Greater Birmingham and Solihull LEP
Black Country Local Authorities

Strategic Housing Needs Study
Stage 2 report

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1 INTRODUCTION

1.1 This study, commissioned in November 2013 by the Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP) and the Black Country Local Authorities, has two purposes as shown in the study brief: to assess future housing needs across the area and to set out options on where those needs could be met. The brief adds that the assessment should include needs that cannot be accommodated in the local authority area in which they arise, and that the findings will provide technical evidence to inform the GBSLEP Spatial Framework Plan and individual Local Plans. It also highlights that the planning system now requires a new approach to the provision of housing land, in compliance with the National Planning Policy Framework (NPPF) – from which it quotes important paragraphs as follows:

'159 Local planning authorities should have a clear understanding of housing needs in their area. They should prepare a Strategic Housing Market Assessment to assess their full housing needs, working with neighbouring authorities where housing market areas cross administrative boundaries…

47 To boost significantly the supply of housing, local planning authorities should use their evidence base to ensure that their Local Plan meets the full, objectively assessed needs for market and affordable housing in the housing market area…

178 Public bodies have a duty to cooperate on planning issues that cross administrative boundaries, particularly those which relate to the strategic priorities set out in paragraph 156 [which include strategic policies to deliver the homes and jobs needed in the area]. The Government expects joint working on areas of common interest to be diligently undertaken for the mutual benefit of neighbouring authorities…

179 Local planning authorities should work collaboratively with other bodies to ensure that strategic priorities across local boundaries are properly co-ordinated and clearly reflected in individual Local Plans. Joint working should enable local planning authorities to work together to meet development requirements which cannot wholly be met within their own areas – for instance, because of a lack of physical capacity or because to do so would cause significant harm to the principles and policies of this Framework…

181 Local planning authorities will be expected to demonstrate evidence of having effectively cooperated to plan for issues with cross-boundary impacts when their Local Plans are submitted for examination…'

1.2 The above words have provided the agenda and ground rules for this study throughout. The study also follows the Planning Practice Guidance (PG), published in March 2014, which provides technical detail to support delivery of the NPPF.

1.3 This report deals with the first two stages of the study, in which we aimed to:

- Define the sub-regional housing market area (Chapter 2);
- Assess housing need (demand) across that area over the plan period 2011-33 (Chapter 3);

- Broadly estimate the supply capacity that may be available to meet those needs (Chapter 4);
- Draw conclusions on the broad balance of supply versus housing need for the two LEPs (Chapter 5).

1.4 A third stage of the study will ask where any supply shortfall could be accommodated, developing a series of scenarios for policy-makers to consider.

1.5 Ahead of this third stage, this report should form the basis for a shared understanding, both between the authorities in the client group and with closely related authorities, of the housing needs arising from the core of the West Midlands.

1.6 For the client authorities and those related local authority areas, this report estimates the collective need for new housing, using a transparent method. Therefore it should help fulfil the Duty-to-Cooperate, by allowing the authorities to consider housing need using a common evidence base.

2 THE HOUSING MARKET AREA

Introduction

2.1 In line with national policy and guidance, before looking at demand and supply we need to consider geography. 13 local authorities took part in the present study, comprising:

- Greater Birmingham and Solihull (GBSLEP) area: Birmingham, Bromsgrove, Cannock Chase, East Staffs, Lichfield, Redditch, Solihull, Tamworth and Wyre Forest;
- Black Country: Dudley, Sandwell, Walsall and Wolverhampton.

2.2 We refer to these 13 authorities as 'the study area'.

2.3 The NPPF and PG advise that housing need should be assessed at the level of housing market areas (HMAs), rather than individual local authorities. Therefore the first step in the study is to see if the above authorities form one (or several) HMAs. If they do not, to provide a sound needs assessment we would need to add further authorities to the analysis, even if they are not taking part in the study.

2.4 Below, in the next section we discuss the definition and purpose of HMAs and what evidence should be used to draw their boundaries. We then consider the evidence for our study area, to see whether it does form an HMA within the meaning of national policy and guidance.

Housing Market Areas in general

Definition

2.5 When deciding where to live, many people's areas of search extend across local authority boundaries Few people are committed to living only within a given local authority area, and many may not even know where local authority boundaries are. There will be some exceptions; where residents are unable or reluctant to move far. But in general much of the demand for new homes is footloose across local authority boundaries.

2.6 This is why the NPPF requires housing to be planned for at the level of the housing market area (HMA), rather than individual local authorities. An HMA approximates a typical household's area of search. It is a reasonably self-contained area, in which a high proportion of house moves occurs within the area as opposed to crossing its boundary.

Evidence

2.7 As introduced above, the purpose of an HMA is to bring together those places which households typically consider close substitutes for one another. Therefore to define HMAs we need to look for evidence of household preferences, as manifested through household behaviour and market signals.

2.8 The PG provides a long list of possible indicators, comprising house prices, migration and search patterns, and contextual data including travel-to-work areas, retail and school catchments. There is no guidance in the PG on how to use some of this data, and some are of little use in setting a strategic HMA such as this. House prices, for example, vary hugely even within single local authority districts. In practice, therefore, the main indicators of self-containment are migration and commuting. With regard to migration, the PG explains that areas that form an HMA will be reasonably self-contained, so that a high proportion of house moves (typically 70% of the total excluding long-distance moves) occur within the area[1].

2.9 One problem in drawing boundaries is that, if each local planning authority were to draw an HMA centred on its area, there would be almost as many HMAs as local authorities. This is because the largest migration flows in and out of any individual authority are usually those linking it with immediately adjacent authorities. But each of these adjacent authorities will most probably find that *their* largest migration flows link them to *their* immediate neighbours, and thus the chain continues indefinitely.

2.10 If each authority works independently to define an optimal HMA, each authority may draw a different map centred on its own area. So to define HMAs we need a top-down analysis, which starts by looking at the country as a whole rather than a given local authority.

2.11 Such an analysis is provided in the Geography of Housing Market Areas, a study commissioned by the former National Housing and Planning Advice Unit (NHPAU), and published by CLG in 2010[2]. The study, led by the Centre for Advanced Urban Studies (CURDS) at Newcastle University, created a consistent set of HMAs across England, based on migration and commuting data from the 2001 Census. Although the analysis has not been updated following the 2011 Census, the CURDS study is still the best available starting point for drawing HMAs.

2.12 The results of the NHPAU study are hosted on the CURDS website[3]. It defines a three-tiered hierarchy of HMAs: strategic, single-tier and local. The analysis is fine-grained, producing HMAs that cut across administrative boundaries. But for the strategic and single-tier layers the study also provides a 'silver standard' version, which fits the HMAs to local authority boundaries.

2.13 In our view, the most useful geography in the present case is the strategic 'silver standard' geography, which is mapped at http://www.ncl.ac.uk/curds/assets/documents/6.pdf and listed at http://www.ncl.ac.uk/curds/assets/documents/28.xls[4]

2.14 Our preference for the 'silver standard' HMAs, which fit local authority boundaries, is pragmatic: planning policy and development management decisions (including

[1] Reference ID: 2a-011-20140306

[2] C Jones, M Coombes and C Wong, *Geography of housing market areas*, Final report, November 2010, Department for Communities and Local Government

[3] http://www.ncl.ac.uk/curds/research/defining/NHPAU.htm

[4] (Alternative geographies and further explanations are at http://www.ncl.ac.uk/curds/research/defining/NHPAU.htm)

calculations of five-year land supply) are mostly made at the local authority level. But the 'silver standard' approach is a compromise, which sometimes has significant shortcomings. We discuss this in more detail below, when testing the CURDS geography.

HMAs and the study area

The CURDS/NHPAU geography

2.15 As noted above, a reasonable starting point for drawing HMAs is the analysis undertaken by CURDS and others for the NHPAU in 2010. This provides a national HMA geography based on robust and consistent criteria. However the NHPAU analysis still needs testing; partly to check it against more recent data (the CURDS work being based on the 2001 Census) but also to allow a finer-grained understanding of how the potential housing market area works in practice.

2.16 In relation to the wider Birmingham area, the CURDS geography identifies a strategic HMA centred on Birmingham and Black Country, which includes all the local authorities within and immediately adjoining the conurbation. The strategic HMA also covers a small number of well-related neighbours; for example, Tamworth, which is surrounded by larger authorities that adjoin the conurbation, and Redditch, a small authority adjoining Bromsgrove.

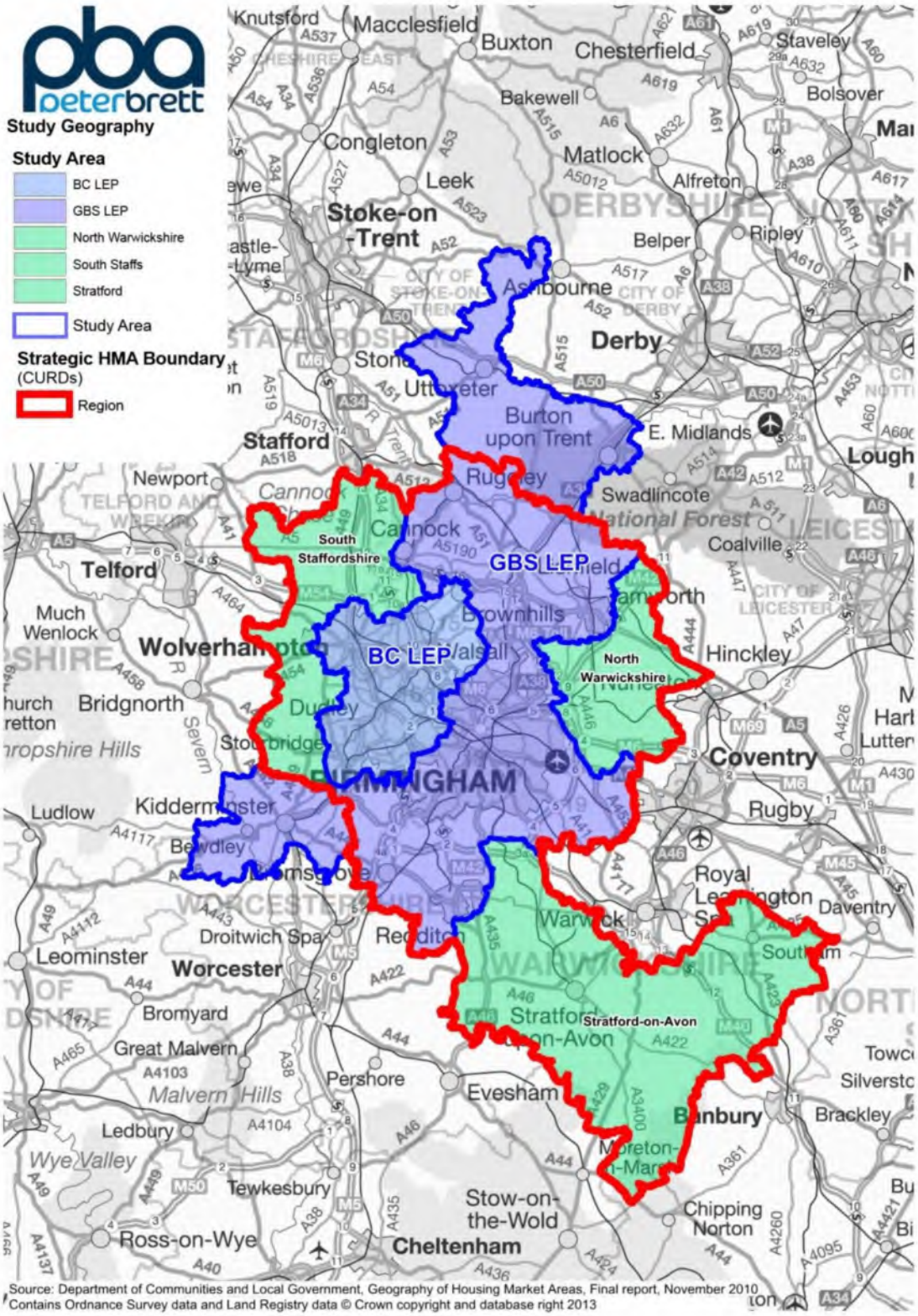
2.17 The CURDS research identifies three authorities as being within the HMA that are not part of our study area: Stratford on Avon, North Warwickshire and South Staffs. It also excludes from the HMA two authorities which *are* part of our study area: Wyre Forest and East Staffs.

2.18 The map below shows this geography in detail. The red boundary is the CURDS HMA, the shaded blue boundary is the two LEPs, and the shaded green boundary marks the authorities that are in the CURDS HMA but outside our client group.

2.19 For simplicity, in this report we call the CURDS HMA (red boundary) 'Greater Birmingham HMA' (CURDS does not give names to HMAs, only numbers). Other geographical areas are named as follows:

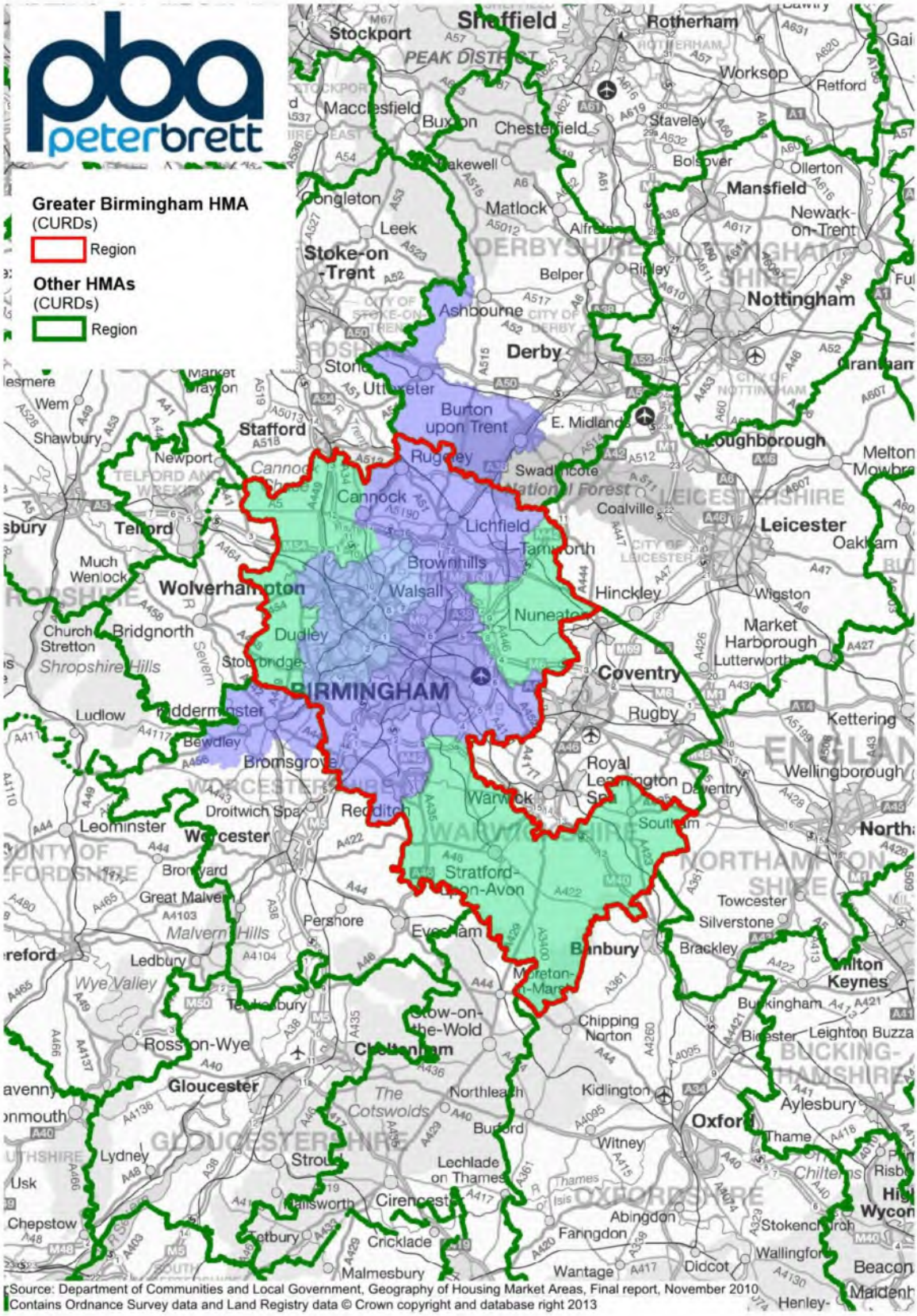
- Authorities in the client group (GBSLEP area and Black Country) are the 'study area' as noted earlier.
- Authorities outside the client group but within the CURDS HMA (North Warwickshire, South Staffs, Stratford on Avon) are the 'related authorities';
- The study area and the related authorities together form the 'wider market area'.

Figure 2.1 Strategic Birmingham and Black Country HMA



2.20 The map below shows the Greater Birmingham HMA in context with the other nearby strategic HMAs. East Staffs is grouped with Derbyshire authorities and Wyre Forest with South Worcestershire.

Figure 2.2 Neighbouring strategic HMAs



Further evidence

2.21 To test the CURDS geography we look at the same factors as they did: migration and commuting. Although the PG suggests using additional indicators, for example house prices, these are not helpful for the very large area we are dealing with. Even within individual districts (most noticeably Birmingham), there are wide variations in house prices.

Migration

2.22 The ONS publish annual statistics of the origins and destinations of migration that crosses local authority boundaries. Because of the age of the CURDS data, we have tested the potential HMA geography using much more recent data, for 2010-11. The data cover only 'domestic' migration, within England and Wales, and they exclude house moves within local authorities.

2.23 The table below shows migration flows out of each local authority area in the West Midlands. The origins of migrants are in the left-had columns and destinations are in the top row. Origins are broken up into the GBSLEP, the Black Country, related authorities, and other West Midlands authorities (full migration data are at Appendix A). Destinations comprise the wider market area, the rest of the West Midlands, the West Midlands as a whole and areas outside the West Midlands (labelled 'inter-regional').

2.24 For most of the authorities in the wider market area, the most likely destination of out-migrant is within that area. Once moves beyond the West Midlands are excluded, around 70% of moves from any wider market area authority go to other wider market area authorities. (Thus, for example, 54% of people moving from Cannock Chase moved within the wider market area, but only 17% moved to other parts of the West Midlands.) So the wider market area geography captures the large majority of intra-regional house moves.

2.25 Birmingham is different from other authorities. Although intra-regional moves from the city are well contained within the wider market area, there are also many inter-regional, long-distance moves – perhaps often relating to students or job-led migration.

Table 2.1 Destination of out-migrants, 2010-11, %

Migration from			Migration to				
			Wider market	Other West Midlandfs	Total West Midlands	Beyond West Midlands	Total
WIDER MARKET AREA	GBSLEP	Cannock Chase	54	17	71	29	100
		East Staffordshire	15	14	29	71	100
		Lichfield	51	8	60	40	100
		Tamworth	52	9	61	39	100
		Birmingham	39	8	46	54	100
		Solihull	48	12	60	40	100
		Bromsgrove	45	17	62	38	100
		Redditch	43	19	62	38	100
		Wyre Forest	30	29	59	41	100
	BC LEP	Dudley	58	10	69	31	100
		Sandwell	67	7	73	27	100
		Walsall	59	7	66	34	100
		Wolverhampton	50	12	61	39	100
	RELATED AUTHORITY	South Staffordshire	53	19	72	28	100
		North Warwickshire	40	24	63	37	100
		Stratford on Avon	15	27	42	58	100
OTHER WEST MIDLANDS		Herefordshire	7	21	27	73	100
		Stoke on Trent	11	44	55	45	100
		Telford and Wrekin	16	32	48	52	100
		Shropshire	13	23	35	65	100
		Newcastle under Lyme	7	46	53	47	100
		Stafford	22	26	48	52	100
		Staffordshire Moorlands	9	43	52	48	100
		Nuneaton and Bedworth	21	29	50	50	100
		Rugby	10	21	31	69	100
		Warwick	19	16	35	65	100
		Coventry	14	24	39	61	100
		Malvern Hills	12	42	54	46	100
		Worcester	17	39	56	44	100
		Wychavon	24	27	51	49	100

Source: ONS, PBA (

2.26 The table below shows all those authorities that received a net outflow of 100 people or more from Birmingham. The largest absolute flows are between London and Birmingham, with around 5,000 people moving into or out of the Birmingham to/from London (590 net). However this table hides the fact that the city also has links with almost every single authority area in England; these may be small when considered in isolation but collectively are substantial. The Isles of Scilly is the only local authority area that records no migration to or from Birmingham in 2010-11.

Table 2.2 Birmingham City migration, 2010-11

	To Birmingham	From Birmingham	Net
Coventry	950	770	180
Stoke-on-Trent UA	440	270	170
Redditch	310	410	-100
Wyre Forest	180	290	-110
Torbay UA	80	190	-110
Cornwall UA	170	290	-120
Tamworth	270	430	-160
Stratford-on-Avon	170	340	-170
North Warwickshire	250	430	-180
Dudley	900	1,270	-370
Lichfield	420	810	-390
Walsall	1,270	1,720	-450
London	4,740	5,330	-590
Bromsgrove	650	1,280	-630
Sandwell	3,240	4,430	-1,190
Solihull	2,510	3,860	-1,350

Source: ONS & PBA (NHS migration data)

2.27 Turning to the other authorities in the wider market area, our data confirm that North Warwickshire is strongly linked to the Greater Birmingham housing market area. The CURDS research places North Warwickshire in the Greater Birmingham HMA, although it is sometimes considered part of a Warwickshire HMA. In Table 2.1, 40% of out-migrants from North Warwickshire move into another authority in the wider market area (34% to GBSLEP, 6% to the Black Country). This far exceeds the migration flow from North Warwickshire to the rest of Warwickshire.

