An Analysis of West Oxfordshire’s future housing requirement (2011 – 2029)
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An Analysis of West Oxfordshire’s future housing requirement (2011 – 2029)

1. Purpose of this Study

1.1 The purpose of this study is to provide an independent analysis of future housing need in West Oxfordshire over the period of the draft Local Plan (2011 – 2029). It has been commissioned by the District Council in response to the Oxfordshire Strategic Housing Market Assessment (SHMA) published in April 2014.

1.2 This study forms part of the Local Plan evidence base alongside the SHMA and a range of other technical evidence.

2. Background

2.1 The Council published its draft Local Plan in November 2012 covering the period 2011 – 2029. The plan included a housing target of 5,500 homes (306 per year) which was based primarily on the South East Regional Plan (2009) extended on a pro-rata basis to 2029 and taking account of housing completions and existing commitments. The Local Plan consultation was supported by two housing evidence papers.

2.2 The proposed target of 5,500 homes attracted mixed reaction with some support and others calling for a lower or higher number. The main criticism received was that the target was not based on an up to date ‘objective assessment of need’ (OAN) as required by the Government’s National Planning Policy Framework (NPPF).

2.3 Following on from the consultation, the intention was to formally publish the new West Oxfordshire Local Plan in summer 2013. To help inform the final housing target, Keith Woodhead was commissioned in March 2013 to prepare an independent review of West Oxfordshire’s future housing requirement.

2.4 The report (attached at Appendix 1) was submitted to the Council in May 2013 but was not published due to the commissioning of the new Oxfordshire Strategic Housing Market Assessment (SHMA) in late May 2013 and the subsequent deferral of the Local Plan.

2.5 The May 2013 study reviewed a wide range of evidence including previous local housing need and Strategic Housing Market Assessments (SHMA), official ONS/ DCLG 2008, 2010 and 2011 based population and household projections, analyses of recent and projected

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1 West Oxfordshire: Three Demographic Projections using the first 2011 Census Results (John Hollis September 2012) and West Oxfordshire District Council Local Housing Target Paper (October 2012).
economic performance and employment growth, and recent independent demographic projection scenarios.³

2.6 Using a method that compared a number of different projection methods based of both “demand” and “supply” based factors, the study identified a housing requirement range 2011-29 of between 8,270 and 9,500 (459 – 528 dw p.a.) This range corresponded at the time to what was then the closest to an “Objectively Assessed Need” (OAN) that could be achieved on the basis of evidence then available as required by the NPPF and now by the NPPG.⁴

2.7 The final recommendation for the Plan was for a total of 8,700 homes (483 dw p.a.) This taking into account factors such as the most probable economic prospects at the time and other issues such as Environmental Assessment impacts identified as factors that justified some departure from the OAN, at least in the upper end of the range, as set out in the NPPF.⁵

2.8 As described above, in late May 2013, a consultant team led by GL Hearn began work on a new Strategic Housing Market Assessment (SHMA) commissioned jointly by all of the Oxfordshire local authorities. The final SHMA report was published in April 2014 and recommends that, in the period 2011 – 2031, West Oxfordshire District Council should be seeking to deliver 660 homes per annum (13,200 homes in total).

2.9 In January 2014, prior to the SHMA being published, the Council commissioned John Hollis to prepare an analysis of the Government’s 2011 interim household projections which form the starting point for assessing housing need within the SHMA. The primary purpose of the report⁶ (attached at Appendix 2) was to consider the extent to which relatively high past rates of housing delivery in West Oxfordshire have served to effect the Government’s official household projections which are trend-based.

2.10 This paper reviews the main recommendations of the May 2013 Woodhead report in the light of material that has more recently become available, including the Oxfordshire SHMA (April 2014), the John Hollis report (January 2014) and ONS 2012 based sub-national population projections released on 29th May 2014.

3. A Review of Future Housing Requirements for West Oxfordshire (Keith Woodhead May 2013)

3.1 The K Woodhead report (May 2013) is attached in full at Appendix 1. The key factors that the study was required to take into account included:

⁵ NPPF para 14 2nd bullet point.
⁶ West Oxfordshire Demographic Advice (January 2014)
• The Local Plan policy objectives for sustainable development and in particular ensuring the timely delivery of housing to meet forecast needs and achieve sustainable economic growth.\(^7\)
• The key priorities of the National Planning Policy Framework (NPPF) including that of boosting housing supply.
• The changing economic landscape as it started to recover from recession followed a long period of depressed growth, and
• The effect of these changes on household formation due to factors such as an ageing population, high levels of under-employment and more low waged, less secure work, high levels of personal debt and more constrained financial access to housing.

3.2 These factors are of course just as critical now as they were when the original housing requirement report was written. The Plan’s objectives of course remain the same as does the essence of Government planning policy, although now strengthened and clarified considerably by the publication of the NPPG. This leaves the evolving economic context to be taken into account and the issues relating to household formation.

3.3 The study identified two broad projection methods for identifying potential housing requirements.\(^8\)

• “Demand” driven projections. These are trend projections of demand/need, where future rates of provision are linked to a projection where the conditions affecting growth pressures in the relatively recent past are broadly assumed to continue into the future. The basis for this might be a projected household number or the need to provide for the estimates of market requirements and housing need emerging from a Strategic Housing Market Assessment.

• “Supply” driven projections typically based on local capacity driven estimates of growth. These may be “actual” capacity limits (however defined), for example the scale of land available for development, generally subject to policies that define availability, for example for environmental protection reasons. In other circumstances they can allow policy induced increases in growth rates above recent trend, for example measures taken to boost jobs and retain population in areas experiencing economic decline. Other valid constraints might be the capacity of the local economy to provide additional employment to meet a growing workforce, or well recognised limits on the ability of the construction industry locally to increase production beyond a certain point.

3.4 Factors determining which method should be used are influenced to a degree by the geographical scale of the area being planned. At the national or regional scale it is not possible for development planning policies to exert a great influence on the level of growth and trend growth projections of population growth and, therefore housing requirements, are generally the best solution. At the very local level such as an electoral ward, however, it is capacity in terms of developable land that almost entirely determines housing provision.

\(^7\) W Oxfordshire Draft Local Plan, Core Objectives CO3 and CO8.
\(^8\) K Woodhead (2013) opcit. para 3.16.
At intermediate levels such as that of an individual local authority a more multi dimensional approach using varying elements of both demand and supply approaches are appropriate and were therefore used in the 2013 study.9

3.5 The paper first examined the three projection scenarios set out by J Hollis in his paper that underpinned the housing proposals in the consultation draft Local Plan.10 This was followed by a comparison of the results of the 2008, 2010 and interim 2011 based ONS sub-national population projections and the 2008 and 2011 based DCLG household projections the latter being extended to 2029 by projecting forward the 2011 based household representative rates11 and applying them to the projected 2029 household population derived from a combination of the 2011 and 2010 based ONS figures.

3.6 The results are shown in Table 1 below and range from 4,200 (Hollis Scenario A) to 10,700 (DCLG 2008 based). It was noted that while the extended 2011 based projection with a dwelling growth requirement of 8,700 2011-29 (including allowance for vacant dwellings) is significantly less than the DCLG 2008 based figure, it is still considerably steeper than the 1991-2006 pre-recession trend and reflects in part the increase in the growth rate of the District’s household numbers from 2001 onwards.12

3.7 The 2013 paper concluded that the demand based projection evidence strongly suggested that the consultation draft Local Plan total of 5,500 dwellings was insufficient.

3.8 The study then turned to supply/ capacity based factors likely to influence the housing requirement. While the 5 year housing land supply was more than adequate at 1,780 dwellings (356 dw p.a.) to accommodate the consultation draft Plan proposal of a little over 300 dw p.a., it was clear that more capacity would need to be found to accommodate the considerably levels indicated by the ONS/ DCLG projections. The delivery / take-up capacity of the construction industry locally and the local housing market was seen to be well up to coping the higher numbers as evidenced by the high levels of completions during the 2001-11 period13 which at 582 dw p.a. considerably exceeded the SE Plan annual requirement of 365 p.a.

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9 Ibid. para 3.17.
10 Hollis (2012) op cit. The scenarios were:
   Scenario A: Natural change only population (i.e. no migration). This is used as an indication of underlying household formation demand amongst the local (i.e. non migrant) population.
   B: Stable labour force. The labour force is held at a constant level from 2016 onwards. Owing to the ageing of the area’s population age profile this would require some significant inward migration to hold the numbers steady.
   C: SE East Plan 2006-26 growth rates led.
11 I.e. the probability that any individual in the population with given age, sex and other characteristics will form a separate household (also known as the “household headship rate”.
13
Table 1: Comparison of recent population and household projections: K Woodhead (2013)

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2011</th>
<th>2016</th>
<th>2021</th>
<th>2026</th>
<th>2029</th>
<th>2031</th>
<th>Total household change 2011-21</th>
<th>Total dwellings 2011-21 at 5.2% Vacant/2nd homes</th>
<th>Total household change 2011-29</th>
<th>Total dwellings 2011-29 at 5.2% Vacant/2nd homes</th>
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<td><strong>Extended 2011 based (EH2011)</strong></td>
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<td>Total Hholds</td>
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3.9 In terms of affordability of housing as a constraint on construction, the study noted that West Oxfordshire was typically close to the county average. In fact, bearing in mind that much of it is covered by the Cotswolds AONB, affordability levels are considerably better than in neighbouring Cotswold District which also suffers from lower average wages than West Oxfordshire. Poor affordability (measured by the ratio of lowest quartile prices to lowest quartile earnings) is undoubtedly an issue but one that is shared with much of the South East and neighbouring parts of the South West. Achieving a relative reduction in house prices and rents in West Oxfordshire without changes elsewhere in the sub region would have little impact on local prices.

3.10 A further, and potentially very significant, supply-side driver of housing and population change is that of employment growth. The impact of the 2008/09 recession and the ensuing period of very weak recovery was noted in the 2013 housing requirement document, it only being later in 2013 that it was clear that a more vigorous climb out of recession had fully established itself. At the time of writing in May 2013, unemployment locally remained high in local historic terms although it was still fairly low relative to the national level and total jobs were only just beginning to grow again. The latest economic forecasts available from Cambridge Econometrics had been last revised in February 2013 and showed only modest levels of projected employment growth with significant employment falls in the large local public sector up to 2016 outweighing weak private sector jobs growth. Even after 2016, overall growth was projected at just 4,000 up to 2031.

3.11 Since that time, the general economic mood nationally has lightened considerably, though the extent to which this is about political optimism rather than secure growth is debateable. The significance of these projections and more recent development to estimating a realistic housing requirement (OAN) for West Oxfordshire will be revisited later in this report, particularly bearing in mind more recent economic projections set out in the 2014 SHMA.

3.12 The 2013 paper describes the method used to arrive at the housing requirement through the use of an approach it calls “bracketing the target”. This is essentially a triangulation method that looks at the different lines of evidence suggested by the migration driven population growth trend demand-side factors and economic growth driven supply-side factors discussed above. The different lines of evidence are compared and areas of overlap between the different projection models used are identified, taking into account the messages provided by indicators of economic activity, housing production capacity and affordability.

3.13 This is a powerful approach that intrinsically generates a range of potential scenarios based on contrasting methods. These are then subjected to scrutiny using a number of sources of related evidence such as long term demographic growth trends, recent house building capacity, housing costs, emerging trends in economic growth, activity rates, working hours, wages and unemployment and so on. Finally a check is made against economic/jobs growth driven projections. These show the housing requirements from migration driven growth necessary to meet the forecast labour requirements of local

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employers while taking full account of the impacts of an ageing labour supply. Factors taken into consideration include currently under-used capacity in the labour supply, changes in economic activity amongst older workers due to a higher state pension age, long term decline in the value of pension savings, likely demand for housing from local people (active and inactive, and migrants who are inactive or working outside West Oxfordshire, and also the likely take up of jobs in the District by inward commuters.

3.14 The strength of the methodology lies in its critical, evidence based approach which is not reliant on a single modelling methodology. Instead it compares the outcomes of different datasets, forecasting sources and models and tests them against the evidence in order to arrive at the most robust housing requirement. Using this approach, “supply”/ capacity based projections of the housing requirement using two alternative employment growth scenarios were derived based on the February 2013 update CamEcon forecasts. The lower scenario used the unmodified forecasts for the 2011-29 Plan period giving a net growth of 2,200 jobs. The higher scenario assumed that the forecast net decline in total jobs across the area during 2011-16 attributed to public sector employment cuts would be neutralised by higher private sector growth. This would then result in overall increase 2011-29 of 3,400 jobs, equivalent to 4,000 for 2011-31.

3.15 A number of additional factors were then allowed for in the calculation of a required migration driven increase in the local workforce to compensate for projected rates of population ageing and the forecast growth in total jobs. These included inward and outward commuting patterns, a reduction of unemployment to 3%, the number of people holding more than one job (“double jobbing”), increased state retirement age and changing economic activity amongst older workers, the presence of multiple earners in working age households, dwelling vacancy rates and the projected rate of net additional household formation among the 2011 base population. From this, a net additional housing demand 2011-29 was calculated. This resulted in the total housing requirement range of 8,270 and 9,500 (459 – 528 dw p.a.) described in para. 2.7 above.

3.16 This result was then compared with the “demand”/ trend projection results shown in Table 1 and the results of the SA report. To sum up, the analysis identified three well justified alternative levels of housing growth:

1) Lower Range Employment Growth based: 8,270 dwellings 2011-29 (459 dw p.a.) This option was felt to be more likely to satisfy the case put forward in the Sustainability Assessment as having slightly lower SA impacts than the other options while still answering Government priorities set out in the NPPF/NPPG to boost significantly housing.

2) Upper Range Employment Growth based: 9,500 dwellings 2011-29 (528 dw p.a.) Compared with the above, this goes further in raising housing output and, being based on the latest DCLG household projections, was at the time arguably met NPPF requirements more closely. It also provided more flexibility in meeting any higher than then expected

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15 Woodhead (2013B) Section 3.
16 Ibid, paras 5.3-5.12.
17 Ibid. paras 6.4-6.7.
rates of employment growth in the area to 2029. SA impacts were likely to be marginally more adverse however.

3) **Extended 2011 Household Projection based: 8,700 dwellings 2011-29 (483 dw p.a.)** This provided what was felt to be a generous response to the rather modest February 2013 CamEcon employment growth forecast to 2029. The NPPF/NPPG requirement for boosting housing supply is met but SA results raised questions as to the physical and environmental capacity to continue to absorb such high levels for the next twenty years. Given the modest levels of additional employment growth currently forecast, it was feared at the time that a rapid rise in outward commuting would result, placing further pressures on infrastructure and placing parts of the area’s current high environmental quality at risk. While there is little risk that the market would not be able to support housing production at this level at least in the medium term (recent house building performance during the period since the recession demonstrates this) there was felt to be a real danger that the area would become further skewed towards “dormitory” housing with little in the way of connection to local employment.  

3.17 These figures are significantly higher than the South East Plan based figure used in the draft Plan (2012) and also the stable workforce based scenario in the 2012 J Hollis report. It was noted that indications from the Planning Inspectorate were that, under the principle of “localism”, plans would be tested against the needs arising in each plan area in their own right and that previous policy positions, such as those based on former Regional Strategies, are no longer regarded as material. Greatly increased Government pressure further to increase the rate of house building nationally, strongly suggested that an uplift in the housing target towards the levels of output that was achieved, if exceptionally, in the District in the recent past (para 2.8) would be advisable if the Plan were to be found sound at Examination.

3.18 In the light of this evidence, it was recommended that the Extended 2011 Household Projection based figure of 8,700 dwellings (483 dw p.a.) be adopted as the preferred option in future revisions of the Draft Plan. It was argued that this would send a signal that the Council was taking seriously the concern in the NPPF to meet local needs and boost supply while, with necessary policy safeguards regarding environmental protection and infrastructure support, providing sufficient flexibility to respond to a higher than expected employment growth.

### 4. West Oxfordshire Demographic Advice (John Hollis January 2014)  

4.1 In January 2014 John Hollis was appointed to prepare an analysis of the Government’s 2011 interim household projections. The report is attached at Appendix 2. Hollis notes evidence from the 2001-11 ONS mid year estimates series that suggests that the allowance for international migration gains in the 2011 ONS projections might be too low (possibly 800 as opposed to 150 over the ten years from 2011). In addition, Alan Holmans’ recent work

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18 Ibid. paras 5.13-5.16.
19 J Hollis (2014) *West Oxfordshire demographic advice* Version 2 (16/01/14.)
on future national housing demand\(^{20}\) has argued that, in their 2011 based projections, DCLG had chosen to continue the lower household representative rates (HRRs) that had become apparent since the recession. This has particularly affected younger males and reflects issues, for many people, stemming from declining real incomes, greater job insecurity, greater barriers to accessing credit in spite of record low interest rates and, more recently, a return to rapid house price inflation. Holmans concludes that the recession effect will diminish over time and that, with the possible exception of many overseas migrants who tend towards lower rates of household formation, the rate of improvement in HRRs will again approach pre-recession levels.\(^{21}\) After 2022 Holmans assumes that the resulting annual growth in households nationally will be at a rate just a little lower than that of the DCLG 2008 projections.\(^{22}\)

4.2 Hollis concludes, however, that the principal inputs to the 2011 projections for West Oxfordshire are generally robust, particularly as the basis for the migration assumptions benefited from the close match between the District’s series of ONS mid year population estimates from 2001 onwards and the results of the 2011 Census. The fact that this has not been borne out by the recent ONS 2012 based subnational population projections (SNPP) projected migration figures is addressed later in this report.\(^{23}\) His main concern is about the HRRs used in the projections. These are expected to be addressed in the replacement 2012 based sub-national household projections due later in 2014.

4.3 Looking at the issue of sensitivity testing, Hollis observes that while future changes in fertility levels will have very little bearing on household numbers by 2031, expected variation in survival rates for the age category where variation is likely to have significant impact - those aged 75 and over – results in a potential difference of plus or minus 500 households compared with the central projection. This represents about 1% of West Oxfordshire’s total households.

4.4 Migration is a much more variable element of the projections. While Hollis recognises that the ONS 2012 SNPP would be using migration estimates from the immediately preceding five year period from 2007-12 (i.e. 645 net migrants p.a.), he observes that the range for different time periods between 2001 and 2012 could be from 645 (5 years 2007-12) to 783 (6 years 2005-11). Average numbers of new homes built vary from 405 (5 years 2008-13) to 725 (5 years 2003-08) with an overall average between 2002 and 2013 of 554 homes per year while between 1991 and 2011 the average annual level of new homes was only 470.\(^{24}\) Hollis estimates that, of these, around 100 homes a year are required to house additional net demand from the local population (i.e. what he calls the “constant


\(^{21}\) Albeit from a lower household base compared with DCLG 2008 based and earlier projections.

\(^{22}\) Hollis (2014) op cit. p7.

\(^{23}\) The more recent ONS 2012 based subnational population projections (SNPP), released in May 2014, project migration figures which average some 80 persons p.a. lower than the 2011 based SNPP for the period 2012-2021 inclusive (i.e. 800 over the ten years). It is important to note of course that the 2012 based SNPP still uses migration data from the preceding 5 years (2007-12) which still includes the period of unusually high migration stimulated by the “above Plan” building rate in the District. This data is discussed in more detail in Section 7 below.

\(^{24}\) Ibid p6.
population”). The DCLG 2011 household projections show an additional 528 households a year for the 2011-21 period which, as Hollis points out, is considerably in excess of the average number of homes delivered over the period 2008/09 – 2012/13. However, taking the 2007 – 12 period that will be used for migration inputs to the 2012 based projections, the District added an annual average of 522 homes or 2,610 over the five years. ONS estimates of net migration over that period averaged 645 persons annually or 534 when Armed forces and similar movements are excluded.\textsuperscript{25}

4.5 Hollis concludes with a projection based on the assumption of 645 average net migrants p.a. similar to that which will underpin the 2012 household projections, together with three alternative projections using new build averages for different time periods in the recent past. The projection growth assumptions and the resulting growth in households, including local base population demand, is shown in Table 2.

Table 2  Alternative household projections for West Oxfordshire  
(J Hollis 2014)

<table>
<thead>
<tr>
<th>Projection</th>
<th>Increase in households 2011-31 (households p.a.)</th>
<th>Pro rata increase in households 2011-29</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Average ONS annual estimated net migration and other changes of 645 (2007-12)</td>
<td>11,000 (550)*</td>
<td>9,900</td>
</tr>
<tr>
<td>2. Average annual net new build of 405 (2008-13)</td>
<td>8,200 (410)</td>
<td>7,380</td>
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<tr>
<td>3. Average annual net new build of 470 (1991-2011)</td>
<td>9,300 (465)</td>
<td>8,370</td>
</tr>
<tr>
<td>4. Average annual net new build of 522 (2007-12)</td>
<td>10,200 (510)</td>
<td>9,180</td>
</tr>
</tbody>
</table>

* equivalent to 578 new build dwellings p.a. including 2011 Census vacancy rate of 5.17%.

Comment

4.6 The new build requirement from Hollis Projection 1 (2007-12 average net migration based) is 9,900 households (Table 2). This is equivalent to 10,412 homes (578 dw p.a.) once dwelling stock vacancies have been allowed for at the 2011 Census rate of 5.17%. This is higher than the Woodhead (2013) report upper range employment led figure of 9,500 (528 dw p.a.) and significantly more than the 8,700 (483 dw p.a.) recommended as the requirement in that report.

4.7 What must be borne in mind, however, is that the Hollis Projection 1 is based on a period of atypically high migration boosted by the very high migration year of 2007 when a figure of 1,320 was recorded for internal UK migrants alone. This compared with an average

\textsuperscript{25}Ibid pp9-10. In addition, this should be compared with the appreciably higher average rate of 582 homes completed annually over 2001/02 – 2010/11 (Woodhead 2013, p30).
of just 638 p.a. for the preceding five year period from 2002-2006 inclusive. It is notable that this coincided with a period associated with historically very high build rates in the District that considerably exceeded plan expectations. Table 2 shows that Projection 4 is the closest equivalent to the Woodhead (2013) upper employment growth range projection and Projection 3 closer to (though still lower than) the Woodhead (2013) recommended figure of 528 dw p.a.

4.8 The ‘over-delivery’ against West Oxfordshire’s SE Plan target of 365 dw p.a. (1,825 total over five years) for the period 2006/07 to 2010/11 amounted to 1,398 homes. One of the key “market signals” relating to the balance between the demand for and supply of dwellings set out in the NPPG concerns the rate of actual completions compared with the rate identified in an adopted plan:

“Supply indicators may include the flow of new permissions expressed as a number of units per year relative to the planned number and the flow of actual completions per year relative to the planned number. A meaningful period should be used to measure supply. If the historic rate of development shows that actual supply falls below planned supply, future supply should be increased to reflect the likelihood of under-delivery of a plan.”

4.9 The Guidance goes on to point out that the appropriate response to such shortfall, as well as other adverse market signals, is an “upward adjustment” to the rate of delivery. Logically this would imply that an over delivery of 1,398 dwellings in one period would merit a corresponding reduction in the following plan period. Over a period of 18 years reflecting the draft Local Plan period of 2011-29 this would reduce the Hollis Projection 1 requirement from 10,412 homes (578 dw p.a.) to 9,014 (501 dw p.a.) The implications of this and the extent to which this oversupply may have influenced recent ONS population projections by temporarily inflating the migration rate will be discussed later in this report.

4.10 Finally, it is important to remember that the Hollis Projection 4 of the 2007-12 migration figures (in line with the 2012 based SNPP) still results in the use of data from a period of unusually high net migration gains. The fact that this coincides closely with the results of the Woodhead (2013) upper employment growth range projection suggests that the latter can be regarded as quite an optimistic scenario when compared with past growth experience in West Oxfordshire.

5. The 2014 Strategic Housing Market Assessment for Oxfordshire

5.1 This substantial piece of work was published in April 2014 and is the most comprehensive and up-to-date review of the housing market and of housing needs in Oxfordshire currently available. It is intended to meet the NPPF/NPPG requirement for

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26 ONS NHSCR data.
27 Completion rates around that time were 2003/04= 562 dw, 2004/05=629 dw, 2005/06=728 dw, 2006/07=810 dw, 2007/08=865 dw., compared with an average SE Plan completion rate of 365 p.a. from 2006 onwards.
arriving at the “objectively assessed need” for housing across the Oxfordshire Housing Market Area (HMA).

5.2 The SHMA reviews a very wide range of evidence covering key “market signals” from housing delivery and land prices to affordability, tenure trends and overcrowding. Amongst the drivers of housing demand examined are population dynamics including the impact of ageing, labour force change and migration as well as economic trends and future prospects, activity rates and travel to work. Along with this, a number of economic growth scenarios using Cambridge Econometrics’ Local Economy Forecasting Model (LEFM) were developed in three stages:

1. **Baseline Scenario**, assuming that historical trends in relative growth in Oxfordshire compared with the wider South East (or UK) economy (on an industry-by-industry basis) seen over the past 15 years or so continue into the future. This is derived directly from the econometric model (LEFM) and assumes that historical relationships between growth in the local area relative to the South East or UK on an industry-by-industry basis hold true into the future. This scenario is projected to result in an increase of 36,400 jobs across Oxfordshire between 2011-31, around 1,800 per annum (0.4 - 0.5% pa growth in employment).

2. **Alternative Demography Scenario**, in which the baseline population projections (ONS 2011-based SNPP) for Oxfordshire were replaced with Updated Projections SNPP (PROJ 2), in particular to recognise anomalies associated with recording of changes in the student population in Oxford.

3. **Committed Economic Growth Scenario**, which reflects policy influences on economic growth such as planned development and initiatives related to the Science Vale Enterprise Zone, Oxfordshire City Deal, North West Bicester Eco Town and other planned infrastructure investment. This ambitious scenario posits growth of 80,000 jobs over the 2011-31 period (equivalent to growth in employment of 4,000 pa). This is seen to be a very demanding target particularly given current economic circumstances, but is not out of line with growth rates across the county between 1981 and 2000.

5.3 The economic scenarios were then used in developing a set of four population projection scenarios. These are set out in Table 3.

5.4 Migration assumptions of course are a critical element of any projection and it is worth noting that the SHMA uses net in-migration figures across Oxfordshire that increase significantly over time over the planning period, rising from a county total of 1,870 in 2011 to 2,920 in 2031, a growth of 56%. The SHMA justifies this on the grounds that outward migration rates per person will tend to reduce as the population ages and people become less mobile and inward migration will rise as the general population of migrant’s origin areas increases. This is something of an oversimplification as net migration is simply the residual effect of the difference between much larger gross flows into and out of an area. Most of the gross movements in both directions are comprised of younger adults and the consequential net of this can be very finely balanced and difficult to predict. A general

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31 Ibid, p84.
increase in net migration at district level is very much dependent on the rate of local housing development and the general state of the wider sub-regional and national housing markets.

Table 3  SHMA projection scenarios: key characteristics (source GL Hearn 2014 p76)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Description</th>
<th>Comments on Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJ 1</td>
<td>SNPP</td>
<td>This projection uses the latest ONS and CLG population/household projections and extends the projection period from 2021 through to 2031. This can be considered as the start point for considering housing need, in line with the Guidance.</td>
</tr>
<tr>
<td>PROJ 2</td>
<td>SNPP (updated)</td>
<td>This projection uses the baseline information in PROJ 1 but updates key demographic trend data (around migration) to take account of new ONS Mid-Year Population Estimates. In Oxford this projection looks at actual population change in the 2001-11 period and develops a bespoke model (recognising that the ONS migration estimates for Oxford look to be substantially inaccurate).</td>
</tr>
<tr>
<td>PROJ 3</td>
<td>Economic baseline</td>
<td>This projection takes a baseline forecast for future employment growth, based on the Alternative Population Scenario developed by Cambridge Econometrics and SQW. It estimates the likely population and household growth required to meet the potential labour demand. The projection includes assumptions around commuting patterns – assuming these to remain at a constant level (as indicated in the 2001 Census).</td>
</tr>
<tr>
<td>PROJ 4</td>
<td>Committed economic growth</td>
<td>This projection is based on the Committed Economic Growth Scenario for employment growth developed by Cambridge Econometrics and SQW. This reflects policy influences which provide potential to support higher economic growth than indicated in the baseline forecasts. It considers the level of housing need which might be necessary to support this level of employment growth.</td>
</tr>
</tbody>
</table>

5.5 More seriously for West Oxfordshire, however, is the fact that the high projected levels of in-migration (see Sections 6 and 7 below) that form the basis of the SHMA projections result directly from the inclusion of abnormally high migration levels for the area associated with the period in the past decade when house building very greatly exceeded planned targets. This is a major issue and whilst acknowledged in the SHMA, ideally would have been addressed in a manner similar to that used by John Hollis in developing his alternative population projection.

