growth in Staffordshire Moorlands of 3,879 jobs over the course of the plan period.

Sensitivity Test:

- i **Scenario Ga: Policy On Job Growth Target + 5% Reduction in Out-Commuting** - This scenario applies the above assumption whilst factoring in a 5% reduction in out-commuting over the period 2012-2031.
- h **Job Stabilisation / Past Trends Job Growth** – Assumes that there are no additional jobs created over the assessment period, i.e. the number of jobs remains at the level achieved in 2012. The past trends job growth for the period 2000-2013 derived from the ONS Job density data indicates that the long term past trends are neutral and align with the Job Stabilisation scenario. We have therefore combined the two together.

Reality Checks

- 4.2 **Average Past Delivery** – using past delivery trends (2005/06 – 2014/15) to illustrate what the market has previously delivered and project these forward over the Plan period (195 dpa).
- 4.3 **SHMA Need:** The Staffordshire Moorlands SHMA (2014) identified a critical need for 707 (net) affordable housing dwellings annually over the next five years in the District. At a typical rate of around 33% of total housing provision, this would lead to a need of around 2,142 dpa.
- 4.4 **300dpa:** Testing the population and economic implications of delivering the 300 dpa target set out in Staffordshire Moorlands’ adopted Core Strategy.

Scenarios – Assumptions and Approach

4.5

There are a number of underlying assumptions which NLP has adopted that form the basis for most modelled scenarios. These include:

- a Future change assumed in the Total **Fertility Rates** [TFR] and Standardised **Mortality Rates** [SMR] are based on the birth and death projections derived from the ONS 2012-based SNPP. This in turn is used to derive projected TFRs and SMRs under each scenario in PopGroup;
- b Projected **migration** under the 2012-SNPP based scenario is taken from the age-specific numbers of in and out internal and international migrants as projected. For the five and ten year trend scenarios, the total number of migrants is constrained to those figures, and the age-profile is based on the 2012-SNPP projections of migration. For the economic-led scenarios, migration is flexed (i.e. inflated or constrained) in order to produce a population and labour force sufficient to support the given level of job change.
- c Inputs on **headship rates** are based on the 2012-based SNHP which provide data by 5 year age group and sex for Staffordshire Moorlands. These cover a 25-year period to 2037 and the sensitivity scenario is as described, taking into account the 2008-based SNHP.
- d In Staffordshire Moorlands (as in any area), housing **vacancies and second homes** will result in the number of dwellings needed exceeding the total number of households under any given scenario. In establishing future projections, it is likewise expected that the dwelling need will exceed household projections. Hence a vacant and second home rate of 4.02% is applied in all scenarios from 2012 onwards (this is the average of the rates for 2012, 2013 and 2014).
- e In order to calculate **unemployment** rates, the figures for 2012 (5.5%), 2013 (4.7%) and 2014 (3.4%) (as taken from the Annual Population Survey) were used. This figure was held constant to 2015 to reflect initial stabilisation at the current high rate, and then gradually declined on a linear basis to the pre-recession average (2004-2007) of 2.9% over a five year time frame. This figure was then held constant to the end of the forecasting period on the grounds that it better reflects the long term trend than the current unemployment rate.
- f Age and gender-specific **Economic Activity Rates** are used. The bases for these are the 2011 Census⁸, and for age groups up to 65-69 the ONS 2006-based Labour Force Projections (LFP] have been applied. In addition, allowances have been made (for 65-69) for the increases in State Pension Age which will occur in 2018-2020 and 2026-2028; the latter was not taken into account in the previous study (the equalisation

⁸ Given the 2011 Census only provides for older age groups as a single '65 and over' age group, an estimate of older age economic activity (necessary in order to accurately project the labour force) has been calculated based on the decline in economic activity over the life course from the 2001 Census, which provides rates up to age 65-69 and 70-74.

of State Pension Age is already accounted for in the ONS LFP). In the oldest age groups (70+), the ONS LFP significantly underestimated the economic activity rate, projecting a slight decline in males over the period 2006-2020 and female rates to remain static. Therefore an alternative assumption has been adopted, whereby rates are projected to reach a mid-point between the ONS LFP and a linear trend based on growth between 2001 and 2011. These rates are then held constant.

- g It has been assumed that the **commuting rate (or labour force ratio)** remains static with no inferred increase or decrease in the ratio between in- and out- commuting. Using the Oxford Economics job data and APS unemployment data, a labour force ratio of 1.26 has been derived for 2014 onwards: i.e. Staffordshire Moorlands is an area of out-commuting.

- 4.6 Where scenarios have been demographically modelled, a full schedule of the assumptions and inputs can be found in Appendix 1, and the outputs can be found in Appendix 2.

Modelling Results

Demographic-led Scenarios

- 4.7 The demographic scenarios used the components of population change (births, deaths and migration) to project future population change. Under each scenario, the assumptions around household formation and headship rates are applied in order to derive the number of households within the population over time. This is converted into a dwelling need, and in addition the labour force / job change is derived based on the age profile of the projected population. The outputs are presented over the period 2012-2031.

Scenario A: 2012 SNHP/2012 SNPP (2012 Baseline)

- 4.8 This scenario models the 2012-based SNHP and the 2012-based SNPP. This means that it produces the same projection (in terms of the total number of households) as the headline projections of the CLG Live Table; however, modelling the scenario through PopGroup allows the derivation of job-related outputs and more specific levels of population change by age. Under this scenario, the population of Staffordshire Moorlands is projected to increase by 2,526 to 2031. The population growth is due to high levels of in-migration in Staffordshire Moorlands (7,373 by 2031). This is counteracted by natural change (arising from excess deaths over births) which is negative to the tune of 4,847 over the period to 2031.
- 4.9 Using 2012-based SNHP headship rates, there will be a total dwelling need of 3,443 between 2012 and 2031, equivalent to 181 dpa. This is predominantly due to a combination of in-migration (leading to population growth) and ageing of the local population, given that older people tend to form smaller households over time. It is projected that the number of people aged over 65 in Staffordshire Moorlands District will increase by 39% by 2031. The oldest age

groups (75-84 and 85+) would see the most substantial increases, of 69% and 134% respectively.

4.10 Despite the population growth, the aging profile of the population will result in a reduction in the labour force, with the working age population would decline by 4,394 by 2031. Taking into account overall economic activity rates of individual age groups, this scenario indicates that the number of jobs would decline by 2,333 over the period to 2031.

4.11 The key outputs for this scenario are summarised in Table 4.1.

Table 4.1 Summary of Outputs - Scenario A: 2012 SNHP, 2012 SNPP

	Scenario A: 2012 SNPP, 2012 Headship Rates		2014 HNS Update
	2012-2031	d.p.a.	d.p.a.
Population	+2,526	+133	+128
Dwellings	+3,443	+181	+184
Jobs	-2,333	-123	+101

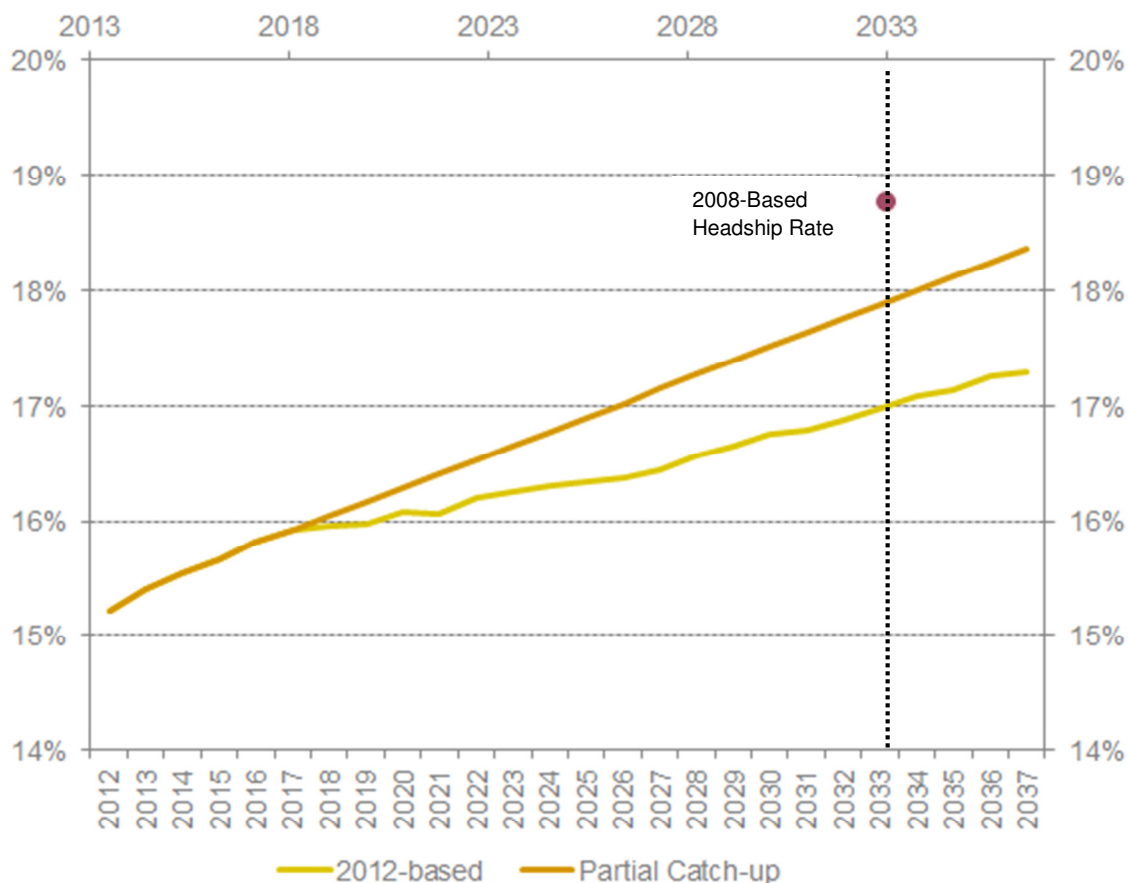
Source: NLP / CLG / ONS

Scenario Aa: 2012 SNPP Base, Headship Rate Sensitivity

4.12 Whilst the 2012 household representative rates are more optimistic than their 2011-based (Interim) counterparts, they nevertheless remain more pessimistic compared to the 2008-based SNHP. These represented projections of headship in line with longer term trends and did not take into account impacts of the recession on both the supply of housing and the ability of households to form, given the lack of mortgage finance availability. NLP has tested a scenario which assumes that over time, 'pent up' demand within the younger population (15-34 age group) will be released over time. This results in higher household formation rates for those age cohorts which, over the long term, represent a partial return to longer term trends.

