CANNOCK CHASE DISTRICT COUNCIL

EMPLOYMENT LAND STUDY

FUTURE LAND ESTIMATION

TECHNICAL APPENDIX REPORT

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Prepared by

Jonathan Vining
Research Unit
Development Services Directorate
Staffordshire County Council

Tel – 01785 277353
E mail – jonathan.vining@staffordshire.gov.uk

Staffordshire County Council

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TECHNICAL APPENDIX
MAIN FINDINGS OF CANNOCK CHASE DISTRICT EMPLOYMENT LAND REVIEW WORK

1. The Current Employment Land Supply Situation

Table 1 - Employment land supply at April 2007 (Hectares)

	Completions	Under Construction	Land Availability			Planning Status			Total Land Available
			Readily Available	Within 5 Years	Beyond 5 Years	Full	Outline	None	
New Land	0.00	2.57	38.42	0.62	0.00	30.29	0.12	11.20	41.61
Redevelopment Land	2.03	9.38	36.50	1.78	0.00	32.04	4.61	11.01	47.66
Total Land	**2.03**	**11.95**	**74.92**	**2.40**	**0.00**	**62.33**	**4.73**	**22.21**	**89.27**

Source: Staffordshire Employment Land Survey 2007

As of April 2007, a total of 67.1 hectares of employment land was committed by planning permission with a further 22.2 hectares identified in an adopted local plan. As at April 2007 a total of 11.95 hectares of committed employment land was under construction in the Cannock Chase District Council area.

The land supply considers both new employment land (which has never been developed, or vacant for a long time) and redevelopment land (which has been redeveloped from another use). The outgoing Staffordshire and Stoke-on-Trent Structure Plan 1996-2011 identifies new and redevelopment land separately. For the purposes of this project consideration will only be given to total employment land.

Of the total employment land supply in Cannock Chase District, some 74.92 hectares (84% of the total stock) is classed as being readily available, with 2.4 hectares (2.7% of the total stock) classed as being available within the next 5 years, there is no land identified as being available for development beyond 5 years, although this does not necessarily mean that it will take a longer period for land to become available. Some 11.95 hectares of land (13.4% of the land stock) was classed as being under construction at April 2007. A further 2.03 hectares was classed as employment land completions.

The majority of the district's land supply has the benefit of planning consent (67.1 hectares), the vast majority of which (62.33 hectares) of the total supply has full planning consent. This includes land under construction (11.95 hectares) at April 2007. Of the supply of employment land 22.21 hectares (24.9% of the total stock) does not have planning permission.

Cannock Chase District's employment land portfolio has a large number of sites which are 2 hectares or smaller in size (19 sites which between them account for a total 15 hectares of the districts employment land. There are 2 sites between 2 and 10 hectares in size at Mill Green (7.60 Ha) and the former Mid Cannock Coal Disposal Point (9.20 Ha). There are 2 large employment sites in the district at Kingswood Lakeside (27.30 Ha) and Towers Business Park Phase 2 (30.04 Ha) which between them account for 64.2% of the total supply in the District at April 2007. Work following on from this employment land review will need to consider how appropriate the current land portfolio is in relation to the future economic development needs of Cannock Chase district.

The majority of the employment land stock in Cannock Chase District (46.87 hectares) is classified as being suitable for a mixture of uses (B1/B2/B8 use). In addition, 21.15 hectares is available for B8 use. 5.87 Ha is available for purely B1 use and 0.18 Ha for purely B2 uses. B1/B2 use accounted for 9.20 hectares of the identified employment land in the district and 6.00 Ha from B1/B8 uses.

If recent development trends are continued, it is possible that a significant element of the land supply which is classed as a mixture of uses will be developed as B8 type distribution and warehousing use, as businesses are keen to capitalise on the strategic transportation links offered in the district. However, employment forecasts which are examined in further detail later in this report will be important towards informing the future types of employment land required in the district.

2 - CONTINUATION OF PAST DEVELOPMENT TRENDS APPROACH

Step 1 – Identify the amount of employment land developed over the past 10 years

Using data from the Staffordshire Employment Land Survey over the past 10 years, consideration is taken of the total amount of employment land that has been completed in Cannock Chase District. (The sum of the levels of new land and redevelopment land).