2.28 In the CURDS geography, Wyre Forest is grouped with the other Worcestershire authorities rather than the Greater Birmingham HMA. But the detailed data for 2010-11 show that it does have close links with the Greater Birmingham HMA. Of the people moving out of Wyre Forest, more go to the wider market area than the other Worcestershire authorities.

2.29 In contrast, East Staffs has weak links with the Greater Birmingham HMA. As shown in Table 2.1, only 14% of moves from East Staffs went to another authority in the study area. 71% of moves from East Staffs went outside the West Midlands. This confirms the CURDS analysis, which suggested that East Staffs was part of an HMA centred on Derby in the East Midlands region, with weak links to Greater Birmingham.

2.30 Finally, Stratford on Avon in some ways is similar to East Staffs. Only 15% of moves from Stratford are to another authority in the study area, 27% are to the rest of the West Midlands and 60% are inter-regional moves.

2.31 However Stratford is unusual, because the data show that it does not have a strong relationship with any single local authority area. For out-migrants from Stratford the most common destination is Warwick, which attracts 11% of moves, followed by Wychavon and Redditch. These 'top three' destinations are in three different CURDS HMAs. This might explain why Stratford is grouped with Birmingham by the CURDS research: it has weak links with all of its neighbouring potential HMAs, but the CURDS algorithm considers hat the link with the Greater Birmingham HMA is slightly stronger than any other potential collective. The data do clearly show that the link with Greater Birmingham is very weak.

2.32 Part of the technical problem with Stratford is that the district covers a very large land area (in the fine-grained version of the CURDS geography it is split between HMAs). Its inclusion in the CURDS Greater Birmingham HMA is a compromise, dictated by the 'silver standard' approach, in which the whole of each authority has to be in a single HMA.

2.33 A more general problem with defining HMA boundaries is that the largest migration flows in and out of any individual authority are usually those linking it with immediately adjacent authorities. But each of these adjacent authorities will most probably find that their largest migration flows link them to their immediate neighbours, so the chain continues indefinitely and HMAs overlap. This issue was recognised in the Coventry and Warwickshire SHMA, which noted that functional relationships exist beyond the defined Coventry and Warwickshire HMA.

2.34 To sum up, our analysis of migration largely supports the CURDS definition of the strategic HMA. Like CURDS, it suggests that one of the authorities in our study area, East Staffs, is not part of the Greater Birmingham HMA; but two authorities outside the study area, North Warwickshire and South Staffs, *are* part of the HMA. Stratford on Avon is in a category of its own, being weakly relate to Greater Birmingham, but also to other HMAs. This suggests that, to play its strategic housing role, Stratford should work with more than one of the surrounding HMAs.

2.35 In the next sections we look at commuting links between local authorities.

Commuting

2.36 As mentioned earlier, HMA boundaries may be defined on the basis of migration self-containment, meaning that a high proportion of all house moves occur within the area. Similarly, as the PG also notes, they may be defined as labour market areas, which are areas of commuting closure, meaning that a high proportion of all journeys to work occur within the area. One would expect these two approaches to produce similar results, because in looking for a new home many people aim to stay within commuting distance of their jobs.

2.37 The table below shows commuting between the study area authorities. Full data are in Appendix B.

Table 2.3 Commuting flows, 2011

	Workplace jobs	Working residents	Net commuting	From wider market to LPA	From LPA to wider market	Net commuting from wider market	Net commuting from other areas
Cannock Chase	43,799	43,331	468	16,449	16,025	424	44
East Staffordshire	61,216	54,027	7,189	2,838	3,223	-385	7,574
Lichfield	38,397	45,380	-6,983	11,365	19,735	-8,370	1,387
Tamworth	29,138	30,738	-1,600	10,045	13,317	-3,272	1,672
Birmingham	509,339	395,023	114,316	152,492	60,501	91,991	22,325
Solihull	85,494	95,540	-10,046	38,752	39,716	-964	-9,082
Bromsgrove	24,925	40,633	-15,708	8,829	19,876	-11,047	-4,661
Redditch	31,460	38,443	-6,983	6,543	10,961	-4,418	-2,565
Wyre Forest	38,875	47,994	-9,119	4,215	7,016	-2,801	-6,318
GBSLEP total	862,643	791,109	71,534	251,528	190,370	61,158	10,376
Dudley	102,300	138,110	-35,810	28,018	60,590	-32,572	-3,238
Sandwell	99,540	119,753	-20,213	47,789	65,071	-17,282	-2,931
Walsall	82,089	103,689	-21,600	26,845	45,382	-18,537	-3,063
Wolverhampton	115,293	93,656	21,637	46,586	24,943	21,643	-6
Black Country total	399,222	455,208	-55,986	149,238	195,986	-46,748	-9,238
South Staffordshire	21,510	49,083	-27,573	5,860	30,717	-24,857	-2,716
North Warwickshire	30,533	28,850	1,683	12,000	7,163	4,837	-3,154
Stratford on Avon	63,907	54,452	9,455	12,802	7,192	5,610	3,845
Related authorities total	115,950	132,385	-16,435	30,662	45,072	-14,410	-2,025
Wider market total	**1,377,815**	**1,378,702**	**-887**	**431,428**	**431,428**	**0**	**-887**

Source: ONS, PBA

2.38 The above data are from the 2011 Annual Population Survey (APS). After our analysis was completed the ONS published commuting data from the 2011 Census, which are more robust than the APS ones, because the Census covers everyone, while the APS is a sample survey. The Census data are at Appendix C. We have reviewed these new data and conclude that they do not materially affect our conclusions.

2.39 In net terms, the wider market area is almost entirely self-contained. In round numbers, the area accommodates 1.378 million resident workers and the same number of workplace jobs. But within the area there are large flows between authorities.

2.40 Birmingham is the largest net importer of labour, with 114,000 more workplace jobs than resident workers. As one would expect, it sources almost all those net in-commuters (80%) from other authorities within the wider market area. The largest flows are between Birmingham and the Black Country: 65,000 more people commute into Birmingham from the Black Country than the other way.

2.41 This close economic link between Birmingham and the Black Country firmly cements the two LEPs as a single HMA.

2.42 The data also show very strong flows between the study area and South Staffs and between the study area and North Warwickshire – both in the CURDS HMA but outside our two commissioning LEPs.

2.43 In the case of South Staffs, in gross terms 20,000 local South Staffs residents commute into the Black Country and a further 5,000 into Cannock Chase district. Fewer than 6,000 residents of the study area commute into South Staffs.

2.44 For North Warwickshire the number of working residents broadly matches the number of workplaces. But there are very strong gross commuting flows between the district and the GBSLEP area. One in three local North Warwickshire jobs is taken by residents of other districts within the study area. One quarter of all North Warwickshire's working residents work in the GBSLEP area.

2.45 Stratford on Avon is a large importer of labour; with around 10,000 more jobs than resident workers. Around 50% of those net in-commuters are residents of the study area. This strong economic link, where the district relies on labour from Greater Birmingham, is possibly why the CURDS study places the district in the Greater Birmingham HMA over the other possible neighbouring choices.

2.46 For most of our study area, excepting East Staffs and Wyre Forest[5], the dominant commuting flows are to other authorities in the study area. East Staffs has substantial net in-commuting, most of which is from outside the study area. Wyre Forest has substantial net out-commuting, most of which is to places outside the study area.

2.47 To sum up, the further analysis of commuting flows confirms that the study area as a whole is highly self-contained, with numbers of resident workers virtually equal to workplace jobs. For most authorities within the study area, the dominant commuting

[5] The detailed APS data in Appendix B show significant commuting links between Wyre Forest and Tamworth. These numbers are overstated due to sampling error, as confirmed by the Census figures (Appendix C), which show flows of fewer than 20 people in each direction.

flows are largely contained within the study area. There are two exceptions, East Staffs and to a lesser extent Wyre Forest.

Conclusion

2.48 Our analysis confirms the conclusions reached by the 2010 CURDS study of the geography of housing market areas in England. Like the CURDS study, it suggests that two of the authorities in our study area – East Staffs and to a lesser extent Wyre Forest – are outside the core Greater Birmingham housing market area; and one authority which is not part of the study area, South Staffs, is part of that HMA. It is heavily dependent on the HMA for employment and has strong migration links.

2.49 For North Warwickshire the position is less clear. The district's migration links with the rest of the study area are almost as strong as those of many authorities at the core of the HMA. But commuting links with the study area are very strong in both directions, as the district is reliant on GBSLEP neighbours for both workers and jobs. This suggests that on balance CURDS is correct in including North Warwickshire in the Greater Birmingham HMA. But the district does not belong exclusively to that HMA; we must recognise that it also has strong links with other, nearby HMAs.

2.50 Stratford on Avon is the one authority for which our analysis leads us to question the CURDS geography. Stratford has very weak links with the core of the HMA: migration flows are very small, and while there is some cross boundary commuting this is much less than for other 'edge' authorities, most noticeably North Warwickshire.

2.51 Therefore Stratford on Avon is best described as at the crossroads of a number of different HMAs. The district is geographically large, with a comparatively small main settlement (when compared to neighbours such as Leamington, Redditch, Banbury and perhaps even Daventry). The peripheral areas of the district look in opposite directions, towards the nearest main towns. So it is incorrect to consider the district as a whole part of the Greater Birmingham HMA, or indeed any other HMA. But is also important to recognise that the district is not an HMA in its own right, as it is closely related to several nearby HMAs.

2.52 In the rest of this report we focus on the wider market area, comprising the study area (i.e. the authorities that have commissioned the study) and the 'related authorities' that are outside the study area, but in the HMA defined by CURDS. But the reader should bear in mind that:

i East Staffs is within the study area but outside the HMA; it has poor links with the HMA.

ii Wyre Forest is also in the study area but outside the HMA; however it has slightly stronger links with the HMA than East Staffs.

iii Stratford on Avon is outside our study area and in the CURDS HMA, but migration links between Greater Birmingham and the district are weak. Commuting links are slightly stronger with the district importing HMA residents to work.

iv North Warwickshire is outside our study area but in the HMA. It shares links with the Greater Birmingham HMA as well as other neighbours.

v South Staffs is outside our study area but in the HMA.

3 FUTURE HOUSING NEED

Introduction

3.1 As recommended by the PG, in assessing housing need our first and main source of evidence is demographic projections. But our assessment is not a full Strategic Housing Market Assessment (SHMA) within the meaning of the NPPF, because we do not take account of the other factors that are mentioned in the NPPF as bearing on housing need[6]. Thus we do not consider future employment or past land supply and market signals; these issues are left for Stage 3 of the study, which will look more closely at local geographies rather than the study area as a whole.

3.2 Also, as per the brief, we leave to later, single-authority studies issues relating to housing mix and tenure – including dwelling sizes, provision for special groups such as the elderly, and affordable housing need. This study is entirely about what the PG calls 'overall housing need'. Both in the PG and NPPF that meaning of 'need' is virtually synonymous with demand – that is, the housing that households want and realistically can afford, whether from their own resources in the market sector or with help from the State in the affordable sector. It should not be confused with affordable housing need – which is estimated in a separate calculation using a wholly different method, specified in paragraphs 23-29 of the PG[7].

The study area

Methods and assumptions

ONS / CLG projections

3.3 In line with the PG, our assessment starts from the official household projections from the Department for Communities and Local Government (CLG). The CLG projections are derived from the sub-national population projections (SNPP) produced by the Office for National Statistics (ONS). The SNPP show future population by local authority area and are normally published at two-year intervals, though this regular cycle may be disrupted in response to new data – most recently the 2011 Census. The CLG translates the population into households. The projected growth in household numbers, with a small adjustment for vacant and second homes, is used as the measure of housing need.

3.4 The official projections, as their name indicates, are trend-driven – that is, they roll forward (project) past trends into the future. Accordingly, still following the PG, we test and amend them through alternative projection scenarios that adjust for:

[6] There is a full discussion of the PG's recommendations in the technical advice note that we provided for PAS on Objectively Assessed Need and Housing Targets, http://www.pas.gov.uk/documents/332612/6363137/Objectively+Assessed+Need+and+Housing+Targets/f22edcc2-32cf-47f1-8e4a-daf50e4412f7

[7] Reference ID: 2a-023-20140306 to 2a-029-20140306

- Technical flaws in the official method – in particular superseded or otherwise inaccurate historical data (projections are only past trends rolled forward, so a projection based on the wrong trends will be inaccurate);
- External (non-demographic) factors that bear on demographic change but are not captured in the projections, because they are likely to differ in the future from what they were in the past – in particular the macroeconomic climate.

3.5 Appendix F bellows explains briefly the workings of demographic projections. For any geographical area, the change in housing numbers is the outcome of three components: The first two factors, natural change (equal to births minus deaths) and migration (UK and international[8]) impact on population change. The third factor is the ratios that turn population into households, known as household reference rates (HRRs, alternatively headship or household formation rates). Alternative scenarios are mostly based on varying assumptions about migration and household formation. Unlike natural change, these factors are difficult both to measure for the past and to predict for the future.

3.6 In the early stage of the study, we referred to the latest available official projections, which comprise:

- The CLG 2008-based projections ('CLG 2008'), derived from the 2008-based SNPP population projection ('ONS 2008');
- The CLG interim 2011-based projections ('CLG 2011'), derived from the 2011 interim SNPP ('ONS 2011').

3.7 Both these projections have serious technical weaknesses. The 2008 projections based on historical trends that by now are very old, and in many cases their predictions have been invalidated by the 2011 Census. The interim 2011 suite has a short time horizon, only covering 10 years to 2021. And the historical migration, birth and death rates it is based on are pre-Census estimates, which for many places were shown by the Census to be seriously inaccurate.

3.8 A more general problem with the official projections is that future migration follows trends rolled forward from a five-year base period (for ONS 2011, that period is 2006-11)[9]. In principle, it seems doubtful to base a prediction for 20 years or longer on a past as short as five years. In this particular case, the previous five years are likely to be untypical of longer-term trends, because four of them coincide with an economic recession, and an exceptionally severe one at that[10]. Projections based on 2012, whose reference period is 2007-12, share the same weakness.

3.9 In the CLG 2011 household projection, household formation also carries the imprint of the recession. Across England the 2011 Census showed that there were substantially fewer households than previously expected and on average those households were

[8] 'Migration' in the present context means all moves that cross a local authority boundary, whether within the UK or internationally.

[9] In the case of international migration, these five-year-based figures are controlled to national totals that reflect longer-term trends and expert judgment.

[10] Appendix F explains in more detail how the choice of base period impacts on projection results, using a worked example.

substantially larger. The evidence suggests that this is partly a demand-side effect of the recession – when, due to falling incomes and the credit crunch, fewer people could afford their own homes. CLG 2011 carries forward this effect into the future.

PBA projections

3.10 To correct the weaknesses listed above, we created two alternative scenarios o for 2011-31, called PBA Trends. These scenarios use our in-house suite of demographic models, which are fully-fledged cohort progression models and mirror the methods and assumptions used in official projections – except of course for the alternative assumptions we are testing, as described below[11].

i PBA Trends 2001-11 projects the migration trend from the inter-censal period 2001-11. Unlike the 2011 official projections, it takes full account of the Census findings. Unless there are special circumstances that make this 10-year base period untypical, it should also provide a more robust projection than the five-year base used by ONS / CLG. As regards household formation, Trends 2001-11 uses the 'indexed' (re-based, blended) method supported by the South Worcestershire EiP inspector among others, which assumes that after 2021 headship rates revert to their pre-recession trend as projected in CLG 2008 – though without catching up the 'deficit' accumulated earlier.

ii PBA Trends 2007-12 is based on five-year migration trends, 2007-12[12]. In principle, as discussed earlier, one would expect this to be less reliable than a ten-year base period, and also less aligned with long-term trends because of the recession. It purpose is to help compare our scenarios and the official ones, which as noted earlier always use a five-year based period for migration. For household formation, Trends 2007-12 again uses the indexed method – assuming a return to the pre-recession trend after 2021.

ONS/PBA projection

3.11 Through the Trends scenarios discussed above, we rectified as far as possible the flaws in the official projections current at the time. But in late May 2014, after this modelling was complete, ONS produced a new, 2012-based release of the SNPP. This ('ONS 2012') is a fully-fledged population projection, which supersedes the interim ONS 2011. But CLG 2012, which will convert ONS 2012 into households, is not expected till late 2014.

3.12 To fill the gap until CLG 2012 is published we have produced our projection scenario to turn ONS 2012 into households. That scenario, called ONS/PBA 2012, uses the same indexed headship rates as our other Trends scenarios. It is an estimate or preview of CLG 2012, except that at this stage we cannot tell what view CLG will take of future headship rates (household formation) – a matter of judgment as much as analysis.

3.13 The ONS 2012 population projection has an important technical flaw, which also affects the ONS/PBA 2012 household projection based on it. The problem relates to an error

[11] Technical details are at Appendix F.

[12] The base period has been rolled forward one year from ONS/CLG 2011, because our projections had the benefit of more recent data, following publication of the 2012 ONS mid-year estimates.

term in the official population statistics known as unattributable population change (UPC). UPC occurs when area's population change between the two last Censuses, 2001 and 2011, cannot be accounted for by the recorded births, deaths and migration.

3.14 Positive UPC occurs when the 2011 Census found more persons than could be traced back to previous population, natural change or migration since the 2001 Census. In other words, there are more people in an area than expected and the ONS cannot tell how the additional people got there (assuming they were actually not there in 2001). Conversely, where UPC is negative there are fewer persons in the area than previously expected, and the ONS cannot tell where the missing people went (assuming they were actually there in 2001).

3.15 There are two possible reasons for the UPC. Firstly, population numbers in one or both of the Censuses could be wrong, so that in reality the unattributable change (or some of it) did not happen. Alternatively or additionally, the migration figures could be wrong, so the UPC (or some of it) did happen, but was wrongly recorded. (It is most unlikely that figures on natural change are wrong, because births and deaths are rigorously recorded, whereas migration is merely estimated from incomplete data).

3.16 The consensus of demographers is that the latter is more likely, so that the UPC (or much of it) is unrecorded or misallocated international migration, probably from the EU accession countries and mostly in the first half of the decade. However, the ONS 2012 population projection ignores the UPC – in effect assuming that the UPC results from miscounting in one or both Censuses. In places where the UPC is large, this can make a major difference to the estimated past migration that demographic projections roll forward into the future. Hence how the UPC is dealt with can make a major difference to the projected housing need.

3.17 Across England as a whole in 2001-11, the aggregate UPC is positive at 103,700 persons per year[13]. This relatively modest number is the net outcome of pluses and minuses for individual local authorities. In our study area, the UPC is a large component of past population change:

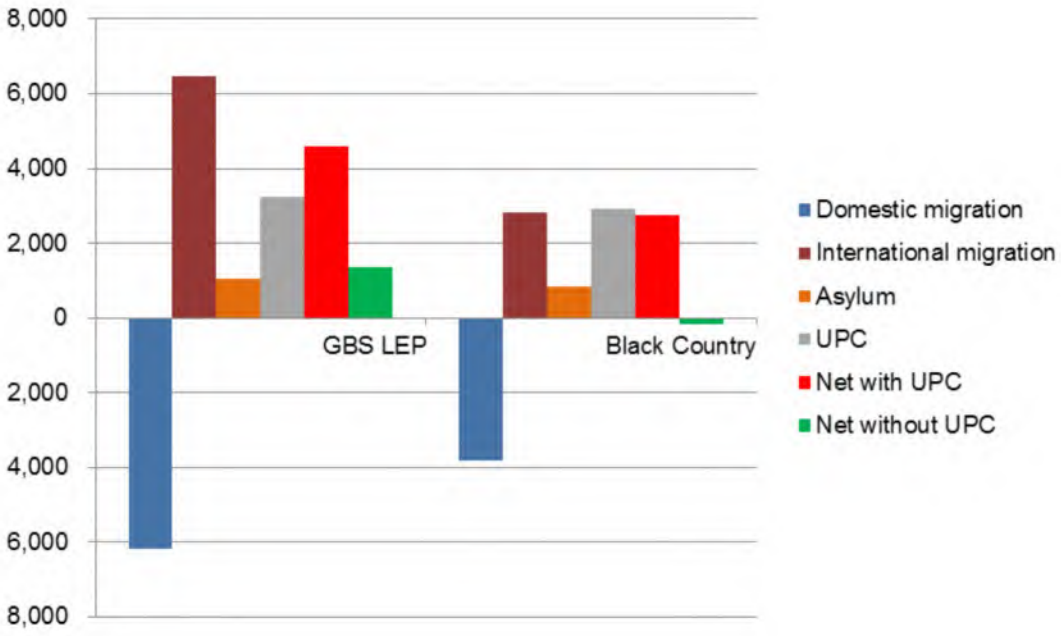
- For the GBSLEP area over the same period, the UPC is positive and totals 3,200 persons per annum (Figure 3.1):
  - In absolute terms this is more than half of both net international migration (which is positive, a flow into the area) and net internal (UK) migration (which is a negative, a flow out of the area).
  - If the UPC is unrecorded migration, annual migration into the area in 2001-11 was an inflow 4,600. If the UPC is due to Census errors (i.e. it did not really happen) annual migration is still positive but falls to 1,400.
- For the Black Country the UPC totals 2,900 p.a..
  - In absolute terms this is more than half of net domestic migration and virtually equal to net international migration.

[13] Office for National Statistics, 2*012-based Subnational Population Projections for England: Report on Unattributable Population Change*, January 2014

- If the UPC is unrecorded migration, the area in 2001-11 received a positive migration flow of 2,800 p.a.. If the UPC is due to Census errors (i.e. it did not really happen), the area saw a small outflow, to the tune of 150 p.a..

3.18 When carried forward into projections these differences have a major impact on the assessed housing need, as we show in the next section.