4.13 An example of this is shown in Figure 4.1. This shows the 2012-based household representative rates for females in Staffordshire Moorlands age 25-29, and the sensitivities conducted as part of Scenario Aa. It has been assumed that these changes will begin to occur after a 5 year period (i.e. starting in 2017) to allow the economy to begin to return to pre-recession trends.

Figure 4.1 Percentage of Females aged 25-29 in Staffordshire Moorlands forming Head of Household - 2012 Baseline, Partial Catch Up Sensitivity



Source: CLG 2008/2012-based SNHP, NLP Analysis

4.14 The population outcomes under this sensitivity test are the same as under Scenario A; the only difference is how household formation rates (used to derive the number of households and subsequently number of dwellings) are applied to the younger population, resulting in different housing related outcomes. This is shown in Table 4.2.

Table 4.2 Dwelling Outputs - A and Aa (Headship Rate Sensitivities)

	Dwelling Outputs	
	2012-31	d.p.a.
2012 SNHP	+3,443	+181
Scenario Aa: Partial Catch Up	+3,774	+199

Source: NLP using PopGroup

Partial Catch Up – Half of the difference between 2012-based and 2008-based projections is made up by 2033 (rates trended thereafter), with this change beginning in 2017

Scenario Ab i: 2013 & 2014 Mid-Year Population Estimates

4.15 Under this sensitivity test scenario, the 2013 and 2014 Mid-Year Population Estimates were included as a population constraint in the requisite years. The

population was then rebased going forward applying the fertility, mortality and migration rates from the 2012 SNHP. The 2014 MYE indicate that the population in Staffordshire Moorlands is 394 higher than was previously outlined in the 2012 SNPP.

- 4.16 Based on the higher starting point in 2014, the population of Staffordshire Moorlands is projected to increase by 2,882 to 2031. The population growth is due to high levels of in-migration in Staffordshire Moorlands (7,729 by 2031). This is counteracted by natural change (arising from excess deaths over births) which is negative to the tune of 4,847 over the period to 2031. Using this scenario, there will be a total dwelling need of 3,558 between 2012 and 2031, equivalent to 187 dpa.
- 4.17 Despite the population growth, the aging profile of the population will result in a reduction in the labour force, with the working age population would decline by 4,058 by 2031. Taking into account overall economic activity rates of individual age groups, this scenario indicates that the labour force would decline by 2,075 over the period to 2031.
- 4.18 The key outputs for this scenario are summarised in Table 4.3.

Table 4.3 Summary of Outputs – Scenario Ab i: 2013 & 2014 Mid-Year Population Estimates

	Scenario Ab i: 2013 & 2014 Mid-Year Population Estimates	
	2012-2031	d.p.a.
Population	+2,882	+152
Dwellings	+3,558	+187
Jobs	-2,075	-109

Source: NLP / CLG / ONS

Scenario Ab ii: 2013 & 2014 Mid-Year Population Estimates, Headship Rate Sensitivity

- 4.19 Whilst the 2012 household representative rates are more optimistic than their 2011-based (Interim) counterparts, they nevertheless remain more pessimistic compared to the 2008-based SNHP. Using Scenario Ab i as the starting point, NLP has tested a scenario which assumes that over time, 'pent up' demand within the younger population (15-34 age group) will be released over time. This results in higher household formation rates for those age cohorts which, over the long term, represent a partial return to longer term trends.
- 4.20 The population outcomes under this sensitivity test are the same as under Scenario Ab i; the only difference is how household formation rates (used to derive the number of households and subsequently number of dwellings) are applied to the younger population, resulting in different housing related outcomes. This is shown in Table 4.4.

Table 4.4 Dwelling Outputs - Ab ii: 2013 & 2014 Mid-Year Population Estimates, Headship Rate Sensitivity

	Dwelling Outputs	
	2012-31	d.p.a.
Scenario Aa: Ab ii: 2013 & 2014 Mid-Year Population Estimates, Headship Rate Sensitivity	+3,889	+205

Source: NLP using PopGroup

Partial Catch Up – Half of the difference between 2012-based and 2008-based projections is made up by 2033 (rates trended thereafter), with this change beginning in 2017

Scenario B: Natural Change

- 4.21 This scenario examined the consequences of stripping out all the migration both into and out of Staffordshire Moorlands over the period 2012-2031. As a consequence, the only population growth that can be generated results from the interaction of births and deaths, i.e. natural change.
- 4.22 By removing all migration inputs, the population of Staffordshire Moorlands District is forecast to decrease by 3,132 residents between 2012 and 2031. This equates to dwelling growth of just 772, or 41 dpa. Under this scenario, the workforce would shrink considerably by 6,852 over the plan period. Therefore, in terms of a dwelling need simply to cater for natural change, Staffordshire Moorlands would need to cater for 41 dpa.
- 4.23 Whilst this scenario is unrealistic, it provides a useful indication of the level of housing that is required simply to meet annual household demand created by natural change.

Table 4.5 Summary of Scenario - Scenario B

	Scenario B: Natural Change		2014 HNS Update
	2012-2031	p.a.	p.a.
Population	-3,132	-165	-241
Dwellings	+772	+41	+184
Jobs	-4,230	-223	+101

Source: NLP using PopGroup

Scenario C: Zero Net Migration

- 4.24 The zero net migration scenario represents the population impacts of equalising migration (i.e. ensuring that the number of international and domestic migrants coming into the District equal the number moving out). Thus whilst in the short term the population is unchanged from the natural change scenario, the profile of the population changes over time due to the different profile of in-migrants and out-migrants.

4.25 This scenario would lead to a population decrease of 1,470 people over the period 2012-2031. This equates to an increase of 132 new dwellings in Staffordshire Moorlands District or just 7dpa. The zero net migration scenario would result in a decrease of 4,943 economically active people within Staffordshire Moorlands over this period, and fall in jobs of 145 annually.

4.26 The commentary provided in Scenario B considering the realism of practically excluding net out-migration is also relevant here – thus the scenario presents a hypothetical ‘what if’ scenario that once again demonstrates the importance of migration to Staffordshire Moorlands District’s future economic growth prospects.

Table 4.6 Summary of Scenario - Scenario C

	Scenario C: Zero Net Migration		2014 HNS Update
	2012-2031	p.a.	p.a.
Population	-1,470	-77	-241
Dwellings	+132	+7	-53
Jobs	-2,757	-145	-134

Source: NLP using PopGroup

Scenario D: Short Term Migration Trends

4.27 Implicit within the 2012 SNPP is the assumption that net migration will continue to increase in Staffordshire Moorlands over the course of the period 2012-2031. These recent trends have informed the 2012 SNPP which projects an increase in net migration from 152 (2012) to 505 (2031) per annum. Compared to past migration over the last 5 years, the average net migration figure has been much lower. This scenario assumes that recent trends in migration (net migration of c. 189 per annum) will continue over the projection period.

4.28 Under this scenario, net in-migration of 196 per annum equate to a total of 3,724 net in-migrants to 2031. However, due to negative natural change, there is an overall population increase of 2,764 to 2031. The number of households will actually increase and dwelling need as the population ages and smaller households form. There is however, a substantial decline in the size of the labour force and subsequently the number of jobs as the labour force subsides more quickly compared to Scenario A as a result of fewer in-migrants taking up the employment opportunities.

4.29 In terms of the associated dwelling need derived from this scenario, between 2012 and 2031 there would be a need for 92 dpa. The outcomes of this scenario are outlined in Table 4.7.

Table 4.7 Summary of Scenario - Scenario D

	Scenario D: Short Term Migration		2014 HNS Update
	2012-2031	p.a.	p.a.
Population	2,764	145	-196
Dwellings	+1,748	+92	+119
Jobs	-1,002	-53	-193

Source: NLP using PopGroup

Scenario E: Long Term Migration Trend

4.30 This scenario is based upon the same assumptions as Scenario D; however a longer term, 10 year, migration trend is used. Migration over the last 10 years in Staffordshire Moorlands has been consistently positive, with the longer term average being 287 per annum. This scenario trends forward this figure, assuming that migration in Staffordshire Moorlands will follow longer term trends (thereby eliminating the impacts of any anomalies in recent years and the economic downturn).

4.31 Under this scenario, net migration is positive but natural change is negative. Despite this overall population change is positive. Over the period to 2031, the population would increase by 5,034 (265 per annum). In terms of dwelling needs, it is anticipated that the average annual dwelling need would be 136 dpa net. The key outputs from the migration trend based scenarios are shown in Table 4.8.

Table 4.8 Summary of Staffordshire Moorlands Model Outputs – Scenario E: Long Term Migration

	Scenario E: Long Term Migration		2014 HNS Update
	2012-2031	p.a.	p.a.
Population	+5,034	+265	-188
Dwellings	+2,585	+136	+157
Jobs	-41	-2	-298

Source: NLP using Popgroup

Economic-led Scenarios

4.32 A series of employment-led scenarios have been assessed to identify how much additional housing may be needed to take account of employment growth, over and above demographic needs.

4.33 Whilst there are a complex set of issues involving matching labour markets and housing markets (with different occupational groups having a greater or lesser propensity to travel to work), there are some simple metrics which can explore

the basic alignment of employment, demographic and housing change, notably the amount of housing needed to sustain a labour force (and therefore number of jobs) assuming certain characteristics around commuting and unemployment.

- 4.34 Ensuring a sufficient supply of homes within easy access of employment represents a central facet of an efficiently functioning economy and can help to minimise housing market pressures and unsustainable levels of commuting (and therefore congestion and carbon emissions). If the objective of employment growth is to be realised then it will generally need to be supported by an adequate supply of suitable housing.

Scenario F: Oxford Economics Job Growth

- 4.35 This is a 'policy-off' scenario using Oxford Economics projections of future employment growth in Staffordshire Moorlands District. This represents the 'unconstrained' potential of the area based on its existing business base, mix of sectors and inherent economic qualities. At a local level, past growth trends (and in particular the performance of individual sectors in the local area relative to the regional performance) represent the key driver of determining future growth, particularly with regards to growth forecasts associated with individual sectors. For Staffordshire Moorlands District, the projected job growth over the period 2012-2031 in Oxford Economics' model is +2,250.
- 4.36 In order to support this increase in jobs, the labour force would need to increase by 1,549 and the total population would need to grow by 13,393. This would support dwelling growth of 7,560, or 398 dpa.

