

**Coventry, Solihull & Warwickshire
Sub Region**

Employment Land Study

June 2007

Final Report

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1 Introduction

Background and Objectives

1.1 DTZ has been commissioned by the CSW Sub-Region to carry out an Employment Land Study to review the supply of, and demand for, employment land and premises across the CSW sub-region. The study area is defined by the authority boundaries of Coventry City Council, Solihull Metropolitan Borough Council, North Warwickshire Borough Council, Nuneaton & Bedworth Borough Council, Rugby Borough Council, Stratford on Avon District Council and Warwick District Council.

1.2 The key objectives of this study are:

- to provide an overall assessment of employment land need and supply for the whole CSW sub-region;
- to provide a basis for identifying / specifying an amount of employment land to be provided in each constituent part of the study area to enable each local authority to identify and allocate sites through their own development plans;
- as a basis for further work to identify strategic employment sites to meet the requirements of RSS; and
- to provide a model for other employment land reviews elsewhere in the region as part of Phase II of the RSS Review.

1.3 The outputs of the study will be used to inform:

- the partial review of the Regional Spatial Strategy;
- individual local authorities Local Development Framework preparation processes.

Method of Approach

1.4 We have separated our work into three distinct stages to reflect the study objectives. The first of these is the Demand Assessment, which draws on a combination of 'top down' and 'bottom up' analysis to estimate future land requirements. The second stage is the Supply Audit, which appraises the existing quantity, quality and distribution of sites and premises across the area. The third develops an outline planning policy framework, drawing on the findings of the demand and supply assessments and identifying key policies for future use.

1.5 In line with the ODPM guidance on preparing Employment Land Reviews, demand assessments have been calculated using:

1. A labour supply led approach;
2. A labour demand approach; and
3. A review of past take up.

1.6 Each approach is accorded equal weighting in preparing the report. All measurements are in hectares or sq.m. where existing buildings are considered.

1.7 With regard to the labour demand approach, we have used the following steps to arrive at estimates of future employment land requirements:

- Step 1: Establish the nature of the anticipated employment change;
- Step 2: Developing a range of alternative employment scenarios; and
- Step 3: Relating the nature of employment change to land-use floorspace. The key output is to establish land requirements in terms of:
 - land and floorspace requirements to 2016 & 2016-2026;

- use class categorisation – B1, B2 and B8;
- distribution across districts; and
- timing of requirements in five yearly intervals.

1.8 For the Supply Audit, we have reviewed the quantity, quality and distribution of sites and premises across the CSW area. The first step of our supply appraisal was to compile a database of all employment property (sites and premises) in the area based on information provided by the Client Steering Group. The second step was to appraise the sites and premises against a range of criteria including site conditions, availability for development and end use suitability (a list of criteria and classification guidelines used is provided at Appendix Two). Key outputs of the Supply Audit were to establish:

- the quantity of employment land in total and its suitability for different use classes;
- quality of provision;
- timing considerations in respect of the quantity of sites available in the short, medium and long term; and
- identification of key constraints holding sites back from the market.

1.9 Our approach to the development of an outline policy framework has been to concentrate on:

- broad policy implications emerging from the demand and supply analysis in respect of the quantity and distribution of employment land requirements across the sub-region;
- guidance on issues associated with site selection factors to assist authorities in determining land allocations/proposals, including specific advice as to the most appropriate location (if any) for a Regional Investment Site and site specific recommendations for Coventry City Council; and
- broad recommendations for the actions required in bringing forward employment sites for development.

Study Limitations

1.10 Whilst this study has applied the recommended approaches to forecasting employment land demand as set out in ODPM guidance, some caution does need to be exercised in considering the results and conclusions.

1.11 For example, the conclusions and recommendations made within the report are based on projections taking into account past activities and current thinking on future economic performance.

1.12 The decline of the manufacturing industry in the UK has had a significant impact in terms of employment land needs and associated with this, ensuring that appropriate quantitative and qualitative provision is made for the future

1.13 In addition to this, the three forecasting methods applied all have limitations that must be considered as summarised below:

Labour Supply Approach

1.14 This approach essentially considers how many jobs are required to provide employment for the area population. Accordingly, it does not take account of property market trends or occupier requirements. In practise, it is also very difficult to use this approach to justify significant changes in employment levels as this can only be achieved by radical population change.

- 1.15 The approach relies on accurate information about future migration rates / housing development rates, future economic activity rates and gross commuting flows.

Labour Demand Approach

- 1.16 This approach uses Cambridge Econometrics data provided at regional level and, as set out at Appendix 2, converts this to three forecasts of growth in the study area (baseline, medium and high growth scenarios). Limitations of these models (which need to be reflected in the emphasis put on them) have been considered by the Allsopp Review of Economic Statistics and include:

- Estimates of Gross Value Added (GVA) are barely adequate at the regional scale and GDP cannot be adequately modelled at below large sub-regions (the NUTS 2 areas);
- The Annual Business Inquiry is not yet robust at the regional level, or at smaller scales;
- There are important biases towards manufacturing in the SIC analysis and in the input – output analysis; and
- The data that is used for disaggregation of regional forecasts e.g. employment or population are subject to significant local errors and / or will be influenced by land use planning decisions.

- 1.17 Whilst this is a valuable technique, the following issues do need to be fully considered when applying the information in forecasting:

- forecasts have a normal horizon of no more than 10 to 15 years;
- are reliant on historic data and are less useful in dealing with new and emerging sectors;
- are dependent on generic ratios to translate these forecasts (in terms of employment or GDP / GVA) into land and property requirements; and
- are most useful in dealing with manufacturing, financial services etc, where the sector is substantial and has reasonably homogeneous property requirements in terms of location and type of building.

Past Take Up

- 1.18 This approach assesses future land requirements by extrapolating previous levels of land take up. This approach can be heavily influenced by property market investment trends and does not necessarily consistently reflect the objectives of planning policy.

- 1.19 Other drawbacks from this method are that growth is based on trends in historic sectors and it does not pick up new and emerging sectors. It is also limited to the historic availability of land, which will not necessarily be available in the future. Whilst this approach reflects historic policy objectives it would clearly be very difficult, if not impossible, for this forecasting method to account for new objectives.

- 1.20 Therefore, whilst the conclusions and recommendations provided are based on a detailed analysis, changing economic circumstances will impact on the need for new employment land across the sub region. It is with this in mind that the plan, monitor and manage approach should be adopted by each authority through the production of their LDF's.

- 1.21 In line with the brief, this report focuses on sub regional needs. Accordingly, the analysis of supply and demand does not consider the potential contribution that could be made by regional level sites i.e. Regional Investment Sites, Major Investment Sites or Regional Logistics Sites.

Structure of the Report

- 1.22 The report is structured in a logical fashion, which reflects the various stages of work that have been carried out.
- Section 2 – Planning Policy Context – We have provided a brief overview of the existing planning policy context for development in the area.
 - Section 3 – Employment Baseline. We consider the scale and composition of future employment change across the study area to 2016. 2016-2026 is in Appendix 5.
 - Section 4 – Employment Land requirements. We then relate employment change to land-use and estimate the land-take and floorspace implications. We also consider in this section the potential impacts of sensitive variables such as floor area, land take ratios and commercial property market factors.
 - Section 5 – Supply Appraisal. Our supply appraisal reviews the quantity, quality and availability of employment land supply across the area as a whole and specifically in relation to each district.
 - Section 6 – Supply V. Demand & Policy Implications. This section of our report brings together the demand and supply analysis into a series of policy considerations. This section also provides a review of the plans to expand the University of Warwick
 - Section 7 – Conclusions and Recommendations. The final section of our report sets out the key conclusions and recommendations resulting from this study.

2 Planning Policy Context

2.1 This section provides a brief review of the relevant planning policies for the study area. This incorporates national policy guidance (PPS1, PPG3, PPG4, PPS 12 and PPG13), the regional spatial strategy, Warwickshire Structure Plan and each local plan/UDP.

2.2 Overall, this section provides a ‘state of play’ summary on existing planning policies and an assessment of the key issues to be addressed in the formulation of policies through to 2026.

National Planning Policy

2.3 Relevant national guidance regarding employment land is included in PPS1, PPG3, PPG4, PPS12 and PPG13. These advise on the need to deliver sustainable economic development, how to achieve this and the risks of loss of such land to alternative uses such as housing.

PPS1 – Delivering Sustainable Development

2.4 PPS1 sets the foundation on which all other planning policy is based. It sets a clear objective to deliver sustainable development involving the most efficient use of land. The sustainability objectives contained within this guidance are integral to the delivery of employment land through the sub region.

PPG3 – Housing

2.5 The guidance note directs the majority of development to brownfield sites in sustainable locations and places great emphasis on the need to maximise density where suitable and to generally make the most efficient use of land.

2.6 Of particular note with regard to this study are amendments that were made to the document in January 2005 relating to the delivery of new housing on redundant employment land. The revised guidance supports the release of employment land for residential development if sufficient evidence can be presented by a developer to confirm that a site is no longer viable for employment use.

2.7 It is key therefore that the local authorities in the study area devise suitable planning policies within their Local Development Frameworks that account for the implications of this guidance.

PPG4 – Industrial Development & Small Firms

2.8 As the specific national guidance on employment land, PPG4 is of direct relevance to the recommendations made in this report and the subsequent production of LDF’s through the sub region.

PPG13 - Transport

2.9 PPG13 provides guidance on delivering sustainable development. Given the complexities of the sub region with, amongst other issues, urban and rural relationships to consider, the guidance provided within the document on accessibility and location of development is key in considering sites for development.

Regional Spatial Strategy for the West Midlands (RSS11)

- 2.10 Guidance provided within the RSS focuses on delivering ‘prosperity for all’ and an improved quality of life. The guidance on employment land provides a foundation to encourage the development of new high growth employment sectors coupled with the modernisation of the region’s existing traditional industries.
- 2.11 The RSS seeks to establish and maintain a portfolio of sustainably located employment sites that can meet the needs of developers and operators. The RSS recognises the need to create a truly multi-centred region, delivered by a focus on the MUA’s, high technology corridors and regeneration zones. All of these initiatives seek to create economies that come together to provide a competitive and sustainable West Midlands.

Policy PAI: Prosperity for All

- 2.12 Policy PAI provides a generic policy on the location of employment land and what local authorities must do to deliver new opportunities and regeneration. The policy puts particular emphasis on the need to direct the majority of development to the MUA’s whilst also placing weight on the need to encourage development in the regeneration zones. The policy also focuses on the need to encourage infrastructure developments to foster the improvement of skills and learning.
- 2.13 Paragraphs C and D of the policy are of particular relevance to the study area as they provide guidance on the development of greenfield sites, and sites on the edge of or outside MUA’s. Considering the rural character of much of the sub region these points are of particular note.
- 2.14 Outside of the MUA’s, the policy notes that those sites conforming with the following criteria (paraphrased) should be given preference:
- Help meet the needs of the MUA’s and promote positive economic linkages with them in sustainable locations
 - Help meet the needs of rural renaissance and especially market towns
 - Will serve the needs of local regeneration areas; and
 - Limits the need for commuting by providing a better balance between housing and employment (i.e. sustainability)
- 2.15 Paragraph D provides the following criteria for development proposed on the edge of MUA’s or on other greenfield sites:
- There are no suitable alternatives available on previously developed land and buildings within built up areas;
 - The development should be capable of being served by rail or high quality public transport within easy reach of centres and facilities; and
 - The development respects the natural environment, built environment and historic heritage in accordance with policies QE1-9.
- 2.16 The criteria provided above should form the foundation for much of the policy formulation through the LDF’s in the sub region. Sustainability is clearly intrinsic to the identification of new employment opportunities and it is evident that the guidance above can be embraced by each local authority in providing planning policy that will enable sustainable economic growth in their areas. In short, development should be delivered that compliments the lead role of the MUA’s, rather than compromising the ability of these areas in meeting their own needs.

Policy PA2: Urban Regeneration Zones

- 2.17 This recognises the need to focus investment on five regeneration zones in a bid to encourage urban renaissance and help reverse long-standing trends of decentralisation of economic activity and the decline of economies. Coventry and Nuneaton, East Birmingham and North Solihull are the urban regeneration zones within the study area.

Policy PA3: High-Technology Corridors

- 2.18 In recognition of the need to diversify and grow the region's economy the RSS identifies three high technology corridors within which cluster developments to improve the region's research and development capabilities are supported. A large part of the study area is identified as a High Technology Corridor.

Policy PA4: Development related to Higher/Further Education and Research Establishments and Incubator units

- 2.19 This policy is particularly relevant to the sub region as Warwick University represents a major employer and landowner of considerable economic importance. Close collaboration between officers at Warwick and Coventry needs to be maintained in ensuring that support is given to the university in delivering suitable extensions to the facilities when required.
- 2.20 The university is split between the administrative boundaries of Warwick and Coventry. Short-term expansion plans are focussed in the Warwick area, involving development within the green belt. Warwick DC remains supportive of the University but careful thought is needed to ongoing development requirements considering such potential constraints.

Policy PA6: Portfolio of Employment Land

- 2.21 This policy confirms the need for local authorities to maintain a range and choice of readily available employment sites to meet the needs of the economy. The policy provides a hierarchy of sites as follows:
- First Tier Sites – Regional Investment Sites, Major Investment Sites and Regional Logistic Sites.
 - Second Tier Sites – Sub-regional employment sites, Good quality employment sites and other employment sites.
- 2.22 The policy notes that authorities need to review employment land allocations and needs when preparing their development plans. Principles of sustainable development are at the heart of the criteria for the development of all types and sizes of employment land. This study is looking at the second tier level of sites.

Policy PA14 – Economic Development & the Rural Economy

- 2.23 Considering the rural nature of much of the sub region, policy PA14 is a relevant policy of the RSS. The policy supports the diversification and development of the rural economy, making it clear that this should be focussed on the larger towns and villages easily accessible to their rural hinterlands.

RSS Review

- 2.24 The Regional Spatial Strategy is currently undergoing a partial review. It is the requirement of this review that has played a large part in the commissioning of this study, as the revised strategy needs to give advice on the amount, type and location of employment land required to 2026.

Warwickshire Structure Plan

- 2.25 The plan recognises the need not only to provide the required amount of land to facilitate the growth of the service economy but also to enable industrial employment opportunities for those made unemployed through the demise of mining and traditional manufacturing activities. The Plan seeks to halve unemployment through the provision of suitable employment sites.
- 2.26 The plan provides targets for employment land for each of the five local authorities. Of particular significance is the identification of the 'Ansty' site in Rugby as a Major Investment Site; which is a strategic regional site.

Local Plans/UDP's

- 2.27 In order to avoid unnecessary duplication, we have not provided a detailed review of planning policy contained within each local plan but instead summarise the aims and objectives of employment policies contained within each. Although LDF's will soon update and revise existing policy, it is important to note that these remain extant and are key considerations when dealing with employment land issues in the interim period.

Coventry

- 2.28 The employment chapter of the Coventry Development Plan provides a set of policies that seek to protect, strengthen and diversify the city's economic base between 1996 and 2011. Having recovered from damage done by the recessions of the 1980's and early 1990's, the supporting text recognises how the city has moved from a traditional manufacturing base to a more diverse economy with successful financial and professional services firms flourishing.
- 2.29 Reference is made to the need to support the retention and diversification of the automotive R&D industry. The plan is also supportive of developments involving new technologies and clusters of development and expertise. There is a policy that discourages large scale warehousing (4,000 sq.m. +) unless it meets certain criterion of accessibility by rail freight, being required to meet a specific local need or it meets a certain employment density.
- 2.30 The stated aim of the plan is:
- “to provide sufficient land of a range of quality and size to strengthen and diversify the economic base of the city, in order to maximise employment and minimise economic disadvantage.”*
- 2.31 The plan allocates 16 Principal Employment Sites, which together with the protection of existing employment sites are seen as integral to the continued improvement and development of the city's economy.

Solihull

- 2.32 The employment chapter contained within the Solihull UDP (2006) recognises how dramatically the borough's economy has grown and notes concern about continuing low employment in the north of the borough.
- 2.33 The UDP confirms the success of large sites within the Borough such as Birmingham Business Park / Blythe Valley and encourages the further development of major employment locations such as Birmingham International Airport and the NEC. The chapter refers to the continued diversification of the economy, the buoyant office market and the favourable location of Solihull with regard to accessibility to the national, regional and local highway network.
- 2.34 The plan recognises the need to stimulate employment in the north of the borough, part of which is in the East Birmingham and North Solihull Regeneration Zone established by Advantage West Midlands.
- 2.35 The Solihull Employment Land Needs Study was completed in March 2004. The report concluded that the then available supply of land of around 23ha was only situated in two of the four broad areas in the Borough and that when compared to recent take up rates there was a supply of only around five years. This rises to around 7.5 years if potential supply is taken into account. The report confirmed a tight supply of premises and sites in the north of the Borough.
- 2.36 The report made several policy recommendations, including:
1. The council will need to consider additional allocations through emerging LDF's to maximise the economic role of the Borough;
 2. Protection of employment land from alternative uses;
 3. Creation of distinct roles for employment sites in the Borough.

Warwick District

- 2.37 The key aim of the Warwick District Local Plan is to meet the employment needs of the whole community to 2011. In order to achieve this the Plan recognises the need to stimulate and support growth both in the urban and rural areas of the District.
- 2.38 In directing new employment development, the Plan seeks to direct the majority of such development to established employment areas, to town centres, to allocated sites and to sustainable sites adjacent to public transport interchanges and corridors as highlighted on the proposals map.
- 2.39 The Structure Plan requires 132 hectares of land to be developed for employment purposes to 2011.

Stratford-on-Avon

- 2.40 The aims of the Local Plan are to provide new employment development on suitable sites in and around Stratford-upon-Avon and the main rural centres, together with small-scale development in smaller settlements to meet local needs.

- 2.41 The majority of new development is directed towards Stratford-upon-Avon, though the main rural centres all have important roles in improving the economic performance of the District. Major development at Wellesbourne in particular has come forward in recent years making the best use of accessibility to the national highway network.
- 2.42 Sustainability is a major consideration for the council, and the plan seeks to ensure that most development is located in larger settlements and where appropriate access by public transport can be gained
- 2.43 The Structure Plan allocates 81 hectares of land to be developed for employment purposes to 2011.

Rugby

- 2.44 The Local Plan (adopted July 2006) provides a set of policies, aims and objectives geared towards redefining the Borough's economic base following decline of the traditional manufacturing sector.
- 2.45 The plan recognises that many of the losses brought about by the decline of manufacturing have been offset by the growth of other sectors, particularly warehousing and distribution. The plan recognises that the Borough has good access to the national road network, which has clearly been attractive to a number of occupiers.
- 2.46 In meeting employment needs, the focus has been the development of prime sites within and around Rugby and close to the M6. However, the plan realises the importance of strategic employment locations in the rural parts of the Borough. This includes Ryton on Dunsmore, Church Lawford and individual companies on large site such as Rolls Royce.
- 2.47 The plan confirms that Rugby has sufficient land supply to meet the Structure Plan requirement to 2011.
- 2.48 The Council published an employment land appraisal in September 2004. The results of this have been fully considered in preparing this report.
- 2.49 This study provides a positive report on the employment land situation in Rugby, though points out a number of areas for improvement. The report confirms that Rugby has a healthy economy with low unemployment and a steady growth in new employment development. The report also notes that if all land currently identified is developed the Structure Plan target to 2011 should be met. Slight concern is also raised about the movement of the economy to one with a storage and distribution base, which is not considered ideal due to the low density of employment normally involved.
- 2.50 The key recommendations within the report are as follows:
- Protect existing employment land and ensure that any redevelopment of this land involves an element of employment use (i.e. 20% of development at least);
 - Provision of more small to medium sized premises;
 - Provision of more B1 space;
 - Maintain and improved job density of 48 per hectare;
 - Redevelopment, extension, conversion and improvements to ageing facilities.
- 2.51 Overall, the report confirms that Rugby is successfully diversifying its economic base but that there is a danger of over reliance on storage and distribution should the Council not be able to encourage more B1 developments and an improved range of small to medium sized units.

North Warwickshire

- 2.52 The Local Plan recognises the significant employment change that has been seen through the Borough over the past 30 years. Traditionally reliant on farming and coal mining, these industries are in decline and have been replaced by retail / wholesale distribution, storage and public administration.
- 2.53 The regeneration of derelict land has facilitated the development of major employment sites in the Borough such as Hams Hall (Regional Logistics Site), Birch Coppice and Kingsbury link. The Borough has a good supply of employment land to 2011. As the Structure Plan permits no further allocations, the Plan recognises that existing availability should meet needs to 2011.

Nuneaton & Bedworth

- 2.54 The Local Plan recognises the substantial job losses that occurred due to the continued decline of traditional manufacturing. This has had the effect of creating some of the most deprived wards in Warwickshire within the Borough.
- 2.55 In response to this, the Plan seeks to support regeneration and a more diverse economic base. The intention of the Council to achieve this is highlighted by the delivery of a number of key employment sites, namely those around Nuneaton such as Bermuda and Griff Clara providing employment primarily in the storage and distribution sector. These developments are delivering key new employment opportunities for the Borough.
- 2.56 The Local Plan recognises the importance of the Coventry / Nuneaton Regeneration Zone in stemming further economic decline and promoting the revitalisation of suffering communities.

Summary

- 2.57 Overall, the individual plans provide a land use strategy that seeks to protect, strengthen and most importantly diversify the sub-region's economy. Major recent developments across the sub region indicate that the strategies are securing appropriate new development.
- 2.58 The sub region provides high quality office developments, research and development facilities, storage and distribution opportunities and a range of supporting employment sites and premises that are supporting economic development despite continued decline in traditional industries and manufacturing.
- 2.59 However, as the supply of sites is taken up the sub region will face challenges in facilitating continued economic growth and diversification. There are a range of constraints to further releases of land and each local authority will have to consider how best to achieve this in light of their own specific circumstances. Recommendations on policy development are provided at chapter 6.

3 Employment Baseline

- 3.1 A key issue for the area is how much employment land will be required to support economic growth and demographic changes in the sub region. A further issue is how this growth and associated demand for land (and labour) will be distributed across the various districts in the sub-region.
- 3.2 Traditionally, land use planning has assessed the requirement for employment land by considering the extent of employment growth and trends in floorspace/worker ratios. It has been generally assumed that in times of high economic growth (with rising output and employment), floorspace/worker ratios will be rising, indicating that economic growth would increasingly require larger amounts of land. Having said this, in recent years rising economic growth has been accompanied by little or no growth in floorspace and this is demonstrated by falling floorspace/worker ratios in certain sectors. It is possible therefore that the traditional relationship between economic growth and requirements for employment land may be changing in some sectors due to gains in productivity through more efficient use of resources including employment land.
- 3.3 Sections three and four provide information for assessing the implications of economic and demographic trends in considering employment land requirements in the Coventry, Solihull and Warwickshire sub-region. It covers information relating to:
- demographic profile, trends and estimates of labour supply for the Coventry, Solihull and Warwickshire sub region over the period 2006-2026. A key element for informing future provision of employment land is the way in which the population is expected to change;
 - employment baseline and trends for the sub-region.
 - employment forecasts for the period 2006 to 2016 (Section Four) and 2016-2026 in Appendix 5.

Demographic Characteristics

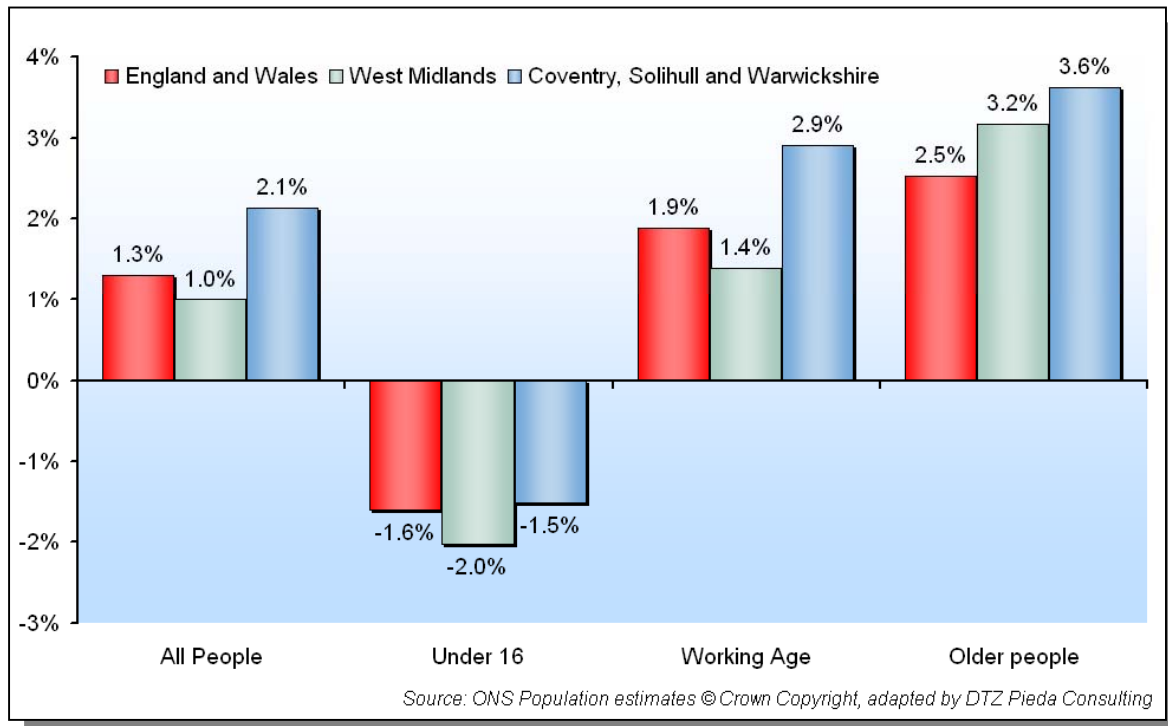
- 3.4 The population of the Coventry, Solihull and Warwickshire (CSW) area in 2004 was estimated to be 1,030,100,¹ with 30% of this total in Coventry, 19% in Solihull and 51% in Warwickshire. Over the last three years the population in CSW has grown faster than both the West Midlands and England and Wales as a whole.
- 3.5 The working age population² is particularly important as it indicates the size of the potential workforce. In 2004, the proportion of the population who were of working age³ in the CSW area 649,000 (62%) was broadly similar to both the West Midlands (61%) and England and Wales as a whole (62%). Within CSW there is significant variation with the working age population, making up only 60% of the total population in Solihull and Stratford-on Avon, rising to 65% in Warwick. In CSW the working age population has grown at more than twice the rate of the West Midlands between 2001 and 2004, with the population older than working age growing a little faster than the West Midlands and the younger population declining proportionately less. This is shown in figure 3.1.

¹ Mid Year Population Estimates, ONS © Crown Copyright

² The working age population includes men aged 16 – 64 and women aged 16 - 59

³ For this analysis working age is calculated as male population 15 – 60 and female population 15 - 59

Figure 3.1 – Percentage change in population, 2001 – 2004

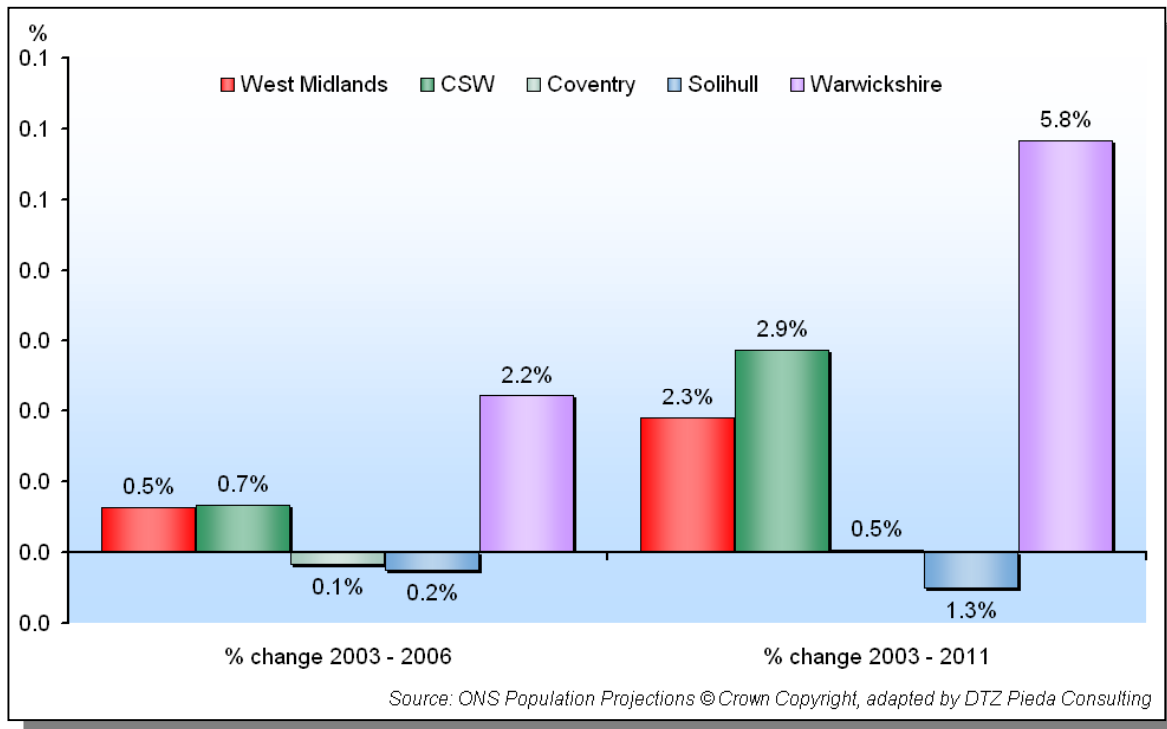


- 3.6 Between 1984 and 2004 the population of CSW increased by around 4%, slightly ahead of the West Midlands regional population change of 3%⁴. In absolute terms this represents an increase of some 38,300 persons. The largest increase has been in the population above working age⁵ (32,900). There has been a smaller increase in the working age population (16,100) and a fall in the population below working age (-10,700).
- 3.7 In future, the changing demographic patterns evident in recent population change will continue to take effect and there will be a considerable impact on the relationship between the working age population and the total population. This is often discussed in relation to the looming pensions and social/health care crisis in the UK. Life expectancy has increased and fertility rates have fallen.
- 3.8 Estimates of how the population will change in Coventry, Solihull and Warwickshire are shown in Figure 3.2. These are based on trends in birth rates, mortality rates and net migration (the balance of people moving into and out of an area). In future, the growth in population in the CSW area is expected to be more than that of the West Midlands, driven by population growth in Warwickshire. However, growth in population of working age is projected to be limited.