Figure 3.1 Net migration, 2001-2011, persons p.a.



Source: ONS

Summary

3.19 To explore possible demographic futures we use five alternative household projection scenarios, as follows:

- Two official projections, CLG 2008 and CLG 2011 (based respectively on the ONS 2008 and 2012 population projections, which the CLG converts into households);
- Two scenarios of our own making, PBA Trends 2001-11 and PBA Trends 2007-12, which use more recent data and repair weaknesses in the official scenarios;
- One hybrid scenario, ONS/PBA 2012, which translates into households the latest ONS population scenarios – a preview of the new CLG household projection that is expected later this year.

3.20 In the next section we show the results of these projections in turn, first for the GBSLEP area and then for the Black Country. We then discuss the merits of different scenarios and draw the implications for future housing need. For convenience (to fit the five-year periods in which some historical data and projections are provided), the analysis covers the period 2011-31. We provide all figures in per annum terms, so if required they can be used for slightly different plan periods, such as 2011-33. Results are summarised at Tables 3.1-3.3 and shown in comprehensive detail in appendices..

Results

3.21 In this section we focus on the study area. But as noted in chapter 2 there are three 'related authorities' which are also part of the HMA . So we also present results for these related authorities in summary, at the end of this section.

GBSLEP

3.22 For the GBSLEP area over the period 2011-31, the CLG 2008 projections show:

- Population increasing by 11,600 persons p.a. (of which 7,400 in Birmingham City - which is by far the most populous local authority, accounting for just over half of the area's population and households in 2011);
- Household numbers increasing by 7,100 p.a.(of which 4,100 in Birmingham City).

3.23 CLG 2008 was released in 2010. Two to three years later, as the results of the 2011 Census were released, it became apparent that CLG 2008 was inaccurate. The Census showed that at 2011 the area's population was greater than expected; while numbers of households were very slightly smaller than expected, so the average household size was slightly larger than expected. These differences were concentrated in Birmingham City.

3.24 There is no ready-made explanation for the larger than expected number of people in Birmingham. It is likely to result at least in part from supply-side factors – specifically the planning and regeneration policies of the 1990s and early 2000s. In this period housing growth was deliberately steered to the major urban areas, which saw increasing high-density development on brownfield sites; while in the 'greenfield' authorities that had traditionally received Birmingham's overspill land allocations were reduced. Hence fewer people moved out of the city and / or more people moved in than previous trends indicated, resulting in more in-migration and hence a larger total population for Birmingham.

3.25 The fact that the area had fewer and larger households than previous trends suggested is easier to explain. As noted earlier it is a general feature of the 2011 Census, and explained in part by the recession.

3.26 The CLG 2011 household projection as explained earlier takes account of these Census findings, but only partially, and only runs to 2021. For GBSLEP over this period:

- The population increases by 13,900 p.a.
- Household numbers increase by 6,800 p.a.

3.27 We show this scenario for the sake of completeness, because it is the latest available official household projection. In our opinion it is not technically credible, for two reasons. Firstly, as discussed earlier it rolls forward estimates of migration, and hence population, which the 2011 Census showed to be seriously under-estimated. Secondly, as we also explained earlier, its assumptions on future household formation carry the deep imprint of the last recession. Our own PBA Trends scenarios aim to overcome these weaknesses.

3.28 In the first of these PBA scenarios, Trends 2007-12:

- The GBSLEP population in 2011-31 increases by 17,000 p.a. – of which 13,000 in Birmingham.
- Households in the area increase by 8,700 p.a. – of which 6,300 in Birmingham.

3.29 One weakness of Trends 2007-12 is that the base period whose migration trends it rolls forward, 2007-12, is both short and dominated by the recession. We include this scenario because it uses the same method as the official ones, but in our view a robust projection should use a longer based period and one that mixes boom and bust. This is the thinking behind the Trends 2001-11, projection, which shows:

- Population growth of 17,000 p.a., of which 12,400 in Birmingham;
- Household growth of 8,000 p.a., of which 5,600 in Birmingham.

3.30 These numbers are similar to the results of Trends 2007-12, especially for GBSLEP as a whole. The main difference is that in Trends 2001-11, with its longer base period, there is less growth in Birmingham counterbalanced with more growth in the rest of the GBSLEP area. The likely explanation is that in Trends 2001-11 net migration into Birmingham is lower than in Trends 2007-12 (see Table 3.2, which shows migration for the different scenarios).

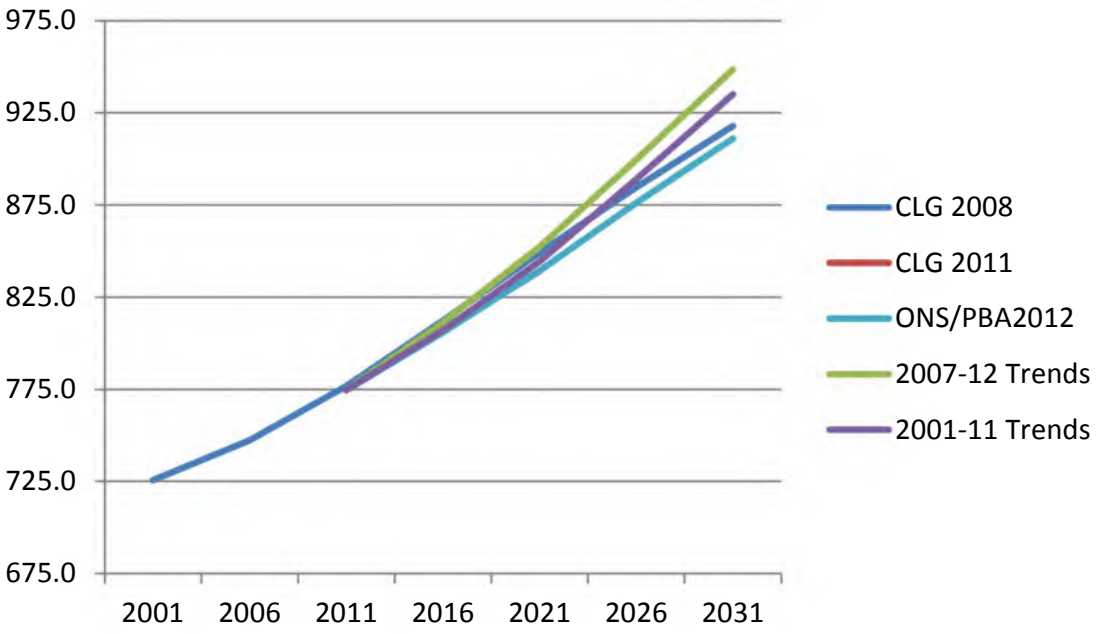
3.31 To understand the reason for *that*, we need to bear in mind that Birmingham's migration comprises two contrasting flows: international migration is usually positive and domestic (UK) migration usually negative. In the 2007-12 recession the domestic outflow slowed, as due to the recession people who would otherwise have moved out to other parts of the wider market area stayed in Birmingham. The Trends 2007-12 projections carries forward this trend into the future, resulting in higher population and more households in Birmingham than the longer-term trend suggests.

3.32 The final scenario on our list, ONS/PBA 2012, is almost undistinguishable from the CLG 2008 scenario from which our discussion started. As such, it shows much less growth than the PBA Trends scenarios:

- GBSLEP population grows by 11,400 p.a.
- Households grow by 6,800 p.a.

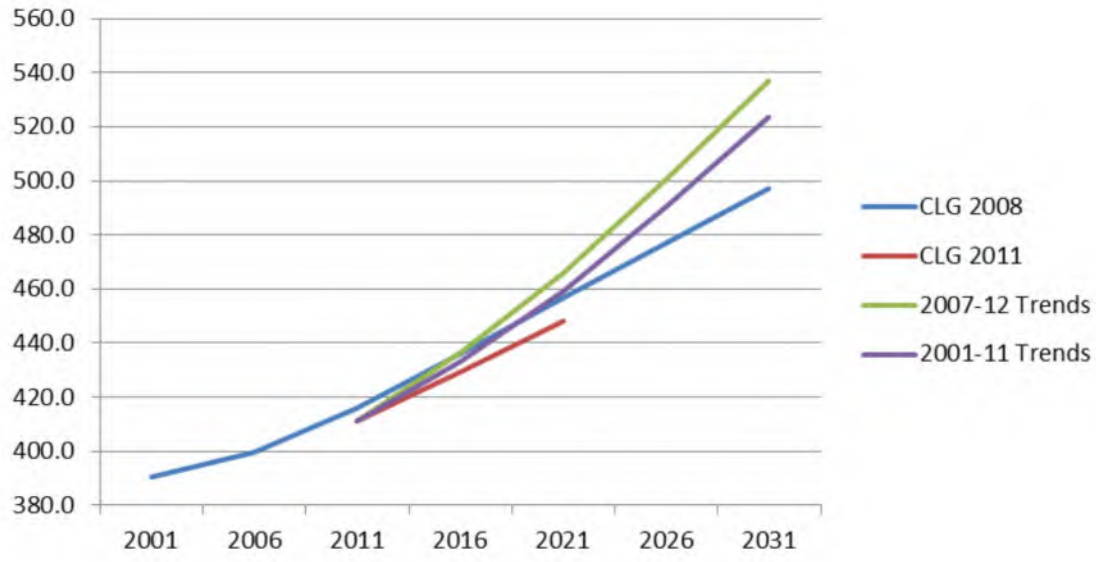
3.33 The simple explanation for these figures is the unattributable population change (UPC) discussed in the last section. In essence, the PBA Trends projections show substantially more growth than the earlier official projections, because they carry forward the unexpected population growth discovered by the 2011 Census. The ONS 2012 population projection, from which the ONS/ PBA 2012 household projection is derived, in effect takes away much of that unexpected growth, by assuming that the UPC was a counting error rather than real change.

Figure 3.2 GBSLEP household numbers: five projections, thousands



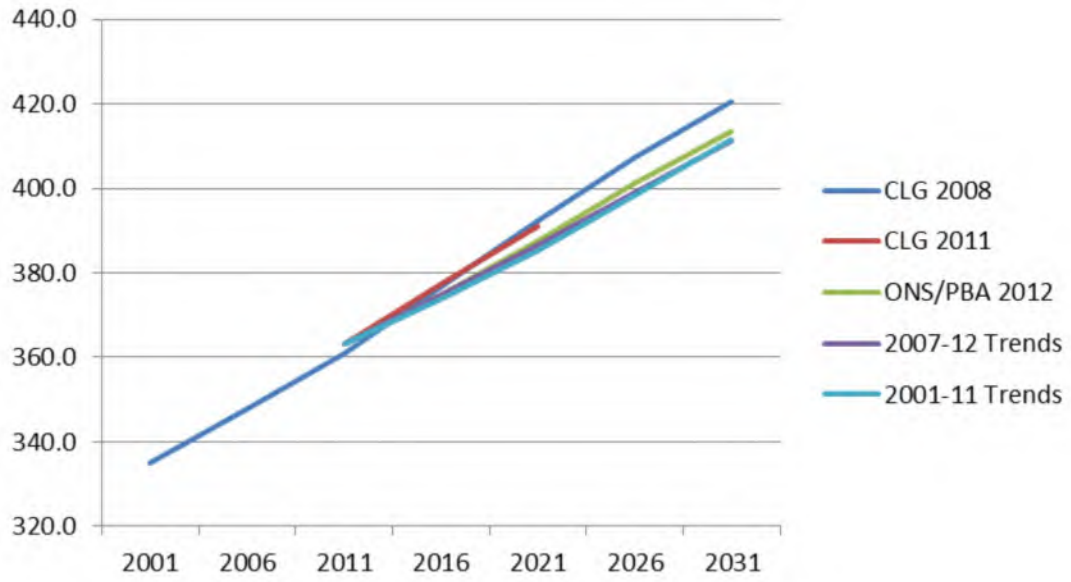
Source: ONS, CLG, PBA. Up to 2021 the different projections are very close; the red line (CLG 2011) is hidden behind the others.

Figure 3.3 Birmingham City household numbers: five projections, thousands



Source: ONS, CLG, PBA

Figure 3.4 Rest of GBSLEP household numbers: five projections, thousands



Source: ONS, CLG, PBA

3.34 In summary, for the technical reasons discussed earlier, in our view the most credible demographic projections for the GBSLEP area are:

- Trends 2001-11, showing 8,000 net new households p.a.
- ONS/PBA 2012, showing 6,800 net new households p.a.

3.35 These scenarios frame a range of uncertainly in which reasonable estimates of trend-driven housing demand should fall. Both scenarios incorporate the latest historical data and both share the same assumptions about household formation, which have been endorsed by planning inspectors. The main difference between them is how they deal with unattributable population change.

3.36 Before discussing the policy implications of this conclusion, in the next section we present alternative projections for the Black Country. The analysis is presented briefly, because it is very similar to that for GBSLEP, and specifically for Birmingham.

The Black Country

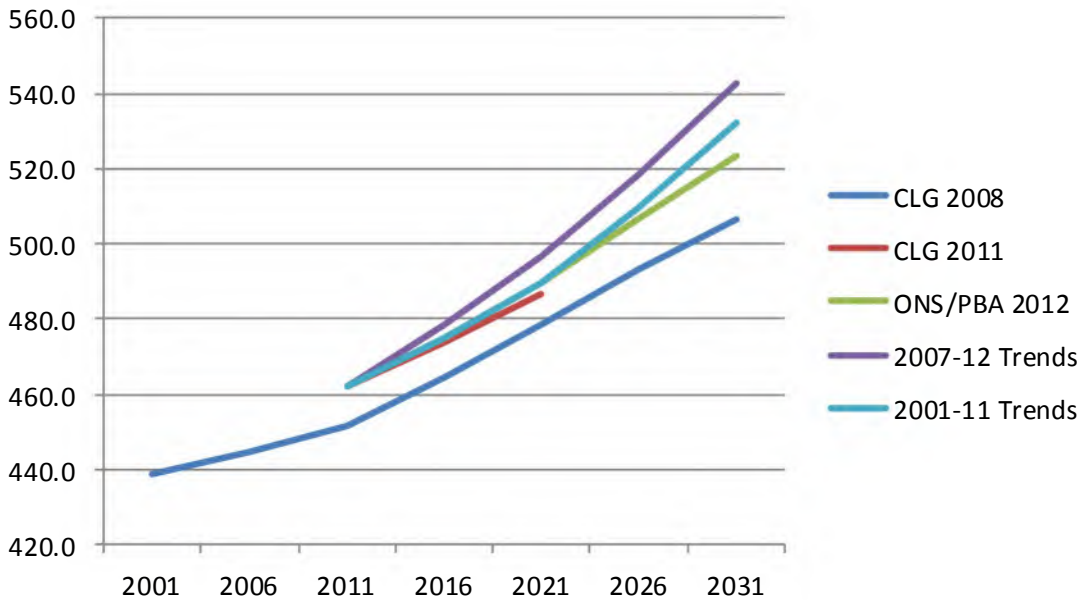
3.37 Similar to Birmingham and GBSLEP and for the same reasons, of our alternative projection scenarios:

- Both for population and households, the lowest growth is in the CLG 2008 and ONS/PBA 2012 projections – showing growth of 2,700 and 3,000 households p.a. respectively.
- The highest growth is in the two PBA Trends projections:
  - Trends 2007-12 shows 4,000 net new households p.a.;
  - Trends 2001-11 shows 3,500 net new households p.a..

3.38 (As before, we leave aside CLG 2011, as an interim release which has been overtaken by events.)

3.39 The main reason why CLG 2008 shows relatively low growth is that it pre-dates the 2011 Census – which discovered an extra 44,000 people in the area over and above earlier projections. The main reason why ONS/PBA 2012 shows relatively low growth is that the latest ONS projections labels much of that extra growth as unattributable population change, which it does not project forward. The main reason why Trends 2001-11 shows less growth than Trends 07-12 is that the latter carries forward the trends of the recession, in which fewer people were able to move out of the area than in earlier years.

Figure 3.5 Black Country household numbers: five projections, thousands



Source: ONS, CLG, PBA

3.40 As for the GBSLEP area and for the same reason, the range of uncertainty is between two scenarios:

- Trends 2001-11, which for the Black Country shows 3,500 net new households p.a..
- ONS/PBA 2012, which shows 3,000 net new households p.a..

Summary and conclusions

3.41 The tables below summarise the demographic projections we have discussed, both for the two LEP areas and individual local authorities. At Table 3.4 we estimate the need for additional housing that would result from each projection. For simplicity, we assume that 3% of the housing stock consists of vacant and second homes[14].

[14] Individual authorities may wish to refine the dwelling numbers at Table 3.4 by using locally specific estimates of the proportion of homes that are unoccupied. Data on this come from two main sources: Council Tax records and *2011 Census: Key Statistics for local authorities in England and Wales,* Table Number KS401EW. These sources often disagree and different authorities will take different views.

3.42 As one would expect, at the level of individual authorities there are sometimes large difference between the five projections, including between the official projections and our own. The reasons for this – which have been discussed earlier - include:

- ONS/CLG 2008 is very out of date. It carries forward past trends which may or may not have been accurately measured, but in any case are very old – largely relating to the period 2003-08. It remains relevant chiefly for what it tells us about pre-recession household formation (headship rates).
- ONS/CLG 2011 is also out of date. It carries forward past trends which are more recent, but in many cases have been proved wrong by the Census. It remains relevant for it tells us about post-recession household formation.
- The ONS 2012 population projection may be distorted in some places by the UPC.
- All the official projections are based on five-year reference periods, whereas Trends 2001-11 is based on a 10-year reference period. As Appendix F illustrates, projections are very sensitive to the reference period which is projected forward, because migration varies widely over time.
- The above illustrates a more general fact: projections for single local authority areas are very unstable. This is one reason why demand and need should be considered for larger-than-local market areas.
- Finally the official models sometimes produce anomalous results that fail the common sense test. The official models are very complex, dealing as they do with a multi-dimensional matrix the covers over 90 age groups, two sexes, three marital statuses and around 330 geographical areas (local authorities, other countries of the UK and the rest of the world). The official models may produce the best possible results on average, but the same does not necessarily apply to each individual local authority.

Table 3.1 Net migration: five projections, persons p.a., 2011-31

	ONS 2008	ONS 2011	PBA Trends 2007-12	PBA Trends 2001-11	ONS 2012
Birmingham	-4,025	-2,723	1,843	684	-2,549
Rest of GBSLEP	3,245	3,027	2,198	2,518	2,468
GBSLEP	-780	304	4,041	3,202	-81
Black Country	-665	-176	2,941	2,284	-30
Total study area	-2,225	432	11,022	8,689	-192

Source: ONS, CLG, PBA. The CLG 2011 projection only runs to 2021.

Table 3.2 Population change: five projections. persons p.a., 2011-31

	ONS 2008	ONS 2011	PBA Trends 2007-12	PBA Trends 2001-11	ONS 2012
Birmingham	**7,350**	**8,583**	**12,975**	**12,396**	**7,746**
Bromsgrove	600	593	412	569	493
Cannock	310	326	448	459	301
East Staffs	680	978	1,017	1,201	692
Lichfield	710	799	431	654	469
Redditch	215	358	464	541	204
Solihull	1,200	1,437	1,160	1,037	1,102
Tamworth	250	500	193	119	280
Wyre Forest	330	355	- 53	31	158
Rest of GBSLEP	**4,295**	**5,347**	**4,071**	**4,611**	**3,700**
Total GBSLEP	**11,645**	**13,930**	**17,047**	**17,007**	**11,446**
Dudley	945	1,215	1,074	1,040	807
Sandwell	1,595	2,635	4,276	3,952	2,623
Walsall	860	1,215	2,361	2,144	1,304
Wolverhampton	880	1,037	1,664	1,728	897
Total Black Country	**4,280**	**6,102**	**9,374**	**8,864**	**5,631**
Total study area	**15,925**	**20,032**	**26,421**	**25,871**	**17,077**

Source: ONS, PBA. The CLG 2011 projection only runs to 2021.

Table 3.3 Household change: five projections, households p.a., 2011-31

	CLG 2008	CLG 2011	PBA Trends 2007-12	PBA Trends 2001-11	ONS 2012
Birmingham	**4,077**	**3,668**	**6,297**	**5,620**	**4,317**
Bromsgrove	364	305	211	261	288
Cannock	274	232	335	293	290
East Staffs	479	485	526	603	448
Lichfield	428	406	272	338	324
Redditch	214	211	258	286	174
Solihull	679	633	563	434	589
Tamworth	221	248	158	111	204
Wyre Forest	317	268	75	**83**	**194**
Rest of GBSLEP	**2,976**	**2,788**	**2,398**	**2,409**	**2,511**
Total GBSLEP	**7,053**	**6,456**	**8,695**	**8,029**	**6,828**
Dudley	683	536	540	387	615
Sandwell	919	1,043	1,667	1,473	1,259
Walsall	520	416	1,037	882	699
Wolverhampton	613	480	779	752	499
Total Black Country	**2,735**	**2,475**	**4,023**	**3,494**	**3,072**
Total study area	**9,788**	**8,931**	**12,718**	**11,523**	**9,900**

Source: ONS, CLG, PBA. The CLG 2011 projection only runs to 2021.