Table 2 – Employment land completions 1996/97 to 2006/07 (Hectares)

	1997 /1998	1998 /1999	1999 /2000	2000 /2001	2001 /2002	2002 /2003	2003 /2004	2004 /2005	2005 /2006	2006 /2007
New Land	2.76	0.58	2.98	1.85	4.46	4.6	0	3.05	10.27	0
Redevelopment Land	0	1.14	1.24	6.78	2.1	4.19	1.44	4.55	0	2.03
Total Land	**2.76**	**1.72**	**4.22**	**8.63**	**6.56**	**8.79**	**1.44**	**7.6**	**10.27**	**2.03**

Source: Staffordshire Employment Land Survey 2007

Step 2 – Calculate the average levels of employment land completions

Having taken account of employment land completions for each of the past 10 years, mean average annual employment land completion rates are calculated for the periods of the past 10 years, and the past 5 years. These offer an average build rate which will go on to form the overall basis for the calculation of future requirements.

Table 3 – Average building rates - past 5 year and past 10 year averages (Hectares)

	2002-2007	Average Build Rate (5 years)	1997-2007	Average Build Rate (10 years)
New Land	17.92	3.58	30.55	3.06
Redevelopment Land	12.21	2.44	23.47	2.35
Total Land	**30.13**	**6.03**	**54.02**	**5.40**

Source: Staffordshire Employment Land Survey 2007

Step 3 – Translating average employment land completions to future requirements

The average annual building rates for both the past 5 years, and the past 10 years are then translated into potential land requirements by multiplying the relevant average annual building rates by a factor of 20 – this provides a potential figure for the 20 year period between 2006-2026 based on build rates from the past 5 years and 10 years.

The potential land requirements are set out in table 4 below.

Table 4 – Potential land required - based on past 5 year and past 10 year averages (Hectares)

	Average Build Rate (5 years)	Land Supply 2006-26 (based on 5 year build rate)	Average Build Rate (10 years)	Land Supply 2006-26 (based on 10 year build rate)
New Land	3.58	71.68	3.06	61.1
Redevelopment Land	2.44	48.84	2.35	46.94
Total Land	**6.03**	**120.52**	**5.40**	**108.04**

Source; Staffordshire Employment Land Survey 2007

These potential land requirements are likely to be towards the upper end of estimates of need for future employment land in the district.

It is very possible that the requirements are potentially skewed upwards by the recent high levels of land taken in the B8 Distribution and Warehousing sector in Cannock Chase District, which tends to be a much more “land hungry” use than other use classes. In the last 5 years, 30.13 hectares of employment land has been developed in Cannock Chase with a high proportion of the developed land being for B8 uses, some of which has been solely for B8 use rather than as part of a mixed B use development.

The continuation of past trends method of forecasting future land requirements is one of the less sophisticated approaches of identifying future employment land. It does, however, provide a useful, at a glance indication of how requirements might be shaped into the future, if the economy follows the patterns of development that have been characteristic of recent years. It is also the underpinning methodology which has been used for the calculation of indicative land requirements at the district council level in the Preferred Option submission of the current Phase 2 revision of the West Midlands Regional Spatial Strategy.

An issue for consideration when using the continuation of past trends approach, is that future economic conditions will not necessarily mirror those that have taken place in the recent past. Employment forecasts (which will be examined in further detail in this report) suggest that the growth in the distribution and warehousing (B8) sector is likely to decrease in growth from recent trends, and that industries requiring B1 type accommodation are likely to become much more important locally into the future.

3 - LABOUR DEMAND APPROACH USING EMPLOYMENT FORECASTS

Step 1 – Identify employment forecasts for employment change

Table 5 below highlights the forecasted levels of employment in total terms, and by broad industrial sector over the period between 2001 and 2026. The employment forecast data has been sourced from Cambridge Econometrics Local Economy Forecasting Model – a well respected source of employment forecasting data nationally, and is used widely for both the purposes of economic forecasting and as one factor for employment land estimation. The Cambridge Econometrics Local Economy Forecasting Model is a trend based model and takes no account of local or regional policy inputs.

The base year of the employment forecast is 2004, so any data beyond this year is forecast data, and should be treated with some element of caution accordingly. Indeed a forecast is only an indicative estimate of the "direction of travel" in which the economy may change into the future and as such, any land requirements generated as a result of economic forecasts should only be classed as estimates, and as an initial starting point for the further analysis of land for employment requirements.