Table 4.9 Summary of Scenario - Scenario F

	Scenario F: Oxford Economics Job Growth		2014 HNS Update
	2012-2031	p.a.	p.a.
Population	+13,393	+705	+825
Dwellings	+7,560	+398	+428
Jobs	+2,250	+118	+109

Source: NLP Using PopGroup

Scenario Fa: Oxford Economics Job Growth + 5% Reduction in Commuting

- 4.37 A sensitivity test was modelled on the Scenario F job projection, allowing for a reduction in the level of net out-commuting over the period 2012-2031 by 5%. Whilst recognising this would be challenging, it is understood that such a scenario is a long term objective of the Council.
- 4.38 Such an outcome would result in the level of job growth remaining the same as in Scenario F, but reducing the number of in-migrants required to take up those

job opportunities as they would be more effectively serviced by the existing resident population (i.e. fewer people commute out of the District for work, taking up more of the locally based jobs instead). As such, the number of new dwellings needed would be significantly lower, at 6,242 over the period 2012-2031 (329 dpa).

Table 4.10 Summary of Scenario - Scenario Fa

	Scenario Fa: Oxford Economics Job Growth + 5% Red in Comm		2014 HNS Update
	2012-2031	p.a.	p.a.
Population	+9,864	+519	+585
Dwellings	+6,242	+329	+337
Jobs	+2,250	+118	+109

Source: NLP using PopGroup

Scenario G: Policy On Job Growth

- 4.39 A further job-based estimate of future needs used the 'policy on' job creation figures set out in the Council's ELR. This sought to increase growth in targeted industrial sectors in line with regional averages. This projection estimated that there could be a total (net additional) job growth of around 3,878 by 2031, 1,628 jobs higher than Oxford Economics' Baseline Job Growth Scenario.
- 4.40 This represents a 'policy on' estimate of how Staffordshire Moorlands District's economy might be expected to perform in the future. It therefore presents an objective forecast of how this part of the country could perform in economic terms based on the nature of its economy and current expectations of future national and regional economic performance.
- 4.41 To underpin this level of job growth in Staffordshire Moorlands, there would need to be an increase in the population of 17,202, and of dwellings by 8,981. This equates to a need of 473 dpa.

Table 4.11 Summary of Scenario - Scenario G

	Scenario G: Policy On Job Growth		2014 HNS Update
	2012-2031	p.a.	p.a.
Population	+17,202	+905	+1,067
Dwellings	+8,981	+473	+519
Jobs	+3,878	+204	+190

Source: NLP Using PopGroup

Scenario Ga: Policy On Job Growth + 5% Reduction in Commuting

4.42

A further scenario was run similar to the above but gradually reducing the level of net out-commuting by 5% to 2031. Such an outcome would result in job growth remaining the same as Scenario G, but reducing the number of in-migrants required to take up those job opportunities as they would be more effectively serviced by the existing resident population. As such, the number of new dwellings required would be significantly lower, at 7,610 over the Plan period (401 dpa).

Table 4.12 Summary of Scenario - Scenario Ga

	Scenario Ga: Policy On Job Growth + 5% Reduction in Commuting		2014 HNS Update
	2012-2031	p.a.	p.a.
Population	+13,530	+712	+815
Dwellings	+7,610	+401	+424
Jobs	+3,878	+204	+190

Source: NLP Using PopGroup

Scenario H: Job Stabilisation / Past Trends Job Growth

4.43

This scenario assumes that the number of jobs in Staffordshire Moorlands District remains at its current (2012) level over the projection period; this means that given the ageing population, there would be a need for growth in the labour force, in-migration and ultimately housing.

4.44

Over the period to 2031, in order to create a labour force large enough to support jobs in the District, there would need to be net in-migration of 12,368. This would support the current number of jobs, assuming commuting levels remain constraint and taking into account changes in unemployment. The result would be population increase of 7,901 and 5,284 new households would form. This translates into a need for 5,506 dwellings, or 290 dpa.

Table 4.13 Summary of Scenario - Scenario H

	Scenario H: Job Stabilisation		2014 HNS Update
	2012-2031	p.a.	p.a.
Population	+7,901	+416	+471
Dwellings	+5,506	+290	+294
Jobs	0	0	0

Source: NLP using PopGroup

Summary

- 4.45 The Scenarios indicate a wide range of housing OAN for the period 2012 to 2031, based upon different indicators of what the need for housing in Staffordshire Moorlands could be.
- 4.46 These are summarised in Table 4.14. Incorporating the 2012 SNHP into the modelling has had the effect of slightly increasing the dwelling need for all of the modelled scenarios, with the comparable scenarios ranging from between -46 and 60 dpa higher for Staffordshire Moorlands compared to the 2012 HNS update.

Table 4.14 Summary of Updated Staffordshire Moorlands District Scenarios 2012-2031

	2012-based SNHP Approach				2014 HNS Update	
	Population Change	Job Growth	Dwellings 2012-2031	Dwelling Change p.a.	Dwelling Change p.a.	Difference
A. Baseline			3,443	181	184	-3
<i>Aa. Baseline + Partial Catch Up</i>	2,526	-2,333	3,774	199	-	-
<i>Ab i 2013 & 2014 MYE</i>	2,882	-2,075	3,558	187	-	-
<i>Ab ii 2013 & 2014 MYE + Partial Catch Up</i>	2,882	-2,075	3,889	205	-	-
B. Natural Change	-3,132	-4230	772	41	6	+35
C. Zero Net Migration	-1,470	-2,757	132	7	-53	+60
D. Short Term Migration	2,764	-1,002	1,748	92	119	-2
E. Long Term Migration	5,034	-1,422	2,585	136	157	-3
F. Oxford Economics	13,393	2,250	7560	398	428	-30
<i>Fa. Oxford Economic + Reduced Commuting</i>	9,864	2,250	6,242	329	337	-8
G. Policy On Job Growth	17,202	3,878	8,981	473	519	-46
<i>Ga. Policy On Job Growth + Reduced Commuting</i>	13,530	3,878	7,610	401	424	-23
H. Job Stabilisation/Past Trends	7,901	0	5,506	290	294	-4

Source: CLG Household Projections / NLP Analysis of PopGroup Outputs / SMDC

Policy / Supply-Led Scenarios

- 4.47 These scenarios examine the implications (in terms of population growth, migration and job growth) of constraining additional housing over the period 2012-2031 to a range of specified levels; the bases for which are set out under the relevant headings. Although these are not considered to form part of the scenarios which would underpin an objective assessment of housing need, they are nevertheless useful indicators as to the impacts of providing housing based on a range of assumptions.

Affordable Housing Need

- 4.48 The Staffordshire Moorlands SHMA (2014) identified a critical affordable housing OAN of 707 dpa (net) affordable housing dpa over the next five years

in Staffordshire Moorlands. At a typical delivery rate of 33% of all housing, including market, and aligned with Staffordshire Moorlands affordable housing policy requirements, this would lead to a need for 2,142 dpa in total.

- 4.49 The provision of 2,142 dpa would result in population growth of 82,089 in Staffordshire Moorlands, of which -4,847 would result from natural change and 86,936 from net migration.

Average Past Delivery

- 4.50 Over the period 2005/06 to 2014/15, 1,946 dwellings were delivered in Staffordshire Moorlands at an annual average delivery rate of 195 dpa (although since 2007/08 the delivery rate has fallen from 261 to just 78 dwellings in 2013/14 and rose sharply in 2014/15 to 278). Were this level of development to continue across the projection period, there would be net in migration of 8,300 and population growth of 3,453. The labour force would decline by 3,893 and there would be job decline of 1,947 (102 per annum).

Local Plan Test – 300 dpa

- 4.51 The Staffordshire Moorlands Core Strategy identifies that the housing requirement for the District equates to 300 dpa. The provision of 300 dpa over the period 2012-2031 would result in population growth of 7,697, of which 12,543 is a result of in-migration. There would be a decrease in the size of the labour force as a result of this level of population growth, whilst job increase of 85 (4 per annum) would be supported.

Market Signals

- 4.52 The SHMA and Housing Needs Study (April 2014) provided an in-depth analysis of the market signals in Staffordshire Moorlands. Across the nine indicators, Staffordshire Moorlands was performing better than the national average on seven of them and worse on just one. The only indicator where Staffordshire Moorlands has performed worse than the national average is change in affordability, where it has the second highest rate of change of all the comparator areas. The change in affordability could be partly accounted for due to the decline in real incomes over the period, although there have also been strong rises in the median house prices over the long term in the District in line with national trends.
- 4.53 The level of past housing delivery between 2005/06 and 2014/15 varies considerably, from a high of 384 dpa to a low of 58 dpa. This time period covers the economic downturn, the recent recovery and the strong economy experienced pre-recession and it is considered to provide a holistic perspective on past trends in housing delivery. The total net housing completion in Staffordshire Moorlands District over the last 10-year period (2005/06 to 2014/15) was 1,946, at an average of 195 dpa.

- 4.54 The spread of housing delivery appears to be causing some limited problems of affordability, pushing up prices and generating adverse outcomes for people who still need to access the housing market.
- 4.55 Otherwise, there is limited evidence to demonstrate a degree of housing market stress within Staffordshire Moorlands that is significantly worse, or divergent, from the comparator areas. Median house prices and the rate of change are average and are below the national average. Rents are low with no change over the period. Most notably over-crowding is the lowest out of all the comparator areas.
- 4.56 The extent to which the demographic 'starting point' for identifying OAN for housing needs to be boosted to address market signals is necessarily an area of judgement, the Practice Guidance is clear that the more significant the affordability constraints and the stronger other indicators of high demand, the larger the additional supply response should be. Hence whilst it is considered that some upward adjustment could be necessary relative to adjoining areas, the scale of adjustment to housing supply over and above demographic-led projections at this time would not need to be substantial in line with the Practice Guidance.
- 4.57 Given the level of past under-delivery and the increase in the affordability ratio in particular above the national rate, the previous studies recommended an uplift to the demographic starting point of around 10%, and the same recommendation is made in this 2015 Update.

SHMA / Affordable Housing Need

- 4.58 The 2014 Staffordshire Moorlands SHMA provided a detailed analysis of affordable housing need in Staffordshire Moorlands. It also examined the type of accommodation most appropriate to meet this need, and the requirements of specific household groups as specified in the Practice Guidance. The report identified a critical affordable housing OAN for 707 dpa over the next five years across the District.
- 4.59 The Framework suggests that having identified the OAN for affordable housing, the Local Plan should meet this need subject to the constraints referred to in paragraphs 14 and 47. Both paragraphs refer to the need to be consistent with other policies set out in the Framework, with paragraph 14 stating that:
*“Local Plans should meet OAN with sufficient flexibility to adapt to rapid change, unless:
Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework, taken as a whole; or
Specific policies in this Framework indicate development should be restricted”.*
- 4.60 Furthermore, the Framework requires that Local Plans should be “*aspirational, but realistic*” [§154]. Delivering 707 affordable dpa at a rate of 33% overall

would indicate a need for 2,142 dpa. This is more than 7-times higher than the level of housing that is being planned for in the Council's adopted Core Strategy (300 dpa) and 12 times higher than the 195 dpa net delivery since 2005/06.

