West Midlands Regional Assembly – Regional Planning Body

This report has been prepared on behalf of the West Midlands Regional Assembly, the Regional Planning Body, as technical advice to inform the Regional Spatial Strategy Revision process. It is one of a suite of technical reports commissioned to inform the development of spatial policy as part of Phase Two of the Revision of the West Midlands Regional Spatial Strategy.

Further information and details of the West Midlands Regional Strategy and the Revision process can be found on our web site www.wmra.gov.uk

Study into the Identification and Use of Local Housing Market Areas for the Development of the Regional Spatial Strategy

Final Revised Technical Report

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Final Revised Technical Report

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WEST MIDLANDS REGIONAL ASSEMBLY- REGIONAL PLANNING BODY

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Executive Summary

Introduction

ECOTEC Research and Consulting Limited (ECOTEC) have prepared this technical report at the request of the Regional Spatial Strategy Task Group and the West Midlands Regional Assembly's Regional Advisory Group (RAG). The report is the final revised technical report of a study commissioned to provide advice to the Regional Planning Body, on identifying and using local housing market areas and will feed into the process of the current Phase 2 revision of the RSS.

The report has built upon and drawn together the initial findings and discussions, and input from the RSS Task Group and the Regional Advisory Group, to identify housing market areas to feed into the RSS Review. This report presents the technical findings undertaken by ECOTEC into identifying local housing market areas. It does not provide any recommendations to, or reflect the views of, the West Midlands Regional Assembly, nor the organisations represented by the members of the Steering Group.

Requirements of the Study

The key requirement of this study has been to advise the Regional Planning Body on the local housing markets which operate in the West Midlands, to inform the development of sub-regional planning policies for the RSS revision. The data produced in undertaking the research has enabled an analysis to be carried out, which has determined the inter-relationship of the local housing markets areas at the strategic and local level. This will enable the Regional Planning Body to ensure that RSS policies will deliver the investment and growth strategies that are being developed across the Region.

Rationale for Identifying Local Housing Market Areas

In defining housing markets areas, the adopted rationale is based on a series of different housing market hierarchy areas operating at different levels across the region. These operate as follows:

- Strategic Housing Market Areas – four areas defined for the Regional Housing Strategy;
- Local Housing Market Areas – for purposes of developing RSS polices for the implementation of local planning, regeneration and housing issues.

Key Findings and Conclusions

Our approach to identifying local housing market areas has primarily involved the analysis of travel to work data, to determine key employment areas and the pattern of movement to and from them. This analysis has aided the identification of overlapping housing markets where people travel long distances to work, and relatively small self –contained markets where people travel relatively short distances to work.

The analysis identified 36 local housing market areas operating at different levels of size and catchment area:

- Atherstone
- Birmingham
- Bromsgrove
- Burton/Swandlincote
- Cannock
- Cheltenham and Gloucester
- Congleton
- Coventry
- Droitwich
- Dudley
- Evesham
- Forest of Dean
- Great Malvern
- Hereford
- Kidderminster
- Lichfield
- Nuneaton
- Oswestry
- Redditch
- Rugby
- Rugeley
- Sandwell
- Shrewsbury
- Solihull
- Stafford
- Stoke on Trent
- Stone
- Stratford upon Avon
- Sutton Coldfield
- Tamworth
- Telford
- Uttoxeter
- Walsall
- Warwick/Leamington Spa

Wolverhampton
Worcester

From this analysis a number of overlapping housing market areas were identified. For example, Birmingham is the largest housing market area in the West Midlands and incorporates an area, which takes in the whole of the Birmingham City area, Solihull, Tamworth, Bromsgrove and parts of Lichfield, Warwick, Wyre Forest, Redditch and Wychavon. However, in comparison, there are more localised housing market areas, for example the Atherstone Local Housing Market Area, which are relatively self-contained.

This analysis has been useful in determining how localised housing markets operate and they interrelate. For the purposes of developing options, the analysis may need to determine a hierarchy of overlapping housing market areas, which would be adequate for developing the RSS and acknowledge the cross boundary relationships as required by Draft PPS3.

In considering the interrelationship of housing market areas, the research looked at ways of combining housing market areas together, to illustrate how market areas relate to each other and how larger market areas entirely encompass smaller housing markets. Market clusters were one way of considering the interrelationship. However, this is only one option in determining housing market hierarchies and other ways could include an analysis of an 'upper tier' and 'lower tier' approach based on City Region boundaries or merging smaller housing markets into larger ones.

The 36 local housing market areas in the West Midlands could potentially be clustered into a loose hierarchical structure based around a number of high level 'core' housing markets. On this basis, eight clusters were considered in which the individual markets sit:

Birmingham / Solihull;
Coventry & Northern Warwickshire;
Black Country and Surrounding Areas;
North Staffordshire;
Worcester and Surrounding Areas;
Eastern Staffordshire;
Western;
Telford.

1.0 Purpose of the Study

Purpose of the Study

1.1 ECOTEC Research and Consulting Limited (ECOTEC) have prepared this report at the request of the Regional Spatial Strategy Task Group and the West Midlands Regional Assembly's Regional Advisory Group (RAG). The report is the final technical report of a study commissioned to provide technical advice to the Regional Planning Body, on identifying and using local housing market areas for the development of Regional Spatial Strategy (RSS) policy, to feed into the current Phase 2 revision of the RSS.

1.2 The report builds on the initial research findings, to determine areas of influence using travel to work data and to identify the strategic context influencing the West Midlands housing markets. The main output from the final report has been to draw together the initial findings following discussions and input from the client Steering Group, the RSS Task Group and the Regional Advisory Group, to identify housing market areas to feed into the RSS Review. We must emphasise at the outset, that this report presents the technical findings undertaken by ECOTEC into identifying local housing market areas.

Background to Study

1.3 The Regional Planning Body has commenced a partial revision of the Regional Spatial Strategy. Phase 2 of this revision includes a re-examination of housing including the revised levels of housing development for different parts of the region, taking into account the revised projections of housing demand from the Government, and rolls the RSS end date forward to 2026. The role of the sub-regional foci, as identified in the existing RSS, will be re-considered as part of the RSS revision.

