



Nathaniel Lichfield
& Partners
Planning. Design. Economics.

**Housing Needs Study
2012-based SNPP Update**

High Peak Borough Council and
Staffordshire Moorlands District Council

15th August 2014

41306/02/MW/CRo

This document is formatted for double sided printing.

© Nathaniel Lichfield & Partners Ltd 2012. Trading as Nathaniel Lichfield & Partners.

All Rights Reserved.

Registered Office:

14 Regent's Wharf

All Saints Street

London N1 9RL

All plans within this document produced by NLP are based upon Ordnance Survey mapping with the permission of Her Majesty's Stationery Office. © Crown Copyright reserved. Licence number AL50684A

Contents

1.0	Introduction	3
	Background to the Study	3
2.0	Factors Underpinning Population Change	6
	Introduction	6
	Population Change	6
3.0	PopGroup Baseline Model Run Updates	13
	Introduction	13
	Scenarios – Assumptions and Approach	15
	Modelling Results	16
	Summary	22
4.0	Discussion	25
	Conclusion	28

1.0 Introduction

Background to the Study

- 1.1 Nathaniel Lichfield and 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 June 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 Taking into account 10 main scenarios and a number of sensitivity tests modelled through NLP's HEaDROOM housing framework, the analysis recommended an OAN housing requirement of between 420 dwellings per annum [dpa] and 470 dpa over the 20-year plan period (2011-2031) in High Peak Borough, and between 260-440 dpa in Staffordshire Moorlands District over the same time period.
- 1.3 In defining the two housing OAN ranges, full reference was made to the Practice Guidance (March 2014), which clarifies the position on how the Framework should be interpreted and applied. It confirms that an assessment of need must fulfil the following criteria:
- 1 Based on facts and unbiased evidence. Plan makers should not apply constraints to the overall assessment of need;
 - 2 Up-to-date household projections published by the CLG should provide the starting point estimate of overall housing need; and,
 - 3 The housing need number suggested by household projections (the starting point) should be adjusted to reflect local demographic factors, employment trends as well as appropriate market signals including market indicators of the balance between the demand for and supply of dwellings.
- 1.4 The approach taken to setting housing requirements must therefore be grounded in the background evidence of 'need' within an area, and this evidence must be sound and robust to inform the strategy making process, which will identify the housing 'requirement'.
- 1.5 Following the submission of the SHMA, the demographic data which underpinned NLP's modelling work was updated by ONS.

- 1.6 This new data, the 2012-based Sub-National Population Projections [SNPP], was published by ONS on 29th May 2014. It replaces¹ the 2011-based (interim) SNPP equivalents (published in September 2013). The latest projections are based on the 2012 mid-year population estimates published in June 2013 (which are themselves rolled forward from the 2011 mid-year population estimates and ultimately the 2011 Census) and a set of underlying demographic assumptions regarding fertility, mortality and migration, based on local trends.
- 1.7 As with previous projections, the 2012-based SNPP are not forecasts and do not attempt to predict the impact that future government or local policies, changing economic circumstances or other factors might have on demographic behaviour². However, unlike the 2008-based and 2010-based SNPPs, the trends for the 2012-based projections are able to fully take into account information from the 2011 Census.
- 1.8 The data is also considered to be more robust than its immediate predecessor, the 2011-based (interim) SNPP, as the latter assumed a continuation of the estimated trends in fertility, mortality and migration as used in the 2010-based SNPP. The trends from the 2010-based projections were used because a revised historic data series was not available to update the assumptions.
- 1.9 As described in the user guidance section of the ONS's 2011-based SNPP Statistical Bulletin (2012), the robustness of the data was limited as³:
- 1 The fertility rates used to set the assumptions are based on birth registrations and population estimates up to 2010. However, population estimates for women of childbearing age were too low over the decade to mid-2010, as the 2011 Census showed more women aged 16 to 44 than estimates rolled forward from the 2001 Census. This means the fertility rates used to set the 2010-based SNPP assumptions were too high, leading to an over-projection of births at the national level;
 - 2 There was a similar issue with the mortality rates, since the number of older people (who are most affected by mortality rates), was estimated to be lower in the 2011 mid-year estimates than in the estimates rolled forward from the 2001 Census. The impact was not as great for deaths as for births, but it also resulted in a projected increase in the population;
 - 3 Differences in the age structure at local authority level also resulted in changes to projected levels of internal migration. This is because migration rates based on historic trend data were applied to the new population base. Where the size and structure of the new population base in a local authority was very different from the 2010-based

¹ONS (29 May 2014): 2012-based Subnational Population Projections for England: Statistical Bulletin page 1

²Ibid, page 2

³ONS (28 September 2012): Interim 2011-based SNPP for England, pages 2-3

projections for 2011, particularly at ages most likely to migrate, the applied migration rate over or under-estimated the number of people moving from an area.

- 1.10 As such, the ability of the 2012-based SNPP to incorporate not only the 2011 Census, but also updated demographic assumptions concerning fertility, mortality and migration, makes it significantly more robust for the purposes of demographic modelling.
- 1.11 **In this regard, they can be considered to provide the best estimates of the future population of English regions and local authorities currently available.**
- 1.12 This supporting statement tests the ongoing validity of the housing requirements identified in the original SHMA in the light of the 2012-based SNPP. This will ensure that the evidence base upon which the respective Councils' Local Plans are to be founded is as robust as possible moving forward to their respective EIPs.
- 1.13 This report does not seek to replicate the contextual or affordable housing analysis undertaken in the SHMA, but instead focuses on the following:
- 1 An analysis of the latest demographic and population releases for the two districts, specifically the 2012-based SNPP, and how these forecasts compare with the data underpinning the SHMA;
 - 2 Remodelling the 10 scenarios (and accompanying sensitivities) using the data within the 2012-based SNPP; and,
 - 3 An overview exploring the reasons behind any significant changes to the forecasts and the extent to which the previous forecasts underpinning the recommended OAN for housing in either district remain valid.

2.0

Factors Underpinning Population Change

Introduction

2.1

This section provides an overview and comparison of the 2008 / 2010 / 2011 and 2012-based SNPP datasets ahead of a re-run of the PopGroup modelling work to examine any practical differences that could impact upon the housing requirements of the two districts.

2.2

In deriving the SNPP, the projected local authority population for each year is initially calculated by ageing on the population for the previous year, applying assumed local fertility and mortality rates to calculate the number of projected births and deaths, and then adjusting for migration into and out of each local authority. Local authority-assumed levels of fertility, mortality and migration are derived from observed values during the previous five years (six years for international migration) and are constrained to the assumptions made in the 2012-based national projections. Finally, the SNPPs are constrained to the national population projections for England⁴.

2.3

Essentially then, the 2012-based SNPP is based predominantly on the last five years' population estimates and components of population change for each local authority. If an area was/is experiencing a change in its estimates of population during the trend period, this might not be fully reflected in the assumptions being used for future years as the five-year averaging process has a dampening effect on such changes⁵.

Population Change

2.4

It might be expected that the various population projections would be different due to the differing inputs and timeframes used. However, substantive differences may be due to the following:

- 1 changes in the population estimate used as the base year;
- 2 changes in the trends (births, deaths and migration); and,
- 3 changes in assumptions for international migration at a national level⁶.

2.5

Table 2.1 sets out the 2011 Mid-Year population estimates for High Peak and Staffordshire Moorlands districts, rolled forward from the 2011 Census. This indicates that the ONS considered that High Peak's resident population would increase by 3.8%, or almost 3,400 residents, over the ten years following the

⁴ 2012-based SNPP for England Statistical Bulletin 29 May 2012 page 12

⁵ *ibid*

⁶ ONS Questions and Answers: 2012-based Subnational Population Projections page 5 29th May 2014

2001 Census. The projected growth for Staffordshire Moorlands was lower, at less than 1% (880 additional residents).

Table 2.1 Changes in population estimates – 2011

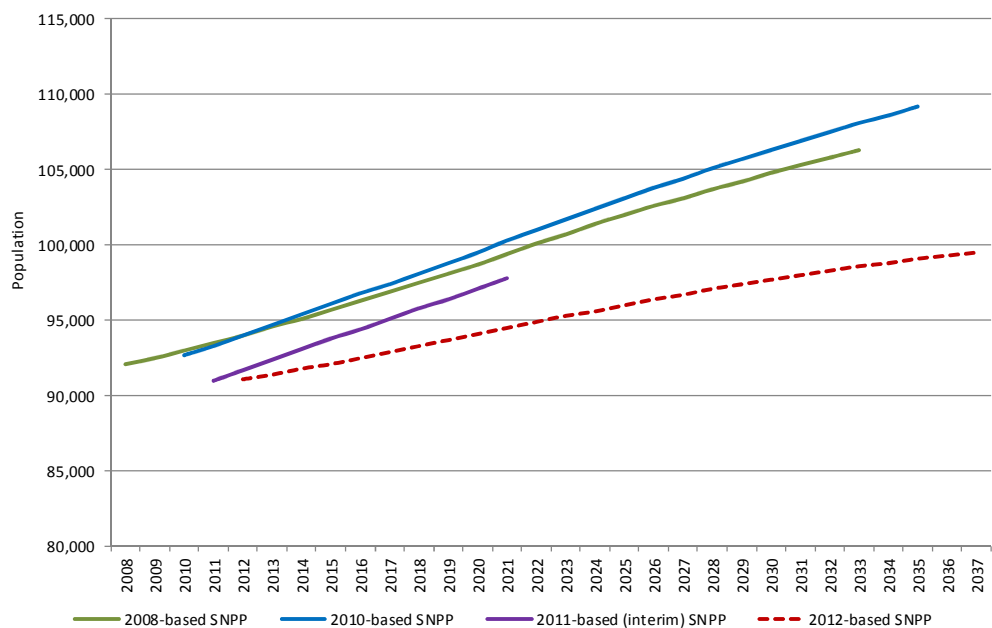
Resident Population	Mid 2001 Census-based (official)	Mid 2011 rolled forward estimate	Mid-2011 Census-based (official) estimate	Difference between 2011 MYE and Census
High Peak Borough	89,400	92,797	90,982	+1,815
Staffordshire Moorlands District	94,555	95,435	97,209	-1,774

Source: ONS Components of difference underlying the revised mid-2002 to mid-2010 population estimates (30th April 2013)

2.6 The implications of this over/under estimation of HPBC’s population are clearly indicated in Figure 2.1. This presents the trajectory of population growth in High Peak derived from the 2008/2010/2011 and 2012-based SNPPs. Figure 2.2 presents the same data for Staffordshire Moorlands District.