- 4.61 SMDC will be obliged to take into account affordable housing needs, recognising that these were identified on a different evidential basis, with the data focussing on household's ability to pay, rather than demographic change and economic growth.
- 4.62 SMDC will be required to exercise their policy choice to test whether the provision of such a level of housing would be economically realistic, based upon a variety of considerations including deliverability and viability. As set out in the Practice Guidance: "*Assessing development needs should be proportionate and does not require local councils to consider purely hypothetical scenarios, only future scenarios that could be reasonably expected to occur*"⁹.
- 4.63 In light of the considerable affordable housing need it is proposed that a further uplift of 10% should be applied to Staffordshire Moorlands' demographic scenarios to help meet this.

⁹Practice Guidance 2a-003-20140306

5.0 Discussion

- 5.1 In light of the new datasets underpinning the scenarios, this section of the Update report discusses whether the previous forecasts remain valid, and whether as a consequence of this, the justification behind the range of dwelling needs given the previous report(s) remain robust and valid. Figure 5.1 and Figure 5.3 demonstrate the results of the revised modelling and compare the updated modelling exercise with the foregoing.
- 5.2 The Government's Practice Guidance states that '*household projections published by the Department for Communities and Local Government should provide the starting point estimate of overall housing need*'. It also states that the household projections of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are not captured in past trends¹⁰.
- 5.3 To comply with the Practice Guidance, this 2016 Update uses the latest household projections to derive the baseline demographic need which acts as the starting point when determining the most appropriate housing OAN. Thereafter, various assumptions, adjustments and sensitivities are applied to take account of local factors and economic aspirations.
- 5.4 The latest PopGroup modelling for Staffordshire Moorlands includes a variety of scenarios with the Zero Net Migration resulting in the lowest housing need (7dpa) and the Policy On Job Growth Scenario resulting in the highest (556 dpa). The inputs and scenarios modelled in this update report are identical to the scenarios ran in the previous report with the exception of the use of 2012 SNHP headship rates and starting at 2012 as opposed to 2011 together with the latest available data. The outputs from all scenarios are broadly similar, albeit the economic led scenarios are higher which results in a slightly wider OAN range. That said, all demographic scenarios modelled result in a lower housing need than the housing requirement figure of 300 dpa which is being pursued by Staffordshire Moorlands via their Core Strategy.

Evolution of Staffordshire Moorlands Districts Housing OAN

- 5.5 At this point it is important to revisit the original justification for the authority's housing OAN range. Due to the various factors and assumptions which feed into the assessment of future needs, it was recognised that there was not a single figure which could be definitively identified as objectively assessed needs. This is noted in the former CLG SHMA Guidance which identifies that estimates of need may be expressed as a single number or a range.
- 5.6 To recap, housing OAN must set a level of housing delivery which meets the needs associated with population and household growth, addresses the need

¹⁰ Practice Guidance, Ref 2a-015-20140306

for all types of housing including affordable and caters for housing demand^[1]. Furthermore, a planned level of housing to meet OAN must respond positively to wider opportunities for growth and should take account of market signals, including affordability^[2].

SHMA and Housing OAN: Final Report (April 2014)

- 5.7 Using the same stepped approach to identifying OAN as before, it was considered that an objective assessment of housing need and demand for Staffordshire Moorlands fell within the OAN range 260 to 440 dpa, equivalent to 5,200 to 8,800 dwellings over the period 2012 to 2031.
- 5.8 This OAN range encompasses the baseline demographic-led needs for development at the lower end of the OAN range (Scenario A), whilst at the top end of the OAN range would deliver sufficient labour force to support the Oxford Economics Job Growth projections. The OAN range also encapsulated the Job Stabilisation and Policy On Job Growth +5% Reduction in Commuting scenarios (Scenarios G, Ha and I).
- 5.9 The April 2014 report considered that the Policy On Job Growth Scenario (528 dpa) was an outlier and would not be an appropriate housing OAN for Staffordshire Moorlands on that basis. Notwithstanding this, to ensure that there was no disconnect between the housing OAN and the Council's job growth aspirations, in order to justify a figure below 440 dpa; SMDC was advised that they should demonstrate how they would mitigate or avoid the adverse housing, economic and other outcomes that a lower-growth approach could give rise to.

Housing Needs Study: 2012-based SNPP Update (August 2014)

- 5.10 Having considered the 2012-SNPP and the reduced population projections outlined in the 2012 SNPP, the August 2014 Study considered that this justified a reduction in the OAN for Staffordshire Moorlands. Applying the same logical approach as in the SHMA and taking the Baseline demographic projections as the starting point, the 2014 Update concluded that a housing need figure of around 210 dpa could be justified at the lower end of the OAN range. At the top end, retaining the Oxford Economic scenario as a proxy to allow for the realistic economic potential of Staffordshire Moorlands to be realised would support a figure of around 430 dpa.
- 5.11 On this basis, it was recommended that the OAN housing range for Staffordshire Moorlands District be modified, from the 260-440 dpa in the 2014 SHMA, to between 210 dpa and 430 dpa. This OAN range encompassed all of the economic-led projections with the exception of the Policy On scenario, which would be a policy choice for SMDC to follow in defining its housing requirement.

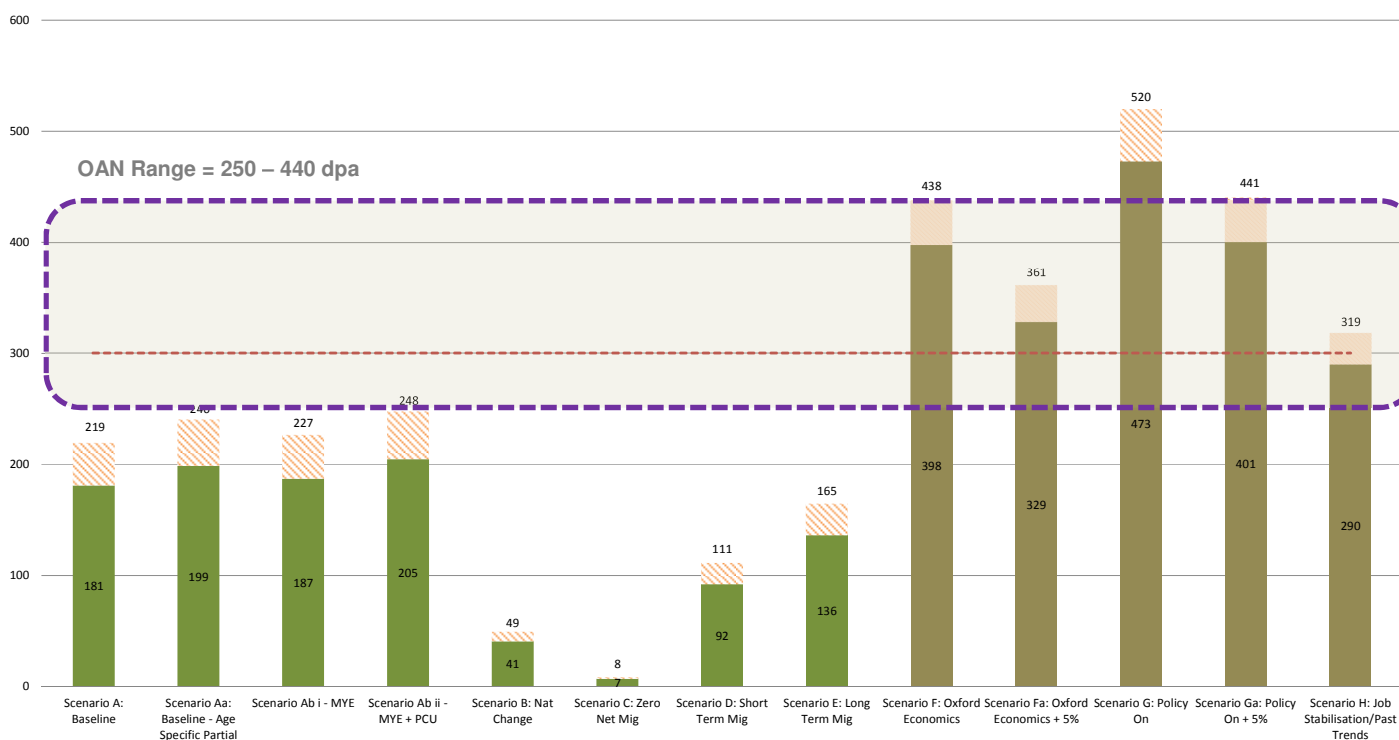
^[1] the Framework, §159

^[2] Ibid, §17

Implications of the 2012-based SNHP on Staffordshire Moorlands' Housing OAN

5.12 Figure 5.1 illustrates the outcomes of the full range of updated scenarios (see also Table 4.14). Although the total number of households projected by the 2012-based SNHP is lower than both the 2011-based Interim and 2008-based projections, the rates of household formation underpinning the 2012-based SNHP fall between these earlier projections, whilst the changes to the total number of household are also a result of significant changes to the underlying SNPPs. Whilst in isolation the expected result would be a decrease in housing need based on household growth alone, given the rates of household formation are lower than in the previous report, there are other inputs which interact and result in differences to the overall housing need.

Figure 5.1 Summary of Scenarios for Staffordshire Moorlands (dpa)



Source: NLP Analysis

Appropriateness of the Scenarios

Demographic Scenarios

5.13 Taking into account a dwelling vacancy of 4.05%, the demographic baseline for considering housing need based on the CLG 2012-based household projections is **181 dpa**. This represents the demographic starting point upon which any housing OAN for Staffordshire Moorlands should be derived.

5.14 The 2012-based SNPP (upon which the latest household projections are based) projects that net migration to Staffordshire Moorlands will gradually

increase annually over the period to 2037, from 237 p.a. in 2012 to 545 p.a. by 2037. This increase is steady over the 25-year projection period of the 2012 SNPP and is attributable to a projected increase in net internal migration compared with past trends. There would be a significant decrease in the size of the labour force over the 25-year period and a particular spike during the middle of the time period.