Table 3.4 Housing need: five projections, annual change in dwelling numbers, 2011-31

	CLG 2008	CLG 2011	PBA Trends 2007-12	PBA Trends 2001-11	ONS/PBA 2012
Birmingham	4,203	3,781	6,492	5,794	4,451
Bromsgrove	375	315	218	269	297
Cannock	282	239	345	302	299
East Staffs	494	500	542	622	462
Lichfield	441	419	280	348	334
Redditch	221	217	266	295	179
Solihull	700	652	580	447	607
Tamworth	228	256	163	114	210
Wyre Forest	327	276	77	86	200
Total GBSLEP	**7,271**	**6,655**	**8,964**	**8,277**	**7,039**
Dudley	704	553	557	399	634
Sandwell	947	1,075	1,719	1,519	1,298
Walsall	536	429	1,069	909	721
Wolverhampton	632	495	803	775	514
Total Black Country	**2,820**	**2,552**	**4,147**	**3,602**	**3,167**
Total study area	**10,091**	**9,207**	**13,111**	**11,879**	**10,206**

Source: ONS, CLG, PBA

3.43 For the study area as a whole the resulting range of housing need is:

- Minimum (from ONS / CLG 2012) 10,200 dpa
- Maximum (from PBA trends 2001-11) 11,900 dpa.

3.44 In technical terms, which projection is technically preferable depends on one's view of the UPC. If the UPC is primarily due to unrecorded migration, then the higher projection should be preferred. If it is primarily due to miscounting in one or both of the Censuses, then the lower projection should be preferred.

3.45 In practice of course there is no certain answer to the UPC question. Nor can we predict future official statisticians and planning inspectors will decide is the answer – which may be the decisive factor. In deciding which set of numbers makes a good basis for their plan targets, therefore, local authorities should also have regard to the likely consequences and risks associated with different options, considered against their policy priorities:

- A too-low number, undershooting future demand and need, would have obvious adverse impact in terms of people's living conditions and financial circumstances. As ever, the worst effects are likely to be felt by people who are already in difficulty and in areas that already suffer housing stress. A more immediate risk is that in the period before plans are adopted new official projections, inspectors' decisions and /

or case law may that decide that projections that discount the UPC are too low, and hence dismiss proposed housing targets based on those projections.

- A too-high housing target also carries risks, especially bearing in mind that any additional need above the minimum figures is likely to be met on greenfield land. Unnecessary greenfield allocations are of course undesirable in themselves, both due to environmental impacts and wasted infrastructure spending. Additionally, if land allocations exceed what will be taken up in practice, greenfield sites are likely to be developed first, while oversupply makes brownfield regeneration projects unviable. This displacement will also carry social risks as investment is diverted away from those areas in need of regeneration.

The related authorities

3.46 In Chapter 2 above we identified three 'related authorities' which are not part of our study area (the commissioning authorities), but do belong to the housing market area defined by CURDS. We have made projections for these related authorities using the same method as for the study area, so we can assess their potential contribution to the sub-regional balance of demand and supply. The tables below show household projections and the resulting housing need numbers for the related authorities.

Table 3.5 Household change: five projections for the related authorities, annual change in household numbers, 2011-31

	CLG 2008	CLG 2011	PBA Trends 07-12	PBA Trends 01-11	ONS/PBA 2012
North Warwickshire	195	149	64	31	153
South Staffordshire	201	247	193	109	202
Stratford	694	617	334	416	430

Source: ONS, CLG, PBA. The CLG 2011 projection only runs to 2021

Table 3.6 Housing need: five projections for the related authorities, annual change in dwelling numbers, 2011-31

	CLG 2008	CLG 2011	PBA Trends 07-12	PBA Trends 01-11	ONS/PBA 2012
North Warwickshire	201	154	66	32	158
South Staffordshire	207	254	199	112	208
Stratford	714	635	344	428	443

Source: ONS, CLG, PBA. The CLG 2011 projection only runs to 2021

3.47 For reasons explained earlier, in our view the last two scenarios shown – Trends 2001-11 and ONS/PBA 2012 – are the most robust. These two numbers bracket the likely housing need for each related authority over the 20-year plan period.

4 HOUSING LAND SUPPLY

Introduction

4.1 In Chapter 3, we concluded that the range of housing need for the study area was between 10,200 dpa and 11,900 dpa. Most of the housing need arises from the GBSLEP area, as the summary table below shows:

Table 4.1 Summary of housing need, net new dwellings per annum, 2011-31

DPA	ONS / PBA 2012	PBA Trends 2001-11
GBSLEP	7,000	8,300
Black Country	3,200	3,600
Study area	10,200	11,900

Source: ONS, PBA

4.2 In this chapter we assess the land supply that is or may be available to meet that need. The assessment is in two parts. We first look at housing targets in adopted and emerging local plans and then at the potential supply identified in Strategic Land Availability Assessments (SHLAAs). The analysis focuses on our study are, but we also look briefly at the related authorities: North Warwickshire, South Staffs and Stratford on Avon.

Plan targets

4.3 Here we look at adopted and emerging housing provision targets and the evidence on which they are based. Some of the plan targets are found in plans adopted prior to the NPPF and some after.

4.4 In line with the NPPF and PG, the plan target does not necessarily equal the objectively assessed need (OAN). Factors that come between OAN and the target include the area's deliverable and sustainable supply capacity, defined with reference to constraints recognised in the NPPF. They also include unmet need from cross-boundary authorities, which the authority should accommodate where that is possible and reasonable. The housing target is the Council's decision on what amount of housing will be delivered through the development plan subject to the above considerations.

4.5 For targets adopted prior to the NPPF the above does not apply, since targets were set in Regional Strategies in line with national policy in the PPSs and PGs.

GBSLEP

Housing targets

4.6 The table below shows latest plans and housing targets for the GBSLEP area.

Table 4.2 GBSLEP adopted and proposed housing targets, summer 2014

Local authority	Local Plan status	Published date	Plan period	Net dwellings in plan period	Net dwellings per annum
Bromsgrove	District Plan Pre Submission	2013	2011-30	7,000	368
Redditch	Pre-submission consultation	2013	2011-30	6,380	336
Wyre Forest	Adopted Core Strategy	2010	2006-26	4,000	200
Solihull	Local Plan	2013	2006-28	11,000	500
Birmingham	Pre-submission draft	2013	2011-31	51,100	2,555
Cannock Chase	Local Plan (Part 1) Proposed Submission	2013	2006-28	5,300	241[15]
Lichfield	Local Plan Main Modifications	2014	2008-29	10,030[16]	47816
Tamworth	Pre-submission Local Plan	2014	2006-31	6,250	250[17]
East Staffs	Pre-submission Local Plan	2013	2012-31	11,648	613
GBSLEP				112,708	5,541

Source: Local authority Local Plans / Core Strategies, local authorities

4.7 In total, the GBSLEP area plans to provide 5,541 dwellings per annum.

4.8 This total is not a precise indicator, because plan periods vary between authorities, with starting dates from 2006 to 2012 and end dates from 2026 to 2031; and also because plan targets have changed while this study was in progress (to avoid confusion we have set a cut-off point at 31 August 2014). But it does provide a broad indication of the scale of proposed housing land supply across the area. Birmingham City accounts for 2,555 dpa, almost half the total; the next largest numbers are in East Staffs (613 dpa), Solihull (500 d.p.a) and Lichfield (478 dpa).

Status of the targets

4.9 The status of housing targets also varies between authorities. Only three authorities have targets which are part of adopted development plans, and two of those may be reviewed shortly:

- Wyre Forest's Core Strategy was adopted in 2010 and a review of it will start next year.
- Solihull's Local Plan states that, if the GBSLEP strategy identifies that if further provision is needed in Solihull, a review of the plan will be brought forward. The plan is currently under judicial review.

[15] This has recently increased to 264 dpa in the recently adopted Local Plan and includes provision in Lichfield to meet some of Cannock Chase's need.

[16] The figure for the plan period includes 500 dwellings to meet the needs of Cannock Chase and 500 dwellings to meet the needs of Tamworth. Lichfield Council considers that its own objectively assessed need is 430 dpa.

[17] The plan target here is the Council's objectively assessed need. The target in the in the pre-submission Local Plan (October 2014) is 170 dpa (4,250 between 2006-31)

- Cannock Chase adopted their Local Plan (Part 1) in June 2014. (Note that we have used the annual housing target from their Proposed Submission in this study; a footnote to Table 4.2 above explains.)

4.10 In the remaining authorities, the housing targets in adopted plans are out of date and new targets are still emerging:

- For the Lichfield Local Plan Strategy the Examination in Public is still in progress. The Council has consulted on proposed Modifications in response to the Inspector's initial findings and resumed hearing sessions are scheduled for October 2014.
- Bromsgrove and Redditch have both submitted their Local Plans with initial hearing sessions taking place in June 2014.
- The Local Plans for Birmingham City and East Staffs were published for consultation in late 2013 but have not yet been submitted or examined.
- Finally, in Tamworth a draft Local Plan was out for consultation in May 2014. A second consultation starts in October. Because of the timing of this we have used the Council's objectively assessed need as the basis for the plan target.

4.11 In summary, at the time of writing Local Plan housing targets across GBSLEP are very much a work in progress. For some of the authorities there should be opportunities to reconsider emerging numbers in the light of our findings.

Supporting evidence

4.12 In seven of the GBSLEP local authorities, the housing targets discussed above are taken directly from Strategic Housing Market Assessments (SHMAs) published in the last two years. There are four such assessments, of which two relate to single local authorities and two to wider housing market areas:

i The Worcestershire SHMA (February 2012), covering the Northern Worcestershire districts of Bromsgrove, Redditch and Wyre Forest – along with South Worcestershire, which is not part of the study area;

ii The Birmingham City SHMA 2012 (revised January 2013);

iii The Southern Staffs Districts Housing Needs Study and SHMA update (May 2012, updated again May 2013), covering Cannock Chase, Lichfield and Tamworth;

iv The East Staffs SHMA (October 2013) – update to be published October 2014.

4.13 Solihull is the only authority in the study area that is not covered by a recent, NPPF-compliant SHMA. The latest Solihull SHMA was published in April 2009, when housing targets were still set by the Regional Spatial Strategy.

4.14 For six of the nine authorities, proposed housing targets are directly based on the needs assessed in SHMAs – in the case of Southern Staffs subject to a small adjustment, as authorities agreed to redistribute some development from Cannock Chase and Tamworth to Lichfield and North Warwickshire, which have more capacity. Two further authorities, Wyre Forest and Solihull, base their housing targets on the former RSS. In Wyre Forest, the plan (adopted December 2010) pre-dates the abolition of the RSS. In the more recent Solihull plan (adopted December 2013), a number based on the RSS Phase 2 Review (Panel Report) was supported at the examination.

4.15 The Birmingham Development Plan (BDP) takes a different approach, basing its proposed target on the city's development capacity. The plan says that the City Council has done all it can to maximise its capacity, including identifying development land in the Green Belt. Nevertheless that capacity, at 2,555 dpa, still falls short of the City's objectively assessed need, which is shown in the SHMA as a minimum of some 4,000 dpa (in the highest SHMA scenario it rises to almost 6,000 dpa). To meet that shortfall, the Council will work with neighbouring authorities to export development beyond the City boundary.

4.16 Thus, virtually all of the GBSLEP area is covered by recent SHMAs; and the housing needs assessed in these SHMAs play a large role in underpinning policy targets – whether for land to be provided in each local authority area or (in Birmingham City) for cross-boundary provision to be made elsewhere. However, even a cursory analysis of the SHMAs shows large inconsistencies in their methods and assumptions. Due to these inconsistencies, the SHMAS cannot be brought together into a coherent assessment of future housing need across the area. This is why the present study was commissioned, as noted in the study brief.

Black Country

4.17 The table below shows adopted housing targets for each authority in the Black Country. These targets are set in the Black Country Joint Core Strategy, which was adopted in 2011. Across the Black Country they total 63,000 net new dwellings for the plan period 2006-26 (equal to 3,149 dpa). Although this total is close to the 61,200 proposed in the West Midlands RSS Preferred Option, the Core Strategy targets are not taken from the RSS. Rather, they are based entirely on evidence produced for the Core Strategy, particularly in respect of supply capacity.

Table 4.3 Black Country adopted and proposed housing targets

Local authority	Local Plan status	Published date	Plan period	Net dwellings in plan period	Net dwellings per annum
Dudley	Adopted Core Strategy	2011	2006-26	16,127	806
Sandwell	Adopted Core Strategy	2011	2006-26	21,489	1,074
Walsall	Adopted Core Strategy	2011	2006-26	11,973	599
Wolverhampton	Adopted Core Strategy	2011	2006-26	13,411	670
BC LEP				63,000	3,149

Source: Adopted Core Strategy

4.18 Sandwell has the highest number of dwellings proposed in the Joint Core Strategy, followed by Dudley, Wolverhampton and Walsall.

4.19 A review of the Core Strategy is expected in 2016, in which housing targets will be revisited.

Related authorities

4.20 The table below shows latest plans and housing targets for the related authorities. Across the three authorities there is a total of 918 dpa.

Table 4.4 Related authorities' adopted and proposed housing targets, summer 2014

Local authority	Local Plan status	Published date	Plan period	Net dwellings in plan period	Net dwellings per annum
North Warwickshire	Core Strategy Submission Version	2013	2006-28	3,650	203
South Staffs	Adopted Core Strategy	2012	2006-28	3,850	175
Stratford upon Avon	Proposed Submission Core Strategy	2014	2011-31	10,800	540
Total				18,300	918

Source: Local authority Local Plans / Core Strategies, local authorities

4.21 Out of the related authorities, only South Staffs have an adopted Core Strategy.

4.22 North Warwickshire and Stratford on Avon's Core Strategies are both at the submission stage. North Warwickshire's Core Strategy was at examination in January 2014 and the Council are waiting for the Inspector's report; Stratford's Core Strategy is at a stage behind this, with the plan going to the Council's cabinet in May.

4.23 North Warwickshire and South Staffs have similar housing targets, although North Warwickshire's Core Strategy is at submission and not yet adopted, so this could change. About 500 dwellings of North Warwickshire's housing requirement are to meet objectively assessed housing needs arising from Tamworth Borough Council, who are unable to meet their own needs.

4.24 Stratford on Avon have put forward a target of 10,800 dwellings for 2011-31, much higher than the other related authorities.

4.25 Turning to the evidence that informed these targets, South Staffs, which is the only adopted plan, used the evidence base from the West Midlands RSS. But it increased the target to meet the requirements of the NPPF – aiming to ensure that there is a continuous delivery of housing for at least 15 years from the adoption date.

4.26 North Warwickshire's target is based on household and population projections and past delivery. For Stratford on Avon, the target is based on an objective needs assessment following the NPPF and PG.

4.27 Although the Coventry & Warwickshire joint SHMA was published in 2013, the supporting text of Stratford of Avon's emerging plan does not refer to the evidence it provides.

Development capacity

Introduction

4.28 In the previous section we looked at housing targets in emerging and adopted Local Plans and Core Strategies. In this section, we look at development capacity, to assess any additional land supply that may be available over and above those targets. Our evidence comes mainly from Strategic Housing Land Availability Assessments (SHLAAS). For the study area, we also use additional information provided for the study by the study area authorities. For the related authorities, the analysis is brief and based on SHLAAs only.

4.29 Below, we consider the GBSLEP area, the Black Country and the related authorities in turn. For each of these groups of authorities, the analysis is in two parts .The first is a technical analysis of the SHLAAs to ascertain the following:

- Whether the methods behind the SHLAAs are consistent;
- Whether any parts or stages of the SHLAA were omitted;
- What the latest assessed housing capacity for each SHLAA is.

4.30 The second part builds on this analysis to assess the actual and potential supply capacity in each area. We split that capacity into three categories:

- *Deliverable / developable supply*[18], - covering sites which are suitable for housing development and have at least a reasonable prospect of coming forward within a specified time;
- *Not currently developable supply*[19] - covering sites which have been proposed or considered for housing development, but are unlikely to be developed, because they are considered unsuitable, unavailable or unachievable. This definition follows the Practice Guidance. Accordingly it also includes sites for which it is unknown when they could be developed.
- *Future sources* – comprising sites that have not yet been formally proposed or assessed, but are identified by officers as potentially delivering housing development.

4.31 Below, the SHLAAs are analysed in line with the stages set out in the CLG SHLAA Practice Guidance (2007), which the SHLAAs considered in this study broadly followed. Thus we look at the following parts of the SHLAA:

- Whether the SHLAA was influenced by a pre-determined housing target
- Whether its method followed national guidance
- What sources were used to identify sites
- What was covered at the desktop review

[18] Deliverable sites are formally defined as being suitable, available and viable for housing development, and expected to come forward within five years. Developable sites are in a suitable location and have a reasonable prospect of availability and viability at a specific point in time.

[19] Formally defined as sites which have been proposed or considered for housing but are not currently suitable, available and viable.

- Whether a call for sites was done
- What the level (site threshold) and area (geographic coverage) of survey was, and how it was determined
- How housing potential was estimated
- What methods were used to assess the suitability, availability and achievability (viability) of sites
- What the findings were at the assessment review stage
- Whether the SHLAAs assessed broad locations and windfalls
- The total capacity identified.

4.32 At the outset we found that the individual SHLAAs used different timeframes, and also different methods and assumptions, as shown in the technical analysis below. So we worked with officers from the authorities in the study area to produce adjusted figures that matched the timeframe of our housing needs assessment, setting the base date at 2011 and considering sites that might deliver new housing up till 2031. To supplement the SHMAs, we also asked the officers to give us additional information about the constraints that prevent certain sites from coming forward for housing.

GBSLEP

4.33 This section is in two parts. The first reviews the SHLAAs in the GBSLEP area, based on the bullet points set out in the Introduction to identify and understand any common features and differences. The second summarises the SHLAA supply for the individual local authorities and discusses constraints to land supply.

The SHLAAS: technical analysis

Housing target

4.34 Many SHLAAs were informed by an indication of how much capacity they needed to identify to meet the assessed housing need or plan targets.

4.35 For the north Worcestershire authorities of Bromsgrove and Redditch, these assessments were based on the housing need assessed in the Worcestershire SHMA. But for Wyre Forest, the SHLAA was based on finding sufficient sites to meet the Core Strategy target.

4.36 Solihull's SHLAA aimed to find as many sites as possible, but initially it failed to identify sufficient housing land supply to meet the Local Plan target. Land was subsequently released from the Green Belt though the Local Plan to meet the target and this is identified in the latest SHLAA.

4.37 In the Cannock Chase SHLAA, it is not clear whether the assessment was carried out with a housing target in mind. The Council introduced the housing target at the assessment review stage, so we assume that the SHLAA was undertaken without a target in mind.

4.38 The Lichfield and Tamworth SHLAAs were both 'policy-off', aiming to find as many sites as possible. In East Staffs, the SHLAA was guided by the housing need assessed in the SHMA.

National guidance

4.39 All SHLAAs in the GBSLEP based their methods on the CLG Practice Guidance (2007). Most follow the staged approach set out in the guidance. In those SHLAAs are updates of earlier assessments, elements that were shown in the original SHLAA are often omitted to avoid repetition.

Sources

4.40 The 2007 guidance listed sources of potential sites that should be covered in the SHLAA. Broadly, the SHLAAs cover those sources, but in some SHLAAs there are omissions, which are generally not justified in the reports.

4.41 One category that is frequently omitted is 'new free-standing settlements'. Bromsgrove, Redditch and Cannock Chase all omit that source. Tamworth covers neither sites in rural settlements nor new free-standing settlements The SHLAAs provide no justification for these omissions, except in Redditch, where the SHLAA says that new free-standing settlements would not contribute to sustainable, mixed communities. IN Tamworth, officers tell us that a new free-standing settlement would be physically impossible because the settlement boundary does not allow for it.

4.42 Wyre Forest also omits new free-standing settlements as well as urban extensions. The SHLAA states that greenfield and Green Belt sites were not considered in the assessment, because the housing target could be achieved without resorting to these sources.

4.43 Solihull's SHLAA does not mention any sources outside the planning process, although we understand from officers that it did take account of such sources. Birmingham does not include urban extensions in its SHLAA, but justifies this by stating that potential extensions will be considered in the Local Plan.

4.44 In the East Staffs SHLAAs there is little detail on this stage; while Lichfield's SHLAA states that no types of land or areas are excluded from the assessment.

Review of the assessment

4.45 Most authorities carry out a comprehensive desktop review, reviewing all or nearly all the sources mentioned in the guidance, and sometimes extra sources. This is the case for Bromsgrove, Birmingham, Cannock Chase, Lichfield, Redditch, Solihull and Cannock Chase.

4.46 The East Staffs SHLAA does not provide any information on this stage. We assume this is because the SHLAA is an update. Wyre Forest's SHLAA provides little detail, so it is difficult to tell how comprehensive the desktop review was.

Call for sites

4.47 All SHLAAs are informed by calls for sites. Some authorities issued more than one call for sites, for example Lichfield and Tamworth; some included calls in Local Plan or Core Strategy consultations.

4.48 All authorities have issued calls for sites in the past few years. Wyre Forest relies on the oldest call for sites, which was undertaken in 2008 for its first SHLAA.

Determining the level and area of survey

4.49 To identify further sites following the desktop review, this stage should set out how comprehensive (the geographic coverage) and intensive (the site threshold) the survey will be.

4.50 It should also set out any particular types of land and area that are excluded, with justification for doing so.

4.51 Most of the SHLAAs explain why they chose particular thresholds, as shown in the table below.

Table 4.5 Site thresholds used in latest GBSLEP SHLAAs

Local authority	Threshold	Justification
Bromsgrove	Minimum of 0.4 ha / 10 dwellings in Bromsgrove town. Other settlements threshold is reduced to minimum of 0.2 ha / 5 dwellings	There is a shortage of affordable housing in the district, so large sites need to be identified to deliver this. Small sits won't deliver this aim, and geneally don't deliver benefits to the community.
Redditch	Sites over 0.16 ha	To accommodate minimum of 5 dwellings at 30 dph. Also sites below this size would require identifying individual plots, which is considered too onerous a task by the Council.
Wyre Forest	Minimum of 10 dwellings in Kidderminster or Stourport on Severn, and 5 dwellings elsewhere for. No threshold for sites with planning permission.	A significant proportion of new housing is on small sites such as infill, conversions, etc. Including these types in the survey would be burdensome.
Solihull	No threshold	To identify as many sites as possible
Birmingham	Minimum of 0.06 ha for sites without planning permission	To make the SHLAA manageable in terms of available resources.
Cannock Chase	No threshold	There is no threshold as the number of sites in the district is manageable.
Lichfield	No threshold	There is no threshold as the number of sites in the district is manageable.
Tamworth	No threshold	There is no threshold as the number of sites in the district is manageable.
East Staffs	10+ units / 0.33 ha	To ensure the project would be more manageable in terms of resources – 1,900 sites were identified prior to setting the threshold.