5.6 The results for these projections are shown in Tables 4, 5 and 6. Tables 4 and 5 are directly from the SHMA and Table 6 converts the totals in Table 4 to the draft Plan period (2011 – 2029).
Table 4  West Oxfordshire SHMA Projections, total change 2011 to 2031

<table>
<thead>
<tr>
<th>Projection</th>
<th>Population growth</th>
<th>Housing numbers</th>
<th>Employment growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Change %</td>
<td>Total</td>
</tr>
<tr>
<td>PROJ 1 – SNPP</td>
<td>20,396</td>
<td>19.3%</td>
<td>10,246</td>
</tr>
<tr>
<td>PROJ 2 – SNPP (updated)</td>
<td>18,432</td>
<td>17.5%</td>
<td>10,815</td>
</tr>
<tr>
<td>PROJ 3 – Economic baseline</td>
<td>21,074</td>
<td>20.0%</td>
<td>11,794</td>
</tr>
<tr>
<td>PROJ 4 – Committed economic growth</td>
<td>24,909</td>
<td>23.6%</td>
<td>13,213</td>
</tr>
</tbody>
</table>

Source: GL Hearn (2014) p 101

Table 5  West Oxfordshire SHMA Projections, annual change 2011 to 2031

<table>
<thead>
<tr>
<th>Projection</th>
<th>Population growth</th>
<th>Housing numbers</th>
<th>Employment growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per annum</td>
<td>Change %</td>
<td>Per annum</td>
</tr>
<tr>
<td>PROJ 1 – SNPP</td>
<td>1,020</td>
<td>1.0%</td>
<td>512</td>
</tr>
<tr>
<td>PROJ 2 – SNPP (updated)</td>
<td>922</td>
<td>0.9%</td>
<td>541</td>
</tr>
<tr>
<td>PROJ 3 – Economic baseline</td>
<td>1,054</td>
<td>1.0%</td>
<td>590</td>
</tr>
<tr>
<td>PROJ 4 – Committed economic growth</td>
<td>1,245</td>
<td>1.2%</td>
<td>661</td>
</tr>
</tbody>
</table>

Source: GL Hearn (2014) p 101

Table 6  West Oxfordshire SHMA Projections, consultation draft Local Plan pro rata total change 2011 to 2029

<table>
<thead>
<tr>
<th>Projection</th>
<th>Population growth</th>
<th>Housing numbers</th>
<th>Employment growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Change %</td>
<td>Total</td>
</tr>
<tr>
<td>PROJ 1 – SNPP</td>
<td>18,356</td>
<td>17%</td>
<td>9,221</td>
</tr>
<tr>
<td>PROJ 2 – SNPP (updated)</td>
<td>16,589</td>
<td>16%</td>
<td>9,734</td>
</tr>
<tr>
<td>PROJ 3 – Economic baseline</td>
<td>18,967</td>
<td>18%</td>
<td>10,615</td>
</tr>
<tr>
<td>PROJ 4 – Committed economic growth</td>
<td>22,418</td>
<td>21%</td>
<td>11,892</td>
</tr>
</tbody>
</table>

Source: GL Hearn (2014) p 101 (modified)

5.7 Details of the Cambridge Econometrics (CE) LEFM forecasts used by the SHMA are derived from the CE summer 2013 update. This is set out in a separate report by Cambridge Econometrics and SQW Ltd. The figures show a very marked change from the CE set used.

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in the Woodhead (2013) report which, although updated in February 2013 were ultimately derived from the summer 2012 forecasting base. During that time, as described in paras 2.10 and 2.11 above, the UK economy had started to show signs of an unexpectedly rapid recovery after a number of years of near zero growth.

5.8 The results for the economic baseline projections shown in Table 6 indicate that the later employment forecast to 2029 had risen to 6,450 compared with the range of 2,200 to 3,400 used in Woodhead (2013). This sudden improvement in the space of just one year points to a number of issues about the use of economic forecasts as a starting point for housing requirement projections and some of these will be discussed later in this report.

5.9 However, it is significant that even at the more recent higher figures, the economic baseline scenario housing figure at 10,615 (590 dw p.a.) (Table 5) is only some 1,100 dwellings higher than the Woodhead (2013) Upper Range figure of 9,500 (528 dw p.a.) It is however, 1,900 dwellings higher than the Woodhead (2013) demographic trend based Recommended Requirement of 8,700.

5.10 The 2011 ONS/DCLG SNPP demographic projection based figures used in the SHMA demonstrate a lower range for the house building requirement from 9,221 (512 dw p.a.) in PROJ 1 to 9,734 (541 dw p.a.) in PROJ 2. These imply slightly lower job growth figures of 6,090 and 5,160 respectively, still substantially higher than the CE LEFM based range in Woodhead (2013). The housing growth number for PROJ 2 (9,734) compares well to the Upper Range Woodhead figure (9,500). PROJ 1 is midway between the Upper Range (9,500) and the Woodhead 2013 Recommended Requirement (8,700).

5.11 The SHMA Committed Economic Growth projection (PROJ 4) understandably results in both a higher job growth figure to 2029 (8,355) and a correspondingly high housing requirement (11,892 total and 661 dw p.a.)

5.12 The SHMA goes on to analyse in detail data relating to the need for affordable housing within each Oxfordshire District. Taking into account income levels, household formation rates, the existing backlog of need, turnover of tenancies in the existing affordable housing stock etc, the SHMA arrives at a net annual requirement of 274 affordable homes per annum. On the assumption that these can be provided at the rate of 40% of all completions, this results in an annual total building requirement of 685 dwellings.

5.13 The SHMA concludes with a recommended housing requirement (Table 7 below) arrived at through a synthesis of the evidence on housing need then drawing conclusions using the following steps in line with the NPPG. Quoting from the SHMA, the process used is as follows:

1. The starting point is the assessment of housing need based on demographic trends, including where applicable provision for addressing the past shortfall in housing delivery against the South East Plan between 2006-11 (Column A).

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33 Ibid, pp180 et seq.
2. Consideration is given to whether there is a need to adjust upwards the level of housing provision in order to support Committed Economic Growth. This is undertaken by comparing Columns A and B;

3. The results of this are then compared against the indicative modelling of the level of housing provision which might be required to meet affordable housing need in full (Column C); as well as the wider evidence of market signals. This is used to assess whether a further adjustment to the assessed housing need is necessary.

Table 7 SHMA conclusions on overall housing need

<table>
<thead>
<tr>
<th>Housing Needed per Year (2011-31)</th>
<th>A. Demographic Base + Shortfall</th>
<th>B. To Support Committed Economic Growth</th>
<th>C. To Meet Affordable Housing Need in Full</th>
<th>D. Range: Housing Need per Year</th>
<th>E. Midpoint of Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherwell</td>
<td>682</td>
<td>1142</td>
<td>1233</td>
<td>1090-1190</td>
<td>1140</td>
</tr>
<tr>
<td>Oxford</td>
<td>782</td>
<td>700</td>
<td>2058</td>
<td>1200 - 1600</td>
<td>1400</td>
</tr>
<tr>
<td>South Oxfordshire</td>
<td>552</td>
<td>749</td>
<td>965</td>
<td>725-825</td>
<td>775</td>
</tr>
<tr>
<td>Vale of White Horse</td>
<td>508</td>
<td>1028</td>
<td>683</td>
<td>1028</td>
<td>1028</td>
</tr>
<tr>
<td><strong>West Oxfordshire</strong></td>
<td><strong>541</strong></td>
<td><strong>661</strong></td>
<td><strong>685</strong></td>
<td><strong>635-685</strong></td>
<td><strong>660</strong></td>
</tr>
<tr>
<td>Oxfordshire Total</td>
<td>3064</td>
<td>4280</td>
<td>5624</td>
<td>4678 - 5328</td>
<td>5003</td>
</tr>
</tbody>
</table>

Source: GL Hearn (2014), p181 Table 90.

5.14 The full Objective Assessment of Need (OAN) is taken by the SHMA to be based on a range that combines elements of the demographic base projections (PROJ 2) and recent housing supply shortfall (W Oxfordshire is counted as zero because of past oversupply), plus the results of PROJ 4, the Committed Economic Growth scenario and the level of development assessed as necessary to meet affordable housing need in full. Column E of Table 7 sets out the midpoint of the resulting range, giving a total annual requirement for West Oxfordshire of 660 dw p.a. (11,880 in total 2011-29).

Comment

5.15 In assessing these recommendations, there are a number of issues that need to be considered. These are:

1) The deliverability of the recommended OAN total of 660 dw p.a.

2) The impact of past housing oversupply in West Oxfordshire.

3) The problem of projections using recent short term net migration trends when in the case of West Oxfordshire, these have been boosted by a short term increase in numbers related to the housing oversupply (a point acknowledged in the SHMA).

4) The problem of delivering the affordable housing component of the OAN.

5) The advisability of using employment led projections to identify housing requirements.
5.16 These issues are explored in more detail below.

5.17 The deliverability of the recommended OAN total of 660 dw p.a. Although building at this rate is not unprecedented in West Oxfordshire, 660 dw p.a. has only been reached or exceeded in three years (2005/06 – 2007/08) since 1991. Given this and the high risk nature of the Committed Economic Growth scenario, it is questionable as to how sustainable such an average building rate would be over 18 to 20 years. The long-term average build rate in West Oxfordshire between 1991 and 2011 was 474 homes per annum and is considered to provide a reasonable benchmark of likely deliverability over several periods of growth and recession.

5.18 The impact of past housing oversupply in West Oxfordshire. The SHMA OAN totals for other Districts in Oxfordshire include an additional allowance for past delivery shortfall. West Oxfordshire’s oversupply of 1,398 dwellings above the South East Plan requirement at the time is not taken into account. Making allowance for an oversupply is specifically addressed in the NPPG. Subtracting this past oversupply (1,398) would reduce the building requirement by 78 units per annum, bringing the SHMA OAN figure down from 660 per annum to 582 dw p.a.

5.19 The issue of West Oxfordshire’s past oversupply of housing is acknowledged in the SHMA which states that:

“The District Council may wish to further consider this issue in line of the Planning Practice Guidance which highlights the need to consider previous over-supply and provides some scope for adjustments to projections to take account of this. Strong past housing provision is likely to have influenced both the demographic projections and the economic forecasts, to some degree, as these take account of population trends in projecting employment growth in sectors where the population base influences demand” (GL Hearn 2014, para 9.62, p183).

5.20 Notably, some support for this point of view has recently been given by the Inspector at the Examination of the Reigate and Banstead Core Strategy Local Plan who, in looking at the effect of a short term increase in migration gains due to the areas New Growth Points status, observes that:

“Population and household projections are trend-based – they indicate the growth that would occur if recent trends (generally over the past five years) continue over the period of the projection. Consequently they take no account of policy interventions or other individual factors which affect growth rates in particular areas at particular times. This has profound significance for Reigate & Banstead because of its participation in the government’s New Growth Points (NGP) initiative. This required the Council to “front-load” its delivery of the level of housing proposed in the SEP and led to a high number of dwelling completions in the years 2006-2010. Not

35 See NPPG Paragraph 037 Reference ID: 3-037-20140306
surprisingly, this led to a significant increase in migration into the borough over the same period: the evidence demonstrates a markedly higher increase in both overall population and in-migration over this period compared with Surrey authorities and the wider South East.

“Although the effects of the recession have dampened housing delivery in the last couple of years, any slow-down in growth has not yet been fully reflected in the demographic projections. Consequently the latest population and household projections assume that the high growth trend of the previous five years will continue into the future. For example, the 2011-based projections show a population growth of about 16% in the period 2010 to 2021 for Reigate & Banstead, compared with a growth by 2028 of under 13% for the South East and under 15% for Surrey. Clearly the recent projections do not take into account that, under the NGP initiative, growth in Reigate & Banstead was expected to tail off in the latter part of the plan period. Their value as reliable indicators of future growth is therefore limited.”

5.21 This would strongly support the view that even the Interim 2011 based population projection, and accordingly the household projection, is abnormally high due to its inclusion of very high migration gains associated with high levels of house building in West Oxfordshire in the period that feeds into the projections (see above para 4.7). So, given that the District over-supplied new housing against both the Statutory Development Plan figure of 365 dw p.a. 2006-11 and the Household Projections that informed the South East Plan (400 per year), it would seem reasonable to make an adjustment to the ONS migration figures. This issue is addressed in more detail in Section 6 below.

5.22 The problem of projections using recent short term net migration trends when these have been boosted by a short term increase in numbers related to the housing oversupply. The relationship between house building and migration levels is not straightforward owing to factors such as time lags in the system, for example dwellings recoded as newly built are not always occupied immediately, and the presence of non private household movers (including temporary moves to hotel or other communal establishments before a move into the regular housing stock). However, as was accepted in the Reigate and Banstead core strategy examination referred to above, it is not unreasonable to conclude that high rates of house building will increase rates of in-migration as people move into an area to occupy the new homes being built. Furthermore, with care, reasonably accurate forecasts of migration can be made from housing completions data.

5.23 This issue is explored in more detail in Section 6 below and the overall conclusion reached is that the high building rate in West Oxfordshire during the years preceding 2011 did indeed strongly affect the Interim 2011 based SNPP and household projections’ migration assumptions.

5.24 The problem of delivering the affordable housing component of the OAN. Under the Government policy of “Planning for growth”, many developers across England are now

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37 Minister for Decentralisation Written Ministerial Statement “Planning for Growth” 23/3/2011. This has now been codified by the Growth and Infrastructure Act 2013, Section 7 (5)(a).
successfully appealing against “unaffordable” S106 requirements and this commonly involves sharp reductions in affordable housing provision. In addition, since 2010 Government affordable housing grant has been cut by over 60% as part of the austerity measures announced in the Chancellor’s emergency budget of May 2010 so whatever slight opportunities existed to build some fully grant funded housing have now virtually disappeared. Also, small private development sites of under 10 or so dwellings rarely provide affordable housing. As a result, across England as a whole, only 20.5% of all housing completions in 2013 were by housing associations and local authorities.

5.25 At a rate of 20% of completions being affordable, applying the SHMA approach would therefore necessitate doubling the annual building requirement to 1,370. Even if this were to have no unwanted environmental and infrastructure side effects, it is not at all clear that such a total would be deliverable in housing market terms. The need for more affordable homes as part of the housing requirement is clearly understood, but delivery of large numbers through S106 clearly is not working. Unfortunately no change in Government policy to increase direct expenditure on affordable housing is in sight and much affordable housing is instead provided de facto though a combination of the benefits system and the often less than stable private rental market.

5.26 The advisability of using employment led projections to identify housing requirements. The CE/SQW report on the economic projections underlying the SHMA stated that there were a number of risks related to the achievement of the Committed Economic Growth scenario. These “include market conditions, labour market competition from neighbouring areas, delays in the delivery of strategic infrastructure, access to housing and the capacity of existing employment sites (including those allocated, or proposed to be allocated, in local plans) to accommodate this scale of growth.” 38 This is noted in the SHMA 39 but the fact that similar caveats also apply to the baseline economic forecasts passed unremarked.

5.27 The time difference between the LEFM forecasts used in the Woodhead (2013) report and those of the SHMA is well under a year yet the difference in job growth between the two is very considerable (para 5.8 above). Economic forecasting, particularly of employment, beyond a few months ahead is notoriously hazardous and is even more difficult than demographic factors including as migration, which even at the local level does at least follow a fairly predictable pattern over a broad period of time (see Section 6 below).

5.28 The SHMA recognises the problem of accurately forecasting migration as a limiting factor in the SNPP demographic trend projections 40 without commenting on the even more volatile nature of the employment led projections. This is particularly ironic as it is usually the influence of economic factors on the jobs and housing markets that causes much of the fluctuations in the migration figures. The Woodhead (2013) report shows very clearly just how variable economic forecasts can be over the space of just two or three years. 41

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40 Ibid., para 5.5 p75.
5.29 In addition to the issue of the unreliability of economic forecasts as a basis for planning future housing requirements, there are also important methodological reasons why employment led projections need to be treated with a great deal of caution. It is understood that the modelling used in the SHMA to convert forecast number of jobs into homes is a bespoke model prepared by the consultant but shares a number of characteristics with industry standard models such as PopGroup or the ‘Chelmer’ model. These models are well established and have been well tested over many years. The problem however lies with the way that PopGroup and similar models are commonly used in “jobs led” projection mode. This approach tends to overestimate the total migration and housing consequences of an expanding economy.

5.30 A commonly made but mistaken assumption in using jobs led models (JLMs) is that there is no interaction between the availability of jobs in the economy and the make-up of the in-coming migrant stream. Instead, the housing stock of the area is treated in effect as a simple reservoir which, once existing residents less out-migrants are accounted for, then fills up with migrants of a given profile in terms of age/sex etc. This does not accurately represent the actual processes involved and the following diagram from the Woodhead (2013) report demonstrates something of the complexity of the real world. This is reproduced below (Fig 1).

5.31 For modern highly mobile and lifestyle conscious populations in much of Western society, there is at best only a fairly weak connection between migration and employment growth. For example a national study published in 2003 found that 31% of moves between regions in Britain were for job related reasons.\(^42\) Bearing in mind the popularity of the western and north western parts of the area for retired and other “lifestyle” migrants, the proportion of primarily employment motivated migration is arguably likely to be lower than other parts of Oxfordshire, at least for internal migrants.

5.32 This must therefore raise questions about the validity of simple jobs driven Lowry Model\(^43\) style modelling assumptions, as used in JLMs, to identify housing requirements on the back of projected employment growth. The present author’s experience has long been that they are neither accurate nor even generally appropriate in “non metropolitan” situations (and perhaps given changing lifestyles and economic structure, increasingly less so even in them).

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\(^42\) S.Dixon (2003) Migration within Britain for job reasons Labour Market Trends April 2003, p 194. The average within regions was found to be 19% and within local authority districts just 5%.

\(^43\) IS Lowry (1964) A Model of Metropolis, RAND Corporation Memorandum RM-4035-RC. The model was frequently referred to as the Garin-Lowry Model after RA Garin (1966) A matrix formulation of the Lowry model for intra-metropolitan activity location, Journal of the American Institute of Planners, 37, pp31-35.
5.33 The issue is that the simple balancing model assumption used in JLM to allocate migrants to available household spaces does not sufficiently replicate the actual processes involved. The model assumes that as local people move out of the area that available jobs (whether existing ones that out-migrants have vacated or additional new jobs) will be taken up first by existing workers within the remaining local population and then topped up with in-migrants with a given distribution by age and gender rather in the manner of filling a reservoir comprising the employment stock of the area. This means assuming that there is generally a constant proportional relationship between the numbers of those of working age and of children and elderly moving into the area.

5.34 This population “reservoir” approach to migration used in JLMs is prone to producing too high estimates. Typically in any one area, in any one year, new build housing comprises roughly around 0.5% - 1% of the total housing stock. Given that there is normally ownership/tenancy turnover of around 10% of the existing housing stock in any one year (give or take the odd percentage point), this means that we can expect roughly between 5% and 10% of the available housing on offer to inward migrants at any one time to be new build. It is therefore the size and flexibility of the secondhand housing market that mostly must provide for non local people wishing to move to an area to take up a job.

5.35 Obviously over a period of time the contribution made by new provision in a Local Plan will have a cumulative effect on the size of the secondhand housing pool. However, migrants do not in reality take up “spare” housing (i.e. housing not already assigned to locals) in annual “lumps” as modelled by JLM. Instead of an annual flow of migrants, the arrival of migrants is more of a “queueing” process. Migrants will arrive searching for a
suitable house at any time throughout the year with perhaps an average time to complete the move of three months but with considerable variation around this (say from say one to six months) to complete the move. At times of growing local employment, more economically active potential migrants who wish to take up an available local job will want to join the queue relative to other types of migrant (retired, “foot-loose” outward commuters, self employed etc) will mean that a higher percentage of people emerging from this queue and into a house will be a local job holder. 44

5.36 The impact on opportunities for the “existing” queue of “non local labour market related” migrants in terms of missed house purchase opportunities will be slight (on average resulting in an additional wait counted in days). Local housing markets are also not very price sensitive overall to any additional pressure of this localised type owing to the strong influence of wider sub-regional and national market price influences, the availability of finance to the purchaser being a much stronger factor.

5.37 The net result of this process is that the age and economic activity profile of the migration stream will shift over time in favour of more economically active in-migrants. Conversely, in times when the local jobs market is contracting, there will be a similar shift towards a higher percentage of non-economically active in the migrant stream. The JLM/Lowry model assumption of a direct connection between a simple projection of a resident labour force and jobs, mediated by a fixed ratio of active to non-locally active in the inward migration stream just does not hold. Under these circumstances, more weight needs to be given to general population trend based projections than appears to be the case in the SHMA report.

5.38 To sum up, it appears that the SHMA economic growth led projections are heavily reliant on a methodology that is not particularly appropriate for projecting the make-up of migrant flows in areas of the nature of the Local Plan area. The fact that it tends to exaggerate the effects of population ageing on the local labour market means that it also will overestimate the estimated housing requirement that results from this.

5.39 This tendency on the part of standard JLM models to produce high estimates of inward migration and therefore of new housing indicates a particular need for caution. The Woodhead (2013) report uses employment and workforce projections with caution as part of a data triangulation exercise testing the wider evidence alongside demographic trend projections and other data.

5.40 The conclusion must be that, though it uses a commonly applied approach, the SHMA recommendation for the housing requirement does not meet the objectivity test. There appears to be little or no empirical evidence as to whether the JLM approach produces realistic and accurate results. The seeming plausibility of its basic assumption of a simple “jobs reservoir” does not constitute actual evidence.

5.41 There is a danger in all detailed and disaggregated models regarding the large number of internal assumptions made regarding input variables and the interactions between them

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44 Many of these of course would take up rented accommodation in the short term or commute from outside the area while waiting for a more permanent home locally whether to purchase or to rent.
and internal variables. These problems are well known and controlled in standard migration led demographic models such as that used by ONS. That is why ONS are confident in their use as part of international standard practice. This does not apply to JLM models that while they can be useful as tools for exploring possible consequences of policy actions, i.e. to use in “what if” situations, they contain many hidden assumptions that only very crudely approximate to actual human behaviour.

5.42 An example of this is that data on jobs growth input to JLMs commonly assumes that all jobs have equal weight, whether full or part-time. It is not uncommon for part-time employees to hold more than one job in order to achieve a more viable income. While the model will no doubt make some assumptions about the extent of “double jobbing”, JLMs rarely take on board the fact that a high proportion of the jobs created since the 2008/09 recession are low wage, part-time and suffer from poor levels of security. Low productivity and under-employment have become entrenched features of the post recession economy.⁴⁵

5.43 To this can be added the well known problem of the risk of progressive bias in highly “disaggregated” models, even when basic data relationships are clear. Studies using data from detailed population projections over a number of different areas and time periods have shown that there is no evidence “that complex and/or sophisticated techniques produce more accurate or less biased forecasts than simple, naive techniques”.⁴⁶ Depending on local circumstances and objectives, the most robust results are generally obtained by using the most aggregated modelling approach appropriate to the problem.⁴⁷ The superiority that many practitioners claim for the JLM’s disaggregated approach is therefore very often misplaced on statistical grounds as well as regarding the realism of the processes that they purport to model.

Conclusions regarding the SHMA

5.44 The SHMA presents a very impressive range of evidence and does so in a way that appears to answer all of the requirements in the NPPG for an objective assessment of need (OAN). However, while it is an excellent piece of work in many ways, it is clear from the above that there are a number of issues which may give cause to question how objective it really is. The problem areas have been shown above to be as follows:

- The SHMA proposes overall levels of development that significantly exceed any comparative sustained level of delivery in the past both in West Oxfordshire and across the Oxfordshire Housing Market Area as a whole.
- The important economic scenario based (JLM) projections are driven by very optimistic assumptions regarding both economic growth and the level of affordable housing that the associated housing output will provide.

• It ignores many of the weaknesses that exist in the use of projections based on jobs led approach, particularly their tendency to produce very high migration and housing requirement figures.

• While the SHMA acknowledges there is a problem, it does nothing to mitigate the impact that abnormally high migration in some recent years has on trend projection population and household growth rates in West Oxfordshire (see Section 6 below).

• Whilst addressing the issue of ‘under-supply’ in other Oxfordshire Districts, the SHMA sidesteps the issue of whether an allowance should be made for West Oxfordshire’s significant oversupply of housing in recent years.

5.45 From this we would conclude that the SHMA as it currently stands makes a very valuable contribution towards arriving at a realistic OAN for the District but, as it stands, it is by no means a definitive statement of the OAN in its own right.

6. Housebuilding trends in West Oxfordshire and their impact on migration

6.1 The Oxfordshire SHMA recognises that in the case of West Oxfordshire, an above average rate of past housing delivery in the period 2005 – 2010 has had an inflationary effect on the demographic projections for the District and to a lesser extent the economic projections which are population-based. This high level of past housing delivery (a consequence of several large sites coming forward at the same time) has led to total population and household growth figures in the Interim 2011 based projections to match those of the 2008 based pre-recession projections in spite of the former generally having (and being criticised in some quarters for) lower rates of household formation.

6.2 Population and household projections are trend-based and simply project what will occur if past trends continue. It is therefore essential to consider whether the data that feeds into the projections is reasonable or has been affected by any particular ‘one-off’ events such as a large urban extension.

6.3 Importantly, national practice guidance states that if a Council has robust evidence that past high delivery rates that inform the projections are no longer realistic – for example they relied on a particular set of circumstances that could not be expected to occur again – they can adjust their projections down accordingly. 48

6.4 In this section we consider recent housing completion data for the District and the extent to which past building rates have influenced migration gains in the past that then influence demographic projections moving forward.

Current guidance for using official projections

6.5. ONS has long been at pains to point out that the sub-national population projections are not forecasts as such:

48 NPPG Paragraph 037 Reference ID: 3-037-20140306.
“These projections are not forecasts and do not attempt to predict the impact that future government or local policies, changing economic circumstances or other factors might have on demographic behaviour.

“The primary purpose of the subnational projections is to provide an estimate of the future size and age structure of the population of local authorities in England. These are used as a common framework for informing local-level policy and planning in a number of different fields as they are produced in a consistent way.”

6.6 In terms of how the projections are used by central government, ONS point out that:
“The Department for Communities and Local Government (CLG) uses projections as an input into the resource allocation model used to decide funding for local authorities. Advantages of using projections for this are that the time element is built in. For example, if an area is increasing or decreasing in population over time then this will be accounted for, which it otherwise would not be if estimates were used. However, there is a limitation in that the projections are demographic and trend-based, taking no account of the growth policies of an area and so may not accurately reflect precisely what future population levels are going to be. They simply provide an indication of population levels arising if the underlying assumptions were realised. CLG also use projections as an input into its Household Projections (HOPS), which are used to help regional house planning and monitoring. The HOPS themselves are trend-based projections; as such SNPPs are adequate for this purpose.”

6.7 This position is further reinforced by the new National Planning Practice Guidance which says:

“Household projections published by the Department for Communities and Local Government should provide the starting point estimate of overall housing need.

“......The household projections are trend based, ie they provide the household levels and structures that would result if the assumptions based on previous demographic trends in the population and rates of household formation were to be realised in practice. They do not attempt to predict the impact that future government policies, changing economic circumstances or other factors might have on demographic behaviour.

“The household projection-based estimate of housing need may require adjustment to reflect factors affecting local demography and household formation rates which are not captured in past trends. For example, formation rates may have been suppressed historically by under-supply and worsening affordability of housing. The assessment will therefore need to reflect the consequences of past under delivery of housing. As household projections do not reflect unmet housing need, local planning authorities should take a view based on available evidence of the extent to which household formation rates are or have been constrained by supply.”

50 ONS (2012b) Sub national population projections: Quality and methodology information ONS Information Paper 25/9/12.
51 NPPG (06/03/14) Paragraph: 016 Reference ID: 2a-016-20140306.
The recent RTPI Research Report “Planning for housing in England” provides further clarification regarding use of the latest official projections. This report was commissioned from the Cambridge Centre for Housing and Policy Research (CCHPR) at the University of Cambridge and written by Neil McDonald and Peter Williams. A spreadsheet tool that enables rapid analysis of trends and points of difference between the 2008 based and 2011 based projections for individual local authorities is also provided. The results for W Oxon are to be found in Appendix 3 below. The report is the latest in a series of publications by CCHPR on the topic of housing trends and future housing needs. Other publications include Holmans (2013) and CCHPR (2013).