- 5.15 A sensitivity test (Scenario Aa) which considers the implications of adopting more optimistic headship rates in younger age groups would result in a slightly higher annual housing need of 199 dpa (an increase of 10%) and is illustrative of the increased level of housing need that would arise should the assumptions towards higher household formation in these age groups be adopted.
- 5.16 Another sensitivity test (Scenario Ab) which considers the implications of incorporating the latest iterations of the Mid-Year Estimates (2013 & 2014) was also modelled. The 2014 MYE outline a higher population in 2014 than previously outlined in the 2012 SNPP and as such result in a slightly higher annual housing OAN (187 dpa) over the course of the plan period. A further sensitivity applying more optimistic headship rates would result in an annual housing OAN of 205 dwellings.
- 5.17 Over the last 10 years net migration to Staffordshire Moorlands has been positive, although not to the same levels suggested by the 2012 SNPP. As such there is a lower housing need than projected under the 2012-based SNPP. Based on a 5-year trend the housing need would be 92 dpa, whilst based on a 10-year trend the need would be 136 dpa. Both of these scenarios would result in a more significant decline in the labour force and a decline in the number of jobs. Under the five year migration scenario, the labour force would decline by 2,809 workers and there would be job losses of 1,223; under the ten year scenario, the labour force would decline by 1,536 and there would be job losses of 481 over the plan period.
- 5.18 Although a 'zero net migration' scenario is usually seen as being unrealistic given the limited ability of an Authority to actively control and limit migration to / from the area; in the case of Staffordshire Moorlands this almost results in a neutral housing OAN. This scenario assumes that over time the number of people moving into and out of Staffordshire Moorlands will balance out. However the age profile of in and out migrants will vary and as a result will create a 'churn' impacting on housing and job related outcomes. Under this scenario there would be a need for just 7 dpa with a negative job growth of -2,578 over the assessment period.

Demographic Conclusions

- 5.19 In summary, based on the evidence brought together through the scenarios modelled, the new starting point for considering full objectively assessed needs is **181 dpa**, based on the most up-to-date ONS and CLG projections, in line with the Practice Guidance. Whilst previously, NLP has placed weight on an 'index' based approach to extending the 2011-based (Interim) household projections, the new 2012-based household projections have taken a more

optimistic approach to household formation than these 2011-based rates and hence are considered an appropriate starting point. Nonetheless, these rates, particularly for younger age groups, still represent lower headship rates compared to the 2008-based projections. A sensitivity which assumes that in these age groups there is some return to a longer term trend indicates that there would be additional need to cater for this demand, of **199 dpa**. The latest MYE data indicates that population growth is slightly higher than previously predicted. When modelled it outlines an annual housing OAN of **205dpa**. Given that it is likely that the headship rates were suppressed in Staffordshire Moorlands by economic, rather than migratory reasons, it is recommended that the figure of 205 dpa be preferred to the 181 dpa and 199 dpa starting point in this instance.

- 5.20 The market signals analysis and update indicates that some upward adjustment to levels of housing above purely demographic-led needs in Staffordshire Moorlands. Although the picture is not clear cut across all indicators, the Practice Guidance is clear that worsening trends in any of the indicators will require upward adjustment.
- 5.21 Therefore, it is considered that an upward adjustment to the demographic scenarios (2012 SNPP based) would be appropriate, in the order of **10%** to cater for worsening market signals. This approach is in line with national policy and accords with recent Inspector's decisions on appropriate uplift to address moderately worsening market signals. Applied to the MYE partial catch up sensitivity (Scenario Ac), this would equate to **226 dpa**.

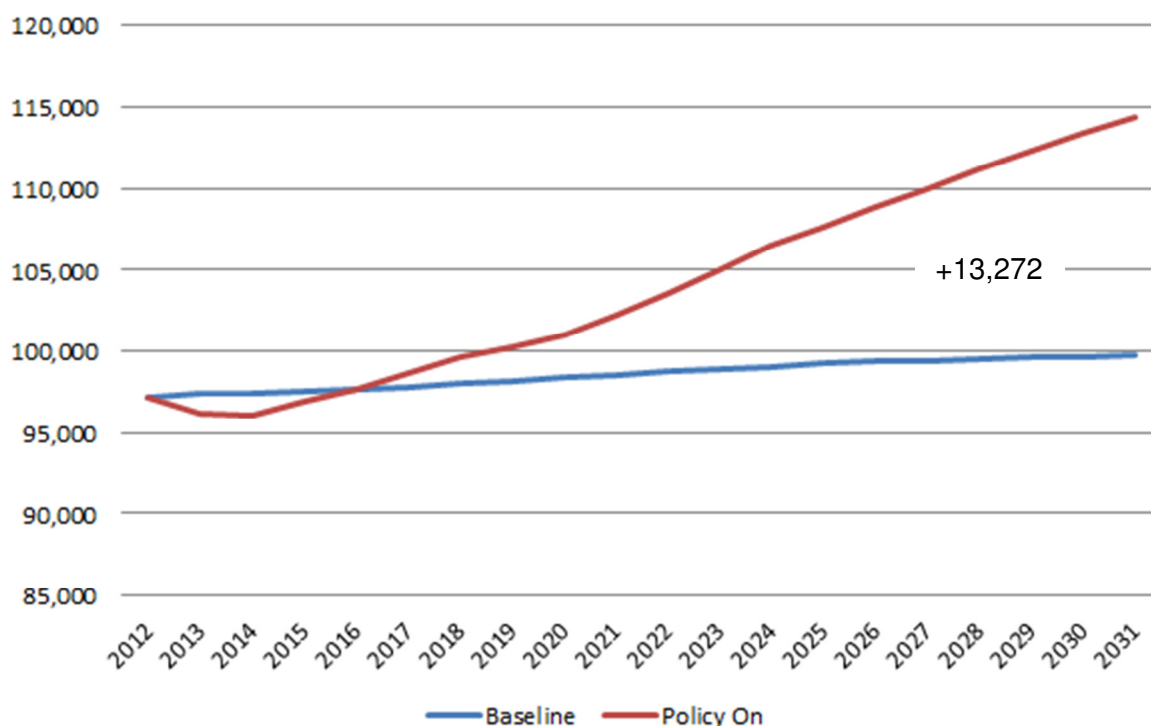
Employment-led Projections

- 5.22 The Practice Guidance requires plan makers to assess likely employment growth based on past trends and / or employment forecast. Where the labour force supply is likely to be less than the projected job growth, the Guidance states that this could result in unsustainable commuting patterns which would reduce the resilience of local businesses. In such circumstances, plan-makers should consider how the location of new housing or infrastructure development could help address these problems.
- 5.23 Recognising the importance of achieving a strategy which is internally consistent, it is evident that objectively assessed housing needs should seek to consider both demographic and economic implications. It should be noted that whilst there is not a direct causal relationship between job growth and housing needs, the two are nevertheless fundamentally related.
- 5.24 The model updates and re-creates previous scenarios of Oxford Economic Job Growth, Policy On Job Growth and Job Stabilisation (zero additional jobs). As a result of updating a number of inputs to reflect more up-to-date data the housing needs under each of these scenarios has changed.
- 5.25 In order to maintain the current number of jobs in Staffordshire Moorlands, assuming no increase or decline over the assessment period, and that the commuting ratio remains constant, there is a need for **290 dpa**. Under this

scenario the number of economically active persons would decrease by 1,369 whilst the number of jobs in the District would remain constant. Helping to stem the decline of working age residents in the District would achieve a more balanced population structure and reduce potential future economic difficulties and the demands of services associated with an ageing population and a more limited supply of labour.

- 5.26 The Oxford Economics and Policy On Job Growth scenarios are significantly in excess of the Job Stabilisation scenario, at **398 dpa and 473 dpa respectively**. The Oxford Economics forecast represents the ‘unconstrained’ potential of the area taking account of macro-economic factors and based on its existing business base, mix of sectors and inherent economic qualities. This forecasts 2,250 additional jobs over the period 2012-2031 in Staffordshire Moorlands. The equivalent number of jobs supported by the 2012-based SNHP scenario is negative and the difference between the two scenarios is 4,521.
- 5.27 The Policy On scenario factors in increased economic growth in the key sectors in line with the regional average and provides unconstrained employment growth in Staffordshire Moorlands of 3,871 jobs over the course of the plan period. This scenario results in a high number of jobs than the Oxford Economics Scenario and significantly higher than the 2012-based SNHP scenario.
- 5.28 The Oxford Economics and Policy On Job Growth scenarios are based on a continuation of the commuting ratio of 1.26, reflecting Staffordshire Moorlands position as a net out-commuter for surrounding areas. Any attempt to reduce out-commuting would be a policy-on approach (which should not form a consideration in the housing OAN).
- 5.29 Figure 5.2 illustrates the population change under the baseline population projections and the Policy On Job Growth forecast. The 2012 SNPP projects a total population at the end of the projection period of 99,957; to achieve the Oxford Economics forecasts for job growth, the total population would need to increase by a further 10,867 residents.
- 5.30 Crucially, the OAN must be reasonable. On the basis of the above, and taking into account that future growth scenarios should be realistic, it is considered that the Policy On Job Growth scenario could be considered an outlier.
- 5.31 This is because the population growth would primarily be achieved by inward migration as opposed to natural change, and this would require a step change in migration above the level that is likely to be achievable in Staffordshire Moorlands. To illustrate this, to achieve the population growth outlined in the Policy On Job Growth Scenario, net migration would need to increase from +7,373 to +20,645 - over 13,000 net additional in migrants to achieve the required population level (all other assumptions remaining constant). This is at odds with what may be reasonably expected to occur in the District.

