

# Leeds City Region

Demographic evidence for the objective assessment  
of housing need within the Leeds City Region

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For the attention of:

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## Acknowledgements

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## Executive Summary

### Objectives

- E1. The Leeds City Region (LCR) has sought to consider how a common start-point and methodology for the objective assessment of housing need, might be applied across its constituent authorities. Whilst LCR members recognise the value of a common approach to the objective assessment of housing need, authorities are at very different stages of plan development.
- E2. This document provides a review of the demographic evidence supporting the objective assessment of housing need in each of seven LCR local authorities: **Bradford, Calderdale, Craven, Leeds, Selby, Wakefield and York**. Each of these seven authorities has either recently commissioned work to support its objective assessment of housing need, or it has an agreed position in its adopted plan based upon previous analysis. Three LCR authorities (**Barnsley, Harrogate and Kirklees**) have been excluded from this review process, with a more substantial update of underpinning demographic evidence likely to be required.
- E3. This report does not provide *new* demographic evidence for the seven authorities but reviews methodologies, data inputs, assumptions and resulting scenario outcomes that have informed the objective assessment of need in the context of the generic framework considered for the LCR.

### Review summary

- E4. All districts have derived a housing growth target based upon the evidence available, albeit with slightly different plan periods.
- E5. Bradford, Calderdale, Craven and Leeds have each used POPGROUP for scenario development and evaluation. Selby and York have used its output as part of a wider analysis but have not used a forecasting model in this analysis. Wakefield has remained with its RSS target, evaluating later evidence to confirm its decision.
- E6. The 2011 Census has provided an important update to demographic statistics, with significant changes to the population count in Leeds, in particular. The latest evidence for Bradford, Leeds, Selby and York has included post-2011 Census statistics, for both population and households. Calderdale, Craven and Wakefield's evidence is largely based on pre-2011 statistics.

Review of demographic evidence – summarising the approaches

District	Author	Model	Post-2011 Census	REM	Scenarios				Household Assumptions			Economic Assumptions			Dwellings (dpa)	Plan-period
					ONS	Trend	Dwelling-led	Jobs-led	2004	2008	2011	Economic Activity	Unemployment	Commuting		
<b>Barnsley</b>																
<b>Bradford</b>	GVA / Edge Analytics	POPGROUP	✓	April 2012	✓	✓		✓		✓	✓	APS (2004–2012 average), SPA changes	9.3% (APS, 2007–2010)	1.01 (APS)	2186	2011–28
<b>Calderdale</b>	GVA / Edge Analytics	POPGROUP		April 2011	✓	✓	✓	✓		✓		APS (2004–2009 average), uplift to 50-64 and 65+	4.9% (APS, 2004–2009)	1.07 (2001 Census)	800	2008–33
<b>Craven</b>	Edge Analytics	POPGROUP		2010	✓	✓	✓	✓		✓		N. Yorks EA Rates, uplift to 50-64 and 65+	3.9% (APS, 2004–2010)	1.07 (2001 Census)	160	2012–26
<b>Harrogate</b>																
<b>Kirklees</b>																
<b>Leeds</b>	GVA / Edge Analytics	POPGROUP	✓	Oct 2013	✓	✓		✓		✓	✓	APS (2008–2012 average), SPA changes	7.2% (APS, 2004–2012)	0.85 (APS)	4375	2012–28
<b>Selby</b>	Arup		✓	2010	✓	✓		✓		✓	✓	2009–2010 average, fixed, no changes*	5.6% (APS, 2004–2009)*	1.24 (2001 Census)*	450	2008–26
<b>Wakefield</b>	RSS			2007	✓				✓						1600	2006–26
<b>York</b>	Arup		✓	Oxford Economics	✓	✓		✓		✓	✓	2009–2010 average, fixed, no changes*	3.6% (APS 2004–2009)*	0.94 (2001 Census)*	1090	2012–26

\* These are N Yorkshire SHMA assumptions not REM or Oxford Economics forecast assumptions

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- E7. Where scenario analysis has been completed, each district has considered a mix of official projections, alternative trend forecasts and jobs-led growth outcomes. Districts have incorporated REM job forecasts in their evidence, albeit from different releases of the REM. The York analysis has used Oxford Economics forecasts in preference to the REM.
- E8. Bradford, Leeds, Selby and York have considered both the 2008-based and 2011-based household growth assumptions in determining a housing growth target. Calderdale and Craven's latest evidence has considered only the (higher growth) 2008-based assumptions.
- E9. To evaluate jobs-growth scenarios within POPGROUP, the analysis for Bradford, Calderdale, Craven and Leeds has used economic activity rates and unemployment rates derived from the latest Annual Population Survey (APS). Commuting statistics have either been taken from the 2001 Census or from the latest APS.
- E10. The analysis for Selby and York has used assumptions from similar sources in its consideration of the North Yorkshire SHMA evidence. The York analysis also incorporates data and assumptions from the Oxford Economics forecasts.

## Recommendations

- E11. With the objective of a 'common approach' in mind and based upon the review evidence presented here, a number of recommendations are made.
- E12. First, it would be useful to evaluate all growth scenarios using the POPGROUP forecasting model enabling a consistency of scenario output, comparability between areas and the basis for further sensitivity analysis based upon connectivity between areas.
- E13. Secondly, it would be appropriate to bring the analysis up-to-date using more recent data and assumptions. These include a number of items as follows:
- Assumptions from the 2011-based household model
  - Vacancy rate from the 2011 Census
  - Economic activity rates from the 2011 Census
  - Commuting ratio from the 2011 Census
  - Unemployment rates which reflect economic 'recovery'.

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- E14. Thirdly, it would be appropriate to consider the implications of the new 2012-based ONS projection, published at the end of May 2014. This provides an important new 'official' benchmark for scenario evaluation and provides updated demographic assumptions on fertility, mortality and migration (both internal and international). This is of particular importance for those authorities such as York and Bradford that are moving into the examination stage.
- E15. Fourthly, it would be appropriate to evaluate the latest jobs-growth forecasts from the REM within the POPGROUP framework and, where possible, to integrate complementary evidence from Oxford Economics' forecasts. Evaluation of jobs-growth forecasts should give particular attention to the choice of assumptions on economic activity and unemployment and on the commuting balance implied between LCR districts.
- E16. Finally, it will be necessary to evaluate the household growth implications of the 2012-based household model, due for release by the Department for Communities and Local Government (CLG) in autumn 2014.

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# 1. Introduction

## Context

- 1.1 With the revocation of the former Regional Spatial Strategy (RSS), responsibility for strategic planning for housing has been returned to local authorities. However, the 2011 Localism Act has mandated a 'duty-to-cooperate', whereby Local Plans are formulated with due consideration for neighbouring authorities.
- 1.2 To support Local Plan development, the National Planning Policy Framework (NPPF)<sup>1</sup> and the National Planning Practice Guidance (NPPG)<sup>2</sup> provide specific guidance on the objective assessment of housing need; setting out the key principles against which plans will be assessed at examination in public (EiP), including the need for local collaboration.
- 1.3 The collection of ten local authorities that constitutes the Leeds City Region (LCR) Local Economic Partnership (LEP) has a clear intent to ensure collaboration in the formulation of local housing plans and in the alignment of these plans to strategic economic development.
- 1.4 The LCR has sought to consider how a common start-point and methodology for the objective assessment of housing need might be applied across its constituent authorities. The rationale for a common approach is that cooperation between neighbouring authorities can be better facilitated if methods used for evidence generation and plan formulation are comparable and if data sources and assumptions that have been used are consistent.
- 1.5 In line with NPPF-NPPG guidelines, a methodological framework for the objective assessment of housing need has been presented (Figure 1). This uses 'official' projections as its start point but advocates the development of alternative trend forecasts to consider variations in the impact of migration upon growth. The methodology recommends the evaluation of dwelling growth outcomes using higher (2008-based) and lower (2011-based) rates of future household formation. Crucially, the framework requires the alignment of jobs-growth ambition with dwelling outcomes.

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<sup>1</sup> National Planning Policy Framework <http://planningguidance.planningportal.gov.uk/blog/policy/>

<sup>2</sup> National Planning Practice Guidance <http://planningguidance.planningportal.gov.uk/blog/guidance/>



- 1.6 The use of an appropriate demographic forecasting model (e.g. POPGROUP) is implied in the recommended approach.
- 1.7 The recommended methodology provides a common start-point from which local 'market signals' can be considered and from which an appropriate level of cooperation between local authorities can be facilitated.