⁴ Mid Year Population Estimates, ONS © Crown Copyright

⁵ For this analysis working age is calculated as male population 15-64 and female population 15-59. Population below working age are those below 15 and above working age are males 65+ and females 60+.

Figure 3.2 – Projected population change 2003 – 2006 and 2003 – 2011



Note: the base year for these projections is 2003.

Labour Market Profile

Employment, Unemployment and Economic Activity

3.9 In the CSW area there are 491,000 people in employment and 17,000 who are unemployed. The employment rate among working age people is higher in the CSW area (77.8%) than in either the West Midlands (74.7%) or Great Britain (74.9%). There has been growth in employment rates across CSW over the last five years – this has also been the case in the West Midlands and Great Britain (see Figure 3.3). As employment rates have risen, unemployment has fallen. Decline in unemployment rates has been strongest among women in CSW, falling by 2.0%, compared to a fall of 1.6% among males. The fall in unemployment in CSW is in line with the change in unemployment throughout the West Midlands, and is faster than the rate in Great Britain as a whole (see Figure 3.4).

Figure 3.3 – Proportion of the working age population in employment

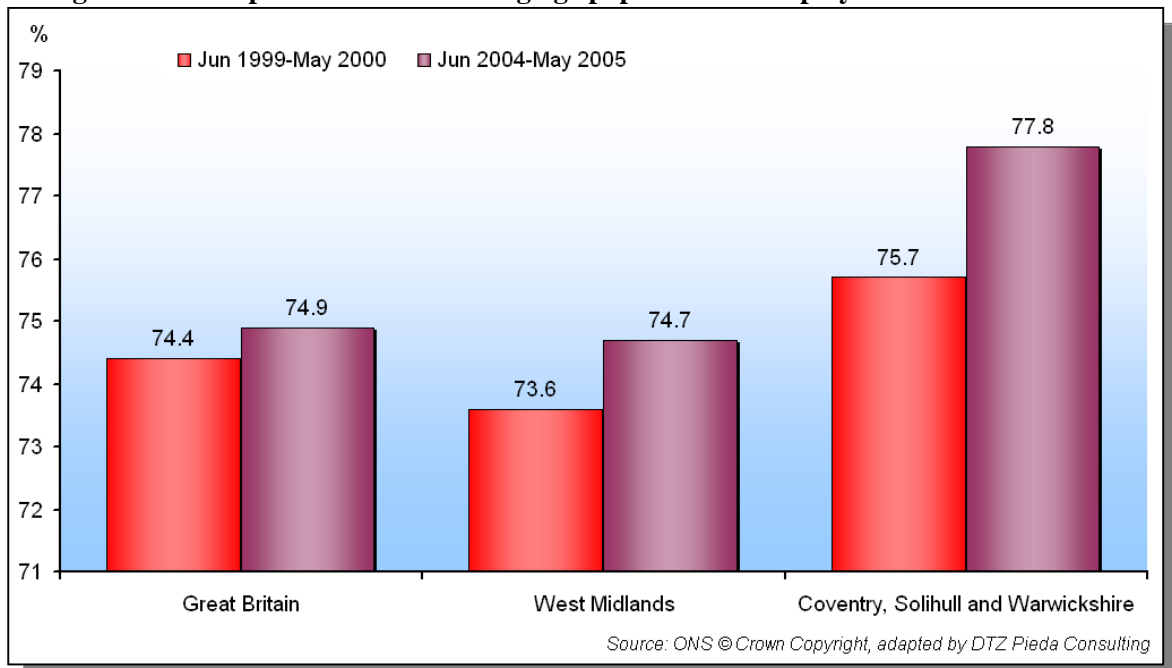
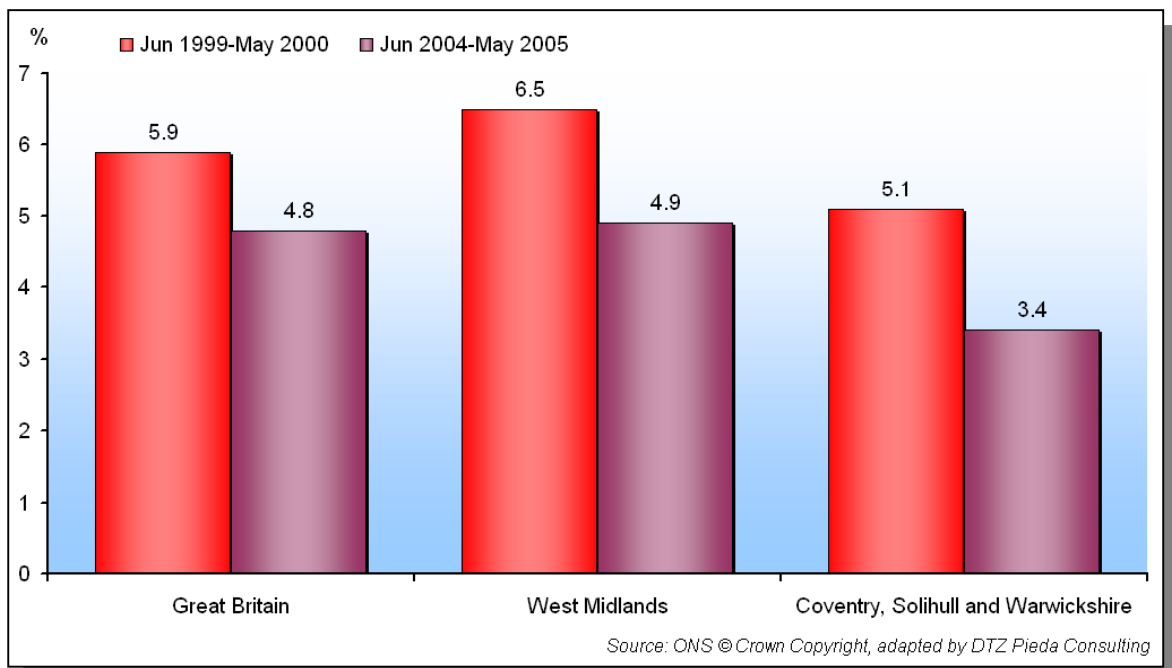


Figure 3.4 – Proportion of the working age population who are unemployed (ILO unemployment)⁶

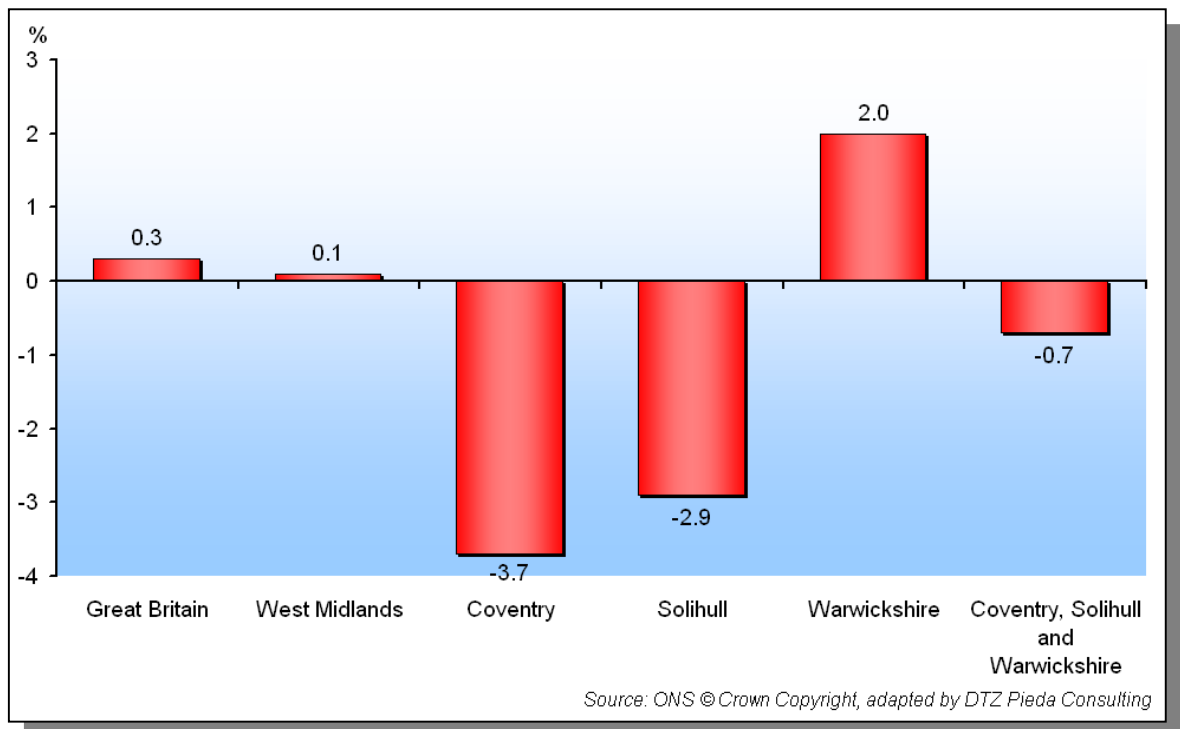


⁶ There are two commonly used measures of unemployment. The first is claimant count - claimant count is a UK measure and indicates the number of people eligible for and claiming unemployment benefit. The second is the International Labour Organisation (ILO) measure (used here) – the ILO unemployment rate shows people who are unemployed but would like to work (even if they are not actively seeking work). The ILO unemployment rate is an internationally recognised measure of unemployment. The claimant count is generally lower than the ILO unemployment rate.

3.10 Sometimes, falling unemployment can be observed in conjunction with a rise in economic inactivity caused by, for example, people claiming incapacity benefit and no longer seeking work. In the CSW area in the period June 2004 to May 2005 economic inactivity rates were 19.5%, lower than the average in the West Midlands (21.4%) or Great Britain as a whole (21.5%).

3.11 Across the CSW area, inactivity has fallen in 2004/05 from the level it was at five years ago. Within CSW, Warwickshire has shown a rise in inactivity, with both Coventry and Solihull showing a decrease in inactivity. In the West Midlands and Great Britain inactivity has increased very slightly by 0.1% and 0.3% respectively (see Figure 3.5).

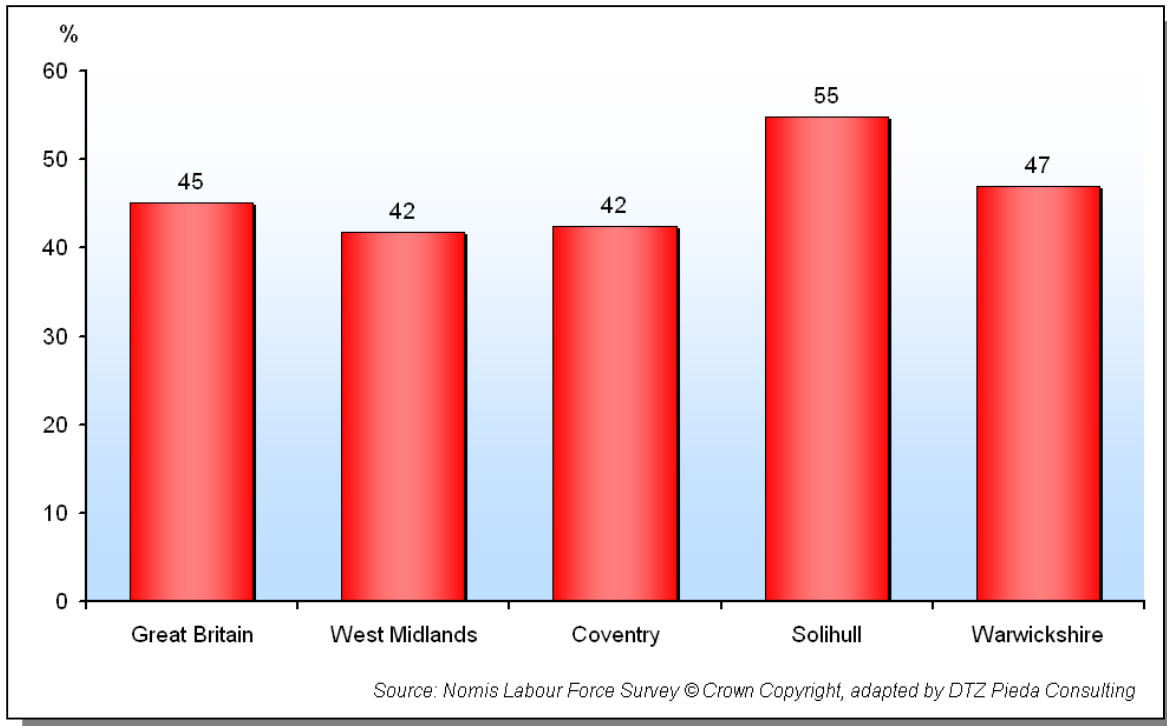
Figure 3.5 –Change in economic inactivity rates 1999/2000 - 2004/2005



Skills

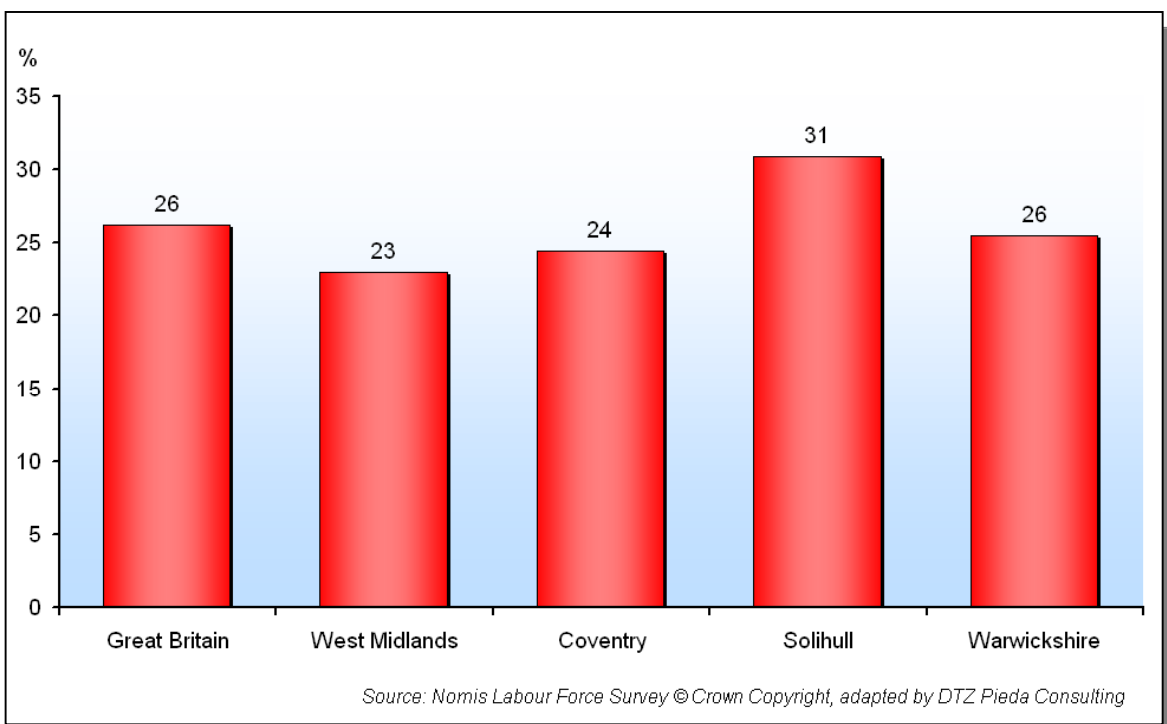
3.12 The working age population in CSW has a slightly higher proportion of individuals qualified to NVQ level 3+ than the West Midlands and Great Britain as a whole. NVQ level 3 includes A levels. This is mainly concentrated in Solihull and Warwickshire, with the urban centre of Coventry having proportionately fewer working age people at this level than the average in Great Britain, although still higher than the West Midlands average (see Figure 3.6)

Figure 3.6 – Proportion of the workforce qualified to NVQ level 3+, June 2004 – May 2005



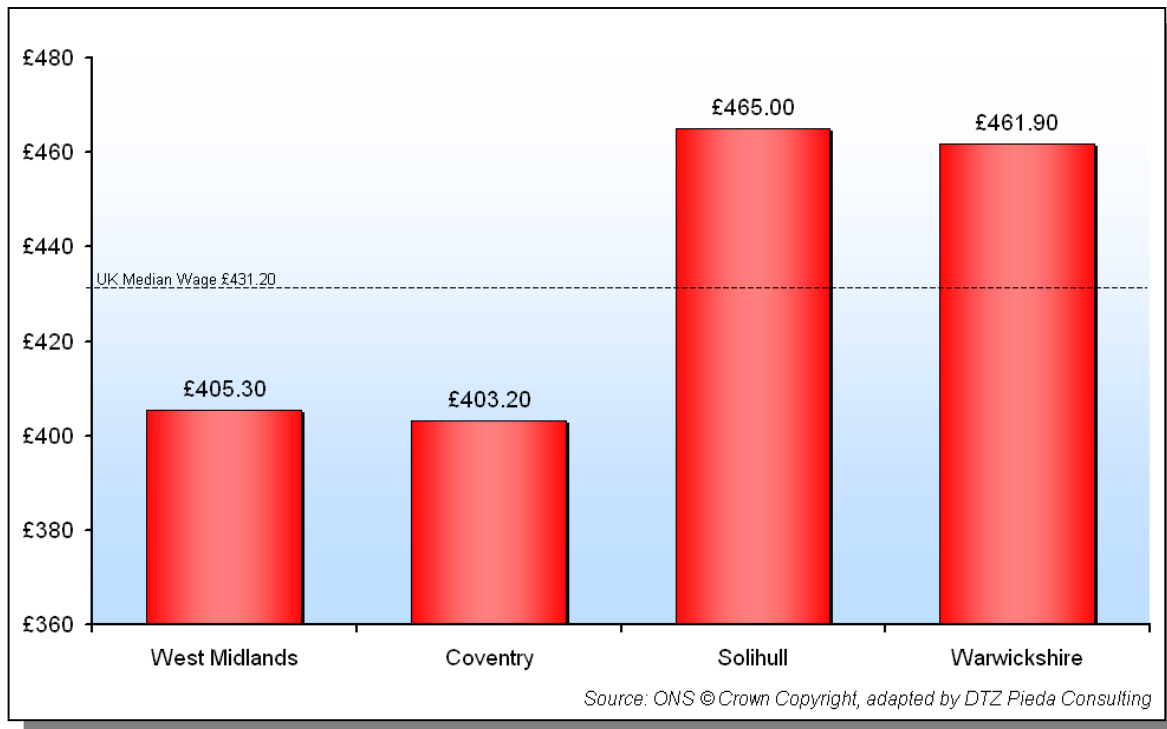
3.13 This picture is also true of the working age population qualified to NVQ level 4+. NVQ level 4 includes undergraduate degrees and HNDs. Solihull again has the largest proportion of working age people qualified at NVQ level 4+, with both Coventry and Warwickshire having proportionately fewer working age people qualified at this level than the average in Great Britain, but more than the average in the West Midlands (see Figure 3.7)

Figure 3.7 – Proportion of the workforce qualified to NVQ level 4+, June 2004 – May 2005



3.14 The median weekly wage in Coventry (£403.20) is below that for the West Midlands (£405.30) and the UK (£431.20). However, in Solihull and Warwickshire the median weekly wage is higher at £465.00 and £461.90 respectively. This is shown in Figure 3.8.

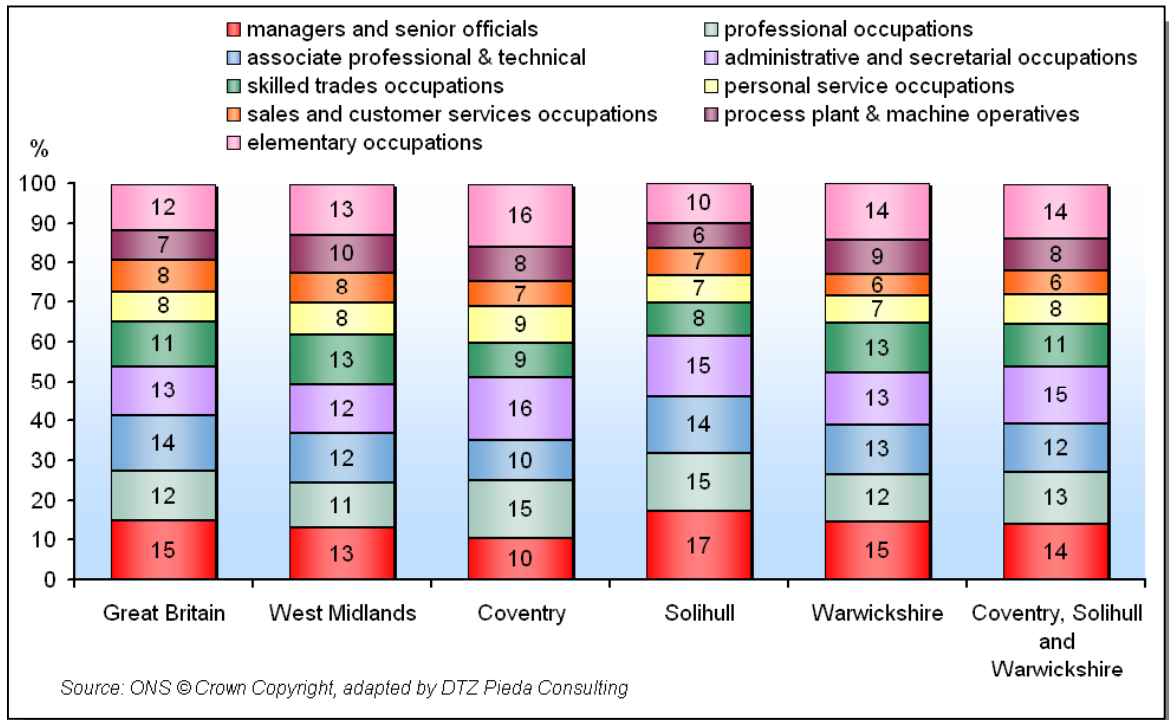
Figure 3.8 – Median weekly Earnings, 2005



Occupation Structure and Occupational Change

3.15 The occupation structure of the CSW area is broadly in line with both the West Midlands and Great Britain although there are some differences between Coventry and Solihull and the regional and national picture. Within CSW, Solihull has a higher proportion of managers and senior officials (17%) than either the regional (13%) or national (15%) averages. There are proportionately more people employed in professional occupations in both Coventry (15%) and Solihull (15%) than in the West Midlands (11%) or Great Britain (12%). Coventry has proportionately fewer associate professional and people engaged in technical occupations (10%) than the wider West Midlands region (12%) or Great Britain (14%). The proportion of the workforce involved in administrative/secretarial roles is greater in both Coventry (16%) and Solihull (15%) than in the West Midlands (12%) or Great Britain (13%). A smaller proportion of both the Coventry (9%) and Solihull (8%) workforce is employed in skilled trades compared to the West Midlands (13%) and Great Britain (11%). Coventry also has a larger proportion of its workforce employed in elementary occupations (16%) than the West Midlands as a whole (13%) or Great Britain (12%). A more detailed breakdown for the sub-areas within Warwickshire is not available due to data limitations.

Figure 3.9 – Occupation Structure

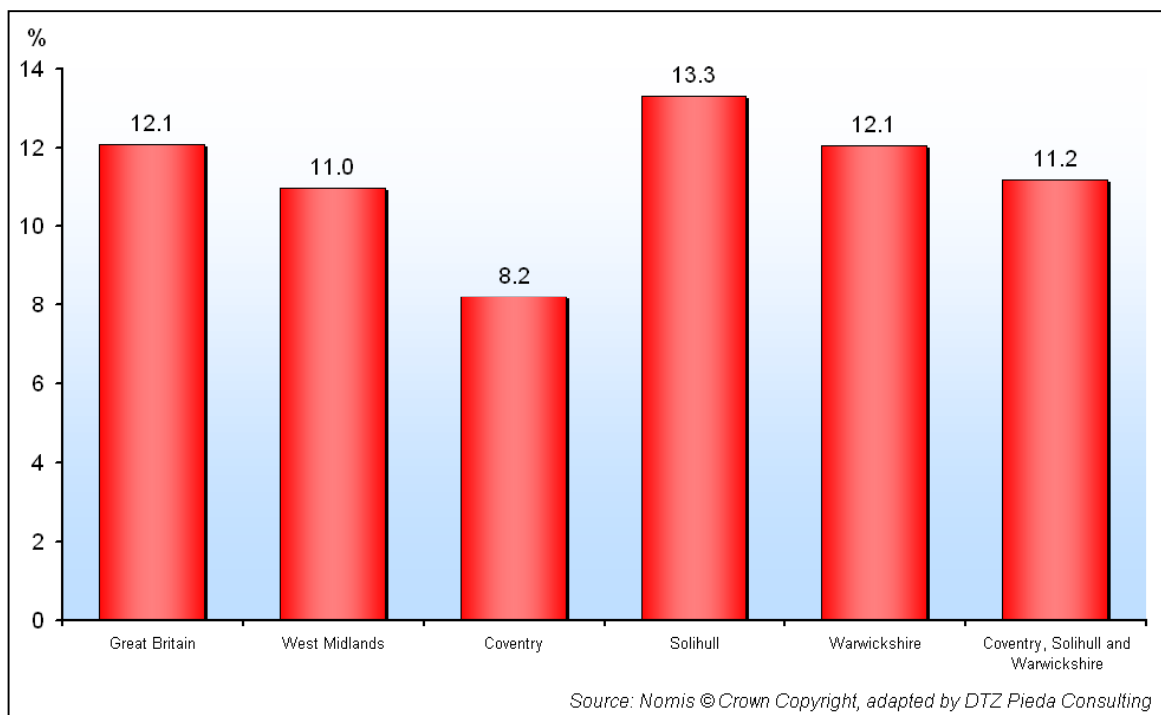


Note: data in this chart is based on place of residence, rather than workplace.

Self Employment

3.16 Compared to Great Britain, a smaller proportion of employment in the CSW area is self-employment. Self-employment in CSW is 11.2%, broadly in line with the average in the West Midlands (11.0%). Within CSW, self-employment is lowest in Coventry (8.2%) and highest in Solihull (13.3%).