Source: SHLAAs

4.52 There is no visible pattern across the GBSLEP area in terms of site thresholds. Some SHLAAs opt for a minimum site area and other for a minimum number of dwellings. Cannock Chase, Lichfield and Tamworth do not use a site threshold, so as to identify as many sites as possible.

4.53 One of the main reasons justifying the threshold is to make the SHLAA a manageable exercise. This plays a part in the decision for Redditch, Wyre Forest, Birmingham and

East Staffs. Bromsgrove's includes all sites over five or 10 dwellings, to help relieve a dearth of affordable housing in the district.

4.54 As regards the geographic coverage of the survey the SHLAAs provide little detail, except for Lichfield and Cannock Chase. Lichfield's SHLAA focuses its survey on Lichfield, Burntwood and other settlements defined in the 1998 Local Plan, because they are considered sustainable locations. By contrast, Cannock Chase includes the entire district in its survey, due to its compact size.

Estimating housing potential

4.55 Most SHLAAs use a range of approaches to estimate housing potential. Examples include Local Plan policy, density ranges related to characteristics of sites (see Table 4.6), discussion with colleagues, submitted information and sketch schemes. The first two methods are the most widespread, usually supported by further information. Redditch, Solihull, Birmingham and Wyre Forest use Local Plan / UDP policies, while Cannock refers to Supplementary Planning Guidance on design.

Table 4.6 Density ranges used in latest GBSLEP SHLAAs

Local authority	Density range	Source
Bromsgrove	30-35 dph	
Redditch	30 dph to 50 in urban areas and 70 dph in town centres / district centres.	Local Plan No.3
Wyre Forest	Kidderminster town centre – 70 dph; Outside Kidderminster town centre and within Stourport – 50 dph; Kidderminster and Stourport close to transport corridor – 40 dph; Elsewhere in settlements from Policy H.2 – 30 dph.	Local Plan
Solihull	Between 30 and 50 dph.	UDP
Birmingham	Minimum of 100 dph in city centre, 50 dph in local centres and 40 dph elsewhere	UDP
Cannock Chase	Broadly 50 dph in urban town centres, 30dph for suburban centres, 20 dph in rural villages	Design SPD
Lichfield	30 dph in rural areas, 40 dph in urban areas, 50 dph town centre/transport nodes.	Local character range
Tamworth	30-40 dph in urban locations, 40 dph for sites in town centre, local and neighbourhood centres and close to transport, and sensitivity allowance for certain sites	Character density range
East Staffs	30 dph	Panel and SHLAA team

Source: SHLAAs

4.56 It is common to use a net-to-gross ratio to refine estimates of housing potential and take account of infrastructure. Bromsgrove, Redditch, Cannock Chase, Lichfield and Tamworth all use such ratios - generally including 100% net developable area for sites less than 0.4 ha and a 65% for sites over 2 ha.

Site suitability

4.57 The SHLAAs take the lead from the 2007 guidance, which states a site is suitable if it offers a suitable location for development and would contribute to sustainable, mixed communities.

4.58 Taking this into account, some SHLAAs base suitability on geography. For example, East Staffs excludes sites which are not located in or adjacent to settlements. Tamworth follows a similar approach, as does Lichfield. Wyre Forest, on the other hand, bases its assessment on the emerging Core Strategy.

4.59 Some SHLAAs do not show much detail regarding assessment criteria for site suitability. Cannock Chase's SHLAA says that it follows the guidance but provides little detail. For Solihull and Birmingham SHLAAs do not discuss suitability, but the site assessment forms in appendices includes a series of prompts to help judge suitability.

4.60 Finally, Redditch's SHLAA uses a two-staged process to gauge suitability. To be included in stage A, sites (whether brownfield or greenfield) had to be within or adjoining a settlement. At stage B these sites were assessed in more detail, with reference to environmental issues, sustainability constraints etc.

Site availability

4.61 Most SHLAAs say little about the criteria used to judge availability. In Bromsgrove and Redditch, the site assessment forms in the appendices provide more information than the main SHLAA report. Solihull and Wyre Forest do not say who was consulted or what analysis was carried out. In contrast, East Staffs and Lichfield both contacted landowners or agents. Birmingham only gathered detailed information for larger sites, as it would have been impractical to look closely at all its 1,199 sites.

Site achievability

4.62 Similarly, the SHLAAs generally contain little detail on how viability was assessed. This was the case for Bromsgrove, Redditch, Solihull, Birmingham, Lichfield and Tamworth. For some of these SHLAAs site assessment forms provide more information than the main report, though usually restricted to basic prompts for information on market, cost and delivery factors.

4.63 A common feature the viability assessments is the involvement of partnership panels, who provided independent advice. This was the case for Tamworth, Lichfield, Cannock Chase, and Birmingham.

4.64 Four SHLAAs sought external advice on viability. Wyre Forest commissioned GVA to assess a sample of SHLAA sites, but this was done in 2009, and so there appears to be no up-to-date assessment. East Staffs consulted a local agent, who claimed that all sites were potentially viable given realistic developer aspiration, but there is little detail on the assessment method used. Solihull and Lichfield both carried out viability studies as part of the Local Plan evidence base.

Review of the assessment

4.65 The Practice Guidance advises that, once the initial survey and assessment of sites is carried out, SHLAAs should collect the potential of all sites to produce an indicative

trajectory that shows how much housing can be provided and when. If insufficient sites have been identified, then earlier assumptions (e.g. housing potential) should be revisited or further sites should be sought.

4.66 Wyre Forest, Solihull, Lichfield and East Staffs' SHLAAs identify a surplus of capacity against the housing target they set out to achieve (though in Solihull the surplus was minor). Tamworth's SHLAA identifies a shortfall, which will be relieved by cross-boundary provision in Lichfield and North Warwickshire.

4.67 Cannock Chase found a shortfall initially and did reconsider the sites and also added an assessment of windfalls. Bromsgrove and Redditch also found shortfalls but did not revisit their initial assessments; although both these authorities have fallback options, which are discussed below under the heading 'broad locations'.

4.68 Finally, Birmingham did not carry out a review of its assessment. Officers advise that this was unnecessary, since the SHLAA is updated annually, including a check to see if assumptions remain valid and a new trawl for sites.

Broad locations

4.69 Many SHLAAs omit the broad locations stage of the guidance. In Lichfield and Wyre Forest this is because the SHLAA found enough land to meet the targets before getting to that stage. Solihull also found enough capacity without resorting to broad locations, although it did identify one such location, the North Solihull Regeneration Area. Tamworth does not assess broad locations although it does not identify enough land to meet its target.

4.70 Birmingham's SHLAA states that longer-term opportunities for growth are still under consideration; Cannock Chase similarly directs this stage of work to the Core Strategy.

4.71 Neither Bromsgrove nor Redditch look at broad locations in their respective SHLAAs. But Bromsgrove does include a large potential supply in the Green Belt. Redditch refers to the Housing Growth Development Study, which looks at cross-boundary provision with Bromsgrove.

4.72 East Staffs' SHLAA identifies a broad location at Derby Road, but provides no detail on the site or what process was involved in identifying it. The Solihull SHLAA states that broad locations were assessed alongside other sites throughout the SHLAA process, but, again, it provides little detail about those broad locations.

Windfalls

4.73 The use of a windfall allowance depended on whether the SHLAA identified enough capacity to meet the housing target set at the outset of the assessment.

4.74 Tamworth, East Staffs and Wyre Forest do not include a windfall allowance.

4.75 For the remaining SHLAAs, which do include windfalls, the justifications tend to be that windfalls have historically contributed to supply, and that typical windfall sites like conversions are hard to identify individually. For Solihull, the inclusion is justified on the grounds that there is little vacant land in the district and hence it is difficult to identify sites.

Summary of SHLAA review

4.76 Our analysis has found a number of areas of inconsistency in the SHLAAs across the GBSLEP area. In some cases there is also a lack of detail relating to the methods used.

4.77 Thus, in identifying potential development sites some SHLAAs do not explore all the available sources. This is evident when reviewing the 'sources of sites for inclusion in the SHLAA' and 'determining the level and extent of the survey'. They frequently omit sources suggested in the guidance, especially urban extensions and new free-standing settlements, and often without explicit justification. One reason for such omissions is that many SHLAAs are informed from the outset by an assessed need or provision target, so once they have identified enough land to meet the target they look no further.

4.78 In relation to determining the level and extent of the survey, there is often plenty of detail on the site threshold, and justification for the chosen threshold, but little discussion on the geographic area covered – so it is not clear how comprehensive the survey was. In other cases it is clear that the SHLAAs' geographical coverage is not comprehensive.

4.79 The next issue with the SHLAAs is the lack of detail on availability and viability. Only a few SHLAAs provide detail on how availability was assessed. Similarly for viability, there is also little detail of assessment methods, although we do know that some of the SHLAAs used partnership panels to provide independent advice.

Supply capacity and constraints

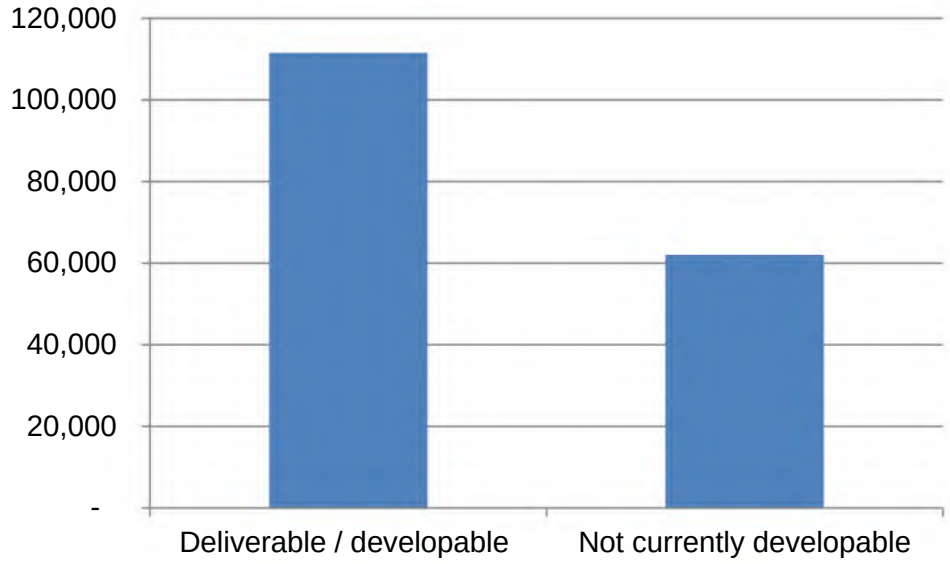
Overview

4.80 In this section we assess supply capacity in the GBSLEP area for the plan period 2011-31. As explained earlier we split this capacity into three categories, ordered by the likelihood that they will come forward: firstly deliverable / developable sites, secondly 'not currently developable' sites – which have been considered or proposed for housing development but are unsuitable or constrained for any reason – and thirdly 'future sources' – sites which have not been formally put forward for housing development but are identified by planning officers as possible candidates.

4.81 All the supply information in this report comes from local authorities, specifically from two sources: firstly SHLAAs and other published documents, and secondly information provided for the study by planning officers in our study area.

4.82 The chart below shows totals for the first two categories across the GBSLEP area. Deliverable / developable capacity totals just over 110,000 dwellings, and the capacity of not currently developable sites totals 62,000 dwellings.

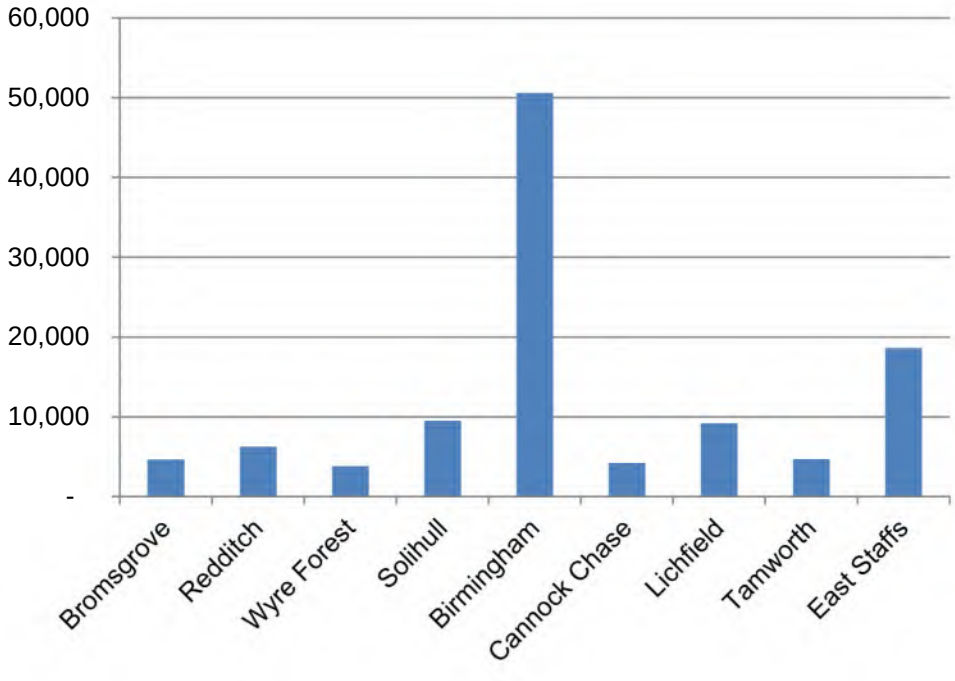
Figure 4.1 GBSLEP actual and potential capacity, dwellings, 2011-31



Source: SHLAAs, local authorities

4.83 The chart below shows deliverable / developable supply by local authority. That supply is concentrated in Birmingham, which has capacity for just over 50,000 dwellings. East Staffs comes next, with almost 20,000 dwellings. No other GBSLEP authority has as many as 10,000 dwellings, though Solihull and Lichfield come close.

Figure 4.2 GBSLEP deliverable / developable supply, dwellings, 2011-31 by local authority



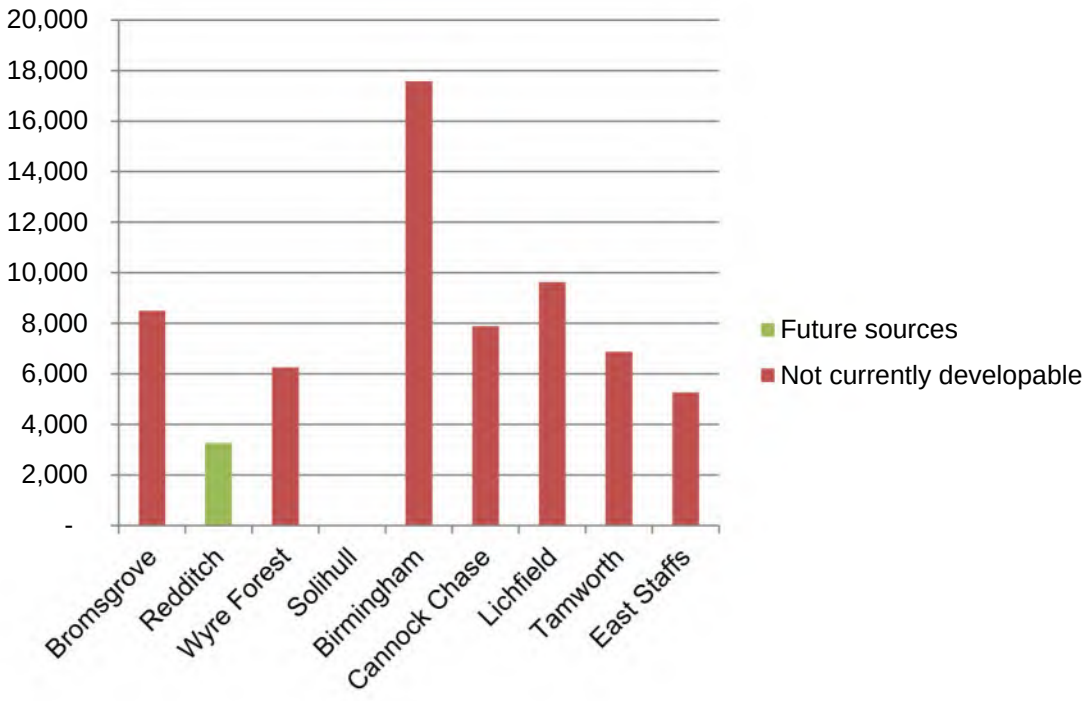
Source: SHLAAs, local authorities

4.84 'Not currently developable' and 'future sources' capacity are shown in the graph below. These figures are subject to major caveats, in that the choice of sites to be included is

not based on transparent or consistent criteria. Nevertheless, they are the best figures available at this time.

4.85 Of the nine authorities in the GBSLEP area, seven have identified land not currently developable. The eighth, Redditch, has identified future sources. Only Solihull has no land in either category.

Figure 4.3 GBSLEP potential capacity, dwellings, 2011-31 not currently developable land & future sources, by local authority



Source: SHLAAs, local authorities

4.86 Below, we look at this potential supply in more detail, to see what factors are preventing it from coming forward. The analysis is broad-brush, because most of the sites it covers have not been assessed in detail. Thus, sites located in the Green Belt or locations otherwise considered unsustainable have seldom been assessed with regard to other constraints, like transport infrastructure.

Bromsgrove

4.87 Bromsgrove's not currently developable land is Green Belt constrained. The sites were submitted through the SHLAA call for sites, and so the Council considers them worthy of consideration as part of a future Green Belt review. In addition to these sites, the review will also go beyond the sites assessed in the SHLAA, looking at all parcels of land surrounding the main settlements.

Redditch

4.88 Redditch has not identified any not currently developable sites, because it has exhausted all possible sites outside of the Green Belt. But work done on the Green Belt in the 1990s found capacity for 4,000 dwellings in two broad locations. Since then, some development has occurred and the remaining potential capacity at these

locations stands at 3,250 dwellings. No work has been done on these sites since the 1990s.

4.89 The Council stresses that the constraints to development in these locations still exist, particularly infrastructure and topography. At present the Council does not expect to reassess them until the next Local Plan review.

Wyre Forest

4.90 Like Bromsgrove's, Wyre Forest's not currently developable capacity consists of sites submitted through the call for sites. These are mostly Green Belt sites and have not been tested in detail; there are also sites categorised as urban greenfield.

Solihull

4.91 Like Redditch, Solihull did not provide any not currently developable capacity. The Council advises that the SHLAA covers all the land that has been considered or proposed for housing development. The only possible source of additional supply is the Green Belt – which was already reviewed as part of the Local Plan process, at which point 28 ha were removed to be allocated for housing. The 28 ha comprised 12 small sites ranging between 45 and 200 dwellings, located mainly in the regeneration area north of the Meriden Gap.

4.92 The Council considers that the Meriden Gap has very limited potential for housing growth, comprising small-scale developments adjacent to settlements to meet local needs. Any development beyond this would cause significant harm.

Birmingham

4.93 Birmingham's not currently developable capacity is predominantly in Green Belt. The Council's evidence has tested a number of Green Belt parcels for housing, one of which is being proposed for development as part of the Birmingham Development Plan. The remainder of the Birmingham Green Belt is identified as not currently developable.

4.94 The rest of Birmingham's not currently developable capacity consists mainly of employment sites, open space and land safeguarded for HS2. These sites were omitted from the SHLAA because they were considered unlikely to come forward.

4.95 The Council considers that it has no future sources to explore. Officers also stress that the 'not developable' category covers all land that was submitted though the call for sites but was rejected.

Cannock Chase

4.96 The Green Belt is the main constraint in Cannock Chase, accounting for most of the land identified as not currently developable. The Council states that development of these sites would conflict with the Local Plan strategy and its settlement hierarchy.

4.97 Some of these sites are large, between 1,000 and 3,000 dwellings. But no detailed work has been undertaken to ascertain if they are developable. The Cannock Chase Special Area of Conservation (SAC) is a further constraint.

4.98 The Council expects to identify further development potential through the initial Green Belt appraisal which is currently in progress, with findings due in autumn 2014. This

appraisal will consider areas adjacent to urban areas and settlements. The Council also consider that there may be some potential for employment land to contribute to future supply, but this will not be a large source.

Lichfield

4.99 After Birmingham, Lichfield has the largest amount of not currently developable capacity. This consists of about 100 sites submitted through the SHLAA call for sites. Broadly, the Council considers these sites to be unsustainable because they are outside the settlement hierarchy. The larger sites are mostly constrained by Green Belt, access, the Cannock Chase SAC, and flooding.

4.100 The Council considers that the SHLAA covered all available sources and sites, so there are no future sources to explore.

Tamworth

4.101 Tamworth's not currently developable capacity consists mainly of sites up to 100 dwellings; there is also a handful of sites between 500 and 2,000 dwellings. The sites are generally constrained by flooding, transport and access, infrastructure, environmental designations and sewerage.

Like Lichfield, the Council considers that there are no future sources to look into, because all the potential supply has been thoroughly investigated. As well as the SHLAA, the Council has assessed potential housing sites through studies such as Green Belt review, whole plan viability, strategic flood risk assessments and sustainability appraisal.