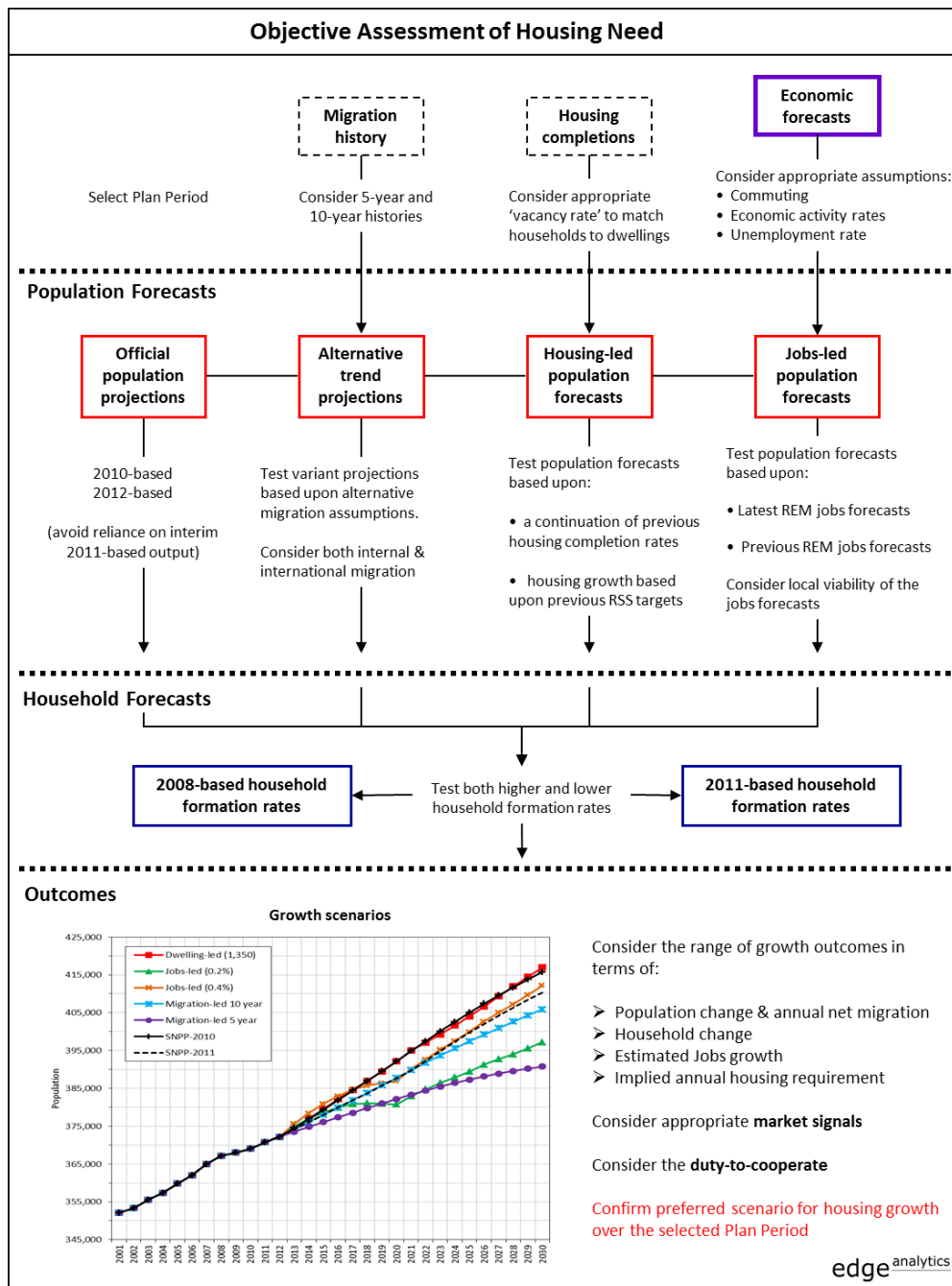


Figure 1: Objective assessment of housing requirements

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## A Leeds City Region perspective

- 1.8 Whilst members of the LCR have recognised the value of a common methodological framework for the objective assessment of housing need, authorities are at very different stages of plan development (in May 2014).
- 1.9 Barnsley (September 2011), Harrogate (February 2009) and Wakefield (April 2009) each has an adopted Core Strategy, although planning guidelines and demographic/economic evidence have changed since these earliest adoptions. The review of the requirements in adopted Plans should be addressed as part of any wider Plan review undertaken by the authority. The timing of this will depend on the circumstances of each authority.
- 1.10 Selby's Core Strategy (October 2013) was adopted after the final version of the NPPF was published.
- 1.11 Leeds' Core Strategy is subject to EiP and Bradford's is now moving towards examination. York has completed initial consultation on its plan.
- 1.12 Craven and Calderdale are at earlier stages of plan development, whilst Kirklees is seeking further review of its initial Core Strategy draft.

## This report

- 1.13 This document provides a review of the demographic evidence supporting the objective assessment of housing need in each of seven LCR local authorities: **Bradford, Calderdale, Craven, Leeds, Selby, Wakefield** and **York**. For each area, the following questions are addressed:
- Who has compiled the housing requirements evidence?
  - Has the analysis used a forecasting model?
  - Has the analysis evaluated a range of scenarios?
  - How current are the key demographic and economic data inputs?
  - What demographic and economic assumptions have been used?
  - What range of growth outcomes results from the analysis?
  - Summary and specific recommendations.

- 1.14 Each of these seven authorities has either recently commissioned work to support its objective assessment of housing need, or it has an agreed position in its adopted plan based upon previous analysis.
- 1.15 Three LCR authorities (**Barnsley, Harrogate and Kirklees**) are excluded from this review process. LCR has indicated that a more substantial review of underpinning demographic evidence is likely to be required.
- 1.16 This report does not provide new demographic evidence for the seven authorities but reviews methodologies, data inputs, assumptions and resulting scenario outcomes that have informed the objective assessment of need in the context of the generic framework considered for the LCR.
- 1.17 A number of recommendations are made as to how the demographic evidence for each authority might continue to be renewed whilst providing a more consistent basis for cooperation between LCR member authorities.

## 2. Bradford

### Who has compiled the housing requirements evidence?

- 2.1 City of Bradford Metropolitan District Council (CBMDC) commissioned GVA and Edge Analytics to prepare a Housing Requirements Study (HRS) for the district of Bradford. This report was completed in February 2013<sup>3</sup>, with an Addendum published in August 2013<sup>4</sup>.

### Has the analysis used a forecasting model?

- 2.2 Edge Analytics used POPGROUP to develop scenario forecasts for GVA to consider in the HRS.

### Has the analysis evaluated a range of scenarios?

- 2.3 Three core scenarios have been evaluated in the HRS:

Table 1: Bradford – scenario description

Scenario	Description
<b>Rebased SNPP 2010</b>	'Official' SNPP-2010 <sup>5</sup> projection, rescaled to the 2011 Census population total.
<b>Natural Change</b>	A growth scenario that excludes the impact of migration throughout the forecast period.
<b>Employment-led (REM)</b>	A growth scenario that is linked directly to jobs-growth over the forecast period (+27,000 2011-28, as defined in the REM).

- 2.4 The 'Rebased SNPP 2010' and 'Employment-led (REM)' provided the key input to the housing requirements analysis. The 'Natural Change' scenario provided a hypothetical perspective on an

<sup>3</sup> Bradford District Housing Requirements Study Report, GVA with Edge Analytics (February 2013)  
<http://www.bradford.gov.uk/NR/rdonlyres/630395D8-045A-42A6-959E-62BA48FC4FA5/0/FinalHousingRequirementsStudyFebruary2013.pdf>

<sup>4</sup> Bradford District Housing Requirements Study: Addendum Report, GVA with Edge Analytics (August 2013)  
<http://www.bradford.gov.uk/NR/rdonlyres/60098D2C-4B87-4A1E-954A-93B161114E78/0/HousingRequirementAddendumFinalReportAugust13.pdf>

<sup>5</sup> SNPP-2010 refers to the ONS 2010-based sub-national population projection

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expected level of housing growth resulting from population change driven by births and deaths alone, with no migration.

## How current are the key demographic and economic data inputs?

- 2.5 The scenarios used the most recent and appropriate data available at the time of analysis, which included the 2011 Census. The 2011-based interim SNPP population projection was released prior to the publication of the HRS but was not included as a scenario alternative, owing to its inadequacies as an 'official' projection statistic.
- 2.6 Employment forecasts from the April 2012 Regional Econometric Model (REM) have been used to provide jobs-growth figures to inform the 'Employment-led (REM)' scenario.

## What demographic and economic assumptions have been used?

### *Migration, fertility and mortality*

- 2.7 In the 'Rebased SNPP 2010' scenario, fertility, mortality and migration assumptions are consistent with ONS' 2010-based SNPP.
- 2.8 The 'Employment-led (REM)' scenario has also used these assumptions as the basis for the alignment of population/household growth with the jobs-growth ambition.