Table 5 highlights the forecasted number of jobs in each of the main employment sectors for 5 year periods between 2001 and 2026, these being the total number of jobs in Cannock Chase District rather than the total number of residents in employment. Table 6 highlights the forecasted changes in employment between the 5 year periods, and for the periods 2001-26 and 2006-26 (the period over which land requirement estimations will be required). The employment change figures will form one part of the basis for the calculation of land required through the labour demand approach.

Table 5 – Employment Forecasts 2001-26 (absolute jobs)

	2001	2006	2011	2016	2021	2026
1 Primary and Utility	1619	1009	883	761	658	571
2 Manufacturing	8348	5989	5683	5356	5044	4742
3 Construction	3376	3847	3951	4038	4230	4459
4 Retailing	4013	4652	4832	4937	5090	5254
5 Distribution NES	2899	4041	4319	4427	4553	4679
6 Hotels and Catering	1941	2676	2705	2736	2747	2753
7 Transport	1415	1416	1251	1097	957	836
8 Communications	448	556	537	517	510	505
9 Financial and Business	4335	4971	5600	6303	7160	8124
10 Public Administration	1443	1202	1220	1234	1245	1258
11 Health and Education	5682	6582	6996	7195	7375	7543
12 Waste Treatment and Other Service Activities	1362	1702	1656	1580	1505	1434
Total	**36883**	**38643**	**39633**	**40179**	**41074**	**42157**

Source: Cambridge Econometrics

Table 6 – Employment Forecasts 2001-26 (change in absolute jobs)

	2001-2006 change	2006-11 change	2011-16 change	2016-21 change	2021-26 change	2001-26 change	2006-26 change
1 Primary and Utility	-609	-127	-122	-103	-87	-1,048	-438
2 Manufacturing	-2,360	-306	-327	-312	-302	-3,607	-1,247
3 Construction	471	104	86	192	229	1,083	612
4 Retailing	639	180	105	152	165	1,241	602
5 Distribution NES	1,142	278	108	126	126	1,780	638
6 Hotels and Catering	735	29	31	11	7	812	77
7 Transport	1	-165	-154	-140	-121	-579	-580
8 Communications	107	-19	-20	-7	-5	56	-51
9 Financial and Business	636	629	703	857	964	3,788	3,153
10 Public Administration	-242	18	14	12	13	-185	57
11 Health and Education	900	414	199	180	167	1,860	961
12 Waste Treatment and Other Service Activities	340	-46	-77	-74	-72	72	-268
Total	**1,760**	**991**	**546**	**895**	**1,084**	**5,275**	**3,515**

Source: Cambridge Econometrics

Step 2 – Identify employment densities and relevant plot ratios for translation to land requirements

In order to translate forecasted employment change into a potential floor space requirement, account is taken of the amount of floor space that the differing employment sectors will need.

Primarily a best fit approach was used to estimate which use class is the most appropriate to each of the economic forecasting sectors (the best fit to use classes will be used later in the process, as this study will only take account of the need for B class use employment land).

Table 7 below highlights the potential floor space requirements of the different sectors identified by the employment forecasts above. Floor space requirements vary substantially from the lowest levels (and highest job densities), in the hotels and catering sector, up to the highest levels (and lowest job densities) such as those traditionally found in the distribution sector. For example 100 new jobs in the manufacturing industry would be calculated by multiplying 100 x 30 (the floor space per manufacturing job). This would yield a floor space requirement of 3000 sq m.

In addition to floor space, a "plot ratio" factor is also required. The plot ratio factor provides a basis on which to translate floor space into an overall area of employment land. For example a plot ratio of 0.4 suggests that floor space for jobs will only account for around 40% of the total employment land needed for a certain plot. The plot ratio factor allows this to be factored up accordingly. Further details on the floor space density and plot ratios will be examined later in the report.