2.7 Figure 2.1 and Table 2.2 show that for High Peak, both the 2008 and 2010-based SNPPs start from a much higher population base in 2011 and continue at a steep trajectory, resulting in an increase of 11,300 and 12,900 residents respectively over the period 2012 to 2031. The 2011-based (interim) SNPP, although rebased to align with the much lower 2011 Census data, continues to grow at almost the same trajectory as the 2010-based SNPP. This might be expected given that it uses many of the same data sources, including the 2010-based SNPP’s Total Fertility Rates [TFR], Standard Mortality Rates [SMR] and Age Specific Mortality Rates [ASMigR].

Figure 2.1 Comparison ONS 2008/2010/2011/2012 based SNPPs for High Peak Borough

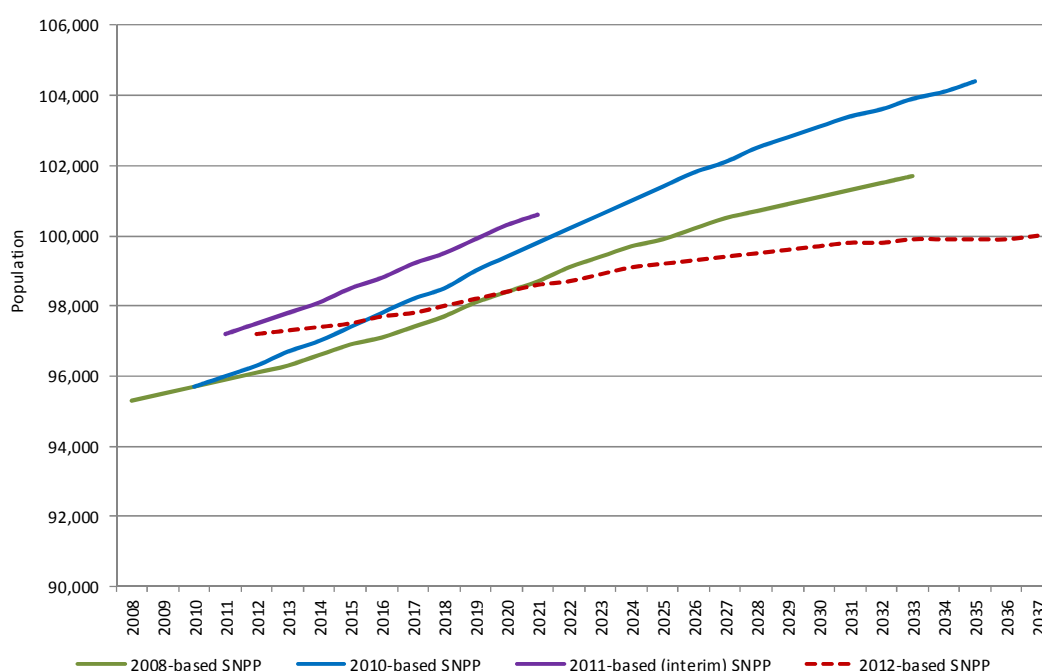


Source: NLP Analysis / ONS 2008/2010/2011/2012-based sub-national population projections

2.8 The projected growth in the 2011-based SNPP, of 6,100 residents between 2012 and 2021, is almost double the level of growth projected by the latest 2012-based SNPP (+3,400 residents 2012 to 2021) despite starting from a similar base. The latest projections diverge further and further away from the other SNPPs as time progresses.

2.9 Figure 2.2 presents a similar picture for Staffordshire Moorlands, albeit the 2012 starting point is considerably higher than for the 2008-based SNPP and 2010-based SNPP equivalents. However, whilst these historic projections increase by 5,200 and 7,100 respectively between 2012 and 2031, Table 2.2 indicates that the latest 2012-based SNPP increase by only 2,600 over that time period.

Figure 2.2 Comparison ONS 2008/2010/2011/2012 based SNPPs for Staffordshire Moorlands District



Source: NLP Analysis / ONS 2008/2010/2011/2012-based sub-national population projections

Table 2.2 Comparison of Population Projections

		2008-Based SNPP	2010-Based SNPP	2011-Based SNPP (Interim)	2012-Based SNPP
High Peak	2012	94,000	94,000	91,700	91,100
	2021	99,400	100,300	97,800	94,500
	2031	105,300	106,900	-	98,000
	Dif 2012-21	+5,400	+6,300	+6,100	+3,400
	Dif 2012-31	+11,300	+12,900	-	+6,900
Staffordshire Moorlands	2012	96,100	96,300	97,500	97,200
	2021	98,700	99,800	100,600	98,600
	2031	101,300	103,400	-	99,800
	Dif 2012-21	+2,600	+3,500	+3,100	+1,400
	Dif 2012-31	+5,200	+7,100	-	+2,600

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

- 2.10 As the 2008/2011 SNPPs informed the CLG's 2008/2011-based household projections, and also much of the modelling informing the 2014 SHMAs for both districts, it is clear that this will have significant consequences for the revised housing modelling work.
- 2.11 Figure 2.3 and Figure 2.4 present population 'trees', comparing the age profile of the two districts in 2012 and 2031 using the data within the 2010-based SNPP and the 2012-based SNPPs. Both districts show a distinct ageing of the population, with the number of residents over the age of 75 increasing substantially, with a less pronounced 'bulge' of residents in their forties by 2031.
- 2.12 For the purposes of the modelling work, it is clear that for High Peak, the earlier projections over-estimated the number of both men and women in the 40-49 age cohorts, with the difference becoming more pronounced by 2031.
- 2.13 For Staffordshire Moorlands, where the earlier Mid-Year estimates had underestimated the level of population growth revealed in the 2011 Census, there is a less obvious discrepancy in 2012, although again by 2031 there are fewer residents in the 40-49 age bracket in the latest projections, and also (in common with High Peak) in the younger age categories - particularly those aged 10-19.

Figure 2.3 High Peak Population by Age Cohort and Sex 2012 and 2031



Source: NLP Analysis / ONS 2008/2010/2011/2012-based SNPP

Figure 2.4 Staffordshire Moorlands Population by Age Cohort and Sex 2012 and 2031



Source: NLP Analysis / ONS 2008/2010/2011/2012-based SNPP

Components of Change

2.14

An analysis of the components of change (Table 2.3) for the four most recent comparable SNPPs for High Peak illustrates very clearly that domestic migration is the main factor underpinning the differences in the scale of population growth between the 2012-based SNPP. Natural change (i.e. the difference between births and deaths) is, on average, a net contributor of around 190 additional residents per year based on the latest projections, which is only marginally lower than the other three projections (allowing for rounding errors in the data).

Table 2.3 High Peak Population Projections: Components of Change

2013-2021 Annual Average Change	2008-Based SNPP	2010-Based SNPP	2011-Based SNPP (Interim)	2012-Based SNPP
Births	1,000	1,067	1,000	1,000
Deaths	811	867	800	811
Natural Change	200	200	233	189
Domestic Migration In	4,022	3,878	3,889	3,478
Domestic Migration Out	3,400	3,422	3,356	3,300
International Migration In	300	300	300	200
International Migration Out	400	200	300	200
Net Annual Average Migration	422	500	422	211

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

Note: figures do not sum due to rounding errors

2.15

In contrast, the net annual average migration into High Peak is just 211 residents based on the 2012-based SNPP, compared to between 422 and 500

annually for the other projections. It appears that the earlier projections were over-estimating the level of domestic in-migration (i.e. from elsewhere in the UK), whilst domestic out-migration has stayed relatively constant. International migration, as a relatively small component overall in any case, has also changed relatively little across the various projections.

- 2.16 Regarding Staffordshire Moorlands, the overall picture is similar as for High Peak, with differences in the levels of net domestic migration accounting for the bulk of the differences between the various scenarios. Whilst natural change is actually negative for all four projections, the level is very similar, with births and deaths being within a relatively consistent level of tolerance.
- 2.17 However, domestic in-migration is between 7% and 9% lower than had previously been forecast, resulting in significantly lower levels of population growth.
- 2.18 Comparing the migration estimates results from the historic SNPPs is highly problematic, as the methodologies 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 Programme¹⁵;
 - 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 SNPP⁷.
- 2.19 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 (2007/8 to 2011/12 for internal migration and 2006/07 to 2011/12 for international migration) that was affected by the recession and unprecedented economic downturn. ONS evidence⁸ 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 districts.

⁷ ONS SNPP Quality and Methodology Information 25th September 2012

⁸ ONS (July 2011): News Release: New evidence shows how the recession is hitting UK households

Table 2.4 Staffordshire Moorlands Population Projections: Components of Change

2013-2021 Annual Average Change	2008-Based SNPP	2010-Based SNPP	2011-Based SNPP (Interim)	2012-Based SNPP
Births	800	900	911	844
Deaths	1,022	1,067	1,056	1,011
Natural Change	-222	-167	-144	-167
Domestic Migration In	3,967	3,856	3,867	3,600
Domestic Migration Out	3,400	3,400	3,433	3,244
International Migration In	100	200	200	100
International Migration Out	200	100	200	100
Net Annual Average Migration	533	567	489	311

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

Summary

2.20

In summary:

- 1 It is clear that the latest 2012-based SNPP are significantly lower than the previous 2011, 2010 and 2008-based equivalents. For example, over the nine-year period to 2021, the latest projections are around 45% lower than the 2011-based (interim) SNPP for High Peak, and 55% lower for Staffordshire Moorlands;
- 2 The key reason for the disparity appears to be migration, with the latest set of projections indicating that domestic inward migration is likely to be significantly lower for both districts over the plan period than was initially envisaged. It is possible that this reflects the lower level of migratory movements to and from the Boroughs due to the recession and subsequent economic downturn, which has been reflected in the trend-based modelling data;
- 3 This will have significant impacts on the PopGroup demographic modelling work, as the household forecasts will be based upon a lower level of population growth. It is probable that the resultant demographic scenarios, which otherwise incorporate similar assumptions to the 2014 SHMAs' modelling work, will be much lower than before;
- 4 If the demographic modelling results from the 2012-based SNPP update are indeed below the 2011-based household projections, this presents a quandary. The Government's Practice Guidance is clear that the latest household projections represent the 'starting point' for identifying objectively assessed housing need. As the household projections should be adjusted to reflect a worsening trend in any of the housing market indicators previously identified, it is likely that any change would be to increase, rather than decrease, the housing OAN; and,
- 5 Reconciling the lower demographic projections based on the 2012-based SNPP with the higher CLG (interim) 2011-based household projections (which are now based on a superseded set of population projections) will therefore be a key issue to resolve for both High Peak and Staffordshire Moorlands when defining the revised housing OAN ranges.