### *Household and dwelling assumptions*

- 2.9 In the February 2013 report, the household implications of the forecast population growth trajectories have been assessed using headship rates from the 2008-based household projection model, produced by the Department for Communities and Local Government (CLG). The 2008-based rates were re-scaled to the Census 2011 household total.
- 2.10 In the August 2013 Addendum, scenarios were reproduced using the 2011-based CLG headship rate assumptions (a) trended after 2021; (b) fixed after 2021. The 'trended' headship rates were deemed the most appropriate and the dwelling requirement resulting from the application of these to the 'Rebased SNPP 2010' and 'Employment-led (REM)' scenarios were compared to the 2008-based dwelling requirement.

- 2.11 To convert the number of households to a dwelling requirement, a vacancy rate of 3% was applied.
- 2.12 The communal population assumptions from the 2008-based CLG household model were applied. An additional sensitivity test was presented in the HRS, in which the average household size was 'frozen' at 2.58. This sensitivity analysis was carried out as the average household size increased between the 2001 and 2011 Censuses in Bradford, the opposite trend to that seen in the official CLG projection.

### *Economic assumptions*

- 2.13 Economic activity rates were derived from the Annual Population Survey (APS), averaged for the years 2004–2012 to avoid sampling volatility. To account for changes to state pension age (SPA) and the likelihood of increased rates of economic participation in older age, a 10% increase in economic activity rates for the 50-64 and 65-74 age-groups was applied over the forecast period.
- 2.14 A commuting ratio of 1.01 was used, derived from APS sample statistics for 2010. This was fixed throughout the forecast period, reflecting a balance between the size of the resident labour force and the number of jobs available in Bradford (values greater than 1.0 indicates a net commuting outflow).
- 2.15 An unemployment rate of 9.3% was derived from the APS (average for 2007–2010). This value remained fixed throughout the forecast period.
- 2.16 Additional analysis was conducted in the HRS to examine the sensitivity of population growth and the dwelling requirement to altered assumptions relating to economic activity, commuting and household formation. Three employment sensitivity analyses were conducted, in which: (1) the employment rate was increased by adjusting the economic activity rates and reducing the unemployment rate; (2) the commuting ratio was 'balanced' to align jobs and labour-force by 2018; (3) both of options 1 and 2 were applied in combination. The results of these sensitivities were presented but were not used to inform the housing requirement.

### What range of growth outcomes results from the analysis?

- 2.17 In the main HRS report (February 2013), a requirement for between **2,210** and **2,565** dwellings per annum (dpa) was identified based on the 'Rebased 2010 SNPP' and 'Employment-led (REM)' scenarios respectively.

2.18 In the August 2013 Addendum, the dwelling requirement associated with each population growth scenario was reassessed using the 2011-based headship rates. It was recommended that a 'mid-point' between the 2008-based and 2011-based dwelling requirements was an appropriate housing target, given uncertainty over the future rates of household formation.

2.19 The dwelling requirement for Bradford district was revised to a minimum of **2,186 dpa**, based on the 'mid-point' dwelling requirement of the 'Employment-led (REM)' scenario. A summary of the core scenario output was as follows:

Table 2: Bradford – scenario outcomes

Scenario	Dwellings per annum (dpa) 2011-28		
	Option A	Option B	Average*
Rebased SNPP 2010	1,695	2,210	<b>1,953</b>
Employment-led (REM)	1,807	2,565	<b>2,186</b>

\* Average of the 2008-based and 2011-based housing requirement

## Summary and specific recommendations

2.20 Bradford's housing needs analysis has been underpinned by the appropriate use of available data, using POPGROUP forecasting technology to evaluate a number of growth scenarios which consider both demographic and economic factors.

2.21 The choice of key assumptions on household formation, economic activity, unemployment and commuting were appropriately defined and sensitivity tests were completed to evaluate variant growth outcomes.

2.22 Three specific recommendations are made in relation to the Bradford evidence.

2.23 First, it would be appropriate to bring the scenario analysis up-to-date using more recent economic assumptions, that are now available. Specifically:

- Economic activity rates from the 2011 Census
- Commuting ratio from the 2011 Census
- Unemployment rates which reflect economic 'recovery'.

- 2.24 Secondly, it would be appropriate to consider the new 2012-based ONS projection, due for publication at the end of May 2014. This will provide an important new 'official' benchmark for scenario evaluation (given the inadequacies of the interim 2011-based projection) and will provide important demographic assumptions on fertility, mortality and migration (both internal and international).
- 2.25 Thirdly, using the new economic assumptions and for comparison with the new 2012-based ONS projection, it would be appropriate to evaluate the latest jobs-growth forecasts from the REM, updating the April 2012 statistics used in the HRS.



## 3. Calderdale

### Who has compiled the housing requirements evidence?

- 3.1 Calderdale Council is in the process of preparing its Local Plan. The 'Preferred Options' of the Core Strategy<sup>6</sup> (which forms part of the Local Plan) was subject to public consultation in late 2012. In this document, Calderdale Council states that 16,800 new homes are required before 2029, an average of **800 per year**.
- 3.2 This housing requirement is based on work carried out by GVA (with Edge Analytics). In November 2011, GVA delivered a 'Housing Requirements' report to Calderdale Council<sup>7</sup>. This was produced as an extension to the Strategic Housing Market Assessment (SHMA)<sup>8</sup>, which was delivered by GVA in April 2011.
- 3.3 The 'Housing Requirements' report informed the Council's 'Shaping the Housing Future of Calderdale' report (February 2012)<sup>9</sup>. Technical detail on the housing components of the Local Plan is provided in a 'Housing Technical Paper', produced by Calderdale Council in June 2012<sup>10</sup>.

### Has the analysis used a forecasting model?

- 3.4 Edge Analytics used POPGROUP to develop scenario forecasts for GVA to consider in the SHMA and the 'Housing Requirements' report.

### Has the analysis evaluated a range of scenarios?

Four household growth scenarios were evaluated in the SHMA (Table 3). In the 'Housing Requirements' report, the scenarios presented in the SHMA were updated to (a) extend to 2031 and 2033; and (b) include more recent data. Using these data, a revised suite of scenarios was produced (Table 4).

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<sup>6</sup> <http://www.calderdale.gov.uk/environment/planning/local-plan/core-strategy-summary.pdf>

<sup>7</sup> <http://www.calderdale.gov.uk/environment/planning/local-plan/evidence-base/housing-requirements.pdf>

<sup>8</sup> <http://www.calderdale.gov.uk/environment/planning/local-plan/evidence-base/housingmarket-assessment.html>

<sup>9</sup> <http://www.calderdale.gov.uk/environment/planning/local-plan/evidence-base/housing-future.pdf>

<sup>10</sup> <http://www.calderdale.gov.uk/environment/planning/local-plan/evidence-base/housing-technical-paper.pdf>

Table 3: Calderdale – SHMA scenario description

Scenario	Description
<b>Dwelling-led</b>	A growth scenario that is linked directly to dwelling-growth over the forecast period (2008–2026)
<b>CLG 2008-based projection</b>	‘Official’ household projection from CLG
<b>Migration-led POPGROUP</b>	A growth scenario based upon recent trends
<b>Jobs-led</b>	Jobs-led scenario linked to the April 2010 REM

Table 4: Calderdale – ‘Housing Requirements’ report - scenario description

Scenario	Description
<b>1. SNPP-2008</b>	‘Official’ SNPP-2008 projection
<b>2. Migration-led</b>	Scenario based upon recent trends, including the 2009 and 2010 migration data from the mid-year estimates
<b>2a. Household size sensitivity</b>	Household sizes ‘frozen’ in the ‘Migration-led’ scenario for the first 5 years of the forecast
<b>3. Natural Change</b>	Scenario that excludes the impact of migration
<b>4. Employment-led</b>	Jobs-led scenario linked to the April 2011 REM
<b>4a. Older person activity rate</b>	Economic activity rates were altered to test the implications of increasing rates of economic participation in the older age groups
<b>4b. Zero employment growth</b>	A ‘zero employment growth’ scenario with economic activity rates increased as in sensitivity scenario 4a
<b>5. Dwelling-led (5 year)</b>	Housing growth based on a 5-year completions history
<b>5a. Dwelling-led (10 year)</b>	Housing growth based on a 10-year completions history
<b>5b. Dwelling-led (RSS)</b>	Housing growth based on RSS
<b>6. Dwelling-led (SHLAA 2010)</b>	Housing growth trajectory based SHLAA review (2010)

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## How current are the key demographic and economic data inputs?

- 3.5 The scenarios in the 'Housing Requirements' report used the most recent and appropriate data available at the time of analysis. The analysis was completed prior to the release of 2011 Census data and the subsequent recalibration of historical population estimates. The 2008-based SNPP was used as the official 'benchmark' scenario.
- 3.6 Employment forecasts from the April 2011 Regional Econometric Model (REM) were used to provide jobs-growth figures to inform the 'Employment-led' scenario.