CCHPR says that the key messages for policy makers and practitioners coming out of this document are:

- “The Department for Communities and Local Government’s (DCLG) 2011 based household projections (published in April 2013) are the latest official household projections for England and take account of the 2011 census results. As suggested in planning guidance, they are the starting point estimates for looking at household growth and housing requirements.
- “Producing projections at a time when established trends have changed significantly is challenging. Those using the projections should be aware of their inevitable limitations and use them appropriately.
- “The key issue is whether the trends that have been projected forward in the latest projections are likely to continue unchanged. “ (CCHPR 2014 pp1-2).

CCHPR points out that there are two reasons why those trends may not continue unchanged:

- “Increased international migration in the first decade of this century may have been responsible for a significant proportion of the changes to previous trends in household formation patterns. The further increases in international migration that would be needed for this factor to continue to apply are perhaps unlikely. (A continuation of recent rates of international migration should not have a further effect on household formation rates.)
- “It seems likely that the 2011 census results were influenced by both the economic downturn and the effects of a long period of poor housing affordability. If conditions in the housing market and the economy more generally improve there may be a return towards previous trends “ (CCHPR 2014 pp1-2).

The CCHPR team concludes that both of these factors “suggest that planning on the basis of the latest projections could lead to an under-provision of housing.” They also state that:

“It should also be recognised that the latest projections are interim projections produced before the full census results were available. In some areas this meant that trends from

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previous projections had to be used. This may have affected the estimation of population flows between local authorities, in some cases producing population growth projections that are either higher or lower than is likely.” (CCHPR 2014 p2).

6.12 Concluding, CCHPR says that the following issues should be taken into account by users:

“To what extent has the pattern of household formation in the area been affected by an increase in international migrants? The volume of international migration varies considerably from area to area – and with it the likely impact that increased international migration may have had on household formation patterns.

“The extent to which household formation patterns have departed from previous trends. This can be investigated by comparing household formation rates in the latest projections with those which underpin the 2008-based projections. For some age groups in some authorities the latest projections suggest that household formation rates will continue to fall. Authorities will wish to consider whether this is a prudent basis on which to plan.

“Whether there have been significant changes in the projected net flow to or from other local authorities. Where this is the case it may be a consequence of the use in the interim projections of flow rates from earlier projections. In such cases it might be appropriate to adjust the projected flows.” (Ibid).

6.13 Finally, CCHPR encourages local authorities “to consider their own specific situation carefully in the light of what the latest projections suggest for their area. They should ensure that their plan is robust to the potential range of outcomes and review that plan regularly to see if changes are needed.” (Ibid).

6.14 CCHPR is a well respected research organisation and the report has been produced by some of the leading researchers in the field. The basic message throughout is to use the Interim 2011 projections as appropriate but be well aware of their weaknesses. It is important to note that at no stage does the report say that the 2008 based projections are necessarily a better option, but instead represent what a continuation of the pre recession trend might look like. In terms of how local authorities should respond, the CCHPR report states:

“If what has happened over the last ten years is indicative of a new long term trend then for most authorities housing requirements are likely to be lower than suggested by DCLG’s 2008-based household projections – as the latest 2011-based DCLG projections suggest. If, however, the 2011 census results are just a short term departure from previous trends then housing requirements are likely to be closer to or even higher than the 2008-based projections.” (CCHPR 2014 p3).

6.15 CCHPR observe that recent trends might suggest that the longer term trend is for a higher rate of growth in household numbers compared with those suggested in the 2011 interim projections as headship rates (potentially) recover over the next 15 years or so from the impact of the recession. However, the impact of other assumptions in the projections, particularly migration estimates, may also influence the realism of the results.
Looking at the data

6.16 The District’s recent track record for housing delivery is set out in the Woodhead Report (May 2013). This shows that delivery peaked in 2006/07 and 2007/08 at 810 and 865 new dwellings respectively (Table 8, Fig 2).

Table 8 Average annual housing completions: Actual completions and previous Plan rates

<table>
<thead>
<tr>
<th>Period</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991-2011</td>
<td>473</td>
</tr>
<tr>
<td>1991-2006</td>
<td>427</td>
</tr>
<tr>
<td>2001-2011</td>
<td>582</td>
</tr>
<tr>
<td>2008-2012</td>
<td>436</td>
</tr>
<tr>
<td>Local Plan 2001-11</td>
<td>450</td>
</tr>
<tr>
<td>South East Plan 2006-2011</td>
<td>365</td>
</tr>
</tbody>
</table>

Figure 2 West Oxfordshire: Annual housing completions 1991-2012

6.17 The first issue is to look at how typical is the pattern shown in Fig 2. Is the peak in the years from 2003/04 until the recession in 2008/09 just a product of the special circumstances of the easy credit fuelled housing market boom of the early 2000s or is it part

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of a more regular pattern? This is illustrated by Fig 3 which takes the time series back to 1981 and compares the recent period of rapid growth with those of the so-called “Lawson boom” years of the 1980s.

6.18 The series is also shown in a smoothed form by fitting a polynomial trend line to the data. The trend equation is also shown in Fig 3 together with the $R^2$ value 0.66. This indicates that the polynomial model “explains” 66% of the variation in the real world data and is a reasonably good fit. The trend line shows that the recent boom was similar in scale to that of the 1980s in both height (amplitude) and, taking into account the greater variability of the earlier period, duration (wave length). In the statistical model the time period between the two peaks is approximately 20 years, the 1980s peak coinciding of course with booming market conditions following the housing market slump of 1980-82 and before the sharp recession of 1990-91.

**Figure 3 West Oxfordshire: total housing completions 1981/02-2012/13**

![Graph showing housing completions from 1981 to 2012 with a polynomial trend line and equation: $y = -0.0292x^4 + 1.8913x^3 - 39.158x^2 + 272.56x + 142.6$, and $R^2 = 0.6615$. Source: W Oxfordshire District Council]

6.19 It has to be acknowledged of course that planning conditions in the 1980s were somewhat different with possibly a higher proportion of housing delivery being on large sites, allocated in the development plan, than has typically been the case more recently. Unfortunately the data on the level of non allocated (“windfall”) site development in the 1980s was not available to this study. However, Fig 4 shows that non allocated site development has been relatively more consistent on a year by year basis than that on allocated sites. Also, during the periods of low production on allocated sites in the 1990s and since the recession, the rate of windfall development has held up relatively well, with peaks actually occurring during the low output periods on allocated land. This is shown particularly well in the fitted polynomial models also included in Fig 3, although with an $R^2$ value of just 0.43 (i.e. 43% of data variation explained) that for previously unidentified sites is not a particularly good fit to the data.
6.20 The relationship between housing total completion rates and net migration is one where, at a local level at least, commonsense would lead us to expect a close link between
additional housing capacity and net migration. Clearly the link would not be a totally straightforward one as houses are rarely occupied immediately on completion owing to the legal process involved in house purchase. Moreover, typically around 90% of the housing market at any one time consists of secondhand homes many buyers or renters of new homes are local and a space may only be taken by an inward migrating household further down the chain of moves in the area's secondhand market. This, together with other factors such as the scale of demand from newly forming local households, would be expected to blur the new homes/ net migration relationship quite considerably.

6.21 When we look at the actual data we do indeed see that there is not an obvious close connection between completions and net migrants (Fig 5 and Table 10). While migration very broadly reflects the level of houses completed, the correlation on a year by year basis is poor, yielding an $R^2$ value of only 0.32 (i.e. 32% of data variation explained). Building a time lag into the migration data of one year following the housing completions does not improve matters, the resultant value of $R^2$ being even lower at 0.13. This could be due to any lags in the system being, as one might expect, rather less than a whole year of course.

**Figure 5 West Oxfordshire: total housing completions and net migration**

![Figure 5](image)

Source: W Oxfordshire District Council & ONS

6.22 One solution to this problem is to smooth the rather “jerky” migration figures by taking a two year moving average and then comparing this with the housing data. The values of the moving average are plotted as the pecked line in Fig 5. Visually this improves matters to some degree but further analysis in fact reveals that the correlation between the two series improves significantly, giving an $R^2$ of 0.78 (i.e. 78% of variance in the observed data is explained by the correlation coefficient). It should be noted that further data smoothing to a three year moving average does not yield a significant improvement in the $R^2$ value.
6.23 The next step is to fit a least squares regression line to the data predicting net migration on housing completions. The results are shown in Table 11 and Fig 6. This shows that for the simple linear model \( y = a + bx \), \( y \) = net migration (2 year moving average), \( x \) = annual housing completions and \( a \) and \( b \) are constants. In this case Table 4 shows the value of \( a \) to be negative. Applying the coefficient values in Table 11 we get:

\[
y = 2.0303x - 528.47
\]

This indicates that if no homes are built, then net migration will be -528 i.e. a net loss to the District. Using the values in Table 11 it can be seen that the 95% confidence limits either side of this value are -807 and -250. In other words there is only a 10% chance that the true value from a prediction will lie outside of this range. The mean value of -528 migrants can be read off the \( y \) (net migrants) axis in Fig 6 at the point where the regression line intersects that axis (i.e. where the diagonal line of “best fit” is projected backwards to the point where the number of homes built is zero, as shown by the dotted diagonal line in Fig 6).

6.24 Similarly, if the value of \( y \) (migration) is zero, then \( 528.47/2.0303 = 260.29 \) dwellings need to be built on average before migration gain takes place. This is equivalent to the annual revealed net housing demand (i.e. excluding involuntary sharing etc) arising from the locally resident population of 260 plus or minus the 95% confidence interval of 137; i.e. only a one in 10 chance of being outside the range 123 to 397 dwellings. The value of 260

### Table 10 West Oxfordshire: total housing completions and net migration

<table>
<thead>
<tr>
<th>Year</th>
<th>Homes built</th>
<th>Net migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>344</td>
<td>500</td>
</tr>
<tr>
<td>1992</td>
<td>404</td>
<td>0</td>
</tr>
<tr>
<td>1993</td>
<td>475</td>
<td>800</td>
</tr>
<tr>
<td>1994</td>
<td>607</td>
<td>200</td>
</tr>
<tr>
<td>1995</td>
<td>350</td>
<td>-500</td>
</tr>
<tr>
<td>1996</td>
<td>248</td>
<td>600</td>
</tr>
<tr>
<td>1997</td>
<td>294</td>
<td>-600</td>
</tr>
<tr>
<td>1998</td>
<td>306</td>
<td>800</td>
</tr>
<tr>
<td>1999</td>
<td>300</td>
<td>-200</td>
</tr>
<tr>
<td>2000</td>
<td>316</td>
<td>0</td>
</tr>
<tr>
<td>2001</td>
<td>392</td>
<td>100</td>
</tr>
<tr>
<td>2002</td>
<td>450</td>
<td>1000</td>
</tr>
<tr>
<td>2003</td>
<td>567</td>
<td>700</td>
</tr>
<tr>
<td>2004</td>
<td>629</td>
<td>700</td>
</tr>
<tr>
<td>2005</td>
<td>733</td>
<td>1300</td>
</tr>
<tr>
<td>2006</td>
<td>810</td>
<td>1500</td>
</tr>
<tr>
<td>2007</td>
<td>865</td>
<td>500</td>
</tr>
<tr>
<td>2008</td>
<td>578</td>
<td>500</td>
</tr>
<tr>
<td>2009</td>
<td>384</td>
<td>500</td>
</tr>
<tr>
<td>2010</td>
<td>424</td>
<td>700</td>
</tr>
</tbody>
</table>

Source: W Oxfordshire District Council & ONS
homes can be read off the graph as the point in Fig 6 where the regression line intersects the x (Homes built) axis.

**Table 11 West Oxfordshire: Predicting annual net migration from housing completions**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-528.470</td>
<td>-4.001</td>
<td>0.000925</td>
<td>-807.133</td>
<td>-249.808</td>
</tr>
<tr>
<td>Homes built</td>
<td>2.0303</td>
<td>7.876</td>
<td>4.51E-07</td>
<td>1.4864</td>
<td>2.5742</td>
</tr>
</tbody>
</table>

**Figure 6 West Oxfordshire: Predicting annual net migration from housing completions**

Predicted versus actual values

6.25 The degree of realism of these figures can be checked against the results from the demographic (cohort components) model results from the 2012 report by John Hollis. This shows that over a 20 year period (2011-31) the number of additional households arising from the local population (as shown by the natural change only projection) would be 4,300. Hollis does not allow for empty dwellings in the housing stock so if we add the 2011 Census District-wide figure of 5.17% for vacant or second homes we get a local requirement for 4,524 dwellings over this period or 226 p.a. This is very close to the figure of 260 indicated by the regression model from post 1991 even allowing for the effects of future changes in household headship rates and gives a high degree of confidence in the regression model results.

6.26 If we now take the model and apply it to the approximate 1,400 (280 p.a.) over supply of dwellings for 2006-11 identified in the SHMA (2014), this would suggest that the annual

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migrant gain at the SE Plan building rate (365 dw p.a.) would have been only $2.03033 \times 365 - 528.47 = 212.6$ persons. Although this is higher than the 1991-2000 average of 160 p.a., it is considerably lower than the high migration years of 2001-10 average of 750 p.a. Taking the latter, the model indicates a build rate of $(750+528.47)/ 2.03033 = 629.7$ p.a. compared with an actual build rate of 583. According to the model therefore, even the high average build rate of 2001-10 was not quite keeping up with the actual migration rate, although some allowance must be made for migration of non domestic household population such as some armed services personnel.

6.27 If the ONS 2011 interim projections migration gain 2011-21 average of 705 net migrants is used in the model then the annual build figure works out at 608 dwellings. This is considerably higher than the 2011 projection estimate of 527 households or 555 dwellings p.a. allowing for vacancies. It certainly would seem from this that the regression model is over predicting the requirement probably due to the fact that the regression slope coefficient should be nearer to the projected 2021 household size of 2.30 to 2.34. Even so, it would appear that the high migration rate for the five years before 2011 (average of 725 persons per year has indeed affected the Interim 2011 based population and household projections and also the more recent 2012 based sub-national population projections all of which assume that migration into West Oxfordshire will continue at a rate of 700+ people per annum.

6.28 It could be argued that a more reasonable position would be to take the 1990 to 2010 average migration rate for West Oxfordshire of 455 p.a. as a basis for future population and household projections. To arrive at a house building rate associated with this, we take the regression model $y = 2.0303x - 528.47$ where $y$ = the 2 year moving average number of net migrants for a given year and $x$ = the number of new dwellings (Table 11 and para 6.23 above) and rearrange the equation to solve for the value of $x$. This gives us:

\[
x = \frac{(y + 528.47)}{2.0303}.
\]

6.29 Applying the equation to a value of $y = 455$ migrants results in a requirement for 487 dwellings p.a., i.e. $(455 + 528.47)/ 2.0303 = 484$ dwellings. This would amount to 9,740 dwellings for the period 2011-31 and 8,766 for the draft Local Plan period of 2011-29. This is very close to the requirement identified in the May 2013 report of 8,700 (483 p.a.) or 9,660 over a 20 year plan period although a totally different, cohort model based projection method was used in the earlier exercise.

**Conclusions: housebuilding trends and migration**

6.30 It appears from the analysis that the high building rate during the years preceding 2011 did indeed strongly affect the Interim 2011 based projection’s migration assumptions. It is suggested that a more reasonable net migration level would be around the historic average of 455 p.a. (or certainly not more than 500 p.a.) The historic total of course takes in a much wider range of economic conditions and local building rates than the five year period following 2006 or 2007 used by the ONS 2011 and 2012 based SNPPs.

6.31 At the same time, the model indicates that the S.E. Plan target of 365 dw p.a. would only have been sufficient for an average of 213 net migrants p.a., a figure well under the historic average although a little higher than the low migration years of the 1990s. This

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57 The calculation is: $2.0303 \times 365 - 528.47 = 212.6$ migrants.
would suggest that the S.E. Plan figure could be considered to be too low by around 100 dwellings per annum.

6.32 Subtracting this from the over provision of housing in West Oxfordshire during the period 2006/07-2010/11 (of about 1,400 under the S.E. Plan) this would result in a revised ‘over-provision’ of 900. If we now subtract that from the 10,815 dwellings in the SHMA projection (Proj 2), the resulting total for 2011-31 equals 9,915 (496 p.a.) This is slightly higher than, but still compares closely to, the Woodhead (May 2013) housing requirement report recommendation of 483 p.a.

7. The ONS 2012 and 2011 based sub-national population projections (SNPP)

7.1 The ONS 2012 based sub-national population projections (SNPP) were released on 29th May 2014 and therefore were not able to inform the Oxfordshire SHMA (April 2014). Notably, in the case of West Oxfordshire, these show a marked reduction in the rate of population growth compared with the Interim 2011 SNPP. This is due to a reduction in the migration assumptions following incorporation of the full results of the 2011 Census into the projections. The comparison is shown in Figs 7 and 8 and Table 12. The 2021 projected population\(^{58}\) for the 2012 SNPP shows a reduction of 1,400 people compared with the 2011 based figures. It is however 200 higher at this date than the 2008 based SNPP projection and 1,100 higher than the 2010 SNPP both of which were pre 2011 Census.

![Fig 7 West Oxfordshire: comparison of 2012 based and 2011 based SNPP to 2021](image)

Source: ONS

| Table 12 West Oxfordshire total population: ONS Mid Year estimates and projections |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| ONS Mid Year Estimate 2008 based SNPP | 81,700  | 90,100  | 91,000  | 94,000  | 95,700  | 100,300 | 105,400 |
| 2010 based SNPP                |         |         |         |         |         |         |         |
| Interim 2011 based SNPP        |         |         |         |         |         |         |         |
| 2012 based SNPP                |         |         |         |         |         |         |         |
|                                 | 105,442 | 110,700 | 115,300 | 119,400 | 122,700 | 125,500 |

Source: ONS

\(^{58}\) The final projection year of the interim 2011 SNPP.
7.2 The principal reason for the fall in the rate of population growth between the 2011 and 2012 SNPP projections is a fall in the projected rate of net migration gain for West Oxfordshire. Table 13 shows that, whereas the 2011 projections showed an average annual gain of 700 net migrants per annum between 2011 and 2021, the average has dropped to a projected 620 in the 2012 SNPP. It was mentioned earlier in this report (paras 4.10, 5.5 and Section 6) that there has been concern that oversupply of housing against development Plan targets in the period since 2003 has led to an overestimate of the potential migration gain in the SNPP projections. This has been due to the temporary effect of a number of large development sites in the District coincidentally coming on stream at more or less the same time leading to an abnormal level of growth as a result.

7.3 Both the 2011 and 2012 SNPPs apply ONS’ standard practice of basing the projection of migration flows on the five year period before the projection, the effect of the tailing off of the rate of development post 2008 (Fig 2 above) on the rate of in-migration is now starting to show in the 2012 SNPP rates of migration gain and overall population growth. All things being equal, it would be expected that the next SNPP figures (2014 based) should show a further decline. Full details of the 2012 SNPP demographic “components of change” analysis are given in Appendix 4.

Table 13  Projected internal net migration flows (year ending) 2011 & 2012 SNPPs

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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Past flow</td>
<td>500</td>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-based</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>700</td>
<td>700</td>
<td>700</td>
<td>800</td>
<td>800</td>
<td>800</td>
<td>700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012-based</td>
<td>400</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>700</td>
<td>700</td>
<td>600</td>
<td>700</td>
<td></td>
</tr>
</tbody>
</table>

Source: ONS

59 Holmans (2013) op cit.
7.4 The official DCLG household projections using the latest 2012 sub-national population projection base unfortunately will not be available before autumn 2014. As part of this report, an exercise has therefore carried out to assess the possible consequences of the changes in the latest 2012 population projections on additional household and housing numbers for the District.

7.5 While the final household representative rates (HRRs) used to calculate household formation for different sub-groups in the population will not be known before the DCLG publishes its official household projections later in the year, it is possible to apply the pre-recession 2008 based and the post recession 2011 HRRs to the 2012 sub-national population projections.

7.6 This provides an upper and a lower range for the rate of household formation, the 2011 HRRs being generally felt to be unduly low for certain groups particularly people under 35 whose propensity to form independent households has been particularly affected by the effects of the recession and the period of slow recovery afterwards. A number of observers such as Alan Holmans have argued that the rate of recovery in headship rates for these groups is likely to be fairly slow and from a lower base post recession than was the starting point for the earlier 2008 HRRs. In addition, there were other issues affecting the 2008 figures which tended to overestimate the number of households to some degree.

**Fig 9 W Oxfordshire 2012 based SNPP household projections using 2008 and 2011 household representative rates**

![Household projections graph](image)

Source: ONS & KW
Fig 10  W Oxfordshire 2012 based SNPP projected average household size using 2008 and 2011 household representative rates

![Graph showing average household size projection]

Source: ONS & KW

7.7 By taking the results of applying both the 2008 and the 2011 HRRs, it is possible to determine the likely upper and lower limits of a range of future household growth. The results of this are shown in Figs 9 and 10 and Table 14.

Table 14  W Oxfordshire 2012 based SNPP household projections using 2008 and 2011 household representative rates

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2016</th>
<th>2021</th>
<th>2026</th>
<th>2029</th>
<th>2031</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 based SNPP 2011 HRR</td>
<td>43508</td>
<td>46464</td>
<td>48298</td>
<td>49924</td>
<td>51356</td>
<td>52172</td>
</tr>
<tr>
<td>Average hhold size</td>
<td>2.371</td>
<td>2.330</td>
<td>2.329</td>
<td>2.333</td>
<td>2.309</td>
<td>2.297</td>
</tr>
<tr>
<td>Change from 2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7848</td>
<td>8664</td>
</tr>
<tr>
<td>Additional dwellings @ 5.17% vacancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8254</td>
<td>9112</td>
</tr>
<tr>
<td>2012 based SNPP 2008 HRR</td>
<td>43508</td>
<td>46565</td>
<td>49067</td>
<td>51404</td>
<td>52937</td>
<td>53888</td>
</tr>
<tr>
<td>Average hhold size</td>
<td>2.371</td>
<td>2.325</td>
<td>2.293</td>
<td>2.266</td>
<td>2.240</td>
<td>2.224</td>
</tr>
<tr>
<td>Change from 2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9429</td>
<td>10380</td>
</tr>
<tr>
<td>Additional dwellings @ 5.17% vacancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9917</td>
<td>10917</td>
</tr>
</tbody>
</table>

Source: ONS & KW

7.8 As expected, there is a significant difference between the two projections. The 2011 HRRs produce an increase of 7,848 households in the period 2011 – 2029 compared with 9,429 for the 2008 HRRs; by 2031 the figures are 8,664 and 10,380 respectively. When converted into the equivalent number of dwellings using the 2011 average vacancy rate of 5.17%, the range in 2029

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60 The 2011 projections only produced results to 2021. The HRRs were therefore extended using the 2021 values as a starting point and then projected forward using the improvement rates 2021-31 shown in the earlier 2009 HRRs.
is from 8,254 (459 dw p.a.) to 9,917 (550 dw p.a.) The midpoint of this range is 9,086 (506 dw p.a.) These figures are also very similar to the upper and lower ranges shown in the Hollis report Projections 1 and 4 (see Table 2 above).

7.9 It is noteworthy that the 1,663 difference between the two figures is not very greatly different from the 1,398 housing oversupply recorded in West Oxfordshire over the 2006-11 period.

8. Conclusions: a housing requirement for West Oxfordshire

8.1 Ideally the SHMA would represent the Objectively Assessed Need figure for the District. However, as shown above, this otherwise impressive piece of work has a number of important deficiencies which lead to an over optimistic view of the number of houses which could and should be provided in the District. In particular it is felt that the ambitious jobs led “Committed Growth” projection, together with the high and currently undeliverable affordable housing programme shown to be needed by the SHMA, is a questionable basis for deriving the OAN as well as not presenting an achievable basis for the Plan’s housing targets.

Figure 11 – SHMA Projection Migration 2011/12 to 2030/31

Source: SHMA 2014 (page 84)

8.2 We have also seen that oversupply of houses in the recent past has led to an abnormally high level of inward migration to the area and this will have had a significant upward effect on the demographic trend projections that form the basis of the SHMA recommendations. The evidence set out in section 6 of this report shows the nominal value of this oversupply during the 2006/07-10/11 period is 1,398 homes but that the oversupply against the longer term migration trend is actually 900 dwellings over five years. The short term stimulation of migration to the area is considerable and this will have been incorporated into the 2012 based SNPP, and also the previous 2011 based set. The impact on net migration is graphically demonstrated in the
SHMA’s Figure 46, p84 (reproduced in Figure 11) which shows West Oxfordshire’s projected migration level rising from third highest in the county in 2011/12 to the highest from 2017/18 onwards.

8.3 However, it has to be acknowledged that the need for delivering a higher rate of housing is clear both from the SHMA evidence and also from the analysis in this and the John Hollis report (January 2014 – Appendix 2). It is therefore recommended that the 2011-29 9,500 (528 dw p.a.) upper range figure originally set out in the Woodhead (2013) report is adopted in place of the original recommendation for 8,700 483 dw p.a.) This figure is also towards the upper part of the range produced by the analysis of the new 2012 based ONS population projections set out in Section 7 above.

8.4 There is evidence from the 2012 sub-national population projections that, even with the higher migration figures used therein, the objectively assessed housing requirement for West Oxfordshire to 2029 is in the range 8,254 to 9,917 dwellings.

8.5 The midpoint of the range, i.e. 9,086 dwellings, represents a reasonable compromise between the over optimistic pre-recession (and pre Alan Holmans’ paper) rate of household formation in the 2008 based projections and the more depressed HRRs of the Interim 2011 set.

8.6 Taken together with the lasting impact of past housing oversupply on migration driven growth in the District, it is clear that the recommended figure of 9,500 homes (2011 – 2029) exceeds the likely OAN by nearly 5% and therefore also represents a significant boost to long term supply.

Keith Woodhead  BSc, PhD, DipTP, MRTPi  
9th June 2014
Revised 8th July 2014
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The May 2013 review of housing requirements
A review of future housing requirements for West Oxfordshire

Keith Woodhead

May 2013
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Review of housing requirements evidence for West Oxfordshire District

1. Purpose of this Study

1.1 This report addresses a requirement by West Oxfordshire District Council for a robust and independent review of the derivation of the housing and population requirement 2011 to 2029 identified in evidence prepared for the district’s emerging Local Plan.

1.2 The Council requires the study to provide the following outputs:

• **Key Output 1 – Examination of Latest National Household Projections**

  Advice is required on the latest available household projections (understood to be the 2011 based sub-national household projections). This will include a detailed examination of the projections and the demographic change and migration assumptions on which they have been produced. It is anticipated that this will effectively provide a ‘sense check’ on past CLG/ONS projections for their accuracy (forecast demand) against the population and household formation actually recorded in the District (supply). Advice to be provided on the extent to which the latest projections should inform the consideration of the Council’s housing target.

• **Key Output 2 – Further Examination of the Relationship between the Housing Market and the Local Economy**

  Relevant economic forecasts should therefore be sought, examined and analysed to explore the potential levels of employment demand and the subsequent housing which would be required to support such employment. Where possible, this should highlight the consequences of planning to meet a level of economic growth below the unconstrained demand. The unconstrained economic/employment forecast could be examined against:

  - the labour supply implied by the various population forecasts produced – is the labour supply likely to impact on economic growth?

  - the impacts of an ageing population and potential changes in economic activity rates as a result, including changing pension ages and/or an increasing propensity for part time work or working closer to or at home; and

  - commuting patterns and the likely impacts on these should different levels of housing be pursued – would a low housing target be likely to create additional in-commuting or stem the flow of out-commuting? Would a higher housing target result in further and unsustainable levels of out-commuting? It is noted that meeting this requirement will be affected by the non availability of commuter flows data from the 2011 Census at the time of writing. This information is expected to be released in the autumn 2013. In the meantime inference will necessarily be made on the basis of 2001 and other data.
Key Output 3 – Consideration and Analysis of Other Relevant Evidence

As part of the commission, a review should be undertaken of any other relevant information not referred to above that may be of use to the Council in setting its housing target:

- This may include any recent evidence relevant to the changing requirements for housing including demographic change and the impact of economic change and credit availability. Consideration should be given to both demand/trend based evidence including local projections for Oxfordshire (where available) and supply/capacity based evidence including land supply, housing affordability and economic change.