3.0

PopGroup Baseline Model Run Updates

Introduction

3.1

Taking forward the methodological approach outlined in detail in the 2014 SHMAs for the two districts, the following scenarios were re-modelled to take into account the latest 2012-based SNPP data:

Demographic-led Projections:

- a **Updated PopGroup Baseline:** This scenario represents a projection of the demographic shift based on current factors and recent trends in both High Peak and Staffordshire Moorlands. The updated scenario uses the same broad approach as for the previous baseline (Scenario A in the 2014 SHMAs), but incorporates the ONS 2012-based SNPP. It has been assumed that post 2021, the 2008-based headship rates are applied (the 'index' approach). The base date of 2011 has been retained, as has the end date of 2031. Changes have also been made to the commuting, economic activity and unemployment rates to reflect the latest data from NOMIS.

Sensitivity Tests:

- i **Scenario Aa: Static Headship Rates** – A scenario which incorporates the ONS / CLG inputs of Scenario A to provide a projection to 2021; after this time, the 2021 headship rates are held constant;
- ii **Scenario Ab: Trend Headship Rates** – As above, although post-2021 the CLG 2011-based household projection trends are continued on a linear basis;
- iii **Scenario Ac: Partial Catch-Up Headship Rates** – As above; change post 2021 is targeted to partially achieve (by around half) the CLG 2008-based Household Projections end-rates by 2033 (not previously modelled);
- iv **Scenario Ad: Catch Up Headship Rates** - As above; change post 2021 is targeted to achieve the CLG 2008-based Household Projections end-rates by 2033.
- 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 two districts);
- d **Short Term Migration Trends** – A scenario based upon migration trends observed for HPBC and SMDC over the past 5 years;

- e **Long Term Migration Trends** – A scenario based upon migration trends observed for HPBC and SMDC over the previous 10 years;
- f **CLG Household Projections** – incorporating the 2011-based interim CLG household projections to derive household growth (399 households per annum in High Peak; 220 households per annum for Staffordshire Moorlands), plus the application of the latest vacancy rates for the two districts (4.1% for High Peak in 2013, 4.2% for Staffordshire Moorlands) to convert households to dwellings.

Employment-led Projections:

- g **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 High Peak (-306 jobs 2012-2031) and Staffordshire Moorlands (+2,250 jobs 2012-2031) over the Plan period;
 - i **Oxford Economics Job Growth + 5% Reduction in Out-Commuting** – This scenario applies the above assumptions whilst factoring in a 5% reduction in out-commuting over the plan period;
- h **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 potential unconstrained employment growth in High Peak of 469 jobs, and in Staffordshire Moorlands of 3,871 jobs, over the course of the plan period;
 - i **Policy On Job Growth Target + 5% Reduction in Out-Commuting** – This scenario applies the above assumptions whilst factoring in a 5% reduction in out-commuting over the plan period;
- i **Job Stabilisation** - taking forward a net total of zero job growth over the period 2013-31 for both districts.

Reality Checks:

- j **Scenario J: Average Past Delivery** – using past delivery trends to illustrate what the market has previously delivered and project these forward over the Plan periods (287 dpa for High Peak net; 227 dpa for Staffordshire Moorlands net).
- k **SHMA requirement:** The High Peak SHMA (2014) identifies a critical need for 878 (net) affordable housing dwellings annually over the next five years in the district. At a typical rate of around 30% of total housing provision, this would lead to a requirement of around **2,927 dpa**. For Staffordshire Moorlands, the equivalent 2014 SHMA also identified a very high level of affordable housing need, equal to 707 (net) affordable housing dwellings annually over the next five years in the district. At a typical rate of around 30% of total housing provision, this would lead to a requirement of around **2,357 dpa**.

Scenarios – Assumptions and Approach

3.2

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 future projected TFRs and SMRs through PopGroup;
- b The 2011 and 2012 population figures (by age cohort) are constrained to align with the latest 2011-based and 2012-based **mid-year population estimates** for the two districts;
- c Inputs on **headship rates** (using the CLG 2011-based household forecast headship rates up to 2021, and the 2008-based rates after this time, sensitivity tests excepted);
- d In High Peak and Staffordshire Moorlands (as in any area), it is expected that housing **vacancies and second homes** will result in the number of dwellings exceeding the number of households. In establishing future projections, it is likewise expected that the dwelling requirement will exceed the household forecast. Hence empty homes rates of 4.1%/4.2% respectively are factored into the model for all the scenarios;
- e To calculate the **unemployment rate** for HPBC, NLP took the January-December 2010 NOMIS (modelled) unemployment figure (6.7%) to equate to the 2010 rate; and the equivalent 2011, 2012, and 2013 figures of 6.4%, 7.41% and 5.8%. NLP kept the latter figure constant for 2014 and 2015 to reflect initial stabilisation at the current rate, and then gradually reduced the rate on a linear basis to the long term average (04-13) of 5.31% over a five-year time frame. This figure was then held constant to the end of the forecasting period on the grounds that this is a better reflection of the long-term trend than the current high rate. The same process was undertaken for SMDC, with the 2013 rate of 4.60% gradually reduced to the long term average of 4.13% by 2020 and then held constant to the end of the plan period.
- f 2011 Census **Economic Activity Rates** have been used for each age cohort to equate to the 2011 economic activity profile for both HPBC and SMDC. From 2012 onwards, an adjustment has been made to reflect the changes to the State Pension Age; the propensity for people to live longer and retire later; and the growth of part time opportunities amongst other challenges. The NLP approach mirrors that put forward by Kent County Council in their Technical Paper: “*Activity Rate projections to 2036, Research and Evaluation, Business Strategy and Support*” (October 2011). The gradual change in rates is most pronounced for women over the age of 60 and males between the ages of 65 and 69. The rates were gradually increased from 2012 to 2020, whereby they were held constant across the remainder of the forecasting period;

- g It has been assumed that the **commuting rates** for both districts remains static with no inferred increase or decrease in commuting levels. According to the 2011 Census, there were 48,560 economically active HPBC residents between the ages of 16 and 74, of whom 45,618 were in employment. The comparable figures for SMDC were 49,988 economically active residents, of whom 47,591 were in employment. In contrast, in 2011 there were 32,564 jobs in HPBC and 28,932 jobs in SMDC (BRES), hence rates of 1.401 and 1.645 respectively (i.e. more people commute out of High Peak and Staffordshire Moorlands than commute in on a daily basis). The only exception to this is the sensitivity tests on the jobs growth scenarios (Gi and Hi above), whereby the rate was reduced by 5% over time.
- h There will also be an additional driver underpinning growth in household formation due to the strong trend towards smaller average household sizes nationally.

- 3.3 Where scenarios have been demographically modelled, a full schedule of the assumptions and inputs underpinning each one is contained within Appendix 1, and the outputs from the modelling are contained within Appendices 3 and 4.

Modelling Results

Demographic-led Scenarios

- 3.4 The demographic scenarios use components of population change (births, deaths and migration) to project how the future population, their household composition, and consequently their requirements for housing, will shift in the future. It also projects the proportion of the population who will be economically active and will support employment growth. The headline results for each scenario are outlined below.

Findings

- 3.5 These demographic scenarios use components of population change to project how the future population, household composition, and subsequently their requirements for housing, will shift in the future. These comprise natural change (i.e. births and deaths) and net migration, for which the headline results for each scenario are outlined below.

Scenario A – Updated PopGroup Baseline 2012-based SNPP

- 3.6 The baseline scenario is predicated upon the rates of projected migration, births and deaths in High Peak and Staffordshire Moorlands identified within the ONS 2012-based SNPP and the headship rates within the 2011-based (interim) household projections (to 2021 – the headship rates within the 2008-based household projections thereafter).
- 3.7 Under this scenario the population of High Peak is projected to increase considerably by 7,043 people over the period 2011 to 2031, which is less than

half the level of growth projected in the previous Baseline Scenario A (+14,773 residents), which is reflective of the fact that the latest 2012-based SNPP is substantially lower for High Peak than the (interim) 2011-based SNPP. This lower growth is still made up predominantly by net in-migration consisting of (+4,939) and to a lesser extent natural change (+2,108 people). The resulting increase in households in High Peak is projected to be 5,348, compared to 8,731 previously.

- 3.8 Interestingly, whilst the previous set of projection suggested that the working age population would remain almost constant across the plan period, with the number of residents of retirement age increasing by a massive 12,851. The new model run indicates that the number of residents of working age will actually decline, by 4,031, whilst the number of residents over 65 will again increase substantially, by 10,803.
- 3.9 As a result, despite the increase in the population under this scenario, it would actually result in the labour force declining over the plan period. Furthermore, the scenario would, assuming current commuting rates, result in -623 fewer jobs, compared to a net additional increase of 1,492 previously. This scenario would lead to a demographic-led housing need of 5,340 dwellings, or 267 dpa. This compares to 9,020 additional dwellings in the equivalent model run based on the 2011-based SNPP, equivalent to 451 dpa.
- 3.10 As regards Staffordshire Moorlands, the population growth projections under this scenario are also substantially lower than the equivalent scenario modelled before. Hence instead of a population growth of 6,436, a household growth of 4,534 and a dwelling growth of 4,752, the latest set of projections suggest population growth of just 2,554; household growth of 3,517 and a dwelling requirement of 3,671 between 2011 and 2031 (184 dpa).
- 3.11 The previous baseline model run indicated job decline of -2,011. This latest scenario, using the 2012-based SNPP inputs, would indicate a similar decline in jobs equal to -2,026 over the plan period. As with High Peak, the number of residents of working age will decline, by 7,277, whilst the number of residents over 65 will again increase substantially, by 10,544

Scenario A:

- High Peak: 267 dpa 2011-2031
- Staffordshire Moorlands: 184 dpa 2011-2031

Scenario A – Sensitivity Tests

Headship Rate Adjustments

- 3.12 As noted in the 2014 SHMA, there are specific issues regarding the headship rates used to underpin the latest 2011-based interim household projections, not the least of which is the fact that headship rates are only provided for the period 2011-2021. To demonstrate the extent to which NLP's 'index' approach

that underpins Scenario A represents a reasonable compromise, a variety of sensitivity tests were modelled using higher/lower household representations post 2021 as illustrated in Table 3.1. The data indicates that the indexed household representation scenario sites roughly midway between the lowest projections (trend) and the highest (catch-up). All the scenarios are considerably below their 2014 SHMA predecessors, with the difference being particularly striking for High Peak.