East Staffs

4.102 Finally, for East Staffs the Council has identified not currently developable capacity for around 5,000 dwellings. All this land was submitted through the call for sites. The main constraints affecting it relate to infrastructure, including transport and education. The Council considers that these sites are broadly unsuitable for residential development, because they are in remote locations away from main settlements.

Summary

4.103 Across GBSLEP for the period 2011-31, local authorities' estimates suggest that the developable / deliverable land supply provides total capacity for just over 110,000 dwellings. There is also potential capacity for 62,000 further dwellings on sites which are not currently developable, due to various constraints – most often the Green Belt, infrastructure and unsustainable location. The estimated capacity is only a broad approximation, and the available information on constraints is broad-brush.

4.104 Birmingham is the authority with the largest amount of not currently developable land, mostly accounted for by the Green Belt. By contrast Solihull has not identified any land in this category; the Council considers that any further development would have to be in the Green Belt, where any but small-scale schemes would cause significant harm.

4.105 In the Worcestershire authorities, the main constraint affecting not currently developable land is the Green Belt. For Bromsgrove and Wyre Forest, this land was mostly identified through the call for sites; Redditch does not have any not currently

developable land, but the Council has identified two areas of the Green Belt as future sources, with a potential capacity of over 3,000 dwellings. However no work has been done on these areas since the 1990s.

4.106 In the Staffs authorities there are substantial amounts of not currently developable capacity. As well as the Green Belt, these sites are constrained by remote location outside the settlement hierarchy and the related issue of infrastructure. Environmental designations and flooding are also important.

Black Country

The SHLAAS: technical analysis

Housing targets

4.107 All SHLAAs in the Black Country aim to meet the targets set in the Black Country Core Strategy, adopted in 2011.

National guidance

4.108 All SHLAAs follow the staged approach set out in the CLG Practice Guidance (2007).

Sources

4.109 Broadly, all SHLAAs cover the requirements of the Practice Guidance. But two authorities exclude urban extensions and new free-standing settlements. The Dudley SHLAA says that no such potential has been identified in the borough and the Wolverhampton SHLAA that these types of development are not applicable.

4.110 All SHLAAs exclude environmental and heritage designations such as listed buildings and SSSIs. But approaches to the Green Belt vary. In Wolverhampton the Green Belt is included in the SHLAA, albeit its area is small. In Dudley and Sandwell it is excluded. The Walsall SHLAA includes Green Belt sites, but only if they were submitted through consultation.

Desktop review

4.111 All SHLAAs include a thorough review of sources in line with the guidance.

Call for sites

4.112 All authorities have carried out calls for sites.

Determining the level and area of survey

4.113 All SHLAAs focused on urban areas, particularly the regeneration corridors and former employment land identified in the Core Strategy. The Core Strategy directs that 95% of development should be on previously developed land.

4.114 Three of the four Black Country authorities set a threshold of 0.25 ha. Wolverhampton does not set a threshold, because the SHLAA aims to identify as many sites as possible.

4.115 In Dudley the threshold is set at 0.25 ha because of the size of the borough, although with an allowance for infill residential development for sites under this threshold. In

Sandwell, the SHLAA justifies the threshold as being due to lack of resources and the difficulty of identifying small sites.

Estimating housing potential

4.116 The approach to estimating housing potential varies across the Black Country.

4.117 Dudley's SHLAA uses the Supplementary Planning Guidance (SPD) on Housing Development, which sets out a range between 15 and 50+ dwellings per hectare (dph), ranked by type of location from town centre to rural areas.

4.118 Sandwell's SHLAA takes densities from the Core Strategy (Preferred Options), but scales them down to reflect economic factors.

4.119 In Walsall, densities are based partly on analysis of submissions and planning applications and partly on Policy HOU2 in the Core Strategy.

4.120 In Wolverhampton, similar to Walsall, densities are based on multiple sources, which in this case include accessibility standards in line with the Black Country Core Strategy – for example, 60+ dph in Wolverhampton town centre.

Site suitability

4.121 All SHLAAs across the Black Country refer to the requirements of the Practice Guidance - for example checking policy restrictions, physical problems and environmental conditions.

4.122 Dudley uses a formal scoring system to assess suitability as well as availability and achievability. Other authorities use more informal approaches but similar criteria.

Site availability

4.123 As with suitability, all SHLAAs across the Black Country refer to the requirements of the Practice Guidance.

4.124 In Wolverhampton's SHLAA, the availability of larger sites was determined through detailed information requests from landowners and developers. For smaller sites, expectations were based on past trends unless other evidence was available. Sandwell's SHLAA considers sites to be available if they have planning permission and no known legal or ownership constraints.

Site achievability

4.125 In all four SHLAAs, viability assessments are informed by the Black Country Sample Sites Viability Study (2009), which tested a sample of sites across the area.

Assessment review

4.126 All four SHLAAS assess broad locations and windfalls, although it is not clear whether the Core Strategy target can be met without resort to these types of site.

Broad locations

4.127 Broad locations are identified in the Black Country Core Strategy, generally on current or former employment sites. These guide the broad locations used in the individual SHLAAs across the area.

4.128 Wolverhampton's SHLAA identifies two broad locations: the city centre and employment land locations.

4.129 Sandwell's broad locations consist entirely of employment land. This also applies to Walsall's SHLAA, where the sites identified are grouped into 13 broad locations. In Dudley's SHLAA, the broad locations are older industrial areas and brownfield sites.

Windfalls

4.130 All SHLAAs include a windfall allowance for small sites, because historically such sites have made a large contribution to housing supply in the Black Country.

4.131 In addition, the Wolverhampton SHLAA refers to the Core Strategy Inspector's report, which supported a windfall sites allowance of just under 6%, or 418 dwellings per year across the Black Country.

4.132 In most of the SHLAAs, windfalls help to meet supply shortfalls against the Core Strategy targets.

SHLAA review summary

4.133 The Black Country SHLAAs have much in common, partly because they all follow the adopted Core Strategy. For example, all of them deal with broad locations and windfalls in the same way. Viability testing is also consistent across the area, due to the Sample Sites Viability Study; although tests for suitability and availability do differ slightly.

4.134 An important difference between the Black Country SHLAAs is how the Green Belt is handled. Both Wolverhampton and Walsall include Green Belt land, whereas Sandwell and Dudley exclude it.

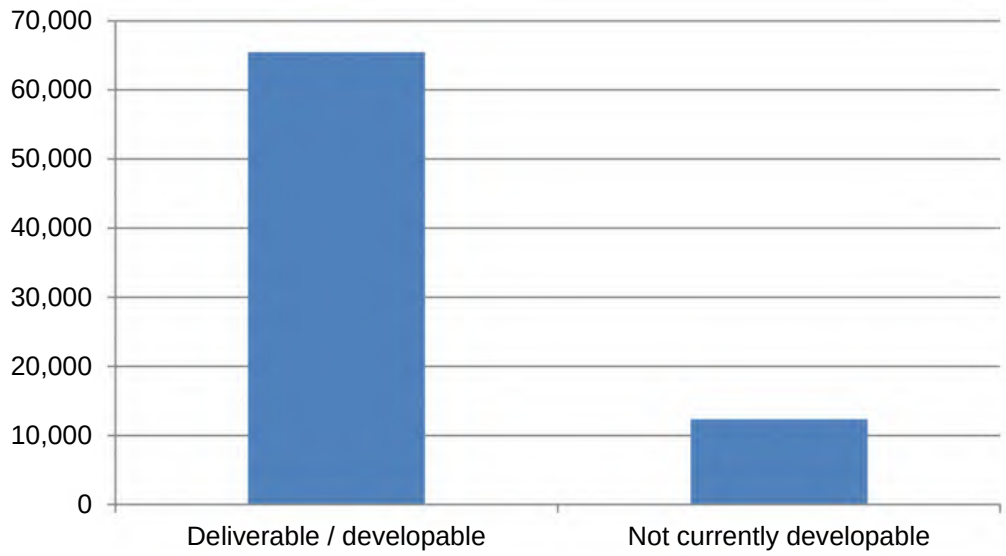
4.135 The Green Belt and employment land are the two biggest sources of potential supply across the Black Country. This potential supply will be assessed in greater detail in time for the 2016 Core Strategy review.

Supply capacity and constraints

Overview

4.136 The chart below shows capacity totals across the Black Country for 2011-31. The deliverable / developable land supply provides capacity for circa 65,000 dwellings, and sites not currently developable amount to just over 12,000 dwellings.

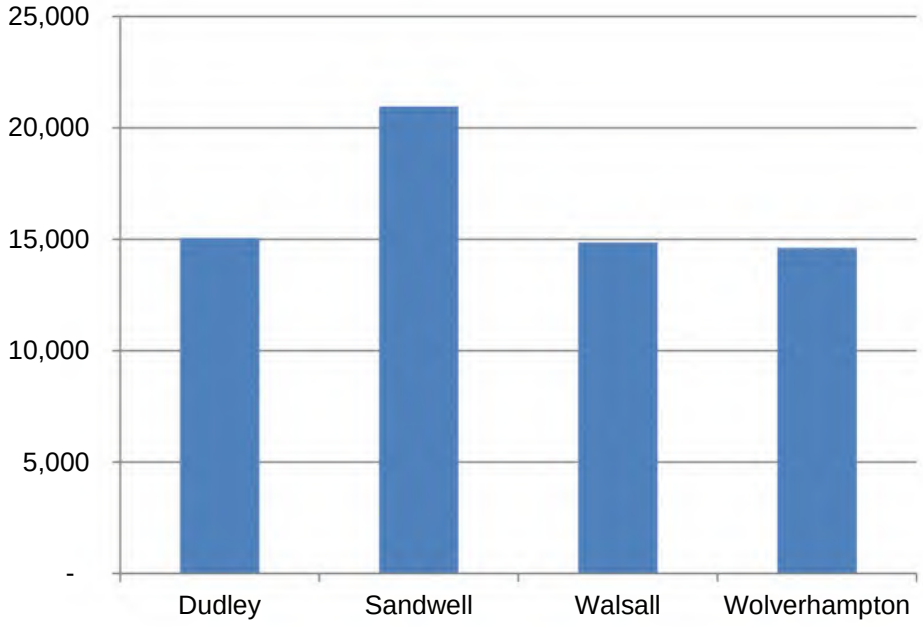
Figure 4.4 Black Country actual and potential capacity, dwellings, 2011-31



Source: SHLAAs, local authorities

4.137 The deliverable / developable capacity is quite evenly spread across the Black Country, as shown in the graph below. Three of the authorities identify capacity for around 15,000 dwellings each. The exception is Sandwell, with a figure just over 20,000 dwellings.

Figure 4.5 Black Country deliverable / developable supply, dwellings, 2011-31, by local authority

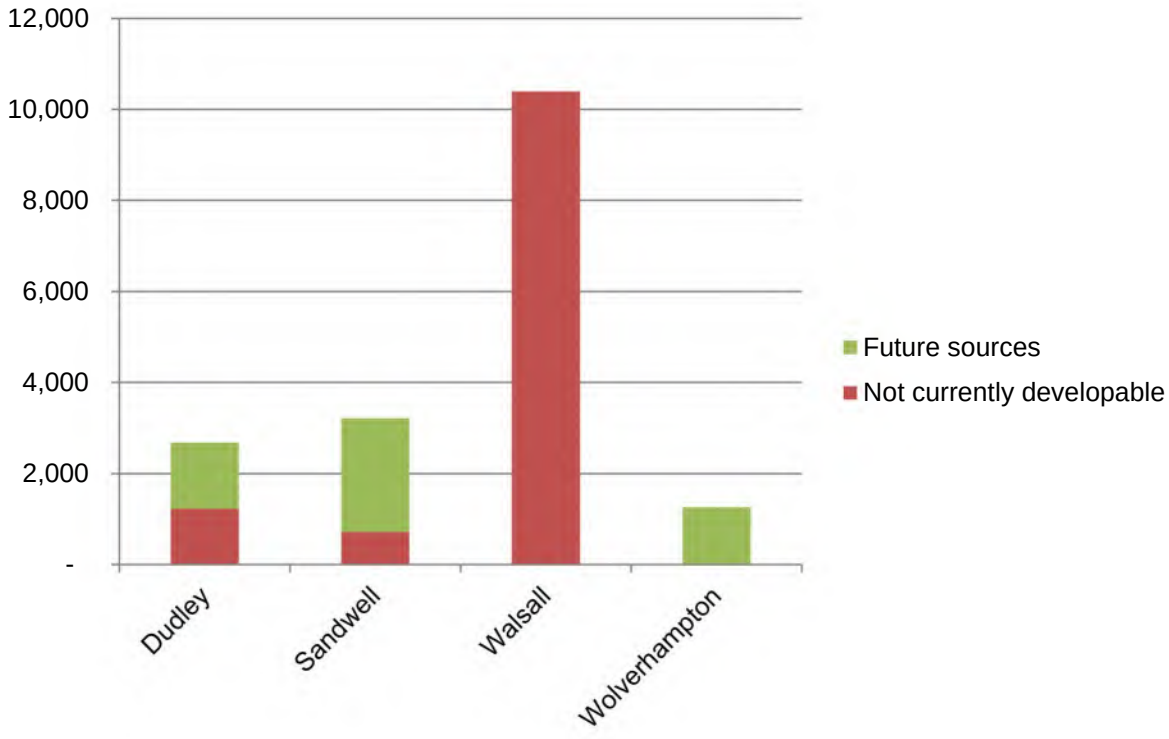


Source: SHLAAs, local authorities

4.138 As regards not currently developable capacity, as shown in the chart below Walsall has by far the largest total, just over 10,000 dwellings. Dudley and Sandwell have far

smaller amounts of land in this category and Wolverhampton has none, but all these three authorities have identified some potential capacity from future sources.

Figure 4.6 Black Country potential capacity, dwellings, 2011-31 not currently developable land & future sources, by local authority



Source: PBA / Study area SHLAA data

4.139 Below, we briefly describe the potential supply in each authority, considering what constraints are preventing sites from coming forward.

Dudley

4.140 Dudley's total of roughly 1,200 dwellings classed not currently developable all came through the SHLAA call for sites. Most sites can provide 10-100 dwellings and a few between 100-300 dwellings.

4.141 All of these sites are in the Green Belt and considered by the Council to be unsustainable. Most also have other constraints, such as infrastructure, utilities and access.

4.142 The Council identifies employment land, particularly former industrial land, as a future source of supply. The total put forward is based on a continuation of past trends.

Sandwell

4.143 Council officers estimate that Sandwell sites not currently developable have capacity for just 714 dwellings. The constraints to these sites are broadly physical (most are in Health and Safety Executive Zones and some Limestone Mine Consideration Zones), environmental (SLINCs) and policy (safeguarding employment land). The Council considers that these sites are too seriously constrained to come forward.

4.144 The Council has identified the Green Belt and employment land broad locations as future sources. As these sources have not been thoroughly assessed as yet; the figure of 2,500 dwellings is a rough estimate of their potential capacity.

Walsall

4.145 Walsall has sites not currently developable with an estimated capacity of over 10,000 dwellings, with constraints split between safeguarding of employment land and the Green Belt. It has not identified any future sources.

Wolverhampton

4.146 Wolverhampton does not have any sites not currently developable. But it has identified Green Belt and employment land as future sources that are yet to be examined in detail.

4.147 Pending this examination, the Council points out that the Green Belt has relatively little development capacity, because it consists mostly of green wedges within the urban area. Consultation for the UDP review (2004-05) and the SHLAA call for sites suggest that the Green Belt might accommodate around 800 dwellings and employment sites 500. These are broad estimates; the Council advises that they will be revised if necessary when the Core Strategy is reviewed.

Summary

4.148 Across the Black Country the deliverable / developable land supply provides capacity for circa 65,000 dwellings, and sites not currently developable amount to just over 12,000 dwellings.

4.149 The bulk of not currently developable land is in Walsall, split between the Green Belt and employment land. In addition the other three authorities have identified future sources with potential capacity totalling some 5,000 dwellings, where the main constraints again are the green land and safeguarding of employment land.

4.150 A review of sources of housing and employment land is likely to be done for the 2016 review of the joint Core Strategy. This will provide a clearer indication of how these sources can contribute to housing delivery in the future.

Related authorities

4.151 In this section, we briefly summarize of land supply for South Staffs, North Warwickshire and Stratford on Avon. This information should be used cautiously, because it is entirely derived from SHLAAs, which are out of date and may not have used consistent approaches. As the related authorities are not party to the present study, they have not provided us with additional information.

North Warwickshire

4.152 The latest published SHLAA (2010) identifies capacity for 1,288 dwellings in 2006-26, in line with the RSS target. This supply comprises completions since 2006, sites with planning permission and other specified sites. In addition, the SHLAA estimates potential capacity for 4,020 dwellings at 38 sites outside existing settlements and 880 dwellings (44 dpa) from windfall sites providing up to four units.

South Staffs

4.153 South Staffs' SHLAA (2013) finds capacity a total of 1,355 dwellings over the period 2012 to 2028, consisting of commitments (923), employment sites and sites from the call for sites.

4.154 There is a not currently developable supply between 2018 and 2028 of 16,705 dwellings. This consists of safeguarded land (599) and sites from call for sites and employment sites.

4.155 The SHLAA notes that there are a further 235 sites with a potential capacity of approximately 38,800 dwellings, but these were discounted, because either they did not meet the SHLAA criteria or they were affected by environmental or physical constraints.

Stratford on Avon

4.156 Stratford's latest SHLAA (2012) identifies capacity for 3,144 dwellings from specifically identified deliverable / developable sites for the 2008-28. This was compared with an emerging Core Strategy/Local Plan requirement of 8,000 dwellings. The SHLAA recommends that further land be identified to meet the resulting shortfall.

Summary

4.157 In the related authorities, our brief review of SHLAAs has found deliverable / developable supply of about 9,800 dwellings across the three local authorities:

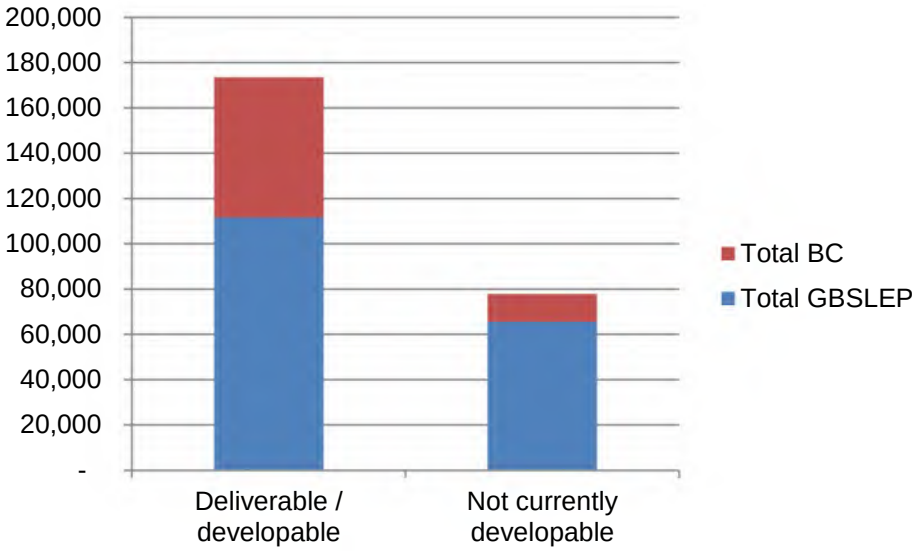
- 5,308 in North Warwickshire
- 1,355 in South Staffs
- 3,144 in Stratford on Avon

4.158 In addition there is not currently developable capacity of 16,705 dwellings in South Staffs.

Supply capacity summary

4.159 The chart below brings together capacity figures for the two parts of the study area. Deliverable and developable sites provide some 177,000 dwellings over the 20-year period. For not currently developable, the total is just under 75,000 dwellings.

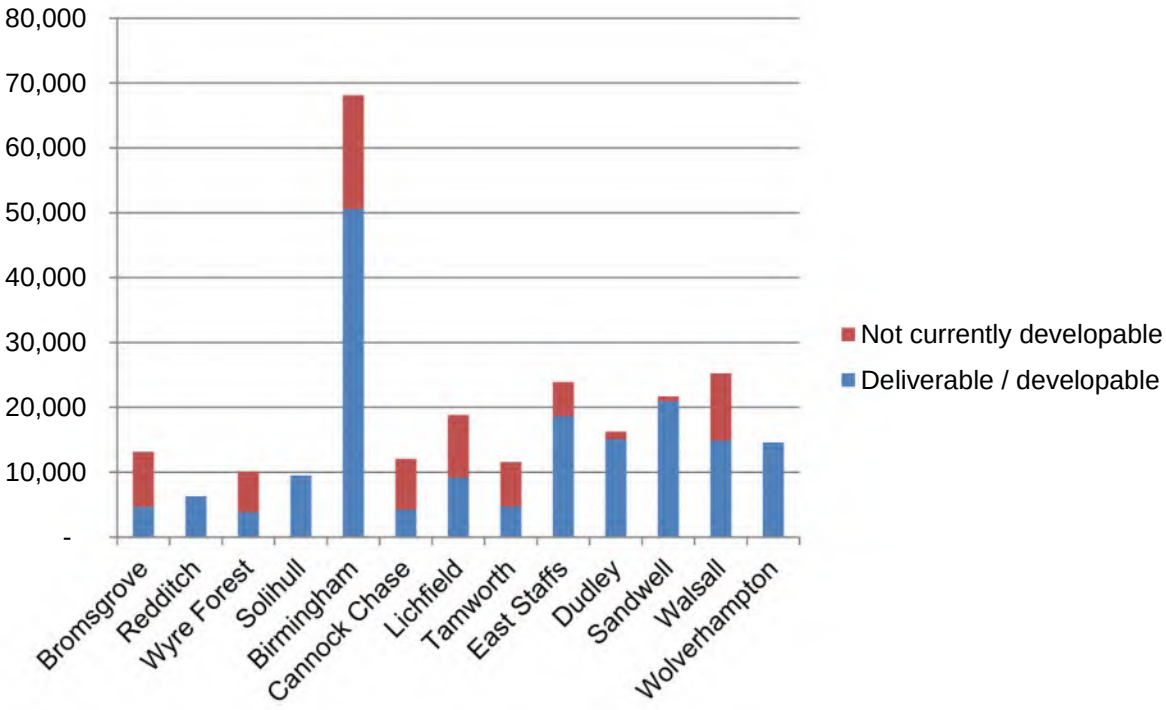
Figure 4.7 Actual and potential capacity, study area, dwellings, 2011-31



Source: PBA / Study area SHLAA data

4.160 The chart below breaks down these totals by local authority area. Birmingham trumps all authorities, both in the deliverable / developable and not currently developable categories. After Birmingham, the largest amounts of deliverable / developable supply are in Sandwell and East Staffs. For not currently developable capacity the largest amounts in Sandwell and Lichfield.