- Commentary on land supply considerations relating to the extent to which it is reasonable for the Council to allow the constraints of the District (AONB, Green Belt, A40 capacity etc.) to determine its housing target. [Comment: This brief review is dependent on the nature and availability of supporting information from the Council.]

1.3 The report will include a final independent recommendation of an appropriate and robust methodology using projections/forecasts/figures that the Council should use as the basis for future Plan development.

1.4 The study will examine the evolving background to the draft Local Plan housing requirements. Particular account will be taken of the changing planning environment over the past five years. This will cover the changing economic environment, the impacts of both the Government’s planning reforms and its wider economic policies, and also the implications of current and longer term prospects both in the sub-region and nationally.

1.5 Key elements of the evidence used are derived from ONS’ release of Census Data (second release) and also the DCLG’s interim 2011-based sub-national household projections which were released on 9th April 2013.

2. Background to the housing requirement figures

2.1 The Local Plan (formerly Core Strategy) will cover the period 2011 to 2029. Early consultation\(^1\) was based on the now revoked Regional Strategy (RS) for the South East which had identified a figure of 7,300 homes (365 p.a.) for West Oxfordshire in the period 2006 – 2026.\(^2\) Following the change in Government in May 2010, the new Secretary of State issued instructions that Regional Strategies were to be revoked “with immediate effect”.\(^3\)

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\(^2\) This was subdivided in 3,800 dwellings in the part of West Oxfordshire within the Regional Strategy’s “Central Oxfordshire” sub-region and the remaining 3,500 “elsewhere” in W Oxfordshire (South East Plan (2009) Policies CO3 and AOSR1.

\(^3\) Chief Planning Officer DCLG, Letter to Chief Planning Officer all local planning authorities in England and Wales: “Revocation of Regional Strategies”
However, immediate revocation was subsequently judged illegal and the Regional Strategy remained part of the development plan following the series of actions between November 2010 and May 2011 brought by CALA Homes Ltd, the Secretary of State signalled his intention to revoke the Regional Strategies as soon as possible on enactment of the then Localism Bill (enacted November 2011). Final revocation came into effect in March 2013.  

2.2 In preparation for removal of the RS, the Council commissioned the Greater London Authority (GLA) in 2010 to prepare population and household projections to 2026 in order to help inform the development of a local housing target. The projection was based on a ‘natural change’ scenario taking account of planned housing from 2011 – 2016 (1,500) and then calculating how many additional homes would be needed to accommodate natural growth in the following 10-year period to 2026 (2,800). The total identified housing requirement was 4,300 (i.e. 1,500 + 2,800). When added to the number of homes built in the District between 2006 and 2011 (3,000) this was equivalent to an overall target of 7,300 dwellings. Although arrived at by a different process, this was identical to the total for West Oxfordshire given in the South East Plan and the 7,300 dwellings target was duly incorporated into the draft Core Strategy published in January 2011.

2.3 Updated projections were subsequently produced but the 4,300 dwelling requirement remained until work on the new style Local Plan led to an extension of the plan period to 2029 in order to comply with national policy set out in the NPPF. Owing to this and the release of new Census information in 2012, a further set of housing projections were commissioned which considered three different scenarios:

- Projection A) ‘natural change’ from 2016 onwards;
- Projection B) an ‘employment based’ maintaining the forecast 2016 peak in the labour force of 56,800;
- Projection C) a ‘South East plan’ based scenario rolling forward the south east plan on a pro-rata basis.

2.4 The subsequent Local Plan consultation document (October 2012, Core Policy 6) proposed 5,500 new homes for the period 1st April 2011 – 31st March 2029, based on Projection C) and stating that:

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4 Formal revocation was announced by written ministerial statement on 14th February 2013 and the Statutory Instrument (Town and Country Planning, Regional Strategy for the South East (Partial Revocation) Order 2013) was laid before the House of Commons on 28th February and became effective 25/03/13. See: http://www.parliament.uk/documents/commons-vote-office/February_2013/14-February/6.DCLG-Regional-Planning.pdf; http://www.publications.parliament.uk/pa/cm/cmsilist/section-c.htm#c-1

5 GLA Intelligence Unit West Oxfordshire Demographic Projections, November 2010.

6 I.e. 3,000 + 4,300 = 7,300.

7 GLA Intelligence Unit Demographic Projections for West Oxfordshire: a review, May 2011.

8 NPPF para 157 indicates that a 15 year time horizon for the plan is “preferable” but this is treated as a minimum requirement in plan examinations.


10 Summary supplied by W Oxfordshire Council project brief.
This level of growth is in line with the South East Plan, takes account of the need to increase housing supply to provide for economic growth and tackle housing affordability, but is balanced with the likely capacity of existing and planned infrastructure, the availability of suitable housing sites and the need to achieve a ‘sustainable’ level of development for the District. The housing target is not however a ‘ceiling’ and may be exceeded.\textsuperscript{11}

2.5 The three alternative levels of growth were tested through Sustainability Appraisal and supported by a separate evidence paper\textsuperscript{12} explaining how the proposed target of 5,500 had been derived and why it is considered to be appropriate. This evidence will be discussed in more detail in Section 4 below.

2.6 It is essential to bear in mind that it is not just the reformed planning system that has changed the overall context in which the Local Plan must operate. The earlier generation of Structure and Local Plans, culminating in the West Oxfordshire Local Plan 2011,\textsuperscript{13} and also the South East Plan (RS),\textsuperscript{14} were prepared and examined in far more benign national and international economic circumstances than those that currently prevail. Recovery from the severe recession of 2008/09 has been slower than at any time in the preceding century and at the present time national output is still estimated to be 2.6% below the last peak in early 2008.\textsuperscript{15} In the relatively short period of time since the RS was published (2009), and even since the work on the latest Local Plan consultation document was carried out last year, the national economy has not improved at the rate expected.\textsuperscript{16}

2.7 Real household incomes have been falling at the same time that the supply of easily obtained mortgage credit has diminished so that, nationally, turnover in the housing market has dropped to about half that of the period preceding 2008 and housing starts and completions have slumped in response. Seasonally adjusted starts at the end of 2012 were 58 per cent above the low-point in the recession (March quarter 2009) but 45 per cent below the March quarter 2007 peak. Completions are 42 per cent below their March quarter 2007 peak.\textsuperscript{17} The severity of this change is shown in Fig 1.

2.8 These conditions are without precedent in the UK in the period following the Second World War and it is against this difficult background that the emerging Local Plan has to allocate housing in order to meet the District’s future housing needs.

\textsuperscript{11} West Oxfordshire: Draft Local Plan Consultation October 2012, para 5.7.
\textsuperscript{12} West Oxfordshire Draft Local Plan: Local Housing Target Paper, October 2012.
\textsuperscript{13} West Oxfordshire Local Plan, was published in 2006.
\textsuperscript{14} The examination of the RS was held in 2007.
\textsuperscript{16} Compare for example the Office for Budget Responsibility’s budget forecasts for the Chancellor’s emergency budget of June 2010 with those of the March 2013 Budget. \url{http://www.hm-treasury.gov.uk/budget2013_documents.htm}
\textsuperscript{17} DCLG House Building: December quarter 2012, England
2.9 The remainder of this study will focus on the process behind the proposal for 5,500 additional dwellings in West Oxfordshire District 2011-29 and whether this meets the requirements of national planning policy. It also compares the approach used with accepted planning practice in general, reviews the evidence and then makes recommendations regarding the housing requirement identified in the Draft Local Plan document.

**Figure 1**

![UK house building: permanent dwellings completed](image)

Source: DCLG Table 209

3. Requirements for planning growth policies

A) Meeting national policy requirements

3.1 The Localism Act 2011 has set out the key parameters for the Government’s reforms of the planning system. These aim to make the system clearer, more democratic and ultimately more effective, by encouraging local planning policy and decisions to be more fully rooted in local communities. Regional Strategies have now been abolished and cross boundary issues are to be dealt with through a duty to co-operate with neighbouring local authorities and other public bodies.\(^{18}\)

3.2 The National Planning Policy Framework was published in March 2012 and reflects the underlying principles of the Act. It sets out the criteria that will be used when the new Local Plans, together with the remaining LDF Core Strategies at an advanced stage in the system when the 2011 Act came into effect, are assessed as to whether they are “sound”. \(^{19}\) These are that the Plan should be:


\(^{19}\) NPPF 2012 para 182.
- **Positively prepared** – the plan should be prepared based on a strategy which seeks to meet objectively assessed development and infrastructure requirements, including unmet requirements from neighbouring authorities where it is reasonable to do so and consistent with achieving sustainable development;

- **Justified** – the plan should be the most appropriate strategy, when considered against the reasonable alternatives, based on proportionate evidence;

- **Effective** – the plan should be deliverable over its period and based on effective joint working on cross-boundary strategic priorities; and

- **Consistent with national policy** – the plan should enable the delivery of sustainable development in accordance with the policies in the Framework.

3.3 The Council’s position on the first three criteria is set out in the Local Plan Consultation Document.\(^{20}\) This describes a Vision for the District and a series of Core Objectives grouped under the following headings:

- Strong market towns and villages
- Meeting the specific housing needs of our communities
- Sustainable communities with access to services and facilities; and
- Protecting and enhancing the environment and reducing the impact from climate change.

3.4 To deliver on these objectives, the Plan sets out an overall strategy that has five key elements, or strands, that apply universally across the District:

- Presumption in Favour of Sustainable Development
- Locating Development in the Right Places
- Prudent use of natural resources
- High quality design
- Supporting infrastructure.

3.5 A full evidence base developed during the preparation of the Local Plan and its Local Development Framework related predecessors is made available on the Council’s website,\(^ {21}\) and comprehensive justification for the strategy is provided consistently and incrementally throughout the document. Finally, the alternative strategies were subjected to comprehensive sustainability testing during the process of developing the Plan.\(^ {22}\)

\(^{20}\) Op cit.

\(^{21}\) For access to documents in the evidence base see:
http://www.westoxon.gov.uk/planning/LDfsustapprevidbase.cfm

\(^{22}\) For evidence of how the SA developed during the different stages of the Plan refer to West Oxfordshire Draft Local Plan Sustainability Appraisal (SA) Report, para 3.5.
3.6 All these are requirements of the NPPF, as they were for the preceding system of national Planning Policy Statements and Planning Policy Guidance documents. As far as new, or re-emphasised NPPF requirements are concerned, the following are key:

3.6.1 Duty to co-operate: The demise of the RS and conversion to the new Local Plan format requires that in preparing the plan the planning authority must demonstrate that it has worked with other relevant bodies, including neighbouring local planning authorities and that strategic/cross-boundary issues have been considered. West Oxfordshire states that:

“the Local Plan has been shaped by ongoing engagement with local communities and organisations including other local authorities, the Oxfordshire Primary Care Trust, Thames Water, Natural England and the Environment Agency.”

3.6.2 Neighbourhood planning: The draft strategy’s overall spatial vision and the vision for the District and its five sub-areas provides a clear context for neighbourhood plans and greatly assists the national objective to promote an approach that reflects localism.

3.7 A further, and in the current context, particularly salient NPPF requirement is that of delivering a wide choice of high quality homes and boosting supply based on a “proportionate” (i.e. relevant and adequate) shared evidence base. This is to ensure that the Plan “meets the full, objectively assessed needs for market and affordable housing in the housing market area, as far as is consistent with the policies set out in this Framework” (i.e. the NPPF), including identifying key sites which are critical to the delivery of the housing strategy over the plan period. Local planning authorities should have a clear understanding of housing needs in their area. They should prepare a Strategic Housing Market Assessment (SHMA) to assess their full housing needs, working with neighbouring authorities where indicated by housing market area boundaries. A scale, mix of housing tenures and types, including affordable required over the Plan period should be identified, that “meets household and population projections, taking account of migration and demographic change ....addresses the need for all types of housing, including affordable housing....and caters for housing demand and the scale of housing supply necessary to meet this”. In addition, it is necessary to prepare a Strategic Housing Land Availability Assessment (SHLAA) “to establish realistic assumptions about the availability, suitability and the likely economic viability of land to meet the identified need for housing over the plan period.”

3.8 The West Oxfordshire Plan has access to a housing evidence base that includes the Strategic Land Availability (SHLAA) Interim Report 2011, housing needs assessments of 2008 and a January 2011 update document. These documents are now considered to be obsolescent. To deal with this, a SHLAA update is due for publication in May/June 2013 to

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23 Draft Local Plan Consultation document Oct 2012 para 1.10. This will need to be fully supported with related documentation (see forthcoming Planning Advisory Service bulletin “Doing your duty” PAS Newsletter 24/04/13).
24 The Sub-areas are: Witney, Carterton, Chipping, Norton, Eynsham – Woodstock, Burford – Charlbury.
25 NPPF para 47
26 NPPF para 158
27 NPPF para 159
coincide with a revised draft of the Local Plan. The latest Annual Monitoring Report (AMR) produced under the requirements of the Planning etc Act of 2004 is dated 2010/11 and published in December 2011. At the time of writing (April 2013) an AMR update is in preparation. A joint SHMA for Oxfordshire was commissioned in 2007 and separate housing needs assessments completed for West Oxfordshire by DCA Ltd in 2008 and updated in 2011. The joint commissioning of a new SHMA with all Oxfordshire local authorities is currently in progress with completion expected in September.  

3.9 We conclude from this part of the review that, once the 2013 SHLAA and SHMA update exercises are complete, West Oxfordshire’s approach to date will cover the overall requirements for scope and joint working set out in the NPPF. Work fully to document all aspects of co-operation and evidence base sharing is still clearly in progress, however. This necessarily is a developing picture as the evidence base evolves and increases in sophistication. The next section looks at how far the evidence base can support the proposal for 5,500 additional dwellings 2011-29.

B) West Oxfordshire’s projected growth prospects
Dealing with changing circumstances – achieving a robust plan

3.10 It is inevitable that more up-to-date information appears during the period required to develop and consult on any major plan. Sometimes this may be due to a pre-planned revision to an existing statistical source such as the publication of new data from a recent Census, although completely new major sources of data are rare. At other times it can be due to a review of an existing series in the light of change in external circumstances representing a significant deviation from formerly prevailing conditions. Often these changes have relatively slight consequences for the plan in question apart from a possible adjustment to the information base. At other times the consequences can be more far reaching and represent a significant test of the plan’s underlying robustness.

3.11 The consequences of the world credit crisis of 2007-08 followed by severe recession in 2008-09 and then a long, and still continuing, period of depressed economic growth during the period of comparative recovery from mid 2009 is an extreme example of this. We are all familiar with the uncertainties involved in trying to predict the future. Often the lags involved in data and other substantial evidence becoming available means that a period of considerable uncertainty exists while there is an awareness that a major change to the plan’s environment is occurring, but we are left in the limbo of knowing neither the severity of the event nor its short term consequences. This means that not only is there much uncertainty involved in looking ahead ten to fifteen years, but also an unusual degree of uncertainty about some aspects of where we are now and how things are likely to change in the near future.

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28 Away from housing growth related issues West Oxfordshire also co-operates with neighbouring on other planning work Joint working on other matters such as Gypsies and Traveller needs assessment, climate change and flood risk assessment.

29 Sometimes this is compared to attempting to driving a car by looking only in the rear view mirror, due to the necessity of depending on projecting forward past information only.
3.12 Plans undergoing the final stages of preparation at the current time are facing a peculiarly trying set of circumstances, reflecting all of these issues. The full and continuing impact of the recession and the credit crisis that triggered has only now become apparent over the past two years or so. The path of recovery since 2009 has also been much slower than all but the most pessimistic forecasters at that time anticipated. ONS preliminary estimates at the end of the first quarter of 2013 indicate that national GDP remains 2.6% below the pre-recession peak in Q1 of 2008 (Fig 1). This compares with the forecast of the Office for Budget Responsibility (OBR) only three years’ ago in June 2010 which forecast that 2011 growth of 2.3% would be followed by 2.8% in 2012 and 2.9% in 2013 (Fig 2).

3.13 A comparison between Figs 3 and 4 shows that GDP is currently below even the OBR’s lowest 2010 based growth scenario. The UK economy has now experienced 20 consecutive three monthly periods (“Quarters”) when GDP has been below the pre-recession economic peak in Quarter 1 (Q1) of 2008. Figure 4 shows how the current situation compares with previous recessions. The period of depressed output now exceeds all previous recessions since, and including, that of the early 1930s.

**Figure 2 UK GDP and main components (Index 2009 = 100)**

Source: ONS

Note: ONS Jan 2013 estimate of GDP 2012 Q4

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31 OBR, Budget June 2010.
Figure 3  OBR Budget Forecasts June 2010

Source: HM Treasury

Figure 4  Comparing the current with past recessions since 1920

Q1= end of Quarter 1 (January – March)          Source: NIESR 09/04/2013

32See: NIESR http://www.niesr.ac.uk/sites/default/files/publications/gdp0413.pdf Values calculated from three month moving averages of GDP.
3.14 As already shown, it cannot be said that growth during the period has been held back by undue pessimism on the part of the Treasury. The expected sharp upturn in economic growth normally expected at the end of a period of recession has failed to appear. Accordingly, official forecasts in the space of only three years have progressively moved back the return to more “normal” (i.e. historically more usual) rates of growth in the wider national economy from 2012\textsuperscript{33} to 2016\textsuperscript{34} (Fig 5). This is of considerable relevance to local planning as changes affecting local economic prospects significantly influence the functioning of housing and employment markets. They are therefore also likely to affect migration pressures locally and therefore the rates of population change that must be planned for.

3.15 A further cause of uncertainty is the fact that, the main results of the 2011 Census of Population have only been released relatively recently (in the main since late 2012). Moreover, some of the data series on which we depend for planning ahead notably origin-destination data for migration and travel to work are not planned for publication until autumn 2013. This means that Government estimates and forward projections of population and households are only able to be released progressively and often in only a partially updated form. The implications of this for projecting housing requirements in West Oxfordshire will be examined later in this report.

**Figure 5** The changing medium term prospects for the UK economy

**OBR Budget Forecasts 2010-2013: annual % GDP Growth**

*Note: 2011 figure is actual outturn data. Source: HM Treasury

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\textsuperscript{33} OBR’s figures in the Chancellor of the Exchequer’s Emergency Budget June 2010

\textsuperscript{34} HM Treasury Budget 2013 Annex B OBR Forecasts (20/3/13)
Approaches to calculating housing requirements

3.16 Different methods of assessing housing requirements may be appropriate under different circumstances. This section looks at the various broad methodologies available.

3.16 Projections of requirements can be grouped into two main types:

- “Demand” driven projections. These are trend projections of demand/need, where future rates of provision are linked to a projection where the conditions affecting growth pressures in the relatively recent past are broadly assumed to continue into the future. The basis for this might be a projected household number or the need to provide for the estimates of market requirements and housing need emerging from a Strategic Housing Market Assessment.

- “Supply” driven projections typically based on local capacity driven estimates of growth. These may be “actual” capacity limits (however defined), for example the scale of land available for development, generally subject to policies that define availability, for example for environmental protection reasons. In other circumstances they can allow policy induced increases in growth rates above recent trend, for example measures taken to boost jobs and retain population in areas experiencing economic decline. Other valid constraints might be the capacity of the local economy to provide additional employment to meet a growing workforce, or well recognised limits on the ability of the construction industry locally to increase production beyond a certain point.

3.17 Factors determining which method should be used are influenced to a degree by the geographical scale of the area being planned. At the national or regional scale it is not possible for development planning policies to exert a great influence on the level of growth. People will want to move freely to any part of the country, assuming they have the ability, financial or otherwise, to do so. In this case trend growth projections of population growth and, therefore housing requirements, are generally the best solution. At the very local level such as an electoral ward, however, it is capacity in terms of developable land that almost entirely determines housing provision. At intermediate levels varying elements of both demand and supply approaches are used. In reality, most plans at local authority level take a more multi dimensional approach, looking at both constraints and at trends.

Changes to demographic drivers

3.18 The first issue is to determine whose need it is that the plan is attempting to meet. No area covered by a Local Plan is a self-contained and independent entity. People are free to move places of work and residence as they see fit and as their finances allow. If new housing is provided in one district there is nothing except economic and social factors to prevent people from elsewhere moving to take up opportunities intended in the plan to meet the needs of “local people” or perhaps people in local jobs. For convenience we usually look at the future contribution of net migration change and forget that much larger numbers of people in the population are moving in and out of the district all of the time. Typically, even in a rapidly growing area, the gross migration flows in and out are often each
five or more times the scale of the net flow. In an area experiencing low growth or a slight decline, the gross migration flows can total many more times the net change. These flows react to a whole range of needs and opportunities that influence the changing make-up of an area’s population.

3.19 The process of identifying the housing requirements of any plan area therefore needs to bear in mind the dynamics of the local housing market as an open system. This view should contain the broad processes shown in Figure 6.

Figure 6

3.20 In practice this is normally carried out through the integration of a wide range of analyses. Usually this is done in a fairly loosely structured way taking into account population growth trends, results of SHMA and SHLAA exercises, environmental designations and capacities and projections of economic prospects and employment change. The results of all of these are weighed up individually before a final housing requirement is reached. Sometimes the approach follows a more defined format as in, for example, the HEaDROOM methodology used by the NLP consultancy and applied for example to areas such as Torbay, Winchester and Leeds.

3.21 Other approaches, more typified by the contribution made to planning debates by commercial development interests, will use a simpler methodology, such as that of using trend projections of population and household growth without directly subjecting the results critically to examination against the housing market and various capacity data. In the latter case this does not really address the need so much as seeks a local distribution of a historic demand for housing.
The West Oxfordshire approach

3.22 The general methodology used by West Oxfordshire is described in the Local Housing Target Paper October 2012. This outlines the range of factors, in line with NPPF, that are taken into account in determining the level of housing growth in the Draft Local Plan:

i. Latest housing projections: three scenarios provided (see para 2.3 above);

ii. Evidence of housing need and demand;

iii. National household projections;

iv. Economic needs;

v. The availability of suitable land for housing;

vi. The need to improve affordability and increase housing supply;

vii. A Sustainability Appraisal of the environmental, social and economic implications;

viii. An assessment of the impact of development upon existing or planned infrastructure and of any new infrastructure required.

3.21 While many of these factors inevitably represent on-going areas of work as new evidence emerges and as plan preparation proceeds, a significant evidence base is demonstrated by publications relating to these matters on the Council’s website. NPPF requirements in terms of topic coverage at least have been addressed. The next section of this report deals with the actual content of the evidence and will be taken into account by the Council when considering the final housing requirement in the Local Plan.

4. The Draft Local Plan: Evidence review

Evidence (1) Demand / trend growth based factors

GLA (J Hollis) projections of population, households and house building requirements

4.1 The three John Hollis projections were described in para 2.3 above; these are:

Projection A - Natural Change Post 2016 - the housing requirements of the population resident in the District on the basis of expected development up to 2016 and natural change 2016-2031. It updates the projections report of May 2011 by incorporating the first results from the 2011 Census. This resulted in a target of 4,000 homes 2011-2029.
**Projection B** - Constant Labour Force Post 2016 - the required number of new homes to maintain the resident labour force at 2016 levels. This resulted in a target of 6,700 homes 2011-2029.

**Projection C** - South East Plan Housing Based - rolling forward South East Plan levels of housing development up to 2031. This resulted in a target of 5,500 homes 2011-2029 and it was this figure that was adopted in the subsequent Draft Local Plan consultation in late 2012.  

4.2 From 2011 to 2016, in each scenario, the projection was based on 2011 Census base population, known and estimated additional housing development commitments likely to be completed over the five years, and the then latest available (but pre-2011) data on migration, mortality, fertility, and household headship rates (used to convert population to households and derived from the DCLG 2008 projections).

4.2 These model scenarios were produced by a leading authority in the field of technical population projection methodology and, for translating a given set of growth assumptions into a projection of future population and households, the quality of the work probably could not be bettered.

4.3 Projection A is a scenario commonly used to give some indication of underlying “base-level demand” to give an indication of what additional housing would be required over time by the population resident at a particular date, in this case 2016. It is never intended that a natural change scenario be used as a serious basis for determining the whole housing requirement for an area but simply as a comparator for other projections. The assumption behind the projection is that the area behaves as an isolated system with no migration movement in or out and only the processes of birth, ageing and death operate on the population. In many areas, though not in West Oxfordshire’s case before 2031, this can lead to progressive decline in the population with deaths exceeding births. This scenario resulted in a target of 4,000 homes.

4.5 Projection B is a more realistic scenario in that it recognises that the ageing of the area’s working age population will lead to a decline in numbers of economically active residents if migration driven growth falls below a certain level. Scenario B in effect freezes the workforce at the 2016 level and then calculates what overall population growth, and accompanying levels of migration, are required to maintain a resident workforce of 56,800 between 2016 and 2031. Allowances are made for changing economic activity rates

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36 West Oxfordshire: Draft Local Plan Consultation October 2012, para 5.7. It should be noted that the SE Plan total 2006-2026 was 7,300 or 365 p.a. (Policies CO3 & AOSR1). The WODC “Local Housing Target Paper” (Oct 2012) para 3.10 explains the derivation of the Draft Local Plan target of 5,500 as follows:

“Under the South East Plan scenario, the housing requirement for the period 2011 – 2029 is 5,500 equating to around 306 per annum. This includes the 359 homes built 2011/12, a further 1,437 new homes planned between 2012 and 2016 and a residual requirement of 3,700 in the period 2016 to 2029. In reaching this requirement, account has also been taken of the 3,000 homes built 2006-2011.”


38 North Korea is probably is probably one of the few places that gets close to this scenario.

39 The proportion of the population of a given age and gender to be either in work or unemployed and looking for work.
(particularly amongst older workers) and Government policy on putting back state pensionable age, but only to the extent that these were covered in the last set of ONS Labour force projections produced in 2006. This scenario implicitly assumes that any increase or decrease in demand for labour on the part of local employers will be met through proportionate increases or decreases in commuting flows.

4.6 How reasonable is this? Prior to the start of the recession in 2008 this would not have been an obvious option. West Oxfordshire lies in one of the most prosperous sub-regional economies of the second most economically vigorous regional economy in the UK. In the ten year period from 1996 until 2006, the base year of the RSS, West Oxfordshire’s total local employment grew by 7,000 jobs, an annual growth rate of 1.7%. Economic output (GVA) increased by the unusually high amount of 5.1% per annum during this time. By contrast, between 2006 and 2016, Cambridge Econometric’s (CamEcon) forecast that the net job increase will only amount to around 500, a slight rise that disguises an actual fall that is forecast at 1,400 jobs between 2008 and 2016. It is only after 2016 that locally situated employment levels are forecast to begin a slow recovery reaching 48,200 in 2029 and 48,800 in 2031, an increase from 2011 of only 2,200 and 2,800 respectively (Fig 7).

Figure 7
West Oxfordshire: Actual and forecast annual employment growth trends 1990-2031

Source: Cambridge Econometrics Oct 2012

40 ONS Projections of the UK Labourforce 2006 to 2026, January 2006. These projections, for example, modelled the revision of state retirement age to age 67 by the mid 2030s but not its recent bringing forward to 2027
41 Gross Value Added.
42 GVA and Employment data from Cambridge Econometrics Local Economy Forecasting Model Oct 2012. These figures combine both employee jobs located in West Oxfordshire and also the self employed whose work base is recorded as being located in the District.
4.7 Fig 7 shows how much flatter the 2011-31 forecast jobs trend (shown as a brown dotted line) is compared with that of the previous 20 years (the blue dotted line). Fig 8 shows that West Oxfordshire’s employment growth rate in the past has been, and is expected to remain higher, than nationally and also the wider South East. On this basis, therefore, the assumption of a “steady state” workforce in West Oxfordshire post 2016 is not at all as unrealistic as a basis for planning for future population and housing growth as it might at first appear. The supply of jobs 2,200 net additional jobs to 2029 alongside a static local workforce that, if correct (and we are talking about the uncertainties of forecasts here), would have little overall practical effect on inward commuting flows, particularly given the scope for increased labour force participation from older workers in the light of increasing pensionable age.

Figure 8 West Oxfordshire, South East, UK: forecast total employment 1990-2031

Index: 1991=100 Source: Cambridge Econometrics Oct 2012

4.8 Projection C is based on a realistic scenario that has the merits of having gone through the rigours of public consultation and examination as part of the South East Plan (RSS). Nevertheless, like the 2008 based and the earlier ONS and DCLG projections that informed it, the RSS was developed in the pre-recession period and its policies and proposals were set in the context of greater economic optimism. There is therefore a question as to whether the RSS growth figure is still sufficiently up to date. Nevertheless, given its status even as part of a now revoked plan, it must at least form the starting point for identifying a housing requirement.