Table 7 – Employment density and plot ratio factors

Employment by industry	Use Class (Best Fit)	Floor space Density (sq m required per job)	Plot Ratios (Factor of additional land required to accommodate floorspace)
1 Primary and Utility	B2	Unknown	0.4
2 Manufacturing	B2	30	0.4
3 Construction	B2	30	0.4
4 Retailing	A1 or Sui Generis	20	0.4
5 Distribution NES	B8	65	0.4
6 Hotels and Catering	C1	15	
7 Transport	B1 or Sui Generis	20	0.6
8 Communications	B1(c)	20	0.4
9 Financial and Business	B1(a)	20	0.6
10 Public Administration	B1(a)	20	0.6
11 Health and Education	D1 and B1 (a)	20	0.6
12 Waste Treatment and Other Service Activities	B2	20	0.4

Source – Densities – English Partnerships, Plot Ratios – Atkins Staffordshire Moorlands Employment Land Study

Densities have been extracted and interpreted from the English Partnerships publication – "Employment Densities – A Simple Guide". This publication identifies data generated for the average densities nationally.

Employment Densities calculated by the Research Business unit from surveys of local industrial estates and business parks developed by Staffordshire County Council suggest that local densities are lower than those reported nationally meaning that locally more land could be necessary.

Step 3 – Identify possible assumed levels of employment taken on B class land

Firstly a refinement of the employment forecasts in tables 5 and 6 is undertaken. This identifies those sectors that will require B class employment land being taken. The relevant sectors requiring B class employment land are highlighted in table 8 below.

For the purposes of this piece of work a range of different scenarios have been taken into account for the identification of employment land requirements using the labour demand modelling approach.

The different scenarios take account of the different ways in which the employment forecast information can be interpreted. The preferred approach, which is worked through in this methodology is to use a scenario where:

- Negative employment change is excluded
- An assumption is made of the different proportions of the forecasted increase in employment that is likely to require B Class land (see table 8 below)
- An assumption is made for potential relocation for manufacturing employment. A proportion of 10% of the total manufacturing employment in each of the 5 year periods of the employment forecasts has been suggested for manufacturing employment relocation. For example in 2006, 599 jobs, in 2011, 568 jobs and so on.

The assumptions on the proportion of forecasted employment likely to require B class land has been taken from survey work undertaken by the Research Unit – the proportions have been calculated based on occupation of industrial estates in Staffordshire.

Table 8 – Assumed levels of land to be taken on B Class land following changes to local economic base from employment projections

Sector	Use Class	Assumed level of employment which will be accommodated on B Class Land
2 Manufacturing	B2	10%
3 Construction	B2	10%
5 Distribution NES	B8	100%
7 Transport	B1 or Sui Generis	80%
8 Communications	B1(a)	20%
9 Financial and Business	B1(a)	15%
10 Public Administration	B1(a)	10%
11 Health and Education	D1 and B1 (a)	10%
12 Waste Treatment and Other Service Activities	B2	10%

Step 4 – Convert labour demand from assumed forecasted employment change into a floor space requirement

The conversion of labour demand into potential employment floor space is a relatively straightforward process.

Firstly, the employment change figures identified in table 6 are multiplied by the relevant density factors as set out in table 7 – these yield the floor space figures as set out in table 9 below. Although manufacturing employment is expected to generate a negative change throughout the period of interest, the incorporation of 10% of the annual employment in manufacturing for relocations, as highlighted above explains the generation of land requirements for that sector.

For the purposes of this method, employment change which yields a negative change is discounted from the calculations.

Table 9 – Potential floor space requirements using employment density above and assumed proportions of employment taking B class land

	2001-06 floorspace (sq m)	2006-11 floorspace (sq m)	2011-16 floorspace (sq m)	2016-21 floorspace (sq m)	2021-26 floorspace (sq m)
2 Manufacturing	17,966	17,049	16,067	15,132	14,225
3 Construction	1,413	313	259	576	687
5 Distribution NES	74,204	18,077	7,014	8,192	8,205
7 Transport	19	Neg	Neg	Neg	Neg
8 Communications	428	Neg	Neg	Neg	Neg
9 Financial and Business	1,908	1,886	2,110	2,570	2,891
10 Public Administration	Neg	36	27	23	26
11 Health and Education	1,799	829	397	361	335
12 Waste Treatment and Other Service Activities	680	Neg	Neg	Neg	Neg
Total (Sq M)	**98,418**	**38,190**	**25,874**	**26,855**	**26,369**

Source: Cambridge Econometrics and Research Unit

Step 5 – Use plot ratios to convert floor space requirement into employment land requirements

In order to translate forecasted floor space requirements into an overall employment land requirement "plot ratios" have been used and are specified alongside the relevant employment densities in table 7.