Table 3.1 Modelling Scenarios Varying Household Representation Rate assumptions post 2021

Dwelling Change	High Peak			Staffordshire Moorlands		
	2011-2031	Dpa	2014 SHMA (Difference)	2011-2031	Dpa	2014 SHMA (Difference)
PopGroup Baseline (Index)	5,340	267	451 (-184)	3,671	184	238 (-54)
Static Headship Rates	5,316	266	448 (-182)	3,525	176	230 (-54)
Trend Headship Rates	4,780	239	424 (-185)	2,718	136	190 (-54)
Partial Catch Up Headship Rates	5,188	259	-	3,186	159	-
Catch Up Headship Rates	5,577	279	464 (-185)	3,647	182	236 (-54)

Source: NLP PopGroup Modelling

Index= Annual change for 2021 to 2031 from CLG 2008-based Household Projections

Static= Constant 2021 rate applied for each year post-2021

Trend= CLG 2011-based household projection trend on a linear basis post 2021

Catch Up= Change post 2021 is targeted to achieve CLG 2008-based Household Projections end rates by 2033 (High Rate)

Scenario B – Natural Change

- 3.13 As before, this scenario examined the consequences of stripping out all the migration both into and out of High Peak/Staffordshire Moorlands over the period 2011-2031. As a consequence, the only population growth that can be generated results from the interaction of births and deaths, i.e. natural change.
- 3.14 Using the 2012-based SNPP data inputs, this has the effect of reducing the dwelling requirement for High Peak under this scenario from 182 dpa previously, to 156 dpa. Similarly, Staffordshire Moorlands requirement would reduce from 16 to just 6 dpa, demonstrating the extent to which the District is wholly reliant on inward migration to support future population growth.

Scenario B:

- High Peak: 156 dpa 2011-2031
- Staffordshire Moorlands: 6 dpa 2011-2031

Scenario C – Zero Net Migration

- 3.15 As before, 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 two districts, 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.
- 3.16 For High Peak Borough, the previous modelling work for this scenario suggested a dwelling requirement of 192 dpa. This reduces to just 176 dpa using the 2012-based SNPP inputs, with population growth of 3,364 and a net decline in the number of jobs equal to -1,665 to 2031. As for Staffordshire Moorlands, the dwelling requirement falls from 17 dpa to -53 dpa, indicating that the requirement would be negative, which is clearly not a tenable position upon which to base a housing requirement figure.

Scenario C:

- High Peak: 176 dpa 2011-2031
- Staffordshire Moorlands: -53 dpa 2011-2031

Scenario D – Short Term Migration Trend

- 3.17 This scenario is based upon a continuation into the future of the average past migration trends observed in the two Districts over the short term (past 5 years) and applies these to the ONS 2012-based (interim) SNPP. This draws upon ONS estimates of domestic and international migration over the previous 5 years for both districts. It differs from the previous approach in that an extra years' worth of data is available on past migration, whilst the 2012-based SNPP has been used instead of the 2011-based SNPP.
- 3.18 Again, due to the modest levels of net in-migration for both districts in the past five years, population growth is forecast to be minimal, which has a concurrent suppression on household formation and dwelling requirements. Instead of the 283 dpa reported for High Peak in the 2014 SHMA, the latest data would indicate a requirement of 222 dpa. For Staffordshire Moorlands, the requirement increases from 108 dpa previously, to 119 dpa between 2011 and 2031.

Scenario D:

- High Peak: 222 dpa 2011-2031
- Staffordshire Moorlands: 119 dpa 2011-2031

Scenario E – Long Term Migration Trend

- 3.19 As with Scenario D, the main changes to the approach used in the previous 2014 SHMA is the availability of an extra years' worth of data and the application of information underpinning the 2012-based SNPP. The result of this is that, again, the dwelling requirement for High Peak is lower than before – 5,370 dwellings 2011-2031, or 269 dpa compared to 292 dpa previously. A similar pattern as with Scenario D is discernable for Staffordshire Moorlands, with the requirement rising from 135 dpa previously, to 157 dpa using the latest data.

Scenario E:

- High Peak: 269 dpa 2011-2031
- Staffordshire Moorlands: 157 dpa 2011-2031

Scenario F – 2011 CLG (Interim) Household Projections

- 3.20 This data (and therefore the requirement of 416 dpa for High Peak and 230 dpa for Staffordshire Moorlands) is unchanged from the 2014 SHMA (save for a slight adjustment to take into account an updated vacancy rate figure) and has not been modelled in PopGroup.

Scenario F:

- High Peak: 416 dpa 2011-2031
- Staffordshire Moorlands: 230 dpa 2011-2031

Employment-led Scenarios

Scenario G – Oxford Economics Job Growth

- 3.21 This comprises a 'policy-off' trend based scenario using Oxford Economics' local area based model. This modelling has also informed the Borough's ELR. As before, the model has explored the population, household and dwelling implications of planning for a reduction in jobs of around 300 (2012-2031) in High Peak, and around +2,250 in Staffordshire Moorlands. Such an approach would require an increase in High Peak's population of 6,793 over the course of the plan period, equal to +4,971 households and 5,183 dwellings (259 dpa), down from 317 dpa previously. As for Staffordshire Moorlands, the latest data aligned to the OE job growth projection would require an increase in the population of 16,493 over the plan period, equal to 8,201 households, or 8,561 dwellings (428 dpa, down from 441 dpa previously).

Scenario Ga – Sensitivity: reduced net out-commuting (5%)

- 3.22 A sensitivity test was modelled on the above job projections, allowing for a reduction in the level of net out-commuting over the Plan period by 5%, which is understood to be a long term objective of both Councils.

- 3.23 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. Modelling this scenario would reduce the dwelling requirement from 236 dpa to 179 dpa for High Peak, whilst Staffordshire Moorlands requirement would decline from 349 dpa to 337 dpa.

Scenario G:

- High Peak: 259 dpa 2011-2031
- Staffordshire Moorlands: 428 dpa 2011-2031

Scenario Ga:

- High Peak: 179 dpa 2011-2031
- Staffordshire Moorlands: 337 dpa 2011-2031

Scenario H – Policy On Job Growth

- 3.24 Applying the slightly higher job creation estimates in High Peak and Staffordshire Moorlands Joint ELR (702 net additional jobs between 2013 and 2031 for High Peak, and 4,158 net additional jobs over the same time period for Staffordshire Moorlands) to the data underpinning the 2012-based SNPP, would result in dwelling requirements of 5,894 (295 dpa) for High Peak between 2011 and 2031, and 10,377 (519 dpa) for Staffordshire Moorlands. Both figures are lower than the previous set of results in the 2014 SHMA (350 dpa and 528 dpa for HPBC and SMDC respectively).

Scenario Ha – Sensitivity: reduced net out-commuting (5%)

- 3.25 Running this sensitivity test on the basis of the same premise as Scenario Ga above would reduce the dwelling requirement to 4,256, or 213 dpa for High Peak, and down to 8,474, or 424 dpa for Staffordshire Moorlands.

Scenario H:

- High Peak: 295 dpa 2011-2031
- Staffordshire Moorlands: 519 dpa 2011-2031

Scenario Ha:

- High Peak: 213 dpa 2011-2031
- Staffordshire Moorlands: 424 dpa 2011-2031

Scenario I – Job Stabilisation

- 3.26 A final employment-led scenario examined the number of dwellings necessary to sustain a broadly neutral level of job growth over the Plan period. Given that under the baseline scenario it is expected that economically active residents will decrease slightly for High Peak, under this scenario population growth is expected to be higher in the Borough (the reverse was true in the 2014

SHMA), with the result that the 5,454 dwelling requirement, or 273 dpa, is also slightly higher than Scenario A.

- 3.27 For Staffordshire Moorlands, the number of jobs projected under the baseline scenario is negative, hence Scenario I presents an uplift in the requirement, to 5,876 dwellings (294 dpa).

Scenario I:

- High Peak: 273 dpa 2011-2031
- Staffordshire Moorlands: 294 dpa 2011-2031

Policy/Supply-Led Scenarios

Scenario J – Past Delivery Rates

- 3.28 The policy/supply led scenarios test the implications of delivering a certain level of development (i.e. a set number of dwellings) based on the given parameters of the scenario. We recognise that the Objective Assessment of Need cannot be founded on supply led scenarios as per the National Planning Practice Guidance [Practice Guidance] but they are useful comparators.

- 3.29 As this scenario involves no new demographic modelling, the figures remain as before in the 2014 SHMA.

Scenario J:

- High Peak: 287 dpa 2011-2031
- Staffordshire Moorlands: 227 dpa 2011-2031

Summary

- 3.30 The Scenarios indicate a wide range of housing requirements for the period 2011 to 2031, based upon different indicators of what the need for housing within High Peak and Staffordshire Moorlands could be. These are summarised in Table 3.2 and Table 3.3. Incorporating the much lower 2012-based SNPP into the modelling has the effect of reducing the dwelling requirements for almost all of the modelled scenarios, with the updates between 10 and 185 lower for High Peak, and between 8 and 70 lower for Staffordshire Moorlands (with the difference between the employment-led scenarios markedly lower than the differences between the demographic projections). The only exception with SMDC is the short term/long term migration-led scenarios, which are slightly higher than before. The comparable baseline scenarios are 184 dpa lower for High Peak and 54 dpa lower for Staffordshire Moorlands.