## What demographic and economic assumptions have been used?

### *Migration, fertility and mortality*

- 3.7 In the 'SNPP 2008' scenario, fertility, mortality and migration assumptions are consistent with ONS' 2008-based SNPP.
- 3.8 In the other scenarios, migration assumptions have been derived from historical evidence (including the 2009 and 2010 MYEs) and long-term assumptions on mortality and fertility have been taken from 2008-based national assumptions.

### *Household and dwelling assumptions*

- 3.9 The household implications of the forecast population growth trajectories were assessed using headship rates from the 2008-based CLG household projection model.
- 3.10 Communal population statistics were taken from the 2008-based household projections, remaining fixed throughout the forecast period.

### *Economic assumptions*

- 3.11 Economic activity rates were sourced from the APS, using a 2004–2009 average. The unemployment rate was set at 4.9%, also based on the 2004–2009 average. The commuting ratio was defined using 2001 Census data, set at 1.07.
- 3.12 Economic Activity Rates, the commuting ratio and unemployment levels were fixed throughout the forecast period. In employment sensitivity scenarios 4a and 4b (see Table 4) the economic activity rates were adjusted to test the implications of increasing rates of economic participation

in the older age groups. In the 50–64 age group, economic activity rates were incrementally increased by 10% between 2011 and the end of the forecast period. In the 65+ age group, rates were incrementally increased by 50% over the same time period.

## What range of growth outcomes results from the analysis?

- 3.13 The scenario outcomes for Calderdale are presented in the ‘Housing Requirements’ report, with a recommended housing requirement for Calderdale of 572–999 households per annum (2008–2033) (Table 5).
- 3.14 Calderdale Council has used the GVA figures to set a housing requirement of **800** homes per year up to 2029 (a total of **16,800**).

Table 5: Calderdale – scenario outcomes

Scenario	Dwellings per annum (dpa) 2008–2033
<b>4. Employment-led</b>	1,116
<b>2. Migration-led</b>	1,025
<b>1. SNPP-2008</b>	1,022
<b>2a. Household size sensitivity</b>	1,011
<b>4a. Older person activity rate adjustment sensitivity</b>	999
<b>6. Dwelling-led (SHLAA 2010 Review constrained)</b>	975 (2008–2026)
<b>5. Dwelling-led (5 year development trend)</b>	818
<b>5a. Dwelling-led (10 year development trend)</b>	796
<b>5b. Dwelling-led (RSS constrained)</b>	641
<b>3. Natural Change</b>	618
<b>4b. Zero employment growth sensitivity</b>	572

## Summary and specific recommendations

- 3.15 Calderdale’s housing requirements analysis was completed using appropriate data and assumptions, presenting a wide range of scenarios using POPGROUP modelling methods. The demographic and economic data that underpinned the original analyses has been superseded by more recent information, including a range of 2011 Census data, a new household model and new economic forecasts.
- 3.16 Calderdale’s demographic evidence is now subject to a full update. This will be completed following the release of the 2012-based projections from ONS and will provide input to a revised

SHMA and housing requirements study for Calderdale. The update will include demographic analysis for sub-district areas of Calderdale. This work is being completed by Turley Associates with demographic analysis provided by Edge Analytics.

## 4. Craven

### Who has compiled the housing requirements evidence?

- 4.1 Edge Analytics produced population forecasts for Craven District Council (CDC) in March 2012<sup>11</sup>. The forecasts have been used by CDC to identify a housing requirement for its new Local Plan (in preparation).
- 4.2 The identified housing requirement and its spatial distribution are outlined in CDC's 'Shaping a Spatial Strategy and Housing Figure' paper (July 2012)<sup>12</sup>.
- 4.3 The spatial distribution of planned new dwellings was revised by CDC in 2014<sup>13</sup>, although the total annual dwelling requirement was not altered.

### Has the analysis used a forecasting model?

- 4.4 Edge Analytics used POPGROUP technology to develop scenario forecasts for Craven district for a 2011–2033 plan period. Forecasts were produced both at district-level (for the whole of Craven district, including the Yorkshire Dales National Park) and at small-area level (for 6 sub-areas within Craven district).

### Has the analysis evaluated a range of scenarios?

- 4.5 Five alternative growth scenarios were considered within the Edge Analytics analysis.
- 4.6 Two alternative housing growth scenarios from the 2011 North Yorkshire SHMA<sup>14</sup> have also been considered by CDC.
- 4.7 The definition of each of these seven scenarios was as follows:

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<sup>11</sup> Craven District Population Estimates and Projections, Edge Analytics (March 2012)

<sup>12</sup> Shaping a Spatial Strategy and Housing Figure, Draft Discussion Paper, Craven District Council (July 2012) <http://m.cravencdc.gov.uk/CHttpHandler.ashx?id=5485&p=0>

<sup>13</sup> Craven Local Plan – Spatial Strategy: Amendment to Sub-Area and Settlement Housing Figures, Craven District Council (14th April 2014) <http://www.cravencdc.gov.uk/CHttpHandler.ashx?id=7645&p=0>

<sup>14</sup> North Yorkshire SHMA, Appendix 1: Craven-specific analysis, GVA with Edge Analytics (November 2011) <http://www.cravencdc.gov.uk/CHttpHandler.ashx?id=3495&p=0>

Table 6: Craven – scenario description

Scenario	Description
<b>SNPP 2008</b>	Replicates the 2008-based SNPP as the 'benchmark' scenario.
<b>Migration-led</b>	A scenario that used the 2006–2010 period to set the future migration assumptions.
<b>Migration-led-9-year</b>	A scenario that used the 2001–2010 period to set the future migration assumptions.
<b>Migration-led-revised</b>	A growth scenario that used the 'revised' mid-year population estimates for the 2006–2010 period to set future migration assumptions.
<b>CR 11 year</b>	Population growth was linked to a rate of future housing growth, consistent with the 2001–2011 average completion rate.
<b>Natural Change (SHMA)</b>	A growth scenario that excludes the impact of migration throughout the forecast period.
<b>Economic Change (SHMA)</b>	A growth scenario that is linked directly to jobs-growth over the forecast period (2010 REM).

## How current are the key demographic and economic data inputs?

- 4.8 The scenarios used the most recent and appropriate demographic data available at the time of analysis. In the absence of more recent information, the 2008-based SNPP was used as the official 'benchmark' scenario.
- 4.9 Employment forecasts from the 2010 REM were used to provide jobs-growth figures to inform the 'Economic Change' scenario in the SHMA.

## What demographic and economic assumptions have been used?

### *Migration, fertility and mortality*

- 4.10 In the 'SNPP 2008' scenario, fertility, mortality and migration assumptions are consistent with ONS' 2008-based SNPP.
- 4.11 In the other scenarios, migration assumptions have been derived from historical evidence and long-term assumptions on mortality and fertility have been taken from 2008-based national assumptions.



### *Household and dwelling assumptions*

- 4.12 The household implications of the forecast population growth trajectories were assessed using headship rates from the 2008-based CLG household projection model. Communal population statistics were also sourced from the CLG household model.
- 4.13 To convert the number of households to a dwelling figure, the 2001 Census vacancy rate (6.8%) was applied and kept fixed throughout the forecast period.

### *Economic assumptions*

- 4.14 North Yorkshire economic activity rates (by age and sex) were derived in the absence of robust information for Craven district. In the 50–64 and 65+ age groups, economic activity rates were modified to account for future increases in rates of economic participation; a 0.1% and 0.5% year-on-year increase respectively over the forecast period.
- 4.15 An unemployment rate of 3.9% was derived for North Yorkshire from the APS (average for 2004–2010). This value remained fixed throughout the forecast period.
- 4.16 The commuting ratio was set at 1.07, derived from the 2001 Census and fixed throughout the forecast period.

## What range of growth outcomes results from the analysis?

- 4.17 The average annual dwelling requirement implied by each of the scenarios was as follows:

Table 7: Craven – scenario outcomes

<b>Scenario</b>	<b>Dwellings per annum (dpa) (including the Yorkshire Dales National Park)</b>
<b>Economic Change (SHMA)</b>	470
<b>SNPP 2008</b>	336
<b>Dwelling-led (CR 11 year)</b>	208
<b>Migration-led-9-year</b>	191
<b>Migration-led</b>	182

<b>Migration-led-revised</b>	137
<b>Natural Change (SHMA)</b>	34

- 4.18 Craven District Council has used the average of the recommended range to propose that, including the Yorkshire Dales National Park, an average of 180 dwellings per year is required. Excluding the National Park, **160 dwellings per year** would be required.
- 4.19 The small-area forecasts produced by Edge Analytics have been used by CDC to distribute the housing requirement across three sub-areas:
- North sub-area: 25 dwellings per annum
  - Mid sub-area: 22 dwellings per annum
  - South sub-area: 113 dwellings per annum.