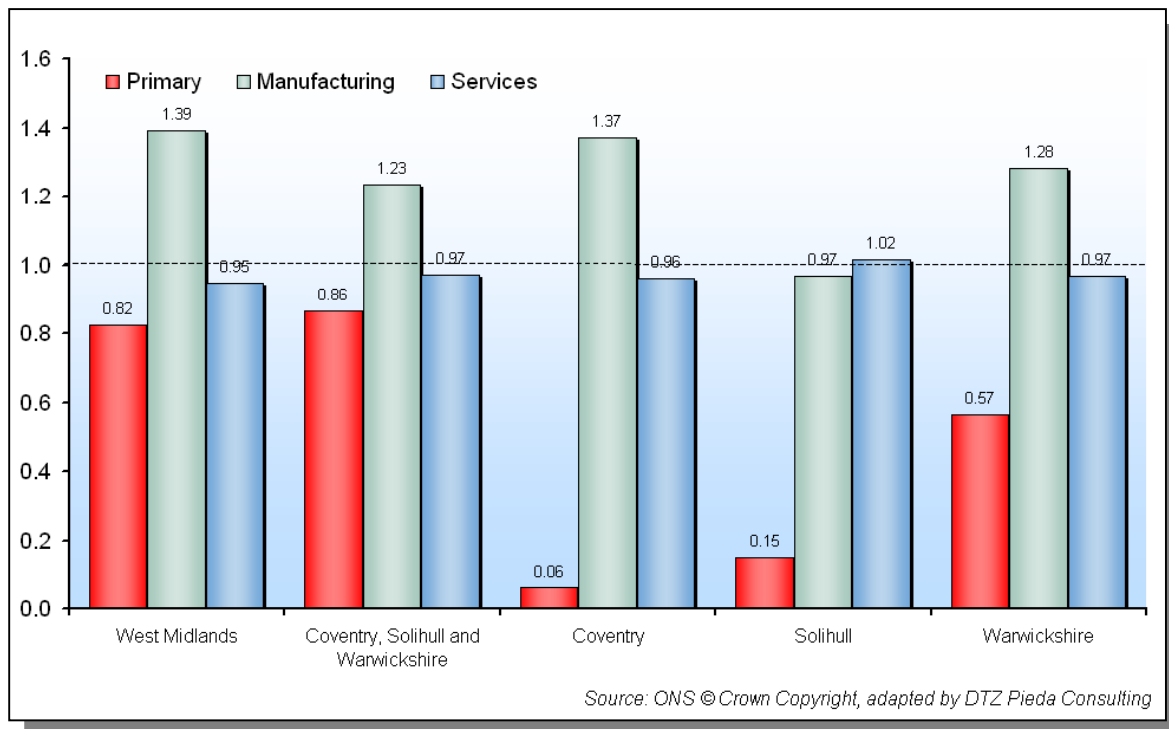
Figure 3.10 – Proportion of those in employment who are self-employed, 2004



Industrial Structure

- 3.17 Figure 3.11 shows the concentration of employment in key sectors relative to Great Britain. It shows location quotients a measure of relative concentration. A value less than one indicates that the sector is under-represented relative to Great Britain and a value greater than one indicates that the sector is over-represented relative to Great Britain.
- 3.18 Compared to Great Britain as a whole, the CSW area (and particularly Coventry) is relatively over-represented in manufacturing industries and is slightly under-represented in services. Despite this relative over-representation, employment in the service sector (403,100 employees in 2004) is significantly higher than for manufacturing (70,000 employees in 2004). In the CSW area, 84% of the workforce are employed by companies in the service sector, compared to only 15% are employed by manufacturing companies. These proportions are broadly constant across each of the counties of Coventry, Solihull and Warwickshire.

Figure 3.11 – Employment by key sector, location quotient relative to Great Britain, 2004

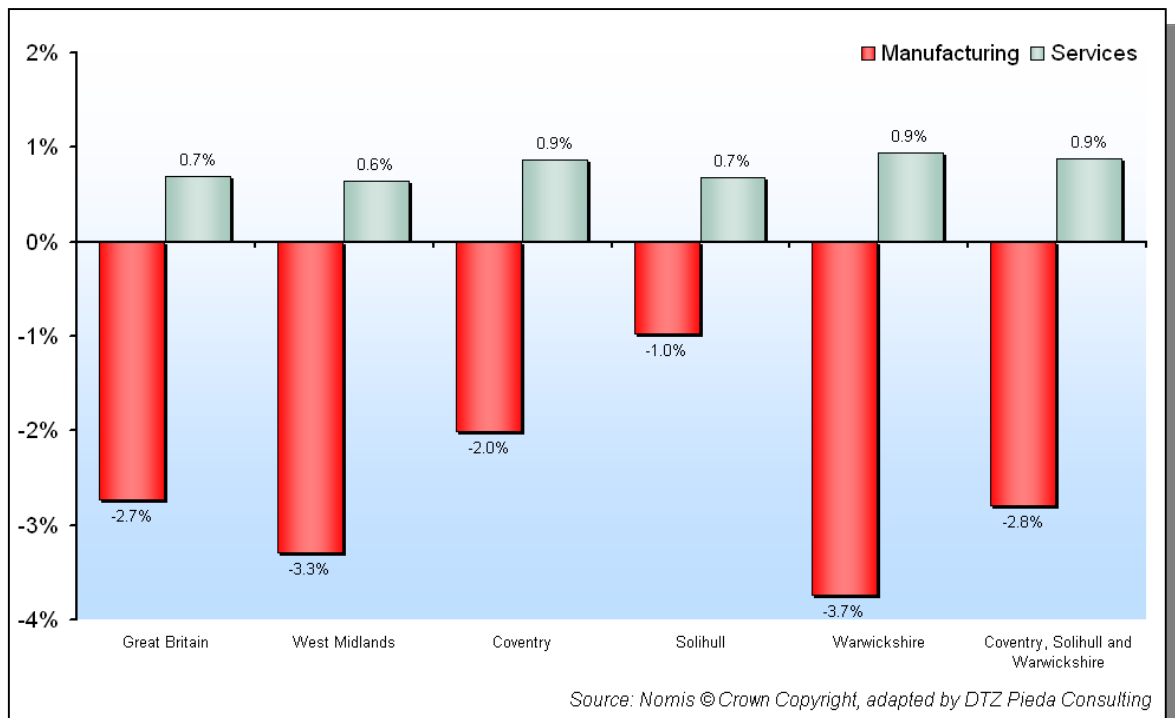


Industrial Change

- 3.19 Over the last five years (1999 – 2004) in CSW, the number of employees in manufacturing has declined by 27%, whilst the number of employees in the service sector has grown by 11%. Employment in the primary sector has declined slightly although this sector employs only a very small proportion of the CSW workforce.
- 3.20 Changes in the business stock are shown in figure 3.12. This details VAT registration data and therefore does not include some of the smallest businesses that are below the VAT threshold and have chosen not to register. The number of businesses in the manufacturing sector has declined by 2.8% across the CSW area whilst the number of businesses in the service sector has grown by 0.9%. The rate of decline is sharpest in Warwickshire, where it

is 3.7% - a full one percentage point below the decline in Great Britain as a whole. Within Warwickshire decline is fastest in Warwick (5.8%), Stratford-on-Avon (4.9%) and Nuneaton and Bedworth (4.3%). The growth in new businesses in the service sector is above the level in Great Britain and the West Midlands throughout the CSW area.

Figure 3.12 - Net change in number of VAT-registered businesses as a proportion of the VAT-registered business stock, 2004



3.21 Of particular interest to this study is the changing structure of the manufacturing base. Over the 5 year period 1999 to 2004, manufacturing employment declined by almost 26,000 and a reduction in the number of business units of around 250. Of this decline in employment, 58% was in businesses employing 200 or more employees. This is in excess of the proportion employed in units of this size. A much lower proportionate fall was experienced in businesses of 50 employees or less. This would suggest a shift away from large scale manufacturing plants towards smaller units. In 2004 75% of manufacturing businesses employed between 1 and 10 employees. This compares to 2% employing 200 or more. The average business size in 2004 stood at 22 in comparison to 28 only 5 years earlier.

Forecasting Methodology

3.22 In assessing potential future employment requirements we have applied several techniques:

- an employment demand led approach;
- a labour supply led approach;
- an assessment of past trends.

3.23 Consideration has been given to the need to provide land for potential future job growth, replacement for jobs lost as a result of economic restructuring and the need to provide for a churn of stock over time.

- 3.24 This section of the report sets out the results of the employment demand led forecasting exercise undertaken as part of this study. This includes both a baseline scenario and two alternative higher growth scenarios based on strengths and opportunities within the sub regional economy, which benefit from policy support for particular sectors through the regional economic strategy. Secondly, forecasting based on the labour supply approach is included. Finally, and in line with the approach being considered by the RSS Phase 2 Revision, a forecast based on past land take up is included.

Employment Demand Forecasting Methodology

- 3.25 The employment forecasting analysis is based on a two stage approach:
- Employment forecasting for the sub-region and constituent districts; and
 - Translation of employment forecasts to floorspace and land requirements based on sectoral land use patterns.

Employment Forecasting

- 3.26 There are no existing employment forecasts or forecast models for the West Midlands or its constituent sub-regions other than those available from commercial forecasting organisations. Whilst the West Midlands Regional Observatory is looking to develop a regional forecasting model, this is still some 6-12 months from completion. The West Midlands Regional Spatial Strategy does not contain any explicit employment forecasting. Housing forecasts within the RSS are related to forecast demographic patterns rather than employment demand. Therefore, this research has developed employment forecasts for the entire study area and the six constituent districts/unitary authorities. A baseline scenario has been constructed from ABI data and sub regional growth projections.
- 3.27 Cambridge Econometrics (CE) regional forecasts have been used to generate forward projections. CE regional forecasts are available for 30 industrial sectors and run to 2015. For the purposes of this study, we have extrapolated long-term sectoral growth rates to 2026. Compound Annual Growth Rates (CAGR) for sectors have been calculated in order to project employment change at five-year intervals. These sectoral CAGRs have been applied to the base year data for each area to generate forward projections at the local and sub-regional level.
- 3.28 Two additional scenarios have been developed over and above the baseline position. These introduce uplift to growth rates (or decrease in rates of decline where a negative growth rate is forecast) for particular sectors. The medium growth scenario adjusts those sectors relevant to the clusters identified within the RES plus sectors (i.e. business services, public administration, education and health, wholesale and retail) at the district level, which have outperformed the West Midlands over the period 1998-2004. The high growth scenario builds upon the medium growth scenario with an additional uplift across all sectors to model the potential impacts if CSW outperforms the West Midlands across the board.
- 3.29 The "high growth" figures from the CE method have been adopted in the conclusions on employment land requirements as they best reflect the strengths of the CSW sub-region and its ability to outperform the Region as a whole in terms of attracting employment related investment.
- 3.30 The CSW sub-region, as a whole, is a dynamic economic area with an active skilled workforce. It is an attractive location as a place to live and work. Potentially, it is well placed to make a further important contribution to the Region's economy. For these reasons

it is appropriate to take an optimistic view of employment growth into the future, subject to policy constraints that may affect provision for employment land

Land Use and Floorspace Forecasting

- 3.31 Sectoral employment forecasts have been translated to model floorspace and land use impacts. A matrix of land-use by sector has been used to assess the implications on employment land (B-class uses) as a result of employment change. A number of assumptions relating to floorspace per worker and development density have been made. These are set out in more detail within the following section of this report.

Cambridge Econometrics Regional Employment Forecasts

- 3.32 Cambridge Econometrics employment forecasts for the West Midlands region suggest total employment growth of 0.4% p.a. between 2006-11, slowing to 0.3% p.a. in the longer term to 2026. This compares with UK forecasts of 0.6% p.a. growth 2006-11 slowing to 0.5% p.a. in the longer term.
- 3.33 **Table 3.1** below sets out in summary the regional change in employment across three broad industrial sectors. This clearly emphasises the forecast switch away from manufacturing industry towards the service sector, which in turn will have significant implications for future land use.

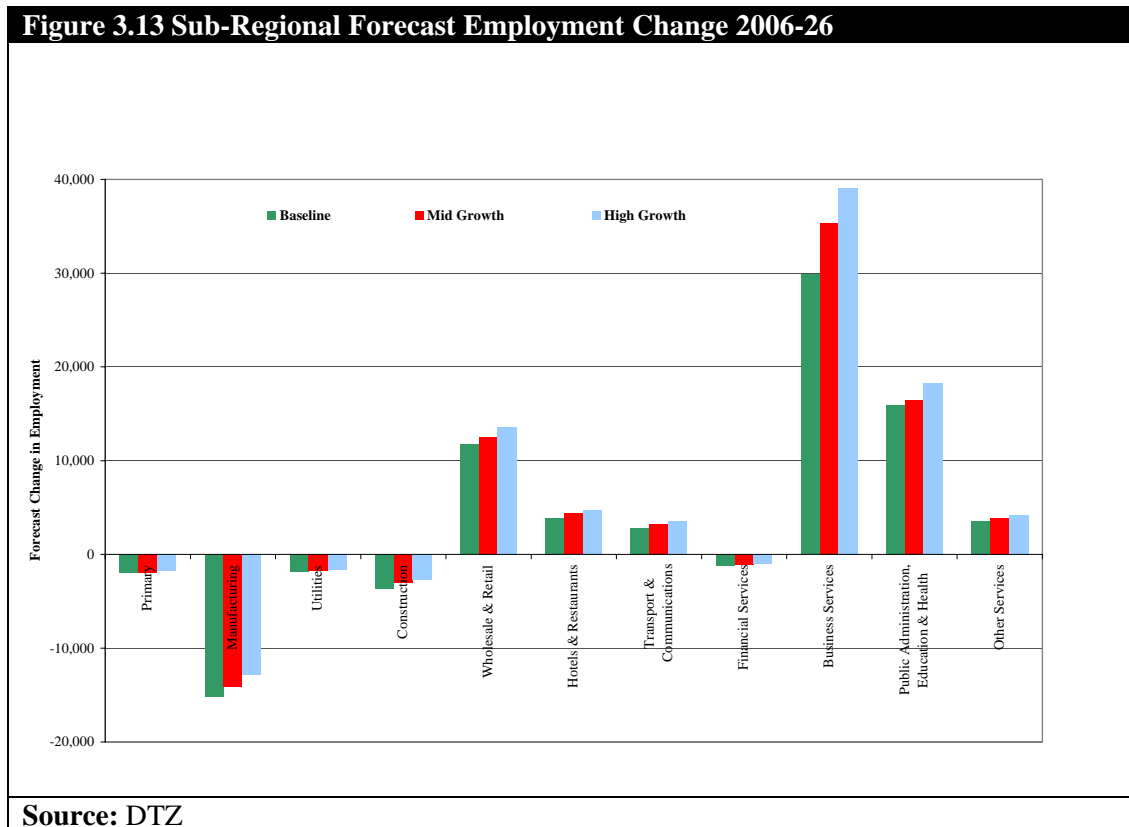
Table 3.1 Regional Sectoral Employment Change Based on Cambridge Econometrics Forecasts (2001-15)	
	2006-26
Primary	-20,000
Industry (<i>Manufacturing & Construction</i>)	-135,000
Services	+327,000
Total	+171,000
Figures may not sum due to rounding	

Employment Forecasts for the Sub-Region

- 3.34 **Table 3.2** sets out the headline employment forecast outputs for the sub-regional area of Coventry, Solihull and Warwickshire over five periods, 2006 – 11, 2011 – 16, 2016 – 21, 2021 – 26 and the whole period. This presents both the total employment change and the inherent CAGRs within the forecast model.

Table 3.2 Headline Outputs of Sub-Regional Employment Growth Forecasts					
	2006-11	2011-2016	2016-2021	2021-2026	2006-26
Employment Change					
Baseline Scenario	14,600	9,800	9,800	9,800	44,000
Medium Growth Scenario	17,400	12,100	12,100	12,100	53,700
High Growth Scenario	20,300	14,400	14,400	14,400	63,500
CAGR					
Baseline Scenario	0.60	0.39	0.38	0.37	0.44
Medium Growth Scenario	0.71	0.48	0.47	0.46	0.53
High Growth Scenario	0.82	0.56	0.55	0.53	0.62
Benchmarks					
UK	0.61				0.52
West Midlands	0.44	0.27	0.26	0.26	0.31
Source: DTZ					

- 3.35 **Table 3.2** shows that the three alternative scenarios all forecast strong performance in comparison to the West Midlands baseline position. This reflects the current industrial structure of the CSW sub-region, with strengths in sectors forecast to grow strongly in both the short and longer term. The medium growth scenario lies broadly in line with the baseline forecast for the UK in terms of growth rates, with the high growth scenario based on growth rates above UK levels.
- 3.36 In terms of absolute employment change, these scenarios indicate a net growth in employment of between 14,600 and 20,300 over the five-year period 2006-11. Beyond 2011, growth is forecast to be in the range of 9,800 to 14,400 for each five-year period.
- 3.37 The major growth sectors are forecast to be Business Services, Public Administration, Education & Health and Wholesale & Retail. Much of the employment within these sectors is not directly related to employment land (e.g. Retail – A-class use and Education & Health – C & D class-uses). The change in employment by broad sector is illustrated in Figure 3.13.



- 3.38 Analysis of four-digit SIC data (only available for past trends) on manufacturing sectors over the period 1998-2004 shows that on average employment decline within the sector overall was around 5,000 jobs per annum. However, this varies from 3,300 jobs over the period 2003-2004 to 10,000 jobs in the period 2000-2001. This net position hides significant variations in terms of gains and losses across the CSW sub region due to average annual employment gains of around 5,000 jobs per annum with a decline averaging at 10,000 jobs per annum. Again there is a range over the period for both gains and losses although not as significant as for the net position.

District Level Employment Forecasts

- 3.39 **Tables 3.3 to 3.7** set out in summary the forecast employment change at a district level.
- 3.40 District level forecasts based solely on the econometrics data can highlight implications of sectoral trends but must be treated with some caution because employment trends resulting from business decisions affecting local areas are less tied to overall trends in the sector. For example, at a local level, factors such as availability of labour or sites and premises can have a significant influence on investment decisions. In addition, the ABI has been the main source of data used to disaggregate employment growth from a regional to a sub-regional level and there are some concerns regarding the reliability of the data at a sub-regional level due to a high degree of volatility.
- 3.41 With regard to the issue of ‘volatility’ much of the information is survey based the sample sizes are smaller at more local geographies, hence data can be less robust. Data is also more open to fluctuation as, for example, the closure of one large company can have a disproportionate impact on a local area compared to its wider impact.
- 3.42 However, when aggregated to provide estimates at the study-area level the forecasts are more reliable. Therefore, the main emphasis should be on the entire sub-regional forecasts, with district level forecasts used to provide a broad indication of change within component parts of the sub-region.

Table 3.3 District Employment Change 2006-11			
	Baseline Scenario	Medium Growth Scenario	High Growth Scenario
Coventry	4,300	5,000	5,700
North Warwickshire	300	500	700
Nuneaton & Bedworth	1,000	1,200	1,400
Rugby	800	1,000	1,300
Solihull	3,700	4,500	5,200
Stratford-on-Avon	1,500	1,800	2,200
Warwick	2,900	3,200	3,700
Sub-Regional Total	14,600	17,400	20,300
Source: DTZ			
Figures may not sum due to rounding			

Table 3.4 District Employment Change 2011-16			
	Baseline Scenario	Medium Growth Scenario	High Growth Scenario
Coventry	2,800	3,300	3,900
North Warwickshire	200	300	400
Nuneaton & Bedworth	600	800	900
Rugby	500	700	900
Solihull	2,800	3,500	4,000
Stratford-on-Avon	900	1,100	1,400
Warwick	2,100	2,400	2,800
Sub-Regional Total	9,800	12,100	14,400
Source: DTZ			
Figures may not sum due to rounding			

Table 3.5 District Employment Change 2016-21			
	Baseline Scenario	Medium Growth Scenario	High Growth Scenario
Coventry	2,800	3,300	3,900
North Warwickshire	200	300	400
Nuneaton & Bedworth	600	800	900
Rugby	500	700	900
Solihull	2,800	3,500	4,000
Stratford-on-Avon	900	1,100	1,400
Warwick	2,100	2,400	2,800
Sub-Regional Total	9,800	12,100	14,400
Source: DTZ			
Figures may not sum due to rounding			

Table 3.6 District Employment Change 2021-26			
	Baseline Scenario	Medium Growth Scenario	High Growth Scenario
Coventry	2,800	3,300	3,900
North Warwickshire	200	300	400
Nuneaton & Bedworth	600	800	900
Rugby	500	700	900
Solihull	2,800	3,500	4,000
Stratford-on-Avon	900	1,100	1,400
Warwick	2,100	2,400	2,800
Sub-Regional Total	9,800	12,100	14,400
Source: DTZ			
Figures may not sum due to rounding			

Table 3.7 District Total Employment Change 2006-26			
	Baseline Scenario	Medium Growth Scenario	High Growth Scenario
Coventry	12,600	14,900	17,500
North Warwickshire	800	1,400	1,900
Nuneaton & Bedworth	2,900	3,600	4,300
Rugby	2,400	3,100	3,900
Solihull	12,000	15,000	17,400
Stratford-on-Avon	4,100	5,200	6,400
Warwick	9,100	10,400	12,000
Sub-Regional Total	44,000	53,700	63,500
Source: DTZ			
Figures may not sum due to rounding			

Labour Supply Forecasting

3.43

When considering the scale of employment growth it is also useful to analyse the forecast change in the labour supply. The analysis considers existing projections to provide a comparator to the employment forecasts presented in the previous section.

- 3.44 The analysis below includes a particular focus on the projected change in the population of working age in the CSW sub-region. The employment forecast analysis outlines the net additional demand for employment in the sub-region over the period 2006 – 26. In contrast, this analysis focuses on the potential labour supply and identifies the number of jobs required to maintain a healthy and balanced labour market in the sub-region. We acknowledge that in reality the demand for labour and a balanced and healthy population are not independent (e.g. higher demand for labour will stimulate population growth).

Recent Population Change

- 3.45 The total population of CSW (2004) stood at 1,030,1007. The population of working age⁸ stood at 649,000, some 63% of the total population.
- 3.46 Over the last twenty years (1984-2004) the population of CSW has increased by around 4%, slightly ahead of the West Midlands regional population change of 3%⁹. In absolute terms this represents an increase of some 38,300 persons. The largest increase has been in the population above working age¹⁰ (32,900). There has been a smaller increase in the working age population (16,100) and a fall in the population below working age (-10,700).

Future Population Change

- 3.47 The changing demographic patterns evident in recent population change will continue to take effect and there will be a considerable impact on the relationship between the working age population and the total population. This is often discussed in relation to the looming pensions and social/health care crisis in the UK. Life expectancy has increased and birth rates have fallen.
- 3.48 ONS Population Projections (2003 based) forecast total population increase across the CSW area of some 81,600 over the period 2006-26. At an average increase of almost 4,100 persons per year this is significantly higher than the 1,900 persons per year increase over the last 20 years. However, using consistent definitions of working age to those used in the recent population change analysis there will be an increase of only 2,400 persons of working age. The working age population of the CSW area is projected to be only 59% of the total population by 2026.
- 3.49 However, there is currently talk of increasing the state pension age from the current position of 65 for men and 60 for women. Over the period of analysis relevant to this study the impact of current planned changes would be an increase of 1 year to the state pension age taking effect at 2020. If this were the case, the increase in working age population over the period 2006-26 could rise by 16,000 to 667,400.
- 3.50 Over the shorter term (2006-11) there is no anticipated change in the state pension age and population projections suggest an increase in working age population of some 3,600 to 655,000 in CSW.

⁷ Mid Year Population Estimates, ONS © Crown Copyright

⁸ For this analysis working age is calculated as male population 15-64 and female population 15-59.

⁹ Mid Year Population Estimates, ONS © Crown Copyright

¹⁰ For this analysis working age is calculated as male population 15-64 and female population 15-59. Population below working age are those below 15 and above working age are males 65+ and females 60+.

What does this mean for employment?

- 3.51 In CSW the employment rate¹¹ (77.8%) is currently higher than both the West Midlands (74.7%) and GB (74.9%) rates. Unemployment is lower than both the regional and national average as are rates of economic inactivity. For the following analysis we have set a target employment rate for 2011 and beyond at 80%.

	Working Age Population	Employment Rate	Employment	Increase from 2006
2006	651,400	77.8%	506,800	-
2011	655,000	80%	524,000	17,200
2016	656,100	80%	524,900	18,100
2021	670,900*	80%	536,700	29,900
2026	667,400*	80%	533,900	27,100

* Note that we have assumed the state pension age will increase by 1 year from 2020

Source: DTZ based on ONS 2003 Based Population Projections

- 3.52 This analysis would indicate that the population in 2011 would need to have access to an additional 17,200 jobs to attain an employment rate of 80% based on current population projections. This figure increases to 27,100 in the longer term to 2026.

Comparison of Labour Supply Forecasting with Employment Forecasts

- 3.53 This analysis raises some significant questions in relation to the sustainability of strong employment growth in the CSW sub-region. The net additional employment growth forecast across the three scenarios falls within the range 14,600 - 20,300 over the period 2006-11. This means that the 17,200 jobs required from the labour supply analysis could be met in the short term, ensuring an employment rate of around 80%. However, by 2026, it is forecast that employment levels will increase by between 44,000 and 63,500. This is well in excess of the 27,100 implied by the labour force projections. Hence in the long term, there will be a need to either significantly raise the employment rate (to 85% under the high growth scenario), boost working age population growth significantly through immigration, or expect commuting levels to increase substantially. A failure to do so will mean that aspired employment growth levels will not be achievable.

Will Additional Housing Growth Bridge the Long Term Gap?

- 3.54 Within the sub-region, plans are being considered for 103,000 additional homes. If these new homes are built and occupied without any compensating loss of homes (i.e. all 103,000 are net additional) it is reasonable to expect the working age population to grow by more than existing projections.
- 3.55 Data from the ODPM¹² indicates that within the sub-region there are 436,000 households in 2006. Within the West Midlands¹³ the average household size is 2.35, which equates to a total population of 1,024,000. The ONS projections indicate a slightly higher population figure (1,035,000), which may suggest a slightly larger household size in CSW (2.37). Broadly the figures are similar and indicate a household size slightly higher than the England average (2.31).

¹¹ The employment rate is the proportion of the working age population in employment

¹² New Projections of households for England and the Regions to 2026, ODPM, 14 March 2006

¹³ Data not available for CSW sub-region

- 3.56 ODPM data indicates a forecast increase in the number of households of 75,000 over the period 2006-2026. However, over the same period the average household size is predicted to drop in the West Midlands to 2.13 (England = 2.10). This will lead to the population increasing to 1,088,400 which is lower than the total population projected within the ONS population projections (1,116,600). However, if the CSW household growth figure is in line with current expectations (103,000) the population would rise to 1,148,100, which is in excess of the ONS, projected figure [if the average household size remained above the West Midlands average by 0.02 persons per household the population increase would be 1,158,900].
- 3.57 The increase in total population compared to the original ONS 2003 based projection is in the range 31,500 – 42,300 depending on the household size figure adopted. Using the population projections as a guide to the age breakdown of the population the proportion of total population that is of working age (including the increase in state pension age by 1 year at 2020) is 59.8%. This would suggest an additional 18,800 – 25,300 persons of working age in the CSW sub-region. If the same analysis were applied to base population projections there would be working age employment growth of 16,000. Adopting the aspirational employment rate of 80% this would lead to 15,000 – 20,200 additional persons in employment.
- 3.58 This analysis has not been undertaken within different time periods due to a lack of information on phasing with regard to housing completions. However, when adding the total additional employment figure from this analysis to the figures the total increase 2006-2026 rises to 42,100 – 47,300. This figure is at the lower end of the employment demand forecasts, in line with the baseline scenario. Accordingly, we have not translated this into a floorspace requirement.

4 Employment Land Requirements

4.1 This section sets out the results of analysis to translate the employment forecasts from the preceding section into employment land and floorspace.

Modelling Assumptions

4.2 This analysis is reliant on a number of assumptions relating to:

- The demand for space in particular use-classes by sector;
- The quantity of space required per worker; and
- The density and style of development.

Use Class by Sector

4.3 Employment data and forecasts are expressed in terms of industrial classifications, while floorspace is expressed in terms of Use Classes. Unfortunately, these two classifications are not directly related. For example, the headquarters building of a business classified as manufacturing, may in fact be predominantly office based. This makes it difficult to directly transform forecast increases in employment into land use requirements. It is therefore necessary to adopt a 'best fit' proxy to convert industrial classifications to land use. **Table 4.1** summarises the broad relationships between employment sectors and land use.

Table 4.1 Employment Sectors and Use Class	
Employment Sector	Use Class
Agriculture	Does not occupy business space
Mining	Does not occupy business space apart from head office and administrative functions.
Manufacturing	Expected to occupy predominantly B2 uses, with some B1c and B8 activities.
Electricity gas & water	Does not occupy business space apart from head office and administrative functions.
Construction	High levels of self-employment. Some distribution and storage activity and minimal office based activity.
Wholesale Distribution	Expected to occupy predominantly B8 uses
Retail	Will be predominantly shops – A1 use with some B1 office for HQ functions.
Hotels and catering	Will be mainly hotels, restaurants, bars etc. A3 and C1 use class.
Transport and communications	Transport does not occupy business space apart from head office and administrative functions. Communications includes postal depots, but also telecommunications companies, some of whom will occupy significant amounts of B1 space. Some requirements for storage space.
Banking, finance and insurance	Some A2 use outside of main financial centres but also has a significant amount of office use, with the relocation of back office functions.
Other business services	Predominantly office sector employment in B1 space. Some A2 and also some non-office space such as cleaning contractors
Public administration and defence	Town Hall employment, police, fire service etc. Plus some occupation of Business space.
Health and education	Employment in schools and hospitals etc. Mainly C and D use class. Will be some administrative functions, which may occupy B class space.
Other services	Personal services, tourism and media. Only a small proportion would be expected to occupy B class space
Source: Developed for West Midlands based on previous analysis of Demand and Supply of Business Space in London, GLA 2002.	

4.4 The appendices to this report contain the matrix used by DTZ to translate employment by 2-digit Standard Industrial Classification (SIC) to employment (B-class) land uses. This is provided for sub-divisions of B-use-class. An estimate for Sui Generis uses, which may occupy B-class land, is also included.