Table 3.2 Summary of Updated High Peak Comparison of Scenarios 2011-2031

	2012-based SNPP approach				2011-based SNPP	
	Population Change	Job Growth	Dwellings 2011-2031	Dwelling Change p.a.	Dwelling Change p.a.	Difference
A. Baseline 2012 SNPP	7,047	-623	5,340	267	451	-184
Aa. Baseline – Static			5,316	266	448	-182
Ab. Baseline – Trend			4,780	239	424	-185
Ac. Baseline – Partial Catch Up			5,188	259	n/a	n/a
Ad. Baseline – Catch Up			5,577	279	464	-185
B. Natural Change	2,584	-2,638	3,126	156	182	-26
C. Zero Net Migration	3,364	-1,665	3,523	176	192	-16
D. Short Term Migration Trends	2,109	2,514	4,623	222	283	-61
E. Long Term Migration Trends	2,520	4,680	7,200	269	292	-23
F. CLG 2011 Household Projections	-	-	8,321	416	-	-
G. OE Job Growth	6,793	-629	5,183	259	317	-58
Ga. OE Job Growth +5% commuting reduction	2,620	-629	3,581	179	236	-57
H. ELR Policy On Job Growth	8,669	149	5,894	295	350	-55
Ha. ELR Policy On Job Growth + 5% commuting reduction	4,403	149	4,256	213	267	-54
I. Job Stabilisation	7,495	-320*	5,454	273	329	-56
J. Past Delivery**	-	-	5,740	287	-	-

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

*Note – jobs stabilised post 2013, hence the job decline in years 2011-2013 is recorded.

**Note: This supply-led scenario has been included for comparative purposes only and does not comprise OAN

Table 3.3 Summary of Updated Staffordshire Moorlands Comparison of Scenarios 2011-2031

	2012-based SNPP approach				2011-based SNPP	
	Population Change	Job Growth	Dwellings 2011-2031	Dwelling Change p.a.	Dwelling Change p.a.	Difference
A. Baseline 2012 SNPP	2,554	-2,026	3,671	184	238	-54
Aa. Baseline – Static			3,525	176	230	-54
Ab. Baseline – Trend			2,718	136	190	-54
Ac. Baseline – Partial Catch Up			3,186	159	n/a	n/a
Ad. Baseline – Catch Up			3,647	182	236	-54
B. Natural Change	-4,819	-3,572	124	6	16	-10
C. Zero Net Migration	-4,819	-2,688	-1,059	-53	17	-70
D. Short Term Migration Trends	-3,925	3,866	-59	119	108	+11
E. Long Term Migration Trends	-3,756	5,595	1,839	157	135	+22
F. CLG 2011 Household Projections	-	-	4,599	230	-	-
G. OE Job Growth	16,493	2,179	8,561	428	441	-13
Ga. OE Job Growth +5% commuting reduction	11,693	2,179	6,747	337	349	-12
H. ELR Policy On Job Growth	21,334	3,798	10,377	519	528	-9
Ha. ELR Policy On Job Growth + 5% commuting reduction	16,296	3,798	8,474	424	432	-8
I. Job Stabilisation	9,412	-73*	5,876	294	313	-19
J. Past Delivery**	-	-	4,540	227	-	-

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

*Note – jobs stabilised post 2013, hence the job decline in years 2011-2013 is recorded.

**Note: This supply-led scenario has been included for comparative purposes only and does not comprise OAN

4.0 Discussion

- 4.1 In the light of the new datasets underpinning the scenarios, this section of the report discusses whether the previous forecasts remain valid, and whether as a consequence of this, the justifications behind the range of dwelling requirements given in the previous report(s) remain robust. Figure 4.1 and Figure 4.2 demonstrate the extent to which the previous scenarios compare with the updated projections.
- 4.2 As noted above, we have reservations over the use of the 2011-based SNPP data. These are only interim projections and incorporate 2010-based data on SMR/TFR rates and migration despite the different population levels; furthermore, the data only goes up to 2021 rather than 2031. It might be expected that as a consequence, the 2012-based SNPP is more robust as a basis for underpinning housing requirements than the 2011-based SNPP.
- 4.3 As can be seen from Figure 4.1, there is a substantial fall in the updated dwelling requirements for most of High Peak's scenarios, but particularly the demographic projections (Scenarios A to Ad), with the latest figures around 180 dwellings lower per annum. This is due to the sharp fall in the population growth projected in the 2012-based SNPP when compared to the 2011-based SNPP which informed the 2014 SHMA model runs, with the former projecting around half the latter's growth to 2021. It is therefore unsurprising that it has resulted in such a dramatic curtailment of the Borough's dwelling requirements.
- 4.4 Figure 4.2 demonstrates a similar (although less pronounced) reduction in Staffordshire Moorlands' demographic projections, with the difference being just over 50 dwellings per annum. Whilst the District had a similar proportionate reduction in population growth as High Peak, when the 2012-based and 2011-based SNPPs are compared, the difference in dwelling requirements are perhaps less severe due to the shifting balance in the demography. SMDC's reduction in population predominantly resonates in those younger age groups less likely to form a head of a household, whereas much of the difference in High Peak's population in the 2012-based SNPP compared to earlier SNPPs is in the 90+ age categories (see Figure 2.3), who are more likely to live in small households if not on their own).
- 4.5 Even though the employment led and migration led scenarios tend to have a greater correlation between the two sets of projections for both High Peak and Staffordshire Moorlands, even here the direction of change is consistently downwards.

Overall Compliance

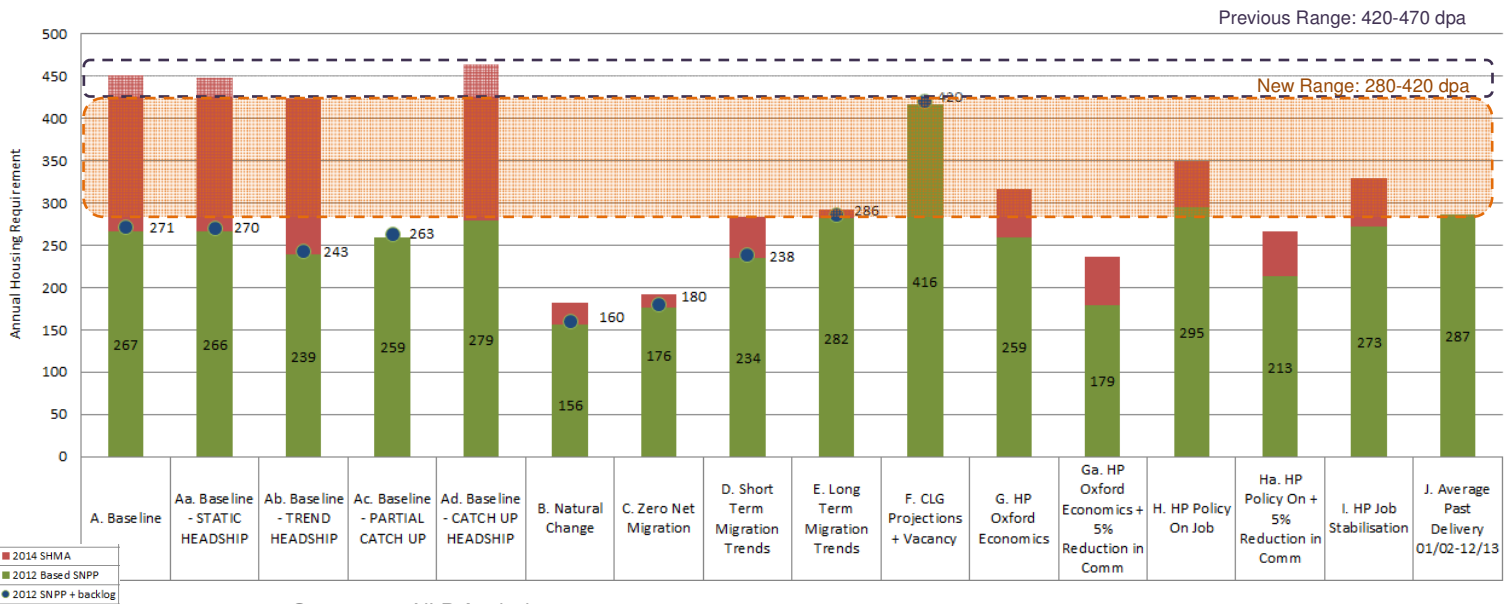
- 4.6 At this point it is important to revisit the original justification for the authorities' housing needs range. Due to the various factors and assumptions which feed into the assessment of future needs, it was recognised that there was not a single figure which could be definitively identified as objectively assessed

development need. 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.

4.7

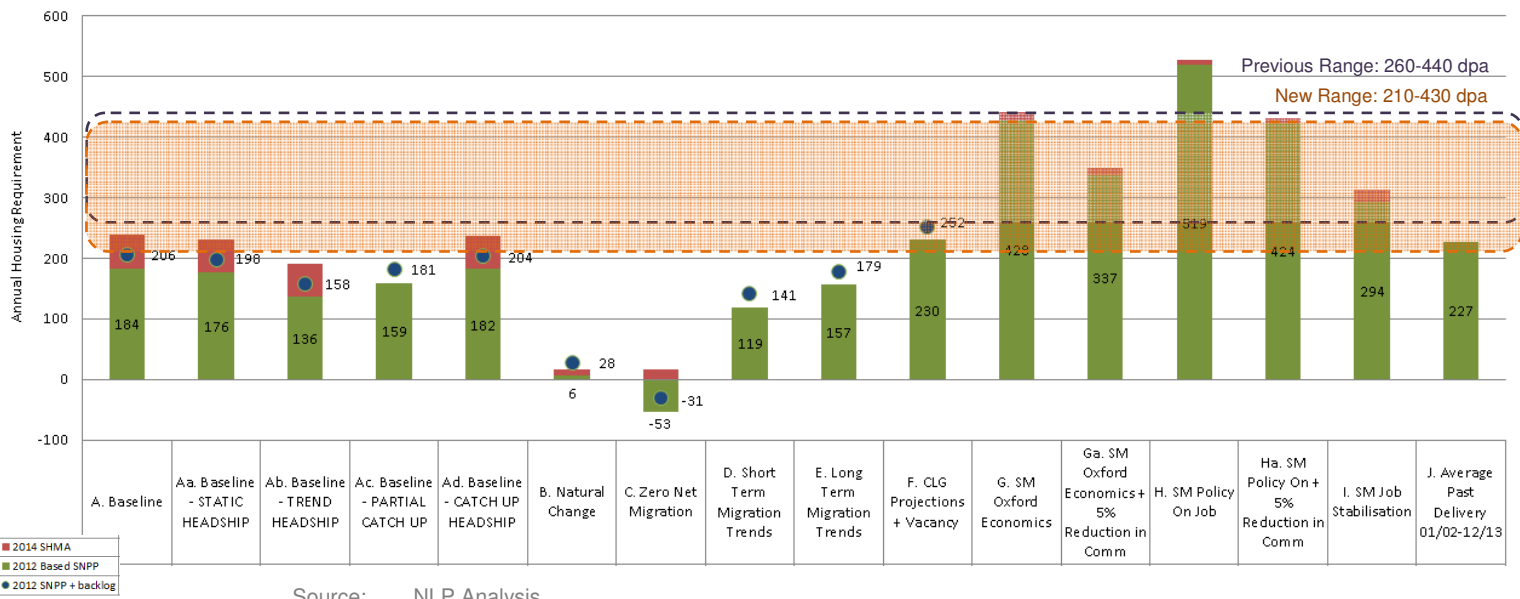
On the basis of the SHMA’s analysis, it was considered that an objective assessment of housing need and demand for High Peak (including backlog) fell within the 420 to 470 dpa range, equivalent to 8,400 to 9,400 units. For Staffordshire Moorlands, the recommended range was between 260 dpa and 440 dpa (5,200 to 8,800 dwellings).