Figure 5.2 Population Projections for Staffordshire Moorlands



Source: NLP using PopGroup

Affordable Housing

- 5.32 The affordable housing scenario indicates a need for 3,535dpa, based on the evidence published in the 2014 SHMA, which states that the affordable housing OAN over the next five years is 707 dpa (at a delivery rate of 33%).
- 5.33 On the basis that the economic-led OAN, excluding affordable housing amounts to between 290 dpa and 398 dpa, there is a clear need to uplift the figures to take account of the significant affordable housing need in Staffordshire Moorlands. Whilst the full affordable housing OAN equates to 2,142 dpa, in practice it is extremely unlikely that anywhere near this level of housing delivery will ever be achieved in Staffordshire Moorlands, which has averaged just 195 dpa since 2005/06 and has yet to achieve more than 348 dwellings in any one year.
- 5.34 From this it is clear that there is a significant affordable housing need in Staffordshire Moorlands. In line with the Practice Guidance and recent High Court decisions¹¹ it is necessary to include an uplift in overall housing delivery is required to meet these affordable housing needs. A further 10% uplift to take account of the significant affordable housing needs would result in a figure of 438 dpa at the top end of the OAN range and 248 dpa at the bottom end

¹¹ Oadby and Wigston Borough Council vs. SoS for Communities and Local Government and Bloor Homes Limited: [2015] EWHC 1879 (Admin), dated 03/07/15. Kings Lynn and West Norfolk Borough Council vs. SoS for Communities and Local Government and Elm Park Holdings Ltd: [2015] EWHC 2464 (Admin), dated 09/07/15

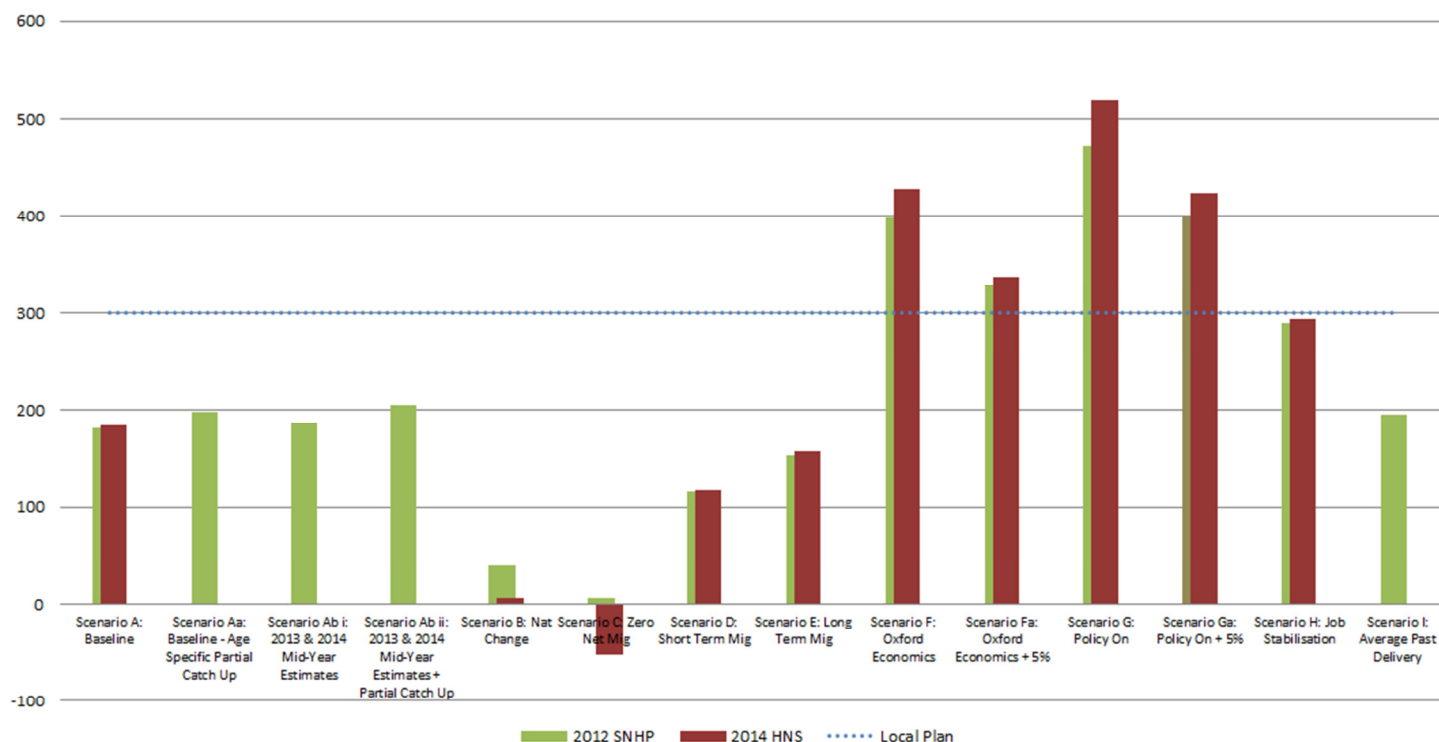
(see Table 5.1). The top end of the OAN range could deliver 145 affordable dwellings annually at a delivery rate of 33%.

Comparison to 2014 HNS Update

- 5.35 Figure 5.3 compares the latest modelling outputs with the outputs from the 2014 HNS Update. As can be seen, the latest outputs are slightly different across all scenarios, some being higher and some being lower. This would suggest that the 'indexed' approach to household formation used in the previous reports gives rise to slightly lower levels of household growth than CLG's latest 2012-based SNHP headship rates. All demographic led scenarios are below the housing requirement figure contained in the Council's adopted Core Strategy¹². The Job Stabilisation scenario is broadly aligned with the Council's housing requirement figure whilst the other economic led scenarios derive a higher level of housing need.
- 5.36 For comparative purposes the average past delivery over the period 2005/06 to 2014/15 has been assessed. Although this delivery figure will have been influenced by a wide variety of factors and has not been used to derive an appropriate OAN, it nonetheless provides useful information on the long term delivery average in Staffordshire Moorlands. The average past delivery figure is closely aligned to the Baseline Scenario and the Age Specific Partial Catch Up Scenario albeit slightly lower. The previous SHMA (2014) identified a need for 707 affordable housing dwellings annually over the next five years. This must be taken into consideration by the Local Authority when deriving the most appropriate housing requirement for its Local Plan.

¹² Note - We have not included the previous 2012 SNPP Partial Catch Up Scenario on Figure 5.3 as its parameters are different from the new Partial Catch Up Scenario.

Figure 5.3 Staffordshire Moorlands – Housing OAN Scenarios Comparator



Source: NLP Analysis

Note: The 2014 HNS Update provided data over a slightly different time period, 2011-2031, rather than the 2012-2031 time period quoted for the 2012-based SNHP.

Note: NLP has not included the previous 2014 HNS Partial Catch Up Scenario as its parameters are slightly different from the new Partial Catch Up Scenario

5.37

This 2015 Update has interrogated Staffordshire Moorland's housing OAN, taking into account the most recent government projections (in terms of both households and population) as well as updated modelling inputs to take account of recent data. Whilst it concludes on the level of housing need in Staffordshire Moorlands, the housing requirement (i.e. the amount of housing which will actually be provided) is a matter for the LPA to decide, taking into account a wider range of factors not considered here, such as capacity constraints.

5.38

The definition of an OAN is 'not an exact science' and an element of judgement is necessary based on reasonable assumptions. These scenarios should be balanced alongside what is realistic and likely to happen in the future, as well as aligning with other elements of Staffordshire Moorlands' evidence base. Nevertheless, the following principles have been applied in determining the OAN, in line with the requirements of the Framework and Practice Guidance:

- 1 The baseline 'starting point' housing growth figures for Staffordshire Moorlands in the 2012-based SNHP project growth of **181 dpa** over the period 2012-2031. This is slightly below the level projected in the 2008 and 2011 based SNHPs.
- 2 The latest projections suggest that the change in household size in Staffordshire Moorlands sits somewhere between the more optimistic

long term trends exhibited in the 2008-based SNHP, and the shorter term, recessionary-influenced 2011-based SNHP, albeit weighted towards the former. As a result, the previous 'Indexed' approach to household formation resulted in a slightly lower level of housing need than the latest modelling approach using the headship rates in the 2012-based SNHP.

- 3 In terms of population projections, the latest 2012-based SNPP are the lowest of the past four iterations and this has been the prime influence behind the lower 2012-based SNHP. Weaker levels of net in-migration has underpinned this decline; however, modelling short term/long term migratory trends as sensitivity tests has not resulted in a level of housing need any greater than the level suggested in the Baseline Scenario A.
- 4 The Age Specific Partial Catch Up Scenario indicates a housing need of 199 dpa. When applied to the 2013 & 2014 MYE the annual need is 205 dpa which represents the demographic starting point.
- 5 Allowing for a 10% uplift to account for worsening market signals to the starting point would result in a need of around **226 dpa** which is slightly higher than the bottom end of the previous OAN range (210 dpa).
- 6 It is considered that the top end of the OAN range should enable the delivery of sufficient labour force levels to support the Oxford Economics Job Growth projections **398 dpa**. This is intended to allow for the economic potential of Staffordshire Moorlands to be realised. Should the Council seek to pursue the higher 'policy on' level of job growth (i.e. 473 dpa), this would need to influence their decision making in choosing a policy driven housing 'requirement'.
- 7 The scale of affordable housing needs, once considered as a proportion of market housing delivery, implies significantly higher estimates of total need, although whether such estimates may be realistically expected to occur is open to question. Nevertheless in light of the high level of affordable housing need identified, it is considered that this supports an uplift of 10%. This 10% uplift would increase the 226 dpa figure to **248 dpa**, and increase the 398 dpa figure to **438 dpa**.
- 8 To ensure that there is no disconnect between the housing OAN and the Council's economic scenarios, in order to justify a figure below 438 dpa, SMDC would need to demonstrate how it would mitigate or avoid the adverse housing, economic and other outcomes that a lower growth approach could give rise to.
- 9 It is therefore suggested that had the latest SNHP been available at the time of drafting the 2014 HNS Update, a revised (and rounded) OAN range of between **250 dpa and 440 dpa** would have been recommended. This is underpinned by the Baseline with Age Specific Partial Catch Up Headship, uplifted to take into account worsening market signals and affordable housing need at the lower end and the Oxford Economics' Job Growth and an allowance for affordable housing need at the top end.

5.39 Table 5.1 summarises the series of uplifts that have been applied to the various demographic and economic scenarios in line with the findings of this report.

Table 5.1 Demographic and Economic Scenarios incorporating Uplifts

	2012-2031 dpa	10% Uplift for Market Signals	10% Uplift for Affordable Housing
A. Baseline	181	199	219
Aa. Baseline + Partial Catch Up	199	219	240
Ab 2013 & 2014 MYE	187	206	227
Ac 2013 & 2014 MYE + Partial Catch Up	205	226	248
B. Natural Change	41	45	49
C. Zero Net Migration	7	8	8
D. Short Term Migration	92	101	111
E. Long Term Migration	136	150	165
F. Oxford Economics	398	~	438
Fa. Oxford Economic + Reduced Commuting	329	~	361
G. Policy On Job Growth	473	~	520
Ga. Policy On Job Growth + Reduced Commuting	401	~	441
H. Job Stabilisation/Past Trends	290	~	319

Conclusions

5.40 This 2015 update report has tested the on-going validity of the housing OAN of 210 to 430 dpa identified in the 2012-based SNPP Update (August 2014). Having adjusted the modelling to incorporate the latest, lower, headship rates in the 2012-based SNHP; taking into account worsening market signals as before and an additional allowance for affordable housing need; and planning for a level of economic growth to match earlier assumptions, this would point to a revised housing OAN range of **between 250 dpa and 440 dpa for Staffordshire Moorlands District.**

5.41 This OAN range takes the CLG's most recent 2012-based household projections as the starting point for identifying need, accelerating household formation post 2021 to allow for the return to growth and increased headship rates amongst younger households. A judgement has been taken to increase the demographic and economic starting point to allow for moderately

worsening housing market signals, by around 10% and a further 10% to cater for the affordable housing need of the District has been applied to the demographic and economic scenarios.