Quantity of Space Per Worker

4.5 Employment density ratios are available for a range of different land use categories. Using these figures we can translate forecast employment growth into a prediction of land use requirements. Density ratios have been the subject of a number of surveys. In 1997 Roger Tym and Partners produced a report looking at floorspace per worker requirements in the three main sectors of economic activity¹⁴: industry (B2), business (B1) and warehousing (B8). In 1999 DTZ produced a report¹⁵ looking in more detail at various activities under each use class. A 2001 study by Arup / RDA¹⁶ recommended employment densities and was based on a review of existing data. The findings from this survey were included in a research report DTZ produced in 2004 for SEERA¹⁷. English Partnerships has subsequently issued guidance on employment densities that provide a sound basis for regional analysis. These figures have been used on several other studies in the Midlands.

4.6 When the results from these surveys are compared it is apparent that in many sectors, employment densities have remained fairly stable. **Table 4.2** compares the findings from the reports.

Table 4.2 Comparing Employment Density Surveys						
Sector	Types	Floorspace per worker (sq m)				
		RTP 1997 (net)	DTZ 1999 (gross)	Arup 2001 (gross internal)	DTZ 2004 (gross external) ¹⁸	EP
Industry (B2 / B1b / B1c)	General	32	34	34	45	34
	High tech/R&D (non-Science Park)			29		34
Offices (B1)	General	18	19	19	22	19
	Head Offices		22	22	25	
	Business Centres		19	20		
	Financial and Professional Services		19-32		24	
	Business Park			16		
Wholesale (B8)	R&D		29	29	32	
	Warehousing	40		50		
	Logistics Centres		93 (net)	90	93	
	Large Scale Warehousing			80		80

¹⁴ The Use of Business Space: Employment Densities and Working Practices in South East England, SERPLAN/Roger Tym and Partners, 1997

¹⁵ Employment Predications for New Developments Employment Densities and Characteristics, DTZ (not published), 1999

¹⁶ Employment Densities, Arup/EP/RDAs, 2001

¹⁷ Use of Business Space and Changing Working Practices in the South East, DTZ, 2004

¹⁸ **Note:** the gross figures referred to in Table 3.2 were presented as net floorspace in the DTZ 2004 study, and have been converted to gross floorspace, using the recommended uplift of 20%.

- 4.7 Between the 1997 RTP report and the 2004 DTZ report employment densities have fallen slightly in relation to B2 usage. In the other major land use categories there has been limited change.
- 4.8 Given the limited evidence for changing employment densities, we propose using constant employment densities over the time period.
- 4.9 One important addition from our 2004 report is the finding that **businesses occupying newer buildings have a higher employment density** (i.e. less floorspace per employee). Table 4.3 gives the report's findings in relation to the age of the building within the three major use classes.

Table 4.3 Employment Densities in the South East by Age of Building (Gross Floorspace per Employee, sq m)			
	Total	Age of building	
		1990 or before	1991 or later
B1 (Business)	32.6	34.6	21.7
B2 (General Industry)	45.8	46.3	41.5
B8 (Warehousing)	93.8	94.4	91.7
Total	43.4	44.6	36.5

Source: DTZ 2004

- 4.10 The most significant increase in employment densities have taken place in the B1 category, with the amount of floorspace per employee falling by a third for buildings built after 1991, compared with older buildings. There is little evidence to indicate a significant regional variation of employment densities with respect to the use of newer buildings.
- 4.11 Another factor revealed by the 2004 research is that the size of firm impacts upon employment densities. The report found that as the size of a firm in terms of number of employees increases, the employment densities also increase.
- 4.12 One area where you would expect to see a link to changing employment densities is changes in working practices. The increasing preference for home working, the growing use of ICTs and environmental and health and safety regulations could all be expected to have an impact upon employment densities. However, the 2004 study found no major evidence for this, concluding that, 'the overall impact of changing working practices on employment densities has been limited, except for some office-based employment activities with increasing ICT use'. Instead, the major factor behind changes in employment densities over the last twenty years has been the structural shift away from manufacturing to service sector employment.

Assumed Employment Densities

- 4.13 We propose adopting the following range of headline employment densities for the study, based on the good practise guidelines issued by English Partnerships.
- For B1a floorspace employment densities, we have adopted the general office employment density (19m² per employee).
 - For B1b/c we have adopted the general industry employment density (34m² per employee).
 - For B2 floorspace employment densities, we have adopted the general industry employment density (34m² per employee).
 - For B8 floorspace employment densities, we have adopted the large scale warehousing density (80m² per employee).

- For Sui Generis uses we have assumed a development density in line with more general warehousing (50 m² per employee).

Density and Style of Development

- 4.14 We have made a number of broad assumptions about development density and the style of development. For B1a development we have assumed an average of 2.5 storeys to reflect a mix of development styles. Development density is assumed at 70% to reflect both town centre and out of town development. For B1 b/c and B2 development we have assumed a plot ratio of 40% and single storey development. For B8 and Sui Generis development we have assumed a development density of 35% and single storey development.

Short Term Demand 2006-2011

B1a Office Requirements

- 4.15 **Tables 4.4 a-c** set out the floorspace and land demand impacts as a result of employment change in office related sectors over the period 2006-11. Office related employment growth is by far and away the largest growth area in employment terms. Due to the high employment densities within office development the overall impact on land requirements is low in comparison to more land hungry activities.
- 4.16 Across the entire sub-region it is forecast that between 9 and 12 ha of land will be required to accommodate in the region of 159,000 – 202,000 sq.m. of office floorspace over the next 5 years. Solihull, Coventry and Warwick are expected to experience the highest levels of demand for office space. This analysis is based on net additional employment demand within office related activities. There will still need to be further allowance made for replacement and displacement demand.
- 4.17 The RSS ‘Regional Centres Study’ (March 2006) concludes that a substantial effort is required by local authorities across the region to intensify development within town centres and make the most efficient use of sustainable development opportunities. The report makes special mention of the “severe physical and environmental constraints” particularly in Stratford-upon-Avon and Leamington Spa. The report notes that as the sequential test may fail to identify suitable sites in these centres, careful thought will need to be given to sustainable out of centre locations.

Table 4.4a Office (B1a) Floorspace and Land Requirements 2006-11 Baseline Scenario

	Office Employment Change 2006-11	B1a Office Floorspace Demand (sq.m.)	B1a Office Employment Land Demand (ha)
Coventry	2,200	42,400	2.4
North Warwickshire	300	6,000	0.3
Nuneaton & Bedworth	500	9,400	0.5
Rugby	600	10,800	0.6
Solihull	2,200	42,400	2.4
Stratford-on-Avon	900	17,000	1.0
Warwick	1,600	31,000	1.8
Sub-Regional Total	8,400	159,000	9.1
Source: DTZ			
Figures may not sum due to rounding			

Table 4.4b Office (B1a) Floorspace and Land Requirements 2006-11 Medium Growth Scenario

	Office Employment Change 2006-11	B1a Office Floorspace Demand (sq.m.)	B1a Office Employment Land Demand (ha)
Coventry	2,600	48,600	2.8
North Warwickshire	400	6,700	0.4
Nuneaton & Bedworth	600	10,800	0.6
Rugby	600	10,200	0.7
Solihull	2,600	50,200	2.9
Stratford-on-Avon	1,000	19,500	1.1
Warwick	1,800	34,900	2.0
Sub-Regional Total	9,600	182,900	10.5
Source: DTZ			
Figures may not sum due to rounding			

Table 4.4c Office (B1a) Floorspace and Land Requirements 2006-11 High Growth Scenario

	Office Employment Change 2006-11	B1a Office Floorspace Demand (sq.m.)	B1a Office Employment Land Demand (ha)
Coventry	2,800	53,400	3.1
North Warwickshire	400	7,500	0.4
Nuneaton & Bedworth	600	11,900	0.7
Rugby	700	13,500	0.8
Solihull	2,900	55,500	3.2
Stratford-on-Avon	1,100	21,300	1.2
Warwick	2,000	38,700	2.2
Sub-Regional Total	10,600	201,800	11.5
Source: DTZ			
Figures may not sum due to rounding			

Industrial Requirements

- 4.18 The impact of employment change within industrial sectors has been subdivided into light industrial (B1 b/c) and more traditional manufacturing/industrial B2. In both cases the employment forecasts suggest a net decline in employment.
- 4.19 Although the overall position is for a significant decline in employment, there will be gains in some areas, which will require new land. Further to this, some employment decline will be as a result of employers shedding labour in small amounts but not creating a linked rationalisation of land holdings (e.g. where labour is replaced with capital). In this instance there will be no release of land or floorspace onto the open market. In instances where an entire manufacturing business closes, relocates away or significantly downsizes, there may be a net release of employment land. However, there are significant issues in relation to the quality, location and time taken to remediate and release brownfield sites that may preclude an assumption that such sites would be suitable for re-use within the short term.
- 4.20 For these reasons, it is inappropriate to present an employment demand led analysis based on the net employment change for B1 b/c and B2 employment land demand.

4.21 In addition, analysis of four digit SIC data on manufacturing sectors over the period 1998-2004 shows that, on average, employment decline within the sector overall is around 5,000 jobs per annum. However, this varies from 3,300 jobs over the period 2003-2004 to 10,000 jobs in the period 2000-2001. This net position hides significant variation in terms of gains and losses across the CSW sub region with average annual employment gains of around 5,000 jobs per annum and a decline averaging 10,000 jobs per annum. Again, there is a range over the period for both gains and losses although not as significant as for the net position. This highlights the issues in relation to an overall forecast decline in manufacturing not providing a true picture of dynamics within the sector and not proving helpful in forecasting employment land demands. Further to this, over the last six years whilst there has been a significant net loss of employment in the manufacturing sector, there has also been take up of employment land for B1 b/c and B2 development.

4.22 For B1 b/c there are two sectors where employment is forecast to increase over the period 2006-11, computer and related activities and research and development. A lot of the activity in the computer and related activities sector will occupy B1a office space, however, a proportion will occupy B1 b/c type development. The tables (4.5 a-c) below present the forecast position based on these two growth sectors. These figures do not take account of sectors forecast for net employment decline for the reasons as stated above.

Table 4.5a B1 b/c Floorspace and Land Requirements 2006-11 Baseline Scenario			
	B1b/c Employment Change* 2006-11	B1b/c Floorspace Demand (m²)	B1b/c Employment Land Demand (ha)
Coventry	100	3,700	0.9
North Warwickshire	<100	400	0.1
Nuneaton & Bedworth	<100	500	0.1
Rugby	<100	600	0.1
Solihull	100	4,500	1.1
Stratford-on-Avon	200	7,800	1.9
Warwick	100	3,000	0.8
Sub-Regional Total	600	20,400	5.1
Source: DTZ			
Figures may not sum due to rounding			
*Only sectors with positive employment change			

Table 4.5b B1 b/c Floorspace and Land Requirements 2006-11 Medium Growth Scenario			
	B1b/c Employment Change* 2006-11	B1b/c Floorspace Demand (m²)	B1b/c Employment Land Demand (ha)
Coventry	100	4,000	1.0
North Warwickshire	<100	400	0.1
Nuneaton & Bedworth	<100	500	0.1
Rugby	<100	600	0.2
Solihull	200	5,300	1.3
Stratford-on-Avon	300	9,100	2.3
Warwick	100	3,900	1.0
Sub-Regional Total	700	23,900	6.0
Source: DTZ			
Figures may not sum due to rounding			
*Only sectors with positive employment change			

Table 4.5c B1 b/c Floorspace and Land Requirements 2006-11 High Growth Scenario			
	B1b/c Employment Change* 2006-11	B1b/c Floorspace Demand (m²)	B1b/c Employment Land Demand (ha)
Coventry	100	4,400	1.1
North Warwickshire	<100	500	0.1
Nuneaton & Bedworth	<100	600	0.1
Rugby	<100	700	0.2
Solihull	200	5,800	1.5
Stratford-on-Avon	300	10,000	2.5
Warwick	100	4,200	1.1
Sub-Regional Total	800	26,300	6.6
Source: DTZ			
Figures may not sum due to rounding			
*Only sectors with positive employment change			

Warehousing Requirements

- 4.23 **Tables 4.6 a-c** below contains the summary position for warehousing (B8) related employment growth. Within the sub-region employment growth in B8 related sectors is forecast at 800 – 1,100 leading to a land requirement of almost 17 - 26 hectares between 2006-2011.
- 4.24 It should be noted that these are net additional requirements and do not include replacement demand.

Table 4.6a Warehousing (B8) Floorspace and Land Requirements 2006-11 Baseline Scenario			
	Warehousing Employment Change 2006-11	B8 Floorspace Demand (sq.m.)	B8 Employment Land Demand (ha)
Coventry	300	20,200	5.8
North Warwickshire	Less than 100	3,400	1.0
Nuneaton & Bedworth	100	7,400	2.1
Rugby	100	4,000	1.1
Solihull	100	10,100	2.9
Stratford-on-Avon	Less than 100	3,400	1.0
Warwick	200	12,300	3.5
Sub-Regional Total	800	60,700	17.3
Source: DTZ			
Figures may not sum due to rounding			

Table 4.6b Warehousing (B8) Floorspace and Land Requirements 2006-11 Medium Growth Scenario

	B8 Warehousing Employment Change 2006-11	B8 Floorspace Demand (sq.m.)	B8 Employment Land Demand (ha)
Coventry	300	24,000	6.9
North Warwickshire	100	4,800	1.4
Nuneaton & Bedworth	100	8,900	2.5
Rugby	100	5,200	1.5
Solihull	200	13,800	3.9
Stratford-on-Avon	100	4,300	1.2
Warwick	200	13,000	3.7
Sub-Regional Total	900	74,000	21.1
Source: DTZ			
Figures may not sum due to rounding			

Table 4.6c Warehousing (B8) Floorspace and Land Requirements 2006-11 High Growth Scenario

	Warehousing Employment Change 2006-11	B8 Floorspace Demand (sq.m.)	B8 Employment Land Demand (ha)
Coventry	400	28,400	8.1
North Warwickshire	100	6,300	1.8
Nuneaton & Bedworth	100	10,500	3.0
Rugby	100	7,100	2.0
Solihull	200	17,100	4.9
Stratford-on-Avon	100	6,100	1.8
Warwick	200	15,400	4.4
Sub-Regional Total	1,100	91,000	26.0
Source: DTZ			
Figures may not sum due to rounding			

Sui Generis

4.25

There is forecast to be employment growth in the 'sale, maintenance and repair of motor vehicles and motorcycles, retail sale of automotive fuel' sector over the next 5 years. This will require some land that falls within the sui generis use class. In many instances this development may look to employment sites for accommodation. To illustrate the potential impact of this **Tables 4.7 a-c** below set out the scale of potential demand from this sector. This is based on 85% of employment growth in the sector.

Table 4.7a Sui Generis Floorspace and Land Requirements 2006-2011 Base Scenario			
	Sui Generis Employment Change 2006-2011	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	200	10,500	3.0
North Warwickshire	Less than 100	1,600	0.5
Nuneaton & Bedworth	100	3,500	1.0
Rugby	Less than 100	1,900	0.5
Solihull	100	3,700	1.1
Stratford-on-Avon	100	3,800	1.1
Warwick	100	5,600	1.6
Sub-Regional Total	600	30,500	8.7
Source: DTZ			
Figures may not sum due to rounding			

Table 4.7b Sui Generis Floorspace and Land Requirements 2006-2011 Medium Growth Scenario			
	Sui Generis Employment Change 2006-2011	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	200	12,300	3.5
North Warwickshire	Less than 100	1,800	0.5
Nuneaton & Bedworth	100	4,100	1.2
Rugby	Less than 100	1,900	0.5
Solihull	100	3,700	1.1
Stratford-on-Avon	100	4,000	1.1
Warwick	100	6,200	1.8
Sub-Regional Total	700	33,800	9.7
Source: DTZ			
Figures may not sum due to rounding			

Table 4.7c Sui Generis Floorspace and Land Requirements 2006-2011 High Growth Scenario			
	Sui Generis Employment Change 2006-2011	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	300	13,400	3.8
North Warwickshire	Less than 100	2,000	0.6
Nuneaton & Bedworth	100	4,500	1.3
Rugby	Less than 100	2,100	0.6
Solihull	100	4,100	1.2
Stratford-on-Avon	100	4,400	1.3
Warwick	100	6,800	1.9
Sub-Regional Total	700	37,200	10.6
Source: DTZ			
Figures may not sum due to rounding			

Short Term Summary

4.26 **Table 4.8** summarises the overall position within the sub-region over the period 2006-11.

Table 4.8 Summary Floorspace and Land Requirements 2006-11			
	Employment Change 2006-11	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
B1a Office	8,400 – 10,600	159,000 – 201,800	9 -12
B1b/c Light Industrial	600 – 800*	20,400 – 26,300	5 – 7
B2 Industrial	-	-	-
B8 Warehousing	800 – 1,100	60,700 – 91,000	17 - 26
Sui Generis	600-700	30,500 – 37,200	8.7 – 10.6
Total Demand	10,400 – 13,200	270,600 – 356,300	39.7 – 55.6
Source: DTZ			
Figures may not sum due to rounding			
*Only sectors with positive employment change			

Mid-Term Demand 2011-2016

4.27 This analysis sets out an indication of the mid term position to 2016. Over the longer term there is less confidence in relation to forecasting and therefore this position is indicative and to provide a guide for policy planning. Forecasts for demand between 2016-2026 are provided at Appendix 5.

Office Requirements

4.28 **Tables 4.9 a-c** sets out the floorspace impacts as a result of employment change in office related sectors over the period 2011-2016. Office related employment growth is the largest growth area in employment terms.

4.29 Solihull, Coventry and Warwick are expected to experience the highest levels of demand for office space. This analysis is based on net additional employment demand within office related activities. There will still need to be further allowance made for replacement and displacement demand.

Table 4.9a Office (B1) Floorspace and Land Requirements 2011-16 Baseline Scenario			
	Office Employment Change 2011-16	B1a Office Floorspace Demand (sq.m.)	B1a Office Employment Land Demand (ha)
Coventry	1,700	32,133	1.8
North Warwickshire	267	5,033	0.3
Nuneaton & Bedworth	367	6,733	0.4
Rugby	467	8,967	0.5
Solihull	1,933	36,633	2.1
Stratford-on-Avon	633	11,933	0.7
Warwick	1,433	27,000	1.5
Sub-Regional Total	6,767	128,433	7.3
Source: DTZ			
Figures may not sum due to rounding			

Table 4.9b Office (B1) Floorspace and Land Requirements 2011-16 Medium Growth Scenario

	Office Employment Change 2011-16	B1a Office Floorspace Demand (sq.m.)	B1a Office Employment Land Demand (ha)
Coventry	2,000	38,233	2.2
North Warwickshire	300	5633	0.3
Nuneaton & Bedworth	433	8067	0.5
Rugby	533	10267	0.6
Solihull	2300	43967	2.5
Stratford-on-Avon	767	14333	0.8
Warwick	1600	30700	1.8
Sub-Regional Total	7,967	151167	8.6
Source: DTZ			
Figures may not sum due to rounding			

Table 4.9c Office (B1) Floorspace and Land Requirements 2011-16 High Growth Scenario

	Office Employment Change 2011-16	B1a Office Floorspace Demand (sq.m.)	B1a Office Employment Land Demand (ha)
Coventry	2233	42,733	2.4
North Warwickshire	333	6,333	0.4
Nuneaton & Bedworth	467	9,033	0.5
Rugby	600	11,433	0.7
Solihull	2567	48,867	2.8
Stratford-on-Avon	867	16,233	0.9
Warwick	1,800	34,133	2
Sub-Regional Total	8,867	168,733	9.6
Source: DTZ			
Figures may not sum due to rounding			

Industrial Requirements

4.30

The impact of employment change within industrial sectors has been subdivided into light industrial (B1 b/c) and more traditional manufacturing/industrial B2. In both cases the employment forecasts suggest a decline in employment. How this employment fall impacts upon floorspace and land demand is somewhat uncertain. As already discussed earlier in this report the impact of this decline on employment land is complex and therefore we have not provided analysis in relation to the net position. However, Tables 4.10 a-c provide analysis of the demand for B1b/c type developments specifically arising from research and development and computer and related activities.

Table 4.10a B1 b/c Floorspace and Land Requirements 2011-16 Baseline Scenario			
	B1b/c Employment Change* 2011-2016	B1b/c Floorspace Demand (m²)	B1b/c Employment Land Demand (ha)
Coventry	67	2,733	0.7
North Warwickshire	<33	233	0.1
Nuneaton & Bedworth	<33	300	0.1
Rugby	<33	467	0.1
Solihull	133	4200	1.1
Stratford-on-Avon	200	7,333	1.8
Warwick	67	2,667	0.7
Sub-Regional Total	533	17,967	4.5
Source: DTZ			
Figures may not sum due to rounding			
*Only sectors with positive employment change			

Table 4.10b B1 b/c Floorspace and Land Requirements 2011-16 Medium Growth Scenario			
	B1b/c Employment Change* 2011-16	B1b/c Floorspace Demand (m²)	B1b/c Employment Land Demand (ha)
Coventry	100	3,100	0.8
North Warwickshire	<33	267	0.1
Nuneaton & Bedworth	<33	333	0.1
Rugby	<33	533	0.1
Solihull	133	4,967	1.2
Stratford-on-Avon	267	8,600	2.1
Warwick	100	3,427	0.9
Sub-Regional Total	533	21,267	5.3
Source: DTZ			
Figures may not sum due to rounding			
*Only sectors with positive employment change			

Table 4.10c B1 b/c Floorspace and Land Requirements 2011-16 High Growth Scenario			
	B1b/c Employment Change* 2006-11	B1b/c Floorspace Demand (m²)	B1b/c Employment Land Demand (ha)
Coventry	100	3,433	0.9
North Warwickshire	<33	300	0.1
Nuneaton & Bedworth	<33	367	0.1
Rugby	33	600	0.2
Solihull	167	5,467	1.4
Stratford-on-Avon	267	9,500	2.4
Warwick	100	3,833	1
Sub-Regional Total	700	23,500	5.9
Source: DTZ			
Figures may not sum due to rounding			
*Only sectors with positive employment change			

Warehousing Requirements

- 4.31 **Tables 4.11 a-c** below contains the summary position for warehousing (B8) related employment growth. Within the sub-region employment growth in B8 related sectors is forecast at 467-733, leading to a land requirement of 10.7 to 16.7 hectares.
- 4.32 It should be noted that these are net additional requirements and do not include replacement demand.

Table 4.11a Warehousing (B8) Floorspace and Land Requirements 2011-16 Baseline Scenario

	Warehousing Employment Change 2011-16	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	167	12,433	3.5
North Warwickshire	33	2,067	0.6
Nuneaton & Bedworth	67	4,667	1.3
Rugby	33	2,333	0.7
Solihull	100	6,800	1.9
Stratford-on-Avon	<33	1,333	0.3
Warwick	100	8,100	2.3
Sub-Regional Total	467	37,533	10.7
Source: DTZ			
Figures may not sum due to rounding			

Table 4.11b Warehousing (B8) Floorspace and Land Requirements 2011-16 Medium Growth Scenario

	Warehousing Employment Change 2011-16	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	200	15,200	4.3
North Warwickshire	33	2,967	0.8
Nuneaton & Bedworth	67	5,767	1.6
Rugby	33	3,200	0.9
Solihull	100	9,233	2.6
Stratford-on-Avon	33	1,833	0.5
Warwick	100	8,567	2.4
Sub-Regional Total	600	46,700	16.7
Source: DTZ			
Figures may not sum due to rounding			

Table 4.11c Warehousing (B8) Floorspace and Land Requirements 2011-16 High Growth Scenario

	Warehousing Employment Change 2011-16	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	233	18,367	5.2
North Warwickshire	67	4,033	1.2
Nuneaton & Bedworth	100	6,867	2
Rugby	67	4,467	1.3
Solihull	133	11,433	3.3
Stratford-on-Avon	33	3,200	0.9
Warwick	133	10,200	2.9
Sub-Regional Total	733	58,567	16.7
Source: DTZ			
Figures may not sum due to rounding			

Sui Generis

- 4.33 There is forecast to be employment growth in the ‘sale, maintenance and repair of motor vehicles and motorcycles, retail sale of automotive fuel’ sector over the 5-year period 2011-16. In many instances this development may look to employment sites for accommodation. To illustrate the potential impact of this **Tables 4.12 a-c** below sets out the scale of potential demand from this sector. This is based on 85% of employment growth in the sector.

Table 4.12a Sui Generis Floorspace and Land Requirements 2011-16 Base Scenario

	Sui Generis Employment Change 2011-16	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	167	7,933	2.3
North Warwickshire	33	1,200	0.1
Nuneaton & Bedworth	67	2,633	0.8
Rugby	33	1,400	0.4
Solihull	67	2,767	0.8
Stratford-on-Avon	67	2,833	0.8
Warwick	100	4,200	1.2
Sub-Regional Total	467	23,033	6.6
Source: DTZ			
Figures may not sum due to rounding			

Table 4.12b Sui Generis Floorspace and Land Requirements 2011-16 Medium Growth Scenario

	Sui Generis Employment Change 2011-16	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	200	9,267	2.6
North Warwickshire	33	1,333	0.4
Nuneaton & Bedworth	67	3,067	0.9
Rugby	33	1,400	0.4
Solihull	67	2,800	0.8
Stratford-on-Avon	67	3,000	0.9
Warwick	100	4,667	1.3
Sub-Regional Total	500	25,533	7.3
Source: DTZ			
Figures may not sum due to rounding			

Table 4.12c Sui Generis Floorspace and Land Requirements 2011-16 High Growth Scenario

	Sui Generis Employment Change 2011-16	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	200	10,133	2.9
North Warwickshire	33	1,500	0.4
Nuneaton & Bedworth	67	3,367	1
Rugby	33	1,567	0.4
Solihull	67	3,100	0.9
Stratford-on-Avon	67	3,333	0.9
Warwick	100	5,133	1.5
Sub-Regional Total	567	28,100	8
Source: DTZ			
Figures may not sum due to rounding			

Short – Mid Term Summary

4.34

Table 4.13 summarises the overall position within the sub-region over the period 2006-16. The table shows the required amount of land under the base scenario (low) against the high growth scenario (high) of the economic forecasting methods. Later in the report the high growth figures here are added to the land required for replacement for job losses to form the low forecast against the high forecast made up of past take up analysis.

Table 4.13 Employment Demand Led Land Requirements 2006 - 2016					
	Economic Forecasting				
	B1a (Low - High)	B1 b/c (Low - High)	B8 (Low - High)	Sui Generis (Low - High)	Total Range
Coventry	4.2 - 5.5	1.6 - 2	9.3 - 13.3	5.3 - 6.7	20.4 – 27.5
North Warwickshire	0.6 - 0.8	0.2	1.6 - 3	0.6 - 1	3 - 5
Nuneaton & Bedworth	0.9 - 1.2	0.2	3.4 - 5	1.8 - 2.3	6.3 – 8.7
Rugby	1.1 - 1.5	0.2 - 0.4	1.8 - 3.3	0.9 - 1	4 – 6.2
Solihull	4.5 - 6	2.2 - 2.9	4.8 - 8.2	1.9 - 2.1	13.4 – 19.2
Stratford on Avon	1.7 - 2.1	3.7 - 4.9	1.3 - 2.7	1.9 - 2.2	8.6 – 11.9
Warwick	3.3 - 4.2	1.5 - 2.1	5.8 - 7.3	2.8 - 3.4	13.4 - 17
Total	16.3 – 21.3	9.6 – 12.7	28 – 42.8	15.2 – 18.7	69.1 – 95.5

Employment Land Take Up

4.35 An analysis of the past take up of employment land has also been undertaken in considering overall employment land needs. It should be recognised that this approach is heavily influenced by past property market conditions / trends and should not therefore be solely relied upon in forecasting medium to longer-term employment land needs. **Table 4.15** sets out average employment land take up over the period 1996 to 2005. These figures have then been broken down to provide annual average take up rates for B1a, B1b/c / B2 and B8 use classes. These annual take up figures have been multiplied by ten to provide an estimate of land take up over the period 2006 – 2016.

**Table 4.14: Employment Land Completions & Projected Requirements (Excluding RLS, MIS and RIS Sites)
(Past Take Up – RELS Data)**

	B1a		B1 b/c / B2		B8		Requirement (Based on Past Take Up) 2006 – 16			Total
	1996 – 2005	Annual Average	1996 – 2005	Annual Average	1996 – 2005	Annual Average	B1a	B1 b/c, B2	B8	
Coventry	35.0	3.9	35.0	3.9	49.7	5.5	39	39	55	133
North Warwickshire	7.2	0.8	19.1	2.1	66.4	7.4	8	21	74	103
Nuneaton & Bedworth	17.8	1.9	17.0	1.9	35.5	3.9	19	19	39	77
Rugby	5.1	0.6	5.9	0.7	54.1	6.0	6	7	65	73
Solihull	10.3	1.1	8.2	0.9	10.9	1.2	11	9	12	32
Stratford on Avon	19.6	2.2	40.6	4.5	11.6	1.2	22	45	12	79
Warwick	15.5	1.7	16.1	1.8	24.2	2.7	17	18	27	62
Total	110.5	12.2	142.2	15.8	251.4	27.9	122	158	279	559

Source: CSW Steering Group

Note – Size of RELS sites – 1ha + to 2002 and 0.4ha+ post 2002.