1.4 Early work on the RSS revision has identified a range of planning issues that are likely to require a local housing market area approach. These include:

¶ The need to accommodate a far higher level of demand across the region than was envisaged when the current RSS was prepared, which may mean that some areas are unable to meet their projected future housing requirements;

¶ The need to consider the potential role of each sub regional foci identified in the current RSS plus other potential foci which may emerge through the early technical work;

¶ The need to consider the potential role of the larger settlements as identified on the RSS key diagram, in relation to their functional catchment areas.

Study Objectives

1.5 The objectives of this study, in accordance with the research brief, are as follows:

¶ To advise the Regional Planning Body (RPB) on local housing market areas which are needed, to aid the development of the sub–regional planning policy for the RSS revision;

¶ To advise the RPB on the interrelationship of these local housing market areas with the strategic areas contained within the existing Regional Housing Strategy and with more localised areas that might subsequently be developed as part of the local planning, housing and regeneration strategies; and

¶ To advise the RPB on the implications for the development of strategic planning policy of how local housing market areas relate to each other now and how they could potentially relate to each other in the future, given the policies contained within the current Regional Spatial Strategy.

Contents of the Report

1.6 This report sets out the methodology and research undertaken to identify Local Housing Market Areas in the West Midlands:

Section two: sets out the context to understanding and defining local housing markets areas.

Section three: provides an analysis of the local housing market areas identified for the West Midlands region.

Section four: considers the interrelationship of local housing market areas

Annex 1: List of Housebuilders who responded to request for information

Annex 2: Mapping analysis of travel to work patterns and areas of influence

2.0 Identifying Local Housing Markets Areas

Introduction

2.1 In order to provide a succinct and useful overview of the spatial implications of key national and regional policies, this element of the report focuses on the national and regional policies in relation to the identification and role of local housing market areas.

2.2 The increasing importance of housing affordability within housing policy, the continuing growth of both owner occupation and private renting, and the growing awareness of the role of housing in contributing to economic development and prosperity, have emphasised the importance of understanding housing markets. Without such understanding, there is a likelihood that housing interventions will fail to anticipate or even to address key developments in the market, or that they will address the symptoms of problems rather than the underlying causes. At the same time, it has also become clear that traditional approaches to the analysis of housing problems, based on local administrative boundaries, are inappropriate for many purposes, as markets take little or no account of such boundaries.

2.3 In the past, housing research and housing policy have mainly focused on identifying, measuring and dealing with a range of housing problems identified as priorities for public investment and intervention. However, in recent years awareness has grown of the need for a wider and deeper understanding of the operation of housing markets from which policies and interventions are developed.

2.4 The latest draft of PPS 3[1] has made it clear that the planning system has a key part to play in ensuring an adequate supply of affordable housing and in contributing to the creation of sustainable communities. As a result planning policies for housing, including those in RSS, also need to be based on a rigorous understanding of housing markets.

Defining Housing Market Areas

2.5 For the purposes of this study, it is helpful to clarify at the outset a definition of what is meant by a Local Housing Market Area. When used in a planning context, a housing market area is defined in Draft PPS3 as an area 'within which there are clear links between where people live and work.' These areas can be defined by the patterns of household movement and can be influenced by factors such as proximity to family, friends, employment, education and other facilities. In any of these cases, markets are likely to operate across local planning authority boundaries.

2.6 The overwhelming majority of moves by householders are short distance moves connected with improving housing or changing personal circumstances, which do not involve a change of

[1] Draft Planning Policy Statement 3 (PPS3): Housing, December 2005, ODPM

employment. This strongly suggests that housing market areas should normally be focused on and should surround centres of employment. As a result, our approach to identifying sub-regional housing market areas has primarily involved the analysis of travel to work data. The process and methodology used to identify Local Housing Market Areas in this report is set out later in this section.

2.7 The analysis identified a number of local housing market areas in relation to size and catchment area. For example, large housing market areas such as Birmingham incorporated an area, which takes in the whole of the Birmingham City area, Solihull, Tamworth, Bromsgrove and parts of Lichfield, Warwick, Wyre Forest, Redditch and Wychavon. In comparison, more localised housing market areas, such as Atherstone, are relatively self-contained.

Policy Review

2.8 In 2003, the Deputy Prime Minister announced a step change in the Government's approach to tackling the imbalances between housing supply and demand and for improving the condition of the housing stock. The Government highlighted the need to develop a better understanding of housing markets and it is at this point that the Government introduced Housing Market Assessments (HMAs) as a process to be used on a sub-regional area basis across which housing markets operate. A review of regional planning frameworks was set in play, which would lead to the development of Regional Spatial Strategies and Regional Housing Strategies, identified by the Government as key to ensuring that strategic decisions on housing, planning and economic development are better co-ordinated to tackle some of the underlying causes of low demand and abandonment more effectively.

2.9 More recently, the ODPM produced draft practice guidance[2] on housing market assessment, consolidated the interest in housing markets by establishing the key elements of existing guidance on housing market, and housing needs assessment.

2.10 The key objectives of this practice guidance are:

¶ to provide clear and concise advice for practitioners on how to assess housing need and demand in their areas; and
¶ to enable local authorities to gain a good appreciation of the characteristics of their housing markets and how they function.

2.11 Whilst the Housing Market Assessment Manual produced in 2004 provides a useful reference point for practitioners, the recent draft guidance sets out a more streamlined approach to housing market assessment, which is intended to be the primary source of guidance going forward.

[2] Housing Market Assessments, Draft practice guidance, December 2005, ODPM

2.12 The Government's planning for housing objectives as set out in current Planning Policy Guidance Note 3 is as follows:

- ¶ to ensure that a wide range of housing types is available, for affordable and market housing, to meet the needs of all members of the community;
- ¶ to deliver a better balance between housing demand and supply in every housing market and to improve affordability where necessary; and
- ¶ to create sustainable, inclusive and mixed communities in all areas. Developments should be attractive, safe, designed and built to a high standard. They should be located in areas with good access to jobs, key services and infrastructure.

2.13 Building on these objectives, Draft PPS3 proposes ways in which the planning system can assist in delivering them and acknowledges the role of the Regional Spatial Strategies (RSS), in providing the framework for planning for housing markets at the sub-regional and local level. In determining the level of housing provision and its distribution, Regional Planning Bodies will need to work in collaboration with local planning authorities and other stakeholders, to develop consistent evidence bases to underpin regional strategies. Housing market and land availability assessments will be a crucial element to this.

