

Analysis of Strategic Housing Market Assessments in the West Midlands

Stage 1 Technical Report

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Stage 1 Final Technical Report

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1. Introduction

1.1 Aims and objectives

The West Midlands Regional Assembly (WMRA) commissioned ECOTEC to undertake analysis of the methodologies and findings of the six Strategic Housing Market Assessments produced by sub-regional housing market partnerships between 2006 and 2008.

This stage one technical report investigates the housing need figures calculated in each of the six Strategic Housing Market Assessments, drawing out consistencies and inconsistencies in the methodological approaches. A comparison is also made with the region-wide study produced by the Cambridge Centre for Housing and Planning Research titled 'Household Projection Based Estimate of Housing Demand and Need in the West Midlands Region 2006-26: Unconstrained' (CCHPR, 2008). The findings of this report are designed to help WMRA inform the Examination in Public for West Midlands Regional Spatial Strategy Phase Two, due to be held in 2009.

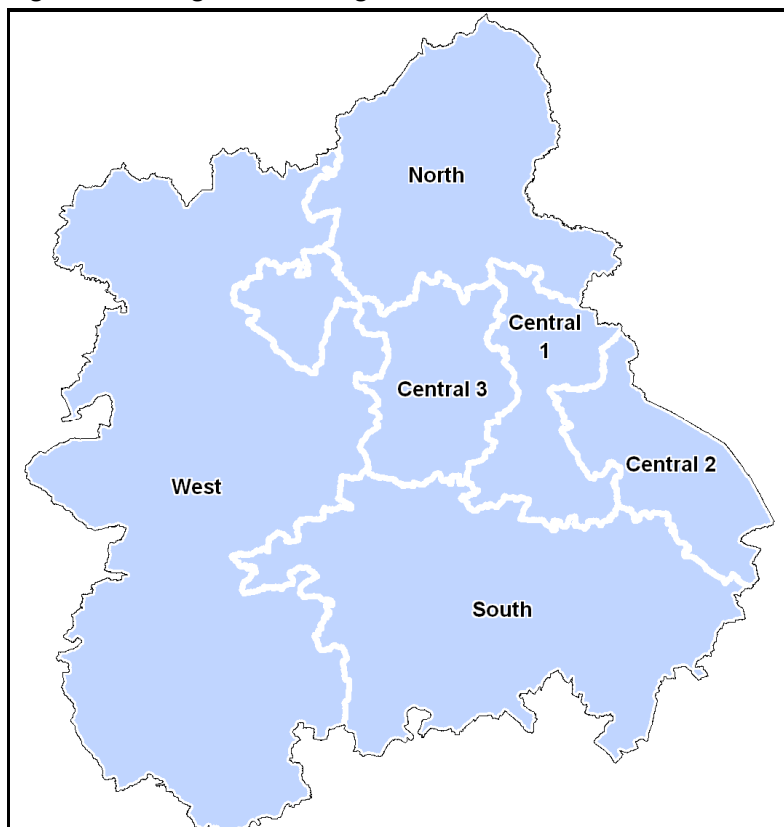
The purpose of the study is therefore to firstly to compare the outputs of the sub-regional Strategic Housing Market Assessments and then to provide insight into how comparable the figures produced are given that different methodologies were used to produce them. The analysis will then provide a basis for determining whether the outputs of the individual Assessments can be added together to form a robust regional level picture.

1.2 The six sub-regional Strategic Housing Market Assessments

The following six Strategic Housing Market Assessments covering the West Midlands were produced in 2007 and 2008:

- North: covering the 5 districts of East Staffordshire, Newcastle-under-Lyme, Stafford, Staffordshire Moorlands, and Stoke-on-Trent; produced by Outside Consultants, April 2008.
- South: covering the 6 districts of Worcestershire (Bromsgrove, Malvern Hills, Redditch, Worcester, Wychavon, Wyre Forest) and the 2 districts of South Warwickshire (Avon and Warwick); produced by Rupert Scott on behalf of the South Housing Market Partnership, April 2007; updated with a Monitoring Report in May 2008.
- West: covering the 6 districts of Bridgnorth, Herefordshire, North Shropshire, Oswestry, Shrewsbury, and South Shropshire; produced by Outside Consultants, June 2008.
- Central 1: (often referred to as "C1") covering the 4 districts of Birmingham, Lichfield District, Solihull, and Tamworth; published by Outside Consultants, August 2008.
- Central 2: (often referred to as "C2") covering the 4 districts of Coventry, North Warwickshire, Nuneaton & Bedworth, and Rugby; published by Outside, April 2008.
- Central 3: (often referred to as "C3") covering the 7 districts of Dudley, Sandwell, Walsall, Wolverhampton, Cannock Chase, South Staffordshire, and Telford and Wrekin; produced by ECOTEC Research & Consulting, July 2008.

Figure 1 Sub-regional housing market areas in the West Midlands



1.3 Housing need, affordability and viability

Housing demand is defined in Planning Policy Statement 3 as ‘the quantity of housing that households are willing and able to buy or rent’ and therefore pertains to open market housing. Housing need on the other hand pertains to affordable housing and is defined as ‘the quantity of housing required for households who are unable to access suitable housing without financial assistance’. The Strategic Housing Market Assessments Practice Guidance published by the Ministry of Communities and Local Government (CLG) in August 2007 states that “for the purposes of assessment, this means partnerships need to estimate the number of households who lack their own housing or live in unsuitable housing and who cannot afford to meet their housing needs in the market” (CLG 2007 p. 41).

The Practice Guidance sets out four categories of unsuitable housing:

- Homeless households and insecure tenure;
- Mismatch of housing need and dwellings (including households living in overcrowded conditions and those sharing facilities);
- Dwelling amenities and condition (e.g. lacking a WC, major disrepair or unfitness);
- Social needs (e.g. harassment from neighbours).

The Practice Guidance sets out how to estimate the number of current and future households in housing need. It then sets out how this is to be measured against committed supply and available affordable housing stock in order to arrive at an estimate of net annual housing need. Measuring affordability is a key part of the housing needs assessment, and the Practice Guidance specifies which income/price thresholds are to be used to determine this. For example in the case of private renting, a household is considered able to afford in the market when no more than 25% of gross income (housing benefit excluded) would be spent on renting a market entry dwelling, which is defined as the lower quartile price.

In setting out the approach to be taken to objectively estimate net annual housing need the Practice Guidance does not require the calculation to arrive at a figure that is 'deliverable' in terms of future new build supply. The issue of viability (the practical deliverability of affordable housing) falls entirely outside the scope of the Strategic Housing Market Assessment process. The term "viability" is used just once, in the closing sentence of the Practice Guidance which states that "local planning authorities will wish to use the findings of the assessments to inform the development of their affordable housing targets and any related targets for social rented and intermediate housing. As PPS3 explains, authorities will need to consider other factors when determining affordable housing targets including the policy definition of affordable housing, an assessment of economic viability within the area and the likely levels of finance available for affordable housing" (CLG 2007 p. 63).

It is important to bear in mind that a viability assessment is not built into the Strategic Housing Market Assessment process when interpreting the figures produced by them.

1.4 Approach and report structure

Our approach has been to review each Strategic Housing Market Assessment to draw out methodologies and data sources used to calculate housing need in each sub-regional housing market area. These reviews are covered in section two. Section 3 examines the figures generated and highlights the impact of differing methodologies on the ability of WMRA and others to undertake comparison of the outputs from the different studies. Section 4 sets out in brief the approach used in the 2008 Cambridge Centre for Housing and Planning Research study and compares this to the aggregated Strategic Housing Market Assessment findings on housing need. The main findings are summarised in Section 5.

2. Housing Need Calculations

This section sets out the housing need calculations used in each of the six Strategic Housing Market Assessments. Due to substantive differences between the approaches taken it is not possible to directly compare all figures across the assessments. For this reason each approach is set out in turn and issues of comparability are examined subsequently.

2.1 South

The South sub-regional Housing Market Area covers the 8 districts of Bromsgrove, Malvern Hills, Redditch, Worcester, Wychavon, Wyre Forest, Avon and Warwick and had a population of circa 348,000 households in 2006.

The South Strategic Housing Market Assessment was completed in April 2007 by a team led by Affordable Housing Consultant Rupert Scott and incorporating substantial input from the Worcestershire Research and Intelligence Unit. Much of the work predated version 1 of the Strategic Housing Market Assessments Practice Guidance.¹ The report makes reference to the Draft Guidance² but notes that it does not add anything substantive to the original guidance for Local Housing Market Assessments, published in July 2000. It is therefore not surprising that the steps taken to arrive at the final housing needs figures vary from those set out in the 2007 Practice Guidance and adopted in the other five Strategic Housing Market Assessments which were completed later.

In May 2008 an update report bearing the title 'South Housing Market Assessment Monitoring 2006/07' was produced by the Research and Intelligence Unit of Worcestershire County Council. This report followed the methodology of the original study, updating it with new data and trend information.