- 4.36 It should be noted that the take up of employment land has, in quantitative terms, been dominated by B8 take up on a range of sites around (over 50% of all take up). This is to be expected as the locational advantages of this sub-region in the centre of the country make it attractive to the distribution industry. This is reflected in both the Cambridge Econometrics and the past trends forecasting and currently appears to be a growth area. It is also useful to distinguish between the needs of the distribution industry nationally and locally. A Regional Logistics Study has looked at the future for national/regional level distribution in the West Midlands and identified a large part of the sub-region with potential. The regional level sites have been taken out of the past trends figures. Therefore, this study will be focussed on the more local needs of the distribution industry.
- 4.37 **Table 4.15** below provides a summary of employment land requirements against each of the forecasting techniques. The figure from the high growth scenario of the economic forecasting represents the CE figure and the other figures are derived from past take up.

Table 4.15: Summary Employment Land Requirements (net additional) 2006 - 16													
	Forecasting Technique												
	Cam Econ					Past Take-Up				Figures rounded-Cam Econ & PTU			
	B1a	B1 b/c, B2	B8	Sui Generis	Total	B1a	B1 b/c, B2	B8	Total	B1a	B1 b/c, B2	B8	Sui Generis
Coventry	5.5	2	13.3	6.7	27.5	39	39	55	133	6 - 39	2 - 39	13 - 55	7
North Warwickshire	0.8	0.2	3	1	5	8	21	74	103	1 - 8	0.5 - 21	3 - 74	1
Nuneaton & Bedworth	1.2	0.2	5	2.3	8.7	19	19	39	77	1 - 19	1 - 19	5 - 39	2
Rugby	1.5	0.4	3.3	1	6.2	6	7	60	73	2 - 6	0.4 - 7	3 - 60	1
Solihull	6	2.9	8.2	2.1	19.2	11	9	12	32	6 - 11	2.9 - 9	8 - 12	2
Stratford on Avon	2.1	4.9	2.7	2.2	11.9	22	45	12	79	2 - 22	4.9 - 45	3 - 12	2
Warwick	4.2	2.1	7.3	3.4	17	17	18	27	62	4 - 17	2 - 18	7 - 27	3.5
Total	21.3	12.7	42.8	18.7	95.5	122	158	279	559	20 - 122	14 - 158	42 - 279	18.5

N.B. small error due to rounding of data

Using the Existing Stock of Land

- 4.38 The forecasting approaches set out earlier in this section consider future additional employment land needs. In order to be able to provide an adequate land supply then the existing stock of accommodation also needs to be managed effectively.
- 4.39 Over the period there will be a churn of sites and premises as companies react to their operational requirements. Whilst this does not necessarily create an additional land requirement, it does mean that land and premises must be available to maintain this dynamic. The scale of demand is impossible to estimate in quantitative terms although clearly there is a need to ensure that land and premises are of an appropriate quality. This is considered further in Section 6 of the report.

Land Replacement for Job Losses

- 4.40 In addition to the need to meet future needs and the churn of existing stock, consideration has been given to the potential need to replace jobs likely to be lost (predominantly in the B2 use class) as a result of economic restructuring. **Table 4.16** summarises forecast job losses over the period and estimates a maximum additional land requirement to provide replacement opportunities. The implications of this are also considered further in Section 6.
- 4.41 Forecasted land requirements, as they appear in the table below, have been calculated by multiplying average floorspace per worker to arrive at a total required floorspace. The floorspace figure is then converted into a land requirement using accepted assumptions on employment land densities.
- 4.42 The land required in Table 4.16 to allow for forecast job losses is added to the presented economic forecasting figures only (CE), it does not relate to the presented figures based on past take up (PTU).

	2006 – 2011		2011 – 2016		Total Land
	Job Losses	Land Equivalent (Multiply losses by standard densities)	Job Losses	Land Equivalent	
Coventry	690	5.9	572	4.9	10.8
North Warwickshire	195	1.7	178	1.5	3.2
Nuneaton & Bedworth	231	2.0	187	1.6	3.6
Rugby	231	2.0	206	1.8	3.8
Solihull	376	3.2	274	2.3	5.5
Stratford on Avon	160	1.4	161	1.4	2.8
Warwick	147	1.2	143	1.2	2.4
Total	2,030	17.4	1721	14.6	32.1

- 4.43 Table 4.17 below provides an overall summary of land requirements in each authority area, drawing together the analysis in this section. The lower figure represents the figure taken from the high growth scenario of economic forecasting. The higher figure is derived from past take up analysis. Those figures for Sui Generis and job replacement land relate to economic forecasting only.

Table 4.17 – Summary of Land Requirements 2006-2016 (Cam Econ & PTU)						
	B1a	B1 b/c, B2	B8	Sui Generis	Replacement	Total
Coventry	6-39	2-39	13-55	6.7	10.8	39-133
North Warwickshire	1-8	0.5-21	3-74	1	3.2	9-103
Nuneaton & Bedworth	1-19	1-19	5-39	2.3	3.6	13-77
Rugby	2-6	6-7	3-60	1	3.8	10-73
Solihull	6-11	3-9	8-12	2.1	5.5	24-32
Stratford on Avon	2-22	5-45	3-12	2.2	2.8	15.4-79
Warwick	4-17	2-18	7-27	3.4	2.4	19-62
Total	20-122	14-158	42-279	18.7	32.1	127-559

N.B. Small error due to rounding

- 4.44 There is a significant difference between the amounts of land required via the past take up forecasting method and CE method estimates. A number of factors may account for this. The CE method looks at employment growth forecasts and calculates a land requirement based on employment density, plot ratio and other assumptions applied as constants. Figures are approximate estimates. They are unable to take into consideration particular decisions of individual business occupiers that may increase the land captured within developed employment sites, upon which the PTU method is based.
- 4.45 Some businesses may include in their developments more floorspace per worker than assumed by the CE method, depending on particular circumstances. Actual site curtilage may embrace features that reflect a need for more land such as particular servicing requirements, the need to retain/protect important site features, requirements for structural landscaping, noise attenuation, particular infrastructure and access requirements and requirements for expansion space. There may also be local circumstances that act as a particularly strong attractor for employment development that creates variance with CE method estimates.
- 4.46 The CE method, whilst a generally more objective approach than the PTU method, can, therefore, tend to be on the conservative side in its findings. Whereas the PTU method is based on actual land take over a given time period, its simplicity as a means of looking into future requirements enables it to be taken only as a rough, indicative guide, particularly where it is being used to look relatively far into the future.

5 Supply Appraisal

5.1 This section of the report assesses the supply of employment land and premises across the CSW area. It quantifies the supply and assesses its quality in relation to the extent to which it is to meet modern business requirements. It aims to highlight key strengths and weaknesses across different authority areas and ultimately to enable us to determine the extent to which supply meets anticipated future requirements. It is set out as follows:

- **Supply of employment land and premises** – the quantity of employment land and premises which is available (including marketed sites / premises and local plan allocations);
- **Supply appraisal** – an overview of the findings of the supply appraisal as well as a district by district assessment;
- **Conclusions on supply** – key findings on the quality and suitability of supply within the CSW area to meet demand requirements.

Supply of Employment Land and Premises

5.2 **Table 5.1** illustrates the distribution of employment land across the area by use class, demonstrating that approximately 385.6 Ha of land is available for employment uses (B1, B2, B8) across the sub-region.

Table 5.1: Employment Land Supply Within the CSW Area (ha), April 2005

	Coventry	Solihull	North Warwickshire	Nuneaton & Bedworth	Rugby	Stratford on Avon	Warwick	CSW Area Total
B1	5.7	17.8	0	1.2	0	31.6	4.7	61
B2	0	0	7.4	1.8	0	0.2	2.1	11.5
B8	0	0	70.5	0	0	0.5	0	71.0
B1 or B2	36.6	0	0	0	1	0.3	3.1	41.0
B1, B2 or B8	21.0	16.6	0	14	41.7	19.5	46	158.8
B2 or B8	2.3	0	7.5	29.1	0	0	3.4	42.3
Total Land	65.6	34.4	85.4	46.1	42.7	52.1	59.3	385.6

5.3 **Table 5.2** illustrates the total supply of vacant floorspace within the CSW area by district and use class (space which is currently being marketed). This shows that there is currently around 593,000 sq.m. of vacant floorspace within the sub-region across the employment use classes.

Table 5.2: Supply of Vacant Premises (sq.m.), 2005

	Coventry	Solihull	North Warwickshire	Nuneaton & Bedworth	Rugby	Stratford on Avon	Warwick	CSW Area Total
B1	9,805	1,000	5,000	8,065	0	28,300	2,200	54,370
B2	7,363	0	10,604	6,430	0	800	3,091	28,288
B8	0	0	52,000	0	0	10,000	0	62,000
B1 or B2	2,887	0	0	0	0	0	0	2,887
B1, B2 or B8	61,621	27,160	0	95,670	48,625	10,000	37,434	280,510
B2 or B8	51,756	11,000	60,000	41,505	0	0	1,000	165,261
Total Vacant Premises	133,432	39,160	127,604	151,670	48,625	49,100	43,725	593,316

Supply Appraisal

- 5.4 The supply appraisal is based on the portfolio of sites and premises provided by the client team. This includes development plan allocations and sites listed on the Coventry and Warwickshire commercial property guide. Each site has been inspected.
- 5.5 Information was collected from each authority on sites and appraisals undertaken covering a range of criteria such as site condition, availability for development and preferred use. The site assessment criteria are included within Appendix Two.
- 5.6 The overall key findings of this appraisal are as follows:

- **Location & Accessibility** – the majority of sites assessed are located either within or on the edge of the various town centres, whilst the larger industrial warehouses are located close to motorway junctions where operator accessibility requirements can be satisfied. Due to its size and density of development, the city of Coventry provides a range of potential locations including edge of centre through the suburbs to the administrative boundary.

There are a number of isolated sites across Warwickshire that, whilst unsustainable in many ways, are providing employment for the rural economy. Whilst some of these are poor locations for modern employment, their local importance is considerable.

Due to the strategic location of the sub region, the general accessibility of many sites is very good. Indeed, from a market perspective, the best sites within the sub region are located on, or within very close proximity to the M1, M6, M40, and M42 motorways. The ‘A’ road connectivity within the region is also good, offering links across the sub region and connecting the motorway infrastructure.

- **Site Conditions** – site conditions across the sub region vary from excellent to very poor. This is not surprising considering the restructuring of the economy throughout the sub region over the past few decades. This process has left a mix of older industrial estates with often ageing premises and poor environments. There are also a number of state of the art business parks providing modern premises attractive to national and international firms through the high technology corridor. The higher

quality sites tend to be in the south of Warwickshire through Leamington, Stratford and Warwick, and in Solihull and Coventry where there has been demand for high grade office space in addition to new and improved B2 and B8 space. Development in Rugby, North Warwickshire and Nuneaton and Bedworth has been dominated by a number of large B8 warehouse developments.

- **Developer Interest** – developer interest remains generally strong across the sub region, although the strongest focus is on B8 activities. The sub region has been dominated by a number of high profile developments over the last 5-10 years including Hams Hall (Regional Logistics Site), Prologis Park, Coventry Business Park, Bermuda Park, Tachbrook Park, Blythe Valley Business Park and Central Park in Rugby. The nature of these various headline developments reflects developer interest in terms of market sectors and geographic focus.

Whilst south Warwickshire, Solihull and Coventry have witnessed the development of a number of high profile business parks offering high-grade office space and a range of premises aimed at stimulating the service sector and high technology economy, this type of development has been limited on the north and eastern areas of the sub region. Development in these has been typified by large storage and distribution development as developers have made the most of the area's excellent road links.

5.7 We have classified all sites according to their quality and suitability for employment development. The following classification applies:

- **Very Good (V GOOD)** – Site has an excellent location in relation to the primary road network and/or public transport interchange. The site conditions/buildings are excellent and is very attractive to developers/prospective occupiers. These sites are typically modern sites providing office, technology, logistic or mixed use development opportunities in attractive, landscaped environments
- **Good** – Site is well located to primary road network and/or public transport interchange. The site conditions/buildings are good and there is developer/prospective occupier interest. There are no known constraints.
- **Medium (MED)** – Site is adequately located to primary road network and/or public transport interchange. The site conditions/buildings are reasonable, there are minimal constraints and site is of interest to developers/prospective occupiers
- **Poor** – Site is badly served by primary road network and/or public transport interchange. The site conditions/buildings are poor and there are a number of constraints.
- **Very Poor** – Site is badly served by primary road network and/or public transport interchange. The site conditions/buildings require considerable work and there are significant constraints. These are typically isolated rural sites or non-conforming urban sites within residential locations.

Coventry

5.8 Thirty-four (34) sites and premises in Coventry were assessed as part of the supply appraisal. The main points arising from this appraisal are as follows:

- **Location and Accessibility** – due to the density of the urban environment throughout Coventry and the proximity to the M6 and the M40, the majority of sites surveyed enjoy good, if not excellent levels of accessibility. A number of the smaller to medium sites are located within residential neighbourhoods and therefore have varying impacts on local amenity. All sites are within a 10 minute journey of the inner ring road assuming good traffic conditions.

The inner ring road is an important factor when considering the quality of sites in terms of their quality of location and accessibility. The ring road provides important connectivity both to and from the city centre and provides an important artery along which much of the business traffic in Coventry travels. With the importance of locating new employment in sustainable, accessible locations the ring road must be seen as an important element of highway infrastructure, and thus important to the efficiency of the local economy.

In our opinion the best sites within the City are located to the northern and south-western extremities of the City where large redevelopment sites have benefited from good accessibility via the major arterial routes in and out of the centre to the motorway network.

- **Site Conditions** – the condition of sites varies from excellent to very poor. The recent developments related to the Universities of Warwick and Coventry provide excellent environments and high standards of accommodation, whilst established firms such as Jaguar provide state of the art facilities on well maintained sites. Coventry Business Park, Banner Lane, Cross Point, Westwood, Binley Business Park and Pro Logis Park are other examples of the better sites within Coventry.

Other sites within the City suffer from a poor image due to dilapidated buildings, poorly maintained environments and voids. These sites typically accommodate ageing or redundant manufacturing premises that are in need of refurbishment or redevelopment. It is important to recognise that many of the smaller to medium sized sites are well let and relatively well maintained.

- **Availability** – Whilst a number of large / significant employment sites have come forward in recent years, there is no immediate prospect of medium to large sites coming forward to cater for new investment. The expansion land at Jaguar's Whitley plant is the only large site available for large-scale development as opportunities at Coventry Business Park, Pro Logis and the University Science Parks are becoming exhausted. Due to the extent of the urban area of Coventry, suitable opportunities for new development are limited beyond redevelopment of existing sites.

With regard to the availability of premises, there is a good supply of space available in the B2 and B8 classes. The supply of B1 is good on the larger, more peripheral sites but there remains a lack of available, modern space within the city centre.

- **Developer Interest** – interest within Coventry is good with a number of key sites having come forward in recent years. Due to the scarcity of large development sites within the City, those providing good opportunities in sustainable locations are highly attractive to the market. The development of Coventry Business Park is a good example of how developers have realised potential and delivered a range of property types to meet demand. Other sites such as the University of Coventry Technology Park prove that developers will take on sites in sustainable locations where there is a proven demand.

Developer interest will be tested if the older industrial sites begin to suffer serious voids and dereliction. Whilst the overall portfolio must include other sites, the redevelopment of some of these for employment uses will be important to the local economy as efforts are made to continue to restructure and diversify the economy.

5.9 **Table 5.3** below provides a summary of the overall current supply of employment land in Coventry and the classification of each site based on the supply appraisal information. This shows that a total of 65.4 ha of employment land have been included within the supply appraisal.

Table 5.3: Employment Land Availability in Coventry (at 2005)

Name of Site	Employment Land Supply (ha)	Availability (approx sq.m.)	Preferred Use	Type of Site	Quality Rating
Sites					
(A) Coventry Bus Park	2.4		B1, B2, B8	2	V GOOD
(A) Cross Point Bus Park	2.5		B1, B8	2	V GOOD
(A) Westwood Bus Park	1.5		B1	1	V GOOD
(A) Parkside	1.7		B1, B2	3	V GOOD
(A) Uni of Warwick Science Park	0.3		B1, B2	3	V GOOD
(A) Binley Bus. Park	1.9		B1	1	V.GOOD
(A) Wickmans	2.2		B1, B2	2	GOOD
(A) New Century Park	4.7		B1, B1, B8	2	GOOD
(A) Leofric Bus Park	0.3		B1, B2	2	GOOD
(A) Aldermans Green Phase 2	2.3		B2, B8	4/5	GOOD
(A) Websters/EMR*	2.5		B1, B2, B8	2	MED
(A) Jaguar Whitley*	32		B1, B2,B8	2	V GOOD
(A) Pro-Logis Park	11.3		B1, B2, B8	4	V GOOD
* = not readily available					
Total Supply of Available Land	65.6				
Premises					
Albion Ind Est		1166.2	B2, B8	6	POOR
Alpha Bus Park		1230.9	B1	6	POOR
Bilton Ind Est		852.5	B2, B8	6	POOR
(A) Binley Bus. Park		6145	B1	1	V.GOOD
Binley Ind Est		6067.7	B2	6	POOR
Central City Ind Est		17372	B2, B8	6	MED
Charter Ave Ind Est		80	B1, B2, B8	5	MED
(A) Coventry Bus. Park		1051.8	B1,B2,B8	2	V GOOD
(A) Cross Point Bus. Park		24,405	B1, B8	2	V GOOD

(A) Earlplace Bus Park		3065.7	B1, B2, B8	5	GOOD
Fletchhamstead Highway		891.6	B1, B2,B8	1	GOOD
(A) Foleshill Enterprise Park		483.1	BI	5	MED
Hales Ind Est		2282.3	B2, B8	6	POOR
(A) Leofric Bus Park		997	B1	2	GOOD
Little Heath Ind Est		198.1	B2, B8	5	MED
Maguire Ind Est		1035.6	B2, B8	6	MED
Midland Oak Trading Est		2136.1	B2, B8	6	POOR
New Century Park		2,787	B1, B2, B8	2	GOOD
New Inn Bridge Estate		590.4	B2	6	POOR
Paragon Park		4344.8	B1, B2, B8	6	MED
(A) Parkside		2887	B1, B2	3	V GOOD
(A) Pro-Logis Park		14,531	B1, B2, B8	4	V GOOD
Rowley's Green Ind Est		555.1	B2	5	POOR
Sandy Lane Bus Park		2889.9	B1, B2, B8	5	MED
(A) Seven Stars Trading Est		1662.8	B2, B8	5	MED
Stonebridge Highway Ind Est		4785.7	B2, B8	6	POOR
Torrington Ave Ind Est		20265	B2, B8	5	MED
(A) Uni of Warwick Science Park		2573	B1	3	V GOOD
(A) Westwood Business Park		949.4	B1	1	V.GOOD
(A) Wickmans		5,000	B1, B2, B8	2	GOOD
Total Supply of Available Premises		133,432sq.m			
Type of Site = See ODPM Classification Table.					
(A) = Allocated in Coventry Development Plan					

North Warwickshire

5.10 Thirteen (13) sites in North Warwickshire were assessed as part of the supply appraisal.

- **Location and Accessibility** – recent employment development within North Warwickshire has been dominated by B8 activities due to the excellent links to the M6 and M42. Hams Hall and Birch Coppice have delivered major logistic parks attractive to large, multi national storage and distribution firms. Kingsbury Link has also been developed in recent years, which whilst smaller offers almost immediate access to the M42 for medium sized B8 occupiers.

Whilst new development has located along the M42, the remaining sites within the borough experience varying levels of accessibility. Due to the rural character of North Warwickshire many sites providing local employment do not benefit from good access to the motorways or public transport.

- **Site Conditions** – site conditions within North Warwickshire vary from excellent to very poor. The recent developments provide modern environments and state of the art facilities whilst many of the smaller, older estates provide outdated accommodation unsuitable/inefficient for modern ways of working. As mining, quarrying and manufacturing have been the mainstays of employment through the borough since the industrial revolution there is of course a risk of contamination and instability on many sites.

- **Availability** – employment land within North Warwickshire is characterised by an emergence and dominance of storage and distribution uses on top of a historic supply of small to medium sized manufacturing and industrial businesses. The availability of sites and premises is reasonable, with Hams Hall still providing a considerable amount of land and suitable space for let and Birch Coppice having a considerable amount of land remaining for development. Phases 2 and 3 of Coleshill Manor are under development providing high quality, modern office space close to the M42.

Notable gaps in availability within North Warwickshire involve a lack of office space within the town centres and a lack of small to medium sized industrial units.

- **Developer Interest** – due to the excellent highway links at sites such as Hams Hall and Birch Coppice, interest within the Borough is strong albeit dominated by speculative and bespoke development for B8 uses. Due to the competitiveness across the sub region developer interest will tend to focus on the more affluent areas of South Warwickshire and Solihull. The lack of skills within the borough make it a challenging area in which to stimulate activity as developers will be cautious over the risks involved with speculative development outside of the B8 use class.

5.11 **Table 5.4** below provides a summary of the overall current supply of employment land in North Warwickshire and the classification of each site based on the supply appraisal information.

Table 5.4: Employment Land Availability in North Warwickshire

Name of Site	Employment Land Supply (ha)	Availability (approx ha)	Preferred Use	Type of Site	Quality Rating
Sites					
Arley Ind Est	0.1		B2	10	POOR
Baddesley Colliery	21		B8	4	MED
(A) Birch Coppice	49.5		B8	4	V GOOD
Highway Point, Coleshill	0.4		B2	5	MED
(A) Holly Lane, Atherstone	6.9		B2	4	V GOOD
Rush Lane, Kingsbury	7.5		B2, B8	4	MED
Total Supply of Available Land (Ha)	85.4				
Premises					
Arley Ind Est		104	B2	10	POOR
(A) Hams Hall		50,000	B2, B8	4	V GOOD
(A) Coleshill Ind Est		4,500	B2	5	MED
(A) Birch Coppice		40,000	B8	4	V GOOD
(A) Kingsbury Link		12,000	B8	4	V GOOD
(A) Carlyon / Four Ways I.E		10,000	B2, B8	5	MED
Coleshill Manor		5,000	B1	1	V GOOD
Manor Road, Atherstone		6,000	B2	10	POOR
Onyx Park Dotshill		TBC	B2, B8	10	GOOD
Total Supply of Available Premises		127,604sq.m			
Type of Site = See ODPM Classification Table.					
(A) = Allocated in North Warwickshire Local Plan.					

Nuneaton & Bedworth

5.12 Twenty-two (22) sites and premises in Nuneaton & Bedworth were assessed as part of the supply appraisal.

- **Location and Accessibility** – the majority of sites surveyed in the study are located on the southern periphery of Nuneaton. The larger, more recent developments to the south of the town centre (i.e. Bermuda Park, Elliot Park) enjoy good accessibility to the M6/M69 and M42. Many of the smaller sites towards the outskirts of the town suffer from local highway constraints but enjoy overall benefit from Nuneaton's general accessibility to the national highway network.

Sites within and around Bedworth have similar characteristics but benefit from particularly good accessibility to the M6.

- **Site Conditions** – the condition of sites through the Borough vary from excellent to poor. The large distribution parks around Nuneaton offer modern facilities in attractive locations. Many of the small/medium sized industrial sites are in an ageing condition and contamination could be an issue on many of these.
- **Availability** – Whilst the Borough has seen considerable development in recent years (with the development of Bermuda Park etc) a number of other allocated sites remain that are constrained by a lack of infrastructure and demand. Whilst Midland Quarry now benefits from improved road infrastructure, the development of Judkins Quarry is dependant on new infrastructure; most notably a link to the A5.

There is a reasonable supply of existing premises across the Borough although much of this availability involves manufacturing space, which is difficult to let in a market suffering from a decline in traditional industrial processes.

- **Developer Interest** – the borough has seen considerable investment and development in recent years (particularly in B8). This has primarily been to the south of Nuneaton town centre with the rapid development across the Bermudas.

The difficulty now facing the Borough is how to stimulate interest from developers that will help to diversify the economy. Demand for B8 space is likely to remain healthy although the Council needs to carefully consider how to re-skill the workforce in order to achieve a balanced economic mix.

5.13 **Table 5.5** below provides a summary of the overall current supply of employment land in Nuneaton and Bedworth and the classification of each site based on the supply appraisal information.

Table 5.5: Employment Land Availability in Nuneaton & Bedworth

Name of Site	Employment Land Supply (ha)	Availability (approx ha)	Preferred Use	Type of Site	Quality Rating
Sites					
(A) Bayton Rd Ind Est (& Paragon Way)	0.4		B2, B8	5	GOOD
(A) Bermuda Park	10.6		B1, B2, B8	2	V GOOD
(A) Camp Hill Industrial Estate/Midland Quarry	0.9		B1, B2, B8	5	GOOD
(A) Colliery Lane	0.6		B2, B8	5	MED
(A) Griff Clara	4.1		B2, B8	4	V GOOD
(A) Hemdale Bus Park	2.0		B1, B2, B8	5	GOOD
(A) Judkins Quarry	16		B2, B8	4	GOOD
(A) Paradise Farm	1.2		B1	6	POOR
(A) Prologis Park	3.8		B1, B2, B8	4	V GOOD
(A) Pool Road	0.2		B2	6	POOR
(A) Vicarage Street	0.4		B2	5	MED
(A) Whitacre Road Ind Est	1.2		B2	6	MED
Black Horse Road	0.9		B1, B2, B8	5	MED
Caldwell Road Ind Est	0.6		B1, B2, B8	5	MED
Gallagher Bus Park	0.5		B2, B8	2	GOOD
Total Supply of Available Land (Ha)	46.1				
Premises					
(A) Bayton Road Ind Est (& Paragon Way)		22,700	B2, B8	5	GOOD
(A) Bermuda 1		10,930	B2, B8	4	V GOOD
(A) Bermuda Park		29,269	B1, B2, B8	2	V GOOD
(A) Camp Hill Ind Est / Midland Quarry		7,280	B1, B2, B8	5	GOOD
(A) Hemdale Bus Park		1533	B1, B2, B8	5	GOOD
(A) Paradise Farm		4165	B1	6	POOR
(A) Prologis Park		53,500	B1, B2, B8	4	V GOOD
(A) Pool Road		770	B2	6	POOR
(A) Whitacre Road Ind Est		3370	B2	6	POOR
(A) Attleborough Fields		2900	B2, B8	5	GOOD
(A) Haunchwood Business Park		600	B2	6	POOR
Caldwell Road Ind Est		4088	B1, B2, B8	5	MED
Elliot Bus Park		3900	B1	1	V GOOD
Gallagher Bus Park		4225	B2, B8	2	GOOD
Grovelands Ind Est		1690	B2	5	MED
Trident Bus Park		750	B2, B8	6	POOR
Total Supply of Available Premises		151,670sq.m			
Type of Site = See ODPM Classification Table.					
(A) = Allocated in Nuneaton & Bedworth Local Plan.					

Rugby

5.14 Sixteen (16) sites and premises in Rugby were assessed as part of the supply appraisal.

- **Location and Accessibility** – Like other parts of the sub-region, Rugby has benefited in recent years from its central position on the national motorway network. Proximity to the M1, M6 and the M45 gives Rugby a strong position whilst the A5 also provides sub regional connectivity.

The focus for employment sites is around junction 1 of the M6. Whilst B8 parks have sprung up in this area, Rugby has a number of smaller, older sites that accommodate small to medium manufacturing businesses. These are generally located around the town centre and due to the centre's general level of accessibility all perform reasonably well in this regard

- **Site Conditions** – As with the other parts of the sub region, Rugby has been restructuring its economy over the last 10-15 years following the decline in manufacturing and traditional industry. This has resulted in a variety of site conditions ranging from modern business parks to tired, outdated industrial estates.
- **Availability** – availability of premises within Rugby is reasonably good, with notable space and land available at Central Park near the M6. Other notable availability exists at the Major Investment Site at Ansty, though doubt remains as to whether this site will come forward as a medical technology park. Elsewhere, Swift Valley remains successful and offers good quality availability.
- **Developer Interest** – As with North Warwickshire and Nuneaton and Bedworth, demand in Rugby remains strong for distribution facilities as firms look to benefit from the town's excellent accessibility. Whilst this type of demand is likely to remain strong, it is considered that interest in other forms of employment land development (i.e. new offices) will only arise where developers can deliver such as part of wider, profitable mixed use developments such as the Alstom Site in central Rugby. It is doubtful whether developers will consider speculative B1 / B2 developments.

5.15 **Table 5.6** overleaf provides a summary of the overall current supply of employment land in Rugby and the classification of each site based on the supply appraisal information.