For example a plot ratio of 0.4 (as used when considering most B1 type development) suggests that floor space for jobs will only account for around 40% of the total employment land needed for a certain plot.

Table 10 applies the relevant B class plot ratio to floor space requirements set out in table 9 to calculate an overall land requirement. The land requirement in sq metres is divided by 10,000 to provide an overall requirement in hectares.

Table 10 – Potential land required (NET – Sq M) excluding negative change

	2001-06 land/plot ratio	2006-11 land/plot ratio	2011-16 land/plot ratio	2016-21 land/plot ratio	2021-26 land/plot ratio
2 Manufacturing	44,915	42,623	40,167	37,829	35,562
3 Construction	3,533	782	648	1,441	1,717
5 Distribution NES	185,510	45,191	17,534	20,481	20,513
7 Transport	32	neg	neg	neg	neg
8 Communications	1,071	neg	neg	neg	neg
9 Financial and Business	3,180	3,144	3,517	4,284	4,818
10 Public Administration	neg	61	46	39	44
11 Health and Education	2,999	1,381	662	601	558
12 Waste Treatment and Other Service Activities	1,700	neg	neg	neg	neg
Total (Sq M)	242,939	93,182	62,573	64,675	63,213
Total (HA)	**24.29**	**9.32**	**6.26**	**6.47**	**6.32**

Using the above methodology and assumptions:

Between 2001-26: 52.7 Hectares of B Class land will be required

(A requirement for the period 2001 to 2026 has been calculated to enable comparison with other technical work being prepared over this period)

Between 2006-26: 28.4 Hectares of B Class land will be required

(The period 2006 to 2026 is the overall period of interest for the Cannock Chase District Employment Land Study)

TESTING AGAINST OTHER SCENARIOS

- In addition to the preferred methodology outlined in steps 1 to 5 above, a range of alternative approaches have been used to identify what impact these would have on estimated land requirements.

- To test the different ways in which land could be required, labour demand based employment land requirements have been recalculated using the following range of alternative scenarios:

  (1) Not taking into account the assumptions related to the potential levels of employment likely to be accommodated on new B Class land (therefore all forecasted employment change in identified sectors will be going to B class land – the proportion factors in table 8 would be set to 100%), excluding negative change, and excluding relocations for manufacturing.

  (2) Not taking into account the assumptions related to the potential levels of employment likely to be accommodated on new B Class land (therefore all forecasted employment change in identified sectors will be going to B class land – the proportion factors in table 8 would be set to 100%), excluding negative change, including relocations for manufacturing.

These 2 alternative scenarios generated the following land requirements

(1)

Between 2001-26: 32.5 hectares of land required

Between 2006-26: 12.8 hectares of land required

(2)

Between 2001-26: 78.4 hectares of land required

Between 2006-26: 44.5 hectares of land required

(this is seen as an “upper end” employment land requirement using a labour demand approach, as it assumes that all forecasted B class use employment growth in the identified sectors will be accommodated on new employment land and also assumes that there will be some element of land required due to manufacturing relocations).

4 - LAND REQUIRED USING LABOUR SUPPLY CHANGE FROM LABOUR FORCE PROJECTIONS

The “Labour Supply” Approach to land estimation uses forecasted changes in the local labour force (labour supply) to suggest the potential levels of employment land that may be required to service such labour force growth.

A key benefit of the labour supply approach in comparison to other methods of employment land estimation is that it allows an element of policy led growth scenarios to be tested rather than being purely reliant on historical development patterns, or purely trend based models. This is an important implication in Cannock Chase district in planning for its future needs in the light of additional levels of housing growth under the current revisions of the West Midlands Regional Spatial Strategy. It is important that alongside any proposed growth in housing levels, the potential need for new employment land is also examined, encouraging the sustainability of local communities into the future.

In the Cannock Chase District case three scenarios have been tested in order to determine potential labour force growth. These include driven by the spatial options of housing distribution set out in the current West Midlands Regional Spatial Strategy review. The growth scenarios include:

Unconstrained labour force growth based on the expected natural levels of population growth – not tied in to any house building assumptions

Constrained to the “Preferred Option” of the Phase 2 revision of the West Midlands Regional Spatial Strategy – 5,800 dwellings net to be built in the period 2006 to 2026

Constrained to a local regeneration policy aim of improving the sustainability of the local economy by increasing the current “job density ratio” in the district from 0.64 to 0.75.