Figure 4.8 Actual and potential capacity, study area by local authority, dwellings, 2011-31



Source: PBA / Study area SHLAA data

4.161 In the related authorities there is a deliverable and developable supply of roughly 9,800 dwellings, and a not currently developable capacity of 16,705 dwellings in South Staffs.

4.162 Adding the related authorities' supply to that in the study area gives total supply for the wider market area of 186,800 dwellings of deliverable / developable capacity and roughly 91,700 dwellings in the not currently developable category.

Summary and conclusion

4.163 The table below summarises plan targets and estimates of actual and potential supply capacity across the study area. Adopted and emerging plan targets total 175,700 dwellings for the plan period. The total of deliverable / developable supply is very similar, at 177,000 dwellings. In addition there is potential capacity for 74,300 dwellings in not currently developable sites – which have been put forward or considered for development but are subject to constraints. In the GBSLEP area the most important of these constraints are the Green Belt, infrastructure and unsustainable location away from settlements. In the Black Country they are the Green Belt and safeguarding of employment land.

Table 4.7 Plan targets and development capacity, study area, dwellings, 2011-31

	Plan targets	Deliverable/ developable capacity	Not currently developable capacity
GBSLEP	112,700	111,500	62,000
Black Country	63,000	65,500	12,300
Study area	175,700	177,000	74,300

Source: Local Plans / Core Strategies, SHLAAs, local authorities

4.164 The above figures on development capacity are broad estimates. More accurate data on deliverable and developable supply across the area are not available, because SHLAAs across the area are mutually inconsistent in many ways – including the timeframes they consider, the sites they choose to include and the criteria they use to assess those sites. The data on not currently developable capacity are even more approximate.

4.165 In line with the National Planning Practice Guidance, local planning authorities across should agree common methods for assessing land supply across the housing market area. Rather than start from a give target and identify enough capacity to meet that target, the PG directs that such assessments should identify sites and broad locations capable of development regardless of the targets that the authorities are aiming to meet.

5 CONCLUSIONS

Geography of housing market areas

5.1 This report was commissioned by two Local Enterprise Partnerships (LEPs), Greater Birmingham and Solihull and the Black Country. Accordingly it focuses on the 13 local authority areas covered by the two LEPS ('the study area').

5.2 Our analysis has found that the GBSLEP area and the Black Country are closely linked by migration and commuting into a single 'Greater Birmingham' housing market area (HMA). However the boundaries of this HMA do not quite fit those of the study area. A more accurately drawn HMA would also include South Staffs and North Warwickshire. It might also include Stratford on Avon, though the evidence is not clear-cut.

5.3 We refer to South Staffs, North Warwickshire and Stratford as 'the related authorities' and this study includes a brief analysis of their housing need and supply, less detailed that for the study area.

5.4 Our analysis also suggests that two authorities in our study area, East Staffs and to a lesser extent Wyre Forest, are not closely linked to 'Greater Birmingham'. A more accurate HMA geography would group East Staffs with Derbyshire and Wyre Forest possibly with Worcestershire.

The study area

Housing need

5.5 We estimate that total housing need for the plan period 2011-31 for the study area is between 10,200 and 11,900 net new dwellings per annum (dpa). These numbers are derived from our preferred (most robust) demographic scenarios and they bracket a range of inevitable uncertainty.

5.6 These demographic projections are a minimum measure of housing need, because they take no account of market signals, future employment and affordable housing need – which will be assessed at more local level, in the third stage of this study and / or by individual local authorities. In line with national guidance, these considerations may increase the assessed need over and above the demographic projections, but they cannot reduce it.

5.7 The GBSLEP accounts for the greater part of the assessed housing need – between 7,000 and 8,300 dpa. The Black Country accounts for 3,200 to 3,600 dpa. In effect Birmingham is the main driver of need across both areas, as it is contiguous with the Black County and the two market areas are intertwined.

Table 5.1 Housing need, net new dwellings per annum (dpa), 2011-31

	ONS / PBA 2012	PBA Trends 2001-11
GBSLEP	7,000	8,300
Black Country	3,200	3,600
Total	**10,200**	**11,900**

Source: PBA, ONS

Planned housing supply

5.8 We have analysed the actual and potential supply of housing land across the study area under three headings: firstly current and emerging plan targets, secondly the deliverable / developable supply currently identified (which overlaps with plan targets) and thirdly 'not currently developable' supply – comprising sites and areas which have been proposed or considered for development but are currently constrained. The second and third categories are broad approximations only.

5.9 Planned supply in adopted and emerging plans amounts to around 5,500 new homes per year. Compared to the housing need assessed earlier, this leaves a shortfall for the GBSLEP area of between 1,500 and 2,800 dpa. The Black Country is much more balanced; the current development plans provide for 3,150 dpa compared to a housing need range of 3,200 and 3,600 dpa. In total, for the study area as a whole there is a shortfall of planned supply against need of between 1,550 dpa and 3,250 dpa.

Table 5.2 Housing need and plan targets, dpa, 2011-31

	ONS / PBA 2012	PBA Trends 2001-11	Plan targets	Shortfall against E11ONS / PBA 2012	Shortfall against PBA Trends 2001-11
GBSLEP	7,000	8,300	5,500	-1,500	-2,800
Black Country	3,200	3,600	3,150	-50	-450
Total	**10,200**	**11,900**	**8,650**	**-1,550**	**-3,250**

Source: PBA, ONS, CLG, Local Plans / Core Strategies, local authorities

5.10 We have also made an assessment of the supply of deliverable / developable sites, based on SHLAAs and additional information provided by local authorities. In principle this is a separate quantity from the plan targets, because it relates to an area's total development capacity – which may be larger than plan targets, so that not all deliverable / developable sites are allocated in the plan.

5.11 In practice, however, we find that across the study area deliverable / developable supply is almost equal to the sum of plan targets. For the GBSLEP area we estimate that this supply provides capacity for 111,500 net new homes – an average of 5,575 dpa. Against the assessed need, this leaves a shortfall of between 28,500 and 54,500 new homes over 20 years (1,425–2,725 dpa).

5.12 For the Black Country, we estimate the deliverable / developable land supply as 65,500 new homes in total, equal to 3,275 dpa. Against the assessed need, the balance is between a surplus of 1,500 dwellings and a deficit of 6,500 dwellings. (between +75 and -325 dpa).

5.13 For the study area as a whole, therefore, the shortfall is between 27,000 and 61,000 new homes over 20 years (1,350–3,050 dpa).

Table 5.3 Housing need and deliverable / developable supply, dwellings, 2011-31

Net new dwellings	ONS / PBA 2012	PBA Trends 2001-11	Deliverable/ developable	Shortfall against ONS / PBA 2012	Shortfall against PBA Trends 2001-11
GBSLEP	140,000	166,000	111,500	-28,500	-54,500
Black Country	64,000	72,000	65,500	1,500	-6,500
Total	**204,000**	**238,000**	**177,000**	**-27,000**	**-61,000**

Table 5.4 Housing need and deliverable supply, dpa, 2011-31

	ONS / PBA 2012	PBA Trends 2001-11	Deliverable/ developable	Shortfall against ONS / PBA 2012	Shortfall against PBA Trends 2001-11
GBSLEP	7,000	8,300	5,575	-1,425	-2,725
Black Country	3,200	3,600	3,275	75	-325
Total	**10,200**	**11,900**	**8,850**	**-1,350**	**-3,050**

Source: PBA, ONS, CLG, Local Plans / Core Strategies, local authorities

5.14 In addition, local planning authorities have identified 'not currently developable' capacity for 74,300 new homes over 20 years. The main constraints that prevent this land from coming forward are the Green Belt, safeguarding of employment land, unsustainable location away from existing settlements and lack of infrastructure. In general these constraints have not been studied in detail and there is no guarantee that they can ever be overcome.

The related authorities

5.15 As mentioned earlier, an accurate housing market area centred on Birmingham would include at least two authorities outside our study area, South Staffs and North Warwickshire. It might also include Stratford on Avon, also outside the study area, though the evidence is not clear-cut. In line with the NPPF, these 'related authorities' should work in partnership with those in the study area to assess and meet housing need.

5.16 From adopted and emerging plans, we calculate that three related authorities collectively are planning to deliver around 900 dpa over a 20-year plan period. Based on the higher of our demographic projections, their total housing need is for around 600 dpa.

5.17 As a broad estimate, therefore, the related authorities could have a surplus to help accommodate the study area's unmet needs. But this positive contribution is small in relation to the study area's deficit, so it would leave that deficit almost unchanged.

5.18 However the related authorities also have actual and potential supply capacity over and above their planned targets, comprising 9,800 deliverable and developable dwellings plus land not currently developable in South Staffs.

5.19 More work is needed to quantify and test supply capacity in the related authorities. It may be that they can help reduce the deficit of supply against need across the Greater Birmingham HMA.

Meeting the need

5.20 We have identified a range of housing need between 10,200 dpa and 11,900 dpa across the study area. However, the planned supply in adopted and emerging plans totals only 8,650 new homes per year. To meet this shortfall would require a significant uplift in the rate of housing delivery, around 20-25% when compared to the targets in current plans.

5.21 There is scope to secure some of this uplift within the HMA, which comprises the LEPs and related authorities. But not all possible sites have been identified, and most of those that have been identified have not been thoroughly tested. Nor has there been an assessment of the potential to export some of the deficit to neighbouring HMAs. These issues will be considered in Stage 3 of the study.

APPENDICES A-E

These appendices are provided separately as digital files.

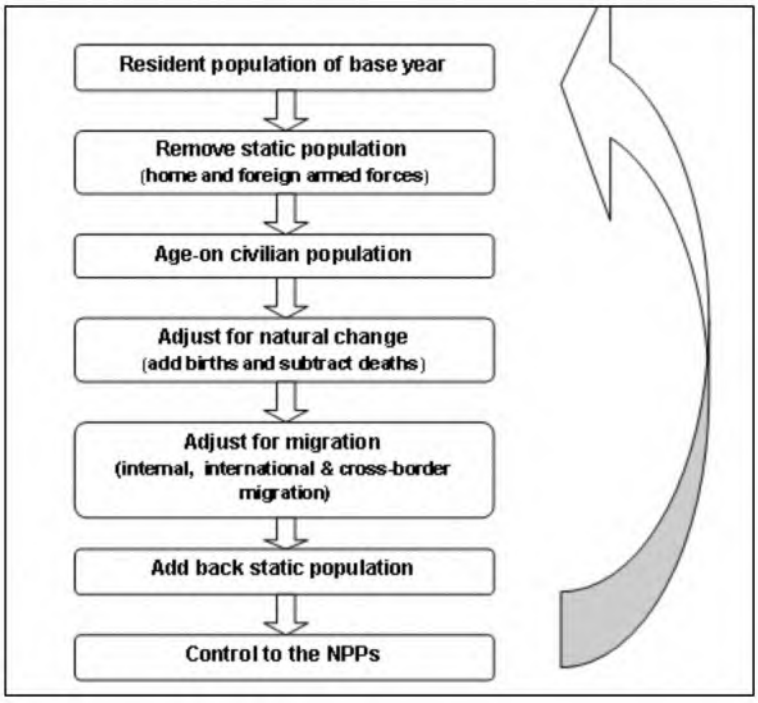
APPENDIX F DEMOGRAPHIC PROJECTION METHODS

Official projections

1 The official demographic projections, and many alternative projections including our own, are produced by specialist models known as cohort component models. Below, we set out briefly how these models work and how we created our alternative scenarios. This summary account should help readers of the main report. Much more detail on the official models is provided in ONS / CLG methodology papers, readily available on the Web.

2 As noted in the main report, the official projections comprise two stages. First the ONS produces the sub-national population projections (SNPP), which shows future population by local authority area. Secondly CLG groups this population into households. The first stage is illustrated in the diagram below, reproduced from an ONS publication.

Figure F1 SNPP method diagram



Source: ONS, *Methodology: 2012-based Subnational Population Projections*, 29 Many 2014

3 As shown in the diagram, to generate an area's resident population in each future year the ONS model proceeds in five steps as follows:

i Start from the population in the previous year – initially the resident population at the projection's base year (most recently 20120, as shown in the ONS Mid-year Population Estimates (MYE)

ii Subtract the armed forces ('static population). The projection assumes that this is unchanged throughout the period, both in numbers and age / sex profile.

iii 'Age-on' the remaining (civilian) population by one year.

iv Add births and subtract deaths, calculated as follows:

- Births are calculated by applying fertility rates to women by single-year age group. A fertility rate is the proportion of women of a given age to give birth to an infant in a given year. Fertility rates, like the mortality rates and migration rates mentioned later, are specific to each age group. Fertility rates for local authority areas are based on the average of the five years previous to the base year, controlled to national figures that are derived from ONS's analysis of long-term trends.
- Deaths are calculated by applying mortality rates to individual age-sex groups (e.g. males aged 74). Mortality rates are the average of the five years previous to the base year for each local authority and each age-sex group, controlled to national figures as above.

v Add in-migrants and subtract out-migrants, calculated as follows:

- Internal (within-England) migration is based on migration rates by single year and sex. The model uses an origin-destination matrix showing for all local authorities in England. For each year-sex group, it estimates the average proportion of people who left a particular local authority and where they moved to for the five years prior to the base year (in the most recent projection 2007-08 to 2011-12). (An example is the proportion of men aged 24 who moved from Birmingham to Solihull.) It then applies these proportions, or rates, to future years for each group.
- Cross-border migration, which means migration between the countries of the UK, is calculated through a similar method to the above.
- International migration is calculated through more complex methods, but following similar logic. For individual local authorities the projection carries forward the averages of the previous six years (in the more recent projections 2006-7 to 2011-12), and it is controlled to national totals which are based on analysis of much longer-term trends.

vi Finally add back the armed forces and control the year's total population to the national population projection.

4 To convert population into households in each future year, the CLG model proceeds as follows:

vii From the population numbers above, subtract the estimated institutional population. This comprises people not living in private households, but in establishments such as nursing homes, halls or residence, military barracks and prisons.

viii For the remaining population, project household representative rates (HRRs, also known as headship rates, household reference rates, household formation rates):

- HRRS are specific to demographic groups, which are combinations of age, sex and marital / cohabitation status. An example of a demographic group is a woman aged 29 who is part of a mixed-sex couple.
- To project HRRs into the future, CLG carries forward long-term trends since the 1971 Census. The exact projection method changed from one projection

release to another and relies partly on judgment. We discuss this further in the main report.

ix To calculate total households, the CLG first multiplies numbers or persons in each demographic group by the HRR for that demographic group. It then sums the results across age groups to derive the number of households in the local authority area.

PBA projections

5 Our projection models, like other independent models such as PopGroup, are very similar to the official ones, except that they deal with a single local authority area at a time. The three projections we prepared for this study also take their assumptions (inputs) from official data and official projections - with some exceptions as described below:

- **PBA 2007-12 Trends** is based on the ONS 2012 mid-year estimates and uses fertility and mortality assumptions from the ONS 2012 projection for England. It projects average annual migration characteristics of the area by age and gender over the period 2007-12 using the revised series of ONS mid-year estimates for years 2007-10. The conversion to households uses the household representative rates and other assumptions of the CLG interim 2011 projections, described above, to 2021. After 2021 the household representative rates from the CLG 2008 projection are used with gender/age/relationship adjustments based on the comparison of rates with the CLG 2011 projection at 2021. (This is in effect the 'indexing' method preferred by the Inspector at the South Worcestershire EiP.)This projection is the closest that can be achieved to the 2012-based SNPP (ONS 2012), with the important difference that it includes Unattributable Population Change in past migration.
- **PBA 2001-11 Trends** is also based on the ONS 2012 mid-year estimates. It uses average annual migration characteristics of the area by age and gender over the period 2001-11 but in all other respects uses the same inputs as the 2007-12 Trends projection.
- **ONS/PBA 2012** translates into households the ONS 2012 population projection, using the 'indexed' HRRs.

6 The reasons for these variant assumptions are defined and discussed in the main report.

7 It is not possible to provide a full account of why our projections differ from the official ones, for three reasons. Firstly, demographic models contain many simultaneous interactions, which obscure the effect of any individual factor. Secondly full details of the official models are not publicly available. Thirdly, at this time we do not have a full set of official projections to provide a robust starting point:

- ONS/CLG 2008 is badly out of date in many ways, although it remains of interest for what it tells us about pre-recession trends in household formation;
- ONS/CLG 2011 is an incomplete interim projection overtaken by new information, though it does provides an official view of post-recession household formation which is still relevant;

- ONS 2012 provides future population but no households.

8 Our own projections, like those produced by other independent analysts, draw eclectically on these different sets of assumptions, together with the latest available historical data, from the 2012 Mid-year Population Estimates.

9 Although the impact of different assumptions cannot be rigorously traced, it can be illustrated by example. Below, we provide such an illustration from one particular local authority area, in which the impact of one particular factor (migration base periods) is clearly visible.

The impact of migration base periods: Wyre Forest

10 As noted in the main report, different demographic projections often produce very different results, depending on the past period whose demographic trends they carry forward – known as the base period or reference period. In this note we explain in more detail how this comes about, using the district of Wyre Forest as an illustration.

11 As mentioned earlier, the reason why different base period produce different results relates largely to migration:

- Population change is the outcome of two components, natural change (equal to births minus deaths) and migration.
- Unlike natural change, migration fluctuates widely over time, because it responds sharply both to demand-side factors such as household incomes and to the supply of housing.
- Since demographic projections roll forward ('project') past migration for each demographic group, these fluctuations are reflected into the future portrayed by the projections.
- The official ONS projections are especially volatile, because they use a base period of only five years – from which they project 25 years into the future.

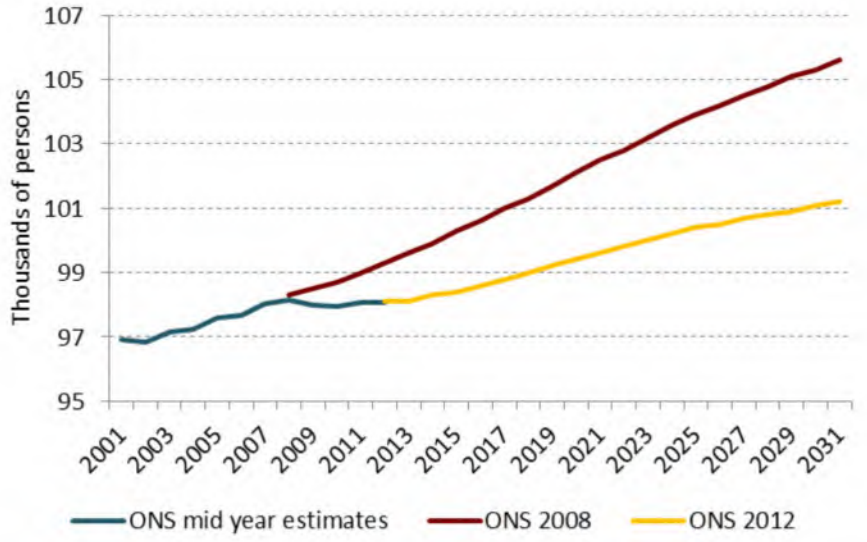
12 In the ONS projections, therefore, differences between one past five-year period and another are translated – and magnified - into very different 25-year futures. This is unfortunate, because the differences between five-year periods may result from short-term factors, such as economic cycles, which over longer periods would average out.

13 Wyre Forest is a good example of this effect, because it has seen little natural change, and therefore its population change has been largely due to migration. Figure F1 below shows:

- The district's past population, taken from the latest ONS mid-year estimates.
- Its future the last two full ONS projections for the district, based in 2008 and 2012 respectively[20].

[20] In between these projections the ONS released the 2011-based interim projections, which are not shown in the graph.

Figure F2 Population projections, Wyre Forest



Source: ONS

Table F1 Net migration, Wyre Forest

Year	Persons	
2002	22	
2003	337	
2004	147	
2005	418	***2003 - 2007***
2006	60	***Average***
2007	302	***+253***
2008	28	
2009	-206	***2008 - 2012***
2010	-89	***Average***
2011	26	***-52***
2012	-21	

Source: ONS, *Mid-year Population Estimates*

14 From 2002 to 2007 (the base period of the first projection) the district's population grew steadily, driven by a net migration inflow that averaged 253 persons per annum (Table F1). The 2008-based projection carries forward this net in-migration, showing continuing population growth over the plan period to 2031.

15 By contrast, between 2007 and 2012 (the base period of the second projection) the population trend was flat, the result much reduced migration - an annual net outflow of 52 persons per year to 2012. Again this past pattern is carried forward into the 2012-based projections, which therefore shows much slower population growth.