## Summary and specific recommendations

- 4.20 Craven’s housing needs analysis has been underpinned by the appropriate use of available data, using POPGROUP forecasting technology to evaluate a number of growth scenarios.
- 4.21 The choice of key assumptions on migration and household formation were appropriately defined based on the data available at the time. Similarly with the economic activity, unemployment and commuting assumptions, although the latest analysis did not explicitly evaluate a ‘jobs-led’ housing growth scenario (this was only done in the earlier SHMA).
- 4.22 Three recommendations are made in relation to the Craven evidence.
- 4.23 First, it would be appropriate to bring the analysis up-to-date using more recent data and assumptions. These include a number of items as follows:
- Post-2011 revised mid-year population estimates 2002–2010
  - 2011 and 2012 population estimates
  - Assumptions from the 2011-based household model
  - Vacancy rate from the 2011 Census
  - Economic activity rates from the 2011 Census

- Commuting ratio from the 2011 Census
- Unemployment rates which reflect economic 'recovery'.

4.24 Secondly, it would be appropriate to consider the new 2012-based ONS projection, due for publication at the end of May 2014. This will provide an important new 'official' benchmark for scenario evaluation and will provide updated demographic assumptions on fertility, mortality and migration (both internal and international).

4.25 Thirdly, using the new economic assumptions and for comparison with the new 2012-based ONS projection, it would be appropriate to evaluate the latest jobs-growth forecasts from the REM, updating the original North Yorkshire SHMA analysis.

## 5. Leeds

### Who has compiled the housing requirements evidence?

- 5.1 An update to the Leeds SHMA was completed by GVA (with Edge Analytics) in 2011<sup>15</sup>. This document provided the evidence base for the housing growth elements of Leeds City Council's draft Core Strategy<sup>16</sup>.
- 5.2 An update to the demographic evidence was provided by Edge Analytics in 2013<sup>17</sup>, followed by a short summary of evidence for the Core Strategy Inspection in October 2013<sup>18</sup>.

### Has the analysis used a forecasting model?

- 5.3 Edge Analytics has used POPGROUP to develop scenario forecasts for the updated SHMA and in all subsequent demographic evidence provided to Leeds City Council.

### Has the analysis evaluated a range of scenarios?

- 5.4 The latest demographic evidence for Leeds considered a range of scenarios, including official projections, alternative trend projections and growth outcomes linked to jobs forecasts from the REM (Table 8).
- 5.5 The scenario analysis also considered the 'sensitivity' of dwelling growth outcomes to the 'unattributable population change' (UPC) that has resulted from the substantial recalibration of Leeds' population following the 2011 Census.

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<sup>15</sup> Leeds SHMA Update, Prepared by GVA and Edge Analytics for Leeds City Council, May 2011 [http://www.leeds.gov.uk/docs/FPI\\_SHMA\\_001%20SHMA%202010%20Final%20Report.pdf](http://www.leeds.gov.uk/docs/FPI_SHMA_001%20SHMA%202010%20Final%20Report.pdf)

<sup>16</sup> Core Strategy, Leeds Local Development Framework Housing Background Paper, April 2013 <http://www.leeds.gov.uk/docs/CD25%20Housing%20Background%20Paper%20Final.pdf>

<sup>17</sup> Leeds, Demographic Evidence- an update, September 2013 <http://www.leeds.gov.uk/docs/CD6-47%20Edge%20Analytics%202013%20Demographic%20Evidence%20An%20Update.pdf>

<sup>18</sup> Summary of Demographic Evidence, Edge Analytics, October 2013 <http://www.leeds.gov.uk/docs/CD6-48a%20Summary%20of%20Demographic%20Evidence%20-%20Edge%20Analytics.pdf>

Table 8: Leeds – scenario description

Scenario	Description
<b>Migration-led 10Yr-X</b>	Scenario based upon last 10 years migration history, excluding UPC
<b>REM 2013</b>	Jobs-led forecast linked to 2013 REM
<b>Leeds Core Strategy</b>	Leeds Core Strategy dwelling growth
<b>Migration-led 5Yr-X</b>	Scenario based upon last 5 years migration history, excluding UPC
<b>REM average</b>	Jobs-led forecast linked to average of 2010 & 2013 REM
<b>REM 2010</b>	Jobs-led forecast linked to 2010 REM
<b>SNPP-2010</b>	ONS 2010-based projection
<b>Migration-led 10Yr</b>	Scenario based upon last 10 years migration history
<b>Migration-led 5Yr</b>	Scenario based upon last 5 years migration history
<b>Net Nil</b>	Growth with zero net-migration

## How current are the key demographic and economic data inputs?

- 5.6 The Leeds demographic analysis has developed as new data has been made available. The latest analysis included population statistics from the 2011 Census and the 2011-based household model.
- 5.7 Employment forecasts from the October 2010 and October 2013 REM were used to provide jobs-growth figures to inform the jobs-led scenarios.

## What demographic and economic assumptions have been used?

### *Migration, fertility and mortality*

- 5.8 In the 'SNPP 2010' scenario, fertility, mortality and migration assumptions are consistent with ONS' 2010-based SNPP.

- 5.9 In the 'Migration-led' scenarios, migration assumptions have been derived from historical evidence and long-term assumptions on mortality and fertility have been taken from 2010-based national assumptions.

#### *Household and dwelling assumptions*

- 5.10 The household implications of the forecast population growth trajectories were assessed using headship rates from both the 2008-based and 2011-based CLG household projection model.
- 5.11 Communal population statistics were taken from the 2011-based household projections, remaining fixed throughout the forecast period.

#### *Economic assumptions*

- 5.12 Economic activity rates were derived from a combination of 2001 data and the latest evidence from the Labour Force Survey (average over 2008–2012) by broad age-group. Economic activity rates have been modified to account for future SPA changes (female 60–64, 40% increase by 2020; female 65–69, 20% increase by 2020; male 60–64, 5% increase by 2020; male 65–69, 10% increase by 2020).
- 5.13 An average unemployment rate of 7.2% (aged 16+) has been derived from the APS for the period 2004–2012. This value remained constant throughout the forecast period.
- 5.14 A commuting ratio of 0.89 was derived from the 2011 APS (compared to a 2001 Census figure of 0.85). The commuting ratio was held constant throughout the projection period.

### What range of growth outcomes results from the analysis?

- 5.15 The range of growth outcomes for Leeds is presented (Table 9). The Core Strategy figure of **70,000 (4,375 dpa** over the 2012–2028 plan period) remains the preferred growth option<sup>19</sup>.

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<sup>19</sup> Through the Core Strategy Examination process Leeds City Council has, using demographic alongside other evidence such as infrastructure and market signals, proposed a lower housing requirement (expressed as a minimum) for the first five years of the plan with the residual spread throughout the remainder of the plan period thereafter.

Table 9: Leeds – scenario outcomes

<b>Scenario</b>	<b>Dwellings per annum (dpa) (2012–2028)</b>
<b>Migration-led 10Yr-X</b>	5,405
<b>REM 2013</b>	4,428
<b>Leeds Core Strategy</b>	4,375
<b>Migration-led 5Yr-X</b>	4,070
<b>REM average</b>	4,008
<b>REM 2010</b>	3,587
<b>SNPP-2010</b>	3,486
<b>Migration-led 10Yr</b>	3,033
<b>Migration-led 5Yr</b>	2,460
<b>Net Nil</b>	2,196

## Summary and specific recommendations

- 5.16 Leeds' housing requirements analysis was completed using appropriate data and assumptions, presenting a wide range of scenarios using POPGROUP modelling methods.
- 5.17 Three recommendations are made in relation to the Leeds evidence.
- 5.18 First, it would be appropriate to bring the analysis up-to-date using more recent data and assumptions. These include the following items:
- Economic activity rates from the 2011 Census
  - Commuting ratio from the 2011 Census
  - Unemployment rates which reflect economic 'recovery'.

- 5.19 Secondly, it would be appropriate to consider the new 2012-based ONS projection, due for publication at the end of May 2014. This will provide an important new 'official' benchmark for scenario evaluation and will provide updated demographic assumptions on fertility, mortality and migration (both internal and international).
- 5.20 Thirdly, using the new economic assumptions and for comparison with the new 2012-based ONS projection, it would be appropriate to evaluate the latest jobs-growth forecasts from the REM.



## 6. Selby

### Who has compiled the housing requirements evidence?

- 6.1 Selby District Council (SDC) commissioned Arup to prepare its evidence on future housing growth in Selby District. The report was completed in November 2011 and supplemented by their report of April 2012<sup>20</sup>, with an Addendum provided in May 2013<sup>21</sup>.

### Has the analysis used a forecasting model?

- 6.2 Arup has not used a forecasting model in its analysis, although it does consider a range of scenario evidence. Edge Analytics used the POPGROUP model to develop forecast scenarios for the North Yorkshire SHMA<sup>22</sup>, which form a key part of Arup's review.

### Has the analysis evaluated a range of scenarios?

- 6.3 In its April 2012 report, Arup presented the three Core Scenarios from the North Yorkshire SHMA, together with an 'official' trend scenario and two further 'sensitivity test' scenarios. The May 2013 Addendum included an assessment of the 2011-based household projections.