4.9 The South East Plan was based on an assumption of an average economic growth rate 2006-26 of 3.0%. This assumption was quite modest at the time the draft Plan was examined in 2007. Between 1996 and 2006 GVA in the region as a whole had grown by 3.8% p.a. Since 2006, of course, the picture has changed quite dramatically as we’ve seen for West Oxfordshire itself. The latest CamEcon forecasts now suggest that GVA growth will average only 1.2% p.a. 2006-16 (having fallen by an average of 2.0% p.a. between 2007 and 2009). Even taking the whole period 2011-31, output growth is forecast only to average

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43 South East Plan (2009) p15, para 3.4 (Core objectives).
2.2% (Fig 9). However, it must be remembered that the District housing growth figures in the RSS were by no means a simple reflection of relative economic and employment growth rates and many other social and environmental factors relating to sustainable development requirements as well as political factors helped to determine the final housing growth total.

**Figure 9  Actual and forecast annual GVA growth: West Oxfordshire**

Source: Cambridge Econometrics Oct 2012

4.10 The initial conclusion is that Projection A is not intended to be a realistic scenario, but is useful for comparison purposes. Projections B and C each have much more validity as a serious attempt to identify a housing requirement. However, a part, though certainly not all, of the credibility of both rests on their economic background assumptions and what bearing this has on population change and housing requirements. In addition, the three Hollis projections assume that the number of additional homes required matches the additional households projected. In other words allowance is not made for the inevitable vacancies that occur in the housing stock at any one time. These will be discussed in greater depth below.

**Projections from ONS and DCLG: introduction**

4.11 Until April 2013, just as this report was written, the latest full set of DCLG sub-national household projections were 2008 based and published in November 2010. These and the 2008 based ONS sub national population projections (SNPP) from which they are derived, are a reflection of past trends. As already mentioned above, all pre-date the onset of the recession in 2008 and the period of depressed growth that has occurred since. Since then, ONS has released a 2010 based SNPP in March 2012, an “interim” set of 2011 based

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SNPP\textsuperscript{46} and, most recently in April 2013, interim 2011 based household projections (ISHP). Unfortunately the latter projections only cover the period 2011-21 and, while they have been updated with information from the 2011 Census (such as base year population size and structures), they still use migration estimates based on a combination of 2001 data updated with movement statistics from NHSCR\textsuperscript{47} patient records.

4.12 It is essential to note that the official projections are just a reflection of recent trends which pre-date the base year for the projection. These are not intended as forecasts and do not, for example, show the impact of local or national policy decisions, such as those that might affect the rates of economic and housing growth and hence migration into an area. ONS issue a regular warning with all of their projection releases stating:

\textit{These projections are not forecasts and do not attempt to predict the impact that future government or local policies, changing economic circumstances or other factors might have on demographic behaviour.}

\textit{The primary purpose of the subnational projections is to provide an estimate of the future size and age structure of the population of local authorities in England. These are used as a common framework for informing local-level policy and planning in a number of different fields as they are produced in a consistent way.}\textsuperscript{48}

4.13 The short projection horizon of the interim 2011 based household projections does raise a some issues. Until the time of their publication (April 2013) use of the 2008 based household projections to derive the housing total were the most recent available from DCLG. As these were based on the high rates of pre-recession period migration incorporated into the 2008 SNPP these suggested far higher rates of migration induced growth than has subsequently proven to be the case. Pro-development interests at planning appeal inquiries and at public examinations for local development plans, therefore have often argued that use of the 2008 based household figures in line with the NPPF in spite of the evidence for much lower population, and therefore household, increase suggested by the 2010 and 2011 based SNPP. This argument has been accepted by some Planning Inspectors at planning appeals.\textsuperscript{49} However, household projections based on a combination of 2010 based SNPP population figures and household headship rates derived from the 2008 based DCLG projections have been accepted at plan examinations as evidence that the raw 2008 based household figures are now obsolete.\textsuperscript{50} This position is now confirmed by the 2011 SNPP and ISHP figures, even though projections only run to 2021.

\begin{flushright}
\textsuperscript{47} National Health Service Central Register. \\
\textsuperscript{48} ONS 2012b op. cit. p2. \\
\textsuperscript{49} For example see Appeal Decision APP/X1165/A/11/2165846 Riviera Way, Torquay, June 2012. \\
\textsuperscript{50} For example this was a major point of debate at the South Gloucestershire Local Plan EiP in June/July 2012 and the Council’s use of 2010 based projections was later tacitly supported by the Inspector’s Report (South Gloucestershire Local Plan: Core Strategy 2006 - 2027 \textit{Inspector’s Draft Main Modifications} Oct 2012). 
\end{flushright}
i) ONS subnational population projections

4.14 The first question is how does the rate of population growth projected in the 2010 and 2011 SNPPs compare with past experience? This is shown in Tables 1, 2 and Fig 7.

| Table 1  West Oxfordshire total population: ONS Mid Year estimates and projections |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 2008 based SNPP                 | 81,700      | 90,100      | 91,000      | 94,000      | 95,700      | 100,300     | 105,400     | 110,000     | 115,100     | 119,900     | 124,200     |
| 2010 based SNPP                 | 105,000     | 110,000     | 115,100     | 119,900     | 124,200     |
| Interim 2011 based SNPP         | 105,442     | 111,188     | 116,722     |

Source: ONS

4.15 Population growth in West Oxfordshire averaged 930 people a year during the 1980s but slowed substantially in the latter part of the decade, a time when many other areas in southern and eastern England were showing faster growth as activity in the housing market reached a peak in the mid to late ‘80s. The rate of growth in the 1990s was little more than half that of the previous decade but picked up again to an average of 920 persons p.a. from 2001 -6 as construction levels rose again and the housing market boom, which started in the late 1990s, continued. This high rate of growth has continued, somewhat surprisingly, during the recession dominated 2006-11 period to average 1,020 persons pa.

4.16 The pattern of population growth in the District since 1981 has therefore been punctuated by periods of accelerated growth followed by periods of consolidation. This

51 Even allowing for the fact that these are ONS’ mid year estimates as yet uncorrected for discrepancies for between the estimates and the 2011 Census figure for the District, this suggests a rapid rate of growth.
cycle has not always synchronised with periods of growth and decline in the wider national housing market. The fitted (linear) trend line in Fig 10, covering the whole period 1981-2011, suggests a central long term growth trend of 655 persons p.a. and this is close to the average annual growth rate of 620 p.a. shown during the 1991-2006 period (Table 2).

4.17 This indicates a potential problem for plan-making in West Oxfordshire in that ONS population projections, and the DCLG household projections which are based on them, are strongly influenced by migration trends over the preceding five years. The high rate of growth recorded over the 2006-11 period is therefore going to feed into the latest ONS projections at a rate that may be unrealistically high compared with the District’s long term performance. This is particularly striking at a time when many other local authorities have experienced lower than normal growth due ultimately to the economic slow-down. The issue will be investigated further below.

4.18 How do these past growth trends compare with recent ONS sub-national population projections (SNPP)? Trends immediately pre-dating 2007/8 are naturally reflected in the 2008 based SNPP which shows an average annual increase of 1,010 people between 2011 and 2021, falling after 2026 to give an average figure of 960 p.a. over the 20 year period 2011-31. (Tables 1 and 2). The 2010 based SNPP shows a further fall in the projected growth rate (to 860 and 740 person p.a. respectively). However, the Interim 2011 based projections show a more rapid rate of increase 2011-21 to 1,128 p.a. This is higher than even the annual increase during the 2006-11 period shown in the (unadjusted) mid-year estimates, and certainly even further above the long term historic growth trend of 655 p.a. (given in Fig 7) than the 2008 and 2010 based projected population growth (see Fig 11).

| Table 2  West Oxfordshire total population: actual & projected rates of change 1981-2031 |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| **ONS Mid Year Estimates** | Change 1981-91 = 9,300 | Change 1991-2006 = 9,300 | Change 2006-11 = 5,100 | Average Change p.a. = 930 | Average Change p.a. = 620 | Average Change p.a. = 0.7% |
| % change p.a. = 1.1% | % change p.a. = 0.7% | % change p.a. = 1.0% |

| **2008 based SNPP** | Change 2011-21 = 10,100 | Change 2011-31 = 19,200 | Average Change p.a. = 1,010 | Average Change p.a. = 960 | Average Change p.a. = 0.8% |
| % change p.a. = 0.9% | % change p.a. = 0.7% |

| **2010 based SNPP** | Change 2011-21 = 8,600 | Change 2011-31 = 14,800 | Average Change p.a. = 860 | Average Change p.a. = 740 | Average Change p.a. = 0.8% |
| % change p.a. = 0.8% | % change p.a. = 0.7% |

| **Interim 2011 based SNPP** | Change 2011-21 = 11,280 | Average Change p.a. = 1,128 | Average Change p.a. = 1.0% |

Source: ONS
Note: ‘% change’ indicates compound % rate
4.19 The reason for the behaviour of the Interim 2011 projections is not very clear. These projections use the same assumptions as the last set of sub-national projections (2010-based) because the updated 2011 Census-based historic trend data are not yet available. Internal migration (and fertility and mortality) may therefore have been affected by this. We will consider how these results compare with the GLA projections for West Oxfordshire below.

**Fig 11 West Oxfordshire total population: ONS Mid Year estimates and projections**

![Graph showing population projections](source: ONS)

4.20 The ONS population projections are always the starting point for the equivalent set of household projections produced by DCLG, one of the consequences being that the Interim 2011 sub-national projections (ISHP2011) similarly do not extend beyond 2021.

4.21 The problem of the shorter term nature of the interim projections has been overcome in this report by extending the projections beyond 2021 to 2031. The crudest way of doing this would of course be simply to use the arithmetic rate of increase from the projections for 2011-21 and then apply this to the 2021-31 period, in other words simply to double the growth. To this we add actual household growth from 2006 to 2011 using the 2011 Census figures to provide a measure of growth from the 2006 base year all the way to 2031. This would result in total household growth of twice the 2011-21 figure of 5,270 (ie. 10,540) to 2031, or 9,990 for the 2011-29 Plan period.

4.22 The drawback to this approach is that the calculations in the model underlying the DCLG figures are much more complex and do not imply a uniform growth rate throughout the 2011-21 period, quite apart from that of the following decade. Table 3 and Fig 12
therefore includes an Extended 2011 based household projection (EH2011). This is calculated as follows:

ii) Each of the five year age cohorts in the ONS Interim 2011 based population projections (ISNPP2011) is extended for each projection year beyond 2021 to 2031 using the rates of change for the equivalent cohort ONS 2010 based SNPP (SNPP2010).

ii) Household representative rates (HRR) from the DCLG Interim sub-national household projections (ISHP2011) are calculated for each age/ gender group of the private household population are extended beyond 2021 by applying the average annual rate of change 2011-21 for each HRR age/ gender group to each year in the 2021-26 period, and then holding the rates steady until 2031. The composite HRR values calculated in this way are shown in Appendix 2.

iii) the extended HRRs in (ii) are applied to the extended ISNPP private household population age cohorts and summed to produce a total household figure for each year between 2021 and 2031.

iv) housing occupancy rates are applied to the household numbers to obtain a total housing requirement including allowance for vacant dwellings and second homes.

Figure 12 Household growth 1991-2035: Extended 2011 & DCLG 2008 based projections

52 This solution was arrived at after comparing the results with a standard method that involved fitting and comparing both simple linear trend and power functions fitted to the age and sex specific HRRs in the ISHP2011 household projections. The power function takes the form $Y = CX_i^a$ where $y$ is the forecast HRR value, $c$ and $a$ are constants and $x_i$ is the $i^{th}$ year in the time series. In the event, the DCLG figures for the 2011-21 period were found not to change consistently enough to be described readily in this way and applying a simple average rates of change to the 2021-26 period was found to provide more stable results.
Table 3  W Oxon: Comparison of recent household projections

<table>
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<th>2006</th>
<th>2011</th>
<th>2016</th>
<th>2021</th>
<th>2026</th>
<th>2029</th>
<th>2031</th>
<th>Total household change 2011-21</th>
<th>Total dwellings 2011-21 at 5.2% Vacant/2nd homes</th>
<th>Total household change 2011-29</th>
<th>Total dwellings 2011-29 at 5.2% Vacant/2nd homes</th>
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<td><strong>Extended 2011 based (EH2011)</strong></td>
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<td>Growth in preceding period</td>
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<td>2,800</td>
<td>2,474</td>
<td>1,920</td>
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<td><strong>DCLG 2008 based (DCLG2008)</strong></td>
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<tr>
<td>Total Hholds</td>
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<td>43,190</td>
<td>46,026</td>
<td>48,921</td>
<td>51,752</td>
<td>53,777</td>
<td>54,428</td>
<td>5,731</td>
<td>6,029</td>
<td>10,187</td>
<td>10,717</td>
</tr>
<tr>
<td>Growth in preceding period</td>
<td>-</td>
<td>2,350</td>
<td>2,836</td>
<td>2,895</td>
<td>2,831</td>
<td>1,625</td>
<td>1,051</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>J Hollis Scenario A</strong></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>Natural change</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Hholds</td>
<td>40,840</td>
<td>43,200</td>
<td>45,000</td>
<td>45,900</td>
<td>46,700</td>
<td>47,200</td>
<td>47,500</td>
<td>2,700</td>
<td>2,840</td>
<td>4,000</td>
<td>4,208</td>
</tr>
<tr>
<td>Growth in preceding period</td>
<td>-</td>
<td>2,360</td>
<td>1,800</td>
<td>900</td>
<td>800</td>
<td>500</td>
<td>300</td>
<td></td>
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<td><strong>J Hollis Scenario B</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Stable labour force</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>Total Hholds</td>
<td>40,840</td>
<td>43,200</td>
<td>45,000</td>
<td>45,800</td>
<td>48,800</td>
<td>49,900</td>
<td>50,600</td>
<td>3,600</td>
<td>3,787</td>
<td>6,700</td>
<td>7,048</td>
</tr>
<tr>
<td>Growth in preceding period</td>
<td>-</td>
<td>2,360</td>
<td>1,800</td>
<td>1,800</td>
<td>2,000</td>
<td>1,100</td>
<td>700</td>
<td></td>
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<td><strong>J Hollis Scenario C SE Plan led</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Hholds</td>
<td>40,840</td>
<td>43,200</td>
<td>45,000</td>
<td>46,400</td>
<td>47,800</td>
<td>48,700</td>
<td>49,300</td>
<td>3,200</td>
<td>3,366</td>
<td>5,500</td>
<td>5,786</td>
</tr>
<tr>
<td>Growth in preceding period</td>
<td>-</td>
<td>2,360</td>
<td>1,800</td>
<td>1,400</td>
<td>1,400</td>
<td>900</td>
<td>600</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: ONS/DCLG, K Woodhead (EH2011)
4.22 The results of this analysis show an interesting feature of the DCLG 2011 (ISHP2011) projection (and therefore the extended 2011 projection EH2011). Although we saw that, in West Oxfordshire, the Interim 2011 SNPP showed population increasing at a slightly faster rate even than the pre-recession based 2008 based SNPP, Table 3 and Fig 12 demonstrate that the ISHP2011 projection shows households increasing at a slower rate than DCLG2008. This is due entirely to a reduction in projected household formation rates (HRRs), based on 2011 Census evidence, particularly amongst younger adults.

4.23 Figs 9 and 10 shows the trend rate of growth in ISHP2011/ EH2011 is still considerably steeper than the 1991-2006 pre-recession trend and reflects in part the increase in the growth rate of the District’s household numbers from 2001 onwards. However, the projected rate of growth for EH2011 slows slightly after 2026. The Hollis Scenario B (stable labour force) projection increases approximately in line with the 1991-2006 trend throughout the projection. Hollis Scenario C (SE Plan led) shows similar growth to the long term trend up to 2016, slowing sharply thereafter.

4.24 What do these projections mean in terms of a potential housing requirement in the Local Plan. If we assume that every additional household post 2011 in the projection will

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53 Note that the trend equation parameters for 1991-2006 differ slightly between Figs 9 and 10. This is due to the fact that 5 year interval data is used in Fig 10 (as was published in the Hollis (2012) report) whereas Fig 9 is based on single year data from 1991 onwards.
require a separate dwelling,\textsuperscript{54} then we still need to allow for the fact that there will always be some vacant dwellings in the housing stock, if only to allow turnover in the housing market. It is also necessary to allow for the existence of a certain number of second homes, particularly in an area of high environmental quality such as West Oxfordshire. In the 2011 Census 5.2\% of “household spaces” (equivalent to dwellings) had “no usual residents”.\textsuperscript{55} Table 3 therefore applies this percentage to the additional household numbers in each projection to produce a dwelling requirement. The results are also shown in graphic form in Fig 14.

**Figure 14 West Oxfordshire household projections: Total additional dwellings 2011-29**

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure14}
\caption{West Oxfordshire household projections: Total additional dwellings 2011-29}
\end{figure}

4.25 It was noted earlier that the John Hollis projections did not allow for the inevitable effect of vacant dwellings in his three scenarios. This is corrected in Table 3 and Fig 11, the total dwelling requirement for Scenario C (SE Plan based) rising to almost 5,800 over the 2011-29 plan period and Scenario B (stable labour force) to over 7,000. These figures are of course still considerably lower than the EH2011 projection at 8,677. The now outdated DCLG2008 projected would have implied 10,717 dwellings, a level almost twice as high as the Hollis SE Plan led scenario.

4.26 It has to be remembered of course that the EH2011 figure is derived from a trend led projections and does not necessarily provide a valid answer in planning terms. Nonetheless, it will carry a degree of evidential weight. An alternative approach that will look at these projections from a more supply led, economic growth related perspective is described later in this report.

4.27 **Comment:** On the analysis of evidence so far, West Oxfordshire’s Draft Local Plan (Oct 2012) total of just over 5,500 dwellings for the 2011-29 plan period appears to be exceeded by the trend growth evidence. There is a sharp difference between the 2008 based

\begin{itemize}
\item \textsuperscript{54} I.e. it assumes that the number of households sharing accommodation in 2011 will remain the same throughout the projection (and will therefore decline gradually as a percentage of all households as the total number of households rises).
\item \textsuperscript{55} Census 2011 Table KS401EW
\end{itemize}
household (DCLG2008) and the later extended interim 2011 projections (EH2011) but the latter is still very substantially more than the Hollis Scenario C (SE Plan based) projection that the Draft Plan (Policy 6) is derived from, although it is noted in the Local Plan that the figure is not a ceiling and may be exceeded. Even the Hollis Scenario B (stable labour force) is 50% lower than the EH2011 total for 2011-29, and this option was rejected by the Draft Local Plan on the grounds that it would place existing and planned infrastructure under greater pressure and would be likely to have negative impacts on the Plan’s sustainability with the release more greenfield land.

4.28 The implication in the Draft Plan is that the existence of an apparent housing market demand does not necessarily mean that satisfying it overrides all other considerations, particularly that of wider sustainability. At the same time the Government’s current priority to “boost significantly the supply of housing” will need to be addressed.

4.29 In addition to this it was noted above that the John Hollis report made no allowance for the impact of vacant dwellings in the new dwelling stock. While it could be argued that, in the main, modern market sector housing, and certainly social (affordable) housing, would not be greatly affected by the second homes element of the 5.2% vacancy rate, this still leaves a figure of approximately 3% as simple housing stock vacancies. However, a small proportion of additional homes each year is built specifically for use as second homes or, not unusually, converted from other uses. It therefore appears to be a fair assumption that the 5.2% figure may be applied with some confidence.

4.30 There is, of course, no simple “right” answer to the question of what is the dwelling requirement and it is necessary to look at where a number of other strands of evidence point before arriving at a conclusion. The next section of this report therefore looks at the evidence. This will consider “supply” or capacity based factors. It will then draw some conclusions as to which of the several available projections appears to provide the most stable basis for obtaining the preferred strategy housing total.

**Evidence (2): Supply/ capacity based factors**

4.30 This section will focus mainly on three elements: land capacity and housing supply, affordability and housing need, and economic growth capacity.

**House building and land capacity**

4.31 The results of the 2013 SHLAA update were not available at the time of writing (April/May 2013) and comments here must necessarily depend on the earlier information in the West Oxfordshire Local Housing Target Paper, SHLAA Interim Report 2011, and the Position Statement on Housing Land Supply.}

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56 West Oxfordshire Draft Local Plan (Oct 2021), para 5.7.
57 Ibid, para 5.8.
58 Strict housing need however is a different matter.
59 NPPF para 7.
4.32 The Position Statement identified capacity for a total of 1,780 deliverable homes for the period 1/4/2013 to 31/3/2018, an average of 356 p.a. If sustained at this rate, and including the 359 housing completions in 2011/12, this would be the equivalent of a total of just over 6,400 dwellings for the 2011-29 Plan period. While this would easily be sufficient for the SE Plan based total of 5,500, it would fall short of the Hollis Scenario B figure of 6,700 (or 7,048 including vacancies), and well under the 8,677 indicated by the EH2011 projection. The annual rate is also lower than the 450 p.a. set out in the West Oxfordshire Local Plan 2011 that was adopted in 2006 (see Table 4 and Fig 15).

Table 4 Average annual housing completions: Actual completions and previous Plan rates

<table>
<thead>
<tr>
<th>Period</th>
<th>Actual Completions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991-2011</td>
<td>473</td>
</tr>
<tr>
<td>1991-2006</td>
<td>427</td>
</tr>
<tr>
<td>2001-2011</td>
<td>582</td>
</tr>
<tr>
<td>2008-2012</td>
<td>436</td>
</tr>
<tr>
<td>Local Plan 2001-11</td>
<td>450</td>
</tr>
<tr>
<td>South East Plan 2006-26</td>
<td>365</td>
</tr>
</tbody>
</table>

4.33 In terms of the past delivery performance of the construction industry in West Oxfordshire, it has shown the capacity in the past to deliver housing numbers considerably in excess of the 365 units p.a. in the SE Plan (2006-26) or the 305 units a year proposed in the Draft Local Plan 2011-29 (Table 4). In fact the 2001-11 period saw an average of 582...
p.a., while even during the recession dominated years 2008-12 completions averaged 436. Construction capacity is not therefore likely to be a serious constraint even if actual development land/ environmental capacity may impose tighter limits.  

**Housing need and affordability**

4.34 West Oxfordshire is an area of immensely attractive landscapes and architectural environment. This, together with its ease of access to Oxford, London and south east England in general, has made it a popular location for wealthy house buyers seeking a main or a second home. A consequence of this is the inevitable fact that house prices in the District are very far from being affordable. Fig 16 shows that while West Oxfordshire is slightly less affordable than Cherwell and Vale of White Horse Districts, it is at least better placed than South Oxfordshire and the City of Oxford in terms of affordability to those on lower incomes.

**Figure 16 Ratio of lower quartile house price to lower quartile earnings by Oxfordshire district 1997-2012**

![Graph showing ratio of house price to earnings](image)

Source: DCLG

4.35 Affordability levels in West Oxfordshire were at their worst in 2007 (the ratio of price to income for the lowest quartile prices to the lowest quartile of local earnings reaching 10.7). The onset of recession in 2008 saw a temporary drop in prices but the situation has

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61 WODC Local Housing Target paper, para 2.8 notes that the District has limited capacity to absorb growth, and this supported by the Draft Local Plan Sustainability Appraisal, Table 13: SA summary of housing growth options.
now stabilised. In reality, these falls have done little to change the situation for most local people as lowest quartile prices have remained around nine times income.

4.36 Fig 17 places affordability in West Oxfordshire in a broader geographical context, showing how it compares with areas outside Oxfordshire county. Poor though the District’s affordability position is, it is considerably better than that of neighbouring Cotswold District (which at 10.8 in 2012 had the worst ratio in Gloucestershire) and with which West Oxfordshire shares a similar socio-economic profile. The graph also shows a similar ratio to Stratford-on-Avon. Nevertheless, West Oxfordshire’s affordability ratio is still higher than the South East as a whole at 8.2 in 2011, and as might be expected, nearby Swindon at “only” 6.2. In reality, even Swindon’s ratio is small consolation for those on modest or median incomes of course.

Figure 17 Ratio of lower quartile house price to lower quartile earnings West Oxfordshire & other neighbouring areas 1997-2012

4.37 The Local Housing Target Paper notes that there are two main sources of evidence of housing need and demand in West Oxfordshire; the Oxfordshire Strategic Housing Market Assessment (SHMA) of 2007 and the West Oxfordshire Housing Needs Assessment published in 2008 and updated in 2011. Both documents highlight very significant shortfalls in affordable housing and an excess demand for market housing across the District. The 2007 SHMA found that the annual demand for market housing is 1,300 – 1,500, while the annual demand for affordable housing was estimated at 400 – 500. This is equivalent to a

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62 For example, the proportion of employees who are managers, directors and senior officials in West Oxfordshire is 14.6% compared with 14.9% in Cotswold (ONS Annual Population Survey, Oct 2011 – Sept 2012).
total demand for 1,700 – 2,000 new homes per year. An update to the SHMA is being undertaken in 2013 but the situation is unlikely to have improved since.

4.38 The West Oxfordshire Housing Needs Assessment (2008) was based on a household survey. It found that compared with the South East Plan annual requirement of 365 homes p.a. there is an annual shortfall of 830 market sector and 567 affordable homes. As the evidence in Fig 12 above shows, this scale of completions - a total of 1,397 p.a. has never remotely been approached in recent years in West Oxfordshire. The 2011 update document showed an increase in the affordable shortfall to 592 dwellings.

4.39 The Draft Local Plan notes that past delivery and evidence on financial viability has shown that 50% affordable housing can be achieved in much of the District. This is impressive and reflects the high residual land values in the District. Continued delivery at, say, 40%-45% overall will make a major contribution towards increasing the affordable housing supply, but the scale of delivery indicated by the SHMA and the Needs Assessment, it has to be said, is beyond all realistic prospects. Firm advice from the Planning Inspectorate however has pointed out not only the importance of viability testing of affordable housing targets as evidence of deliverability, but also that the often very high total need figures provided by SHMAs on their own are not sufficient.

4.40 The Housing Needs Assessment Update document has pointed out pressures in the private rented market similar to those for the owner-occupied sector. It notes that, overall, rents increased by 7% across the District 2008-11, and that 83.8% of new households forming cannot afford to rent in the private market.

4.41 Even if the levels of construction indicated by the SHMA and the housing needs assessments were remotely feasible, could it be hoped that such a level of supply would bring house prices and rents down? The difficulty with this data is that, at the level of an individual District, and probably a county or even a geographical housing market area in isolation, the supply of housing does not in general have a noticeable impact on prices. One of the (many) lessons of the 2007/08 “credit crunch” caused by the international banking crisis that preceded the recession was that it is the availability of loans that has by far the dominant impact on property prices. In this respect it is national policy rather than local that has the bigger effect, particularly in attractive locations such as West Oxfordshire where any relative decline in local prices tends to be eradicated immediately by the effects of demand over a much larger geographical area. The market in new houses at any one time typically tends to be only around 10% of all available properties for sale and on the whole it is this much larger secondhand stock that dominates the options available to house buyers.

4.42 We conclude that changes in the scale of future house building in West Oxfordshire are not likely to have a great effect on affordability per se. However it is likely to affect choice and could lead to fewer market shortages of small lower cost dwellings (and hence have an indirect impact on affordability by restricting choice). In affordability terms, the

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63 West Oxfordshire Draft Local Plan (Oct 2012), para 5.25.
64 Planning Inspectorate, “Applying lessons learnt in England to the production of Local Development Plans”, July 2010 para. 1.8-1.9
issue therefore is as much a question of influencing the mix of housing provided as of the total scale of development.

Economic change and the impact of recession

4.43 The detailed picture regarding economic growth capacity has been set out in the Council’s Economic Study and Economic Study Update documents\(^65\) and the following account will therefore identify just some of the main themes and issues.