Table 5.6: Employment Land Availability in Rugby

Name of Site	Employment Land Supply (ha)	Availability (approx ha)	Preferred Use	Type of Site	Quality Rating
Sites					
Central Park Coton	13.4		B1, B2, B8	2/4	V GOOD
Great Central Ind Est	0.2		B1, B2, B8	5	GOOD
Leicester Road/Alstom	10		B1, B2, B8	5	GOOD
Livestock Market	1		B1, B2	9	POOR
Somers Road Ind Est	0.5		B1, B2, B8	5	MED
Valley Park	0.7		B1, B2, B8	2/4	V GOOD
Rolls Royce, Ansty	6.3		B1, B2, B8	9	V GOOD
Malpass Farm	10		B1, B2, B8	5	GOOD
Webb Ellis Park	0.6		B1, B2, B8	5	GOOD
Total Supply of Available Land (Ha)	42.7				
Premises					
Boughton Road Ind Est		12,100	B1, B2, B8	5	POOR
Butlers Leap Ind Est		2,950	B1, B2, B8	5	GOOD
Central Park Coton		900	B1, B2, B8	2/4	V GOOD
Great Central Ind Est		800	B1, B2, B8	5	GOOD
Leicester Road/Alstom		10,800	B1, B2, B8	5	GOOD
Midland Trading Estate		9,200	B1, B2, B8	5	MED
Paynes Lane Ind Est		500	B1, B2, B8	5	MED
Somers Road Ind Est		2,000	B1, B2, B8	5	MED
Swift Valley Ind Est		2,000	B1, B2, B8	4	V GOOD
Tribune Trad Est		900	B1, B2, B8	5	POOR
Europark		6,075	B1, B2, B8	5	GOOD
Webb Ellis Park		400	B1, B2, B8	5	GOOD
Total Supply of Available Premises		48,625sq.m			
Type of Site = See ODPM Classification Table.					

Solihull

5.16 Ten (10) sites and premises in Solihull were assessed as part of the supply appraisal. The main points arising from this appraisal are as follows:

- **Location and Accessibility** – Solihull benefits from an affluent, relatively skilled population, close proximity to Birmingham and excellent road links via the M40, M42 and M6. The sites that make up identified employment land supply and the existing active main business sites have close proximity to the strategic highway network.
- **Site Conditions** – site conditions do not offer significant constraints on the overall quality of supply in Solihull. A number of the key sites have been brought forward in greenfield locations that have not been subject to previous contaminating uses.
- **Availability** – the existing supply of accommodation and sites provide opportunities that are available in the short medium and longer term. Most of the identified land that makes up the identified supply (80%+) is located in the south of the Borough in or near the A34 corridor. Opportunities are more limited in North Solihull. The LDF will

need to address the issue of providing access to employment for North Solihull residents.

- **Developer Interest** – interest in Solihull remains strong given the strategic linkages and scale of development brought forward to date. However, the north of the Borough does not benefit from an established commercial market. A key challenge for the future will be channelling developer interest in North Solihull (i.e. Regeneration Zone). Main employment sites, including identified employment land supply, are relatively accessible, are of sufficient quality and are situated in locations that would make them attractive from a market perspective.

5.17 **Table 5.7** provides a summary of the overall current supply of employment land in Solihull and the classification of each site based on the supply appraisal information.

Table 5.7: Employment Land Availability in Solihull

Name of Site	Developable Area (ha)	Availability (approx sq.m)	Preferred Use	Type of Site	Quality Rating
Sites					
Trinity	1.2		B1	1	V GOOD
Land adj. Arden Hotel	0.6		B1	1	V GOOD
Solihull Business Park	10.5		B1, B2, B8	2	V.GOOD
Cranmore Industrial Estate	2.1		B1, B2, B8	5	MED
Aspire	5		B1	1	V GOOD
Powergen Premises	1		B1	1	V GOOD
TRW, A34 Shirley	10		B1	1	V.GOOD
Chep/Higginson Site	4		B1, B2, B8	5	GOOD
Total Supply of Available Land (Ha)	34.4				
Premises					
NEC		15,560	B1, B2, B8	2	V GOOD
Cranmore Industrial Estate		11,000	B2, B8	5	MED
Solihull Business Park		11,600	B1,B2, B8	2	GOOD
Birmingham International Park		1,000	B1	1	V GOOD
Total Supply of Available Premises		39,160sq.m			
Type of Site = See ODPM Classification Table.					
(A) = Allocated Sites in Solihull UDP.					

Stratford on Avon

5.18 Twenty-nine (29) sites and premises in Stratford on Avon were assessed as part of the supply appraisal.

- **Location and Accessibility** – sites are located largely within Stratford and the other main centres of Alcester, Southam, Wellesbourne and Shipston. Sites within Stratford are located to the edge of the town centre and along the major arterial routes. The A46 provides good access from Stratford to the M40 although there is recognition that developers prefer Leamington and Warwick due to their improved accessibility to the M40. Alcester, Southam and Shipston are less well located to the M40 but do serve large rural hinterlands and have good ‘A’ road connectivity.

As a predominantly rural area, Stratford has a number of small rural employment sites. Whilst the accessibility of these sites is relatively poor they do provide crucial employment opportunities for rural communities.

- **Site Conditions** – the majority of sites in and around Stratford benefit from good to excellent site conditions. Site quality in the other centres is generally poorer whilst there are a number of isolated rural sites with poor conditions.
- **Availability** – there is a good supply of land available within the district, though Stratford has suffered from relatively slow take up levels on newly developed sites. Office space and land is readily available in Stratford whilst land for storage and distribution uses exists most notably in Wellesbourne and Southam.
- **Developer Interest** – developer interest remains strong but of a small scale in Stratford although discussions with the Council have confirmed that sites can sometimes be slow to come forward. Due to the skilled workforce and quality of the environment, interest will remain strong in Stratford subject to suitable sites being available.

5.19 **Table 5.8** provides a summary of the overall current supply of employment land in Stratford on Avon and the classification of each site based on the supply appraisal information.

Table 5.8: Employment Land Availability in Stratford on Avon

Name of Site	Employment Land Supply (ha)	Availability (approx ha)	Preferred Use	Type of Site	Quality Rating
Sites					
(A) Arden Street, Stratford-upon-Avon	0.2		B1	1	V GOOD
(A) Cattle Market, Alcester Road, Stratford-upon-Avon	0.4		B1	1	V GOOD
(A) Dene Business Park, Stratford Road, Wellesbourne	6.5		B1, B2, B8	5	V GOOD
(A) High Street, Henley-in-Arden	0.8		B1	1	GOOD
(A) Stratford Bus Pk, Banbury Rd, Stratford-upon-Avon	2.7		B1	2*	V GOOD
(A) Loxley Road, Wellesbourne	2.8		B1, B2, B8	5	V GOOD
(A) Napton Brickworks	3.0		B1	**	POOR
Arden Forest I.E, Alcester	0.5		B1	5	MED
Bearley Airfield, Bearley	0.5		B8	**	POOR
Birmingham Road, Stratford-upon-Avon	2.1		B1	1	GOOD
Churchland Farm, Harbury	0.3		B1, B2	**	POOR
Darlingscote Road, Shipston-on-Stour	3.2		B1, B2, B8	5	MED

Edstone Hall, Wootton Wawen	0.6		B1	**	MED
Glebe Farm, Sambourne	0.4		B1	**	POOR
Harwoods House, Ashorne	0.9		B1	**	MED
Kineton Grange Farm, Kineton	0.4		B1, B2, B8	**	POOR
Needle Industries, Studley	0.7		B1	1	MED
New Enclosure Farm, Combrook	0.5		B1	**	POOR
New Farm, Blackwell	0.2		B1	**	POOR
Oak Farm, Sambourne	0.9		B1	**	POOR
Proving Ground, Banbury Road, Gaydon	14.9		B1	9	GOOD
Roundshill Farm, Barcheston	0.6		B1, B2, B8	**	POOR
Ryon Hill, Warwick Road, Stratford-upon-Avon	0.9		B1	2*	V GOOD
Shottery Business Park, Timothy's Bridge Road, Stratford-upon-Avon	1.5		B1	2*	V GOOD
Southam Business Park, Kineton Road, Southam	6.0		B1, B2 & B2	5	GOOD
Upton House, Ratley	0.4		B1	**	POOR
Waterloo Road, Bidford-on-Avon	0.2		B2	5	POOR
Total Supply of Available Land (Ha)	52.1				
Premises					
Arden Forest I.E, Alcester		15,000	B1	5	MED
Birmingham Road, Stratford-upon-Avon		8,300	B1	1	GOOD
M40 Distribution Park, Wellesbourne		10,000	B8	4	V GOOD
Shottery Bus Pk, Timothy's Bridge Rd, Stratford-upon-Avon		5,000	B1	2*	V GOOD
Southam Bus Pk, Kineton Rd, Southam		10,000	B1, B2, B8	5	GOOD
Waterloo Road, Bidford-on-Avon		800	B2	5	POOR
Total Supply of Available Premises		49,100sq.m			
Type of Site = See ODPM Classification Table.					
* residual of Business Park-type developments which are each about 5 hectares in total.					
** miscellaneous sites in rural locations not covered by ODPM classification					
(A) = Allocated in Stratford Local Plan					

Warwick

5.20 Twenty-two (22) sites and premises in Warwick were assessed as part of the supply appraisal.

- **Location and Accessibility** – the main centres of Warwick and Leamington benefit from good access to the M40. This accessibility has proven to be very attractive to developers, with a number of major schemes having come forward in recent years.

The majority of sites tend to be located to the south of Leamington and through Warwick where easy access can be made to the M40. The importance of the M40 is integral to the attractiveness of sites. The development of Tournament Fields to the south west of Warwick will provide immediate access to the M40 and it is likely to become a highly successful development within the district providing predominantly high quality B1 accommodation.

- **Site Conditions** – site conditions are largely good within Warwick District especially across the more recent developments such as Spa Park and Tachbrook park. Some of the older industrial sites provide outdated premises in poor locations. This is typical of similar land uses through the sub region and beyond.
- **Availability** – availability is good, with notable opportunities for development at Spa Park, Tournament fields, South Heathcote Lane and Gallagher Business Park. Other development opportunities exist as allocated in the Local Plan and the conclusion must be that the District has a range of different opportunities to meet the needs of a competitive and demanding development market. The strength of the local economy is illustrated by the fact that the availability of premises is limited, particularly modern space in good locations.
- **Developer Interest** – interest from developers is strong, with Leamington and Warwick benefiting from excellent accessibility to the M40 and London. This proximity to the capital and the growing pressure for development up the M40 has created considerable interest in Warwick District in recent times.

5.21 **Table 5.9** below provides a summary of the overall current supply of employment land in Warwick District and the classification of each site based on the supply appraisal information.

Table 5.9: Employment Land Availability in Warwick

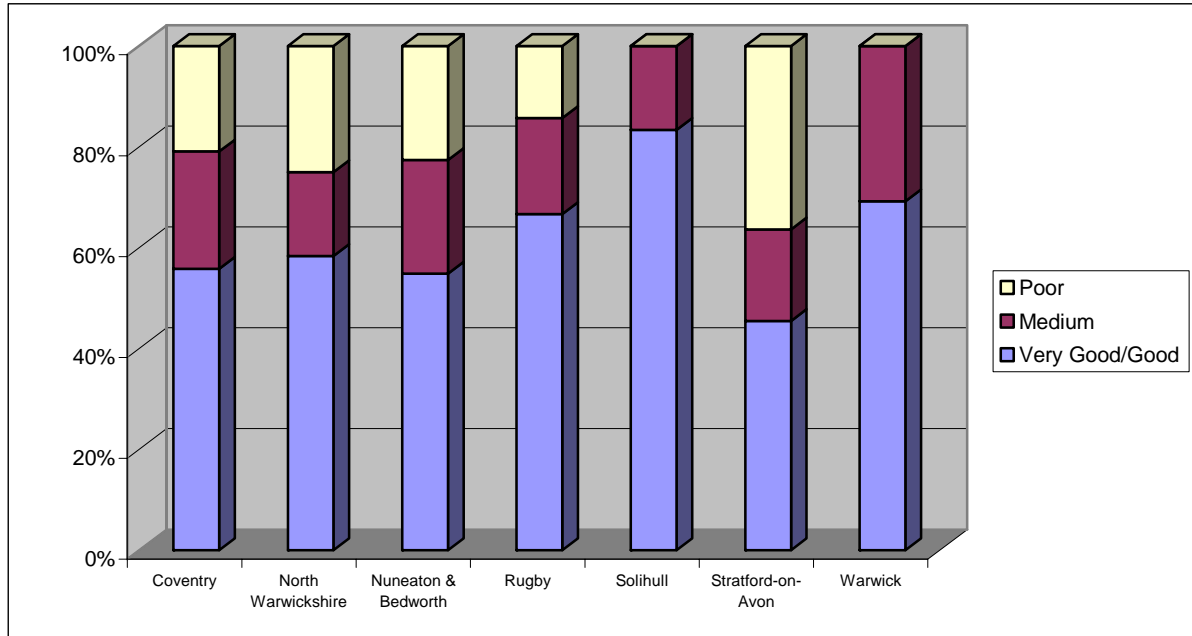
Name of Site	Employment Land Supply (ha)	Availability (approx ha)	Preferred Use	Type of Site	Quality Rating
Sites					
(A) Land at High St / Lower Ave	0.2		B1	TBC	GOOD
(A) Land at Nelson Lane	0.5		B1 & B2	5	MED
(A) Station Goods Yard	2.1		B1 & B2	TBC	GOOD
(A) Land at Queensway	3.2		B1	TBC	GOOD
(A) Rear of Homebase	1.8		B2 & B8	TBC	GOOD
(A) Wedgnoek Lane / Cape Road, Wedgnoek	1.9		B2	5	MED
Montague Road Ind Est	0.7		B2	5	MED
Queensway Business Park	1.9		B1, B2, B8	5	MED
Pottertons, Emscote Road	1.2		B1	1	GOOD
Siskin Drive	1.1		B1, B2, B8	5	V GOOD
South Heathcote Lane	13.7		B1, B8	2	V.GOOD
Spa Park	0.2		B1, B2, B8	2	V GOOD
Stoneleigh Deer Park	1.6		B1	2	GOOD
Tachbrook Park	8.13		B1, B2, B8	2	V GOOD
Tournament Fields Bus Park	19.49		B1, B8	1/2	V GOOD
Total Supply of Available Land (Ha)	59.3				
Premises					
Farmer Ward Rd Ind Est		1000	B1	5	MED
Heathcote Ind Est		1,926	B1, B2, B8	5	GOOD
Middlemarch BP Coventry Airpark		5000	B1, B2, B8	2/4	GOOD

Queensway Business Park		2000	B1, B2, B8	5	MED
Siskin Drive		8000	B1, B2, B8	5	V GOOD
Spa Park		10,000	B1, B2, B8	2	V GOOD
Sydenham Ind Est		1,000	B2 & B8	5	MED
Tachbrook Park		5,508	B1, B2, B8	2	V GOOD
Tournament Fields Bus Park		5,000	B1 & B8	1/2	V GOOD
Warwick Technology Park		1200	B1	2	V GOOD
Wedgnock Ind Est		2,591	B2	5	MED
Total Supply of Available Premises		43,725sq.m			
Type of Site = See ODPM Classification Table.					
(A) = Allocated in Warwick Local Plan					

Summary

- 5.22 The supply appraisal confirms that the sub region is in the process of restructuring its economy as the decline in traditional forms of manufacturing continues and sites / premises are made available to accommodate modern requirements.
- 5.23 Coventry accommodates a considerable diversity of businesses and site types. Whilst the City has retained a considerable amount of traditional manufacturing it has also stimulated growth within the service and research and development sectors. Developments such as Coventry Business Park, the University of Coventry Technology park and those related to the University of Warwick are helping the city to modernise and attract a range of employers and employees to the city. Sectors with strong growth prospects include medical technologies and creative media.
- 5.24 Whilst a number of sites have come forward in Coventry in recent years, the City faces a shortage of medium to large sites given the density of development. In order for the city to continue its planned expansion, the Council will have to carefully consider where the future employment land supply will come from.
- 5.25 The appraisal of sites and premises through Warwickshire again illustrates a clear objective to restructure the economy in light of the decline of traditional manufacturing. Whilst this decline continues to cause notable problems of unemployment in the north of the county, the south and east have seen considerable success within the office and distribution markets.
- 5.26 A number of high profile developments have been built in Solihull, Leamington, Warwick and Stratford whilst Rugby has established itself as a favoured location for storage and distribution firms. Storage and Distribution has been the dominant form of development in the north of the county within North Warwickshire and Nuneaton and Bedworth as firms have exploited the excellent road links in this location. However, the positive impacts here have been less than in Rugby.
- 5.27 Figure 5.1 provides a summary of the supply of employment land by authority area and use on the basis of very good / good, medium and poor / very poor classifications. This shows that the majority of land by number of sites and overall quantum of land is classified as either very good or good.

Figure 5.1: Quality Assessment of Employment Sites & Premises



6. Supply V Demand & Policy Implications

6.1 This section draws together the findings from our demand and supply assessments. It highlights the conclusions by way of illustrating the differences between supply and demand and makes key policy recommendations. The section deals with both quantitative and qualitative supply and demand.

Quantitative Supply & Demand

6.2 It is vital that caution is exercised when considering requirements beyond 2016. The provision of figures beyond this time are based on information that is extrapolated and will be over 10 years out of date when the land will supposedly be needed. Predicting requirements this far into the future is problematic for a number of reasons, detailed in chapter 1, and merely displays a picture of future demand based on current thinking and predictions as to how the economy will develop over the next 20 years. As the worldwide economy continues to re-shape itself predictions on employment land needs beyond 5 –10 years into the future should be regarded as indicative and subject to regular review as time goes by.

6.3 Therefore, we advise that the emphasis of the results is on those on supply and demand in the short term. Therefore this section deals with the situation up to 2016 and the position on demand from 2016 to 2026 is in Appendix 5.

6.4 In order to gain a better appreciation of the balance between supply and demand, we have broken down demand and supply by authority area and land use type, and broken these down into 5 yearly periods to 2016 i.e. 2006-2011 and 2011-2016. The supply analysis is based on information incorporated in chapter 5. However, in order to provide total supply figures for the use classes analysed, the following approach has been used to break down supply between the various classes:

- where land is identified as B1 or B2, it is assumed that 25% is B1 and 75% B2;
- where land is identified as B1, B2 or B8, it is assumed 25% B1, 25% B2 and 50% B8;
- where land is shown as B2 or B8, it is assumed to be split equally;
- sui generis assumes half of all B2 land;

6.5 Once these calculations have been made, the total amount of B1 land is further divided as 75% B1a and 25% B1 b/c.

6.6 For example, in the case of Table 5.1a, the B1a supply for Coventry is calculated from Table 5.1 as:

1. B1 land = 5.7
2. B1 / B2 – 36.6 of which 25% is B1 = 9.15
3. B1 / B2 / B8 – 21.0 of which 25% is B1 = 5.25

6.7 This gives a total B1 area of 20.1 ha. Of this, 75% is assumed to be B1a (i.e. 15 ha).

6.8 The following tables provide an illustration of supply against demand between 2006 and 2011 and demand up to 2016. The figures are split into five yearly chunks for each authority and consider the amount of land required by Cambridge Econometrics (CE) and the Past Take Up (PTU) methods of forecasting. The CE figure represents the high growth scenario from economic testing plus the land required for replacement for job losses. The PTU figure is derived from the amount of land predicted to be required when considered against past take up rates. The tables also consider supply against the average of both approaches and illustrate surpluses and deficits where appropriate.

Coventry

Table 6.1 – Coventry Supply Against Demand 2006-2011							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	3.1	19.5	11.3	15.1	12	-4.4	3.8
B1b/c & B2	1.1	19.5	10.3	38.9	37.8	19.4	28.6
B8	8.1	27.5	17.8	11.6	3.5	-15.9	-6.2
Sui Generis	3.8	N/A	1.9	N/A	N/A	N/A	N/A
Replacement for job losses	5.3	N/A	2.65	N/A	N/A	N/A	N/A
Total	21.4	66.5	43.95	65.6	53.3	-0.9	26.2

Table 6.2 – Coventry Demand 2011-2016							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	2.4	19.5	10.95	N/A	N/A	N/A	N/A
B1b/c & B2	0.9	19.5	10.2	N/A	N/A	N/A	N/A
B8	5.2	27.5	16.35	N/A	N/A	N/A	N/A
Sui Generis	2.9	N/A	1.45	N/A	N/A	N/A	N/A
Replacement for job losses	5.3	N/A	2.65	N/A	N/A	N/A	N/A
Total	16.7	66.5	41.6	N/A	N/A	N/A	N/A

North Warwickshire

Table 6.3 – North Warwickshire Supply Against Demand 2006-2011							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	0.4	4	2.2	0	-0.4	-4	-2.2
B1b/c & B2	0.1	10.5	5.3	11.2	11.1	0.7	5.9
B8	1.8	37	19.4	74.2	72.4	37.2	54.8
Sui Generis	0.5	N/A	0.25	N/A	N/A	N/A	N/A
Replacement for job losses	1.5	N/A	0.75	N/A	N/A	N/A	N/A
Total	4.3	51.5	27.9	85.4	83.1	33.9	58.5

Table 6.4 – North Warwickshire Demand 2011-2016							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	0.4	4	2.2	N/A	N/A	N/A	N/A
B1b/c & B2	0.1	10.5	5.3	N/A	N/A	N/A	N/A
B8	1.2	37	19.1	N/A	N/A	N/A	N/A
Sui Generis	0.4	N/A	0.2	N/A	N/A	N/A	N/A
Replacement for job losses	1.5	N/A	0.75	N/A	N/A	N/A	N/A
Total	3.6	51.5	27.55	N/A	N/A	N/A	N/A

Nuneaton & Bedworth

Table 6.5 – Nuneaton & Bedworth Supply Against Demand 2006-2011							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	0.7	9.5	5.1	3.6	2.9	-5.9	-1.5
B1b/c & B2	0.1	9.5	4.8	21	20.9	11.5	16.2
B8	3	19.5	11.25	21.5	18.5	2	10.25
Sui Generis	1.3	N/A	0.65	N/A	N/A	N/A	N/A
Replacement for job losses	1.8	N/A	0.9	N/A	N/A	N/A	N/A
Total	6.9	38.5	22.7	46.1	42.3	7.6	24.95

Table 6.6 – Nuneaton & Bedworth Demand 2011-2016							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	0.5	9.5	5	N/A	N/A	N/A	N/A
B1b/c & B2	0.1	9.5	4.8	N/A	N/A	N/A	N/A
B8	2	19.5	10.75	N/A	N/A	N/A	N/A
Sui Generis	1	N/A	0.5	N/A	N/A	N/A	N/A
Replacement for job losses	1.8	N/A	0.9	N/A	N/A	N/A	N/A
Total	5.4	38.5	21.95	N/A	N/A	N/A	N/A

Rugby

Table 6.7 – Rugby Supply Against Demand 2006-2011							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	0.8	3	1.9	8	7.2	5	6.1
B1b/c & B2	0.2	3.5	1.85	13.7	13.5	10.2	11.85
B8	2	30	16	21	19	-9	5
Sui Generis	0.5	N/A	0.25	N/A	N/A	N/A	N/A
Replacement for job losses	1.8	N/A	0.9	N/A	N/A	N/A	N/A
Total	5.3	36.5	20.9	42.7	39.7	6.2	22.95

Table 6.8 – Rugby Demand 2011-2016							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	0.7	3	1.85	N/A	N/A	N/A	N/A
B1b/c & B2	0.2	3.5	1.85	N/A	N/A	N/A	N/A
B8	1.3	30	15.65	N/A	N/A	N/A	N/A
Sui Generis	0.4	N/A	0.2	N/A	N/A	N/A	N/A
Replacement for job losses	1.8	N/A	0.9	N/A	N/A	N/A	N/A
Total	4.4	36.5	20.45	N/A	N/A	N/A	N/A

Solihull

Table 6.9 – Solihull Supply Against Demand 2006-2011							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	3.2	5.5	4.35	21.95	18.75	16.45	17.6
B1b/c & B2	1.5	4.5	3	4.15	2.65	-0.35	1.15
B8	4.9	6	5.45	8.3	3.4	2.3	2.85
Sui Generis	1.2	N/A	0.6	N/A	N/A	N/A	N/A
Replacement for job losses	2.5	N/A	1.25	N/A	N/A	N/A	N/A
Total	13.3	16	14.65	34.4	24.8	18.4	21.6

Table 6.10 – Solihull Demand 2011-2016							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	2.8	5.5	4.15	N/A	N/A	N/A	N/A
B1b/c & B2	1.4	4.5	2.95	N/A	N/A	N/A	N/A
B8	3.3	6	4.65	N/A	N/A	N/A	N/A
Sui Generis	0.9	N/A	0.45	N/A	N/A	N/A	N/A
Replacement for job losses	2.5	N/A	1.25	N/A	N/A	N/A	N/A
Total	10.9	16	13.45	N/A	N/A	N/A	N/A

Stratford

Table 6.11 – Stratford Supply Against Demand 2006-2011							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	1.2	11	6.1	36	34.8	25	29.9
B1b/c & B2	2.5	22.5	12.5	6	3.5	-16.5	-6.5
B8	1.8	6	3.9	10	8.2	4	6.1
Sui Generis	1.3	N/A	0.65	N/A	N/A	N/A	N/A
Replacement for job losses	1.5	N/A	0.75	N/A	N/A	N/A	N/A
Total	8.3	39.5	23.9	52	46.5	12.5	29.5

Table 6.12 – Stratford Demand 2011-2016							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	0.9	11	5.95	N/A	N/A	N/A	N/A
B1b/c & B2	2.4	22.5	12.45	N/A	N/A	N/A	N/A
B8	0.9	6	3.45	N/A	N/A	N/A	N/A
Sui Generis	0.9	N/A	0.45	N/A	N/A	N/A	N/A
Replacement for job losses	1.5	N/A	0.75	N/A	N/A	N/A	N/A
Total	6.6	39.5	23.05	N/A	N/A	N/A	N/A

Warwick

Table 6.13 – Warwick Supply Against Demand 2006-2011							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	2.2	8.5	5.35	17	14.8	8.5	11.65
B1b/c & B2	1.1	9	5.05	17.6	16.5	8.6	12.55
B8	4.4	13.5	8.95	24.7	20.3	11.2	15.75
Sui Generis	1.8	N/A	0.9	N/A	N/A	N/A	N/A
Replacement for job losses	1.3	N/A	0.65	N/A	N/A	N/A	N/A
Total	10.8	31	20.9	59.3	51.6	28.3	39.95

Table 6.14 – Warwick Demand 2011-2016							
	Requirement (Ha)			Supply	Surplus or Defecit (Ha)		
	CamEcon	PTU	Average		CamEcon	PTU	Average
B1a	2	8.5	5.25	N/A	N/A	N/A	N/A
B1b/c & B2	1	9	5	N/A	N/A	N/A	N/A
B8	2.9	13.5	8.2	N/A	N/A	N/A	N/A
Sui Generis	1.5	N/A	0.75	N/A	N/A	N/A	N/A
Replacement for job losses	1.3	N/A	0.65	N/A	N/A	N/A	N/A
Total	8.7	31	19.85	N/A	N/A	N/A	N/A

- 6.9 These tables show that each authority with the exception of Coventry has, in quantitative terms, a sufficient supply of land to meet forecasted needs to 2011 based on the CE and PTU requirements and the average of the figures (mid-point) taken from both approaches.
- 6.10 With regard to Coventry, supply is nearly double that required when considered against the CE requirement but about 1ha below that required via the PTU figure up to 2011. To 2016 Coventry experiences a demand of between 16.7 to 66.5 ha.
- 6.11 The tables compare the supply of land against the amount of land required via CE and PTU forecasts, and the average requirement based on the two approaches to provide deficit and surplus information. It is important to note that supply information has only been provided, however, on the tables dealing with the 2006-2011 period. This is to provide a true reflection of the local situations according to adopted plans and statutory plan periods; all of which end in 2011.

- 6.12 It is of course accepted that the current supply will no doubt serve needs beyond 2011. However, given that all of this land should have been provided to meet needs only to 2011 we need to consider the situation to this point initially.
- 6.13 This re-enforces the need for each Local Authority to regularly review the situation through their emerging and future LDF preparations. Supply will last in quantitative terms to 2011 for most authorities, this supply and additional allocations will be required beyond to meet future demand. There are also quality implications and other factors that are as important as quantity. These are discussed below.
- 6.14 Tables 6.15a-e below summarise demand against supply by use class for each authority between 2006-2011 and demand to 2016. Table 6.16 summarises the overall supply against the forecast requirements.

Table 6.15a: B1 a Demand (2006 – 2016) and Supply (2006 – 2011)			
	B1 a Demand (2006 - 2016)		Supply (2006 – 2011)
	CamEcon	PTU	
Coventry	5.5	39	15.1
North Warwickshire	0.8	8	0
Nuneaton & Bedworth	1.2	19	3.6
Rugby	1.5	6	8.0
Solihull	3.6	11	7.8
Stratford on Avon	2.1	22	36
Warwick	4.2	17	17
Total	18.9	122	87.5

Table 6.15b: B1 b/c / B2 Demand (2006 – 2016) and Supply (2006 - 2011)			
	B1 b/c / B2 Demand (2006 – 2016)		Supply (2006 – 2011)
	CamEcon	PTU	
Coventry	2.0	39	38.9
North Warwickshire	0.2	21	11.2
Nuneaton & Bedworth	0.2	19	21
Rugby	0.4	7	13.7
Solihull	2.9	9	7.1
Stratford on Avon	4.9	45	6
Warwick	2.1	18	17.6
Total	12.7	158	115.5

Table 6.15c: B8 Demand (2006 – 2016) and Supply (2006 – 2011)			
	B8 Demand (2006 – 2016)		Supply (2006 – 2011)
	CamEcon	PTU	
Coventry	13.3	55	11.7
North Warwickshire	3.0	74	74.2
Nuneaton & Bedworth	5.0	39	21.5
Rugby	3.3	60	21
Solihull	8.2	12	8
Stratford on Avon	2.7	12	10
Warwick	7.3	27	24.7
Total	42.8	279	171.1

Table 6.15d: Sui Generis Demand (2006 – 2016) and Supply (2006 – 2011)			
	Sui Generis Demand		Supply (2006 – 2011)
	CamEcon	PTU	
Coventry	6.5	N/A	N/A
North Warwickshire	1	N/A	N/A
Nuneaton & Bedworth	2.5	N/A	N/A
Rugby	1	N/A	N/A
Solihull	2	N/A	N/A
Stratford on Avon	2.5	N/A	N/A
Warwick	3.5	N/A	N/A
Total	17.5	N/A	N/A

NB – Whilst the Sui Generis supply is noted as N/A land could come forward for this use within the supply for other uses as specified. A common approach is to assume that 50% of all land specified for B2 could come forward for such use.