Figure 4.1 Summary of Scenarios for High Peak Borough



Source: NLP Analysis

Figure 4.2 Summary of Scenarios for Staffordshire Moorlands District



Source: NLP Analysis

- 4.8 For High Peak, this range encompassed the baseline demographic-led projection at the upper end of the range (Scenario Ad Catch Up, 464 dpa), with the headship rate accelerated in an attempt to correct adverse, and worsening, housing market signals. It also encompassed the CLG Projections with an allowance for vacancy at the lower end of the range (416 dpa). Overall, this range was defined to ensure positive economic growth in line with High Peak's aspirations and the requirements of The Framework, whilst addressing the needs of future residents.
- 4.9 For Staffordshire Moorlands, the 260-440 dpa range encompassed the baseline demographic-led needs for development at the lower end of the range (Scenario A, at 260 dpa including backlog – there was little difference between the indexed approach to household formation and the accelerated catch up headship approach).
- 4.10 Where a council is actively seeking to promote economic growth, as SMDC is, it is logical to allow for an additional element of housing growth to support the creation of new jobs. As such, it was considered that the top end of the range should enable the delivery of sufficient labour force levels to support the Oxford Economics Job Growth projections (528 dpa). The top end of the range was therefore intended to allow for the economic potential of Staffordshire Moorlands to be realised. Where the Council is seeking to pursue the higher 'policy on' level of job growth, this would need to influence their decision making in choosing a policy driven housing 'requirement'.
- 4.11 SMDC's OAN housing range was intended to ensure a level of housing delivery that would represent an 'upwards adjustment' to purely demographic-led needs in the context of the significant affordability challenges as indicated by market signals across the District. This would help address the issue of worsening affordability within the current Staffordshire Moorlands' housing market.
- 4.12 **In general, NLP considers that if the data within the 2012-based SNPP for both High Peak and Staffordshire Moorlands had been available to inform the 2014 SHMA report, a lower range of housing requirements would have been recommended to reflect the significant reduction in population growth.**
- 4.13 For High Peak, the Catch Up Headship Rate Scenario, which formerly comprised the top end of the range in the 2014 SHMA, has reduced from 464 dpa to 279 dpa. Retaining this scenario as a marker for the OAN range would align with the demographic modelling and allow for some acceleration to help address the worsening market signals being experienced in the Borough.
- 4.14 At the top end of the range, it is suggested that the CLG (interim) 2011-based Household Projections (420 dpa) should also be retained. This is on the grounds that the Practice Guidance requires the CLG household projections to comprise the 'starting point' for identifying housing OAN, even though their continuing validity is thrown into question due to the substantial divergence between the 2011-based (interim) SNPP upon which they are based, and the

more robust 2012-based SNPP, which supersede them. At present it is impossible for us to estimate the extent to which the 2012-based CLG household projections will differ from the 2011-based (interim) household projections. However, given the significantly lower population projections upon which they will be based, it reasonable to assume that the 2012-based household projections will be significantly lower than their 2011-based equivalents.

- 4.15 Hence whilst we have retained it as a scenario, and whilst it defines the top end of the range, it is probable that less weight can be attached to these projections in the case of High Peak. Until the 2012-based household projections are made available in autumn 2014, they remain a valid consideration however.
- 4.16 **On this basis, it is suggested that the OAN housing range for High Peak is modified, from the 420-470 dpa in the 2014 SHMA, down to between 280 dpa and 420 dpa.** This range would encompass all of the economic-led projections and allow the Borough to meet its demographically driven housing need in full.
- 4.17 As for Staffordshire Moorlands, whilst the difference between the two sets of projections is less pronounced, it is also considered that the much-reduced 2012-based SNPP could justify a reduction in the OAN. Applying the same logic as before, and taking the Baseline demographic projections as the starting point (increased to make allowance for backlog), this would suggest a housing need figure of around 210 dpa at the lower end of the 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.
- 4.18 **On this basis, it is suggested that the OAN housing range for Staffordshire Moorlands is modified, from the 260-440 dpa in the 2014 SHMA, down to between 210 dpa and 430 dpa.** This 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.

Conclusion

- 4.19 This statement has tested the on-going validity of the housing requirements identified in the 2014 High Peak and Staffordshire Moorlands SHMAs in the light of recently released demographic data and population projections. Specifically, this has sought to address the implications of the 2012-based SNPP, which indicate a substantial reduction in population growth to 2031 for both districts when compared to the now superseded 2011-based (interim) and 2010-based SNPPs which underpinned the 2014 SHMA modelling work.
- 4.20 Having modelled the latest 2012-based SNPP and related statistics on vacancy rates, unemployment and commuting, it is considered that the original ranges of between 420 dpa and 470 dpa for High Peak Borough and 260 dpa

to 440 dpa for Staffordshire Moorlands are outwith an acceptable margin of tolerance due to the substantial changes to the growth projections.

- 4.21 We suggest that taking this evidence into account and applying the same considerations to backlog whilst accelerating household formation rates to take into account worsening housing market signals as before, would point to a **range of 280 dpa to 420 dpa for High Peak; and 210 dpa to 430 dpa for Staffordshire Moorlands**. This would, at a minimum, meet need and demand arising from future projected demographic change within the two districts, whilst also supporting economic growth, and delivering affordable housing to respond to identified local needs.
- 4.22 To ensure compliance with national planning policy, providing a level of housing significantly below 280 dpa / 210 dpa would mean that High Peak/Staffordshire Moorlands are not meeting their own housing requirements. Without sufficient mitigation measures in place to avoid the adverse housing, economic and other outcomes that a lower-growth approach could give rise to, a lower housing requirement would be inappropriate unless (and in accordance with The Framework §14) the two authorities could robustly demonstrate that the *"adverse impacts of doing so would significantly and demonstrably outweigh the benefits."* This may require HPBC/SMDC to explore the extent to which any shortfall could be met in neighbouring authorities within the same HMAs.
- 4.23 Within all this, it is important to recognise that the statistics upon which the housing needs model is based are updated and adjusted on a regular basis, with more detailed 2012-based 25-year forward household projections likely to be made available by CLG in autumn 2014. As the LPAs progress towards their respective EiPs, it will be important for them to ensure that their housing figures remain under regular review, taking into account new and more detailed evidence as it emerges.
- 4.24 It is also important to remember that whilst the evidence within this statement takes into consideration the need and demand for housing, crucially, it does not seek to make a planning or policy judgement – this is a matter for the two planning authorities taking account of the information before them. This statement therefore seeks to stimulate the further consideration of all relevant factors through the appropriate Local Plan process, with the revised housing and demographic data feeding into the Employment Land Review Update on an iterative basis.

Appendix 1 Inputs and Assumptions

DEMOGRAPHIC	Scenario A: Baseline (Scenario Aa-Ad Headship Sensitivities)	Scenario B: Natural Change	Scenario C – Zero Net Migration	Scenarios D/E – Short/Long term Migration
Population				
Baseline Population	A 2012 baseline population is taken from the 2012 Mid-year population estimates for High Peak Borough and Staffordshire Moorlands District, split by age cohort and gender. For Scenario A and the sensitivities, the populations for 2012-2031 are constrained to the 2012-based SNPP for the districts, by age and sex.			
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.			
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.			
Internal Migration	Gross domestic in and out migration flows are adopted based on forecast migration in the two districts 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). Internal migration includes moves to all other Local Authority areas, including to neighbouring areas (i.e. a move of two streets might be classed as internal migration if it involves a move to another LA area).	Migration flows in and out of the two districts are set at zero post 2012.	Gross domestic in and out migration flows are adopted based on forecast migration in the districts from the ONS 2012-based SNPP for the actual internal migration flows 2011-2031. To achieve zero net migration the difference between in and out flows is split to equalise the in and out flows at the middle point of the two.	Gross domestic internal migration flows are adopted based on average gross past trends for the past 5/10 years.