West Midlands Regional Policy Context

2.14 One of the key developments in market analysis has been the acceptance that local authority administrative boundaries often fail to coincide with areas recognised by the market. In large conurbations within the West Midlands, markets are unconstrained by local authority boundaries, whilst in larger and more rural areas one local authority district may include more than one housing market. In addition, markets may cross regional boundaries. Policies need to consider these market realities if they are to be effective.

2.15 Draft PPS3 stresses the importance of taking an understanding of housing markets into account in the development of planning polices at the regional, sub-regional and local level. The focus of the RSS for the West Midlands is on urban renaissance, which is in response to the polarisation and decentralisation of the urban core experienced within the region in terms of economic activity and prosperity, housing stock and affordability, environment, infrastructure and social cohesion.

2.16 Previous research into the region's housing markets[3] indicated that substantial areas within the Major Urban Areas (MUAs) failed to provide housing choice, access to employment, and the urban and community environment needed to encourage economically active and independent households to stay. The metropolitan area of Birmingham, Coventry, Solihull and the Black Country is seen as the major economic driver for the region and source of

[3] The West Midlands Housing Markets: Changing Demand, Decentralisation and Urban Regeneration, 2001, CURS

employment opportunities. Implementing the urban renaissance of the MUAs is a Regional priority as identified in Policy UR1 of the RSS.

2.17 In addition to the MUAs, the RSS also highlights the role of the sub regional foci areas of Hereford, Rugby, Shrewsbury, Telford and Worcester as a focus for longer-term strategic housing development. Table 2.1 below demonstrates the level of annual housing provision allocated in the current RSS. The level and distribution of housing provision will increase within the MUAs from 2007 onwards and that for shire and unitary authorities will correspondingly reduce.

Table 2.1 Current RSS Housing Annual Housing Allocations

Annual Average Rate of Housing Provision			
Planning Area	**To 2007**	**2007 - 2011**	**2011 - 2021**
MUAs (approx)	6450	7250	8500
Other Areas	10230	8030	6150
Total	16680	15280	14650

Source: RSS West Midlands, June 2004

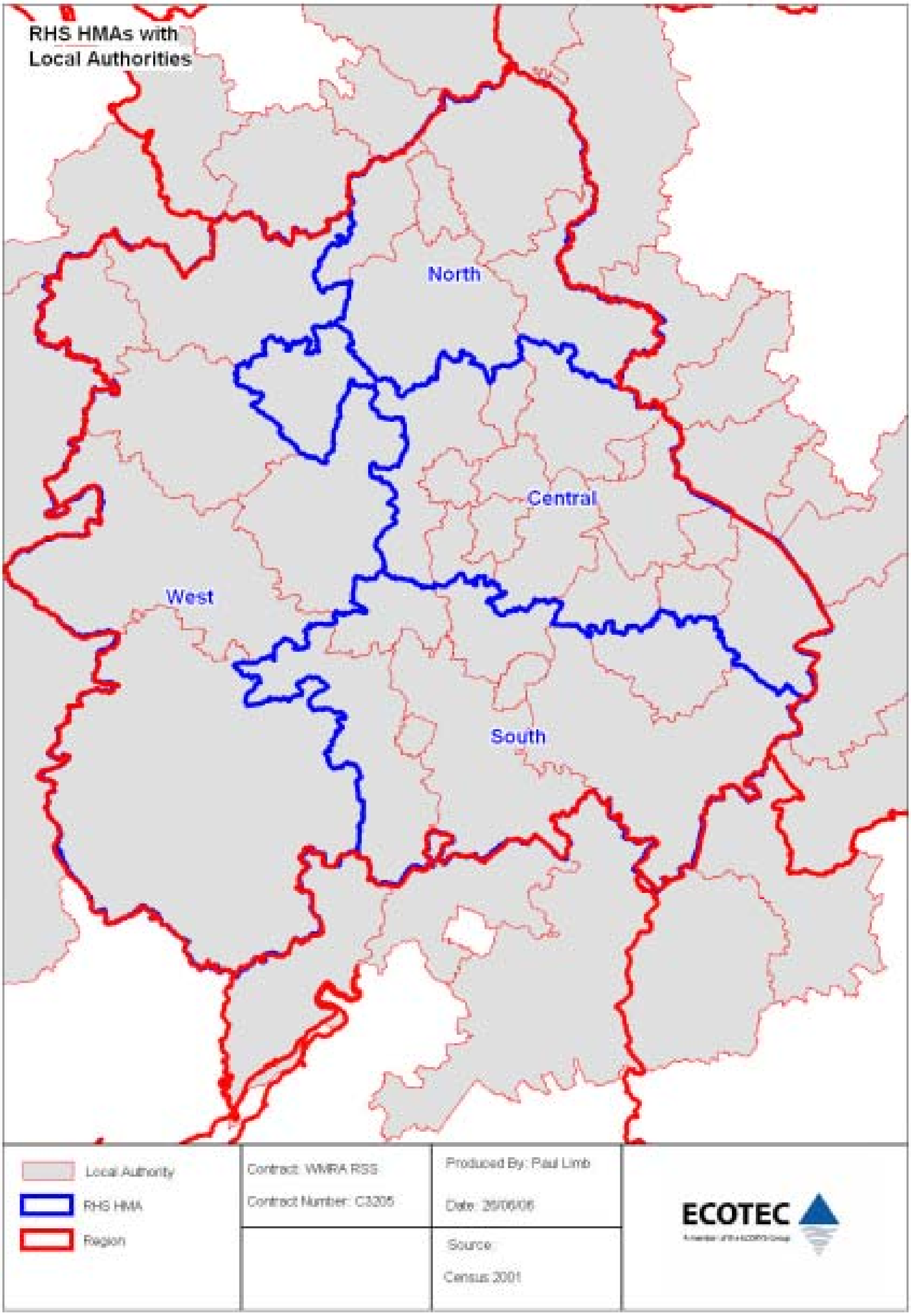
2.18 The Regional Housing Strategy (RHS)[4] complements the spatial approach adopted in the RSS. In relation to its own spatial priorities, the strategy has broken the region down into four strategic housing market areas (Figure 2.1):

- South: south Warwickshire and Worcestershire;
- West: Shropshire and Herefordshire;
- North: Stoke and north Staffordshire
- Central: the urban core area, Telford, north Warwickshire and south Staffordshire

2.19 These areas were derived from an analysis of areas where similar dwellings commanded similar prices and where sufficient evidence existed to suggest a functional connection through travel to work and other interactions. However, from the analysis undertaken by ECOTEC, in determining areas of influence and identifying local housing market areas, it was felt that the four strategic housing markets did not adequately reflect housing market hierarchies or account for overlapping housing market areas adequately enough to satisfy the requirements in line with Draft PPS3.