Table 10: Selby – scenario description

Scenario	Description
Core Scenario 1	2008-based ONS SNPP
Core Scenario 2	Natural change projection
Core Scenario 3	Jobs-led forecast linked to autumn 2011 REM
2010-based SNPP	2010-based ONS SNPP

<sup>20</sup> The Scale of Housing Growth in Selby District, Arup (April 2012)  
[http://www.selby.gov.uk/upload/CD56a\\_Housing\\_Context\\_Report\\_ARUP\\_April\\_2012.pdf](http://www.selby.gov.uk/upload/CD56a_Housing_Context_Report_ARUP_April_2012.pdf)

<sup>21</sup> The Scale of Housing Growth in Selby: Addendum, Arup (May 2013)  
[http://www.selby.gov.uk/upload/SDCHPF1\\_Selby\\_District\\_Council\\_Submission.pdf](http://www.selby.gov.uk/upload/SDCHPF1_Selby_District_Council_Submission.pdf)

<sup>22</sup> North Yorkshire SHMA, Appendix 8: Selby-specific analysis, GVA with Edge Analytics (November 2011)  
<http://www.selby.gov.uk/upload/Appendix-8-Selby-November-2011.pdf>

<b>Constrained migration (2008)</b>	First migration sensitivity scenario
<b>Constrained migration (2010)</b>	Second migration sensitivity scenario
<b>2011-based SNPP interim</b>	2011-based ONS interim SNPP and household projection

## How current are the key demographic and economic data inputs?

- 6.4 The Core SHMA scenarios, the '2010-based SNPP' scenario and additional 'sensitivity tests' presented by Arup (April 2012), were all based on pre-Census statistics.
- 6.5 Employment forecasts (used to inform Core Scenario 3) were derived from the autumn 2011 release of the REM.
- 6.6 Following the release of the 2011-based interim household projections, Arup provided an Addendum (May 2013), which considered the implications of these more up-to-date projections. This consideration of the 2011-based interim household projections fed into the Core Strategy examination by the Inspector prior to his report, which found the plan sound (subject to some modification).

## What demographic and economic assumptions have been used?

### *Migration, fertility and mortality*

- 6.7 The initial core scenarios, taken from the North Yorkshire SHMA, use ONS' 2008-based migration assumptions. Arup incorporates the later 2010-based SNPP within its analysis, with its updated migration assumptions.
- 6.8 The two sensitivity tests (i.e. the 'constrained migration' scenarios) use the 2008- and 2010-based SNPPs as starting points, but assume lower increases in internal and international migration to Selby. These scenarios used 'actual' net migration figures for 2008–2009 and 2009–2010 (which were lower than forecast in the 2008-based SNPP) and assumed that annual net migration would remain fixed to 2026.

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### *Household and dwelling assumptions*

- 6.9 In the North Yorkshire SHMA the household implications of the population growth trajectories (Core Scenarios 1-3) were assessed using the 2008-based headship rates.
- 6.10 In Arup's April 2012 report, the household implications of the 2010-based SNPP and the additional 'sensitivity' scenarios have been assessed through the application of household size assumptions from the 2008-based model.
- 6.11 In the May 2013 Addendum, Arup assesses the household implications of the 2011-based CLG household projection model, which provides household forecasts for 2011–2021. For the period 2022–2026, Arup extrapolates the forecast by applying the annual percentage increase of the 2008-based household projections to the number of households at 2021.

### *Economic assumptions*

- 6.12 The North Yorkshire SHMA Core Scenarios made assumptions regarding economic activity, unemployment and commuting, which reflected the most recent trends in Selby.
- 6.13 Economic activity rates for the population aged 16–64, averaged for 2009–2010, were applied. These were fixed throughout the forecast period, with no adjustment to account for future changes to rates of economic participation.
- 6.14 An unemployment rate of 5.6% was applied, fixed throughout the forecast period. A 6-year average for 2004–2009 was obtained from the APS.
- 6.15 A commuting ratio of 1.24 was used, derived from 2001 Census data. This was fixed throughout the forecast period.

## What range of growth outcomes results from the analysis?

- 6.16 Arup summarises its scenario evidence as follows:

Table 11: Selby – scenario outcomes

Evidence	Dwellings per annum (dpa) 2008–2026
Core Scenario 1: 2008-based SNPP	519
2010-based SNPP	512*
2011-based interim household projections	466**
Constrained migration (2010-based)	451*
Constrained migration (2008-based)	425
Core Scenario 3: jobs-led (REM)	403
Core Scenario 2: natural change only	190

\*Annual average dwelling growth, 2010-26

\*\*Historical household estimates (2006-10) are taken from the household projection model

- 6.17 In collating all the available scenario evidence, Arup has identified a range of dwelling growth outcomes, which, excluding the ‘natural change’ alternative, have a minimum of 403 dpa and a maximum of 519.
- 6.18 A dwelling growth requirement of **450 dpa** has been confirmed as Selby District’s 2008–2026 housing target.

## Summary and specific recommendations

- 6.19 The evidence for Selby District’s housing requirements has been collected from a variety of secondary sources, updated as new evidence has become available. This has included official projections, alternative trend projections and jobs-led scenarios.
- 6.20 The choice of key assumptions has largely been determined by the prior North Yorkshire SHMA analysis or by the ONS official projections. Additional scenario analysis has been conducted to test the implication of alternative migration assumptions upon future dwelling growth. However, these scenarios have not been formulated using a recognised forecasting model.

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- 6.21 Selby's housing requirement was completed using appropriate evidence, which was confirmed by the EiP Inspector finding the Plan sound. However, four recommendations are made in relation to the Selby evidence.
- 6.22 First, it would be useful to evaluate its growth scenarios using a recognised forecasting model (i.e. POPGROUP) enabling a consistency of scenario output and comparability with other areas.
- 6.23 Secondly, it would be appropriate to bring the analysis up-to-date using more recent data and assumptions. These include a number of items as follows:
- Assumptions from the 2011-based household model
  - Vacancy rate from the 2011 Census
  - Economic activity rates from the 2011 Census
  - Commuting ratio from the 2011 Census
  - Unemployment rates which reflect economic 'recovery'.
- 6.24 Thirdly, it would be appropriate to consider the new 2012-based ONS projection, due for publication at the end of May 2014. This will provide an important new 'official' benchmark for scenario evaluation and will provide updated demographic assumptions on fertility, mortality and migration (both internal and international).
- 6.25 Finally, using the latest data and for comparison with the new 2012-based ONS projection, it would be appropriate to evaluate the latest jobs-growth forecasts from the REM, updating the original North Yorkshire SHMA analysis.

## 7. Wakefield

### Who has compiled the housing requirements evidence?

- 7.1 At the point when Wakefield commences its Plan review, the housing requirement for Wakefield District is underpinned by the RSS, produced by the Government Office for Yorkshire and the Humber (GOYH) in May 2008 (the 'Yorkshire and Humber Plan')<sup>23</sup>.
- 7.2 Wakefield Council outlines its housing requirement to 2026 in the Local Development Framework (LDF) Core Strategy<sup>24</sup>, adopted in 2009, prior to publication of the NPPF and NPPG.

### Has the analysis used a forecasting model?

- 7.3 The Yorkshire and Humber Plan (page 161) states that its “[housing] figures are not derived directly from one mathematical model or set of projections”. Instead, the housing requirement is based upon a range of evidence including:
- Household projections (CLG 2003-based and 2004-based)
  - Economic and job growth forecasts from the REM
  - Availability of suitable land (including a regional audit of urban potential 2004)
  - Evidence about the affordability of housing
  - Evidence about low demand and vacancy rates
  - Levels of housing completions in recent years
  - The findings of a Sustainability Appraisal and other data on environmental capacity
  - The likely impact on transport and other infrastructure.

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<sup>23</sup> The Yorkshire and Humber Plan, Regional Spatial Strategy to 2026, Government Office for Yorkshire and the Humber, CLG, May 2008

[http://webarchive.nationalarchives.gov.uk/20100528142817/http://www.gos.gov.uk/497763/docs/199734/199799/689582/1\\_Y\\_H\\_Published\\_RSS\\_May\\_2008.pdf](http://webarchive.nationalarchives.gov.uk/20100528142817/http://www.gos.gov.uk/497763/docs/199734/199799/689582/1_Y_H_Published_RSS_May_2008.pdf)

<sup>24</sup> Local Development Framework Core Strategy, Wakefield Council, April 2009

[http://www.wakefield.gov.uk/Documents/Planning/Planning%20policy/Local%20Plan/Core%20Strategy/Core\\_Strategy.pdf](http://www.wakefield.gov.uk/Documents/Planning/Planning%20policy/Local%20Plan/Core%20Strategy/Core_Strategy.pdf)

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## Has the analysis evaluated a range of scenarios?