4.44 The Economic Study was completed shortly before the onset of the international banking and credit crisis in 2007 and the subsequent period of recession and then, at best, very weak growth that followed from 2008 onwards. It concluded that West Oxfordshire is:

“a prosperous area with a relatively good performing local economy, above average levels of entrepreneurial activity, low unemployment and a tight labour market. The main strengths of this local economy, which will influence its ability to support new employment space, include:

- a high quality environment and an attractive place to live for skilled staff;
- proximity to Oxford with potential for spin-offs or relocations from the City’s knowledge based sectors;
- some clusters of certain higher technology industries, such as high performance automotive engineering and manufacture of bio-medical equipment;
- a diverse economic base;
- above average growth in new business formation;
- a reasonably skilled local labour force;
- a strong and growing tourism sector.”\(^66\)

4.45 However, the report also noted a number of potential threats and weaknesses to economic growth including a tight labour market with very low unemployment, poor housing affordability and shortages in the social rented sector, a somewhat limited road and public transport infrastructure with high levels of commuting and congestion on major routes particularly the A40, competition from strong neighbouring urban centres, a comparatively high proportion of employment in the manufacturing sector, a sector in decline nationally and competing with lower cost overseas location, strong environmental quality related planning restraints on growth and some limitations in the tourist accommodation offer that could constrain that sector.

4.46 Three main economic growth options were examined by the study: “Steady growth” that basically continued along then current trends, “Higher growth” which aimed to place an even greater emphasis on stimulating entrepreneurship, especially in high value/high growth sectors, and “Indigenous growth” a lower growth, lower impact scenario. The analysis. “Steady growth” was the option eventually endorsed for early versions of the LDF Core Strategy which provided for up to 10,000 jobs whilst broadly maintaining a steady

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labour supply (at 2011 levels) in order to improve the balance of labour and jobs by providing potential for reduction of outward commuting.\textsuperscript{67}

4.47 The 2007 study had already noted West Oxfordshire’s high level of net out-commuting. In 2001,\textsuperscript{68} around 18,200 people travelled out of the District to work, equivalent to 36% of all employed residents. The proportion of the workforce out-commuting had more than doubled over the decade following the 1991 Census. The majority of these were to other Oxfordshire districts, Oxford itself attracting 14% of these out-commuters. This outflow was only partly offset by some 10,350 people travelling into West Oxfordshire to work and filling almost 24% of all jobs based in the District.

4.48 This picture has consequences for West Oxfordshire’s level of self-containment. In terms of the proportion of all residents in work who both live and work within the District (identified here as the “place of residence” definition), self-containment stood at 64% in 2001, compared with 68% in 2001. However the 2007 study observed that, in spite of this increased tendency for resident to commute out of the District, the rate was similar to Cherwell, and higher than both South Oxfordshire and Vale of the White Horse. All were, as expected, lower than Oxford (76%), reflecting the City and its environs’ role as the main employment centre for the County.\textsuperscript{69}

4.49 Self-containment based on place of residence is not the whole picture, however. More recent work which analyses data from the ONS Annual Population Survey has been undertaken covering all local authorities in Great Britain.\textsuperscript{70} This compared results from the residence based definition with a “workplace” definition, i.e. the proportion of jobs within the local authority area that are occupied by local residents. This provides an additional yardstick that overcomes the problem that an area can have, for example, a high level of residence based self-containment but, owing to an insufficient local labour supply, attracts large (and arguably unsustainable) number of in-commuters. Being based on a sample, albeit a fairly large one, the results are supplied with 95% confidence limits, i.e. the range outside of which there is only a one in twenty chance of the “real world” population actually falling. The study found that West Oxfordshire was 68% (plus or minus 13 percentage points at 95% confidence level) self-contained on the residence measure, but a considerably higher 77% (plus or minus 15%) for the workplace defined measure.

4.50 This result provides additional reinforcement to West Oxfordshire’s approach to reducing out-commuting through increasing local job supply relative to the workforce. Compare this with the reverse situation where residence-based self containment is very significantly higher than the workplace definition; in this case the rate at which new local jobs tend to provide employment to local residents is likely to be relatively lower. In the case of Oxford, for example, the degree of self-containment based on residence is high at 79% whereas on the workplace definition it is only 54%.\textsuperscript{71} Therefore, while a high

\textsuperscript{67} WODC (2012) op cit. Para 32.
\textsuperscript{68} Still the latest comprehensive data available at the time of writing (April 2013).
\textsuperscript{71} Ibid.
proportion of residents live and work in Oxford, every 100 jobs draw in on average 44 in-commuters.

4.51 The national impact of the economic recession and subsequent depression\(^2\) has already been noted in this report. The recession has had a severe effect on employment growth in the District, as in the rest of the UK, as already shown in Fig 9. Over the period 2004 to 2012, the number of economically active residents increased steadily to 55,800 in 2006 and then fell sharply in 2009 to 50,500 (Table 5). After a recovery to 55,900 in 2011, the 2012 figure fell again to 52,600. Unemployment\(^3\) rose in step with this from 1,200 (2.1%) in 2005 to a peak of 4.3% in 2009. This has been followed by a period where rates have remained fairly static, a slight improvement in 2010-11 being followed by a somewhat worse position in 2012 (Fig 18).

Table 5 All economically active residents In employment & unemployed

<table>
<thead>
<tr>
<th></th>
<th>West Oxfordshire</th>
<th>South East</th>
<th>Great Britain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In Empl’mt</td>
<td>Unempl (%)</td>
<td>(%)</td>
</tr>
<tr>
<td>Jan 04- Dec 04</td>
<td>52,100</td>
<td>1,200</td>
<td>2.3</td>
</tr>
<tr>
<td>Jan 05- Dec 05</td>
<td>55,000</td>
<td>1,200</td>
<td>2.1</td>
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<tr>
<td>Jan 06- Dec 06</td>
<td>55,800</td>
<td>1,600</td>
<td>2.8</td>
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<tr>
<td>Jan 07- Dec 07</td>
<td>54,600</td>
<td>1,500</td>
<td>2.7</td>
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<td>Jan 08- Dec 08</td>
<td>54,800</td>
<td>1,700</td>
<td>3.0</td>
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<td>Jan 09- Dec 09</td>
<td>50,500</td>
<td>2,300</td>
<td>4.3</td>
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<td>Jan 10- Dec 10</td>
<td>54,200</td>
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<tr>
<td>Jan 11- Dec 11</td>
<td>55,900</td>
<td>2,100</td>
<td>3.7</td>
</tr>
<tr>
<td>Jan 12- Dec 12</td>
<td>52,600</td>
<td>2,300</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Source: ONS Annual Population Survey & Nomis (model based data)

4.52 These totals are taken from the ONS Annual Population Survey and are therefore subject to a degree of sampling error. Nevertheless it is clear that the District has felt some of the impact of the current period of economic difficulty. Levels of employment amongst people resident in West Oxfordshire have remained fairly static in recent years while unemployment has grown from 2.1% in 2005 to 4.1% in 2012. In comparison with the South East region and the UK as a whole, West Oxfordshire still maintains its advantageous position, but it has certainly not been unscathed by the long downturn (Fig 19).

\(^2\) Defined as a prolonged period in which output, though past the trough of the main recession, fails to regain its pre recession level. Currently output is 3% below the last peak in Q1 2008.  
\(^3\) ILO definition – this is normally higher than the claimant count measure as it includes those actively seeking work but not currently drawing benefit. Unemployed people are defined as jobless, have been actively seeking work in the past four weeks and are available to start work in the next two weeks; or they are out of work, have found a job, and are waiting to start it in the next two weeks. [http://www.statistics.gov.uk/hub/labour-market/people-not-in-work/unemployment](http://www.statistics.gov.uk/hub/labour-market/people-not-in-work/unemployment) This definition is used by the UK Government alongside the older, narrower definition of unemployment based on unemployment benefit claimants. It measures the number of people claiming unemployment-related benefits. Since October 1996 this has been the number of people claiming Jobseeker’s Allowance. It does not include people claiming other benefits or just otherwise seeking work. [http://www.statistics.gov.uk/hub/labour-market/people-not-in-work/claimant-count/index.html](http://www.statistics.gov.uk/hub/labour-market/people-not-in-work/claimant-count/index.html)
Figure 18  West Oxfordshire Total Unemployed: All people - Economically active

Source: ONS Annual Population Survey & Nomis (model based data)

Figure 19  West Oxfordshire, South East & UK: average total unemployment

Source: ONS Annual Population Survey & Nomis (model based data)

4.53 Rising unemployment has an obvious impact on household income and is an obvious issue affecting housing affordability. One of the consequences of relative work scarcity is the increased willingness of people to take on part-time work and the past few years have seen some growth in numbers in West Oxfordshire. As a proportion of all jobs in the area, the part-time component had been relatively steady around the 31% mark over the last decade until the recession whereafter it increased to over 34% by 2010, the most recently
available position from the ONS Business Register Employment Survey (BRES).\textsuperscript{74} Whereas
the West Oxfordshire percentage of part-time jobs in 2008 matched (to within a percentage point) the proportions for both the South East and Great Britain as a whole. By 2010, the West Oxfordshire proportion had grown considerably compared with only slight change in the national and South East figures (Table 6). In spite of reports that increasing levels of low wage part-time employment are a feature of the labour market,\textsuperscript{75} general data on wages suggests that the pay of local employees has broadly kept pace with that of the South East as a whole over the past decade, a further indication of the relative good health of the local economy (Fig 21).

\textbf{Table 6  West Oxfordshire Employment 1995-2010 by full time & part time}

<table>
<thead>
<tr>
<th>Year</th>
<th>West Oxfordshire</th>
<th>South East</th>
<th>GB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full time</td>
<td>Part time</td>
<td>p/t</td>
</tr>
<tr>
<td>1995</td>
<td>19,916</td>
<td>9,267</td>
<td>31.8%</td>
</tr>
<tr>
<td>1996</td>
<td>20,683</td>
<td>9,896</td>
<td>32.4%</td>
</tr>
<tr>
<td>1997</td>
<td>22,956</td>
<td>10,147</td>
<td>30.7%</td>
</tr>
<tr>
<td>1998</td>
<td>24,000</td>
<td>11,100</td>
<td>31.6%</td>
</tr>
<tr>
<td>1999</td>
<td>24,800</td>
<td>11,700</td>
<td>32.1%</td>
</tr>
<tr>
<td>2000</td>
<td>26,200</td>
<td>11,800</td>
<td>31.1%</td>
</tr>
<tr>
<td>2001</td>
<td>26,500</td>
<td>9,200</td>
<td>25.8%</td>
</tr>
<tr>
<td>2002</td>
<td>24,700</td>
<td>9,700</td>
<td>28.2%</td>
</tr>
<tr>
<td>2003</td>
<td>24,600</td>
<td>10,400</td>
<td>29.7%</td>
</tr>
<tr>
<td>2004</td>
<td>25,400</td>
<td>11,300</td>
<td>30.8%</td>
</tr>
<tr>
<td>2005</td>
<td>25,200</td>
<td>11,900</td>
<td>32.1%</td>
</tr>
<tr>
<td>2006</td>
<td>26,400</td>
<td>11,500</td>
<td>30.3%</td>
</tr>
<tr>
<td>2007</td>
<td>26,500</td>
<td>12,400</td>
<td>31.9%</td>
</tr>
<tr>
<td>2008</td>
<td>26,800</td>
<td>12,200</td>
<td>31.3%</td>
</tr>
<tr>
<td>2009</td>
<td>24,500</td>
<td>12,400</td>
<td>33.6%</td>
</tr>
<tr>
<td>2010</td>
<td>24,900</td>
<td>13,000</td>
<td>34.3%</td>
</tr>
</tbody>
</table>

Source: ONS Annual Business Inquiry / BRES employee analysis

\textsuperscript{74} Measured by the ABI (annual Business Inquiry) up to 2008, and from then on by the BRES (Business Register Employment Survey) with an overlap year in 2008. It should be noted that differences in the way in which the official figures are compiled over time means that small variations between totals for different years may not be significant.

\textsuperscript{75} E.g. “Number of part-time workers hits record high as firms reluctant to take on full-time staff”, Telegraph 23/4/2013; this is neither a new nor an exclusively British phenomenon as other countries such as Germany have also seen increases (EWCO “Increase in low-wage ‘marginal’ part-time jobs” (12/12/2006) \texttt{http://www.eurofound.europa.eu/ewco/2006/11/DE0611019I.htm}). For more on the impact of “under-employment see: DNF Bell and DG Blanchflower (2013) Underemployment in the UK revisited, University of Stirling Management School, 21/03/13.
Figure 20  West Oxfordshire Employment 1995-2010 by full time & part time

Source: ONS Annual Business Inquiry / BRES employee analysis

Figure 21  West Oxfordshire: Gross Weekly Pay - All Full Time Workers

Source: ONS annual survey of hours and earnings - resident analysis
4.54 A further indication of labour market stress during a recession is often seen in a sharp rise in self-employment. The 2007 Economic Study noted that the pre-recession levels of self-employment were relatively very high in West Oxfordshire and that this was a particular characteristic of the local economy. At that time (2005 data) just over 9,000 self employed were resident in the District. This represented the second highest proportion of economically active people who are self employed (15.4%) in the County after South Oxfordshire. This figure was high by national (12.5%) and South East regional standards (13.7%).

**Figure 22** Self employed as % of economically active

![Graph showing self employed as % of economically active](image)

Source: ONS annual population survey

4.55 After 2005, the ONS Annual Population Survey data series reveals a rapid climb in the West Oxfordshire self employed numbers to reach 13,900 people averaged over the twelve months October 2006 - September 2007 (Fig 22). This is a surprisingly high proportion (23.9%) of the total even allowing for the possible effects of statistical sampling error. As the recession started to make itself felt during 2008, the total declined from this peak to 9 – 10% during 2009/10 when the numbers picked up by the survey as being self employed fell below 7,000, a fall of almost a half compared with only 3 years previously. The changing statistics for self employment during this time betray a high degree of turbulence in the local economy, and it is clear that, far from increasing self employment in West Oxfordshire, the recession seems to have had a negative effect on the numbers involved to the extent that they are only now recovering. Averaged over 2012 as a whole, self employment reached 17.5% compared with the South East’s 14.3% and 13.6% for Great Britain.

4.57 The recession has also affected overall levels of participation in the labour force, combined male and female economic activity rates for the 16-64 main working age group declining from a high of 86.4% in 2006 to under 75% in 2009 although, again, some of this volatility could have been due to sampling error. Currently West Oxfordshire still has a
higher than average rate at 79.9% compared with 74.7% for the South East and 70.7% for GB (2012 averages) but this is still well below the pre-recession peak.

4.58 To sum up, it is clear that while important indicators such as unemployment remain comparatively low, the West Oxfordshire local economy has still been seriously affected by the recession since 2008 and is only now beginning to show signs of concrete recovery. Factors such as reduced labour force participation (the unemployed are still regarded as economically active and seeking work), increased part-time working and fluctuating levels of self-employment all point to turbulence in the labour market than the more gradual shifts of total employment and unemployment would suggest. The labour force is operating at levels of obvious spare capacity than was the case pre-recession. Difficult though this might be at the level of an individual experiencing un- or under-employment, or trying to finance a home purchase in a situation of increased job insecurity and declining real incomes, there are a few positive as well as several negative aspects to this. In particular, the 2007 Economy Study had shown a number of signs of overheating in the labour market, with employers reporting recruitment difficulties and the appearance of more slack in the market should in theory create better potential to exploit future opportunities to expand output as market eventually recover.

**Future prospects for employment and economic growth: 2011-2029 and 2031**

4.59 Where does this leave West Oxfordshire’s future economic growth prospects? We saw in Fig 45 that even the OBR is not forecasting a return to anything like historically normal rates of economic growth until 2015. The latest Cambridge Econometrics LEFM forecasts (October 2012) suggest that rates of growth in economic output (GVA)\(^76\) will rise nationally from 1.7% p.a. in 2013-2015\(^77\) to a peak of 2.8% in 2017-18 and then settling at an average of around 2.3-2.4% p.a. after 2021. Values for West Oxfordshire are typically 0.2 percentage points higher although initially recovery post 2014 is forecast at significantly higher rates than the UK a a whole (Fig 23).

4.60 These forecasts of economic output have obvious significance for future employment growth and potential pressures on the local housing market. Critically, in this context it is worth remembering that growth of around 1.5 – 2.0% GVA pa is normally required just to hold employment numbers steady. This is due to the effects of constant productivity rises in the wider economy due in particular to global competition. The typical components of economic growth and the role played by productivity improvement are shown in Table 7 (“trend output per hour worked”). Of an average annual growth in economic output between 1986 and 1997 of 2.5%, no less than 2% was accounted for by productivity improvement. Between 1997 and 2006 this had risen to 2.3% out of total annual growth of 2.9%. Obviously the impact of this will vary according to local economic structure but the fact remains that a relatively brisk rate of economic output growth is required to support even modest increases in employment.

---

\(^76\) Gross Value Added: the value of all goods and services produced.

\(^77\) This is already looking a little on the optimistic side in April 2013.
Figure 23  West Oxfordshire & UK forecast economic output growth (GVA p.a.) 2011-31

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Trend output per hour worked</td>
<td>2.0</td>
<td>2.3</td>
<td>+0.3</td>
</tr>
<tr>
<td>Trend in average hours worked</td>
<td>-0.2</td>
<td>-0.4</td>
<td>-0.2</td>
</tr>
<tr>
<td>Trend employment rate</td>
<td>0.4</td>
<td>0.4</td>
<td>0</td>
</tr>
<tr>
<td>Population growth</td>
<td>0.2</td>
<td>0.6</td>
<td>+0.4</td>
</tr>
<tr>
<td><strong>Total Potential Output</strong></td>
<td><strong>2.5</strong></td>
<td><strong>2.9</strong></td>
<td><strong>+0.4</strong></td>
</tr>
</tbody>
</table>

Source: Oxford Economics, 2010

4.61 Against this, the seemingly relentless improvements in productivity seen in the past have been slowing gradually in most developed countries as the “law” of diminishing returns takes effect. This was apparent even before the recession (see Fig 19). The economy of the future may have less scope to improve productivity as the shift towards service employment continues. To take a rather prosaic example, it is difficult for a hairdresser to deal with more than a certain number of clients in the course of an hour.78 This decline is certainly not an exclusively UK phenomenon and is apparent across the economies of the former G7 countries (Fig 20).79

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78 Though even here there could be some scope for a haircutting robot perhaps (!)
79 The former G7 comprised France, West Germany, Italy, Japan, United Kingdom, Canada and United States,
4.62 Table 8 and Fig 25 shows the latest Cambridge Econometrics (CamEcon) LEFM forecast for West Oxfordshire alongside the Experian forecast used in the 2007 Economy Study and also historic data from 1981-2011. The LEFM forecast shows a net growth in total employment of only 2,500 from 2011-26 compared with Experian figures of 7,800 over the same period. For the twenty years 2011-31, LEFM growth is 2,800 compared with the earlier forecast’s 9,600 over the twenty years 2006-26. These figures also contrast with much more rapid past growth of 21,900 1991-2011 and 17,500 1981-2001. For the Local Plan period itself, the CamEcon LEFM forecasts growth of 2,200 jobs from 2011-29.

Table 8 West Oxfordshire: Forecast total employment including self employed

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</thead>
<tbody>
<tr>
<td>Actual</td>
<td>24.3</td>
<td>28.3</td>
<td>34.1</td>
<td>37.3</td>
<td>41.8</td>
<td>44.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CamEcon 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46.0</td>
<td>44.8</td>
<td>46.1</td>
<td>47.6</td>
<td>48.2</td>
<td>48.8</td>
</tr>
<tr>
<td>Experian 2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>44.6</td>
<td>46.2</td>
<td>47.8</td>
<td>50.9</td>
<td>54.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: CamEcon LEFM (Oct 2013) & Experian Ltd 2007 (NLP) Note: 2011 estimated base.

4.63 Fig 26 shows two alternate growth trend projections based on an extension of the 1981-2011 data. One of these, the non linear model, broadly follows the CamEcon forecast trajectory beyond 2011 but at a higher parallel path, the gap between the two

80 Based on a power function of the form: $y = bx^a$ where $y$ is the projected number of jobs in year $x$ and $a$ and $b$ are constants.
being analogous to the long term loss of employment growth due to the impact of the recession. This trend model reinforces the visual graph plot of past growth in suggesting that long term job growth prospects were already slowing some time before the recession. The linear trend projection shown in Fig 26 shows how a simple extrapolation of the general average growth pattern of the 1981-2011 period would have translated into a level of job growth some 14,000 greater than the current forecast.

Figure 25 Comparative projections CamEcon 02/2013 & Experian 2007

![Graph showing comparative projections](image)

Source: CE LEFM

Figure 26 Comparative projection trends CamEcon 02/2013 & Experian 2007

![Graph showing comparative trend projections](image)

Source: CE LEFM
4.64 Past and projected growth rates in West Oxfordshire compared with the South East and UK are shown in Figs 27 and 28. Taken together these graphs show how rapidly jobs growth in West Oxfordshire diverged not only from the UK trajectory but also from that of the South East (Fig 27). Fig 28, however, shows how this divergence had slowed dramatically by 2001 and this change sets the underlying pattern in the post 2011 forecast period with, basically parallel job growth paths between West Oxfordshire and the South East. This is in spite of the District’s economy being forecast for slightly higher GVA growth (Fig 23).

**Figure 27 W Oxfordshire: 1981 based comparative employment growth index 1981-2031**

![Figure 27](image1)

Source: CE LEFM

**Figure 28 W Oxfordshire: 2001 based comparative employment growth index 1981-2031**

![Figure 28](image2)

Source: CE LEFM
Table 9 and Fig 25 provide much of the explanation for this weaker growth pattern. Between 1981 and 2011, one fifth of employment growth was accounted for by government services, i.e. the public sector. A further 30% of growth during this time came from financial and business services, 13% from distribution (although this was already falling from a peak just before the recession), and 15% from other services.

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<th></th>
<th></th>
<th></th>
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<tr>
<td>Agriculture etc</td>
<td>0.8</td>
<td>0.7</td>
<td>0.2</td>
<td>0.3</td>
<td>0.8</td>
<td>0.4</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
<td>0.5</td>
<td>0.5</td>
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<tr>
<td>Mining &amp; quarrying</td>
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<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.3</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>-0.4%</td>
</tr>
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<td>Manufacturing</td>
<td>5.8</td>
<td>6.1</td>
<td>6.0</td>
<td>6.5</td>
<td>7.5</td>
<td>6.5</td>
<td>5.3</td>
<td>5.4</td>
<td>5.5</td>
<td>5.4</td>
<td>5.2</td>
<td>-0.1</td>
<td>-3.2%</td>
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<td>0.2</td>
<td>0.3</td>
<td>0.2</td>
<td>0.3</td>
<td>0.3</td>
<td>0.5</td>
<td>0.5</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.2</td>
<td>5.8%</td>
</tr>
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<td>Construction</td>
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<td>2.5</td>
<td>3.4</td>
<td>2.8</td>
<td>3.7</td>
<td>3.3</td>
<td>4.0</td>
<td>4.2</td>
<td>4.7</td>
<td>4.9</td>
<td>5.1</td>
<td>1.1</td>
<td>39.4%</td>
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<td>Distribution</td>
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<td>6.1</td>
<td>7.3</td>
<td>7.6</td>
<td>7.4</td>
<td>7.7</td>
<td>7.0</td>
<td>7.0</td>
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<td>7.1</td>
<td>7.3</td>
<td>0.3</td>
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</tr>
<tr>
<td>Transport &amp; storage</td>
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<td>0.8</td>
<td>1.0</td>
<td>1.1</td>
<td>1.1</td>
<td>1.3</td>
<td>1.2</td>
<td>1.3</td>
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<td>1.5</td>
<td>1.5</td>
<td>0.4</td>
<td>13.4%</td>
</tr>
<tr>
<td>Accom. &amp; food serv.</td>
<td>1.8</td>
<td>2.2</td>
<td>2.9</td>
<td>2.9</td>
<td>1.7</td>
<td>2.8</td>
<td>3.3</td>
<td>3.5</td>
<td>3.7</td>
<td>3.9</td>
<td>4.1</td>
<td>0.8</td>
<td>28.2%</td>
</tr>
<tr>
<td>Inform. &amp; commun.</td>
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<td>0.4</td>
<td>0.5</td>
<td>0.9</td>
<td>1.4</td>
<td>1.6</td>
<td>1.9</td>
<td>1.7</td>
<td>1.8</td>
<td>2.0</td>
<td>2.1</td>
<td>0.3</td>
<td>9.0%</td>
</tr>
<tr>
<td>Fin. &amp; business serv.</td>
<td>1.5</td>
<td>1.9</td>
<td>3.0</td>
<td>4.5</td>
<td>6.0</td>
<td>6.2</td>
<td>8.1</td>
<td>7.8</td>
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<td>8.7</td>
<td>9.3</td>
<td>1.3</td>
<td>45.1%</td>
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<td>Government serv.</td>
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<td>5.8</td>
<td>7.0</td>
<td>7.8</td>
<td>8.2</td>
<td>9.0</td>
<td>10.1</td>
<td>8.6</td>
<td>8.4</td>
<td>8.6</td>
<td>8.5</td>
<td>-1.5</td>
<td>-54.5%</td>
</tr>
<tr>
<td>Other services</td>
<td>1.7</td>
<td>1.7</td>
<td>2.5</td>
<td>2.9</td>
<td>3.7</td>
<td>4.9</td>
<td>4.5</td>
<td>4.3</td>
<td>4.3</td>
<td>4.4</td>
<td>4.5</td>
<td>0.0</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Total Employment</td>
<td>24.3</td>
<td>28.3</td>
<td>34.1</td>
<td>37.3</td>
<td>41.8</td>
<td>44.3</td>
<td>46.0</td>
<td>44.8</td>
<td>46.1</td>
<td>47.6</td>
<td>48.8</td>
<td>2.8</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Source: CamEcon LEFM Oct 2012

Figure 29 Employment forecasts by sector

Source: CamEcon LEFM Oct 2012

In the forecast, most sectors are projected as growing much more slowly than during 1981-2011, but these are over-shadowed by losses to public services employment forecast.
at -1,500 jobs net. Employment in the distribution sector, which includes retail, is forecast as remaining fairly static following the losses experienced during the 2006-11 period.

4.67 Sectors growing relatively quickly to 2031 again include financial and business services, accounting for 45% of the overall net gain in jobs, construction (39%) and the largely tourism related accommodation and food services sector (28%). Employment in manufacturing is expected to continue its long-term decline but at a reduced rate, as diminishing returns from productivity increases and global competition become more apparent. The value of local manufacturing output is forecast to increase in real terms by 55% however; this underlies the strategic importance of this sector in West Oxfordshire to the national economy even though its local value, in terms of employment at least, may be thought to be diminishing.

4.68 How realistic are these assumptions, particularly for the UK as it is national economic growth that has the most critical influence on rates of local change? In particular, why is the longer term forecast of 2.3% GVA growth p.a. set lower than that of the pre-recession growth trend for the UK of around 2.7%? After all, a better performing national economy might reasonably be expected to further benefit growth rates in West Oxfordshire.

4.69 The answer lies in the rather more difficult economic conditions expected to prevail in the world economy over the medium to longer term, and certainly during the remainder of both this and the next decade. In addition, many economists are of the opinion that the UK’s longer term productive capacity is likely to be damaged by the effects of prolonged recession. The UK faces factors such as the current growth problems across most of the Eurozone countries and subdued growth in the USA, the UK’s two largest export markets, together with the rise of competition from the so-called BRICS countries and other developing economies. This has greatly increased international competition both for markets for traded goods and services and for access to raw material resources.

4.70 Past experience, even discounting the likelihood of a recession of the severity of 2008-12, shows that recessions tend to happen with monotonous regularity every 7 to 9 years or so. To assume that there will not be at least one period of reduced or negative job growth during the 2020s is therefore being highly optimistic, to say the least. Given current performance and the huge challenges that we know face the UK economy in the future we can have some confidence that the CamEcon forecasts for West Oxfordshire are not unduly modest.

81 Note that these net percentage gain figures add to more than 100% mostly owing to the large net loss (-55%) attributed to government services.
83 Brazil, Russia, India, China and South Africa.
84 Though improbable, given the factors levels of international debt plus the increasing effects of climate change.
85 For a discussion see for example Paul Ormerod and Amy Heineike (2008) Global recessions as a cascade phenomenon with interacting agents Volterra Ltd.
4.71 In the next section of the report, the findings of Section 4 will be reviewed and conclusions drawn regarding where the evidence points regarding the Scenarios in the 2012 John Hollis projections paper and the implications for the Local Plan.