[4] West Midlands Regional Housing Strategy 2005: Regional Housing Board

Figure 2.1 Regional Housing Strategy- Four Strategic Housing Market Areas.



Developing Spatial Options for the RSS Review

2.20 The RSS Phase Two Revision was launched in November 2005. As part of the review, spatial Options are being developed to assist with policy development in relation to Housing. This will re-examine regional and sub –regional housing needs and explore how additional new affordable housing provision can be made up to the period of 2026.

2.21 In drafting Options, existing and emerging guidance needs to be taken into account, including the recent Barker Report on housing, the emerging PPS3 and the Government's recent household projections issued in March 2006. A key issue for the West Midlands Regional Assembly in developing spatial Options for housing has been the implications for accommodating the revised household projections for the Region. To accommodate such growth will require significantly higher levels of house building in the West Midlands than was previously envisaged in the current RSS.

2.22 In the West Midlands, there are a number of key drivers, which are shaping the local housing market areas. The individual drivers have been discussed in more detail in an earlier report of the initial findings[5] into identifying local housing market areas in the West Midlands. To summarise housing demand in the West Midlands is being driven by:

¶ *International Migration*: is a key driver of household and economic growth expected to maintain the Region's overall population levels, which will result in significantly larger levels of new household formation. The Region, in particular the MUAs, is seeing increasing numbers of new migrants from Eastern Europe, the Middle East and Africa;

¶ *Demographic Change*: The number of households in the Region is expected to increase significantly more than previously envisaged when the current RSS was prepared. By 2026 it is anticipated that single person households will make up over one third of households and will be spread evenly across the Region;

¶ *BME Housing Aspirations*: The West Midlands' BME community is the second largest in the UK outside London and contributes significantly to high natural household growth. This driver is likely to enter a new phase in the next decade, as demand will outstrip supply for housing in the core urban area;

¶ *Changing Aspirations*: Rising aspirations together with real incomes are one of the most powerful factors influencing housing market change. Areas which have a housing stock more closely related to the past rather than the present economic trends are likely to suffer from low demand;

¶ *Economic Structure:* There is a strong link between housing markets and employment. The Region's economy is divided between the more prosperous south and east and the

[5] Study into the Identification and Use of Local Housing Market Areas for the Development of the Regional Spatial Strategy, ECOTEC, July 2006

less prosperous north and west. The Region's housing market has tended to reflect this pattern of spatial distribution with high housing demand in the south and south east of the Region and relatively lower demand to the north and west of the Region.

2.23 In addition to the drivers summarised above, there are a number of other factors that will affect the demand and spatial location of future housing provision as part of the RSS Review. Household projections suggest that housing demand will be higher in the south and south east and lower in the north and north west of the Region. The implications from this will place greater pressures on local authorities in the south and south east to accommodate housing demand. However, these pressures are not confined to the south and south east of the Region; there are also pressures on many other local planning authorities to accommodate the forecasted future household growth.

2.24 A key element of the Draft PPS3 is the requirement that in determining the Region's level of housing provision and distribution, regional planning bodies should make provision so that housing need and demand are met within the sub-regional housing market area in which they are generated. Defining sub-regional housing markets and identifying the spatial coverage of these markets is a key requirement in allocating future housing provision. Parts of the Region, notably the MUAs and Telford, have developed strategies for growth. The authorities[6] who make up the West Midlands City Region have identified Growth Point areas which will exceed the level of current housing provision required by the RSS. Alongside this the North Staffordshire Pathfinder, RENEW, will undergo significant housing market investment and restructuring to increase the quality and provision of new housing. The future role of these housing market areas, in accommodating housing provision, will be an important factor when developing the Spatial Options for the RSS.

2.25 In March 2006, the Section 4(4) Strategic Authorities for the West Midlands were asked to provide advice on the implications of three levels of gross new housing development[7]:

¶ Reference Point A – 381,000 dwellings to 2026 by rolling forward current RSS targets;

¶ Reference Point B – 476,000 dwellings to 2026 providing an increase of 25% of the existing RSS targets (shown above);

¶ Reference Point C – 576,000 dwellings to 2026 providing an increase of 51% of the existing RSS targets (shown above).

2.26 The figures estimated for Reference Point C relate to the level of housing demand for the West Midlands as implied by the recent 2003 Household Projections, issued by the Government in April 2006, and an allowance for the replacement of demolished stock.

[6] Birmingham, the Black Country, Coventry, Solihull and Telford

[7] Details of the Section 4(4) responses and the brief issued to all Strategic Planning Authorities by the Regional Planning Body has been summarised in the Initial Findings Report produced by ECOTEC as part of the RSS Local Housing Market Area Study

2.27 The responses set out by each of the Strategic Authorities suggested that there would be difficulty for most authorities to accommodate the levels of development set out above Reference Point B; this included the response from the Metropolitan Authorities. In the case of the Black Country, the authorities were uncomfortable in accommodating development levels above Reference Point A[8]. The Black Country authorities like many other West Midlands authorities have indicated that urban capacity studies show that there are potential issues in accommodating such housing growth without releasing employment land, or Greenfield sites and building at density levels, which would extend beyond acceptable levels.