The main steps and figures of the housing need calculation as given in the Monitoring Report are set out in the table overleaf. The last column of the table gives the housing needs figure as a percentage of the total households in the sub-region in 2006. This is to aid comparison with other sub-regions.

¹ Version 1 of the Strategic Housing Market Assessments Practice Guidance was released by CLG in March 2007. The second version produced in August 2007 contained very few changes.

² ODPM, 2005.

Table 1 Housing need calculation for the South Sub-regional Housing Market Area

Stage	Item	Need	% of hh 2006
Current need (backlog)	A: Total current housing need gross	12,979	3.7%
	B: Rate of backlog reduction (% per annum)	20%	-
	C: Annual backlog reduction (=AxB)	2,596	0.7%
Newly arising need	D: New household formation (gross per year)	6,594	1.9%
	E: % of newly forming households unable to afford in the market	39%	-
	F: New households unable to afford in the market (=DxE)	2,583	0.7%
	G: Households falling into need	1,448	0.4%
	H: Total newly arising housing need (=F+G)	4,031	1.2%
Total need	I: Gross annual housing need (=C+H)	6,627	1.9%
Affordable supply	J Annual supply of social re-lets	3,002	0.9%
	K Annual supply of new affordable housing	615	0.2%
	L Total annual supply of affordable dwellings (=J+K)	3,617	1.0%
Shortfall/surplus	M Annual shortfall of affordable dwellings 2007-2011 (=I-L)	3,010	0.9%

The shortfall of affordable housing is calculated to be 3,010 per annum for the period 2007-2011. The Strategic Housing Market Assessment report projects a possible increase in affordable housing supply post 2011, identifying a figure of 1,060 p.a. in the place of the 615 given in the table above. However the assessment does not provide a full set of calculations for the period beyond 2011 and limits itself instead to an estimation of new households unable to afford in the market between 2011 and 2026³.

The sources and methodology used to generate the South Sub-regional Housing Market Area housing need figures are detailed below.

Current Need

The primary input for this was generated through analysis of local authority waiting lists, except for in Stratford where the figure was based on a Household Survey. Individual housing register records were screened to eliminate households not in need (e.g. those able to afford market housing), although the final Strategic Housing Market Assessment report does not provide insight into exactly how the screening was done.

The original Strategic Housing Market Assessment Report produced early in 2007 contained some discussion of the relative merits of adopting a five or ten year period for backlog reduction before opting for the latter. In the 2008 Monitoring Report this decision was revised and a five year reduction period was adopted, making it consistent with the other Strategic Housing Market Assessments in the Region. This change resulted in a doubling of the annual backlog reduction quota. This annual reduction quota was an input at the start of the housing needs calculation. This is a point of difference with the Guidance which stipulates that this should be one of the last steps.

The Practice Guidance requires committed supply of new affordable housing (net of adjustments for units to be taken out of management) to be subtracted from current need prior to the application of an annual backlog reduction quota. Due to the sequencing described above, this has not been done in the South Strategic Housing Market Assessment.

³ This is contained in a separate technical report titled 'Estimating Future (Newly Arising) Housing Need', produced by Worcester County Council's Research and Intelligence Unit. This report is referred to as Appendix 8 in the main report.

Another point of difference with the Guidance is the treatment of households in need already housed in the social sector (e.g. in inappropriate or sub-standard dwellings). These households are excluded from the backlog need figure of the South Sub-regional Housing Market Area.

Newly arising need

The detailed approach taken in the South Strategic Housing Market Assessment to calculate newly forming households in need is set out in Appendix 8 of the original report. It broadly follows the method advocated by the Draft Guidance in circulation at the time. The model used was designed to assess need for a particular year, in order to project household formation forward informed by population growth and other trends. This exercise was performed for target years (2006, 2011, 2016, and 2026) in line with the RSS partial review. The model consisted of several steps.

Firstly, projected new household formation was estimated, giving the number of new households expected to form each year derived through the approach outlined in Appendix 7 of the Local Housing Needs Assessment Guidance (ODPM, 2000). This method is also described in Annex B of the latest Practice Guidance, and essentially consists of measuring the change in each 5-year age cohort at intervals of 5 years. 2004-based household projections provided by CLG were used, and given that the assessment work was carried out in the latter part of 2006, these were the original projections rather than those subsequently updated. The Report notes that the data came from a group of reports prepared on population, household growth and migration patterns for the Regional Assembly as technical work for the RSS partial review in 2006.

Subsequently, the number of newly forming households unable to afford in the market was estimated. There are several components to this:

- Incomes levels of newly forming households: based on Survey of English Housing data concerning the income distribution of newly forming households of different types. Parameters stemming from a dataset provided by Barclays Bank were then applied to these figures to arrive at district level figures within the South Sub-regional Housing Market Area. CACI Paycheck figures used as an alternative. The CACI Paycheck figures were opted for as these were likely to be more readily available to use for future updates.
- Market entry price levels: asking price data at postcode level was obtained from the UK's largest property website, and this was adjusted downward by a factor of close to 3% to arrive at an approximation of actual sales prices. The lower quartile price was identified for each dwelling type/size combination, and this was equated to the market entry price level. This was also done for the private rented sector.
- Households were matched with dwellings as follows:
 - One-person household – 1 bed flat/house
 - Couple household without children – 2 bed house/flat
 - Couple household with children – 2 bed house
 - Lone parent household - 2 bed house
- In line with the Draft Guidance a household is considered to be able to afford a home if it costs no more than 3.5 times gross annual income for a for a single earner and 2.9 times for a household with two incomes.

- Affordability in the rental sector was determined using the threshold of 25% of gross income. Again, this was advocated by the Draft Guidance.

This approach resulted in figures for newly forming households unable to access the market, which is the first of two components of newly arising need. The second concerns existing households falling into need. This figure was based on P1E returns regarding homelessness applications. The risk of double counting was recognised but this is felt to be counter balanced by under recording in the statistics.

The South Strategic Housing Market Assessment notes that all projections for newly arising need are based on the assumption that the recent past provides a reliable indicator of the future. The report stresses that it is essential that the data is updated on an annual basis, and when comparing new figures to previous ones the reasons for any differences should be fully explored. This will ensure that the projections – adjusted as necessary - will remain a reliable basis for formulating, implementing and modifying policies and strategies.

Affordable housing supply

The South Strategic Housing Market Assessment examined annual HIP returns to arrive at the number of social rented properties re-let to new tenants in recent years. Turnover trends were found to vary between districts and in those areas with a clear downward trend the latest figure has been projected forward. Where there is no clear downward trend the past three years were averaged to provide a figure for the annual level of social re-lets.

The amount of recycled intermediate housing was found to be negligible and this component of supply was therefore discounted. Similarly no adjustments were made for empty properties and demolitions.

The supply of new affordable housing was estimated using data from the West Midlands Regional Planning Body's Section 4(4) Authorities Brief and additional information provided by each local authority. The analysis assumes that 40% of all new completions will be affordable.

The Strategic Housing Market Assessment Report comments that monitoring is made more complicated when new affordable supply is added to annual re-let supply figure, but that this is a requirement of the Guidance.

2.2 Central 3

The Central 3 sub-regional Housing Market Area covers the 7 districts of Dudley, Sandwell, Walsall, Wolverhampton, Cannock Chase, South Staffordshire, and Telford and Wrekin and had a population of circa 598,000 households in 2006, making it the largest in terms of households in the West Midlands region.

The Central 3 Sub-regional Housing Market Area Strategic Housing Market Assessment was carried out between November 2007 and May 2008 by ECOTEC. It broadly follows the approach set out in the Government Practice Guidance, but incorporates elements of the approach taken in the South Strategic Housing Market Assessment, this being a requirement of the consultant's brief. A "hybrid approach" was taken – one that combined both primary (survey) data and secondary data sources to define housing need. The year used for the base calculation is 2006.

The main figures of the Central 3 Strategic Housing Market Assessment calculation are set out in the following table. The letters given do not correspond directly to those used in the South calculation due to differences in methodology.

Table 2 Housing need calculation for the Central 3 Sub-regional Housing Market Area

Stage	Item	Need	% of hh 2006
Current need (backlog)	A: Total current housing need gross	34,442	5.8%
	B: Of which current occupiers of affordable housing	18,273	3.1%
	C: Backlog need outside the social sector (A-B)	16,168	2.7%
Future need	D: Gross new household formation per annum	11,964	2.0%
	E: % of newly forming households unable to afford in the market	63%	-
	F: New households unable to afford in the market (=DxE)	7,570	1.3%
	G: Existing households falling into need	4,659	0.8%
	H: Total newly arising housing need (=F+G)	12,229	2.0%
Affordable supply	I: Annual supply of social re-lets	10,547	1.8%
Bringing the evidence together	J: Rate of backlog reduction (% per annum)	20%	0.0%
	K: Annual quota of backlog reduction (=CxJ)	3,234	0.5%
	L: Net annual housing need (=K+H-I)	4,916	0.8%

The bottom line figure for net annual housing need in the Central 3 area is 4,916. It is important to note however that the calculation excludes estimates of committed supply and demolitions. This is explored further below.