- 7.4 A single housing requirement figure is presented in the Wakefield analysis, derived from the variety of evidence considered. A range of alternative growth scenarios is not presented explicitly.

## How current are the key demographic and economic data inputs?

- 7.5 As part of its evidence base, the RSS used the 2004-based CLG household projections, the most recent at the time of publication. In its July 2011 'Housing Submission Statement', Wakefield Council considered the more recent 2006-based and 2008-based household projections and how they compared to the 2004-based projections. The housing evidence was reviewed as part of preparing the Site Specific Policies Local Plan.
- 7.6 Wakefield Council also considered more recent REM forecasts. The 2006/07 REM was used to provide economic evidence to the RSS housing figure. This forecast expected employment growth of 5.7% between 2006 and 2016. The 2010 REM forecast indicated a similar level of future growth, 5.8% per year over the plan period.

## What demographic and economic assumptions have been used?

- 7.7 The demographic and economic assumptions that underpinned the Wakefield RSS statistic were largely taken from data released in 2004–2008, pre-recession and prior to the 2011 Census.

## What range of growth outcomes results from the analysis?

- 7.8 The original RSS (2008) housing target is presented in the LDF Core Strategy as Wakefield's net housing requirements for the plan period 2004 to 2026:
- 2004–2008 = 1,170 dwellings per annum
  - 2008–2026 = **1,600 dwellings per annum.**
- 7.9 In its analysis, Wakefield Council concluded that the similarities between the household and employment evidence that informed the RSS and the more recent updates to the household projections and the REM, suggest that the RSS figure, and the requirement of policy CS3 in the Core Strategy, set an appropriate level of housing development for the district. The Council

incorporated a 20% uplift in provision for housing in the Local Plan as part of the LCR Growth Point Programme.

## Summary and specific recommendations

- 7.10 With an early adoption of its Core Strategy, Wakefield has had less reason to examine the changing effect of economic and demographic evidence upon its future housing requirements. Nevertheless, later evidence has been considered for the Site Specific Policies Local Plan, which has supported its original RSS housing target.
- 7.11 Whilst Wakefield already has an adopted Core Strategy, four recommendations are made in relation to the consideration of updated evidence.
- 7.12 First, it would be useful to evaluate a range of Wakefield growth scenarios using a recognised forecasting model (i.e. POPGROUP) enabling a consistency of scenario output and comparability with other areas.
- 7.13 Secondly, it would be appropriate to bring the Wakefield analysis up-to-date using more recent data and assumptions. These include a number of items as follows:
- 2011 Census statistics and revised mid-year population estimates for 2002–2010
  - Assumptions from the 2011-based household model
  - Vacancy rate from the 2011 Census
  - Economic activity rates from the 2011 Census
  - Commuting ratio from the 2011 Census
  - Unemployment rates which reflect economic ‘recovery’.
- 7.14 Thirdly, it would be appropriate to consider the new 2012-based ONS projection, due for publication at the end of May 2014. This will provide an important new ‘official’ benchmark for scenario evaluation and will provide updated demographic assumptions on fertility, mortality and migration (both internal and international).
- 7.15 Finally, using the latest data and for comparison with the new 2012-based ONS projection, it would be appropriate to evaluate the latest jobs-growth forecasts from the REM.



## 8. York

### Who has compiled the housing requirements evidence?

- 8.1 City of York Council (COYC) commissioned Arup to prepare an assessment of recent evidence concerning housing requirements in York. A report was completed in May 2013 to accompany the 'City of York – Preferred Options' document<sup>25</sup>. A (draft) update was provided in April 2014 to consider new evidence and to inform the Submission draft of the Local Plan<sup>26</sup>.

### Has the analysis used a forecasting model?

- 8.2 Arup has not used a forecasting model in its analysis, although it does consider a range of scenario evidence. Edge Analytics used the POPGROUP model to develop forecast scenarios for the North Yorkshire SHMA<sup>27</sup>, which form a key part of Arup's review.

### Has the analysis evaluated a range of scenarios?

- 8.3 In its original (May 2013) report Arup evaluated three scenarios suggested by the North Yorkshire SHMA, as well as two more recent 'official' forecasts. These scenarios were supplemented with an evaluation of future housing growth linked to Oxford Economics employment forecasts. Additional consideration of affordable housing needs was presented but these scenarios are excluded from this review.
- 8.4 In its April 2014 update, Arup considered the variation in dwelling growth resulting from the 2008- and 2011-based household model assumptions and examined more recent employment forecasts from Oxford Economics.

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<sup>25</sup> Assessment of the Evidence on Housing Requirements in York - May 2013, Arup  
[http://www.york.gov.uk/download/downloads/id/7352/housing\\_requirements\\_in\\_york\\_aruppdf](http://www.york.gov.uk/download/downloads/id/7352/housing_requirements_in_york_aruppdf)

<sup>26</sup> Evidence on Housing Requirements in York: 2014 Update - April 2014, Arup (not yet published)

<sup>27</sup> North Yorkshire SHMA, Appendix 7: York-specific analysis, GVA with Edge Analytics (November 2011)  
[http://www.york.gov.uk/downloads/file/2043/shma\\_2011\\_york\\_annex](http://www.york.gov.uk/downloads/file/2043/shma_2011_york_annex)

## How current are the key demographic and economic data inputs?

- 8.5 Arup has used the latest demographic evidence available to it, combining these data with previous scenario evidence from the North Yorkshire SHMA.
- 8.6 Economic forecasts from Oxford Economics have been updated regularly, including the latest 2014 release of statistics.

Table 12: York – scenario descriptions

Scenario	Description
<b>Core Scenario 1*</b>	ONS 2008-based SNPP
<b>Core Scenario 2*</b>	Natural change
<b>Sensitivity 1 *</b>	ONS 2008-based SNPP, with reduced international migration assumptions
<b>2010-based SNPP*</b>	ONS 2010-based SNPP
<b>2011-based interim SNPP*</b>	ONS 2011-based SNPP
<b>Oxford Econ Base (2012)*</b>	Employment forecast – global/national trends
<b>2008-based CLG**</b>	CLG 2008-based household projections
<b>2011-based CLG**</b>	CLG 2011-based household projections
<b>Oxford Econ Base (2014)**</b>	Employment forecast – global/national trends
<b>Oxford Econ 1 (2014)**</b>	Employment forecast – faster economic recovery
<b>Oxford Econ 2 (2014)**</b>	Employment forecast – faster growth in key sectors

\*Considered in Arup's May 2013 report

\*\*Considered in Arup April 2014 update

## What demographic and economic assumptions have been used?

### *Migration, fertility and mortality*

- 8.7 The Core Scenarios, taken from the SHMA, use ONS' 2008-based migration assumptions, whilst Sensitivity 1 uses alternative international migration assumptions that better align with local evidence on international migration. Arup incorporates the later 2010- and 2011-based SNPPs within its analysis, with updated assumptions on migration.

### *Household and dwelling assumptions*

- 8.8 In the North Yorkshire SHMA the household implications of the population growth trajectories (Core Scenarios 1, Core Scenario 2 and Sensitivity 1) were evaluated using the 2008-based sub-national household projection assumptions.
- 8.9 In Arup's original (May 2013) report, the underlying population data within Oxford Economics' 'Base Scenario' were translated into an annual dwelling requirement by applying the average household size in 2008 and 2026 (from the SHMA), to the population in 2010 and 2026.
- 8.10 In the updated (April 2014) report, Arup translates the underlying population data within Oxford Economics' 2014 employment forecasts into an annual dwelling requirement by applying the average household size in 2011 and 2030 (suggested by both the 2011-based interim household projections and by the SHMA) to the population in 2011 and 2030.

### *Economic assumptions*

- 8.11 The SHMA Core Scenarios made assumptions regarding economic activity, unemployment and commuting, which reflected the most recent trends in York:
- Economic activity rates for the population aged 16–64, averaged for 2009–2010, were applied. These were fixed throughout the forecast period.
  - A North Yorkshire unemployment rate of 3.6% was applied, fixed throughout the forecast period, based on APS statistics for 2004–2009.
  - A commuting ratio of 0.94 was used, derived from 2001 Census data. This was fixed throughout the forecast period.
- 8.12 Oxford Economics has made its own economic assumptions, which are implied within the population statistics that accompany its jobs-growth forecasts.

### *What range of growth outcomes results from the analysis?*

- 8.13 A range of scenario outcomes has been considered by Arup although these remain in draft form. These are A 'Baseline' scenario was identified from 'medium growth' outcomes, centred on the 2010-based and 2011-based SNPP (Table 13).
- 8.14 This 'Baseline' position has been considered against the range of jobs-led forecasts, which result in higher dwelling growth.

- 8.15 For the latest analysis, Arup has considered both 2008-based and 2011-based household growth assumptions for each of its jobs-led scenarios.