2.28 Taking into account the Section 4(4) advice, the Regional Planning Partnership at its meeting on the 28th July[9], agreed to the development of three possible Options based on the detailed figures set out below:

- Option 1: 381,000 dwelling gross from 2001 – 2026 – a continuation of the existing RSS Strategy to 2026. This equates to 15,000+ new dwellings per annum. This is the same level as previously set out in Reference Point A, but with a different distribution;
- Option 2: 520,000 dwellings gross 2001 – 2026 – this equates to an average of 20,000+ new dwellings per annum across the Region to 2026. This represents a higher level than previously assumed in Reference Point B;
- Option 3: 576,000 dwellings gross 2001 – 2026 – this equates to an average of 23,000+ new dwellings across the Region to 2026 and suggests a level of development to meet the project demand in the Government's 2003 based Household Projections.

2.29 These figures will need to be broken down to the individual Local Planning Authority and in practice; any Options will have implications for different settlements. In some cases, individual authorities may not have the capacity to accommodate such growth and it is therefore essential that a clear understanding of housing market relationships is understood in order to allocate future provision.

2.30 If the policy emphasis of the RSS, in terms of reversing the out migration of the MUAs, is to be achieved it is important that the principles of the current RSS are maintained and applied in allocating future housing provision. This needs to consider the extent to which the capacity of the MUAs, particularly the Metropolitan Areas can be increased, to accommodate higher levels of housing provision. The ability of local housing markets areas to meet its own housing need will be an important factor as well as the role of the sub-regional foci and other larger settlements in accommodating housing growth and their functional links with the MUAs and their wider catchment areas.

2.31 In developing Options for allocating future housing numbers it is essential to understand how the local housing markets operate and that there is a robust evidence base to support this

[8] Regional Spatial Strategy: Phase Two Spatial Options, Report to the Regional Planning Partnership, 28th July 2006
[9] ibid

analysis. The analysis undertaken by this study will feed into the process of defining housing market areas for RSS purposes and informing the development of the Spatial Options.

Identifying Local Housing Market Areas

2.32 There are differing conceptions of housing markets. When used in a planning context, a housing market area is defined in Draft PPS3, as an area 'within which there are clear links between where people live and work.'

2.33 The overwhelming majority of moves by householders are short distance moves connected with improving housing or changing personal circumstances, which do not involve a change of employment. This strongly suggests that housing market areas should focus on and should surround centres of employment. As a result, the preferred approach to identifying local housing market areas, set out below, primarily involves the analysis of travel to work data.

2.34 Migration data is also of significance in identifying housing market areas. However, migration patterns are often confusing and hard to identify, not least because data sources do not separate out moves associated with a change of employment, long distance retirement, or leaving the family home to go into higher education, from short distance moves which do not involve employment change. In contrast, travel to work patterns are clearer because they show the *aggregate results* of years of short distance migration movement. Migration patterns do however have a part to play in supporting this analysis.

2.35 Of course, not all people travel long distances to work. Some work at home, and others have no fixed workplace. Some choose to travel further than others do, and this is often related to income, with higher paid or more affluent workers willing to travel further. As a result, housing markets for the most affluent may be very large and for the least affluent may be very small. This means that any system of discrete, non-overlapping housing market areas involves an acceptance that a proportion of household movement crosses housing market area boundaries. In other words, there is a threshold level of self-containment rather than absolute self-containment. This issue of overlapping areas is discussed later in this section.

Identifying employment centres

2.36 The first stage in our approach to defining Housing Market Areas was to identify the major employment centres within and surrounding the region, as a basis for examining travel to work patterns relating to these centres.

2.37 Using 2001 Census data on employment by workplace, combined with the most recent ONS categorisation of urban areas, centres with a workplace population of 5,000 people or more were identified. This identification was undertaken not only for the region itself but also for closely surrounding areas in order to identify potential areas of influence, centred outside the West Midlands.

2.38 The identification of employment centres used the latest ONS classification of urban areas, rather than whole local authority districts, as these areas largely provide the focus for employment and therefore travel to work patterns. The prerequisite for the recognition of an urban area, as defined by ONS, is that the area of urban land should extend for 20 hectares or more. Separate areas of urban land are linked if less than 200 metres apart. The critical factor for the identification of an urban area is a minimum population of 1,500 residents at Census day in the Output Areas that make up the area. The major urban agglomerations are sub-divided into localities within them; this enables a broad comparison to be made with previously published census results. Some smaller agglomerations are also sub-divided and, where possible, recognise the separate urban areas where urban land has since merged. These areas often follow the boundaries of local authorities, which existed prior to re-organisation in 1974, or the boundaries of current authorities within agglomerations. By using this method, it addresses the problem of more rural areas, which exhibit dispersed settlement patterns with a number of smaller urban areas. In large urban areas such as Birmingham, the use of ONS urban areas may merge a number of separate employment centres, but these can be subsequently identified and isolated if necessary.

2.39 The level of workplace-based employment in each of the centres identified was calculated by matching Census 2001 workplace population data, to each urban area, using GIS mapping techniques. This exercise involved the in-depth checking and adjustment of Census Geography. The boundaries produced and distributed by ONS for each census area, whether ward, output area or authority, are used to display data for the area, which they cover. However, the physical entities represented by this data, say houses, are not necessarily distributed uniformly across the area. This is due to the existence of factors such as open land or industrial areas, which may be weighted to one side of the area. This is usually the case with areas located at the edge of the ONS urban areas.

2.40 Census data is linked to a theoretical geometric ‘point’ within the census area (ward) known as a centroid. Depending upon the shape of the ward, this centroid may not necessarily fall in the absolute centre of the ward area; rather it will sit in the centre of an imaginary rectangle that encompasses the extremities of the boundary (the Minimum Bounding Rectangle). The pattern of settlement within a ward, particularly those at the edge of urban areas, may be heavily weighted to one side of the ward. If the centroid falls outside the built up area of the ward, where there is potentially little population or employment, the ward’s workplace population will be omitted from those for the Employment Centre.

2.41 Therefore, in defining the employment centres, a thorough check was made of all centroids for wards covered or partially covered by the ONS urban area. In wards where the centroid fell outside the urban area boundary, the urban area’s coverage of that ward was cross-referenced with suitable background mapping. This determined the extent of coverage of potential employment land in the ward. The centroids for these wards were adjusted on a case-by-case basis, in order to capture the full range of travel to work movements to each employment centre. This approach provided a list of employment centres, which formed the potential cores of housing market areas and from which the most significant centres can be determined.