Table 6.15e: Land Replacement for Job Losses (2006 – 2016)			
	Land Replacement for Job Losses		Supply
	CamEcon	PTU	
Coventry	10.8	N/A	N/A
North Warwickshire	3.2	N/A	N/A
Nuneaton & Bedworth	3.6	N/A	N/A
Rugby	3.8	N/A	N/A
Solihull	5.5	N/A	N/A
Stratford on Avon	2.8	N/A	N/A
Warwick	2.4	N/A	N/A
Total	32.1	N/A	N/A

Table 6.16: Land Supply(2005) Forecasts 2006-2016 across Sub-Region		
	Land Supply at 2005	Forecast Requirement 2006 – 2016 (CE-PTU)
Coventry	65.4	36 - 133
North Warwickshire	85.4	8 - 103
Nuneaton & Bedworth	46.1	12 - 77
Rugby	42.7	9- 73
Solihull	34.4	23 - 32
Stratford on Avon	52.1	15 - 79
Warwick	59.3	19 - 62
Total	385	122 - 559

Quality

6.15 Quantity is one dimension of employment land but the other equally important aspect is quality. Quality of employment land largely equates to market sector category and tends to be determined by a combination of size, location, high quality environment and access factors. There needs to be a range of sites in terms of size and quality to meet the demand for different types of site. In order to attract development sites also need to have qualities that are attractive to investors.

- 6.16 In the RES and RSS 11 the guidance on employment land provides a foundation to encourage the development of new high growth employment sectors coupled with the modernisation of the Region's existing traditional industries. In this sub-region they include the following growth sectors, which have outperformed the West Midlands over the period 1998-2004.
- Business Services;
 - Public Administration;
 - Education & Health; and
 - Wholesale & Retail.
- 6.17 This is supported by RSS policy PA6, Portfolio of Employment Land, which confirms the need for local authorities to provide and maintain a range and choice of readily available employment sites to meet the needs of the Region's economy. This policy also identifies a hierarchy of sites for the portfolio. Information is collected for the Region on the basis of these categories as part of the Regional Employment Land Study (RELS). In this report we are concerned with the sites at sub-regional level and below i.e. RSS 2nd tier sites.
- 6.18 The portfolio is also supported in existing development plans where land allocated and policies seek to retain a portfolio of employment land of appropriate size, quality and locational characteristics.
- 6.19 The existing supply is identified in Section 5 and has been given an overall quality rating in relation to the extent to which it meets modern business requirements in terms of location and accessibility, site conditions and developer interest. This is summarised in the Local Authority Perspective below.

Other Factors

- 6.20 **The relationship between employment change and demand for employment land.** Our approach to estimating future employment land requirements is based on relating forecast employment change to land use. Whilst this is the accepted convention (as set out in ODPM Employment Land Reviews Guidance Note 2004) this is not a perfect approach. For example, in manufacturing, declining employment will not necessarily translate into declining demand for industrial land (i.e. because of increased automation of production). Therefore, declines in industrial land demand estimated for the sub region may not always result in actual losses of industrial businesses and premises. For this reason, it is sensible to consider gross land requirements (i.e. future requirements excluding industrial declines in requirements) as well as net.
- 6.21 **Impact of density sensitivities.** The impact of varying the density of employment development and plot ratios can have a significant impact on land requirements in either a positive or negative manner, particularly over a twenty year timeframe.
- 6.22 **Market churn.** This process will require a reasonable degree of additional 'slack' in the supply of stock to allow for the process of property market change.
- 6.23 **Competing land use pressures.** In areas where there are significant pressures for alternative land uses there may be a stronger rationale for transfer to other uses. However, in practice, such areas tend to be where there is also a rationale for retaining / promoting employment uses and because employment uses tend to generate lower value returns than residential development, there is an added commercial pressure which puts vacant employment sites under threat. This necessitates a strong planning policy framework to ensure that there is sufficient employment land to meet requirements and that accessible

sites of appropriate quality and attractiveness to the market are retained for such use. This would include policies for protecting employment land.

Local Authority Perspective

- 6.24 Given the information provided above for each local authority a review of the individual situations is provided below. This provides commentary on the quantity and quality of existing supply against demand and where the particular focus needs to be for each local authority in progressing their LDF's.

Coventry

- 6.25 Our research above illustrates that there is sufficient land (i.e. an over supply) to meet forecasting requirements based on economic forecasting to 2011. There is also a sufficient supply to meet that required based on the average between the CE forecast and past take up to 2011. However, there is a small shortfall of land to meet the PTU forecast.
- 6.26 Between 2011 to 2016 the demand is in the range of 16.7 to 66.5 ha with the mid point being 41.6 ha.
- 6.27 Further advice will be provided to Coventry on how to meet the requirements of additional employment land but it is clear that the City will have to identify additional land to meet projected needs to 2016. The sheer density of the City's built environment added to the extent of the city's Green Belt make it difficult to identify suitable opportunities not involving the redevelopment of existing sites.
- 6.28 With regard to quality the city would benefit particularly from the provision of additional grade A office space within the centre and/or with easy access to the train station and the inner ring road.
- 6.29 The future of employment land provision in Coventry provides a number of interesting questions and challenges, which need to be addressed in full as the City reviews the local plan and moves towards the LDF.

Solihull

- 6.30 To 2011 there is a comfortable supply of employment land within Solihull to meet forecast needs via CE and PTU forecasting methods. Identified supply is about 34 hectares of which about 6 hectares may not be immediately available but can be considered to be part of the potential supply. The CE method figure for demand, at about 13 hectares, suggests a surplus of employment land of about 21 hectares and the PTU method figure at about 20 hectares suggests a surplus of about 14 hectares.
- 6.31 To 2016, about 24 hectares would be required under the CE method figures i.e. potentially, there would be a surplus of land of about 10 hectares. Against the PTU forecast figure of 32 hectares there would remain a very small land surplus (about 2 hectares). Taking into consideration 'market churn' issues and the need for a choice of available sites, the employment land supply can be said to be a relatively tight one.
- 6.32 Between 2016 and 2026 there is likely to be a need to identify a significant amount of employment land to meet projected demand under either methodology (see appendix 5 for CE method forecast). Projections for the PTU method are not given for the 10 year period to 2026 but based on projections for the preceding 10 year period there is a potential shortfall of employment land of about 30 hectares. A plan, monitor manage approach is

- needed through the LDF process, adopting regular review to more finely determine how much employment land is needed. The LDF will, of course, need to also take on board guidance that emerges through the review of the Regional Spatial Strategy relating to employment land issues and policy and this may have a significant bearing on the quantity of employment land identified in the LDF and its location.
- 6.33 The capacity of Solihull to find further employment sites is constrained. Opportunities in the urban area are scarce, particularly in North Solihull where there is the greatest employment need. Solihull does have a number of older employment sites and some restructuring is taking place on them, for example, some of the older parts of the Cranmore Industrial Estate in the Shirley part of the Borough have been redeveloped in recent years for offices and modern industrial/warehouse units. However, these older sites remain in active use. Solihull does not have significant, redundant employment sites in the urban area for recycling purposes. Any significant requirement for new sites may therefore put pressure on the release of green belt land beyond the urban areas. This may raise issues related to sustainability and related to climate change policy.
- 6.34 Solihull's main employment sites, including land making up the identified employment land supply is of generally good quality, is generally located in close proximity to the highest densities of employment age population, is relatively accessible and is likely to remain attractive within the employment land market. Solihull's identified general employment land supply makes, or can make, an important contribution to the portfolio of 'second tier' sites required by the Regional Spatial Strategy (PA6).
- 6.35 For all of the above reasons it is important to continue to protect employment land and premises in Solihull.
- 6.36 North Solihull, i.e. the 4 wards of Chelmsley Wood, Fordbridge, Kingshurst and Smiths Wood, is located within the East Birmingham and North Solihull Regeneration Zone. North Solihull residents experience significant barriers to employment and access to employment opportunities in the area are very limited. The area has a low business base and levels of unemployment are persistently high. The area demonstrates significant levels of deprivation with pockets of severe deprivation in some neighbourhoods. A number of initiatives to address unemployment are being pursued through the North Solihull Strategic Framework (SPG - February 2005). The document seeks to deliver regeneration through new housing, stronger communities and improved services including schools, community facilities and improved access to employment.
- 6.37 Key challenges for Solihull will be to ensure the continued competitiveness of the Borough as an investment location, to close the gap on inequality by addressing high unemployment in North Solihull, to retain and further promote a skilled, qualified workforce and to promote economic development in a way that supports sustainable development principles.
- Warwick**
- 6.38 Our forecasting has revealed that there is a healthy supply of employment land within Warwick District to 2011 with supply comfortably exceeding requirements based on PTU and CE scenarios, with supply nearly double that needed under the PTU approach.
- 6.39 The situation at 2016 shows a demand of 8.7 to 31 ha.

6.40 Discussions with officers of Warwick District Council reveal that the ability to deliver new employment land is a significant concern. As time passes and the reality of the forecasting is borne out, the Council may have to carefully consider options involving greenfield development.

6.41 As a note of caution, the continued demand in the District for employment development needs to be carefully considered bearing in mind the limited activity at Tournament Fields. The current stagnation of the M40/M42 office market is of considerable note, though forecasts suggest an upturn in demand.

Expansion of the University of Warwick

6.42 As a major sub regional employer we have considered the development requirements of the University of Warwick to 2026. At the present time the focus of University activity is on the Coventry side of the campus i.e. east of Gibbet Hill Road. Whilst development opportunities remain on the Coventry side of the Campus this capacity falls short of what is needed to enable the University to expand as required.

6.43 Therefore, the University has drawn up a '20/20' vision outlining how it wishes to expand on both the Coventry and Warwick sides of the campus. The University has calculated the amount of development required over a ten-year period, with land uses broken down into:

- academic teaching and research;
- student accommodation;
- support services (meaning central administration, library services, social, catering and sports facilities);
- "other" (comprising arts centre, students' union, conference facilities and new initiatives).

6.44 A fundamental objective of the University's Development Plan is to provide a sustainable mix of uses across the campus, with the aim of creating a vibrant and sustainable community. It is vital that identified needs are met on or adjacent to the existing campus in order for the overall sustainability of the campus to be maximised. The plan below shows the masterplan for the university's expansion, with all coloured elements representing proposed developments. It is considered that all of the development types specified are essential to the University and should not be provided 'off-site'.

6.45 The need to expand the university is based on the economic importance of the University's activities, the increasing number of applicants wanting to attend the university and the specific need to expand and improve the University's research capability.

6.46 The expansion of the University is supported both by Coventry City Council and Warwick District Council. All of the University's land in Warwick District is located within the Green Belt. Within this ownership, the area of land anticipated for University development is proposed to be a major developed site within the revised deposit Local Plan.

Stratford on Avon

6.47 Stratford faces similar issues to Warwick DC in that there is an over supply of land to meet needs to 2011 based against both forecasting techniques, and a demand of 6.6 to 39.5 ha to 2016.

- 6.48 The important issues relating to Stratford revolve around where to find new sites in and around the main centres, notably Stratford-upon-Avon town, and how to cater for appropriate new employment throughout the rural parts of the District. Commercially, Stratford-upon-Avon struggles to compete with Leamington and Warwick due to being slightly further away from the M40. However, the continued development of new office provision in the town suggests that developer confidence is good and that the economy continues to evolve through the delivery of more service sector employment.

Nuneaton & Bedworth

- 6.49 Our assessments have shown that there is an over supply of employment land to meet needs to 2011 when considered against the results of both forecasting techniques. The demand to 2016 is 5.4 to 38.5 ha.
- 6.50 The difference between PTU (past take up) and CE (economic forecasting + replacement for job losses) is marked in Nuneaton and Bedworth due to the considerable amount of development that has taken place in and around Nuneaton in particular. Considering the range in requirements here it is clear that careful planning and regular review will be needed by the Council to gauge the validity of the forecasted land requirements provided.
- 6.51 The Council has permitted development and allocated development on a number of sites to facilitate economic growth and diversification in light of the decline of traditional industry. Focussed largely around Nuneaton these sites are sustainable and afford good access by public transport. A key concern set out above is the shortfall of B1 land. Indeed, if past trends continue then land for these uses would become scarce very quickly and this would be a significant constraint moving forward. Key challenges for the Council moving forward are how to deal with the requirements of small to medium sized firms requiring industrial and office accommodation. Discussions with economic development officers revealed a need for the provision of such accommodation in and on the edge of the urban areas. Such issues need full consideration through the formulation of the LDF.
- 6.52 The need to stimulate development within and around the Regeneration Zone will be of critical importance to the Council when moving forward with the LDF and the review of employment land needs.

North Warwickshire

- 6.53 North Warwickshire has comfortably exceeded its target for employment land provision as set by the Warwickshire Structure Plan (1996-2011). This is largely due to notable developments at Hams Hall (Regional Logistics Site) and Birch Coppice and the allocation of Baddesley Colliery. Most of this development has been for B8 uses.
- 6.54 The result of this is that there is a considerable over supply of land available in North Warwickshire to meet both forecasting methods to 2011. The demand position up to 2016 is in the range of 3.6 to 51.5 ha. There has been a high level of development in the Borough in recent years. The economy of North Warwickshire has, and is, undergoing fundamental change and recent developments have delivered the sites and premises to accommodate this into the future. It is doubtful therefore that the amount of development provided historically over the last ten years will be maintained or repeated.
- 6.55 The challenges facing North Warwickshire moving forward are to encourage development in and around the main centres of Atherstone and Coleshill. Discussions with economic development officers at the Council suggesting a local need for small to medium sized industrial and office accommodation. The North Warwickshire LDF needs to consider

these issues and allocate/support development through appropriate policy in line with the RSS. The limited provision of land for B1 uses is a significant concern in meeting this need.

Rugby

- 6.56 The situation in Rugby mirrors that seen elsewhere in the sub region. There is a small over supply of employment land to 2011 against both forecasting methods. The demand position to 2016 shows a range of 4.4 to 36.5 ha.
- 6.57 With regard to detailed issues affecting the development of the Rugby LDF we agree with the findings of the employment land appraisal of September 2004. The main conclusions from this are detailed at page 11 of the report and focus on the need to maintain the revitalisation of the economy, the encouragement of B1 uses and the provision of additional industrial space for small to medium sized firms.

Policy Implications

- 6.58 The tables **6.1 – 6.14** illustrate that there is a sufficient amount of land in each authority area to meet forecast demand until 2011 i.e. the end of the current plan periods. **However, any surpluses currently identified need to be protected until reviewed.**
- 6.59 Whilst there is no short-term lack of supply, any strengthening in the take up of B1 land could lead to a shortfall in provision. In addition to this, if past take up rates of B8 land continue then there will also be a shortfall in supply in the middle term. This study is focussed on the more local needs of the distribution industry and these need to be distinguished from national/regional needs.
- 6.60 As a general policy response, it will be important to establish a good understanding of the quality of sites so that appropriate sites can be protected as a priority. Our appraisal of sites detailed in Section 5 provides a quality rating for all sites from 'very good' to 'poor'. Local authority partners should monitor and review the classifications periodically as requirements change.
- 6.61 There is a need to ensure that existing employment sites, which can contribute to the portfolio, are protected from alternative uses.
- 6.62 The amount of land required could be informed by the Annual Monitor. This would enable a check to be made on the levels of development both in terms of amount and quality and what needs to be replaced in the portfolio. A mechanism would also have to be in place for a formal review when the relevant part of the LDF is being considered. It will also be necessary to consider levels of housing growth in relation to the revised RSS and the relationship between these locations of housing growth and employment proposals to encourage sustainable development.
- 6.63 The emerging policy framework for each area will need to ensure that the right amount of the right type of employment land in the right locations at the right time is provided. This will include new allocations.
- 6.64 There is a need to retain a reasonable surplus of sites so as to ensure there is a sufficient range and choice of sites to encourage investment.

6.65 Consideration also needs to be made to having part of the employment land supply readily available and some in the pipeline. This is to ensure that at no stage does employment land supply 'dry up', even if plans are still under preparation.

Intervention Strategy

6.66 In some circumstances there might be opportunities for intervention measures to help support the development process.

6.67 Each local authority will need to consider whether an intervention strategy is developed to help deliver employment land. Considering the constraints to the delivery of land within the sub region (i.e. Green Belt, density of urban areas etc) it is likely that there will be a number of suitable sites available but affected with constraints. As such, the employment land policy framework across the sub region could provide a range of possible measures to help bring forwards office and industrial developments. Such measures include:

- Funding development costs and/or incentives for key sites;
- Supporting strategic infrastructure projects to improve accessibility;
- Site infrastructure works (esp. within RZ's);
- Decontamination measures;
- Development of briefs and masterplans for key sites;
- Marketing and promotion;
- Support for mixed use schemes as a means of generating additional private sector investment to be used as a form of cross-subsidy to overcome constraints.

6.68 A combination of AWM, DTI and ODPM funding sources could potentially be targeted to deliver such measures. Considering the aims and objectives of these organisations and the type of funding they offer it is likely that support will be focussed to sites within the regeneration zones and the high technology corridors.

6.69 Whether any surplus land will be released is a matter for local planning authorities to consider in the light of their particular circumstances bearing in mind all the assessment processes required. In so doing, authorities will need to take account of the scale of competing land use pressures as well as local policy aspirations for the development of employment land.

6.70 It will also be necessary to establish an appropriate framework against which to assess sites for release on a case-by-case basis as and when redevelopment proposals arise. We would suggest that the criteria set out in Appendix four should form the basis for assessing such proposals, together with further consideration of demand, in respect of:

- Efforts made by applicants to market the site for employment use; and
- length of time the site has remained vacant i.e. proof of lack of viability

6.71 When identifying considering the level of employment land to be allocated local authorities should give serious consideration to the issue of choice. Great emphasis has been placed on the need for quality of sites, and this needs to be re-enforced with suitable choice. The review of employment allocations is also a sensitive business and local authorities must ensure that good quality employment land is suitably protected.

New Allocations

6.72 New allocations will be needed to maintain an appropriate employment land supply offer in key locations. These are as follows:

- in accessible locations where there is a need for sites of the right quality and in the right location to meet future requirements;
- to meet a specific market sector or occupier that has particular requirements which cannot be met by current supply;
- in line with the development plan policy and to ensure that the distribution of employment sites accords with sustainable development principles; and
- where there is a spatial rationale or opportunity for making new employment allocations as part of new mixed use developments/urban extensions.

6.73 Key criteria for selecting sites for new allocations should include:

- **Location** – ‘inner urban’ (i.e. town centre) or ‘outer urban’ (i.e. located within urban areas but outside of town centres) sites generally present the most sustainable options for new development as opposed to rural sites. Every individual site must be considered in the context of promoting sustainable development. This could mean the use of greenfield land in an appropriate location rather than brownfield land in a location that is not sustainable;
- **Accessibility** – sites that are accessible to the primary road network present the most attractive options for development. Furthermore, sites should have good access to public transport (ideally less than 0.5 miles away from a public transport interchange);
- **Site Conditions and Evidence of Constraints** – site conditions which are amenable to taking the site forward (i.e. flat topography and regular shape), together with those which have no or minimal constraints present the most suitable option.
- **Quality of Environment** – sites which are situated within a good quality environment, including public realm, fabric of nearby buildings and open spaces present the most suitable development option;
- **Compatibility with neighbouring uses** – sites which have compatible adjacent land uses for the intended uses would be most suitable; and
- **Contribution to economic development and social regeneration objectives** – sites which could make a positive contribution to economic development and regeneration objectives would be most suitable (e.g. would help to support the Hi-Tech Corridor or Regeneration Zone).

Summary

6.74 This section of the report has illustrated that according to both forecasting techniques there is sufficient land available within the sub region to meet needs until the end of the current local plan periods i.e. 2011. Moving beyond 2011 to 2016 if PTU forecasts are proved to be correct there will generally be a shortfall of supply.

6.75 Given that the sub regional economy has been remodelled over the past 10-15 years as a result of international and national restructuring a considerable amount of land has been developed to help meet the needs of changing circumstances. Given the extent of this development the forecasted requirements emanating from PTU forecasting methods need to be treated with great caution. Not only do they need to be treated with caution due to the extensive development rates they are based on but also due to the uncertainties of forecasting needs so far into the future.

- 6.76 The policy implications of the supply against demand analysis are clear. Each local authority, whilst in a comfortable position to 2011, needs to employ a regular and detailed review on employment land supply to inform the need for new allocations allied to a robust set of policies that direct development to sustainable locations and enable the protection of the appropriate sites. In line with the guidance contained within PPS3 policies do need to be provided that enable the release of employment sites proved not to be no longer viable for such use.
- 6.77 Given that land is likely to be required to meet need to 2016, and certainly to the end of the RSS period (2026), careful thought needs to be given now as to where such land can be identified. The identification of additional land is likely to be a challenging activity across the sub region due to a number of policy and physical constraints.
- 6.78 The supply of brownfield sites in the urban areas is limited. This may put further pressures on the development of green field land that will need to be dealt with through the LDF process. Intervention strategies need to be considered by each authority to assess whether suitable sites currently unavailable can be brought forward. Such strategies should give particular focus to realising potential within the sub region's regeneration zones and high technology corridors.
- 6.79 The following chapter sets out our overall conclusions and recommendations.

7 Conclusions and Recommendations

- 7.1 DTZ was commissioned to undertake an assessment of the quantity and quality of employment land supply across the West Midlands' sub region of Coventry, Solihull and Warwickshire. The report has also involved assessing this supply of land against forecast demands across the sub-region to 2016 and beyond to 2026.
- 7.2 The study has involved collaboration with all local authorities across the sub-region to present a picture of the sub-region's ability to meet employment land needs in the short, medium and longer term. In order to present a clear set of results and conclusions careful assessment has been made of supply against forecast demand. These results can inform the evidence base for each authority to work from in the preparation of their Local Development Frameworks.
- 7.3 The assessment of supply has involved the assessment of land considered available or is likely to come forward in the short term, for employment use at the outset of the report, which enabled us to present a picture of the amount and quality of land across the sub-region. This supply of 385.6 ha of land was then considered against the amount of land forecast to be required.
- 7.4 The assessment of land has involved the assessment of economic forecasting data and past take up information. The CE forecast of need as referred to in the forecasted requirements represents the high growth figure from economic forecasting and predicted land required through replacement for job losses and for sui-generis uses. The PTU forecast is taken from past take up figures and does not include replacement land or job losses.
- 7.5 The high growth figures from the CE method have been adopted in the conclusions on employment land requirements as they best reflect the strengths of the CSW sub-region and its ability to outperform the Region as a whole in terms of attracting employment related investment.
- 7.6 There is a significant difference between the amount of land required via the past take up forecasting method and the CE method estimates. The possible reasons for this are discussed in Chapter 4. The CE method, whilst a generally more objective approach than the PTU method, can tend to be on the conservative side in its findings. Whereas the PTU method is based on actual land take over a given time period, its simplicity as a means of looking into future requirements enables it to be taken only as a rough, indicative guide, particularly where it is being used to look relatively far into the future.
- 7.7 The headline finding of the report is that based on CE and PTU forecasts there is enough land available to meet needs across the sub-region to the end of the current plan periods, 2011.
- 7.8 Based on the CE Forecast of need the situation is also positive to 2016, though there is generally an under supply based on the PTU forecast. Beyond 2016 the sub-region still retains enough land to meet the CE forecast, but substantially less than that required via the PTU forecast.
- 7.9 Considering the findings of the report as summarised above it is evident that each local authority has a healthy supply of employment land to meet the needs specified in adopted local plans and up until 2016 based on CE forecasts. However, caution needs to be exercised on the implementation of both CE and PTU approaches. Although it is doubtful that the PTU forecasts will be borne out, it is also possible that the CE forecasts may fluctuate and prove conservative.

- 7.10 The PTU forecasts should be treated with caution as they are informed by past trend analysis based on a particularly successful period of development across the sub region stemming largely from the decline of manufacturing and the shift to service driven industries, research and development and storage and distribution uses.
- 7.11 The level of development witnessed across the sub-region over the last 10-15 years has been achieved despite the tight constraints, including administrative boundaries and the green belt. Achieving similar levels of development on new sites will be difficult due to the perceived scarcity of available land that does not involve the re-drawing of green belt boundaries.
- 7.12 Forecasts on demand have been provided in five yearly periods from 2006-2026 i.e. the end of the Regional Spatial Strategy plan period. Only those forecasts to 2016 have been provided within the main report, with those between 2016-2021 and 2021-2026 provided in Appendix 5. This separation of data illustrates the caution that should be exercised when considering forecasts of demand beyond the next ten years. Whilst the figures between 2016-2026 should be borne in mind, it will be incumbent upon the local authorities or the sub-region as a whole to regularly review requirements to keep the LDF's up to date and realistic.
- 7.13 It is this potential for fluctuation, based on numerous regional, national and international factors that dictates the essential need for a plan monitor and manage approach across the sub region. This approach is essential to both the allocation of new sites and the acceptance that unsuitable sites (proven via a robust evidence base) need to come forward for alternative uses.
- 7.14 Our advice is that in reality, additional land will be needed over and above that currently available and identified via the CE forecast. However, the key element to this advice is that additional land will be required largely for qualitative purposes and to facilitate losses of ageing sites to alternative uses where robust evidence has been provided.
- 7.15 The figures presented in the previous section on the supply and demand of employment land need to be treated with caution for a number of reasons. They should not necessarily be interpreted as the quantity of land which should be released for other uses, nor as justifications for bringing forward inappropriate sites for employment use.
- 7.16 Other findings are that there are some issues over the quality and timing of availability in certain locations and some sites are poorly located or experiencing constraints of one kind or another. This is a particularly pertinent issue within the Regeneration Zones where relevant local authorities will have to carefully consider the need for intervention measures.
- 7.17 The report has identified several policy themes as summarised in Table 7.1 below, together with the associated action(s) for each of these.

Table 7.1: Key Actions for the CSW Sub Region

Policy Theme	Action
Release of Sites for Development	<ul style="list-style-type: none"> ➤ Develop an appropriate framework, which allows sites to be assessed for release on a case by case basis as and when development proposals arise. The release of such sites need to be justified via robust evidence that employment is no longer a suitable use.
Intervention Strategy	<ul style="list-style-type: none"> ➤ Develop a range of intervention measures to support the development process e.g. site infrastructure works and decontamination measures ➤ Progress the intervention measures to help support the development process and bring forward projects that support regional policy initiatives (particularly the RZ and HTC).
New Allocations	<ul style="list-style-type: none"> ➤ There is a need to plan for an increase in employment land stock on a sub regional basis. New allocations will be required to strengthen the employment land supply offer in key locations. A range of criteria for selecting sites for new allocations has been identified in Section 6 of this report. ➤ A ‘Watching brief’ needs to be kept by each authority for sites with the suitability and potential to come forward as Regional Investment Sites.
Plan, Monitor and Manage	<ul style="list-style-type: none"> ➤ Continually monitor supply, review forecasts every 5 years (or on step changes in the economy) and inform the emerging circumstances;

7.18 Overall the report illustrates that there is a healthy supply (385.6 ha) of employment land across the sub-region, but that additional land is likely to be required to meet forecast demand to 2026. The focus of the report is on supply and demand to 2011 and demand to 2016. CE forecasts (122 ha) illustrate that there is an over supply of land, with PTU forecasts (559 ha) suggesting an under supply for this period. Given the need to treat both CE and PTU forecasts with caution it will be necessary to look at the supply in detail for the period to 2016.

7.19 Forecasts between 2016-2026 are provided in Appendix 5 to illustrate that they are for indicative purposes at this stage given the difficulty in predicting land requirements so far into the future. However, should the CE forecasts be the more realistic forecasts it can be concluded that the sub-region is likely have a sufficient supply of land to meet needs. It will be vital for a "plan, monitor and manage" approach to be taken to ensure that a suitable amount of land is provided to meet needs. It is also essential that a range of sites is available and that potential occupiers/investors have a choice of good quality, readily available sites.

- 7.20 Therefore, whilst there is a sufficient amount of land to meet needs to 2011 under all scenarios, and to 2026 based on the CE forecast with the exception of Solihull, it is evident that due to the need for choice, the fluctuation of demand and land use and the possibility of the PTU forecast being realistic we can confirm that additional land will need to be identified to 2026.
- 7.21 It will be essential therefore for supply and demand to be reviewed on a regular basis across the sub-region to ensure a suitable quality and supply of employment land to meet employment land needs to 2026.