Current need

The figure is derived from Local Housing Needs Surveys commissioned by each of the seven local authorities in the Central 3 sub-regional Housing Market Area. The Assessment Report states that these surveys captured the various components of current housing need better than any combination of secondary data sources. These surveys were carried out by different consultants, as given here:

- Cannock Chase: Outside (2007);
- Dudley: DCA (2005);
- Sandwell: DCA (2007);
- South Staffordshire: DCA (2007);
- Telford and Wrekin: Nevin Leather Associates (2007);
- Walsall: Fordham (2007);
- Wolverhampton: DCA (2007)

Some of the housing need output from the local studies was dissected and reconstituted in the Strategic Housing Market Assessment work in order to provide comparable figures across the sub region. The Strategic Housing Market Assessment Report acknowledges limitations in using local housing need surveys to inform current housing need. These are: the underlying housing needs were conducted at different times; and the various consultants used differing methodologies in gathering and interpreting the survey results. The view was expressed that, despite these limitations, the evidence provided by the local primary studies to estimate current need was more robust than the evidence available from secondary sources.

The Guidance implies that existing households in need currently occupying social sector dwellings will have their needs met through transfers within the social stock. This assumption is also made in the Central 3 assessment, but rather than “netting these households off” by adding them on the supply side of the calculation as advocated by the Guidance (stage 3) they are instead subtracted from backlog need in stage one of the Central 3 Strategic Housing Market Assessment needs calculation. This variance from the Guidance was adopted because it was felt it made the calculation easier to follow, and made no difference to the bottom-line figure of the calculation. This approach was consistent with the one taken by the South partnership.

Future Need

The approach taken to estimate newly arising need was largely the same as that adopted by the South Partnership. The so-called “cohort method” as set out in Annex B of the Practice Guidance was applied to 2004-based household projections to determine the number of new households likely to form each year. The development of each age cohort was tracked at 5 year intervals and an increase in the size of the cohort was then ascribed to newly forming households; an annual figure was derived by dividing this figure by 5.

An innovation of the Central 3 assessment was to split couple households (married and unmarried) into couples with children and couples without children to help inform particular housing requirements. This was done through data triangulation - by applying percentages by age band (sourced from the 2001 Census data) to future projections.

In line with the approach taken by the South Strategic Housing Market Assessment, newly formed households were matched with income profiles specific to each household type. This used SEH data which showed that newly formed households earn around 67% of all households, and also showed the income distribution (in deciles) for each type of newly forming household. This data was modified by factors derived from CACI Paycheck data to arrive at an approximation of the income profile of newly forming households in each district differentiated by household type.

To determine market entry prices (equated to lower quartile price) by dwelling type and the number of bedrooms, 2006 Land Registry "Price Paid" data was used. Because this dataset does not provide information on the number of bedrooms, it was necessary to model this on the relationship between bedroom number and price distilled from the Rightmove housing offer. Figures for the private rented sector were based on a bespoke dataset compiled from lettings agents across the sub-region. Prices were deflated from the December 2007 price level to the 2006 price level using

regional price trends given by the SEH. This was done to ensure consistency with the period covered by the CACI Paycheck income data.

Each household type was matched with a suitable minimum dwelling requirement before the affordability test was applied. This was done in the same way as the South Strategic Housing Market Assessment Strategic Housing Market Assessment except that couples with children were matched with three-bed houses rather than two-bed houses. The same affordability tests were applied as in the South Strategic Housing Market Assessment (borrowing factors 3.5 and 2.9, and renting factor 25% of gross monthly income). In this way the number of households unable to enter the market was determined.

In estimating existing households falling into need, secondary data approaches were considered, but the choice was made to use output from the local housing need studies instead, as this was felt to be more robust.

Affordable housing supply

Concerning the annual supply of social sector re-lets, the Central 3 Strategic Housing Market Assessment based the figure used in the calculation on two sources: Housing Strategy Statistical Appendix and CORE data. Housing Strategy Statistical Appendix covered re-lets of Council stock to new tenants (that is tenants moving in from outside the social sector rather than tenants transferring from other social sector dwellings). CORE provided figures for RSL re-lets to new tenants per district. These two datasets were added together to provide the total new re-lets per financial year. Similar to the South Strategic Housing Market Assessment, for some districts averages over the last 3 years were used, and for others the latest figure was used when the data showed a definite downward trend in recent years.

Because less than 3% of the stock in the Central 3 area is empty no adjustment was made for this on the supply side of the calculation. In line with the approach taken in South the recycling of intermediate sector affordable dwellings was considered to be negligible and therefore a figure for this was not entered into the calculation.

It was also decided to exclude new build pipeline (committed supply) and future demolitions from the calculation. The rationale for this choice was that these aspects are quite difficult to predict accurately. The Report notes that substantial numbers of social rented flats have been demolished in recent years due to regeneration activity in the Black Country and this, together with Right-to-Buy sales, have led to a year on year decline in the number of social re-lets in the area. It was not clear to what extent these trends would continue in the future. Finally the Central 3 Strategic Housing Market Assessment Report stated that the presentation of housing needs figures stripped of any assumptions concerning future change to the stock would provide a clearer baseline from which to consider appropriate policy responses.

2.3 North

The North sub-regional Housing Market Area covers the 5 districts of East Staffordshire, Newcastle-under-Lyme, Stafford, Staffordshire Moorlands, and Stoke-on-Trent and had a population of circa 295,000 households in 2006.

The North Strategic Housing Market Assessment was carried out by Outside Consultants who produced a final report in April 2008. The approach taken was to consider more than one data source at each stage of the assessment in order to compare and validate analysis. According to the report different datasets corroborate one another and in other cases they appear to be contradictory. To address this, a range of sources were considered alongside local information and stakeholder perceptions to determine those that most closely reflect local housing need.

The top-line housing needs figures are presented in the table below.

Table 3 Housing need calculation for the North Sub-regional Housing Market Area

Stage	Item	Need	% of hh 2006
Current need	A: Total current housing need (gross)	9,984	3.4%
Future need	B: Total newly arising housing need	3,854	1.3%
Affordable supply	C: Affordable dwellings occupied by households in need	2,244	0.8%
	D: Committed supply of new affordable housing	239	0.1%
	E: Units to be taken out of management	639	0.2%
	F: Total affordable housing stock available (=C+D-E)	1,844	0.6%
	G: Annual supply of social re-lets (net)	3,671	1.2%
Final steps	H: Backlog (=A-F)	8,140	2.8%
	I: Rate of backlog reduction (% p.a.)	20%	-
	J: Annual quota of backlog reduction (=HxI)	1,628	0.6%
	K: Net annual housing need (=B+J-G)	1,811	0.6%

The steps in the calculation of the North Strategic Housing Market Assessment differ markedly from those taken in the two assessments reviewed above. In particular backlog need and affordable supply are treated quite differently, as some components of supply are subtracted from current need before the rate of backlog reduction is applied. The approach is examined in more detail below.

Current housing need

The figures used to gauge current housing need stem from local Housing Registers. The Strategic Housing Market Assessment Report notes that there are clear differences between the Registers of each district, for example in the way applicant households have been given priority status. In response an approach was taken that varied from one district to the next, namely:

- To accept the total number on the register as recorded in the 2006/07 Housing Strategy Statistical Appendix Return; in Stafford the total on the register was multiplied by the proportion of households below an established affordability threshold in the district.
- To assume that some of the households on the register will be able to find alternative accommodation in the market, with the portion be discounted being based on an affordability test. This was done using CACI modelled income distribution data for West Midlands and lower quartile house prices, giving an estimate of affordability for each of the

five North Local Authorities; in Stoke-on-Trent it was possible to distinguish between those on the Housing Register that 'must find a home', 'must move soon', 'need to move' and 'want to move'.

- To only count those households on the register defined on the Housing Strategy Statistical Appendix return as being "in a reasonable preference category" – only applied to East Staffordshire, Newcastle-under-Lyme, and Staffordshire Moorlands;

The applicants on each register exclude households already living in social housing and applying for transfers. The Strategic Housing Market Assessment Report states that it is likely that the housing register based estimate for Stafford represents an under-count of the backlog need in the area.

Future Need

The approach to this element also made use of Housing Register data, gauging the rate at which new applications were made and assuming this to be a good indicator for the future. The total numbers of applicants on the Housing Registers in each district during the 2006/07 financial year that remain on the Register at year end were recorded. The report notes that this covers both newly forming households and existing households falling into need. It was also recognised that the level of need varies between applicants. To address this, an affordability test was applied, the same one used to gauge current housing need.