2.42 In identifying employment centres a workplace threshold level of 5000 people was used as a basis of selection, this method was selected for a number of reasons. Firstly, the predominance of urban employment centres, such as Birmingham, skews attempts to define an 'average' workplace population figure, as it masks genuine smaller employment centres in the vicinity. The spatial distribution of urban centres within and around the West Midlands region above this threshold also gives a viable basis on which to centre potential housing markets, especially when later considering local identities. Experience elsewhere suggests this approach gives a sound basis to work from, allowing analysis of inter-relationships of travel to work etc. Finally, the 5000 threshold provided a starting point for analysis of 49 centres in and around the region (Table 2.2). On the basis of previous work, the Regional Assembly had indicated that they anticipated that there were around 20-30 HMAs centred within the region, so the use of this threshold offered a manageable level of analysis which identified centres across the region with the potential for a degree of subsequent aggregation or the definition of sub-markets.

Table 2.2 Employment Centres: Workplace Populations, 2001

Centre	Workplace Population
Birmingham	444,550
Leicester*	169,583
Stoke On Trent	134,465
Coventry	124,211
West Bromwich	118,055
Dudley	117,256
Cheltenham & Gloucester*	113,015
Derby*	103,899
Wolverhampton	103,309
Walsall	92,969
Solihull	56,891
Chester*	39,638
Worcester	38,864
Redditch	31,503
Telford	29,436
Shrewsbury	28,420
Warwick/Leamington Spa	28,348
Kidderminster	27,248
Ripley*	26,973
Banbury*	26,608

Centre	Workplace Population
Burton Upon Trent/Swadlincote	23,976
Crewe*	23,909
Nuneaton	22,976
Macclesfield*	22,860
Cannock	22,090
Rugby	21,090
Hereford	20,645
Wrexham*	19,905
Tamworth	19,462
Stafford	16,196
Hinckley*	13,228
Great Malvern	12,322
Forest Of Dean	12,275
Bromsgrove	12,033
Lichfield	11,838
Coalville*	10,439
Tewkesbury*	9,531
Congleton*	9,339
Droitwich	9,082
Evesham	8,406
Stratford-Upon-Avon	8,056
Stone	7,750
High Peak*	7,552
Daventry	7,331
Oswestry	7,113
Atherstone	7,023
Abergavenny*	5,533
Uttoxeter	5,380
Rugeley	5,362

Source: Census 2001 (* Centres outside the West Midlands Region)

Mapping travel to work patterns

2.43 Having defined a provisional list of centres, the next step in the analysis was to map travel to work patterns into each of the centres identified, including adjacent centres outside the region.

2.44 Travel to work patterns provide an important indicator of economic linkages between areas within and outside the region. In many ways, they provide a better picture than migration data as they represent the cumulative impact of migration trends over a substantial period.

2.45 However, travel to work data for small areas is only available from the Census every ten years, the latest data being for 2001.

2.46 Typically, many people do not travel long distances to work. In 2001, nationally:

- 40% of employed people travelled less than 5km
- 58% travelled less than 10km
- 60% worked within the local authority in which they lived.

Put another way, 40% of employed people crossed a local authority boundary to get to work in 2001 which, whilst less than half of the population, is a significant number. It is important to bear this in mind when interpreting the data in this section.

2.47 Despite this, there is an increasing tendency for people to travel further to work. This is due to increasing prosperity (and hence the ability to afford to travel), the growth in dual income households (making longer distance travel more likely for at least one partner), and the changing location of employment: particularly employment decentralisation and the growth of specialised centres of financial and business services. There is also the impact of technology with the advent of Broadband internet and wireless networks facilitating the ability to work away from an employment base, and therefore to travel less frequently to that base.

2.48 Comparison of successive Censuses and data from the National Travel Survey confirms the tendency for travel to work distances to increase over time. This has been taken into account when interpreting the results of the analysis below. However, higher levels of commuting will not necessarily alter the boundaries of HMAs, but rather reduce the level of self-containment, which they represent. There are clear differences in travel to work behaviour between different occupational groups. Table 2.3 below shows the average distance travelled to work by different occupational groups. Managerial and professional groups clearly travel much greater distances to work on average than people in routine occupations. People who earn more tend to travel further to work, but the relationship is not as simple as this, since other factors such as lower housing costs can offset increased travel costs for people on the same income level.

Table 2.3 Average distance travelled to work by occupational group, England and Wales 2001

Occupation	Average km travelled to work
All people	**10.9**
Large employers/higher managerial	**22.5**
Higher professional occupations	**16.9**
Lower managerial/professional occupations	**13.8**
Intermediate occupations	**10.3**
Small employers/own account workers	**3.9**
Lower supervisory/technical occupations	**10.8**
Semi-routine occupations	**6.4**
Routine occupations	**7.7**
Full-time student	**10.3**

Source: Census 2001

2.49 To map travel to work patterns, data at ward level rather than output area was used for the following reasons.

¶ Due to the nature of census data, confidentiality procedures mean that small numbers are adjusted to guarantee anonymity. The result of this process means that whilst aggregation of larger numbers may be accurate, the scaling up of small numbers causes serious doubts about data reliability. This anomaly is commonly referred to as the Modifiable Area Unit Problem (MAUP).

¶ Travel to work data at ward level can produce small numbers, with some wards showing zero people travelling to another ward for work, with other wards exhibiting larger travel to work numbers. When aggregated, the rounding of these numbers is minimal, depending on the number of wards aggregated. If we were to look at this data at Output Area level, the numbers would be much smaller, leading to an increased rounding factor. With an average of 30 – 40 Output Areas per ward, the resultant aggregate rounding for the employment centre would be very misleading.

¶ For the region as a whole (or in fact the region plus some adjoining areas), the scale of this rounding using output areas will be very large, especially as the data we are using is a matrix of movement between many areas.

¶ In a small number of rural areas, the existence of large wards may mean that HMA boundaries are distorted, but this problem can be addressed at a subsequent stage and does not outweigh the gains in terms of data reliability from using data at ward level.

2.50 Travel to work figures were calculated from Census 2001 Origin/Destination data for journeys from all individual wards in England and Wales, to each employment centre in the West Midlands reference area. To determine the strength of influence of each centre over each ward, the travel to work totals must be expressed as a proportion of a given population. Two methods may be used to do this. The first method is to express the number of people travelling to a particular area as a percentage of the total number of people travelling to work from that ward. The second is to express the number of people travelling to work as a proportion of the economically active population of the ward.