* Note – Both the unconstrained population projection and the population projection constrained to the preferred option of the revision to the RSS (5,800 dwellings net between 2006 and 2026) yields a negative change in labour force between 2006 – 26.

Step 1 – Developing a Labour Force Projection

The first step in the labour supply approach is to create a labour force projection for the area of interest, and for the range of development scenarios.

A population projection was initially produced using the POPGROUP population projections model. These population projections have been run to account for each of the potential growth scenarios outlined above.

The population projections were then input to the LABGROUP labour force projections model. Local economic activity rates and other factors are then used to develop the relevant labour force projections into the future. A key controlling element of the Labour Force Projection is the economic activity rates which are applied to underlying population projections. In this piece of work, the forecasted economic activity rates at a national level have been adjusted by using a set of local correctional factors (based on the difference between local and national economic activity rates among the different age groups at the time of the 2001 Census of Population).

Variations in the economic activity rate have the potential to significantly impact on the labour force (and resultantly land requirements generated from the labour force). These will be considered in greater detail as part of an investigation of the further factors of influence to the Cannock Chase District employment land study main report.

Step 2 – Taking into account commuting

In addition to the base labour force projection, there is a need to take account of the impacts of commuting on the local labour force. In Cannock Chase District there is evidence to suggest that the district has significantly fewer local jobs than residents of working age. It is therefore possible that there is likely to be an overall pattern of net out-commuting from the district to surrounding areas to satisfy the needs of the labour market. The commuting dynamics are not so simple though, as a significant number of people also travel into the district for employment from outside.

These commuting patterns are likely to influence the future labour demand quite considerably, as the labour force coming into the district will operate as an important element of the labour supply, while people commuting out will also have a significant effect on the local labour market dynamics. Factors of commuting will be examined in greater detail as part of the further factors of influence to the Cannock Chase District employment land supply in the body of the main report. For the purposes of the calculation of employment land requirements, generated through labour supply, three different commuting scenarios have been applied to each of the labour force projections:

1) Using only the labour force projection, with no account taken of any commuting factors (the base projection).
2) Using the labour force projection with account taken of out commuting from the district (the most up to date reliable source of journey to work data is from the 2001 Census of Population – this suggests that 49.6% of the working age population in 2001 travelled out of the district to work).
3) Using the labour force projection with account taken of the net commuting patterns in the district (data from the 2001 Census of Population suggests that the net commuting factor into the district is a negative factor of -20.5% - that is greater numbers of people are travelling out of the district for work than those commuting in).

The commuting factors are then applied to the labour force projection to give adjusted figures of "labour supply" on which to base the further calculations.

Step 3 – Applying future economic patterns to the labour force

In order to translate the labour force changes to a future land requirement, an assumption needs to be made as to which industrial sectors will require the development of B class employment land into the future.

Further to this, it is important to establish the likely proportions of the projected labour supply that will help to service each of these sectors.

Using the Cambridge Econometric Employment Forecasts, a factor has been calculated for each of the periods 2006,11,16,21 and 26 identifying the proportion of expected employment at each of these periods in the different economic sectors. These proportions have then been applied to the labour force projections to suggest a potential labour force cohort in each of these industrial sectors across the 5 periods of interest. These proportions are highlighted in table 11 below.

Step 4 – Translating labour force sectors into employment land requirements

The element of labour force in each of the relevant B sectors which require the use of B use land is then multiplied by the floor space densities as highlighted in table 7 of the "labour demand" approach to calculate the required floor space to accommodate the expected labour force change by each sector.

The relevant "plot ratios" are then factored to these floor space requirements, translating the forecasted floor space requirements into an overall employment land requirement. The same plot ratio factors as used in the labour demand approach have been used - these are specified, as well as the relevant employment densities in table 7 above.

The sum of the total land required identified for accommodating the forecasted levels of employment growth under each of the labour force projections is then divided by 10,000 to provide a required land element in hectares.

The proportion of forecasted employment for each of the industrial sectors is highlighted in table 11. Those sectors in bold are the ones in which it expected B Class employment land will be required.

Tables 12 to 15 below set out the labour force projections under each of the growth scenarios, and the associated levels of land take that each of these are forecast to generate.