Again, the approach varied between districts due to differences in the availability of data and in the definitions used by each local authority. In East Staffordshire, Newcastle-Under-Lyme, Stafford and Staffordshire Moorlands just under half (49.2%) of those on the Register were estimated to be able to afford in the market and were therefore discounted. The main elements of the approach to determine affordability were:

- CACI data showing income distribution for the West Midlands in 2006 in combination with annual earnings figures from the ONS Annual Survey of Hours and Earnings 2006 (ASHE).
- Land Registry figures 2006/07 provided by CLG Livetable 587 to determine market entry price thresholds for buyers;
- CLG Livetable 734 and Dataspring for RSL and PRS rents in 2005/06 to establish market entry rental thresholds;
- The lower quartile house price for the whole of the North Sub-regional Housing Market Area was calculated, using a weighted mean that took account of the volume of sales in each of the districts;
- Yearly and monthly gross income required for a mortgage on an entry-level property assumes a 100% mortgage of 3.5 times annual income for single income households, and 2.9 times annual income for two person households. For renters the method assumes a rent is affordable if it does not exceed 25% of the gross household income, which is in line with the Practice Guidance. The salary required for a single income household to rent a one bedroom dwelling was a key input into the calculation.

The treatment of Stoke-on-Trent varied from the other districts. The figure for future need in Stoke was derived from the number of applicants in the top two bands (high priority) as this was felt to be a better measure of newly arising need than applying the above affordability calculation. This was not done in the other four districts because their housing register data did not provide clear and comparable priority bandings.

Affordable Housing Supply

The approach here differs significantly from that adopted for the Central 3 and South Strategic Housing Market Assessments. Essentially it consisted of adding the number of affordable dwellings occupied by households in need to the committed supply of new affordable dwellings and subtracting units to be taken out of management. The sources for these components are given here:

- Affordable dwellings occupied by households in need: a combination of Housing Register data, LA and RSL transfer lists, and over-crowding data;
- Surplus stock: Housing Strategy Statistical Appendix; this figure was found to be nil as none of the districts have a vacancy rate greater than 3% of the stock;
- Committed supply of new affordable units: Housing Strategy Statistical Appendix; past activity has been used as an indicator of future activity for affordable housing completions and the figure adopted was an average from the previous four years in order to smooth annual fluctuations;
- Units to be taken out of management: Newcastle-under-Lyme Council supplied information on in that district. Equivalent figures for Stoke-on-Trent were derived from the 2004 Regional Urban Capacity Study, the 2006 'Refresh' study covering Regeneration/Pathfinder Schemes.

The resultant figure was then subtracted from the current housing need figure and then a backlog reduction quota (20% p.a.) was applied to the result. In following this approach the consultant has followed the steps set out in the Practice Guidance quite closely. However the result is difficult to interpret, particularly as households in need occupying social sector dwellings were excluded from the current housing need figure. These households should possibly be included on both the demand and supply side of the equation for them to be properly 'netted off'. It should be noted that the wording of the Guidance is unclear on this issue and therefore open to various interpretations.

To complete the supply side of the calculation the annual supply of social re-lets was provided by the lettings/voids system for providers. Housing Strategy Statistical Appendix data was used for local authority stock and CORE data was used for RSL stock. The average number of social re-lets over the previous three years was used to represent the annual level. Only properties that came up for re-let to a new household were counted. Internal transfers, mutual exchanges and transfers of tenancies to other household members were excluded. The report notes that evidence for intermediate affordable housing units for re-let or re-sale that will result in net reductions to supply is limited, and therefore this element was not included in the housing need calculation.

2.4 West

The West sub-regional Housing Market Area covers the 6 districts of Bridgnorth, Herefordshire, North Shropshire, Oswestry, Shrewsbury, and South Shropshire and had a population of circa 204,000 households in 2006. It is by far the largest sub-region in the West Midlands in terms of area yet it has the smallest population.

As with the North Strategic Housing Market Assessment, the West Strategic Housing Market Assessment was produced by Outside Consultants. Both the North and West Assessments were based entirely on secondary data; however the approach in the housing need calculation of the West sub-region differed from that taken in North. The top-line figures are given in the following table.

Table 4 Housing need calculation for the West Sub-regional Housing Market Area

Stage	Item	Need	% of hh 2006
Current need	A: Homeless households in temporary accommodation	379	0.2%
	B: Overcrowded and in need	5,425	2.7%
	C: Unsuitably housed due to poor condition and in need	5,445	2.7%
	D: Total gross current need (=A+B+C)	11,250	5.5%
Future need	E: New household formation	2,200	1.1%
	F: Proportion of new households unable to afford in the market	73%	-
	G: New households unable to afford in the market (=ExF)	1,601	0.8%
	H: Existing households falling into need	1,007	0.5%
	I: Total newly arising need (=G+H)	2,608	1.3%
Affordable supply	J: Annual transfers within the social rented stock	775	0.4%
	K: Committed additional affordable housing	381	0.2%
	L: Total affordable housing stock available (=J+K)	1,156	0.6%
	M: Annual supply of social re-lets	1,917	0.9%
	N: Annual supply of intermediate sector dwellings	11	0.0%
	O: Future annual supply of affordable housing units (=M+N)	1,928	0.9%
Final steps	P: Backlog (=D-L)	10,094	3.4%
	Q: Rate of backlog reduction (% p.a.)	20%	-
	R: Annual quota of backlog reduction (=PxQ)	2,019	0.7%
	S: Net annual housing need (=R+I-O)	2,699	0.9%

Current housing need

Current housing need was not estimated using Housing Register data as it was in North. Rather the three components of backlog need were calculated separately using a variety of data sources.

- The number of homeless households and those in temporary accommodation was taken from the 2006 Housing Strategy Statistical Appendix return;
- A figure for overcrowded households was generated by applying ONS occupancy rating figures (from the 2001 Census) to the current total number of occupied dwellings given in the 2006 Housing Strategy Statistical Appendix; no estimate was made for concealed households due data limitations and the risk of double counting;
- The number of households living in unfit dwellings was arrived at using 2006 Housing Strategy Statistical Appendix data on stock condition.

An affordability test was applied to the second and third of these components of backlog need. The approach taken was to firstly take the lower quartile house price in each of the Sub-regional

Housing Market Area's 5 districts from Land Registry Price Paid data 2006, and divide these figures by 3.5 to establish the income levels (unique for each district) required for market entry. These income levels were then measured against the household income distribution curve of the whole of the West Midlands region (CACI was the source for this), to determine the share of households unable to afford. These percentages were then applied to the total number of overcrowded households and households living in unfit dwellings to determine the number in need. Market entry for the Private Rented Sector was not tested.

Future Housing Need

New household formation was measured using ONS 2004-based household projections, these being the ones produced by CLG in March 2007. The predicted net growth in household numbers from 2006-2026 was divided by 20 to give an estimate of the number of new households forming annually. The Strategic Housing Market Assessment Report notes that the implications of using net rather than gross household projections is that the level of newly arising need is likely to be underrepresented, but it states that it is prudent to "err on the more cautious side" (pp. 138-139).

The ability of new households to afford was determined using the method used for current housing need, which is described above. The Strategic Housing Market Assessment Report notes that the proportion of new forming households encountering affordability issues is likely to be greater than that amongst existing households, but because there is no data available to inform this aspect, it is not addressed in the calculation.

Existing households falling into need is taken from district information collated in the Housing Strategy Statistical Appendix 2005/06. The number of households accepted as unintentionally homeless and in priority need during the year is taken to represent this component of need.

Affordable Housing Supply

The West Strategic Housing Market Assessment adopted a novel approach to calculating the supply side of the housing needs equation. Firstly the annual number of tenants transferring within the social sector was identified using Housing Strategy Statistical Appendix 2006 data. This combines both local authority transfer lets and Registered Social Landlord lets minus those taking up local authority nominations. This is subsequently termed 'dwellings currently occupied by households in need' in the Strategic Housing Market Assessment Report.

The 2005/06 Outturn figure from the Housing Strategy Statistical Appendix was adopted to provide the calculation with a figure for 'committed additional affordable housing'.

Because empty were found to be less than 3% of the stock in all local authorities nil was entered into the calculation under surplus stock. The study found no evidence that any of the six local authorities had plans to demolish or redevelop stock that will result in net reductions in supply, therefore units to be taken out of management' was also found to be nil.

The above items were added together to provide a figure for 'total affordable housing stock available'.

The average number of lettings between 2003 and 2006, taken from Housing Strategy Statistical Appendix, was calculated to provide a figure for annual supply of social sector re-let. This excluded internal transfers and transfers of tenancies to other household members. Only properties that come up for re-let to a new household are counted. At the time of the study there was little data suggesting an annual flow of intermediate affordable housing units coming up for re-let or re-sale. Herefordshire was an exception, which provided data of 11 units per annum.