2.51 The first method gives the effect of highlighting 'preferred' destinations of those who travel to their workplace. However, this method discounts those who do not travel to work. This can give a false impression of the influence of a centre over a given ward and therefore distort potential housing market areas. For example, whilst half of the people travelling to work from ward X may travel to employment centre Y, if only 5% of the economically active population of ward X actually travel to work, centre Y is only actually attracting 2.5% of the potential workforce from that ward.

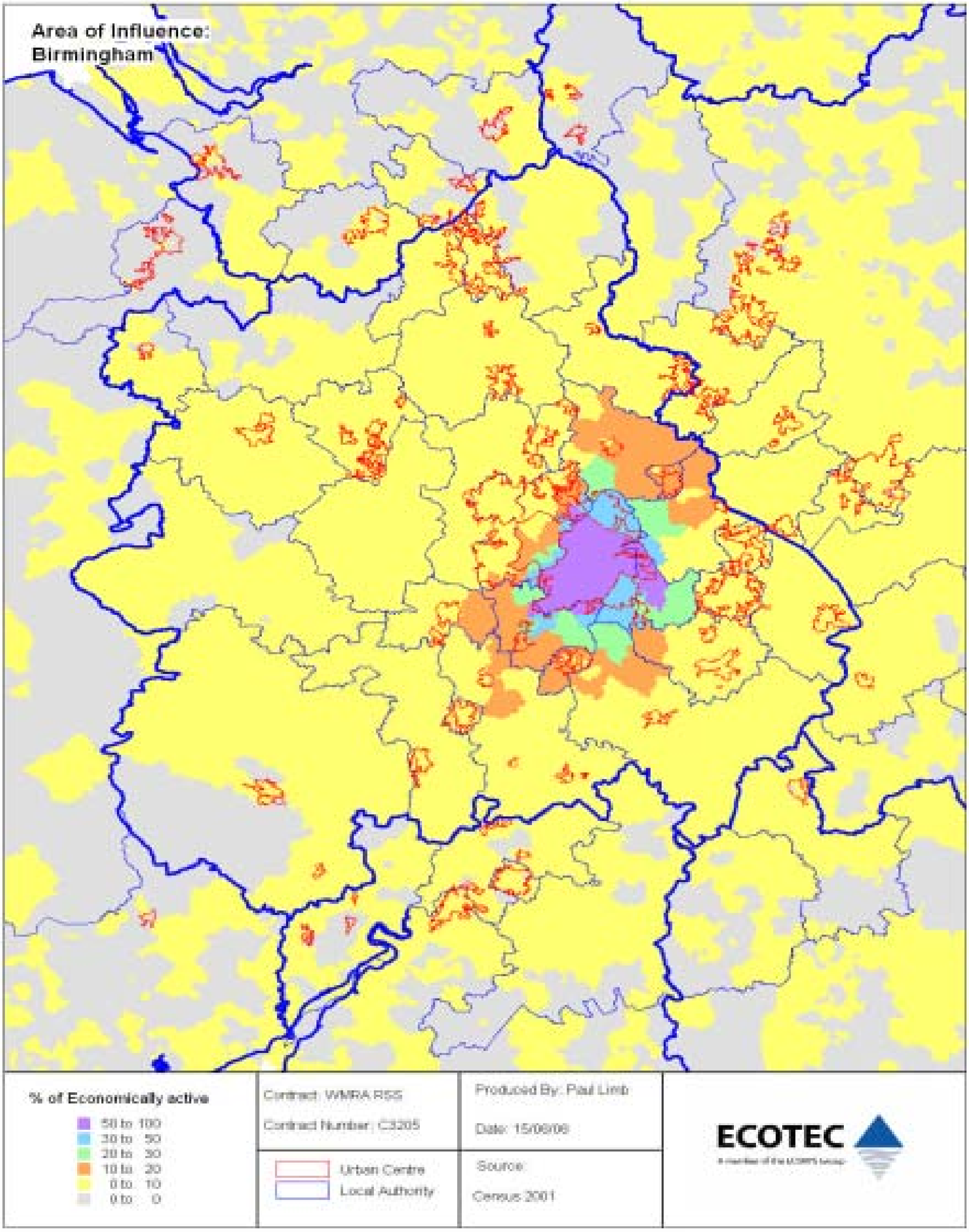
2.52 The second method, therefore, takes account of all potential workers in the ward and more accurately reflects the area of influence of an employment centre. When we consider the fact that an average of only 40% of workers cross authority boundaries to reach their workplace, the second method is preferred.

2.53 Maps for each employment centre showing the percentage of economically active people travelling to that centre from every ward in the region (plus surrounding areas) were produced. Figure 2.2 below shows an example of the output from this exercise. This map shows the area of influence of a given centre (Birmingham) based on thresholds of economically active population travelling from each ward into the centre. To define travel to work ‘catchment’ areas for each centre, the initial run used a threshold within which 20% of the economically active population travelled to work in the centre. This produced catchment areas, which in many parts of the region were not contiguous, i.e. though there were some areas of overlap, there were also large areas falling outside any area of influence. Therefore, a subsequent run of the analysis used a threshold of 10%. As, on average, 40% of people travel to work across a local authority boundary, a 10% threshold represents a significant level of 'capture' of the economically active population travelling to the employment centre.

2.54 Based on these two map runs, two sets of 'areas of influence' were produced to provide a basis for possible Housing Market Areas, copies are contained in Annex 2. As was expected, in some parts of the region, especially in the more rural areas to the west of the region, areas of influence were found to be discrete. Surrounding areas did not fall into any area of influence or catchment, or displayed small overlaps with neighbouring areas of influence. In the central and eastern areas of the region however, the pattern of influence was more complex with significant overlaps between catchment areas, especially in the central conurbation.

2.55 Figure 2.3 shows a sample of the areas of overlap of these areas of influence around the Birmingham area and the wider conurbation. As can be seen, these overlaps predominantly occur in and around the main West Midlands Conurbation with the convergence of the three cities and four metropolitan boroughs, with Birmingham having an overarching effect. These overlaps show the complex interaction of the different authorities and localised areas within the conurbation and the resultant complexities of potential housing markets in the area.