16 To produce more stable long-term projections, it is helpful to consider longer reference periods, larger geographies or (preferably) both. Longer reference periods average out the fluctuations due to economic cycles or other short-term factors, which is why our preferred

scenario uses a 10-year reference period rather than the ONS's five years. Larger geographies cancel out migration flows between individual authorities, which is why demographic projections for the whole study area are much more stable than for individual districts such as Wyre Forest. This is one of the reasons why, in assessing housing need and using demographic projections, it is important to look at sub-regional housing market areas rather than individual local authorities.

Moves within England and Wales
Registered during the year ending June 2011
Percentage down columns

ORIGINS

DESTINATION	Herefordshire	Stoke on Trent UA	Telford & Wrekin UA	Shropshire UA	Cannock Chase	East Staffordshire	Lichfield	Newcastle under Lyme	South Staffordshire	Stafford	Staffordshire Moorlands	Tamworth	North Warwickshire	Nuneaton and Bedworth	Rugby	Stratford on Avon	Warwick	Birmingham	Coventry	Dudley	Sandwell	Solihull	Walsall	Wolverhampton	Bromsgrove	Malvern Hills	Redditch	Worcester	Wychavon	Wyre Forest	LEP	Rest of CURS	Rest West Midlands
Herefordshire, County of UA	0.0	0.1	0.9	3.0	0.3	0.2	0.2	0.2	0.0	0.4	0.3	0.4	0.4	0.5	0.3	0.6	0.2	0.4	0.2	0.6	0.4	0.4	0.1	0.2	0.5	10.8	0.7	2.7	2.3	1.6	0.4	0.3	1.2
Stoke on Trent UA	0.2	0.0	1.2	0.7	2.1	2.6	0.9	33.1	0.7	10.2	27.6	**1.1**	0.4	0.5	0.3	0.2	0.2	0.6	0.2	0.4	0.5	0.4	0.9	1.0	0.3	0.3	0.4	0.2	0.4	0.3	0.8	0.6	4.1
Telford and Wrekin UA	0.5	0.5	0.0	12.2	1.5	0.2	0.7	0.7	2.3	2.9	0.6	0.7	0.0	0.2	0.3	0.4	0.2	0.5	0.2	1.2	0.9	0.2	1.1	2.8	0.5	0.3	0.7	0.4	0.6	0.3	0.5	1.4	1.8
Shropshire UA	4.8	1.0	23.8	0.0	1.2	0.2	0.7	2.5	**6.5**	3.3	0.6	0.7	0.7	0.2	0.5	0.9	0.5	0.8	0.3	2.6	1.0	0.6	1.1	**3.4**	1.3	3.9	0.7	1.2	0.6	6.5	1.0	2.2	2.7
Cannock Chase	0.2	0.5	0.7	0.3	0.0	1.4	**12.5**	0.3	**13.7**	4.6	0.9	1.1	0.7	0.2	0.0	0.2	0.0	0.4	0.1	0.4	0.6	0.4	4.1	1.3	0.0	0.3	0.0	0.2	0.0	0.3	1.1	2.3	0.5
East Staffordshire	0.0	1.1	0.3	0.2	2.4	0.0	7.7	0.7	0.7	2.3	3.9	2.9	0.7	0.2	0.3	0.2	0.1	0.5	0.2	0.2	0.2	0.2	0.7	0.3	0.0	0.0	0.4	0.0	0.2	0.3	1.0	0.4	0.6
Lichfield	0.2	0.3	0.3	0.3	**16.8**	**4.7**	0.0	0.5	1.2	1.7	0.6	**17.5**	2.9	0.7	0.3	0.2	0.2	1.9	0.1	0.4	0.9	0.6	4.5	0.7	0.3	0.3	0.4	0.2	0.2	0.3	2.8	1.4	0.4
Newcastle under Lyme	0.3	22.6	0.7	1.5	1.2	1.2	0.7	0.0	0.9	4.2	7.9	0.4	0.0	0.2	0.3	0.0	0.1	0.3	0.2	0.3	0.3	0.2	0.5	0.5	0.3	0.0	0.4	0.0	0.2	0.3	0.4	0.4	3.2
South Staffordshire	0.2	0.3	1.7	1.9	**17.4**	0.2	2.0	0.3	0.0	3.8	0.6	0.4	0.7	0.2	0.3	0.2	0.0	0.4	0.1	6.0	1.2	0.2	5.4	10.5	0.3	0.3	0.0	0.4	0.2	1.3	1.3	4.2	0.7
Stafford	0.3	6.0	2.9	1.1	**8.2**	3.3	**2.5**	3.9	5.8	0.0	5.2	**1.1**	0.0	0.2	0.5	0.6	0.2	0.4	0.2	0.7	0.5	0.4	**0.9**	1.1	0.3	0.3	0.0	0.4	0.2	0.3	1.1	1.1	1.6
Staffordshire Moorlands	0.0	12.0	0.3	0.2	0.6	**3.5**	0.0	3.6	0.0	3.3	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.1	1.8
Tamworth	0.0	0.2	0.2	0.1	0.9	1.4	8.0	0.2	0.2	0.8	0.3	0.0	**14.3**	1.0	0.3	0.2	0.1	1.0	0.2	0.2	0.3	1.1	0.7	0.1	0.3	0.0	0.0	0.0	0.0	0.3	1.3	1.0	0.2
North Warwickshire	0.0	0.1	0.0	0.1	0.0	0.5	1.1	0.2	0.2	0.2	0.0	**13.6**	0.0	10.0	0.8	0.2	0.1	1.0	1.2	0.2	0.2	2.8	0.2	0.2	0.3	0.0	0.0	0.0	0.2	0.0	1.5	0.2	0.8
Nuneaton and Bedworth	0.2	0.2	0.3	0.1	0.3	0.5	0.7	0.2	0.0	0.4	0.0	**1.1**	**15.0**	0.0	3.4	0.4	1.0	0.4	7.1	0.1	0.2	0.7	0.1	0.2	0.3	0.0	0.4	0.2	0.0	0.0	0.4	1.0	1.5
Rugby	0.3	0.2	0.2	0.3	0.3	0.2	0.5	0.2	0.2	0.4	0.0	0.7	1.1	5.0	0.0	2.5	3.2	0.3	4.1	0.1	0.2	0.6	0.2	0.2	0.3	0.3	0.4	0.2	0.2	0.0	0.4	0.5	1.4
Stratford on Avon	0.2	0.1	0.3	0.3	0.3	0.5	0.2	0.2	0.2	0.2	0.0	0.0	**1.4**	1.2	2.4	0.0	11.0	0.8	1.3	0.2	0.3	**3.7**	0.3	0.1	2.8	0.6	**11.1**	0.8	5.2	0.6	1.5	0.3	1.8
Warwick	0.3	0.2	0.5	0.4	0.3	0.5	0.5	0.3	0.5	0.2	0.0	0.7	1.1	1.9	5.3	**11.1**	0.0	0.7	10.8	0.1	0.3	3.2	0.3	0.2	1.0	0.3	1.4	0.8	0.8	0.3	0.9	1.4	2.4
Birmingham	2.5	4.5	3.8	2.8	3.2	3.3	9.5	2.0	3.3	3.3	1.8	9.6	8.9	3.6	3.2	3.2	2.9	0.0	6.2	**10.1**	**25.5**	**30.6**	**14.6**	**8.4**	**16.3**	2.5	11.1	4.1	4.0	5.8	6.0	12.9	3.7
Coventry	0.8	0.7	0.5	0.7	0.6	0.7	0.5	0.5	0.5	0.6	0.6	0.7	4.3	19.0	9.7	3.4	9.4	**1.8**	0.0	0.8	0.9	**3.3**	0.8	1.2	0.8	0.8	1.4	0.8	0.6	0.6	1.6	1.3	2.6
Dudley	0.5	0.4	1.0	1.1	0.9	0.2	0.2	0.5	8.6	0.8	0.0	0.7	0.4	0.2	0.3	**0.6**	0.5	3.0	0.4	0.0	**17.6**	0.7	2.2	8.4	**5.0**	0.6	1.1	1.8	0.6	8.7	2.5	7.0	0.6
Sandwell	0.3	0.7	1.2	0.6	0.9	**0.9**	0.9	0.7	0.9	0.6	0.0	1.1	1.1	0.5	0.3	0.2	0.4	**10.3**	0.9	**19.8**	0.0	1.5	11.5	6.0	2.0	0.0	1.1	1.2	0.6	2.3	6.4	6.5	0.6
Solihull	0.2	0.2	0.3	0.2	0.3	0.2	1.1	0.3	0.2	0.6	0.3	2.1	5.7	1.4	0.8	3.4	2.3	**9.0**	1.6	0.8	1.0	0.0	0.7	0.6	5.5	0.6	2.9	0.6	0.6	0.6	5.7	1.3	0.8
Walsall	0.2	0.7	1.6	0.6	7.1	0.7	**6.4**	0.5	6.3	1.2	0.0	1.8	**1.4**	0.5	0.3	0.4	0.2	4.0	0.7	2.8	11.3	1.0	0.0	**12.0**	0.5	0.3	0.4	0.6	0.2	1.0	3.2	6.0	0.6
Wolverhampton	0.3	1.1	3.1	1.6	3.2	0.7	0.9	0.7	**15.6**	1.7	0.3	0.7	0.7	0.7	0.3	0.4	0.2	1.7	0.8	8.2	5.2	0.7	**13.0**	0.0	0.8	0.3	0.7	0.6	0.2	1.3	1.4	6.2	0.9
Bromsgrove	0.7	0.1	0.2	0.3	0.0	0.0	0.2	0.2	0.5	0.0	0.0	0.4	0.4	0.2	0.5	1.1	0.4	3.0	0.3	3.8	1.1	2.9	0.3	0.3	0.0	1.9	**12.1**	1.6	3.8	6.1	2.7	1.2	0.6
Malvern Hills	8.3	0.1	0.3	1.3	0.0	0.5	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.2	0.3	0.1	0.6	0.2	0.2	0.1	0.3	2.0	0.0	1.1	16.3	6.5	6.1	0.6	0.3	2.0
Redditch	0.3	0.1	0.2	0.1	0.3	0.0	0.2	0.0	0.2	0.2	0.0	0.4	0.4	0.2	0.3	**4.7**	0.2	1.0	0.3	0.3	0.2	1.3	0.2	0.2	7.3	0.8	0.0	1.2	3.1	1.3	1.2	0.7	0.4
Worcester	3.2	0.2	0.3	0.7	0.3	0.2	0.2	0.2	0.9	0.2	0.0	0.4	0.4	0.2	0.3	0.9	0.4	0.6	0.3	1.5	0.5	0.6	0.3	0.4	2.8	17.5	3.2	0.0	14.2	5.8	0.9	0.7	1.9
Wychavon	1.3	0.1	0.0	0.3	0.0	0.2	0.2	0.2	0.2	0.2	0.0	0.4	0.4	0.2	0.3	5.5	0.7	0.5	0.3	1.0	0.6	0.9	0.2	0.0	**7.0**	6.9	**7.9**	16.1	0.0	6.5	1.4	0.9	1.4
Wyre Forest	0.8	0.1	0.5	2.1	0.3	0.0	0.2	0.2	1.4	0.2	0.3	0.0	0.0	0.0	0.0	0.4	0.2	0.7	0.1	**4.7**	**1.1**	0.4	0.3	0.6	4.3	3.6	2.1	3.1	4.8	0.0	0.8	1.4	1.0
Rest of E&W	**72.8**	**45.4**	**52.4**	**64.7**	**29.4**	**71.4**	**40.2**	**47.2**	**27.9**	**51.7**	**48.2**	**39.3**	**36.8**	**50.2**	**68.7**	**57.7**	**64.5**	**53.7**	**61.4**	**31.5**	**26.7**	**40.1**	**34.1**	**38.6**	**37.8**	**46.4**	**38.2**	**44.1**	**49.4**	**41.0**	**48.9**	**34.7**	**56.1**
Total (E&W)	**6,000**	**9,700**	**5,800**	**9,600**	**3,400**	**4,300**	**4,400**	**6,100**	**4,300**	**5,200**	**3,300**	**2,800**	**2,800**	**4,200**	**3,800**	**5,300**	**8,200**	**42,900**	**15,300**	**8,900**	**12,700**	**8,200**	**8,700**	**9,700**	**4,000**	**3,600**	**2,800**	**4,900**	**4,800**	**3,100**			
GBSLEP	**4.8**	**7.2**	**6.6**	**6.5**	**24.1**	**10.9**	**39.5**	**4.3**	**21.4**	**13.7**	**8.2**	**33.9**	**33.9**	**7.6**	**5.5**	**13.6**	**6.6**	**17.3**	**9.1**	**21.1**	**31.0**	**37.6**	**26.2**	**12.6**	**33.8**	**10.0**	**28.9**	**11.0**	**16.7**	**15.2**	**22.6**	**22.7**	**8.2**
Rest CURS Area Inc. BC LEP	**1.7**	**3.5**	**9.0**	**6.3**	**29.7**	**3.7**	**11.8**	**3.0**	**31.9**	**8.5**	**0.9**	**18.2**	**5.7**	**13.3**	**4.5**	**1.9**	**12.4**	**21.3**	**5.4**	**37.2**	**35.7**	**10.6**	**32.6**	**37.1**	**11.5**	**1.9**	**14.3**	**5.5**	**7.3**	**15.2**	**17.8**	**30.4**	**6.0**
Rest West Midlands	**20.7**	**43.9**	**32.1**	**22.6**	**16.8**	**14.0**	**8.4**	**45.6**	**18.8**	**26.2**	**42.7**	**8.6**	**23.6**	**28.8**	**21.3**	**26.8**	**16.5**	**7.7**	**24.1**	**10.2**	**6.5**	**11.7**	**7.0**	**11.8**	**17.0**	**41.7**	**18.6**	**39.4**	**26.7**	**28.7**	**10.7**	**12.2**	**29.7**
Rest E&W	**72.8**	**45.4**	**52.4**	**64.7**	**29.4**	**71.4**	**40.2**	**47.2**	**27.9**	**51.7**	**48.2**	**39.3**	**36.8**	**50.2**	**68.7**	**57.7**	**64.5**	**53.7**	**61.4**	**31.5**	**26.7**	**40.1**	**34.1**	**38.6**	**37.8**	**46.4**	**38.2**	**44.1**	**49.4**	**41.0**	**48.9**	**34.7**	**56.1**

Commuting — Source: APS 2011

From: \ To:	Cannock Chase	East Staffordshire	Lichfield	Tamworth	Birmingham	Solihull	Bromsgrove	Redditch	Wyre Forest	South Staffordshire	North Warwickshire	Stratford on Avon	Dudley	Sandwell	Walsall	Wolverhampton	GBSLEP	Rest CURS Inc BC LEP	Workers by Residence
Cannock Chase		369	2,051	720	2,873	431				2,446					3,961	3,174	6,444	9,581	**43,331**
East Staffordshire	605		1,849		769												3,223	0	**54,027**
Lichfield	4,124	1,803		3,454	5,284	354				439	1,036			388	1,974	879	15,019	4,716	**45,380**
Tamworth			1,262		5,463	2,240					3,883	469					8,965	4,352	**30,738**
Birmingham	829	359	1,391	1,797		**24,639**	1,965	2,027	953		4,001	2,714	1,463	**11,080**	3,488	3,795	33,960	26,541	**395,023**
Solihull	143		400	657	**33,121**		625	579	128		923	1,962	242	281	271	384	35,653	4,063	**95,540**
Bromsgrove					5,235	3,822		1,464	334		644	1,880	3,029	3,102	366		10,855	9,021	**40,633**
Redditch					2,779	668	3,032					4,195		287			6,479	4,482	**38,443**
Wyre Forest				435	1,347		298	351				358	2,915	961		351	2,431	4,585	**47,994**
South Staffordshire	5,496				4,078	289							2,860	2,793	2,394	**12,807**	9,863	20,854	**49,083**
North Warwickshire			501	1,774	3,059	1,344						485					6,678	485	**28,850**
Stratford on Avon	277				2,869	963	907	1,276			606		294				6,292	900	**54,452**
Dudley				197	**20,345**	1,097	1,697	596	2,199	1,510	608			**17,897**	1,788	**12,656**	26,131	34,459	**138,110**
Sandwell	378		218	157	**40,252**	1,713	148	137	289	137	124	739	**10,059**		5,724	4,996	43,292	21,779	**119,753**
Walsall	2,953	171	3,371	854	**18,727**	928	157		157	454	175		2,600	7,291		7,544	27,318	18,064	**103,689**
Wolverhampton	1,644	136	322		6,291	264		113	155	874			4,556	3,709	6,879		8,925	16,018	**93,656**
LEP	5,701	2,531	6,953	6,628	55,524	32,154	5,622	4,070	1,415	2,885	10,487	11,220	4,734	15,138	10,060	8,232	120,598	62,756	**791,109**
Rest CURS	10,748	307	4,412	2,982	95,621	6,598	2,909	2,122	2,800	2,975	1,513	1,224	20,369	31,690	16,785	38,003	128,499	112,559	**587,593**
Total Workplaces	**43,799**	**61,216**	**38,397**	**29,138**	**509,339**	**85,494**	**24,925**	**31,460**	**38,875**	**21,510**	**30,533**	**63,907**	**102,300**	**99,540**	**82,089**	**115,293**	**862,643**	**515,172**	
Net Commuters	**468**	**7,189**	**-6,983**	**-1,600**	**114,316**	**-10,046**	**-15,708**	**-6,983**	**-9,119**	**-27,573**	**1,683**	**9,455**	**-35,810**	**-20,213**	**-21,600**	**21,637**			
Net Commuters	*-743*	*-692*	*-8,066*	*-2,337*	*21,564*	*-3,499*	*-5,233*	*-2,409*	*-1,016*	*-6,978*	*3,809*	*4,928*	*-21,397*	*-28,154*	*-17,258*	*-693*			
Net Commuters	*1,167*	*307*	*-304*	*-1,370*	*69,080*	*2,535*	*-6,112*	*-2,360*	*-1,785*	*-17,879*	*1,028*	*324*	*-14,090*	*9,911*	*-1,279*	*21,985*			
Sum of above - Compare to row 25	*424*	*-385*	*-8,370*	*-3,707*	*90,644*	*-964*	*-11,345*	*-4,769*	*-2,801*	*-24,857*	*4,837*	*5,252*	*-35,487*	*-18,243*	*-18,537*	*21,292*			
Col R	*6,444*	*3,223*	*15,019*	*8,965*	*33,960*	*35,653*	*10,855*	*6,479*	*2,431*	*9,863*	*6,678*	*6,292*	*26,131*	*43,292*	*27,318*	*8,925*			
Col S	*9,581*	*0*	*4,716*	*4,352*	*26,541*	*4,063*	*9,021*	*4,482*	*4,585*	*20,854*	*485*	*900*	*34,459*	*21,779*	*18,064*	*16,018*			
Col U	*43,331*	*54,027*	*45,380*	*30,738*	*395,023*	*95,540*	*40,633*	*38,443*	*47,994*	*49,083*	*28,850*	*54,452*	*138,110*	*119,753*	*103,689*	*93,656*			

Notes:

Empty Cell does not mean that there is no movement - but APS has no reliable estimate.

Net Commuters based on difference between workers by workplace and residence

Net Commuters based on available cells

Net Commuters based on available cells

Comment:

Black Country is strong commuter hinterland for Birmingham
East Staffs has little connection with Rest of CURS
Birmingham and Cannock Chase draw most net commuters from Rest of CURS
North Warwickshire and Stratford have little connection to Rest of CURS - draw most labour from LEP and send most commuters to LEP
South Staffs mainly linked to Black Country

Census 2011 Commuting Data

		Total workplaces	Total residents	Net commuting	From wider market to LPA	From LPA TO wider market	Net Commuting With wider market	Net Commuting from outside wider market
GBSLEP	Cannock Chase	30,754	39,206	-8,452	11,231	17,173	-5942	-2,510
	East Staffordshire	50,067	45,483	4,584	4,645	4,800	-155	4,739
	Lichfield	35,016	39,133	-4,117	16,182	19,682	-3500	-617
	Tamworth	24,970	32,725	-7,755	8,020	15,346	-7326	-429
	Birmingham	422,450	357,004	65,446	131,846	73,901	57945	7,501
	Solihull	83,387	80,982	2,405	39,397	37,885	1512	893
	Bromsgrove	30,100	37,133	-7,033	14,681	20,310	-5629	-1,404
	Redditch	32,421	36,132	-3,711	9,941	12,939	-2998	-713
	Wyre Forest	28,770	37,470	-8,700	4,444	8,585	-4141	-4,559
	GBSLEP total	737,935	705,268	32,667	240,387	210,621	29,766	2,901
BC LEP	Dudley	102,488	120,797	-18,309	32,975	50,242	-17,267	-1,042
	Sandwell	108,949	111,705	-2,756	52,844	55,489	-2,645	-111
	Walsall	88,925	95,870	-6,945	36,092	43,438	-7,346	401
	Wolverhampton	93,709	89,641	4,068	35,935	32,363	3,572	496
	BC LEP total	394,071	418,013	-23,942	157,846	181,532	-23,686	-256
RELATED	South Staffordshire	26,531	43,219	-16,688	13,035	27,707	-14,672	-2,016
	North Warwickshire	33,812	25,415	8,397	16,237	9,872	6,365	2,032
	Stratford on Avon	48,578	45,751	2,827	8,831	6,604	2,227	600
	Related authorities total	108,921	114,385	-5,464	38,103	44,183	-6,080	616
	Wider market total	**1,240,927**	**1,237,666**	**3,261**	**436,336**	**436,336**	**0**	**3,261**