- 5.42 This OAN range would encompass all of the economic-led projections with the exception of the Policy On scenario, which would be a policy choice for SMDC to follow in defining its housing requirement.
- 5.43 This OAN range provides a realistic level of housing delivery which will support economic growth and address potentially worsening housing market signals, whilst meeting the full demographically-assessed need for housing in the District.
- 5.44 If Staffordshire Moorlands was to pursue a figure significantly lower than the top end of the OAN range, it would need to justify how it would mitigate or avoid the adverse housing, economic and other outcomes that a lower growth approach would give rise to. It would also need to evidence how the adverse impact of meeting housing need would '*significantly and demonstrably outweigh the benefits*' [the Framework, §14] as well as make provision, through the duty-to-cooperate, for those needs to be met in full elsewhere within the wider HMA.
- 5.45 Supply-side factors, such as development constraints, policy constraints, infrastructure and environmental capacity, land supply and development viability amongst other considerations, are beyond the remit of this update, but may give an indication as to where the requirement target may sit within the OAN range identified above. Similarly, such factors may provide Staffordshire Moorlands with the rationale to deliver more or less than an objective assessment of need, based upon the range of evidence supporting its Local Plan.
- 5.46 Staffordshire Moorlands will also be obliged to fully take into account affordable housing needs, recognising that these were identified on a different evidential basis, with the data focussing on household's ability to pay, rather than demographic change and economic growth. Staffordshire Moorlands will need to exercise their policy choice to test whether the delivery of 707 affordable dpa would require a further uplift to the Local Plan housing requirement on the basis of whether this would be economically realistic; and also taking into account a variety of considerations including deliverability and viability.

Appendix 1 Inputs and Assumptions

DEMOGRAPHIC	Scenario A: Baseline (Scenario Ai: Age Specific Partial Catch Up)	Scenario Ab i: 2013&2014 MYE (Scenario Ab ii: 2013&2014 MYE Age Specific Partial Catch Up)	Scenario B – Natural Change	Scenario C – Zero Net Migration	Scenario D: Short Term Migration Trend / Scenario E: Long Term Migration Trend
Population					
Baseline Population	A 2012 baseline population is taken from the 2012 Mid-year population estimates for Staffordshire Moorlands, split by age cohort and gender. The population for 2012-2031 is constrained to the 2012-based SNPP for the District, by age and sex.	The 2012, 2013 and 2014 population is taken from the MYEs, split by age cohort and gender.	A 2012 baseline population is taken from the 2012 Mid-year population estimates for Staffordshire Moorlands, split by age cohort and gender. In 2013, the total population is constrained to the 2013 Mid-Year Estimates, in order that the components of change (births, deaths, migration) reflect the most up-to-date data for the District.		
Births	Future change assumed in the Total Fertility Rate [TFR] uses the birth projections from the ONS 2012-based Interim SNPP. This in turn is used to derive future projected TFRs through PopGroup.	For 2012-13, the number of births recorded in the District in the Mid-Year Estimates is used. This is to reflect the latest data and to align with the number of migrants (and final population) in 2013. From 2013/14 onwards, the TFR as projected in the 2012 SNPP applies.			
Deaths	Future change assumed in the SMR uses the death projections from the ONS 2012-based Interim SNPP. This in turn is used to derive future projected SMRs through PopGroup.	For 2012-13, the number of deaths recorded in the District in the Mid-Year Estimates is used. This is to the latest data and to align with the number of migrants (and final population) in 2013. From 2013/14 onwards, the SMR as projected in the 2012 SNPP applies.			
Internal Migration	Gross domestic in and out migration flows are adopted based on forecast migration into the District from the ONS 2012-based SNPP for the actual internal migration flows 2012-2031. This is the sum of internal migration (elsewhere in England) and cross-border migration (elsewhere in the UK) (SNPP Table 5).	Migration in/out to Staffordshire Moorlands is reduced to zero.	Gross flows are based on the 2012 SNPP and are neutralised to create zero net migration flows. For 2012/13, the mid-year estimates of migration were used, with the 'zero net' flows applying from 2013/14 onwards.	Gross domestic internal migration flows are adopted based on average gross past trends for the past 5/10 years. In 2012/13, the mid-year estimates of migration were used with the trend applied 2013/14 onwards.	

DEMOGRAPHIC	Scenario A: Baseline (Scenario Ai: Age Specific Partial Catch Up)	Scenario Ab i: 2013&2014 MYE (Scenario Ab ii: 2013&2014 MYE Age Specific Partial Catch Up)	Scenario B – Natural Change	Scenario C – Zero Net Migration	Scenario D: Short Term Migration Trend / Scenario E: Long Term Migration Trend
International Migration	Gross international in and out migration flows are adopted based on forecast migration in the District from the ONS 2012-based SNPP for the actual internal migration flows 2012-2031.		As above, but for international rather than internal migration.		As above, but for international rather than internal migration.
Propensity to Migrate (Age Specific Migration Rates)	Age Specific Migration Rates (ASMigR) for both in and out migration is based upon the age profile of migrants to and from the District projected in the 2012-based SNPP. These identify a migration rate for each age cohort within the District (for both in and out flows separately) which is applied to each individual age providing an Age Specific Migration Rate. This then drives the demographic profile of those people moving into and out of the District (but not the total numbers of migrants).				
Housing					
Headship Rates	Headship rates that are specific to Staffordshire Moorlands are applied in the modelling. These are taken from the 2012-based Sub-National Household Projections, and as of May 2015 'Stage 1' outputs were available. These provided headship rates by age, sex and relationship status. The relationship statuses have been amalgamated so that headship rates by sex and five year age group only are inputted into the modelling. Applied to the population, these determine the percent of people in a given age/sex group who will form a head of household. For all scenarios except Ai, the rates as taken directly from CLG are applied. For the 'partial catch-up' scenario, the rates for young people in the age groups 15-19 to 30-34 are projected to reach, by 2033, half way between then 2008-based and 2012-based projections.				
Population not in households	The number of population not in households (e.g. those in institutional care) is similarly taken from the 2012-based household projections. CLG provide these by the number of people in each sex/five year age groups/relationship status in institutional care. Above age 75, these numbers have been converted into a rate; therefore under scenarios which project a different population size and/or age structure to the 2012 SNPP (which the CLG household projections are based on) this is taken into account when considering the number of elderly people likely to be in care home or other non-household accommodation.				
Vacancy / 2nd Home Rate	A vacancy and second homes rate is applied to the number of households, representing the natural vacancies/not permanently occupied homes which occur within the housing market. This means that more dwellings than households are required to meet needs. The average vacancy/second home rate in Staffordshire Moorlands District is 4.02% based on the average second home/vacancy rates in CLG Council Tax Base data for 2012-2014.				
Economic					
Economic Activity Rate	Age and gender specific economic activity rates are used. The bases for these are the 2011 Census. For age groups 16-24, rates are projected to reach the ONS Labour Force Projections (LFP) by 2020, and then held constant. For ages 25-69, the ONS LFP growth rates are applied, and held constant post 2020. In older age groups, an adjustment has been made to take account of higher economic activity than projected in the LFP. Rates for 70-74 year olds are projected to reach a mid-point between the ONS LFP and a linear trend based on 2001-2011 growth, then held constant. Above this age, the 70-74 growth rate is applied. Further adjustments have been made for males and females age 65-69 to take into account of changes in Statutory Pension Age in 2018-2020 and 2026-2028.				
Commuting Rate	A standard net commuting rate is inferred through the modelling using a Labour Force ratio which is worked out using the formula: (A) Number of employed workers living in area ÷ (B) Number of workers who work in the area (number of jobs). This is based on the number of jobs identified by Oxford Economics in 2014 and the number of economically active people in employment from the APS creating a LF Ratio of 1.26 in 2014, with this figure kept constant for the remainder of the plan period to 2031				

DEMOGRAPHIC	Scenario A: Baseline (Scenario Ai: Age Specific Partial Catch Up)	Scenario Ab i: 2013&2014 MYE (Scenario Ab ii: 2013&2014 MYE Age Specific Partial Catch Up)	Scenario B – Natural Change	Scenario C – Zero Net Migration	Scenario D: Short Term Migration Trend / Scenario E: Long Term Migration Trend
Unemployment	The unemployment rate is taken from the ONS Annual Population Survey model-based estimates of economically active people not in employment. The rates for 2013 (4.7%) and 2014 (3.4%) have been applied, and the rate is projected such that by 2020, unemployment returns to the pre-recession average of 2.9%.				

EMPLOYMENT FACTORS	Scenario F. Oxford Economics Job Growth and Ga Sensitivity Test	Scenario G. Policy On Job Growth and Ga Sensitivity Test	Scenario H: Job Stabilisation
Population			
Baseline Population	A 2012 baseline population is taken from the 2012 Mid-year population estimates for Staffordshire Moorlands, split by age cohort and gender.		
Births	The TFR derived from the 2012 SNPP is applied. This drives the number of births in each year based on the population.		
Deaths	The SMRs derived from the 2012 SNPP is applied. This drives the number of deaths in each year based on the population.		
Internal Migration	Internal in-migration and outmigration is flexed (inflated or deflated) to achieve the necessary number of economically active people to underpin the economy in the District for this employment scenario. This was based on taking forward forecast job growth based on Oxford Economics forecasts (+2,250 jobs 2012-2031 for Staffordshire Moorlands)	Internal in-migration and outmigration is flexed (inflated or deflated) to achieve the necessary number of economically active people to underpin the economy in the District for this employment scenario. This was based on taking forward forecast job growth based on Policy On forecasts (+3,879 jobs for Staffordshire Moorlands)	Internal in-migration and outmigration is flexed (inflated or deflated) to achieve the necessary number of economically active people to underpin the economy in the District for this employment scenario. This was based on constraining the annual number of additional jobs in Staffordshire Moorlands to 0.
International Migration	As above, but for international rather than internal migration.		
Propensity to Migrate (Age Specific Migration Rates)	Age Specific Migration Rates (ASMigR) for both in and out domestic migration are based upon the age profile of migrants to and from Staffordshire Moorlands District in the 2010-based SNPP. These identify a migration rate for each age cohort within the District (for both in and out flows separately) which is applied to each individual age providing an Age Specific Migration Rate. This then drives the demographic profile of those people moving into and out of the District (but not the total numbers of migrants).		