DEMOGRAPHIC	Scenario A: Baseline (Scenario Aa-Ad Headship Sensitivities)	Scenario B: Natural Change	Scenario C – Zero Net Migration	Scenarios D/E – Short/Long term Migration
International Migration	Gross international in and out migration flows are adopted based on forecast migration in the two districts 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.	Gross international migration flows are adopted based on average gross past trends for the past 5/10 years.
Propensity to Migrate (ASMigR)	Age Specific Migration Rates (ASMigR) for both in and out domestic migration are based upon the age profile of migrants to and from the two districts in the 2012-based SNPP. These identify a migration rate for each age cohort within the two districts (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 two districts (but not the total numbers of migrants).			
Housing				
Headship Rates	<p>Headship rates that are specific to HPBC and SMDC and forecast over the period to 2033 were taken from the government data which was used to underpin the 2011-based CLG household forecasts and applied to the demographic forecasts for each year as output by the PopGroup model. These headship rates were split by age cohort and by household typology. These are the most up-to-date headship rates available at the time of writing. Beyond 2021 this is assumed to resume the long term trends identified within the 2008-based household projections with index trends from the 2008-based projections applied to the 2021 end point of the 2011-based household projections.</p> <p>For the Baseline sensitivity tests (Aa, Ab, Ac and Ad), a variety of headship rates has been modelled using higher / lower household representation rates post 2021:</p> <ul style="list-style-type: none"> • Static = Constant 2021 rate applied for each year post-2021; • Trend = CLG 2011-based household projection trend continued on a linear basis post 2021; • Partial Catch Up = Change post 2021 is targeted to partially achieve CLG 2008-based Household Projections end rates by 2033; • Catch Up = Change post 2021 is targeted to achieve CLG 2008-based Household Projections end rates by 2033. <p>Post 2033, the rate is held constant.</p>			

DEMOGRAPHIC	Scenario A: Baseline (Scenario Aa-Ad Headship Sensitivities)	Scenario B: Natural Change	Scenario C – Zero Net Migration	Scenarios D/E – Short/Long term Migration
Population not in households	The number of population not in households (e.g. those in institutional care) is similarly taken from the assumptions used to underpin the 2011-based CLG household forecasts. No change is assumed to the rate of this from the CLG identified rate.			
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 vacancy / second home rate in High Peak Borough totals 4.1% (estimated using data from the Council Tax Base for Formula Grant Purposes, October 2013), held constant over the forecast period. The equivalent vacancy rates for Staffordshire Moorlands District, from the same data source, was 4.2%.			
Economic				
Economic Activity Rate	2011 Census Economic Activity Rates used for each age cohort to equate to the 2010 and 2011 economic activity profile for both districts. From 2012 onwards, an adjustment has been made to reflect the changes to the State Pension Age; the propensity for people to live longer and retire later; and the growth of part time opportunities amongst other challenges. The NLP approach mirrors that put forward by Kent County Council in their Technical Paper: “ <i>Activity Rate projections to 2036, Research and Evaluation, Business Strategy and Support</i> ” (October 2011). The increase in rates, which is most pronounced for women over the age of 60 and males between the ages of 65-69, are gradually increased from 2012 onwards up to 2020, whereby they are held constant across the remainder of the forecasting period.			
Commuting Rate	<p>A standard net commuting rate is inferred through the modelling using a Labour Force Ratio which is worked out using the formula: (A) Number of employed workers living in area ÷ (B) Number of workers who work in the area (number of jobs).</p> <p>For High Peak Borough, data from the 2011 Census indicates that there were 48,560 economically active High Peak residents between the ages of 16 and 74, of whom 45,618 were in employment. In contrast, in 2011 there were 32,564 jobs in High Peak (BRES), hence a rate of LF ratio of 1.401 (i.e. more people commute out of High Peak than commute in on a daily basis).</p> <p>For Staffordshire Moorlands, the same data sources indicated that there were 47,591 economically active residents in employment, set against 28,932 jobs based in the District in 2011. This results in an LF Ratio of 1.645.</p> <p>These rates have not been flexed over the forecasting period with no assumed increase or reduction in net commuting rates.</p>			

DEMOGRAPHIC	Scenario A: Baseline (Scenario Aa-Ad Headship Sensitivities)	Scenario B: Natural Change	Scenario C – Zero Net Migration	Scenarios D/E – Short/Long term Migration
Unemployment	<p>To calculate the unemployment rate for High Peak and Staffordshire Moorlands, NLP took the January-December 2010 NOMIS (modelled) unemployment figure (HPBC 6.7% and SMDC 4.6%) to equate to the 2010 rate; the equivalent 2011 figure (HPBC 6.4% and SMDC 5.6%) to equate to the 2011 rate; the equivalent 2012 figure (HPBC 7.4% and SMDC 5.5%) to equate to 2012 and the equivalent 2013 figure (HPBC 5.8% and SMDC 4.6%) to equate to 2013.</p> <p>NLP kept the former figure constant for 2014 and 2015 to reflect initial stabilisation at the current high rate, and then gradually reduced the rate on a linear basis to the long term average (04-13) (HPBC 5.31% and SMDC 4.13%) over a five-year time frame. These figures were then held constant to the end of the forecasting period on the grounds that this is a better reflection of the long-term trend than the current high rate.</p>			

ECONOMIC	Scenario G. Oxford Economics Job Growth and Ga Sensitivity Test	Scenario H. Policy On Job Growth and Ga Sensitivity Test	Scenario I: Job Stabilisation
Population			
Baseline Population	A 2012 baseline population is taken from the 2012 Mid-year population estimates for High Peak Borough and Staffordshire Moorlands District, split by age cohort and gender. For Scenario A and the sensitivities, the populations for 2012-2031 are constrained to the 2012-based SNPP for the districts, by age and sex.		
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.		
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.		
Internal Migration	<p>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 two districts for this employment scenario.</p> <p>This was based on taking forward forecast job growth based on Oxford Economics' projections (- 306 jobs 2012-2031 in HPBC and +2,250 in SMDC) and a separate sensitivity test, which gradually reduced the level of net out-commuting by 5% in each district between 2012 and 2031.</p>	<p>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 two districts for this employment scenario.</p> <p>This was based on taking forward the Council's realistic economic objectives whilst factoring in increased economic growth in the key sectors in line with regional averages. This provides unconstrained employment growth in High Peak of 469 jobs, and in Staffordshire Moorlands of 3,871 jobs to 2031.</p> <p>As Scenario G, a separate sensitivity test was also modelled, which gradually reduced the level of net out-commuting by 5% in each district between 2012 and 2031.</p>	<p>Internal in-migration and outmigration is flexed (inflated or deflated) to achieve the necessary number of economically active people to underpin the economy in each district for this employment scenario.</p> <p>This was based on job stabilisation between 2012 and 2031.</p>

ECONOMIC	Scenario G. Oxford Economics Job Growth and Ga Sensitivity Test	Scenario H. Policy On Job Growth and Ga Sensitivity Test	Scenario I: Job Stabilisation
International Migration	As above, but for international rather than internal migration.		
Propensity to Migrate (ASMigR)	Age Specific Migration Rates (ASMigR) for both in and out domestic migration are based upon the age profile of migrants to and from the two districts in the 2012-based SNPP. These identify a migration rate for each age cohort within the two districts (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 two districts (but not the total numbers of migrants).		
Housing			
Headship Rates	Headship rates that are specific to HPBC and SMDC and forecast over the period to 2033 were taken from the government data which was used to underpin the 2011-based CLG household forecasts and applied to the demographic forecasts for each year as output by the PopGroup model. These headship rates were split by age cohort and by household typology. These are the most up-to-date headship rates available at the time of writing. Beyond 2021 this is assumed to resume the long term trends identified within the 2008-based household projections with index trends from the 2008-based projections applied to the 2021 end point of the 2011-based household projections.		
Population not in households	The number of population not in households (e.g. those in institutional care) is similarly taken from the assumptions used to underpin the 2011-based CLG household forecasts. No change is assumed to the rate of this from the CLG identified rate.		
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 vacancy / second home rate in High Peak Borough totals 4.1% (estimated using data from the Council Tax Base for Formula Grant Purposes, October 2013), held constant over the forecast period. The equivalent vacancy rates for Staffordshire Moorlands District, from the same data source, was 4.2%.		

ECONOMIC	Scenario G. Oxford Economics Job Growth and Ga Sensitivity Test	Scenario H. Policy On Job Growth and Ga Sensitivity Test	Scenario I: Job Stabilisation
Economic			
Economic Activity Rate	2011 Census Economic Activity Rates used for each age cohort to equate to the 2010 and 2011 economic activity profile for both districts. From 2012 onwards, an adjustment has been made to reflect the changes to the State Pension Age; the propensity for people to live longer and retire later; and the growth of part time opportunities amongst other challenges. The NLP approach mirrors that put forward by Kent County Council in their Technical Paper: “ <i>Activity Rate projections to 2036, Research and Evaluation, Business Strategy and Support</i> ” (October 2011). The increase in rates, which is most pronounced for women over the age of 60 and males between the ages of 65-69, are gradually increased from 2012 onwards up to 2020, whereby they are held constant across the remainder of the forecasting period.		
Commuting Rate	<p>A standard net commuting rate is inferred through the modelling using a Labour Force Ratio which is worked out using the formula: (A) Number of employed workers living in area ÷ (B) Number of workers who work in the area (number of jobs).</p> <p>For High Peak Borough, data from the 2011 Census indicates that there were 48,560 economically active High Peak residents between the ages of 16 and 74, of whom 45,618 were in employment. In contrast, in 2011 there were 32,564 jobs in High Peak (BRES), hence a rate of LF ratio of 1.401 (i.e. more people commute out of High Peak than commute in on a daily basis).</p> <p>For Staffordshire Moorlands, the same data sources indicated that there were 47,591 economically active residents in employment, set against 28,932 jobs based in the District in 2011. This results in an LF Ratio of 1.645.</p> <p>These rates have not been flexed over the forecasting period with no assumed increase or reduction in net commuting rates (aforementioned sensitivity tests aside).</p>		
Unemployment	<p>To calculate the unemployment rate for High Peak and Staffordshire Moorlands, NLP took the January-December 2010 NOMIS (modelled) unemployment figure (HPBC 6.7% and SMDC 4.6%) to equate to the 2010 rate; the equivalent 2011 figure (HPBC 6.4% and SMDC 5.6%) to equate to the 2011 rate; the equivalent 2012 figure (HPBC 7.4% and SMDC 5.5%) to equate to 2012 and the equivalent 2013 figure (HPBC 5.8% and SMDC 4.6%) to equate to 2013.</p> <p>NLP kept the former figure constant for 2014 and 2015 to reflect initial stabilisation at the current high rate, and then gradually reduced the rate on a linear basis to the long term average (04-13) (HPBC 5.31% and SMDC 4.13%) over a five-year time frame. These figures were then held constant to the end of the forecasting period on the grounds that this is a better reflection of the long-term trend than the current high rate;</p>		

Appendix 2 PopGroup Summary

HIGH PEAK	SCENARIO A: PopGroup Baseline			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	98,029	7,047	8%
Households	38,958	44,079	5,121	13%
Dwellings	40,624	45,964	5,340	13%
Size of Labour Force	48,807	47,324	-1,483	-3%
Number of Jobs	32,611	31,988	-623	-2%