The calculation is completed in the same way as that carried out in the North Strategic Housing Market Assessment. As noted above, this differs significantly from the final stages of the calculation in South and Central 3.

2.5 Central 2

The Central 2 sub-regional Housing Market Area covers the 4 districts of Coventry, North Warwickshire, Nuneaton & Bedworth, and Rugby and had a population of circa 242,000 households in 2006.

The Central 2 Strategic Housing Market Assessment was also carried out by Outside Consultants, and the method employed combines elements used in the West and North Strategic Housing Market Assessments. The main components of the calculation are set out in the following table.

Table 5 Housing need calculation for the Central 2 Sub-regional Housing Market Area

Stage	Item	Need	% of hh 2006
Current need	A: Total current housing need (gross)	7,798	3.2%
Future need	B: Total newly arising housing need	2,960	1.2%
	C: Annual transfers within the social rented stock	2,369	1.0%
	D: Committed additional affordable housing	333	0.1%
Affordable supply	E: Units to be taken out of management	319	0.1%
	F: Total affordable housing stock available (=C+D-E)	2,383	1.0%
	G: Annual supply of social re-lets	2,907	1.2%
	H: Backlog (=A-F)	5,415	2.2%
Final steps	I: Rate of backlog reduction (% p.a.)	20%	-
	J: Annual quota of backlog reduction (=HxI)	1,083	0.4%
	K: Net annual housing need (=B+J-G)	1,136	0.5%

Current housing need

The Strategic Housing Market Assessment found Housing Registers to be the best sources of data for identifying current housing need. The total number of applicants on the Register of each district was reduced by the share calculated to be able to afford in the market. The affordability calculation applied was identical to that applied in the West Strategic Housing Market Assessment and in the North Strategic Housing Market Assessment (future need only). CACI income distribution data for the Region was applied to local lower quartile prices using an income multiple of 3.5. This method provided a number for current need excluding those already in the social sector. A breakdown into the various types of need (unsuitable and substandard housing, overcrowding, homelessness etc) was not provided.

Future housing need

The same approach was taken as that in North. To reiterate, use was made of Housing Register data, gauging the rate at which new applications were made in 2006/07 and assuming this to be a good guide for the future. This produced figures representing both newly forming households and existing households falling into need. Outside's usual method for determining affordability was then applied (detailed above), reducing the initial Housing Register number by between 56% (Nuneaton and Bedworth) and 68% (Rugby) to arrive at total figures for annual newly arising need in each district.

Affordable housing supply

The approach used to estimate affordable housing supply in the Central 2 Sub-regional Housing Market Area was the same as that used in West. The total affordable housing stock available was estimated from the following sources:

- Annual number of tenants transferring within the social sector was identified using Housing Strategy Statistical Appendix 2006/07 data. The Strategic Housing Market Assessment Report labelled this 'dwellings currently occupied by households in need';
- There was found to be no surplus stock because the share of empty properties was lower than 3% in all four districts;
- The average annual affordable new build outturn over 4 years (2003/04 – 2006/07) provided a figure for the committed supply of new units;
- Demolitions figures were taken from the 2004 Regional Urban Capacity Study with the exception of Coventry where more detailed and up to date figures were made available by the City Council.

The average number of lettings between 2004/05 and 2006/07, taken from Housing Strategy Statistical Appendix, was calculated to provide a figure for annual supply of social sector re-let. This excluded lettings to transferring tenants. There was no information suggesting intermediate sector units were being recycled so this element of affordable supply was taken to be nil.

The calculation was completed in the same way as in the North and West Strategic Housing Market Assessments. As noted above, this differs markedly from the final stages of the calculation in South and Central 3.

2.6 Central 1

The Central 1 sub-regional Housing Market Area covers the 4 districts of Birmingham, Lichfield, Solihull, and Tamworth and had a population of circa 557,000 households in 2006.

The Central 1 Strategic Housing Market Assessment was carried out by Outside Consultants and the approach combined elements of the North, West and Central 2 Strategic Housing Market Assessments. The main components of the area's housing need calculation are shown in the table overleaf:

Table 6 Housing need calculation for the Central 1 Sub-regional Housing Market Area

Stage	Item	Need	% of hh 2006
Current need	A: Total current housing need (gross)	22,091	4.0%
Future need	B: Total newly arising housing need	8,907	1.6%
Affordable supply	C: Annual transfers within the social rented stock	3,465	0.6%
	D: Committed additional affordable housing	1,153	0.2%
	E: Units to be taken out of management	518	0.1%
	F: Total affordable housing stock available (=C+D-E)	4,099	0.7%
	G: Annual supply of social re-lets	5,909	1.1%
	H: Annual supply of intermediate sector dwellings	15	0.0%
	I: Future annual supply of affordable housing units (=G+H)	5,924	1.1%
	J: Backlog (=A-F)	17,992	3.2%
Final steps	K: Rate of backlog reduction (% p.a.)	20%	-
	L: Annual quota of backlog reduction (=JxK)	3,598	0.6%
	MK: Net annual housing need (=B+L-I)	6,581	1.2%

Current housing need

Local housing registers were used to assess current housing need. In three districts (Birmingham, Lichfield and Solihull) only those households on the register that were allocated housing need points or were contained in a priority banding were taken forward. Equivalent data was not available in Tamworth necessitating a different approach – that adopted in the North Strategic Housing Market Assessment. The total number on the Register was reduced by the CACI/Land Registry based affordability calculation set out previously in this report.

Future housing need

Housing Registers were also used to generate figures for future housing need. The total number of applicants on the Housing Registers in each district during the 2006/07 financial year that were still on the Register at the year-end was taken forward in the calculation. As with current housing need priority banding was used to distinguish households joining the Register who were in need from those who were not in need. This was done in Birmingham, Lichfield District and Solihull. In Tamworth this distinction was made by applying the same approach to determining affordability that is described above.

Affordable housing supply

The approach to the supply side was largely identical to that adopted for the North, West and Central 2 Strategic Housing Market Assessments. The sources used were:

- Lettings to existing social housing tenants (i.e. social sector transfers): Housing Strategy Statistical Appendix and CORE data 2003/04 – 2006/07 (annual averages); the use of CORE data to cover Registered Social Landlord transfers is a new element not used in North, West and Central 2 Strategic Housing Market Assessments.
- Surplus stock: Housing Strategy Statistical Appendix 2006/07 data on empty dwellings; found to be less than 3% in all districts and therefore taken to be nil.
- Committed supply of affordable units: Housing Strategy Statistical Appendix 2006/07 data showing average outturn over 4 years (2003/04-2006/07);
- Units to be taken out of management: various sources for each local authority, specifically:

- Appendix 1 table 8 West Midlands RSS for demolitions in Birmingham, modified by assumptions about the likely share of affordable dwellings taken from Housing Strategy Statistical Appendix;
- Bespoke data provided by Solihull MBC.

The above input was combined to provide a figure for 'total affordable housing stock available'.

The annual supply of lettings to new tenants was determined using Housing Strategy Statistical Appendix 2006/07 data and a three year average was used to smooth out oscillations. Evidence of the recycling of small numbers of intermediate sector dwellings was provided by Lichfield, Tamworth and Solihull, and this was added to the social sector re-let supply.

In common with North, West and Central 2 a distinction was made between 'total affordable housing stock available' and 'future annual supply of affordable housing', with these two supply components being entered into the calculation at a different place in the final stage of the calculation. This is the approach advocated by the Guidance.

3. Comparing Strategic Housing Market Assessment results

This Section compares the housing needs figures produced in each of the six sub-regional Housing Market Areas. In doing so attention is drawn to inconsistencies and divergent approaches, resulting in caveats and ‘health warnings’ concerning the way the figures can and should be interpreted and compared.

Five of the six Strategic Housing Market Assessments were produced since the publication of latest CLG Practice Guidance in August 2007, the exception being the South Strategic Housing Market Assessment which followed the draft Guidance produced by the Office of the Deputy Prime Minister in 2005 as well as the Guidance for Local Housing Market Assessments of 2000. This Strategic Housing Market Assessment was subsequently updated in 2008.

3.1 Comparison

The following table compares the main components of need in each of the Strategic Housing Market Assessments. While these main components are generally comparable with each other, the intermediate steps taken in each calculation are not due to the divergence of methodological approaches.