5. Getting to the Local Plan housing requirement

5.1 Given the body of evidence discussed above, it is clear that there are a range of factors – demographic/ housing stock based and economic based – which can influence West Oxfordshire’s future housing requirement. In developing these themes it is important to bear in mind that there is no single “right” answer to this; instead we look at the lines of evidence to narrow down the range of solutions. In this way we can aim to arrive at a reasonable figure or range of figures for housing provision. This process of “bracketing the target” is analogous to the process of range-finding in golf or artillery, or getting the right exposure in photography (Fig 30).

5.2 Earlier in this report, the three scenarios in the John Hollis document on population projections 2012 were described in some detail (paras 4.1 – 4.10). Projection A (based on natural change only after 2016), although useful as an indicator of underlying local demand for housing from the population, was felt to be too unrealistic as a basis for the final housing requirement in the Local Plan. That left Scenario B, with an assumption of a static workforce post 2016, and a resultant target of 6,700 homes to 2029, and South East Plan based Scenario C, which has been used for the latest draft plan, indicating 5,500 homes.

1) Scenario B and housing requirements from economic growth based projections

5.3 It was shown (para 4.7) that alongside Scenario B we would need to consider the implications of future employment growth in the District. The assumption is that the workforce of 56,800, fixed at 2016 would under this approach need to cope with the additional 2,200 jobs that are forecast by CamEcon 2011-29. This is much lower than the job growth in the pre-recession based forecasts by Experian Ltd in the 2007 Economic Study which suggested an additional 9,400 over the twenty years 2006-26 (see Table 8 above). However, as Table 8 shows, the impact of forecast job losses in the period immediately following 2011 means that the employment increase from 2016 to 2029 would be rather higher at 3,400 jobs. Any increase in the workforce from 2011-16 would be affected by the lack of additional employment leading to increasing outward commuting from the District, further rises in unemployment and/ or lower economic activity rates. The implications of both job growth figures will be looked at below.

5.4 It was noted in para 4.47 that 36% of residents were found to commute out of the District to jobs elsewhere while 24% of West Oxfordshire jobs were taken by inward commuters (2001 Census based). A range of from 2,200 to 3,400 additional jobs would imply that 76% of the 2,200 to 3,400 would be locally resident: i.e 1,670 to 2,580. Allowing for out-commuters at 36% we would then get a total at the lower end of:

Lower range: $\frac{1,670}{1 - 0.36} = 2,609$

and an upper range of: $\frac{2,580}{1 - 0.36} = 4,031$

Rounding, this gives a range of 2,610 to 4,030 additional locally resident people in work.

5.5 On average 85% of households have any economically active members, most of the remainder being retired. Also, each of the economically active households have 1.4 economically active people in them.\(^{87}\) In addition we assume a 3% longer term average unemployment rate and “double jobbing” (i.e. proportion of people with more than one job) at 5%. Applying these figures to the range we get the following total households:

Lower range: $\frac{2,610}{1.4 \times 1 / 0.85} \times (1 + 0.03) \times (1 - 0.05) = 2,146$

Upper range: $\frac{4,030}{1.4 \times 1 / 0.85} \times (1 + 0.03) \times (1 - 0.05) = 3,322$

Rounding, this gives a range of 2,150 to 3,320 households associated with additional jobs growth. However, as Scenario B is based on the assumption of maintaining a constant sized labour force at the 2016 level, this does not allow for the effect of growth in the labour force 2011-16 which has already been built into the Scenario B figures. Table 8 in the September 2012 J Hollis paper show this growth to be 600 persons.\(^{88}\) This give us:

Lower range: $(2,610 - 600) / 1.4 \times 1 / 0.85 \times (1 - 0.05) = 1,652$

Upper range: $(4,030 - 600) / 1.4 \times 1 / 0.85 \times (1 - 0.05) = 2,820$

Rounding, this gives a range, adjusted for 2011-16 workforce growth already included in the Hollis Scenario B figures, of 1,650 to 2,820 households associated with additional jobs.

5.6 Finally, applying the vacant & second homes rate of 5.2% (see Table 3), the additional housing requirement becomes:

Lower range – Upper range: 1,736 to 2,967

Rounding, this gives an additional housing requirement for all households, economically active and non active related to job growth of 1,740 to 2,970.

---

\(^{87}\) Nb to allow for scale of impact of HM Forces population characteristics on number per household economic active, comparable LA District (Cotswold) values were used instead. Cotswold & West Oxfordshire share similar underlying socio demographic profiles.

\(^{88}\) J Hollis (2012) op. cit. Table 8 p20.
5.7 Arguably it would also be sensible to subtract the “backlog” of c. 600 additional arrivals to unemployment since the beginning of the recession over and above the basic “unavoidable” 3% rate (see Table 5) from the additional locally resident people in work (see para 5.4). This would reduce the total number of consequential additional households to:

Lower range: \((2,610 - 600 - 600) / 1.4 \times 1 / 0.85 \times 1.03 \times (1 - 0.05) = 1,159\)
Upper range: \((4,030 - 600 - 600) / 1.4 \times 1 / 0.85 \times 1.03 \times (1 - 0.05) = 2,327\)

Rounding, this gives an unemployment backlog corrected additional households, economically active & non active related to job growth of \(1,160\) to \(2,330\).

5.8 Applying the vacant & second homes rate of 5.2%, the additional housing requirement becomes:

Lower range – Upper range: \(1,220\) to \(2,451\)

Rounding we get an unemployment backlog corrected additional housing requirement related to additional employment of \(1,220\) to \(2,450\) dwellings.

5.9 To this we now need to add the effects of household increase in the base population. For this we take the 2011-29 household increase in the Hollis Scenario B projection of 6,700, allow for vacancies etc in the dwelling stock\(^{89}\) and then add this to the job related increase in dwelling requirements from para 5.8. This gives:

Lower range: \(6,700 \times 1.052 + 1,220 = 8,268\)
Upper range: \(6,700 \times 1.052 + 2,450 = 9,498\)

Rounding we get a total housing requirement range of \(8,270\) to \(9,500\).

5.10 This job related range compares with the Scenario C requirement of 5,500 dwellings and the Scenario B figure of 6,700. Allowing for stock vacancies etc this gives a range of \(5,800\) (Scenario C) to \(7,000\) (Scenario B).

5.11 How realistic is it to apply model derived figures in this way? In reality of course, the labour market is so malleable that many variables can change significantly without necessarily causing proportionate (or indeed almost any) change in others. This has already been seen with the inclusion of the effect of additional unemployment over and above the 3% norm set here, this figure providing a buffer within the market that can absorb much new employment without the need for adding further in-migrant workers or inward commuters. The potential effect of factors such as increasing pension age, greater health and longevity in the population and the effect of the reducing value of pensions in encouraging people to work longer has already been mentioned in the discussion in section 4 above. The issue of the, at best, highly tenuous and contentious link between housing construction levels and economic growth has been explored at length elsewhere and the results are summarised in Appendix 1 below.

5.12 Changes in general levels of future participation in the labour force are a case in point. Given current (2012) economic activity rates of 80% (above para 4.47) and comparing this to

\(^{89}\) NB the Hollis figures did not make an allowance for stock vacancies assuming a 1 to 1 relationship between households and additional dwellings (see above para 4.10).
the pre-recession peak value of 86% (2006)\textsuperscript{90} this alone could mean that the 56,800 economically active identified in Scenario B could belong to an overall population of working age of between 66,000 and 71,000. This flexibility alone would easily be sufficient to absorb the total number of additional jobs over the period. The recommended figures arrived at in para 5.9 are therefore indicative but should not be assumed to be immutable. To repeat para 5.1, there is no single “right answer” to the question as to what should be the housing requirement.

2) Implications of demand driven population change: ONS/DCLG projections

5.13 The results of recent ONS/ DCLG projections were set out in Table 3 following a discussion of their main features and how they compare alongside the three John Hollis scenarios. It was shown that The District’s population has grown at a remarkably consistent rate since 1981 (Fig 7) but also that since around 2006 there has been an upward movement in the pace of population growth in spite of the fact that normally a slowing of migration driven growth is expected during periods of recession or low economic growth. Some of this additional growth is due to the upturn in births that has occurred across the UK but housing completions have surged even during much of the post recession period since 2008. ONS population projections depend quite heavily on data from the five years preceding the projection base year, and this has resulted in levels of projected growth higher than experienced in the recent past (Table 2). In fact the Interim sub-national population projections for West Oxfordshire are higher than those from the 2008 based set (Fig 8), even though the latter are generally characterised by high pre-recession trends in migration. Where the recession seems to have had most effect is in the lower rates of household formation used in the 2011 Census informed Interim DCLG household projections, with the result that the District’s projected household growth is lower than that of the 2008 based set even though the latter had a slightly lower population growth rate.

5.14 The projections will not be able to use the full results of the 2011 Census migration data until late 2013 at the earliest. The fundamental growth rates in the official projections are therefore still open to quite significant change. Nevertheless the analysis in section 4 above demonstrated that the basis for the 2008 projection sets are now well out of date and that it is more prudent to go with the 2011 based figures, extended to 2029 and 2031 using a model partly based on the slightly earlier 2010 based SNPP figures and trend-based modelling of household representative rates (HRR) projected from the 2011 based data. At the same time, this more detailed approach suggested a somewhat lower rate of household growth into the 2021-29/2031 period (8,680) than that obtained by a crude application of 2011-21 household increase figures to the post 2021 period (9,990). The more sophisticated HRR method results are used here.

5.15 Capacity for the construction of 356 dwellings per annum up to 2018 has been identified\textsuperscript{91} (para 4.32), although this is considerably lower than the 482 p.a. that would be required by the Extended 2011 based housing demand trend projection. This is close to the 473 dw p.a. average reached from 1991-2006 in the District (Fig 12) and suggests that, while

\textsuperscript{90} Source: ONS Annual Population Survey, Jan – Dec 2012 and Jan – Dec 2006 mean values.

\textsuperscript{91} WODC (2012) Position Statement on Housing Land supply
more severe land capacity constraints may now be operating, the construction industry have had the delivery and the market capacity to deliver at consistently higher levels in the recent past.

5.16 There is a question however, even in a relatively affluent area such as West Oxfordshire as to how far local housing need and demand can be met given persistently poor market housing affordability, together with the post credit crisis/post recession restrictions on credit availability. On the positive side, the Council has a successful record of delivering affordable housing (social rent) and levels of 40 – 50% affordable on new development sites have been achieved. In addition, the West Oxfordshire Local Plan 2011 worked on the basis of 453 dw p.a. Nevertheless, it is clear that delivering at 482 dw p.a. consistently over 20 years would pose some significant challenges regarding environmental, infrastructure and land capacity.

6. Conclusions and recommendations

6.1 The problem of identifying a future dwelling requirement for West Oxfordshire has been approached from two main directions:

- Demand/trend growth based factors based on demographic trends and projections;
- Supply/capacity based factors based on economic and physical land capacity/construction capacity.

6.2 The preceding analysis identified three well justified alternative levels of housing growth for West Oxfordshire:

1) Lower Range Employment Growth based: 8,270 dwellings 2011-29 (459 dw p.a.);
2) Upper Range Employment Growth based: 9,500 dwellings 2011-29 (528 dw p.a.);
3) Extended 2011 Household Projection based: 8,700 dwellings 2011-29 (483 dw p.a.).

6.3 These figures are significantly higher than any of the three J Hollis scenarios published in 2012 and, given recent Government pressure to increase further the rate of house building nationally, strongly suggest that an uplift in the housing target towards the levels of output actually achieved in the District in the recent past (Fig 15) would be advisable if the Plan is to be found sound at Examination. Current indications from the Planning Inspectorate are that, under the principle of “localism”, plans will be tested against the needs arising in each plan area in their own right. Previous policy positions, such as those based on former Regional Strategies, are no longer regarded as material.

6.4 Taking the first of these, the Lower Range Employment Growth based has obvious strengths in that it is more likely to satisfy the case put forward in the Sustainability

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Assessment as having slightly lower SA impacts than the other options while still answering current Government priorities set out in the NPPF intended to boost significantly housing supply beyond the low levels experienced nationally over the past few years. The Extended 2011 Household Projection based figure of 8,700 dwellings goes further in raising housing output and, being based on the latest DCLG household projections, arguably more closely meets NPPF requirements. It also provides more flexibility in meeting any higher than expected rates of employment growth in the area to 2029. SA impacts are likely to be marginally more adverse however.

6.5 The Upper Range Employment Growth based option for 9,500 dwellings shows a generous response to the modest employment growth forecast to 2029. It is clear that this meets the NPPF requirement for boosting housing supply but there are questions as to the physical and environmental capacity of the area to continue to absorb such high levels for the next twenty years. Given the modest levels of additional employment growth currently forecast, there is a danger that this option would result in a rapid rise in outward commuting, placing further pressures on transport, particularly road links, other infrastructure and placing parts of the area’s current high environmental quality at risk. While there is little risk that the market will not be able to support housing production at this level at least in the medium term (recent house building performance during the period since the recession demonstrates this) there is a real danger that the area will become further skewed towards “dormitory” housing with little in the way of connection to local employment.

6.6 In the light of this evidence therefore, it is recommended that the Extended 2011 Household Projection based figure of 8,700 dwellings (483 dw p.a.) be adopted as the preferred option in future revisions of the Draft Plan.

6.7 This will send a signal that the Council is taking seriously the concern in the NPPF to meet local needs effectively while acknowledging that house building should receive a necessary boost nationally. At the same time the proposal, with the strengthening necessary policy safeguards regarding environmental protection and infrastructure support, would still retain an acceptable if not ideal degree of sustainability with reference to the results in the recent SA exercise. Such an approach would also provide sufficient flexibility to respond to a higher than expected future upturn in employment growth in the District and provide a strong starting point for eventual review of the Plan by not either risking under-providing for housing at the outset nor risking poorly controlled dormitory housing growth through a too high initial building commitment.

6.8 A summary risk analysis of the main options is given in Appendix 4.

Keith Woodhead BSc, PhD, DipTP, MRTPI

May 2013
The relationship between house building and local economic growth


- Regarding impact of housing shortages on labour supply and mobility:

  “Frequently, areas of high unemployment are within travelling distance of areas with high levels of vacancies (for example in London). It is clearly desirable to remove housing related barriers to labour mobility but they are just one of a number of factors that lead to mismatches between labour demand and supply.”

- As for productivity related issues:

  “**Skills**: There is limited evidence that the housing market is constraining the mobility of higher level skills in the economy – at least in the private sector. In the public sector, skill shortages linked to high housing costs are more prevalent.

  **Investment**: The evidence is mixed on whether there is a relationship between the housing market and capital investment by businesses. One hypothesis is that if businesses are facing rising labour costs due to the high cost of housing, they will have less capital to invest in the business. There is some evidence to support this hypothesis. A business survey in South East England found 13% of companies affected by high housing costs, were deferring or cancelling investment in their company due to rising costs or a lack of competitiveness.

  However, the same survey found that 25% of companies that had experienced difficulty in recruiting and retaining staff due to high housing costs, had increased investment in capital in order to reduce their demand for labour. There is even evidence that this can take place in people-intensive industries where it is commonly thought to be difficult to substitute capital for labour. For example, an employer in the hotel sector reduced the need for kitchen staff through investment in a large steam oven which could heat pre-prepared meals for a large quantity of people. This shows how a tight housing market can be a spur for investment and innovation in some situations.

  There is concern that the pressure to release land for housing may make it more difficult for businesses to invest in new premises when they need to expand or change working practices. This could undermine productivity. However, there is no evidence that PPG3 or general housing pressures are constraining employment land allocations.” ....“There is an issue about the protection of existing employment sites....”

  **Enterprise**: Banks are the main source of finance for start-up businesses and they are reluctant to sanction unsecured lending. Thus, the family home (which is usually the most valuable asset people own in the UK) could have an important influence on new firm foundation in this country. This may be one of the reasons why business start-up rates are highest in Southern England where high house prices have given people the opportunity to
build up most equity in their homes. However, this will not be the only reason why business start-up rates are high in Southern England.”

“Innovation: There is no hard evidence of a link between housing and innovation except to the extent that businesses may be encouraged to find new ways of doing things that reduce their need for staff, in a tight housing and labour market.

“Impact of Housing On Business Competitiveness
There is evidence that high housing costs are creating problems for a small (but still significant) proportion of private sector businesses: 12% of businesses are experiencing labour shortages / recruitment difficulties due to high housing costs in South East England. The main difficulty is recruiting workers at the lower end of the pay scale.

“There is no evidence of a rapid change in business sentiment towards being located in parts of the country with high housing costs.”

(DTZ 2006 op cit., paras 9-20)
### Woodhead (2013) Appendix 2: West Oxfordshire Interim 2011-21 Household Representative Rates (HRRs), extended 2021-31

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### Woodhead (2013) Appendix 3
Sustainability Assessment of Draft Local Plan (October 2012) housing growth options

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<th>Medium Growth (5,300)</th>
<th>High Growth (6,700)</th>
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<td>2. Improve health and well-being and reduce inequalities</td>
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<tr>
<td>3. Promote thriving and inclusive communities</td>
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<td>4. Improve education and training</td>
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<td>5. Maintain a low level of crime and fear of crime</td>
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<td>6. Improve accessibility to all services and facilities</td>
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<tr>
<td>14. Conserve and enhance landscape character and the historic environment</td>
<td>+/-</td>
<td>+/-</td>
<td>-</td>
</tr>
<tr>
<td>15. Maintain high and stable levels of employment</td>
<td>+/-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>16. Promote sustainable economic growth and competitiveness</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Source:
West Oxfordshire Draft Local Plan Sustainability Appraisal (SA) Report, (2012) Table 13
### Woodhead (2013) Appendix 4: Summary and risk analysis of alternative projected dwelling requirements

(Key projections shaded grey)

<table>
<thead>
<tr>
<th>Projection</th>
<th>Basis of projection</th>
<th>Total requirement 2011-29</th>
<th>Risks</th>
<th>Risk severity &amp; direction</th>
</tr>
</thead>
</table>
| DCLG 2008 Based                 | Last published full 25 year DCLG household projection                                | 10,700 dwellings          | • High risk that first full 25 year DCLG 2011 Census migration data based household projections will be considerably lower.  
• High risk of damage to District’s long term sustainability: environmental quality, high level of dormitory development, infrastructure pressure.  
• Growth unsupported by local employment base; more out-commuting.                                                                 | High                      |
| Upper Range Employment Based    | Higher labour force expansion based                                                | 9,500 dwellings           | • Medium risk that first full 25 year DCLG 2011 Census migration data based household projections will be significantly lower.  
• Moderate to high risk of damage to District’s long term sustainability: environmental quality, high level of dormitory development, infrastructure pressure.  
• Moderate to high risk of growth unsupported by local employment base; more out-commuting.                                                                 | Medium/High               |
| Extended 2011 Based             | Interim DCLG 2011 based household projection 2011-21 extended to 2029/31 (Recommended option) | 8,700 dwellings           | • Slight risk that first full 25 year DCLG 2011 Census migration data based household projections will be lower.  
• Slight risk of more in-commuting if economic growth significantly higher than expected  
• Moderate risk of some impacts on environmental quality & infrastructure unless well managed  
• Slight risk of growth unsupported by local employment base and therefore more out-commuting                                                                 | Low/medium                |
| Lower Range Employment Based    | Lower labour force expansion based                                                | 8,270 dwellings           | • Eventual DCLG 2011 household figures could be significantly higher  
• Economic performance could be higher than this provides capacity for leading to:  
  • Some risk of housing under-supply  
  • Some risk of increased in-commuting.  
• Moderate risk of some impacts on environmental quality & infrastructure unless well managed                                                                 | Medium                    |

**Key:**
- higher risk
- lower risk

↑ Direction of risk is towards higher numbers  
↓ Direction of risk is towards lower numbers  
↔ No significant directional risk
Appendix 2

West Oxfordshire Demographic Advice (John Hollis January 2014)
1 A brief overview of the CLG 2011 Interim Household Projections

Since the 2001 Census results became available ONS has had a bi-annual cycle of preparing national and local population projections. The most recent of these was the ONS 2010 based population projections. After the original ONS mid-2010 population estimates were published in mid-2011 work was completed on new ‘indicative’ estimates of allocating international migration to local authorities within England between mid-2005 and mid-2010. ONS decided to use the resulting ‘indicative’ local authority population estimates for 2010 as the starting point for the subsequent 2010-based subnational population projections using the ‘indicative’ migration estimates as the basis for the projection of migration. These projections were published in 2012.

It would normally have been expected that CLG would convert the ONS 2010-based projections to households during 2012. However, the first 2011 Census results were published in July 2012 and were followed in September 2012 by the release of the ONS 2011-based ‘interim’ population projections to 2021. The rapid release of this 10-year projection was enabled by using the same assumptions as used for the ONS 2010-based national and subnational projections. It was therefore decided by CLG to use this projection as the main new input to the updated – now 2011-based – household projections that were published in 2013. These projections were also labelled ‘interim’ as they could only go forward 10 years and they did not have complete 2011 Census data input.

In the ONS Statistical Bulletin http://www.ons.gov.uk/ons/dcp171778_279964.pdf it is stated that the 2011 projections ‘… provide the best estimates of the future populations of English regions and local authorities currently available.’

In the ONS Methodology Report http://www.ons.gov.uk/ons/dcp171776_279966.pdf it is stated that the 2011 projections ‘… have been produced ahead of the usual schedule of releases to meet specific user requirements for projections based on data from the 2011 Census…’ however those requirements were not detailed.

In the CLG Statistical Release https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/190229/Stats_Release_2011FINALDRAFTv3.pdf there is no specific statement on why the ‘interim’ projections were prepared rather than use the ONS 2010 projections. However it does state that ‘The National Planning Policy Framework requires that assessment of future housing requirements … should have regard to current and future demographic trends and profiles…’

In summary, the CLG 2011 Interim Household Projections – subsequently referred to as CLG 2011 – draw on the following sources:

- ONS 2011-based Interim Population Projections for England and local authorities – referred to as ONS 2011
- ONS 2008-based national marital status projections
- 1971-2001 Census household representative rates (by gender/age/relationship and household type) for England and LAs
- 2001 to 2012 Labour Forces Survey household representative rates for England (by gender/age)
- Census 2011 total households by type for England and LAs
- 2001 and 2011 Census populations resident in communal establishments (by gender/age/relationship)

The ONS 2011 population projections use the following sources:

- ONS mid-2011 population estimates
- Assumptions for fertility, survival and migration (within England, cross-border and international) from the ONS 2010-based Population Projections for England and local authorities – referred to as ONS 2010. There are some minor amendments to the method by which international emigration is calculated but the assumptions overall remain as in ONS 2010.

The ONS 2010 population projections use the following sources:

- ONS indicative mid-2010 population estimates
- ONS indicative internal and international estimates of gross migration flows for 2005-06 to 2009-10
- Annual birth and death totals for 2005-06 to 2009-10
- Age –specific fertility rates and survival rates for England based on the same period and their projection to 2035.

**Commentary on each of the main inputs to the 2011 interim household projections**

Age-specific **fertility** rates at national and local level were based on the mid-year estimate populations in the five years 2005-10. As the 2011 Census found that the national population had been underestimated by about 450 thousand, mainly persons in the reproductive ages, it is acknowledged by ONS that the subsequent national projection of births was too high, and particularly so in local authorities where the Census found that the population had been significantly underestimated. This is not an issue for West Oxfordshire where the Census showed that the population had been overestimated at 2011 by the ONS 2010 projections by just 200 persons.

Similarly age and gender specific **survival** rates would be impacted by higher than anticipated populations. However, as most deaths occur at higher ages that were little affected by the additional 450 thousand persons this is generally a trivial error. In summary, the birth and death inputs to the projection in relation to West Oxfordshire are robust.
The situation is more complicated for migration which is split into six steams in the projections: in and outflows for moves (a) between English local authorities, (b) with the rest of the UK and (c) overseas. Within England the flows are initially calculated as outflows from each LA based upon rates of movement by age and gender. These rates are based on estimated moves in the previous five years and are specific to the pre-census mid-year estimates for those years. Therefore the same problem occurs as with the fertility rates. If a local authority population had been underestimated the outflow rates would be too high. With a higher 2011 base population the calculated gross outflow would then also be too high with the result that the future projection would probably not be projected to grow as fast as should be expected – ie the resulting populations up to 2021 would be too low. The second part of the within England calculation is to assign emigrants to receiving authorities. This is also based on the past five years – ie 2005-10 in both the ONS 2010 and 2011 projections. Here the problem lies with the originating authorities’ population estimates rather than those of the receiving authority. For example if a near neighbour (that sends significant numbers of migrants to the authority of interest) was previously underestimated the ONS 2011 projections would show increased outflows overall and inflated inflows to the main recipient authorities.

The main flows to West Oxfordshire come from Oxford and Cherwell – see Table 1. The 2011 Census results indicated that the population of Oxford had been underestimated by over 7 thousand residents – about 5 per cent – hence the 2011 projections would imply an inflated flow from Oxford to West Oxfordshire. It is not possible to say precisely by how much the flow would be inflated but as the gross flow from Oxford to West Oxfordshire in 2010-11 was 580 the projection ‘error’ is likely to be about 30 additional persons per year. This would be equivalent to about 12 households per year, but in the context of the projections is overall not very significant. There is no equivalent problem with the projection of flows from Cherwell.

Table 1: Principal Migration Flows to West Oxfordshire by Origin: 2010-11

<table>
<thead>
<tr>
<th>Origin</th>
<th>Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxford</td>
<td>580</td>
</tr>
<tr>
<td>Cherwell</td>
<td>490</td>
</tr>
<tr>
<td>Vale of White Horse</td>
<td>390</td>
</tr>
<tr>
<td>South Oxfordshire</td>
<td>180</td>
</tr>
<tr>
<td>Cotswold</td>
<td>180</td>
</tr>
</tbody>
</table>

Source: ONS

Cross-border movements with the rest of the UK should not be an issue as they are based on average data over the previous ten years and the ONS methodology holds these values constant throughout the projection period.

For West Oxfordshire the ONS 2011 population projections show net migration with the rest of the UK rising from 572 in 2011-12 to 810 in 2020-21. This is an average level of 705 per year and compares to the average level of 729 persons a year in the base period 2005-10. International moves are most likely to be the component in which errors in population estimation since 2001 has occurred. In the change analysis accompanying the revised mid-year estimates between 2001 and 2011 there is an ‘unattributable’ change component that ONS indicates accounts for any errors at 2001 or 2011 Censuses/MYE and any errors in
migration estimation over the decade. For England this factor is about 140 thousand – presumed to be mainly additional net international immigrants. Even if the national totals of international flows were correct there is then the problem of proper assignment to local authorities. The ONS 2011 projection took no account of these figures and persisted with international flows based on original estimates between 2005 and 2010 and as projected in the ONS 2010 projections.

This is not a significant issue for West Oxfordshire as its ONS mid-year estimate series since 2001 was good but the ‘unattributable’ change amounts to a net loss of 570 persons over the decade. If this change is assumed to be error in the published international flows it means that West Oxfordshire would have received about 800 net international migrants between 2001 and 2011. This figure can be compared to the 2011 projection that shows only about 150 net international migrants between 2011 and 2021. Clearly this is lower than recent published data and may be mainly due to changes in ONS methodology. Its significance will only be known when ONS produces 2012-based subnational population projections on a consistent basis to the latest methods of interpreting international migration flows over the period 2007-12.

Because of the issues mentioned above the Local Authority Side of the CLIP Population Subgroup wrote to CLG and ONS indicating that the projections as a whole were not fit for purpose. (See Appendix 1). I am not aware of a formal response from either CLG or ONS.

The 2011 Census provided some basic additional data to include in the CLG 2011 projections: total households by type and the make-up of the population resident in communal establishments. This means that the household representative rates were reliant on other inputs. These rates are the proportions population subgroups (gender/age/relationship (marital) status) that ‘represent’ a household. There is only one representative per household. The rates are based on the CLG 2008 projected rates for 2011 with amendments to reflect (a) the pattern of age and gender specific rates for England based on the Labour Force Survey and (b) 2011 Census numbers of households. Therefore the household representative rates for 2011 are a best fit using national trends rather than an exact picture based on the 2011 Census. Until the 2011 Census-based rates are available - presumably in time for use in the CLG 2012 household projections sometime in 2014 - there is no way of knowing whether the rates for any local authority are an accurate representation.