Table 13: York - scenario outcomes

Scenario	Dwellings per annum (dpa)		
	2008-based	2011-based	Average
<b>CLG 2008-based household projections**</b>			1,190
<b>Oxford Economics Base Scenario (2012)*</b>			1,090
<b>Oxford Economics Scenario 1 (2014)**</b>	1,115	755	935
<b>Oxford Economics Scenario 2 (2014)**</b>	1,064	708	886
<b>Oxford Economics Base Scenario (2014)**</b>	1,056	700	878
<b>Baseline*</b>			850
<b>CLG 2011-based household projections**</b>			636

\*Arup May 2013 report, Plan period: 2012–2026

\*\*Arup April 2014 (draft) update, Plan period: 2012–2030

## Summary and specific recommendations

- 8.16 Arup's evidence for the City of York's housing requirements has been collected from a variety of secondary sources, updated as new evidence has become available. This has included official projections, alternative trend projections and jobs-led scenarios linked to Oxford Economics forecasts.
- 8.17 The choice of key assumptions used in the analyses has been determined by a combination of sources: the prior SHMA analysis, ONS official projections and the Oxford Economics forecasts.
- 8.18 Additional scenarios have been presented within the Arup analysis. However, these scenarios have not been formulated using a recognised forecasting model. So, for example, household headship rates have not been applied and population statistics have been taken directly from the Oxford Economics forecasts.

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- 8.19 Three recommendations are made in relation to the York evidence.
- 8.20 First, it would be useful to evaluate its growth scenarios using a recognised forecasting model (i.e. POPGROUP) enabling a consistency of scenario output and comparability with other areas.
- 8.21 Secondly, it would be appropriate to bring the scenario analysis up-to-date using more recent data and assumptions. These include a number of items as follows:
- Economic activity rates from the 2011 Census
  - Commuting ratio from the 2011 Census
  - Unemployment rates which reflect economic 'recovery'.
- 8.22 Thirdly, it would be appropriate to consider the new 2012-based ONS projection, due for publication at the end of May 2014. This will provide an important new 'official' benchmark for scenario evaluation and will provide updated demographic assumptions on fertility, mortality and migration (both internal and international).
- 8.23 Finally, using the latest data and for comparison with the new 2012-based ONS projection, it might be appropriate to evaluate the latest jobs-growth forecasts from the REM, in parallel with the Oxford Economics forecasts. This would enable further scrutiny of underlying assumptions on commuting, economic activity and unemployment in the context of the wider Leeds City Region.

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## 9. Summary & Recommendations

### Objectives

- 9.1 The LCR has sought to consider how a common start-point and methodology for the objective assessment of housing need, might be applied across its constituent authorities. The rationale for a common approach is that cooperation between neighbouring authorities can be better facilitated if methods used for evidence generation and plan formulation are comparable and if data sources and assumptions that have been used are consistent.
- 9.2 Whilst LCR members recognise the value of a common approach to the objective assessment of housing need, authorities are at very different stages of plan development.
- 9.3 This document provides a review of the demographic evidence supporting the objective assessment of housing need in each of seven LCR local authorities: **Bradford, Calderdale, Craven, Leeds, Selby, Wakefield and York.**
- 9.4 Each of these seven authorities has either recently commissioned work to support its objective assessment of housing need, or it has an agreed position in its adopted plan based upon previous analysis.
- 9.5 This report does not provide *new* demographic evidence for the seven authorities but reviews methodologies, data inputs, assumptions and resulting scenario outcomes that have informed the objective assessment of need in the context of the generic framework considered for the LCR.
- 9.6 Three LCR authorities (**Barnsley, Harrogate and Kirklees**) have been excluded from this review process, with a more substantial update of underpinning demographic evidence likely to be required.

### Review summary

- 9.7 Bradford, Calderdale, Craven and Leeds have each used POPGROUP for scenario development and evaluation. Selby and York have used its output as part of a wider analysis but have not used a forecasting model in this analysis. Wakefield has remained with its RSS target, evaluating later evidence to confirm its decision (Table 14).

Table 14: Review of demographic evidence – summarising the approaches

District	Author	Model	Post-2011 Census	REM	Scenarios				Household Assumptions			Economic Assumptions			Dwellings (dpa)	Plan-period
					ONS	Trend	Dwelling-led	Jobs-led	2004	2008	2011	Economic Activity	Unemployment	Commuting		
<b>Barnsley</b>																
<b>Bradford</b>	GVA / Edge Analytics	POPGROUP	✓	April 2012	✓	✓		✓		✓	✓	APS (2004–2012 average), SPA changes	9.3% (APS, 2007–2010)	1.01 (APS)	2186	2011–28
<b>Calderdale</b>	GVA / Edge Analytics	POPGROUP		April 2011	✓	✓	✓	✓		✓		APS (2004–2009 average), uplift to 50-64 and 65+	4.9% (APS, 2004–2009)	1.07 (2001 Census)	800	2008–33
<b>Craven</b>	Edge Analytics	POPGROUP		2010	✓	✓	✓	✓		✓		N. Yorks EA Rates, uplift to 50-64 and 65+	3.9% (APS, 2004–2010)	1.07 (2001 Census)	160	2012–26
<b>Harrogate</b>																
<b>Kirklees</b>																
<b>Leeds</b>	GVA / Edge Analytics	POPGROUP	✓	Oct 2013	✓	✓		✓		✓	✓	APS (2008–2012 average), SPA changes	7.2% (APS, 2004–2012)	0.85 (APS)	4375	2012–28
<b>Selby</b>	Arup		✓	2010	✓	✓		✓		✓	✓	2009–2010 average, fixed, no changes*	5.6% (APS, 2004–2009)*	1.24 (2001 Census)*	450	2008–26
<b>Wakefield</b>	RSS			2007	✓				✓						1600	2006–26
<b>York</b>	Arup		✓	Oxford Economics	✓	✓		✓		✓	✓	2009–2010 average, fixed, no changes*	3.6% (APS 2004–2009)*	0.94 (2001 Census)*	1090	2012–26

\* These are N Yorkshire SHMA assumptions not REM or Oxford Economics forecast assumptions

- 9.8 The latest evidence for Bradford, Leeds, Selby and York has included post-2011 Census statistics, for both population and households. Calderdale, Craven and Wakefield's evidence is largely based on pre-2011 statistics.
- 9.9 With the exception of York, all districts have incorporated REM job forecasts in their evidence, albeit from different releases of the REM. The York analysis has used Oxford Economics forecasts in preference to the REM.
- 9.10 Where scenario analysis has been completed, each district has considered a mix of official projections, alternative trend forecasts and jobs-led growth outcomes.
- 9.11 Bradford, Leeds, Selby and York have considered both the 2008-based and 2011-based household growth assumptions in determining a housing growth target. Calderdale and Craven's latest evidence has considered only the (higher growth) 2008-based assumptions.
- 9.12 To evaluate jobs-growth scenarios within POPGROUP, the analysis for Bradford, Calderdale, Craven and Leeds has used economic activity rates and unemployment rates derived from the latest APS. Commuting statistics have either been taken from the 2001 Census or from the latest APS.
- 9.13 The analysis for Selby and York has used assumptions from similar sources in its consideration of the North Yorkshire SHMA evidence. The York analysis also incorporates data and assumptions from the Oxford Economics forecasts.
- 9.14 All districts have derived a housing growth target based upon the evidence available, albeit with slightly different plan periods.

## Recommendations

- 9.15 With the objective of a 'common approach' in mind and based upon the review evidence presented here, a number of recommendations are made. The review of the requirements in adopted Plans should be addressed as part of any wider Plan review undertaken by the authority. The timing of this will depend on the circumstances of each authority.
- 9.16 First, it would be useful to evaluate all growth scenarios using the POPGROUP forecasting model enabling a consistency of scenario output, comparability between areas and the basis for further sensitivity analysis based upon connectivity between areas.



9.17 Secondly, it would be appropriate to bring the analysis up-to-date using more recent data and assumptions. These include a number of items as follows:

- Assumptions from the 2011-based household model
- Vacancy rate from the 2011 Census
- Economic activity rates from the 2011 Census
- Commuting ratio from the 2011 Census
- Unemployment rates which reflect economic 'recovery'.

9.18 Thirdly, it would be appropriate to consider the implications of the new 2012-based ONS projection, published at the end of May 2014. This will provide an important new 'official' benchmark for scenario evaluation and will provide updated demographic assumptions on fertility, mortality and migration (both internal and international).

9.19 Fourthly, it would be appropriate to evaluate the latest jobs-growth forecasts from the REM within the POPGROUP framework and, where possible, to integrate complementary evidence from Oxford Economics' forecasts. Evaluation of jobs-growth forecasts should give particular attention to the choice of assumptions on economic activity and unemployment and on the commuting balance implied between LCR districts.

9.20 Finally, it will be necessary to evaluate the household growth implications of the 2012-based household model, due for release by the Department for Communities and Local Government (CLG) in autumn 2014.