Table 7 Comparison of housing need figures across the region

	South HMA	C3 HMA	North HMA	West HMA	C2 HMA	C1 HMA	Total
Annual backlog reduction quota	2,596	3,234	1,628	2,019	1,083	3,598	14,158
- as % of households 2006	0.7%	0.5%	0.6%	1.0%	0.4%	0.6%	0.6%
Newly arising need	4,031	12,229	3,854	2,608	2,960	8,907	34,589
- as % of households 2006	1.2%	2.0%	1.3%	1.3%	1.2%	1.6%	1.5%
Annual affordable supply	3,617	10,547	3,671	1,928	2,907	5,924	28,594
- as % of households 2006	1.0%	1.8%	1.2%	0.9%	1.2%	1.1%	1.3%
Net annual housing need	3,010	4,916	1,811	2,699	1,136	6,581	20,153
- as % of households 2006	0.9%	0.8%	0.6%	1.3%	0.5%	1.2%	0.9%

By summing the bottom line figures of the six Strategic Housing Market Assessments we arrive at a total figure for net annual housing need in the West Midlands: 20,153. The following observations can be made:

South

The adoption of an annual backlog reduction period of five years in the 2008 update work has brought the South Strategic Housing Market Assessment into line with the other five sub-regional Assessments. The main components shown in the table are all quite close to the regional average when expressed as a percentage of the total number of households in the area.

Central 3

The relative figures for newly arising need and affordable supply are higher than in any of the other Strategic Housing Market Assessments. Because these effectively cancel each other out, the resultant bottom line figure for net housing need lies close to the regional average.

North, West, Central 2 and Central 1

Net annual housing need in the North Sub-regional Housing Market Area is relatively low compared to most of the other sub-regions, although none of the figures on both the supply and demand sides of the equation are particularly salient. The West Strategic Housing Market Assessment had the lowest relative level of affordable housing supply, and the highest level of backlog need resulting in the highest relative level of net annual housing need. The calculation in the Central 2 Strategic Housing Market Assessment shows low levels of need – both backlog and newly arising, resulting in the lowest relative net annual housing need – both relative and absolute. Central 1 lies at the opposite end of the scale with the highest bottom line figure in absolute terms and second only to West in relative terms. This is largely due in particular to rather low levels of supply.

3.2 The effect of differing approaches

The detailed description of the methods employed to calculate housing need in each of the 6 Sub-regional Housing Market Areas reveals a multitude of differences in the approaches taken. Often different sources were used and even when the same source was used, there were more often than not key differences in the way these sources were applied.

There were considerable differences between the approaches taken to measure current housing need. All Assessments used Housing Register data to do this with the exception of Central 3 which made use of outputs from district level Housing Needs Assessments. Of the Assessments using Housing Register data, the way this data was used differed considerably between sub-regions, and also between districts within sub-regions due in part to the quality of the information contained in each Housing Register. While Housing Strategy Statistical Appendix output was applied in some cases, in others there was a more detailed filtering of the Registers, making use of bandings and other information contained in the raw data. These inconsistencies reduce the comparability of the outputs in a strict scientific sense.

Concerning newly arising need there was consistency in the approach taken in the South and Central 3 Assessments, as both followed the method set out in Appendix B of the Guidance. The other Assessments, those carried out by Outside Consultants, took an entirely different approach, one based on recent changes in Housing Register applications which were used to estimate future flows. It is not possible to quantify the effect of these different approaches on the outputs produced short of re-applying them anew to all sub-regions.

There were also key differences in the approaches taken to measuring affordability. The Assessments carried out by Outside Consultants compared the income distribution curve of all households in the region (provided by CACI Paycheck data) to local average house prices (Land

Registry was the source) to determine the percentage of households unable to afford in the market. This was applied to newly forming households and in some cases to households currently in need (backlog). Newly forming households were presumed to have the same income distribution as all households, and market entry into the Private Rented Sector was not measured.

In the South Strategic Housing Market Assessment a more sophisticated approach was taken to gauging income making use of output from the Survey of English Housing data. This estimated the income distribution specific to newly forming households, and also specific to each type of household. This was then laid against local house prices which were estimated using housing offer rather than actual sales. Again, market entry into the private rented sector was not analysed.

The Central 3 Assessment employed the same approach as South to gauge income distribution but used Land Registry data for house prices. Prices were differentiated by bedroom size and each household type was matched to a lower quartile price of an appropriately sized house. Furthermore affordability was tested against lower quartile market entry price levels of private rented accommodation. Because the cost of private renting was found to be lower than that of owner-occupation, it was this affordability test that determined the overall number of households unable to afford in the market.

Turning now to the supply side of the calculation, there were also important differences in the approaches taken. Firstly, there is the treatment of those transferring within the social sector. These households were equated to 'dwellings currently occupied by households in need' in the Assessments carried out by Outside Consultants and they were included as part of committed supply (termed total 'affordable stock available'). Because this number is subsequently deducted from backlog need to generate net backlog, the effect will have been to reduce overall need, deflating the bottom line figure produced by the calculation.

This approach was not taken in South and Central 3 – those transferring within the social sector were left out of the calculation all together. The reason for the divergent approaches can be traced to different interpretations of the Practice Guidance with regard to 'netting-off' those in need who are already housed in social rented accommodation.

The key passage of the Practice Guidance is on page 47 which reads: "Partnerships should assess the figures identified in step 1 to estimate the number of dwellings vacated by current occupiers that are fit for use by other households in need. This is an important consideration in establishing the net levels of housing need (see Stage 5) as the movement of these households within affordable housing will have a nil effect in terms of housing need".

The Guidance does not provide additional explanation to clarify the passage, and differing interpretations have been made which have had a serious impact on the comparability of outputs across the region.

There were other notable differences in the treatment of the supply side of the calculation. The South Strategic Housing Market Assessment incorporated an annual estimate of committed

(future) supply which was added to re-let supply to arrive at total affordable housing supply. This contrasted with the approach taken in the Outside Assessments, which subtracted committed supply from backlog need prior to this being converted into a backlog reduction quota. The different approaches are illustrated in the following box:

Figure 8 Different approaches to the housing needs calculation

South
1 Total backlog ÷ 5 (Reduction period) = Annual backlog quota
2 Annual backlog quota + Newly arising need = Gross annual need
3 Committed supply + Re-let supply = Total supply
4 Gross annual need - Total supply = Net annual (unmet) need
North, West, Central 2 & Central 1
1 Total backlog - Committed supply = Net backlog
2 Net backlog ÷ 5 (Reduction period) = Annual backlog quota
3 Annual backlog quota + Newly arising need = Gross annual need
4 Gross annual need - Re-let supply = Net annual (unmet) need
Central 3
1 Total backlog ÷ 5 (Reduction period) = Annual backlog quota
2 Annual backlog quota + Newly arising need = Gross annual need
3 Gross annual need - Re-let supply = Net annual (unmet) need

The approach taken in North, West, Central 2 and Central 1 - subtracting committed supply from total backlog before the resultant figure is converted into an annual reduction quota - is in line with the Practice Guidance. In Central 3 a figure for committed supply is not entered into the calculation because a 'policy-off' approach is considered to be best.

In treating committed supply the same as re-let supply the approach taken by South diverges from the Practice Guidance. Had committed supply been treated in the same way as for North, West, Central 2 and Central 1 then the bottom line figure for net annual housing need would have been 3,502 instead of 3,010. This is because committed supply would have been divided by 5. However it could be argued that the committed supply figure given (615) is already an annual one and therefore should not be divided by 5 at all.

The above points to confusion around the approach to be taken and this is largely due to the absence of a clear definition of committed supply in the Practice Guidance, and the absence of any explanation of the role it is intended to play within the housing needs calculation. This opens the door to differences of interpretation.

The South Strategic Housing Market Assessment based an estimated of future supply on new build target programmes and this can be viewed as a 'policy-on' approach. The Strategic Housing Market Assessments in North, West, Central 2 and Central 1 estimated future supply by projecting past completions forward. This too is a 'policy-on' approach, except that the number was divided by 5, reducing its impact on the bottom line of the calculation.

An alternative interpretation of committed supply is that it should only cover new affordable dwellings that are certain to be delivered in the immediate future (as opposed to the medium term future), for example by only counting homes that are already under construction. This would in effect represent a 'policy-off' scenario as any future changes in policy or market conditions would make no difference to the picture presented. The following table presents 'policy-off' figures for all sub-regions, as the committed supply element has been removed from all of them.

Table 9 Net annual housing need with 'policy-off'

	South HMA	C3 HMA	North HMA	West HMA	C2 HMA	C1 HMA	Total
Net annual housing need	3,625	4,916	2,050	3,080	1,150	7,216	22,037
- as % of households 2006	1.0%	0.8%	0.7%	1.5%	0.5%	1.3%	1.0%

The figures above are a better basis for comparison than those presented in table 7. It shows annual unmet need after all assumptions concerning future new build supply have been stripped from the calculation. The total for the West Midlands Region is just over 22,000. In relative terms unmet need is lowest in the Central 2 sub-region and highest in the West sub-region.

4. The Cambridge study

The Cambridge Centre for Housing and Planning Research produced a study titled 'Household Projection Based Estimate of Housing Demand and Need in the West Midlands Region 2006-26: Unconstrained', which is part of the evidence base for the Phase 2 Revision of the West Midlands RSS. The first draft was produced in June 2007 and the final report, which is reviewed here, is dated 29 January 2008.