HIGH PEAK	SCENARIO Aa: PopGroup Baseline – STATIC HEADSHIP			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	98,029	7,047	8%
Households	38,958	44,056	5,098	13%
Dwellings	40,624	45,940	5,316	13%
Size of Labour Force	48,807	47,324	-1,483	-3%
Number of Jobs	32,611	31,988	-623	-2%

HIGH PEAK	SCENARIO Ab: PopGroup Baseline – TREND HEADSHIP			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	98,029	7,047	8%
Households	38,958	43,542	4,584	12%
Dwellings	40,624	45,404	4,780	12%
Size of Labour Force	48,807	47,324	-1,483	-3%
Number of Jobs	32,611	31,988	-623	-2%

HIGH PEAK	SCENARIO Ac: PopGroup Baseline – PARTIAL CATCH UP HEADSHIP			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	98,029	7,047	8%
Households	38,958	43,934	4,975	13%
Dwellings	40,624	45,812	5,188	13%
Size of Labour Force	48,807	47,324	-1,483	-3%
Number of Jobs	32,611	31,988	-623	-2%

HIGH PEAK	SCENARIO Ad: PopGroup Baseline – CATCH UP HEADSHIP			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	98,029	7,047	8%
Households	38,958	44,306	5,348	14%
Dwellings	40,624	46,201	5,577	14%
Size of Labour Force	48,807	47,324	-1,483	-3%
Number of Jobs	32,611	31,988	-623	-2%

HIGH PEAK	SCENARIO B: Natural Change			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	93,566	2,584	3%
Households	38,958	41,956	2,998	8%
Dwellings	40,624	43,750	3,126	8%
Size of Labour Force	48,807	44,343	-4,464	-9%
Number of Jobs	32,611	29,973	-2,638	-8%

HIGH PEAK	SCENARIO C: Zero Net Migration			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	94,346	3,364	4%
Households	38,958	42,337	3,379	9%
Dwellings	40,624	44,147	3,523	9%
Size of Labour Force	48,807	45,782	-3,025	-6%
Number of Jobs	32,611	30,946	-1,665	-5%

HIGH PEAK	SCENARIO D: Short Term Migration Trends			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	95,605	4,623	5%
Households	38,958	43,215	4,256	11%
Dwellings	40,624	45,062	4,438	11%
Size of Labour Force	48,807	46,031	-2,776	-6%
Number of Jobs	32,611	31,114	-1,497	-5%

HIGH PEAK	SCENARIO E: Long Term Migration Trends			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	98,182	7,200	8%
Households	38,958	44,108	5,150	13%
Dwellings	40,624	45,994	5,370	13%
Size of Labour Force	48,807	47,367	-1,440	-3%
Number of Jobs	32,611	32,017	-593	-2%

HIGH PEAK	SCENARIO G: Oxford Economics Job Growth			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	97,775	6,793	7%
Households	38,958	43,929	4,971	13%
Dwellings	40,624	45,807	5,183	13%
Size of Labour Force	48,807	47,314	-1,493	-3%
Number of Jobs	32,611	31,982	-629	-2%

HIGH PEAK	SCENARIO Ga: Oxford Economics Job Growth Sensitivity Test			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	93,602	2,620	3%
Households	38,958	42,392	3,434	9%
Dwellings	40,624	44,204	3,581	9%
Size of Labour Force	48,807	44,949	-3,858	-8%
Number of Jobs	32,611	31,982	-629	-2%

HIGH PEAK	SCENARIO H: Policy On Job Growth			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	99,651	8,669	10%
Households	38,958	44,611	5,653	15%
Dwellings	40,624	46,518	5,894	15%
Size of Labour Force	48,807	48,465	-342	-1%
Number of Jobs	32,611	32,760	149	0%

HIGH PEAK	SCENARIO Ha: Policy On Job Growth Sensitivity Test			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	95,385	4,403	5%
Households	38,958	43,040	4,082	10%
Dwellings	40,624	44,880	4,256	10%
Size of Labour Force	48,807	46,042	-2,765	-6%
Number of Jobs	32,611	32,760	149	0%

HIGH PEAK	SCENARIO I: Job Stabilisation			
	2011	2031	Change 2011-31	% Change 2011-31
Population	90,982	98,477	7,495	8%
Households	38,958	44,188	5,230	13%
Dwellings	40,624	46,078	5,454	13%
Size of Labour Force	48,807	47,772	-1,035	-2%
Number of Jobs	32,611	32,291	-320	-1%

STAFFORDSHIRE MOORLANDS	SCENARIO A: PopGroup Baseline			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	99,763	2,554	3%
Households	41,808	45,325	3,517	8%
Dwellings	43,641	47,312	3,671	8%
Size of Labour Force	50,340	46,092	-4,248	-8%
Number of Jobs	28,889	26,863	-2,026	-7%

STAFFORDSHIRE MOORLANDS	SCENARIO Aa: PopGroup Baseline – STATIC HEADSHIP			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	99,763	2,554	3%
Households	41,808	45,184	3,377	8%
Dwellings	43,641	47,165	3,525	8%
Size of Labour Force	50,340	46,092	-4,248	-8%
Number of Jobs	28,889	26,863	-2,026	-7%

STAFFORDSHIRE MOORLANDS	SCENARIO Ab: PopGroup Baseline – TREND HEADSHIP			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	99,763	2,554	3%
Households	41,808	44,412	2,604	6%
Dwellings	43,641	46,359	2,718	6%
Size of Labour Force	50,340	46,092	-4,248	-8%
Number of Jobs	28,889	26,863	-2,026	-7%

STAFFORDSHIRE MOORLANDS	SCENARIO Ac: PopGroup Baseline – PARTIAL CATCH UP HEADSHIP			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	99,763	2,554	3%
Households	41,808	44,860	3,053	7%
Dwellings	43,641	46,827	3,186	7%
Size of Labour Force	50,340	46,092	-4,248	-8%
Number of Jobs	28,889	26,863	-2,026	-7%

STAFFORDSHIRE MOORLANDS	SCENARIO Ad: PopGroup Baseline – CATCH UP HEADSHIP			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	99,763	2,554	3%
Households	41,808	45,302	3,494	8%
Dwellings	43,641	47,288	3,647	8%
Size of Labour Force	50,340	46,092	-4,248	-8%
Number of Jobs	28,889	26,863	-2,026	-7%

STAFFORDSHIRE MOORLANDS	SCENARIO B: Natural Change			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	92,390	-4,819	-5%
Households	41,808	41,927	119	0%
Dwellings	43,641	43,765	124	0%
Size of Labour Force	50,340	43,439	-6,901	-14%
Number of Jobs	28,889	25,317	-3,572	-12%

STAFFORDSHIRE MOORLANDS	SCENARIO C: Zero Net Migration			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	92,390	-4,819	-5%
Households	41,808	40,793	-1,014	-2%
Dwellings	43,641	42,582	-1,059	-2%
Size of Labour Force	50,340	44,956	-5,384	-11%
Number of Jobs	28,889	26,201	-2,688	-9%

STAFFORDSHIRE MOORLANDS	SCENARIO D: Short Term Migration Trends			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	97,150	-59	0%
Households	41,808	44,096	2,289	5%
Dwellings	43,641	46,030	2,389	5%
Size of Labour Force	50,340	44,215	-6,125	-12%
Number of Jobs	28,889	25,769	-3,120	-11%

STAFFORDSHIRE MOORLANDS	SCENARIO E: Long Term Migration Trends			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	99,048	1,839	2%
Households	41,808	44,810	3,002	7%
Dwellings	43,641	46,774	3,134	7%
Size of Labour Force	50,340	45,198	-5,142	-10%
Number of Jobs	28,889	26,342	-2,547	-9%

STAFFORDSHIRE MOORLANDS	SCENARIO G: Oxford Economics Job Growth			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	113,702	16,493	17%
Households	41,808	50,009	8,201	20%
Dwellings	43,641	52,201	8,561	20%
Size of Labour Force	50,340	53,307	2,967	6%
Number of Jobs	28,889	31,068	2,179	8%

STAFFORDSHIRE MOORLANDS	SCENARIO Ga: Oxford Economics Job Growth Sensitivity Test			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	108,902	11,693	12%
Households	41,808	48,271	6,463	15%
Dwellings	43,641	50,387	6,747	15%
Size of Labour Force	50,340	50,641	301	1%
Number of Jobs	28,889	31,068	2,179	8%

STAFFORDSHIRE MOORLANDS	SCENARIO H: Policy On Job Growth			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	118,543	21,334	22%
Households	41,808	51,749	9,941	24%
Dwellings	43,641	54,018	10,377	24%
Size of Labour Force	50,340	56,084	5,744	11%
Number of Jobs	28,889	32,687	3,798	13%

STAFFORDSHIRE MOORLANDS	SCENARIO Ha: Policy On Job Growth Sensitivity Test			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	113,505	16,296	17%
Households	41,808	49,925	8,118	19%
Dwellings	43,641	52,114	8,474	19%
Size of Labour Force	50,340	53,280	2,940	6%
Number of Jobs	28,889	32,687	3,798	13%

STAFFORDSHIRE MOORLANDS	SCENARIO I: Job Stabilisation			
	2011	2031	Change 2011-31	% Change 2011-31
Population	97,209	106,621	9,412	10%
Households	41,808	47,437	5,629	13%
Dwellings	43,641	49,517	5,876	13%
Size of Labour Force	50,340	49,443	-897	-2%
Number of Jobs	28,889	28,816	-73	0%

Appendix 3 PopGroup Modelling Outputs



**Nathaniel Lichfield
& Partners**

Planning. Design. Economics.

-  Applications & Appeals
-  Climate Change & Sustainability
-  Community Engagement
-  Daylight & Sunlight
-  Economics & Regeneration
-  Environmental Assessment
-  Expert Evidence
-  GIS & Graphics
-  Heritage
-  Property Economics
-  Site Finding & Land Assembly
-  Strategy & Appraisal
-  Urban Design

Cardiff
029 2043 5880

Leeds
0113 397 1397

London
020 7837 4477

Manchester
0161 837 6130

Newcastle
0191 261 5685

nlpplanning.com