

# Leeds Local Plan: summarising the demographic evidence

## 9<sup>th</sup> October 2013

### Purpose of this note:

This short document draws together the growth scenarios which have been developed to inform the Leeds Local Plan, providing a clear and concise perspective from which the Core Strategy inspection process can evaluate alternative housing growth outcomes.

### Demographic context:

Demographic statistics in general and for Leeds in particular, have been subject to significant revision in the last three years. Robust estimation of international migration has been especially problematic. The 2011 Census has provided a timely update to population and household statistics, resulting in a significant 'recalibration' of Leeds' population count and a new household projection model. Appropriate consideration of this new evidence and its impact upon growth forecasts for the city is a key component of Local Plan scrutiny.

### Document time-line:

In compiling this note, evidence has been taken from the following documents:

Date	Author	Document
2011	GVA & Edge Analytics	Strategic Housing Market Assessment
2012	Leeds City Council	Core Strategy
September 2013	Edge Analytics	Demographic Evidence – an update
October 2013	NLP	Assessment of Housing Requirements
October 2013	Edge Analytics	Leeds Local Plan – Summarising the demographic evidence

### Summary:

A summary of the growth scenarios presented in these key documents is provided below. The table provides housing growth outcomes for each scenario. Guidance notes are provided to aid interpretation.

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**Key points:**

1. The need to consider the latest demographic evidence for Leeds, its impact upon growth forecasts for the city and the objective assessment of housing need. The Census 2011, the new 2012 Mid-Year Estimates, 2010-based and 2011-based Sub National Population Projections and 2011-based Sub National Household Projections all provide important information on likely housing needs in the future.
2. The appropriateness of considering the latest economic forecast from the Regional Economic Model (REM). NLP and Edge use the most recent 2013 REM figures. The NLP analysis results in a slightly lower annual average household growth than analysis by Edge Analytics. Given the uncertainties surrounding REM forecasts Edge Analytics also provide an average between the 2010 and 2013 forecasts.
3. The appropriate use of 'household formation rates' to determine likely trajectories of household and dwelling growth. NLP suggest that it is necessary to presuppose what might happen to household formation after 2021 given that the 2011-based projections are interim. Edge Analytics suggests that using the trend based information in the 2008-based and 2011-based household projections alongside the Census provides a robust evidence base approach to likely household formation for the plan-period. Both 2008-based and 2011-based projections cover a period during the economic boom.
4. Whether it is appropriate to consider 'backlog' as a component of future housing requirements given the volatility of the demographic evidence. Given the significant recalibration of the Leeds population in recent years and the errors involved in modelling international migration it would be very difficult to estimate with precision a level of undersupply prior to 2012. Given that the Core Strategy target is at the upper end of the likely growth scenarios for Leeds, it is considered unnecessary to account for backlog in the Core Strategy housing trajectory.

### Leeds – Growth Scenarios (Edge Analytics & NLP)

Scenario	Average numbers of dwellings per year 2012-2028				
	Edge Analytics		NLP		
	Scenarios A (2011-based)	Scenarios B (2008-based)	Index Method	Partial Catch-up Method	Average
1	Migration-led 10Yr-X	5,025	5,785		5,405
2	REM 2013 (Edge)	4,087	4,769		4,428
3	Leeds Core Strategy	4,375	4,375		4,375
4	SNPP 2011			4,049	4,416
5	REM 2013 (NLP)			3,900	4,323
6	Migration-led 5Yr-X	3,685	4,455		4,070
7	REM average (Edge)	3,676	4,340		4,008
8	REM 2010 (Edge)	3,264	3,911		3,587
9	SNPP-2010	3,184	3,788		3,486
10	REM 2010 (NLP)			3,057	3,462
11	Migration-led 10Yr	2,727	3,339		3,033
12	Long-term Migration			2,790	3,144
13	Migration-led 5Yr	2,126	2,795		2,460
14	Net Nil	1,723	2,670		2,196

REM = Regional Economic Model

SNPP = Sub-national population projection (Office for National Statistics)

Shaded cells are NLP scenarios

Unshaded cells are Edge Analytics scenarios

Dwellings - Plan Period		
Min	Max	Average
80,402	92,563	86,483
65,392	76,304	70,848
70,000	70,000	70,000
64,784	70,656	67,720
62,400	69,168	65,784
58,964	71,277	65,120
58,816	69,440	64,128
52,221	62,573	57,397
50,947	60,615	55,781
48,912	55,392	52,152
43,628	53,428	48,528
44,640	50,304	47,472
34,008	44,726	39,367
27,572	42,715	35,144

All scenario outcomes exclude any  
'backlog' adjustment

### Scenario definition:

The following table provides a summary categorisation of the scenarios:

Scenario	Name	Description
3	Leeds Core Strategy	Dwelling growth defined in the SHMA and averaged for the Core Strategy plan period. Not considering the SHMA sensitivity around fixed headship rates up to 2017.
4, 9	SNPP-2010 SNPP-2011	Official population projections published by ONS, with both a 2010 and a 2011 base year.
1,6,11,12, 13,14	Migration-led 10Yr-X Migration-led 5Yr-X Migration-led 10Yr Long-term Migration Migration-led 5Yr Net Nil	Trend projections which use historical demographic evidence to define the migration assumptions that drive future population growth.
2,5,7,8,10	REM 2013 (Edge) REM 2013 (NLP) REM average (Edge) REM 2010 (Edge) REM 2010 (NLP)	Growth forecasts which are linked directly to a forecast of future jobs growth, derived from Experian's Regional Economic Model (REM).  Also referred to as 'Employment-led' scenarios in previous documentation.

### Household formation rates:

The following table provides a summary of the different 'household formation rates' (sometimes referred to as 'headship rates') which convert population forecasts to household forecasts:

Type	Used by	Description
Scenarios A 2011-based	Edge Analytics	Household formation rates are consistent with the 2011-based household projection model from CLG. Rates for 2021 onwards are a continuation of the 2011-21 trend.
Scenarios B 2008-based	Edge Analytics	Household formation rates are consistent with the 2008-based household projection model from CLG.
Index method	NLP	Household formation rates are consistent with the 2011-based household model for 2011-21 but follow the 2008-based trend thereafter.
Partial catch-up method	NLP	Household formation rates are consistent with the 2011-based household model for 2011-21 but follow an accelerated rate thereafter.

### **Technical Points:**

NLP makes a number of comments and observations on the Edge Analytics analysis, generally to position its own analysis as more robust and appropriate as a basis for the formulation of housing requirements.

Comments are made here in response to specific points raised in the NLP report:

<b>Paragraph</b>	<b>Edge Analytics comment</b>																																																																																																												
2.1	<p>The ONS 2011-based population projection does not provide a robust statistical outcome. 2010-based migration assumptions have been applied to a 2011 Census population. These assumptions are not only based on mid-year population estimates that have been superseded but they are also applied to a different population age-profile that has been recorded in the 2011 Census.</p> <p>The following illustrations give some indication of the growth trajectory that results from the method used to generate the 2011-based SNPP.</p>																																																																																																												
	<p style="text-align: center;"><b>Leeds - Population projections</b></p> <table border="1"> <caption>Estimated data for Leeds Population Projections (2001-2035)</caption> <thead> <tr> <th>Year</th> <th>ONS 2004-based</th> <th>ONS 2006-based</th> <th>ONS 2008-based</th> <th>ONS 2010-based</th> <th>ONS 2011-based</th> </tr> </thead> <tbody> <tr><td>2001</td><td>730,000</td><td></td><td></td><td></td><td></td></tr> <tr><td>2005</td><td>735,000</td><td></td><td></td><td></td><td></td></tr> <tr><td>2007</td><td>745,000</td><td>755,000</td><td>765,000</td><td>770,000</td><td></td></tr> <tr><td>2009</td><td>750,000</td><td>760,000</td><td>770,000</td><td>775,000</td><td>780,000</td></tr> <tr><td>2011</td><td>755,000</td><td>765,000</td><td>775,000</td><td>780,000</td><td>785,000</td></tr> <tr><td>2013</td><td>765,000</td><td>775,000</td><td>785,000</td><td>790,000</td><td>795,000</td></tr> <tr><td>2015</td><td>770,000</td><td>780,000</td><td>790,000</td><td>795,000</td><td>800,000</td></tr> <tr><td>2017</td><td>775,000</td><td>785,000</td><td>795,000</td><td>800,000</td><td>805,000</td></tr> <tr><td>2019</td><td>780,000</td><td>790,000</td><td>800,000</td><td>805,000</td><td>810,000</td></tr> <tr><td>2021</td><td>785,000</td><td>795,000</td><td>805,000</td><td>810,000</td><td>815,000</td></tr> <tr><td>2023</td><td>790,000</td><td>800,000</td><td>810,000</td><td>815,000</td><td>820,000</td></tr> <tr><td>2025</td><td>795,000</td><td>805,000</td><td>815,000</td><td>820,000</td><td>825,000</td></tr> <tr><td>2027</td><td>800,000</td><td>810,000</td><td>820,000</td><td>825,000</td><td>830,000</td></tr> <tr><td>2029</td><td>805,000</td><td>815,000</td><td>825,000</td><td>830,000</td><td>835,000</td></tr> <tr><td>2031</td><td>810,000</td><td>820,000</td><td>830,000</td><td>835,000</td><td>840,000</td></tr> <tr><td>2033</td><td>815,000</td><td>825,000</td><td>835,000</td><td>840,000</td><td>845,000</td></tr> <tr><td>2035</td><td>820,000</td><td>830,000</td><td>840,000</td><td>845,000</td><td>850,000</td></tr> </tbody> </table>	Year	ONS 2004-based	ONS 2006-based	ONS 2008-based	ONS 2010-based	ONS 2011-based	2001	730,000					2005	735,000					2007	745,000	755,000	765,000	770,000		2009	750,000	760,000	770,000	775,000	780,000	2011	755,000	765,000	775,000	780,000	785,000	2013	765,000	775,000	785,000	790,000	795,000	2015	770,000	780,000	790,000	795,000	800,000	2017	775,000	785,000	795,000	800,000	805,000	2019	780,000	790,000	800,000	805,000	810,000	2021	785,000	795,000	805,000	810,000	815,000	2023	790,000	800,000	810,000	815,000	820,000	2025	795,000	805,000	815,000	820,000	825,000	2027	800,000	810,000	820,000	825,000	830,000	2029	805,000	815,000	825,000	830,000	835,000	2031	810,000	820,000	830,000	835,000	840,000	2033	815,000	825,000	835,000	840,000	845,000	2035	820,000	830,000	840,000	845,000	850,000
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		Average rate of annual population growth			
		2001-2011	2012-21	2022-28	
	Mid-year estimates	3,507			
	ONS 2010-based		6,560	6,157	
	ONS 2011-based		8,889		
2.4	The text refers to a continuation of 2001-2011 migration trends in the 2011-based projection. The points raised in 2.1 above suggest that the migration assumptions are inappropriate as they have been derived from out-dated evidence, now superseded by 2011 Census information and revised mid-year estimates for 2002-2010.				
2.5	The suggestion is made that the CLG 2011-based interim household projections: 'roll forward the demographic and housing conditions that were experienced during a time of recession'. This is only partly true, as the household headship rates for the CLG model take account of change over the 2001-2011 period which captures two very different types of market condition.				
2.6 & 2.8	The substantial fall in average household size is influenced by the fact that the 2008-based household projections are underpinned by the 2008-based population projection which suggests a very different scale and type of growth for Leeds (see illustration above).				
2.10	The lower level of projected household growth is primarily due to the very substantial over-estimation of international migration for Leeds for the 2001-2011 period. This has since been corrected following release of the 2011 Census and recalibration of previous 2002-2010 mid-year estimates.				
2.16	The methodology behind the derivation of two alternative headship rate trajectories ('index' and 'partial catch-up') is a little difficult to understand. Attempting to forecast the point at which rates return to a previous trend is difficult. There are endless permutations which could be tested. We would argue that the Edge Analytics approach is simpler and more transparent; take the 2008-based and 2011-based headship rates and test them side-by-side. This avoids the use of a bespoke forecast of headship rate change over time.				

2.19	The implication of lower migration growth than previously expected is a lower trend projection for Leeds.
3.3	See comment on 2.16 above.
3.4 & 3.5	Edge Analytics does not advocate the use of either one or the other of the 2008-based or 2011-based household headship rates. Using both side-by-side provides the most objective and transparent perspective on future household growth for each of the scenarios tested.
3.8	How does NLP's unemployment forecast compare with that which underpins the latest Experian 2013 / REM 2013 economic forecasts?
3.9	Edge Analytics has applied a relatively prudent approach to changes to economic activity rate of the 60-69 year olds as a result of state pension age changes. Other changes that may result from a more substantial shift in economic participation resulting from poor pension provision and healthier old age have not been factored in.  It is not clear from the NLP report, the extent to which economic activity rates have been modified. Does an '8% increase in economic activity rate' imply that rates have changed from (for example) 10% to 10.8% or from 10% to 18%?  How do the Experian economic activity rates, which underpin the latest Experian 2013 / REM 2013 economic forecasts, compare to what has been tested by the Edge Analytics and NLP scenario?

3.13	It is unclear how the jobs density calculations have been applied in each of NLP's scenario tables. Further clarification would be required before any further comment can be made.
3.14	The suggestion that 90% of population change will be the result of international migration reflects the inappropriateness of this scenario outcome.
3.24	Further clarification required on the conclusion that is being drawn in paragraph 3.24.

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3.56-3.57	The calculation of a backlog is unclear. Why is the 2004/5-2011/12 period dismissed in favour of a shorter period?
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**Dr Peter Boden**  
**Edge Analytics Ltd**  
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