The Cambridge study is a top-down approach which first calculates figures for the West Midlands as a whole before dividing this among sub-regions and local authority districts in a subsequent step. It is limited to an estimation of newly arising need and demand between the base year 2006 and the end year 2026. It does not look at levels of current need and demand in any way, and the figures produced are therefore exclusive of backlog reduction.

4.1 Method

The methodology utilised ONS 2004-based household projections, which were derived from 2004-based population projections prepared by the Government Actuary's Department. The household projections were arrived at through the application of past trends concerning household formation, household size and migration, both interregional and international.

The household projections give the number of net additional households expected in the West Midlands between 2006 and 2026 (371,000) split by household type (married couples, cohabiting couples, lone parents, other multi-person households and one-person households) and by age band. To divide this net increase between the market and social sectors the CCHPR:

- took the market:social tenure split of households by type and age from the Survey of English Housing (SEH, 2003/04, 2004/05, and 2005/06).
- rolled the base year proportions forward to 2026 by applying them to the household projections, assuming that the proportionality of tenure within each household type-age cluster would remain static.

In this way the net increase in households in each sector is derived. The method recognised that the net increase in occupied main residences is not necessarily the same as the net increase in the housing stock. Adjustments were therefore made for second homes, vacancies, demolitions and Right-to-Buy sales. For example the CCHPR Report stated that second homes are market-determined, and do not directly affect the social sector. However a reduction in vacancies in either sector would imply that the needed increase in the stock in that sector is smaller than the projected increase in households. Concerning Right-to-Buy a national estimate for future sales was applied pro rata to the West Midlands. Estimated projections for demolitions were provided by local authorities via the Regional Assembly. As with Right-to-Buy sales, these resulted in a significant boost to the number of affordable dwellings that needed to be provided in the future – to compensate for losses.

In a subsequent step the requirements for intermediate housing were modelled, as this could not be done with the methodology used to generate the social-market sector split. Instead an affordability calculation was made based on the “user cost” of buying a home at the lower quartile price with a 90% mortgage and an affordability threshold of 30% of net income. Only newly forming households, estimated to be 35,000 per annum in the West Midlands, were considered candidates for intermediate sector housing. The income distribution of these households was derived from the Survey of English Housing. The approach contained various assumptions about the tenure choices households would make.

The final part of the CCHPR modelling was to distribute the regional figures down to local/unitary authority level. Firstly household projections were the basis for a pro rata distribution of the market sector housing requirement. Adjustments are then made for Right-to-Buy sales and vacant dwellings. Those in the intermediate sector were subsequently apportioned using the number of households in each area under the age of 45 with incomes corresponding to the intermediate range. The Report does not set out how the affordable housing requirement is broken down by local authority, or whether account was taken of likely differences in the number of demolitions in each area.

4.2 CCHPR Outputs

The main elements of the calculation concerning the split between market and social sectors for the West Midlands as a whole are set out in the following table. The model estimates future need for affordable housing in the region to be 9,700 per annum between 2006 and 2026.

Table 10 CCHPR Estimate of Housing Demand and Need in the West Midlands 2006-26

	Market sector	Social sector	Total
Net increase in households	308,000	63,000	371,000
Second homes	10,000	0	10,000
Vacant dwellings	9,000	0	9,000
Offset to loss of re-lets due to past RTB sales	-60,000	60,000	0
Net increase in dwelling stock to meet newly arising need	267,000	123,000	390,000
Replacement of losses (demolitions)	10,000	70,000	80,000
New provision required from new build & conversions	277,000	193,000	470,000
Annual average	13,900	9,700	23,500
Percentage shares	59%	41%	100%

The next table presents the region-wide outputs for the intermediate sector.

Table 11 Three-sector breakdown of Net Housing Demand and Need

	Market sector	Intermediate sector	Social sector	Total
Whole period (20 years)	227,000	60,000	39,000	326,000
Annual average	11,350	3,000	5,150	19,500
Percentage shares	58%	15%	26%	100%

When comparing tables 10 and 11 it is clear that the intermediate sector requirement takes from both the market and social sectors. According to the official definition the intermediate sector is part of the affordable sector, fitting between social renting and the market entry price level. The

explanation as to why the intermediate sector has taken from the market sector in the CCHPR calculation is that some households in the market sector are currently paying more than 30% of their net income to access owner occupation.

Table 11 shows an annual average of 5,150 new social sector dwellings, versus 9,700 in table 10. The Cambridge report explains that this is because the figures in table 11 are based on provision to meet only newly arising need, net of demolitions, which reduces the 20-year requirement to 103,000. This also explains the discrepancy in the total column on the right. In addition, the report explains, some social sector households from table 10 are now in the intermediate sector. If these tenants in the income range for intermediate housing were included in the social sector, the intermediate sector would be between 8% and 9% of the total.

The next table presents the final figures broken down to sub-regional Housing Market Area level, with the Central Sub-regional Housing Market Area broken into its three constituent parts.

Table 12 Estimate of Demand and Need in the Market, Intermediate and Social Sectors by Sub-regional Housing Market Area

		South HMA	C3 HMA	North HMA	West HMA	C2 HMA	C1 HMA	Total WM
Social sector	2006-2026	22,400	26,400	10,700	10,100	9,600	23,600	102,800
	Average p.a.	1,120	1,320	535	505	480	1,180	5,140
	% share	22%	34%	29%	21%	25%	27%	26%
Intermediate sector	2006-2026	13,900	11,000	4,000	5,700	6,400	19,000	60,000
	Average p.a.	695	550	200	285	320	950	3,000
	% share	14%	14%	11%	12%	17%	21%	15%
Market sector	2006-2026	63,500	41,100	22,600	31,300	22,200	46,400	227,100
	Average p.a.	3,175	2,055	1,130	1,565	1,110	2,320	11,355
	% share	64%	52%	61%	66%	58%	52%	58%
All sectors	2006-2026	99,800	78,500	37,300	47,100	38,200	89,000	389,900
	Average p.a.	4,990	3,925	1,865	2,355	1,910	4,450	19,495
	% share	100%	100%	100%	100%	100%	100%	100%

4.3 Comparing the Cambridge results with Strategic Housing Market Assessment outputs

As explained above the CCHPR study disregards backlog need in focusing exclusively on the future requirement for housing to meet newly arising demand and need in the market and affordable sectors. By definition the Strategic Housing Market Assessment housing need calculations only cover affordable housing requirement, and the intermediate sector is defined as being a sub-set of affordable housing.

It is therefore only appropriate to compare the sum of intermediate and social sector need from the Cambridge study to the newly arising component of need in the Strategic Housing Market Assessment reports. This is done in the following table.

Table 13 Comparison of CCHPR and Strategic Housing Market Assessment outputs

Annual need	South HMA	C3 HMA	North HMA	West HMA	C2 HMA	C1 HMA	Total WM
SHMA: newly arising need	4,031	12,229	3,854	2,608	2,960	8,907	34,589
SHMA: supply of social relets	3,002	10,547	3,671	1,928	2,907	5,924	27,979
SHMA: need minus relets	1,029	1,682	183	680	53	2,983	6,610
CCHPR: social + intermediate	1,815	1,870	735	790	800	2,130	8,140

The amount of newly arising need calculated in the Strategic Housing Market Assessments is more than four times the amount of new affordable housing required according to the Cambridge study. Because the approach taken in the Cambridge study is essentially a forward projection of the current tenure split it could be argued that this is more of a reflection of current available stock than of the affordability situation confronting newly forming households.

Implicit in the Cambridge approach is a certain level of equilibrium between supply and demand in the affordable sector, with the supply component being chiefly made up of social sector re-lets. For this reason the annual re-let figure supplied by each Strategic Housing Market Assessment has been deducted from newly arising need in the table above to provide a second figure for comparison. The aggregate regional total of need calculated in the Strategic Housing Market Assessments following subtraction of re-let supply is 6,610, which is 20% lower than the CCHPR figure.

This is at best an awkward comparison due to the fundamentally different nature of what is actually being measured, and due to crucial differences in the approaches taken to generate the figures.

Because social sector re-lets serve both those in backlog need as well as newly arising need it is impossible to separate the two fully. To circumvent this the following table presents the bottom line figures produced by the six Strategic Housing Market Assessments and compares these to the Cambridge figures after addition of annual backlog reduction quota figures from the Strategic Housing Market Assessments. As in table 11 the CCHPR figures are the sum of social sector and intermediate sector need. The Strategic Housing Market figures are the 'policy-off' ones presented in table 9.