Figure 2.2 Travel to Work: Birmingham Centre: Economically Active Threshold



Source: Census 2001

Defining Local Housing Market Areas

2.56 Having plotted patterns of travel to work, we examined the aggregate pattern, which they produced. In some cases, large cities, such as Birmingham, which attract employees from a considerable distance, can completely encompass the catchment areas of smaller centres. Here it may be necessary to consider a hierarchical categorisation of housing market areas, with top tier Housing Market Areas, potentially based on those defined by the Regional Housing Strategy and within which sectoral housing market areas are located. These may or may not be appropriate for the development of planning policy, but in helping to develop our understanding of how housing markets work in the region, they should not be discounted.

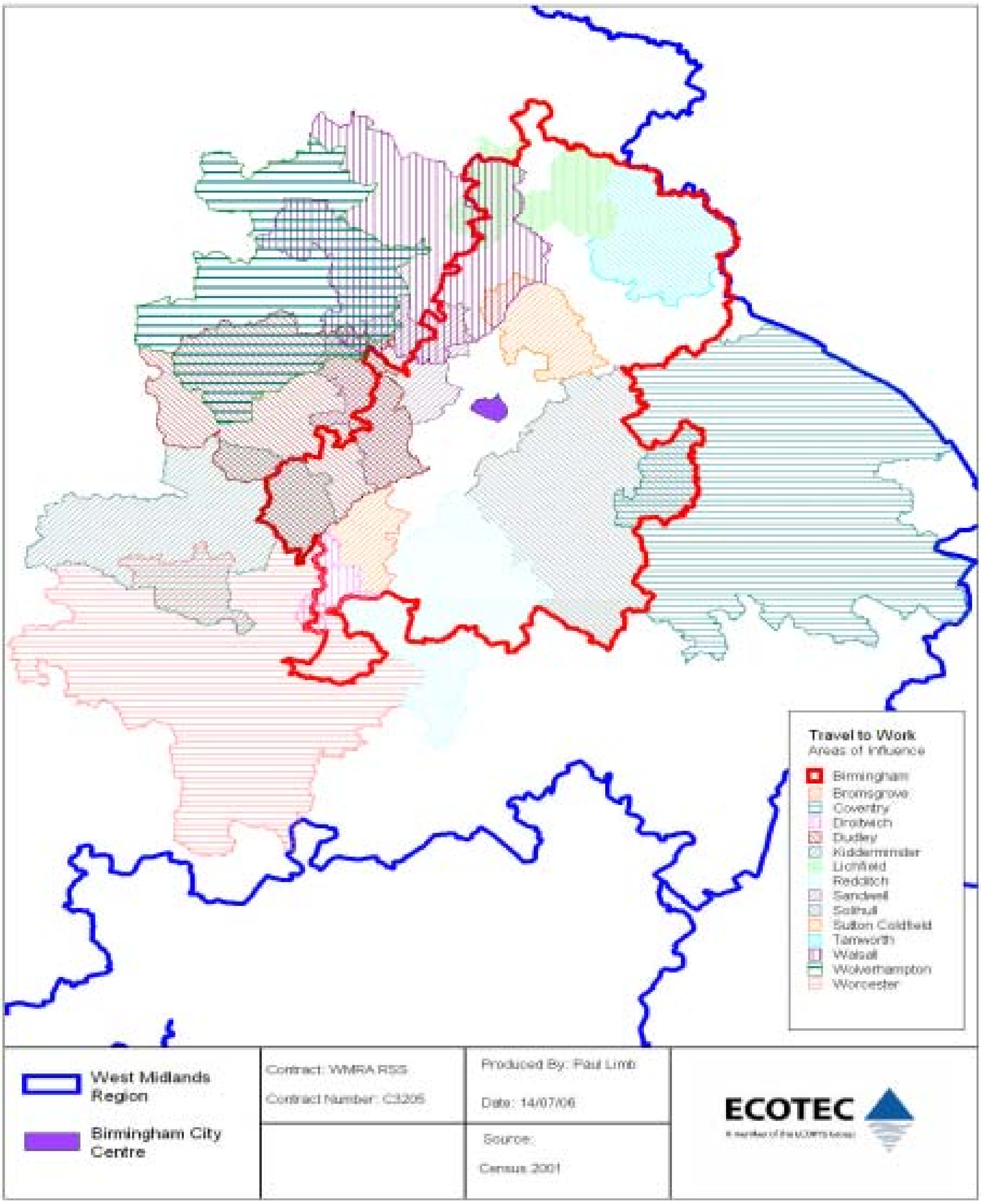
2.57 Taking the example map of Birmingham in Figure 2.2 we can see that at a travel to work threshold of 20%, the Birmingham centre incorporates the whole of the Birmingham City area including Sutton Coldfield, a significant area of Solihull, parts of Lichfield, Stratford-upon-Avon, North Warwickshire, Bromsgrove, Dudley, Sandwell and Walsall. However, when expanded to show the wards where at least 10% of the economically active population travel to the Birmingham centre, the area of influence completely encompasses Solihull, Tamworth and Bromsgrove, nearly all of the Lichfield district, parts of Warwick, Wyre Forest, Redditch and Wychavon, whilst extending further into Walsall and Dudley and most of Sandwell. As an area of influence, this is to be expected, as the Birmingham economic base is a major driving factor behind the region's economy and therefore contains a significant proportion of its jobs and workforce.

Summary - Identifying Local Housing Market Areas

2.58 To summarise, we have selected major employment centres within and surrounding the region based on the latest ONS classification of urban areas, with a workplace population threshold of at least 5,000 people. We then analysed the travel to work patterns of the economically active population, at ward level, to these employment centres to understand the area of influence each centre exhibits. Following analysis at various thresholds, we selected a threshold of 10% of the economically active population travelling from a given ward to a centre to assign areas of the region to an HMA.

2.59 We have highlighted that Birmingham, as a centre, operates as a higher-level catchment area and therefore should not be regarded as an HMA in the same way as other centres. Rather, it should be recognised as a regional centre constituting an 'upper tier' of movement, which may influence some aspects of more localised HMAs.

Figure 2.3 Sample Area of Influence Overlaps



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