EMPLOYMENT FACTORS	Scenario F. Oxford Economics Job Growth and Ga Sensitivity Test	Scenario G. Policy On Job Growth and Ga Sensitivity Test	Scenario H: Job Stabilisation
Housing			
Headship Rates	Headship rates that are specific to Staffordshire Moorlands District and forecast over the period to 2037 were taken from the CLG 2012-based household projections. These headship rates were split by age cohort and by household typology. No change has been assumed from the rates published by CLG.		
Population not in Households	The number of population not in households (e.g. those in institutional care) is similarly taken from the 2012-based household projections. CLG provide these by the number of people in each sex/five year age groups/relationship status in institutional care. Above age 75, these numbers have been converted into a rate; therefore under scenarios which project a different population size and/or age structure to the 2012 SNPP (which the CLG household projections are based on) this is taken into account when considering the number of elderly people likely to be in care home or other non-household accommodation.		
Vacancy / 2nd Home Rate	A vacancy and second homes rate is applied to the number of households, representing the natural vacancies/not permanently occupied homes which occur within the housing market. This means that more dwellings than households are required to meet needs. The average vacancy/second home rate in Staffordshire Moorlands District is 4.02% based on the average second home/vacancy rates in CLG Council Tax Base data for 2012-2014.		
Economic			
Economic Activity Rate	Age and gender specific economic activity rates are used. The bases for these are the 2011 Census. For age groups 16-24, rates are projected to reach the ONS Labour Force Projections (LFP) by 2020, and then held constant. For ages 25-69, the ONS LFP growth rates are applied, and held constant post 2020. In older age groups, an adjustment has been made to take account of higher economic activity than projected in the LFP. Rates for 70-74 year olds are projected to reach a mid-point between the ONS LFP and a linear trend based on 2001-2011 growth, then held constant. Above this age, the 70-74 growth rate is applied. Further adjustments have been made for males and females age 65-69 to take into account of changes in Statutory Pension Age in 2018-2020 and 2026-2028.		
Commuting Rate	A standard net commuting rate is inferred through the modelling using a Labour Force ratio which is worked out using the formula: (A) Number of employed workers living in area ÷ (B) Number of workers who work in the area (number of jobs). This is based on the number of jobs identified by Oxford Economics in 2014 and the number of economically active people in employment from the APS creating a LF Ratio of 1.26 in 2014, with this figure kept constant for the remainder of the plan period to 2031		
Unemployment	The unemployment rate is taken from the ONS Annual Population Survey model-based estimates of economically active people not in employment. The rates for 2013 (4.7%) and 2014 (3.4%) have been applied, and the rate is projected such that by 2020, unemployment returns to the pre-recession average of 2.9%.		

Appendix 2 PopGroup Output Sheets

Population Estimates and Forecasts

Scenario A: Staffordshire Moorlands Baseline

Components of Population Change

Table with columns for year (2010-11 to 2036-37) and rows for Births (Male, Female, All, SMR, SMGR, Expectation of life, Deaths input), In-migration from the UK (Male, Female, All, SMGR, SMGR, Migrants input), Out-migration to the UK (Male, Female, All, SMGR, SMGR, Migrants input), and In-migration from Overseas (Male, Female, All, SMGR, SMGR, Migrants input).

Table with columns for year (2010-11 to 2036-37) and rows for Migration - Net Flows (UK, Overseas) and Summary of population change (Natural change, Net migration, Net change, Crude Birth Rate, Crude Death Rate, Crude Net Migration Rate).

Table with columns for year (2010 to 2037) and rows for Summary of Population estimates/forecasts (Population at mid-year, 0-4, 5-10, 11-15, 16-17, 18 Staffordshire, 65+, 65-74, 75-84, 85+, Total).

Table with columns for year (2010 to 2037) and rows for Dependency ratios, mean age and sex ratio (0-15 / 16-65, 65+ / 16-65, 0-15 and 65+ / 16-65, Median age males, Median age females, Sex ratio males / 100 females).

Table with columns for year (2010 to 2037) and rows for Population impact of constraint (Number of persons, Households, Number of Households over previous year, Number of supply units, Change in over previous year) and Labour Force (Number of Labour Force, Change in Labour Force over previous year, Number of supply units, Change in over previous year).

Table with columns for year (2010 to 2037) and rows for Labour Force (Number of Labour Force, Change in Labour Force over previous year, Number of supply units, Change in over previous year).

Table with columns for year (2010 to 2037) and rows for Labour Force (Number of Labour Force, Change in Labour Force over previous year, Number of supply units, Change in over previous year).

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Table with columns for year (2010 to 2037) and rows for Labour Force (Number of Labour Force, Change in Labour Force over previous year, Number of supply units, Change in over previous year).

Population Estimates and Forecasts

Scenario Aa: Staffordshire Moorlands Baseline - Partial Catch Up

Components of Population Change

Table with 28 columns representing years from 2010-11 to 2036-37 and rows for Births (Male, Female, All Births, FFR, Births input), Deaths (Male, Female, All Deaths, SMR: males, SMR: females, SMR: persons, Expectation of life: males, Expectation of life: females, Expectation of life: persons, Deaths input), In-migration from the UK (Male, Female, All, SMGR: males, SMGR: females, Migrants input), Out-migration to the UK (Male, Female, All, SMGR: males, SMGR: females, Migrants input), In-migration from Overseas (Male, Female, All, SMGR: males, SMGR: females, Migrants input), and Migration - Net Flows (UK, Overseas).

Summary of population change

Table showing summary of population change metrics including Natural change, Net migration, Net change, Crude Birth Rate '000, Crude Death Rate '000, and Crude Net Migration Rate '000 across years 2010-11 to 2036-37.

Summary of Population estimates/forecasts

Table with 28 columns representing years from 2010 to 2037 and rows for Population at mid-year (0-4, 5-10, 11-15, 16-17, 18-24, 25-64, 65-74, 75-84, 85+, Total), Dependency ratios (0-15/16-65, 0-15 and 65+/16-65, Median age males, Median age females, Sex ratio males/100 females), Population impact of constraint, Households, Number of Labour Force, and Labour Force (Number of Labour Force, Change in Labour Force over previous year, Number of supply units, Change in over previous year).

Population Estimates and Forecasts

Scenario F: Staffordshire Moorlands Oxford Economics

Components of Population Change

Table with columns for years from 2010-11 to 2036-37 and rows for Births (Male, Female, All Births, FFR, Births input), Deaths (Male, Female, All deaths, SMR: males, SMR: females, SMR: persons, Expectation of life: males, Expectation of life: females, Expectation of life: persons, Deaths input), In-migration from the UK, Out-migration to the UK, In-migration from Overseas, Out-migration to Overseas, Migration - Net Flows, and Summary of population change.

Table with columns for years from 2010-11 to 2036-37 and rows for Migration - Net Flows (UK, Overseas) and Summary of population change (Natural change, Net migration, Net change, Crude Birth Rate, Crude Death Rate, Crude Net Migration Rate).

Table with columns for years from 2010 to 2037 and rows for Summary of Population estimates/forecasts (Population at mid-year, 0-4, 5-10, 11-15, 16-17, 18-64, 65-74, 75-84, 85+, Total) and Dependency ratios, mean age and sex ratio (0-15/16-65, 65+/16-65, 0-15 and 65+/16-65, Median age males, Median age females, Sex ratio males/100 females).

Table with columns for years from 2010 to 2037 and rows for Population impact of constraint (Number of persons, Labour Force, Change in Labour Force over previous year, Change in supply units, Change in over previous year) and Households (Number of Households, Change in Households over previous year, Change in supply units, Change in over previous year).

Population Estimates and Forecasts

Scenario Fa: Staffordshire Moorlands Oxford Economics + 5% Red in Commuting

Components of Population Change

Table showing components of population change from 2010-11 to 2036-37. Categories include Births (Male, Female), All Births, FFR, Births input, Deaths (Male, Female), SMR, SMGR, SMGR: males, SMGR: females, Expectation of life, and Deaths input.

In-migration from the UK

Table showing in-migration from the UK from 2010-11 to 2036-37. Categories include Male, Female, AF, SMGR: males, SMGR: females, and Migrants input.

Out-migration to the UK

Table showing out-migration to the UK from 2010-11 to 2036-37. Categories include Male, Female, AF, SMGR: males, SMGR: females, and Migrants input.

In-migration from Overseas

Table showing in-migration from overseas from 2010-11 to 2036-37. Categories include Male, Female, SMGR: males, SMGR: females, and Migrants input.

Out-migration to Overseas

Table showing out-migration to overseas from 2010-11 to 2036-37. Categories include Male, Female, AF, SMGR: males, SMGR: females, and Migrants input.

Migration - Net Flows

Table showing migration net flows from 2010-11 to 2036-37. Categories include UK and Overseas.

Summary of population change

Table showing summary of population change from 2010-11 to 2036-37. Categories include Natural change, Net migration, Net change, and Crude rates for Birth Rate, Death Rate, and Net Migration Rate.

Summary of Population estimates/forecasts

Table showing summary of population estimates/forecasts from 2010 to 2037. Categories include 0-4, 5-10, 11-15, 16-17, 18-24, 65+ male, 65-74, 75-84, 85+, and Total population.

Dependency ratios, mean age and sex ratio

Table showing dependency ratios, mean age, and sex ratio from 2010 to 2037. Categories include 0-15/16-65, 65+ / 16-65, 0-15 and 65+ / 16-65, Median age males, Median age females, and Sex ratio males/100 females.

Population impact of constraint

Table showing population impact of constraint from 2010 to 2037. Categories include Labour Force and Number of persons.

Labour Force

Table showing labour force from 2010 to 2037. Categories include Number of Labour Force, Change in Labour Force over previous year, Number in supply units, and Change in over previous year.

Households

Table showing households from 2010 to 2037. Categories include Number of Households, Change in Households over previous year, Number of supply units, and Change in over previous year.

Population Estimates and Forecasts

Scenario Ga: Staffordshire Moorlands OE Policy On + 5% Red in Commuting

Components of Population Change

Table showing population components from 2010-11 to 2036-37, including Births (Male, Female), Deaths (Male, Female), and In-migration from the UK (Male, Female).

Table showing migration components from 2010-11 to 2036-37, including Out-migration to the UK (Male, Female) and In-migration from Overseas (Male, Female).

Table showing migration components from 2010-11 to 2036-37, including Out-migration to Overseas (Male, Female) and Migration - Net Flows (UK, Overseas).

Table showing migration components from 2010-11 to 2036-37, including Migration - Net Flows (UK, Overseas) and Summary of population change.

Table showing migration components from 2010-11 to 2036-37, including Migration - Net Flows (UK, Overseas) and Summary of population change.

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