The other important aspect of the household representative rates is their projection to 2021. The series of rates for England since 2001 based on the Labour Force Survey showed significant falls – mainly for younger males – that are viewed as a reflection of the recession and the difficulty of finding a home and financing the purchase. The increase in the numbers of households containing a couple and other adults – mainly their own dependent children – and in ‘other’ households of unrelated adults, coupled with the lower than projected numbers of one-person households, bears this phenomenon out. CLG chose to extend this decline in rates to 2021. Alan Holmans, in his T&CP Tomorrow Series Paper 16 (‘New Estimates of Housing Demand and Need in England 2011-31’ (August 2013))\textsuperscript{94}, argues that the decline in households at 2011 from the nationally projected numbers was split between two factors – the increased numbers of young migrants to England that experience lower household

\textsuperscript{94} Copy to accompany this report
representative rates and the recession effect. Holmans sets out a proposed timetable for recovery in the second factor, but assumes that the first will persist. Hence he anticipates representative rates rising in the latter part of the current decade above currently projected levels to 2021 and continuing to rise to 2031. He is not specific as to the actual rates but the net impact of his calculations for England is an increase of 25 thousand households (0.1 per cent) at 2021 and potentially 267 thousand more at 2031 (1.0 per cent). However even his 2031 projection is still over a half a million fewer than the numbers in the CLG 2008 projection.

The question of the rate of recovery in the household representative rates and the appropriate rates to use beyond 2021 has arisen in several recent EiPs of local plans. In South Worcestershire the inspector recommended the use of rates indexed after 2021 to the trends in the rates used in the CLG 2008 household projections. This has the effect of raising rates compared to continuing the trends of the CLG 2011 projection beyond 2021. This has most impact on young males but not to the extent of matching the rates used in the CLG 2008 projections.

From the above commentary it will be seen that the principal inputs to the ONS 2011 projection for West Oxfordshire appear to be quite robust. This is mainly because the ONS mid-year estimates prepared prior to the results of the 2011 Census were shown to be accurate. The indicative mid-year estimate for 2010 (104,580) is very close to the revised estimate prepared after the 2011 Census results (104,706). Projected births (1,403) and deaths (900) for 2011-12 are not too far from the actuals (1,344 and 956) when one considers annual variability in events in relatively small populations. Projected net migration for 2011-12 (613) was lower than the average of the 2005-10 base period (818) even though it was higher than subsequently estimated for 2011-12 by the ONS mid-year estimate change analysis (365).

The only major concerns should be directed to the household representative rates used in the CLG 2011 projections. Here one must wait for full analysis of the 2011 Census to be able to assess any significant errors caused by having to use 2011 Census household totals linked to previously projected rates for 2011, with the national rates by age/gender based on the Labour Forces Survey used as controls. While this leaves much uncertainty as to whether the actual local rates used by CLG will turn out to be reasonably correct the overall projection of the rates and the resulting levels of projected households and average household sizes appear to be rather better for West Oxfordshire than for many local authorities. This is largely due to the good track record of the ONS population estimates which therefore imply some reliability in the 2011 Census number of households. West Oxfordshire was in the minority group of English local authorities where the 2011 Census found more households than had previously been projected for 2011 by CLG and also a slightly lower average household size than had been projected. It may be argued from those findings that the impact of the recession on household representative rates was felt less in West Oxfordshire than most of the rest of the country. In that case the future changes in household representative rates in the authority may be expected to be more optimistic than

95 South Worcestershire Development Plan: Inspector’s Interim Conclusions on the Stage 1 Matters (28/10/13). Copy to accompany this report.
the CLG projections show. This would, *ceteris paribus*, mean that the CLG 2011 projection of households for 2021 may be considered to be somewhat low, but that speculation may only be confirmed when the 2011 Census rates are available and are used in the CLG 2012 household projections sometime late in 2014.

2 Explain which variables might reasonably be adjusted through ‘sensitivity testing’ in order to develop an alternative household projection for West Oxfordshire

The following demographic variables, at national and local levels, influence the results of an ONS/CLG-type set of trend-based projections: fertility rates, survival rates, gross UK migration flow rates, international migration flows, the likelihood of being resident in a private household, marital (relationship) status and household representative rates.

Variation in fertility rates will not have any impact on the population likely to form households for at least 17 years from the base years when births in the first projection year reach the age of 16. Even then the household representative rates are still relatively low for persons aged under 20, so the impact of variation in fertility will not be seen on household totals for at least 20 years. However variant numbers of children will impact the resulting sizes and types of projected households.

Variation in projected survival rates will impact mainly the numbers of households represented by persons aged over 75. ONS does prepare national projections based on variant assumptions about survival but these have not been converted to households by CLG. The ONS 2012 England projections using the high and low survival improvement assumptions show about +/- 4 per cent variation at 2031 in numbers of persons aged over 75 around the principal projection. Therefore by crudely translating this level of variation to the projected numbers of households in West Oxfordshire represented by person over 75 shows a potential difference of +/- 500 at 2031. This would be about 1 per cent of total households.

The other main demographic variable is migration. Standard practise for ONS is to use data for the five years prior to the base year to establish average levels of migration and hence age/gender specific migration probabilities for the important moves within England. Since the 2011 Census results ONS has published revised mid-year estimates for 2002 to 2010 and revised annual change analyses for 2001-02 to 2010-11. As the next ONS projection (2012-bases) will utilise migration in the period 2007-12 any new projection should also consider this period and be based on the 2012 mid-year estimate. Alternatives would be to use the entire ten year period 2001 to 2011 or the five years 2006-11. The former has the advantage of the data being ‘anchored’ at two census years while the latter is only ‘anchored’ at 2011. A further option would be to take the migration from a recent period of five or more consecutive years that is considered to represent an average for the authority. In this respect, looking at different time period averages from 5 to 11 years over the period 2001-12 for West Oxfordshire the range could be from 645 (5 years 2007-12) to 783 (6 years 2005-11). To select a period may alternatively be done on the basis of the average level of supply of new homes over a five or more year period. Here the averages range from 405 (5 years 2008-13) to 725 (5 years 2003-08) with an overall average between 2002 and 2013 of 554 homes per year while between 1991 and 2011 the average annual level of new homes was only 470.
The annual supply of new homes is only indirectly associated with the annual ONS estimates of net migration into the authority. The two sets of data are not entirely coincident because of the timing between a registered completion and its first occupation as well as delays in people re-registering with GPs after changing address. The likelihood in errors in the annual international flows is even greater due to the small sample of immigrants and emigrants used by ONS in their methods of allocation of the flows to local authorities. Therefore it is recommended that a number of scenarios could be projected based on either average migration levels or continuation after 2013 of average annual net supply of new homes. The latest migration data (2007-12) is recommended as the methods used in the calculation are the most up-to-date and consistent across the period. For longer periods it is recommended to look at average completions. This has the advantage of not having to use inconsistent migration estimates across a period going back before 2001.

The only household variables which would be sensible to use for sensitivity testing would be the household representative rates. Holman’s analysis and the views of the inspector in South Worcestershire have already been mentioned. The available sources of rates are as follows:

2021  CLG 2011, CLG 2011 as amended by Holmans and CLG 2008

2031  CLG 2011 as extended by Holmans, CLG 2011 trends as amended by Holmans, CLG 2011 at 2021 indexed with the CLG 2008 rates for later years and CLG 2008

For 2021 the results of Holmans’ amendment are to raise total households in England by about 0.1% or less than 60 in the case of West Oxfordshire. As the CLG 2008 rates are now seen to be optimistic at 2011 it is unlikely that a recovery would take place as rapidly as would be required for the CLG 2008 rates for 2021 to be realised. This is particularly the case if we agree with Holmans that more than half of the shortfall in households at 2011 was the impact of larger numbers of recent migrants exhibiting low household representative rates. This leaves the CLG 2011 rates as the best option for 2021 with the possibility of a recovery adding relatively few additional households.

For 2031 there are more options but the extension of the CLG 2021 rates may be rapidly ruled out as being very pessimistic about the recovery from recession. For similar reasons as above for 2021 it would also be sensible to rule out the use of the CLG 2008 rates. The other two options are similar in that they indicate a recovery in representative rates during the 2021-31 decade. Holmans is not specific about actual rates basing his work on the likely annual diminution of the national ‘shortfall’ of 175 thousand households at 2011. However after 2022 he assumes that the annual growth in households will be at a rate just a little lower than shown in the CLG 2008 projections. Mathematically this is virtually the same as the indexing method, ie taking the CLG 2011 rates for 2021 and annually growing them at the same rate as the rates in the CLG 2008 projection. The example for 2031 is:

\[ R_{2011}(g,a,r,2031) = [R_{2008}(g,a,r,2031)] \times \frac{R_{2011}(g,a,r,2021)}{R_{2008}(g,a,r,2021)} \]

where: g = gender; a = age group; r = relationship status

This is the method to be used in the accompanying projections, with the CLG 2011 rates used unadjusted up to 2021 due to the net difference of using Holmans’ suggested
amendment being likely to be no more than about 60 households at 2021 in West Oxfordshire.

This section has concentrated on demographic variables as used in a demographic ‘demand’ projection but alternative net new build rates based on recent performance are also a valid way of providing an alternative view of the future. None of these projections is an absolute guide as to the future but by using recent average build rates as the basis for a projection will point out a number of aspects that planners need to consider. What would be the annual net migration, how many school places would be required, what types of household will be increasing, what types of units will be needed and how will the labour force change? What is necessary and what is sustainable? These results need to be balanced against the likely results of the ONS/CLG 2012-based population and household projections, that will be available to the Planning Inspectorate later in 2014, and to which the 2007-12 trends projection presented here presents the current most likely outcome.

It is recommended that the following alternative projections are prepared. All of which should be based on the ONS mid-2012 population estimate and use the fertility and survival trends associated with the ONS 2012 population projections for England. They should also use the household representative rates from the CLG 2011 projections as far as 2021 and follow the indexed method to 2031 as outlined above. The CLG assumptions about communal establishment populations and the relationship (marital) status should also be followed.

- Average ONS annual estimated net migration and other changes of 645 (2007-12)
- Average annual net new build of 405 (2008-13)
- Average annual net new build of 470 (1991-2011)
- Average annual net new build of 522 (2007-12)

These alternative projections are set out in Section 4 (below).

3 With specific regard to West Oxfordshire advise as to the likely impact that above average growth since 2002 may have served to ‘over inflate’ the CLG interim household projections.

‘Growth’ is taken to mean net new housing development, ie annual net completions. As indicated earlier new housing is not directly reflected in the ONS annual estimates of migration for a local authority area which are mainly based on GP re-registrations and small samples of international arrivals and departures. However the availability and occupation of net additional homes during the course of a year clearly adds to the population, assuming trivial variation in vacancy numbers. The average household size of the population nationally has declined over many years, and in West Oxfordshire this continued during the decade 2001 to 2011 when the AHS declined from 2.43 to 2.37. Therefore the maintenance of the same population size over the decade would have meant increasing the number of occupied homes by about a thousand. However over the decade the number of households rose by nearly 5 thousand. The additional 4 thousand homes helped to attract a net inflow of over 7 thousand migrants to West Oxfordshire in the decade according to ONS mid-year estimate change analysis.

Net migration into West Oxfordshire has mainly been from the rest of the UK and the annual estimates are based on changes in GP registers. Most people moving within the UK are registered with a GP and, apart from young single adult males, tend to re-register within
three months after relocating, whether to a new or pre-existing home. Therefore the annual net increase in homes will have a bearing on the annual net migration estimates, but as described above, this relationship on an annual basis is weak. However, if a longer time period is taken the data issues such as variations in timing of re-registration are smoothed out and a better relationship between new building and population change will be seen – see Figure 1. The migration estimates feed into the ONS mid-year population estimates and subsequently the ONS sub-national population projections and CLG household projections.

Figure 1: West Oxfordshire: Annual average net new homes and ONS estimates of net UK Migration: 2002-07 to 2007-12.

The ONS 2011 population projections are based on net migration in the period 2005-10. In this period the projections were using annual average migration figures for West Oxfordshire of +729 within the UK and +89 from Overseas. In the same period (2005-10) West Oxfordshire added 3,370 new homes, ie 674 per year. If we assume that 100 of these were to accommodate the ‘constant ‘population’ this leaves 574 homes to attract newcomers. Therefore the ONS 2010 and 2011 projections were developed on the basis that the same level of migration would continue and hence much the same level of additional households emerge from the CLG 2011 projections for 2011-21 – 528 per year – as in the base period of 2005-10. The lower number of additional households projected than those actually built in the base period reflects assumptions about some projected declines in the household representative rates and the lack of complete symmetry between annual build levels and the ONS migration estimates available at the time the projections were prepared.

ONS population projections are intended to reflect recent trends in births, deaths and, particularly, migration. The base period is set over five years and arguments that the level of housing development was atypically high or low are not entertained by ONS when the projections are prepared. Therefore recent actual higher or lower than average net construction of homes will be reflected in the CLG household projections. In West Oxfordshire, as in most of the country, net new homes construction has slowed in the recession. In the period 2007-12, the base period for the ONS/CLG 2012-based projections, the district added 2,610 homes, an average of 522 and the ONS estimates of net migration
over that period amount to about 645 people per year (534 when ignoring Armed Forces and other movements).

The CLG 2011 household projections showing an additional 528 households per year are clearly in excess of the actual delivery of new homes over each of the years 2008-09 to 2012-13, and particularly so when the average level of vacancy in West Oxfordshire at the 2011 Census (5.17 per cent) is considered. This means that for every 405 new homes made available it is likely that about 21 will remain vacant – or at least a further 21 may become vacant in other parts of the District’s stock. Hence the net impact on additional households would be about 384. Therefore some idea of the potential inflation in the ONS/CLG 2011 projections would be obtained by comparison with each of the suggested alternative projections that are intended to reflect the most recent levels of net migration and building as well as the long term average build rates. These projections are discussed in the next section.

4 Prepare an alternative household projection for West Oxfordshire based on a more reasonable average level of growth

As indicated at the end of Section 2 four projections have been prepared. The four projections are:

- Average ONS annual estimated net migration and other changes of 645 (2007-12)
- Average annual net new build of 405 (2008-13)
- Average annual net new build of 470 (1991-2011)
- Average annual net new build of 522 (2007-12)

Inputs used in the four projections.

Population Base: ONS 2012 mid-year estimates by single years of age and gender
Fertility Assumption: ONS 2012-based population projections for England linked to actual births in 2011-12 in West Oxfordshire

Mortality/Survival Assumption: ONS 2012-based population projections for England linked to actual annual deaths in West Oxfordshire between 2001-02 and 2011-12

Migration rates based on single year of age changes in the ONS mid-year estimates for West Oxfordshire between 2001 and 2012, adjusted for mortality rates. The 2007-12 Trends projection uses average annual migration changes 2007 to 2012. Dwellings target-based projections use data from all years 2001-12 giving high and low rates of change that are used to iterate the projections to a solution whereby the resulting population converts to the required number of new households each year.

Household Representative Rates to 2021: CLG 2011 interim household projection for West Oxfordshire

Household Representative Rates after 2021: CLG 2008 household projection for West Oxfordshire indexed at 2021 to CLG 2011 rates.

Communal Population Assumptions: as CLG 2011 projection assumptions for West Oxfordshire

Relationship (Marital) Status Assumptions: as CLG 2011 projection assumptions for West Oxfordshire
2011 Economic Activity Rates: 2011 Census rates by gender for 12 age groups (16-74) for England adjusted by West Oxfordshire rates by gender and three age groups.

Projected Economic Activity Rates to 2031: follow trends in ONS national projection to 2020 (Labour Market Trends, January 2006) as extended to 2036 by Kent County Council (October 2011)

Projection Results
The first projection is based on migration trends 2007-12 linked to the household representative rates from the CLG 2011 interim household projections. This is a ‘baseline’ projection aimed to show the potential outcome of the ONS/CLG 2012-based projections that are due to be published in 2014.

The second, third and fourth projections represent, respectively, the impacts of average net building rates (hpa = homes per year) in 2008-13, 1991-2011 and 2007-12. The average build rates are converted to net additional households by deflating for net vacancy. The process of the projections is different to that based on the 2007-12 migration trends projection as it requires an iteration process between consecutive population projections converted to households and by adjusting the migration factors such that the final projection of households matches the net additional homes less vacancies. In these projections the migration data are sourced from the entire period 2001-12 using high and low alternatives.

i) Population
Table 2 shows that the 2011 Census found that the population of West Oxfordshire had been over projected by about 200 by the ONS 2010 projection. However, the ONS 2011 interim projection indicated that the population would grow faster than previously projected, reaching 116,700 in 2021. The 2007-12 migration trends projection shows that the population is likely to reach 125,600 in 2029, which is higher than either the ONS 2008 or ONS 2010 projections. The three projections based on building rates are aligned more-or-less between the ONS 2010 (low) and ONS 2008 (high) projections, ranging from 119,200 to 123,600 at 2029.

ii) Households
The 2011 Census found more households in West Oxfordshire than previously projected by about 300. Because of the lowering of some household representative rates caused by the recession the projected growth in households in the 2007-12 trends projection is slightly lower than in the CLG 2008 projection but is a little higher than the CLG 2011 projection as far as 2021. As expected the projections based on building rates are each rather lower than the CLG 2011 projection and may better reflect the post-recession situation in the district. It is clear that although average household size at 2011 was lower than projected by CLG 2008 the assumed delayed pick-up after the recession that is built into the household representative rates in the CLG 2011 projection shows higher projected average household sizes after 2011.

96 A copy is supplied with this report.
97 The accompanying Excel spreadsheet contains the main details of the projection results in tables and charts as well as a full analysis of demographic changes in the ONS mid-year estimates from 2001 to 2012.
### Table 2: Projections Summary, thousands except AHS

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Households</th>
<th>Average Household Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ONS/CLG 2008</td>
<td>ONS 2010</td>
<td>ONS/CLG 2011</td>
</tr>
<tr>
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<td>124.2</td>
<td>120.4</td>
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#### Notes:
- **Population**
  - 2001: 95.7
  - 2006: 105.0
  - 2011: 110.0
  - 2016: 115.1
  - 2021: 119.9
  - 2026: 122.5
  - 2029: 124.2
  - 2031: 124.2

- **Households**
  - 2001: 38.5
  - 2006: 40.8
  - 2011: 43.2
  - 2016: 46.0
  - 2021: 48.9
  - 2026: 51.8
  - 2029: 53.4
  - 2031: 54.4

- **Average Household Size**
  - 2001: 2.430
  - 2006: 2.404
  - 2011: 2.380
  - 2016: 2.339
  - 2021: 2.302
  - 2026: 2.265
  - 2031: 2.227
**iii) Labour Force**

Table 3 shows the projected levels of the resident labour force of West Oxfordshire. Under each of the projections the labour force is projected to increase. In all cases the majority of the increase is expected to be women, partly as the impact of raising the state retirement age is built into the projected activity rates. However, the ratio of resident labour force to households is projected to fall from 1.35 in 2011 to 1.19-1.20 in 2029 as a consequence of the ageing of the population.

**Table 3: Projected Resident Labour Force 2011-31, thousands**

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<th>470 hpa</th>
<th>522 hpa</th>
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<tr>
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</table>
John Hollis (January 2014) Appendix 1

On behalf of the Local Authority side of CLIP Population Sub-group.

To: Janet Dougharty, Chief Statistician, CLG
Cc: Emma Crowhurst, CLG, Ben Humberstone ONS, Suzanne Dunsmith ONS, Juliet Whitworth LGA

Dear Janet,

We are writing to you as joint chairs of the Local Authority side of the Central and Local Information Partnership (CLIP) Population Sub-group concerning the Interim 2011-based Subnational Population Projections released on 28th September 2012. This issue was discussed at the recent CLIP Liaison group meeting held at your offices on Tuesday 2nd October, 2012. The feeling on the Local Authority side was strong enough to prompt this letter.

Whilst we appreciate the need for a nationally consistent set of data on which to base Local Authority Financial Settlements, it should not be at the expense of plausibility and robust methodology.

We had raised concerns at the April 2012 CLIP meeting regarding the use of trends from one data set applied to the new Census base, without first altering the migration trends to be in line with that new base. This is the fundamental flaw with this set of projections.


- ONS acknowledges an over-projection of births due to more women being counted in the 2011 Census (i.e. Births rates should be lower, based on 2011 Census results).
- ONS acknowledges an over projection of deaths due to fewer older people being counted in the 2011 Census.
- ONS acknowledges that changes to the age structure, onto which past trends have been applied, leads to adjustments having to be applied for a number of Local Authorities.

It also appears to exaggerate (when compared to the 2010-based Subnational Population projections - SNPPs) the Out Migration, where Local Authorities with lower Census estimates(e.g. Leeds) have much reduced Out migration - same rates but lower population – and those with higher census estimates (e.g. Manchester) have increased Out migration – same rates but higher population. This is a pattern seen across many Local Authorities and highlights the counter-intuitive nature of the results.

In cases where a Local Authority has a Census population higher than the ONS Rolled Forward Estimates (RFEs) for 2011, a reasonable inference would be that net migration gain is greater than the estimated trends used for the 2010-based SNPPs and that the projected migration gain post 2011 would be greater in the 2011-based projections than in the 2010-based. However, in some cases the 2011-based SNPP has produced net migration gains lower than the 2010-based SNPPs. Conversely, where a Local Authority has a Census population lower than the ONS RFEs for 2011, a reasonable inference would be that net migration gain is less, or loss greater, than the estimated trends used for the 2010-based SNPPs. However, in some cases the 2011-based SNPP has produced net migration gains higher than the 2010-based SNPPs.

The vast majority of Local Authorities are happy to accept that the 2011 Census has been successful and should be the benchmark for future estimates and projections; to use the Census based projections without giving due regard to the emerging migration, fertility and mortality trends is an injustice to the work ONS could do, if given more time, and will be doing in due course.

As an interim measure, therefore, until the new trends can be properly incorporated into projections, we believe these projections should not be used for this purpose and that you consult urgently with ONS as to the usability and plausibility of these Interim 2011-based SNPPs.

We also suggest that, if the Interim 2011-based SNPPs are not used, then you consider carefully which set of estimates, following the 2011 Census, might be best to use. There is currently an issue
with the methodology for moving the population estimates from Census day to the mid-year point, which we understand some Local Authorities have raised with ONS already, and seems to affect large University towns in particular. Again, ONS have not had the time to fully re-assess their migration estimates methodology and it may need changing in light of the 2011 Census results. For that reason, the only credible alternative is to use the 2011 Census Day Estimates in conjunction with an update to the baseline once the methodology for migration estimates has been re-assessed and fully updated projections are available.

A baseline based on incompatible data will lead to an unfair allocation based on currently known population, especially as those Local Authorities with higher Census results will feel their earlier allocations were also under-representative i.e. they are being penalised twice, and over a long period. If the Interim 2011-based SNPPs are used, then a provision for both retrospective adjustments and rebasing of the baseline (once a fully updated set of projections is available, particularly as the baseline is to be fixed for seven or more years) should be considered.

An early decision may pre-empt a flood of representations from Local Authorities whose Census results were higher than Rolled Forward Estimates (RFEs). We appreciate that the consultation closed on 24th September, 2012 but the impact of retaining the existing methodology on the new base was unforeseen and the final decision on which population base to use needs careful consideration.

The timetable has also been very tight with the need to have figures in time for the next round of Local Authority Financial Settlements which has meant that the usual consultation on Migration trends was not undertaken. Whilst this decision was taken, as far as we understand, due to there being no change to the methodology, it would have highlighted the unexpected results and would have continued the good practice of "sense checking" data before release, which has been used very effectively by ONS for new methodology changes through the use of Local Insight Reference Panels and expert users.

An additional complication is the knock-on effect of these population projections being used as a base for Household Projections, which is likely as these projections are useable against the 2008 Based Headship rates in software now widely used by Local Authorities “POPGroup”. Projections can already be produced using these Short Term 2011 Based SNPPs which will supersede the 2010 Based Household projections before they are even published early next year. CLG must be very clear in their advice as which set of population projections to use in Household Projection work, particularly when Sub-national Household projections can be used as evidence to justify an increase or decrease in housing allocations in Local (Development) Plans.

Yours sincerely,

Piers Elias, Tees Valley Unlimited and Baljit Bains Greater London Authority
Joint Chairs, on behalf of the Local Authority side of the CLIP Population Sub-group.
10th October, 2012
Appendix 3  West Oxfordshire District results from CCHPR (2014)  
“Understanding the DCLG Protections” Toolkit

Understanding the latest DCLG household projections

Introduction
This tool is designed to enable you to:

- find out how the household projections for any given English local authority have changed between the Department for Communities and Local Government’s 2008-based projections and the 2011-based interim projections released in April 2013.

- explore three key factors which are particularly important to understanding the latest projections and how they should be used. The factors are changing household formation trends; increased international migration; and, how the flows between authorities have been estimated. The role they play is discussed more fully in the RTPI research report, ‘Planning for housing in England: Understanding recent changes in household formation rates and their implications for planning for housing in England’ (see http://www.rtpi.org.uk/spire).

It should be emphasised that the purpose of the tool is to enable you to identify the issues that may warrant more detailed investigation rather than to provide a definitive view on how the latest projections should be used for any particular authority.

How to use the tool
The first step is to select the authority you are interested in from the drop down list that appears when you click on the yellow box below.

Select a local authority

West Oxfordshire

All charts and tables are then automatically adjusted to give the data relevant to the authority chosen. The data shown in the charts appears in tables to the right of the charts.

How the new and old projections compare

The tables and charts below give the basic data from the 2008 and 2011-based population and household projections. Typically the 2011-based projections show faster population growth from a higher starting point and the 2011-based household projections show slower household growth from a lower starting point. However, there is considerable variation from authority to authority.

The differences between the 2008-based and 2011-based projections reflect early results from the 2011 census, although in some important areas trends from earlier projections have had to be used because the data to update them was not available.
Changing household formation patterns

Perhaps the most surprising difference is the difference between the population and household projections where, for many authorities, the 2001-based projections suggest faster population growth but either slower household growth or household growth that has increased by much less than the population growth. This is due to significant changes in household formation patterns compared with what was anticipated in the earlier projections.

Charts 3 and 4 illustrate how household formation patterns have changed for the selected authority. Chart 3 shows the overall headship rate i.e. the number of households divided by the number of people living in households - a measure of the tendency to form households. For most authorities the tendency to form households was lower in 2011 than the 2008-projections had suggested and is projected to grow slower than in the latest projections. Chart 4 shows the headship rates for 25-34 year olds, the age group that has been most affected by the changing household formation patterns revealed by the 2011 census. For the vast majority of authorities the latest projections not only suggest that the tendency of this age group to form households was lower than previously expected in 2011 but that it will also fall over the period to 2021.

A key question facing those using the new projections is whether these trends in household formation rates are likely to continue. The RTPI research report, ‘Planning for housing in England: Understanding recent changes in household formation rates and their implications for planning for housing in England’ (http://www.rtpi.org.uk/spire) discusses two reasons for this change:
- increased international migration, which tends to increase average household size as recent migrants tend to live in larger households that the rest of the population.
- a range of changes to how people have been living, including more adult children saying on with parents or sharing homes rather than living on their own.

International migration

The international migration factor is more likely to have affected authorities with relatively large inflows of migrants. The table below give the average annual international migration flow into the chosen authority as a proportion of the total population in that period. The England average is about 1% so figures significantly above this might be thought large. In those cases it is likely to be worth exploring how international migration flows have changed over the last 20-30 years and the impact this may have had on the projections.

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<th>Year</th>
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<tbody>
<tr>
<td>2011</td>
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Making a judgement household formation rates

Ultimately a judgement needs to be made as to whether it would be prudent to plan on the basis of the projected changes in headships, which for most authorities envisage that the tendency of 25-34 year olds to form households will fall. If they do not fall as envisaged the result could be an under provision of housing. To inform this judgement it may be useful to estimate the consequences of assuming either that there is no further fall in headship rates or that headship rates move at least partially back towards the previous long term trend. This can give an indication of the range of outcomes that might occur.

Projected flows between local authorities

The latest DCLG projections are based as far as was possible on the 2011 census results and as such provide the best available starting point for considering how household numbers and types might change in the future. However, in some areas it was necessary to use trend data from previous projections as the data needed to update those trends was not available from the 2011 census. This may have caused population changes to be either over or under-estimated in some areas. The most significant area for household growth is the projections of population flows between local authorities. For many authorities these flows are a major factor in population growth and small errors in the projected flows can have significant implications for the projected population growth. The following chart enable you to compare the projected flows in the 2008 and 2011-based projections with each other and the past flows. Where there are significant disparities these should be investigated.
## ONS 2012 Subnational Population Projections: Components of Change

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<tr>
<td><strong>All Migration Net</strong></td>
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Source: ONS SNPP