Table 14 Comparison of CCHPR and Strategic Housing Market Assessment outputs (2)

	South HMA	C3 HMA	North HMA	West HMA	C2 HMA	C1 HMA	Total WM
SHMA Net annual housing need	3,625	4,916	2,050	3,080	1,150	7,216	22,037
CCHPR + SHMA backlog reduction	4,411	5,104	2,363	2,809	1,883	5,728	22,298

The figures provided in this table provide a more robust basis for comparison between the 'bottom-up' (Strategic Housing Market Assessment) outputs and the 'top-down' Cambridge ones, with the results lying extremely close together – the differences is as little as 1.2%.

Despite this it should be remembered that all Strategic Housing Market Assessments ignore the effect of future Right-to-Buy sales, and if this was corrected for the two figures would diverge once more. Due to the extensive methodological differences highlighted above it is not possible to state with any degree of certainty as to whether the remarkable similarity of the (modified) figures is the result of the accuracy and validity of both methods, or whether it is simply a coincidence.

5. Conclusions

5.1 Strategic Housing Market Assessment outputs

Net annual housing need in the West Midlands is 20,153 according to the combined results of the region's six Strategic Housing Market Assessments. To get to this figure the main components of the calculation are: annual backlog reduction quota (14,158) plus newly arising need (34,589) minus annual affordable housing supply (28,594).

Relative levels of net annual housing need varied between sub-regions, from 0.5% of the current number of households in the Central 2 Sub-regional Housing Market Area to 1.3% of the current number of households in the West Sub-regional Housing Market Area.

Stripping assumptions about future supply from the housing needs calculation provides a better basis for comparison, as this represents the position under a 'policy-off' scenario. This has been done in the following table, giving a total of 22,037 annual unmet need for the West Midlands.

Table 9 Net annual housing need with 'policy-off'

	South HMA	C3 HMA	North HMA	West HMA	C2 HMA	C1 HMA	Total
Net annual housing need	3,625	4,916	2,050	3,080	1,150	7,216	22,037
- as % of households 2006	1.0%	0.8%	0.7%	1.5%	0.5%	1.3%	1.0%

5.2 Deliverability

Strategic Housing Market Assessments measure housing need and the Practice Guidance does not stipulate that the figures produced will need to be deliverable. Steep and continual price rises in the decade to 2007 resulted in newly forming households finding it increasingly difficult to afford open market housing therefore high levels of housing need were measured in the recently completed Strategic Housing Market Assessments. Over the same period the affordable housing stock has diminished considerably, resulting in fewer re-lets becoming available. Now, even with a step change in new build activity, there is no realistic chance that current levels of need will be fully met.

Given that unmet need is far higher than what is deliverable on the ground Strategic Housing Market Assessments are of little use when it comes to determining the optimal share of affordable new builds to be targeted. Instead the issue of tenure split has become more a matter of project viability, and viability assessments have assumed greater importance in supplying the evidence base to inform this issue.

Having quantified the level of unmet need, the next objective of Strategic Housing Market Assessments is to present a qualitative picture, to show what types of households are in greatest need and what types of dwellings are required to meet need where it is most acute. This

information is important to guide effective policy responses including the targeting of resources. It is an issue that will be examined in stage 2 of the research.

5.3 Comparing with the Cambridge study

A direct comparison between the results of the Cambridge Centre for Housing and Planning Research study 'Household Projection Based Estimate of Housing Demand and Need in the West Midlands Region 2006-26' and those of the six Strategic Housing Market Assessments is not possible because the studies are not measuring the same thing. The CCHPR study models a tenure split between the market and affordable sectors in the future, taking account of projected increases in the number of households. It is therefore concerned with newly arising households and ignores any backlog need. The method is based squarely on the current tenure of households, which is essentially determined by the current stock tenure breakdown rather than by what is required.

In contrast to the Cambridge study, the housing needs calculations in Strategic Housing Market Assessments are essentially estimates of the number of households unable to access market housing. Backlog need is a key element. Because it is impossible to separate backlog need from newly arising need when it comes to apportioning re-let supply, the best way to compare the CCHPR results with Strategic Housing Market Assessment output is to add backlog to the CCHPR bottom line. When this is done the following regional figures are produced for affordable housing requirement, which includes social sector and intermediate sector dwellings:

- CCHPR + Strategic Housing Market Assessment backlog reduction: circa 22,300 per annum;
- Strategic Housing Market Assessment Net annual housing need with 'policy-off': circa 22,000 per annum.

Although these figures are remarkably similar, this is likely to be little more than coincidence given the diametrical difference between the approaches taken to generate them.

5.4 The effect of differing approaches

The study has revealed significant differences in methodologies and approaches taken in the six Strategic Housing Market Assessments. These differences can be grouped into three types:

1. Different sources used to generate the various components of the needs calculation;
2. Variations in the way sources have been used, including detailed technical aspects and thresholds;
3. Fundamental differences in the treatment of key elements of the need calculation.

The various sources used are detailed in Section 2 and all differences are too numerous to list fully here. Concerning current housing need for example South, North, Central 2 and Central 1 made use of Housing Register data whilst Central 3 used input from Local Housing Needs Surveys and

West used a combination of secondary data sources, most notably Housing Strategy Statistical Appendix and ONS 2001 Census data. Future need was estimated using household projections in South, Central 3 and West, while an analysis of Housing Registers furnished the input for North, Central 2 and Central 1. Housing Strategy Statistical Appendix was used as a source of data for the supply side of the equation in all Strategic Housing Market Assessments, although this was augmented by CORE data in Central 3. Various sources were used for new build pipeline and demolitions, ranging from bespoke local datasets to the more standardized and nationally required Housing Strategy Statistical Appendix Returns.

The second type of differences between approaches concerns variations in the way sources have been used, including more detailed technical aspects of application and thresholds. In many cases these variations were minor – for example making use of three-year averages of Housing Strategy Statistical Appendix data to smooth the results or taking the last available year where upward or downward trends were felt to be an issue. Even when the same sources were used, this is not to say that these were handled in a consistent way by the consultants concerned.

Many of the identified differences can be considered to be major ones which could potentially have a significant effect on the outputs generated. For example the quality, reliability and detail of information provided by Housing Registers was found to vary considerably from one local authority to the next, and these inconsistencies were widely reported on in the Strategic Housing Market Assessment reports.

Another example concerns approaches to gauging affordability. In South and Central 3 the threshold for market entry was taken to be the lower quartile price of private renting. Furthermore the income distribution of each type of newly forming household was measured against corresponding dwelling types and sizes to determine ability to afford. In North, West, Central 2 and Central 1 the affordability test was more straight forward, resting on the comparison of local lower quartile prices (for buyers, not renters) to income distribution figures for the West Midlands region as a whole. Differences of this nature make a like for like comparison between the outputs generated impossible in a scientific sense. The divergent approaches taken mean it is impossible to state clearly the extent to which differences in output stem from differences in methodology or from real differences on the ground.

Several fundamental differences in the treatment of key elements of the need calculation have been identified. This includes the decision to omit new build pipeline and demolition figures from the supply side of the Central 3 calculation, which sets it apart from the other Strategic Housing Market Assessments. Indeed the analysis has highlighted significant differences in interpretation of the Practice Guidance with regard to the treatment of committed supply which has had a substantial effect of the bottom-line numbers generated.

A second example is the method of subtracting social sector transfer lettings from current housing need in the North, West, Central 2 and Central 1 Strategic Housing Market Assessments, which is

a totally different approach to that taken in the South and Central 3 Strategic Housing Market Assessments.

Some of the differences identified stem from the availability of data, from the apparent preferences of individual consultants and possibly also from the direction of the various Steering Groups. Others differences however can be put down to varying interpretations of the Practice Guidance. This is particularly true with regard to the two areas of fundamental difference highlighted above – in the treatment of:

- Committed supply, and
- households in need occupying social sector dwellings.

It does not help that key parts of the description of the housing need calculation in the Practice Guidance are not clearly worded or sufficiently expanded upon, and this opens the door to differences in interpretation. As highlighted above some of these differences can be quite fundamental in nature.

5.5 Main conclusion

The Strategic Housing Market Assessments under review are of the ‘first generation’ and therefore methodologies were being developed for the first time during the execution of the Assessments. This has clearly been a learning process and one that is not yet at an end - approaches will need to be further refined when future update work is carried out. In particular the two areas of fundamental difference highlighted above deserve special attention when it comes to deciding a more uniform interpretation of the Practice Guidance.

Due to the complexity of the calculations and the fact that there are innumerable differences of all three types across each of the Strategic Housing Market Assessments it is not possible to pin down the exact effect of these differences in approach on the final figures produced.

It is therefore the conclusion of this study that, due to the significant differences in the approaches taken to measure housing need, the results produced by the six Strategic Housing Market Assessments can not be considered to be truly comparable. They are therefore of limited use to the Regional Assembly in providing a robust quantitative picture of need for the West Midlands as a whole. Due to the differences in methodologies one must either accept the Strategic Housing Market Assessment outputs at face value or consider a new ‘top down’ study in which a consistent methodology is applied to all parts of the region.