Appendix 1 - References

- Coventry Unitary Development Plan
- Solihull Unitary Development Plan
- Warwickshire Structure Plan
- North Warwickshire Local Plan
- Nuneaton & Bedworth Local Plan
- Rugby Local Plan
- Stratford-on-Avon District Local Plan
- Regional Spatial Strategy for the West Midlands
- ODPM – Employment Land Reviews – Guidance Note
- PPS1 – Delivering Sustainable Development
- PPG3 - Housing
- PPG4 – Industrial Development & Small Firms
- Warwickshire Investment Partnerships – Schedule of Employment Sites in Coventry & Warwickshire
- RSS ‘Regional Centres Study’ (March 2006) – Roger Tym & Partners & King Sturge

Appendix 2

Methodology for Applying Regional Employment Forecasts to CSW Area (Including Cambridge Econometrics Methodology Paper)

There are no existing employment forecasts or forecast models for the West Midlands or its constituent sub-regions other than those available from commercial forecasting organisations. The West Midlands Regional Observatory is currently looking to develop a regional forecasting model, however, this is still some 6-12 months from completion. The West Midlands Regional Spatial Strategy does not contain any explicit employment forecasting. Housing forecasts within the RSS are related to forecast demographic patterns rather than employment demand.

Therefore, this research has developed employment forecasts for the entire study area and the six constituent districts/unitary authorities. The baseline scenario is constructed from two data sources.

Firstly, Annual Business Inquiry (ABI) data for employees in employment has been used to establish the base year employment position for each area. 2-digit SIC (2003) data has been used within the analysis to allow for improved detail when translating to employment land and floorspace implications. The ABI data excludes the self-employed, however, for two reasons this is not assumed to have a significant impact on the findings. Firstly, the self-employed are not likely to create significant demand for employment land and secondly, the overall change in the numbers of self employed in sectors likely to make any impact on employment land will be very small.

Secondly, Cambridge Econometrics (CE) regional forecasts have been used to generate forward projections. CE regional forecasts are available for 30 industrial sectors and run to 2015. For the purposes of this study DTZ has extrapolated long term sectoral growth rates to 2026. Compound Annual Growth Rates (CAGR) for sectors have been calculated in order to project employment change at five-year intervals. These sectoral CAGRs have been applied to the base year data for each area to generate forward projections at the local and sub-regional level.

Two additional scenarios have been developed over and above the baseline position. These introduce uplift to growth rates (or decrease to rates of decline where a negative growth rate is forecast) for particular sectors. The medium growth scenario adjusts those sectors relevant to the clusters identified within the RES plus sectors at the district level, which have outperformed the West Midlands over the period 1998-2004. The high growth scenario – builds upon the medium growth scenario with an additional uplift across all sectors to model the potential impacts if CSW outperforms the West Midlands across the board.

To reality check each of these scenarios the overall position is summarised below with a comparison against the baseline West Midlands and UK position. The scale of employment growth is also compared with forecast labour supply growth using ONS 2003-based population projections.

**Modelling the UK Economy: a Guide
to the Methodology and Assumptions
Employed in the Regionalised
Cambridge Multisectoral Dynamic
Model**

Revision and Authorisation History

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METHODOLOGY AND ASSUMPTIONS

Modelling the UK economy

The UK model is based on a “bottom-up” treatment of regional economic prospects The macroeconomic model used to develop the underlying scenario for the employment projections is based on a detailed analysis of economic and other behavioural relationships, statistically estimated using robust econometric methods. The current version of the model is based on a “bottom-up” treatment of regional economic prospects. The model offers a combination of great detail, and a high level of sophistication. The use of a fully-specified, formal macroeconomic regional multi-sectoral model provides a number of advantages over more ad hoc extrapolation methods. These advantages include enforcement of logical and accounting constraints, and emphasis on making explicit the underlying assumptions built into the projections. The importance of using such methods, and further information about the approach, are set out in Barker and Peterson (1987).

The forecasts were prepared using the latest version of the Cambridge Multisectoral Dynamic Model (MDM02R1) which is based on the 2003 Standard Industrial Classification (SIC2003). The most recent National Accounts data (with chained volume measures with reference year 2002), along with a consistent 2002 input-output table and classification converters, have been incorporated into MDM01. All the main equation sets in the model, including the regional equations, were re-estimated on the latest data using a standard cointegrating technique. The estimation and model solution procedures were programmed in a common framework, with software facilities incorporated for checking the results and identifying errors.

Processing and estimating the model The economic model is designed to analyse and forecast changes in economic structure. To do this, it disaggregates industries, commodities and household and government expenditures, as well as foreign trade and investment. In fact it disaggregates all of the main variables that are treated as aggregates in most macroeconomic models. The detailed variables are linked together in an accounting framework based on the United Nations System of National Accounts. This framework ensures consistency and correct accounting balances in the model’s projections and forecasts.

The model is a combination of orthodox time-series econometric relationships and cross-section input-output relationships. Although it forms aggregate demand in a Keynesian manner, with a consumption function and investment equations, it also includes equations for average earnings by industry and region. Other aspects of the supply side come in through the export and import equations, in which capacity utilisation affects trade performance, as well as a set of employment equations which allow relative wage rates and interest rates to affect employment and therefore industry-level productivity growth.

The main exogenous variables of the model are as follows:

- world growth in GDP
- world inflation in GDP deflators and in prices of traded goods such as crude oil
- UK population, labour force and natural resources (the main natural resources being coal, oil and natural gas)
- current and capital spending of the UK government
- UK tax rates and allowances
- the sterling-dollar and other exchange rates
- UK and US interest rates

Modelling the UK Regional Economies

The regional model is based on a fully specified and coherent model of the UK regional economies A distinctive feature of the regional data and forecasts is that they are based on a fully specified and coherent model of the UK regional economies. The regionalized version of MDM (RMDM) and the data underlying the regional analysis were developed by Cambridge Econometrics.

This is a time-series, cross-section (input-output) model distinguishing, inter alia, 41 industries and 51 categories of household expenditure. The UK regions (the Government Office Regions of England, Wales, Scotland and Northern Ireland) are treated as one of several classifications in the model, with several commodity, industry and employment variables regionalised according to the availability of data. The current version of the model (MDM02R1) has been re-estimated on the latest Regional Accounts data and the 2005 National Accounts (chained volume measures with reference year 2002) using a consistent 2002 input-output table and classification converters.

Development of a UK Regional Econometric Input-Output Model Due to the absence of inter-regional trade data and the generally poor quality of regional data, a model of the regional economies of the UK with significant economic content inevitably entails a substantial exercise in data construction. Some considerable reduction of data requirements can be made by adopting Leontief's approach, in which each region trades with all the rest as a group rather than with each other region separately, but there remains a need for data on each region's exports and imports in total. The data requirements involved in a full inter-regional model are of a higher order of magnitude (Polenske, 1980). However the approach does allow important economic relationships to be embedded in the model. For example, in the input-output model, regional output can be determined from regional exports and domestic demand (depending on tradability); and regional employment can be determined from output.

The construction of such a model has been ambitious in relation to the available data and the resources required. The approach has been to build up a regional econometric input-output model and database, as an integral part of the MDM model and MDM database. The model has a clear economic and accounting structure, uses incomplete and partial data, and applies techniques drawn from general equilibrium modelling. The forecasts and projections for the recent past are calibrated so as to reproduce the available data for employment and output. A sensible direction of economic causation for employment is an inherent feature of the model.

Advantages of modelling the regional markets Regional output responds to changes in regional final demand. Thus, for example, the link between a slump in household spending in the South East and output in the same region, or other regions, is explicitly identified.

The treatment allows the calculation of full regional accounting balances for commodity supply and demand, exactly corresponding to the balances for the whole UK including the Continental Shelf. These balances cover inter-regional trade and an allocation of the UK commodity imbalances across the regions. They are in current prices and chained volume measures (CVMs), under the assumption that annual changes in prices for each commodity are the same for all the regions. These commodity balances provide an important consistency check on any forecasts of regional output and the components of regional final demand.

The approach also allows full feedback from the regional economies to the UK economy. This facility is especially important in modelling those areas of economic life where markets are restricted by costs of travel or other costs associated with distance. For example, it is clear from the data that there are distinct regional differences in patterns of saving and spending; this approach allows total household expenditure by region to be estimated and

solved and UK household expenditure to be formed as the sum of the regional expenditures. Another example is in the operations of the labour market which tend to be restricted to travel-to-work areas; here it has been possible to estimate regional employment and wage rate equations to reflect different conditions in each of the regional labour markets. UK employment and the UK rate of wage inflation can then, in principle, be derived from the regional rates.

Such feedbacks, however, are an option in the software and in the current version of the model they are only operative in the case of employment. The regional forecasts depend on the UK forecasts and if necessary they are scaled to add up to the UK forecasts.

Preparation and adjustments made to RMDM

The main adjustments made to the model in order to produce the forecast were as follows:

- Recent data on outcomes and short-term industrial forecasts for 2005 are included directly in the model solution with multiplicative errors between model calculations and actual values being estimated.
- Time trends are not included in the long-term component of the equations unless based on theoretical grounds. Constants are included in the dynamic components of the equations, so that the forecast will settle down to a steady growth path, unless there are long-term effects, such as the effect of accumulated investment.
- Cyclical variables were phased out by holding the variables constant at 'normal' values after the first year or so of the forecast.
- Special assumptions are made for forecasts of investment in the oil & gas; electricity, gas and water industries.
- Expectations of consumer price inflation are included in the price and wage equations at the Government's target rate of 2% pa from 2006 onwards.

The multiplicative errors from the cointegrating equations and most of the other estimated residuals in the model are held constant at values for the last year for which data or short-term forecasts and estimates were available, unless they are changed to allow the model to incorporate expert views or updated forecasts.

Incorporation of distance and location effects In the regionalised MDM, distance and location have three main influences:

- Economic distance determines the regional export activity indices, such that the closer one region is to another in economic distance, the more its domestic demand affects the other region's exports;
- For certain location-based activities, such as transport and distribution, the location of the infrastructure in the form of transport links and warehousing determines the regional supply;
- The locations of large new investment projects, e.g. tidal barrages, are introduced directly into the regional investment projections.

Problems with regional data Where the data were of suspect quality, three checks were done. First, all sources were used to cross-check data where possible. Second, the UK totals were used to control the regional data in as much detail as possible. And third, the views of regional experts were sought.

Where no data exist, they were imputed from other regional data, as in the case of trade flows, or from UK data, as in the case of the input-output coefficients. The methods adopted were applied systematically for all the Government Office Regions and provided a further check in the case of Scotland, Wales and Northern Ireland, where more detailed data are available.

Processing variables

Commodity and trade balances The model comprises: the accounting balances; the various fixed allocations to the regions of UK government expenditure, stock levels and commodity residuals; and 7 sets of time-series econometric equations (commodity exports, total household expenditure, disaggregated household expenditure, industrial fixed investment, industrial employment, industrial wage rates and population change). In general, the regional equations follow their UK counterparts in terms of the explanatory variables, with the UK totals added as a further variable.

Commodity balances for each region are given by equating regional output plus imports (commodity supply) with commodity demand, where the values for the components are chained volume measures with reference year 2002. Regional demand for each commodity comprises household expenditure, government final current expenditure, investment in fixed assets, exports, industrial absorption, stockbuilding, and residual imbalance. The latter term is determined by the aggregate UK commodity imbalance, which is allocated across the regions according to their share in total supplies. Using the current price magnitudes of the supply and demand components, regional commodity balances can be expressed in current prices.

There is also an accounting balance for net regional trade (the inter-regional export-import balance) and UK trade with the rest of the world. In other words, taking all UK regions together, regional imports plus imports of the rest of the world (i.e. UK exports) are equal to regional exports plus exports of the rest of the world (i.e. UK imports). This balance is enforced in the projections of the model, as an adding-up constraint on regional exports.

Intermediate demand For intermediate demand, first, input-output coefficients were calculated for commodities absorbed in production by industries from the input-output tables and aggregated to the MDM groups. These coefficients were then projected one year at a time to allow for known and expected technical and other changes. The coefficients for any year were applied to estimates of gross output for that year to give intermediate demand.

Average wage rates In the regionalised MDM the dependent variable in the wage equation is the gross nominal wage, that is, the contractual wage which is a common component of real wages for the main players in the labour market. The external influences on wage bargaining in an industry are divided into those from other industries in the same region, and those from the same industry in other regions. Regional average wage rates by industry are also determined by national price inflation, benefit rates and regional unemployment rates.

Regional employment In the regionalised MDM, employment is treated as a demand for labour, derived from the regional demand for goods and services. Regional employment equations were estimated, relating industrial employment in each industry to its output in the region, to wage rates in the region relative to output prices and to national variables such as average hours worked. Long-run cointegrating relationships were identified and estimated and dynamic error-correction equations estimated to allow for short-run effects. In general the equations were well determined and the parameters were of the expected sign and magnitude.

The regional employment data were based on official estimates published by ONS. Detailed estimates for employees in employment drew upon ABI data. Self employment estimates for detailed industries were based on an assumption of common ratios of self employment to employees to those at more aggregate levels. A series of iterative RAS procedures were used to ensure that the final data set was consistent with all totals published by ONS.

Regional output GVA data for the regions were obtained from the ONS for some 30 sectors. These data were disaggregated to the MDM 41 industries using information from other sources, such the census of production and the ABI, and information from the more detailed employment data

and other detailed information available for the UK. Current price data at the 41 industry level were deflated using the corresponding national deflators.

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Appendix 3
Supply Appraisal Criteria

Site/Premises Appraisal Form

Reference	
Address	
Ownership	

Location

Within centre

Edge of centre

Within urban area

Edge of urban area

Outside settlement

Availability (Ha)

Availability (sq.m)

Road Access

Very Good	Good	Fair	Poor	Very Poor
<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>

Public Transport Access

Very Good	Good	Fair	Poor	Very Poor
<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>

Car Parking Availability

Very Good	Good	Fair	Poor	Very Poor
<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>

Environment of Neighbourhood / Site

Very Good	Good	Fair	Poor	Very Poor
<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>

Image of Neighbourhood / Site

Very Good	Good	Fair	Poor	Very Poor
<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>

Working Age Population

Very Good	Good	Fair	Poor	Very Poor
<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>

Skills and Qualifications

Very Good	Good	Fair	Poor	Very Poor
<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>	<input style="width: 80%; height: 15px;" type="text"/>

Site Condition

Vacant, cleared site

Demolition required, pending

Occupied land and buildings

Demolition or remediation underway

Overgrown site (potential conservation issues)

Neighbouring and Suitable Uses

Neighbouring

A1	A2	A3	A4	A5	B1	B2	B8	C1	C2	C3	D1	D2	sui generis

Suitable

A1	A2	A3	A4	A5	B1	B2	B8	C1	C2	C3	D1	D2	sui generis

Notes

Appendix 4

Criteria for Assessing Applications for Mixed-Use/Alternative Uses

The criteria presented below sets out a detailed series of tests to assess sites where applications for mixed-use / alternative uses are received.

Criteria	Tests	Comments
Planning Policy	1. Is the site designated as a 'key' or 'strategic' employment site within the Regional Spatial Strategy or as employment land within the LDF?	<i>Where employment sites have formal designations at regional level, there is less justification for their release.</i>
	2. Do alternative uses 'fit' with the Council's other strategic aims?	<i>Targets for housing and other uses will need to be assessed against the economic objectives of the locality/area to evaluate the need for any change of use.</i>
Availability of Employment Land	1. Is there an adequate supply of allocated employment sites of sufficient quality in the locality/area to cater for a range of business requirements in the Development Plan?	<i>It will be essential to assess the quantitative and qualitative supply of employment land in a locality/area to establish whether a particular site remains important to providing a range and choice of sites over the local development plan period. Potential 'Windfall' employment sites will also need to be evaluated in terms of their suitability and sustainability for workspace as these may play a significant role in the future supply of employment.</i>
	2. What is the rate of employment land loss to alternative uses in locality/area?	<i>It is important to establish the rate of loss of employment land to alternative uses, to evaluate whether additional losses would alter the balance between employment and other uses or undermine the confidence of local developers and occupiers.</i>
Constraints to Deliverability	1. Is the site size configuration, profile and topography appropriate to enable employment development?	<p><i>The site needs to accommodate the design and layout required by developers to create quality workspace schemes, otherwise it is likely to remain undeveloped.</i></p> <p><i>Developers are expected to provide clear illustrations of a site's capability, even at outline stage, to accommodate the development appropriately.</i></p>

	<p>2. Does land ownership restrict development?</p>	<p><i>It is important to establish whether the landowner is holding employment development back in an attempt to secure higher value uses, or whether there are other issues in terms of restrictive covenants, easements etc. that restricts development and whether the RDA can/will purchase the land.</i></p>
	<p>3. Do environmental or physical factors constrain employment development?</p>	<p><i>There may be specific environmental or physical factors that reduce the developable area of the site or increase development costs, increasing the potential for mixed-use or alternative development e.g. contamination or flood risk.</i></p> <p><i>The commercial realities of developing constrained sites need to be given careful consideration, ensuring that worthwhile proposals are not refused due to unrealistic expectations over a site's use. It is generally less expensive to remediate land for employment use rather than residential use.</i></p> <p><i>There is also the possibility of public money to be accessed to help fund the delivery of important sites for economic development.</i></p>
	<p>4. Can the site continue to be used for employment uses without severely harming the amenity of the occupiers of neighbouring residential properties?</p>	<p><i>On sites that have accommodated traditional manufacturing or distribution activities, which are no longer compatible with neighbouring uses, other employment uses should be tested, which have a lower impact on surrounding communities in terms of noise, traffic generation etc. Planning restrictions to control the hours of working on the site also need to be assessed.</i></p>
<p>Accessibility/ Sustainability</p>	<p>1. How suitable is road accessibility to the existing/proposed uses on the site?</p>	<p><i>It will be important to assess the capacity of roads around the site to take the level of usage generated from different employment uses in terms of delivery, staff and visitor vehicular movements in terms of employment-generating uses, as well as other uses such as residential.</i></p>
	<p>2. Is a site served, or capable of being served by a high frequency/high quality public transport service for the whole working day?</p>	<p><i>Emphasis on public transport essential to all employment sites. The quality of public transport should be evaluated in relation to the following:</i></p> <ul style="list-style-type: none"> <i>○ Accessibility to a bus stop/ public transport connection.</i> <i>○ Major new employment developments should be within 400m or preferably closer to a bus stop/public transport connection. Frequency of services also needs to be measured. The aim</i>

		<i>is to assess and improve accessibility to existing sites if necessary and to build it into new sites</i>
	3. Will future improvements strengthen accessibility?	<i>Are there any programmed improvements to roads, rail and bus services that would strengthen the accessibility of the site for employment uses in future years.</i>
	4. Is the site capable of being served by a catchment population of sufficient size?	<i>Can the site attract local workers within a reasonable distance from a major town or village? Where sites are in isolated rural locations, the sustainability of employment uses should be questioned.</i>
Commercial Attractiveness/ Market Realism	1. How long has the site remained vacant or unimplemented?	<i>Where a site has remained unimplemented over the lifetime of one plan period, it is questionable whether it will ever come forward. Careful consideration has to be given to the appropriate use of the site if employment uses are unviable. The sustainability of the site will be of critical importance to the eventual use.</i>
	2. Where there are buildings on the site is the accommodation appropriate for current workspace requirements?	<i>Some older buildings may offer affordable units to local businesses, whereas the scale, build quality and facilities of other buildings may no longer be attractive to the market. Assessments need to be undertaken on a site by site basis taking account of current market requirements.</i>
	3. Is there satisfactory evidence that the site has been extensively and fairly marketed for employment uses (B1, B2 and B8) to suit local business needs in the area?	<i>Applicants must present marketing information, including site size, price (verified by an independent agent) how it has been marketed including how the site was advertised in the media, any response from viewings and the length of the marketing. LPAs can then appoint independent consultants for a market view.</i>
Growth Sectors	1. Could the site cater for the locational requirements of key growth sectors.	<i>Locational requirements for key growth sectors should be used to establish whether the site has certain attributes that are likely to make it attractive.</i>
Economic Impact	1. Would the loss or partial loss of the employment site have a detrimental effect on the local economy?	<i>In terms of restricting the choice of sites for local firms wishing to expand or opportunities for small business start-ups.</i>

	<p>2. Would an alternative mixed-use scheme increase the number of jobs on the site/job density and suitability of jobs to match the needs of the local population or development of the local economy?</p>	<p><i>It is important for authorities to evaluate the benefit of some business and employment development through a mixed-use scheme, against the cost of the site remaining undeveloped over the lifetime of the plan.</i></p>
<p>Commercial Viability</p>	<p>1. Are higher value uses required to overcome abnormal development costs and make development viable?</p>	<p><i>It is important for local authorities to critically assess the commercial viability of schemes with developers, in order to be satisfied that employment uses alone are not sufficient to make site development viable.</i></p> <p><i>In order to meet the Test it would be necessary to have open book accounting otherwise it would be impossible to assess.</i></p>
	<p>2. Are there any funding streams available to promote employment uses on the site?</p>	<p><i>An investigation of funding opportunities should be undertaken when assessing the financial viability of the site in question.</i></p>
<p>Displacement Capacity</p>	<p>1. Where firms are likely to be displaced from an existing site, is there suitable alternative accommodation in the locality to cater for their needs?</p>	<p><i>An assessment of the requirements of firms being displaced can be evaluated against the range and quality of choice of alternative sites and premises available in the locality.</i></p>

Appendix 5 – Cambridge Econometrics Forecast Demand 2016-2026

Table A 5a Office (B1) Floorspace and Land Requirements 2016-26 Baseline Scenario			
	Office Employment Change 2016-26	B1a Office Floorspace Demand (sq.m.)	B1a Office Employment Land Demand (ha)
Coventry	3,400	64267	3.7
North Warwickshire	533	10067	0.6
Nuneaton & Bedworth	733	13467	0.8
Rugby	933	17933	1
Solihull	3867	73267	4.2
Stratford-on-Avon	1267	23867	1.3
Warwick	2867	54000	3.1
Sub-Regional Total	13533	256867	14.7
Source: DTZ			
Figures may not sum due to rounding			

Table A 5b Office (B1) Floorspace and Land Requirements 2016-26 Medium Growth Scenario			
	Office Employment Change 2016-26	B1a Office Floorspace Demand (sq.m.)	B1a Office Employment Land Demand (ha)
Coventry	4000	76467	4.4
North Warwickshire	600	11267	0.7
Nuneaton & Bedworth	867	16133	0.9
Rugby	1067	20533	1.2
Solihull	4600	87933	5
Stratford-on-Avon	1533	28667	1.7
Warwick	3200	61400	3.5
Sub-Regional Total	15933	302333	17.3
Source: DTZ			
Figures may not sum due to rounding			

Table A 5c Office (B1) Floorspace and Land Requirements 2016-26 High Growth Scenario			
	Office Employment Change 2016-26	B1a Office Floorspace Demand (sq.m.)	B1a Office Employment Land Demand (ha)
Coventry	4467	85467	4.9
North Warwickshire	667	12667	0.7
Nuneaton & Bedworth	933	18067	1

Rugby	1200	22867	1.3
Solihull	5133	97733	5.6
Stratford-on-Avon	1733	32467	1.9
Warwick	3600	68267	3.9
Sub-Regional Total	17733	337467	19.3
Source: DTZ			
Figures may not sum due to rounding			

Table A 5d B1 b/c Floorspace and Land Requirements 2016-26 Baseline Scenario			
	B1b/c Employment Change* 2016-2026	B1b/c Floorspace Demand (m²)	B1b/c Employment Land Demand (ha)
Coventry	133	5467	1.4
North Warwickshire	<66	467	0.1
Nuneaton & Bedworth	<66	600	0.1
Rugby	<66	933	0.3
Solihull	267	8400	2.1
Stratford-on-Avon	400	14667	3.7
Warwick	133	5333	1.3
Sub-Regional Total	1067	35933	9
Source: DTZ			
Figures may not sum due to rounding			
*Only sectors with positive employment change			

Table A 5e B1 b/c Floorspace and Land Requirements 2016-26 Medium Growth Scenario			
	B1b/c Employment Change* 2016-2026	B1b/c Floorspace Demand (m²)	B1b/c Employment Land Demand (ha)
Coventry	200	6200	1.5
North Warwickshire	<66	533	0.1
Nuneaton & Bedworth	<66	667	0.1
Rugby	<66	1067	0.3
Solihull	267	9933	2.5
Stratford-on-Avon	533	17200	4.3
Warwick	200	6933	1.7
Sub-Regional Total	1267	42533	10.7
Source: DTZ			
Figures may not sum due to rounding			
*Only sectors with positive employment change			

Table A 5f B1 b/c Floorspace and Land Requirements 2016-26 High Growth Scenario			
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	B1b/c Employment Change* 2016- 2026	B1b/c Floorspace Demand (m²)	B1b/c Employment Land Demand (ha)
Coventry	200	6867	1.7
North Warwickshire	<66	600	0.1
Nuneaton & Bedworth	<66	733	0.2
Rugby	67	1200	0.3
Solihull	333	10933	2.7
Stratford-on-Avon	533	19000	4.7
Warwick	200	7667	1.9
Sub-Regional Total	1400	47000	11.7
Source: DTZ Figures may not sum due to rounding *Only sectors with positive employment change			

Table A 5g Warehousing (B8) Floorspace and Land Requirements 2016-26 Baseline Scenario			
	Warehousing Employment Change 2016- 2026	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	333	24867	7.1
North Warwickshire	67	4133	1.2
Nuneaton & Bedworth	133	9333	2.7
Rugby	67	4667	1.3
Solihull	200	13600	3.9
Stratford-on-Avon	<66	2267	0.7
Warwick	200	16200	4.6
Sub-Regional Total	933	75067	21.5
Source: DTZ Figures may not sum due to rounding			

Table A 5h Warehousing (B8) Floorspace and Land Requirements 2016-26 Medium Growth Scenario			
	Warehousing Employment Change 2016-26	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	400	30400	8.7
North Warwickshire	67	5933	1.7
Nuneaton & Bedworth	133	11533	3.3
Rugby	67	6400	1.8
Solihull	200	18467	5.3
Stratford-on-Avon	67	3667	1.1
Warwick	200	17133	4.9

Sub-Regional Total	1200	93400	26.7
Source: DTZ Figures may not sum due to rounding			

Table A 5i Warehousing (B8) Floorspace and Land Requirements 2016-26 High Growth Scenario			
	Warehousing Employment Change 2016-26	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	467	36733	10.5
North Warwickshire	133	8067	2.3
Nuneaton & Bedworth	200	13733	3.9
Rugby	133	8933	2.5
Solihull	267	22867	6.5
Stratford-on-Avon	67	6400	1.8
Warwick	267	20400	5.8
Sub-Regional Total	1467	117133	33.5
Source: DTZ Figures may not sum due to rounding			

Table A 5j Sui Generis Floorspace and Land Requirements 2016-26 Base Scenario			
	Sui Generis Employment Change 2016-26	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	333	15867	4.5
North Warwickshire	67	2400	0.7
Nuneaton & Bedworth	133	5267	1.5
Rugby	67	2800	0.8
Solihull	133	5533	1.6
Stratford-on-Avon	133	5667	1.6
Warwick	200	8400	2.4
Sub-Regional Total	933	46067	13.1
Source: DTZ Figures may not sum due to rounding			

Table A 5k Sui Generis Floorspace and Land Requirements 2016-26 Medium Growth Scenario			
	Sui Generis Employment Change 2016-26	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	400	18533	5.3
North Warwickshire	67	2667	0.8
Nuneaton & Bedworth	133	6133	1.7

Rugby	67	2800	0.8
Solihull	133	5600	1.6
Stratford-on-Avon	133	6000	1.7
Warwick	200	9333	2.7
Sub-Regional Total	1133	51066	14.6

Source: DTZ

Figures may not sum due to rounding

Table A 5l Sui Generis Floorspace and Land Requirements 2016-26 High Growth Scenario

	Sui Generis Employment Change 2016-26	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
Coventry	400	20267	5.8
North Warwickshire	67	3000	0.9
Nuneaton & Bedworth	133	6733	1.9
Rugby	67	3133	0.9
Solihull	133	6200	1.7
Stratford-on-Avon	133	6667	1.9
Warwick	200	10267	2.9
Sub-Regional Total	1133	56200	16.1

Source: DTZ

Figures may not sum due to rounding

Table A 5m Summary Floorspace and Land Requirements 2016-26

Sector*	Employment Change 2016-26	Floorspace Demand (sq.m.)	Employment Land Demand (ha)
B1a Office	13533-17733	256867 - 337467	14.7 – 19.3
B1b/c Light Industrial	1067 - 1400	35933 - 47000	9 – 11.7
B8 Warehousing	933-1467	75067- 117133	21.5 – 33.5
Sui Generis	933 - 1133	46067 - 56200	13.1 – 16.1
Total Demand	16466 - 21733	414034 - 557800	58.3 – 80.6

Source: DTZ

Figures may not sum due to rounding

*Sectors with positive change