FORECASTED EMPLOYMENT PROPORTIONS – 2006,2011,2016,2021 & 2026

Table 11 – Forecasted proportion of overall employment (%) between 2006 - 2026

EMPLOYMENT PROPORTIONS	*2006*	*2011*	*2016*	*2021*	*2026*
1 Primary and Utility	2.6%	2.2%	1.9%	1.6%	1.4%
2 Manufacturing	**15.5%**	**14.3%**	**13.3%**	**12.3%**	**11.2%**
3 Construction	**10.0%**	**10.0%**	**10.0%**	**10.3%**	**10.6%**
4 Retailing	12.0%	12.2%	12.3%	12.4%	12.5%
5 Distribution NES	**10.5%**	**10.9%**	**11.0%**	**11.1%**	**11.1%**
6 Hotels and Catering	6.9%	6.8%	6.8%	6.7%	6.5%
7 Transport	**3.7%**	**3.2%**	**2.7%**	**2.3%**	**2.0%**
8 Communications	**1.4%**	**1.4%**	**1.3%**	**1.2%**	**1.2%**
9 Financial and Business	**12.9%**	**14.1%**	**15.7%**	**17.4%**	**19.3%**
10 Public Administration	**3.1%**	**3.1%**	**3.1%**	**3.0%**	**3.0%**
11 Health and Education	**17.0%**	**17.7%**	**17.9%**	**18.0%**	**17.9%**
12 Waste Treatment and Other Service Activities	**4.4%**	**4.2%**	**3.9%**	**3.7%**	**3.4%**
Total	**100%**	**100%**	**100%**	**100%**	**100.0%**

Source: Cambridge Econometrics

Sectors highlighted in **BOLD** have been summed to calculate the total levels of employment land required for each of the relevant periods

Table 12 – Labour Force Projection using Unconstrained Population Projection 2001-2006 – (numbers of people)

Age group	2001-06	2006-11	2011-16	2016-21	2021-26	2001-26	2006-26
16 non-students	-3	-26	-4	-4	-7	**-44**	**-41**
16 students	6	-48	-6	0	-14	**-62**	**-68**
17 non-students	-15	-36	-27	-31	-13	**-122**	**-107**
17 students	0	-19	-23	-18	-10	**-70**	**-70**
18 non-students	107	-47	-13	-32	-12	**3**	**-104**
18 students	57	-5	9	-12	-5	**44**	**-13**
19 non-students	145	4	38	-150	25	**62**	**-83**
19 students	28	9	14	-25	5	**31**	**3**
20-24 non-students	349	437	-291	-54	-185	**256**	**-93**
20-24 students	27	43	-4	2	-10	**58**	**31**
25-29	-965	403	534	-297	-39	**-364**	**601**
30-34	-987	-1,082	402	532	-319	**-1,454**	**-467**
35-39	176	-1,024	-1,102	388	509	**-1,053**	**-1,229**
40-44	883	205	-1,036	-1,074	382	**-640**	**-1,523**
45-49	466	896	205	-998	-1,064	**-495**	**-961**
50-54	-294	484	951	238	-972	**407**	**701**
55-59	737	-228	476	811	194	**1,990**	**1,253**
60-64	483	437	-11	307	470	**1,686**	**1,203**
65-69	143	149	145	-39	69	**467**	**324**
70+	25	13	20	30	12	**100**	**75**
Labour Force - No Commuting	**1,368**	**565**	**277**	**-426**	**-984**	**800**	**-568**
Labour Force - Out Commuting	689	285	140	-215	-496	403	-286
Labour Force - Net Commuting	1,088	449	220	-339	-782	636	-452

Table 13 – Land required using Unconstrained Population Projection (Hectares)

	2001-2026	2006-2026
Base Projection	1.9	-5.2
With Out Commuting	1	-2.6
With Net Commuting	1.5	-4.1

Table 14– Labour Force Projection using RSS Phase 2 Preferred Housing Option for Cannock Chase (5,800 houses NET between 2006-2026) – (numbers of people)

Age group	2001-06	2006-11	2011-16	2016-21	2021-26	2001-26	2006-26
16 non-students	-2	-25	-11	-7	-1	**-46**	**-44**
16 students	5	-49	-15	-10	5	**-64**	**-69**
17 non-students	-13	-34	-46	-37	6	**-124**	**-111**
17 students	-3	-20	-33	-25	10	**-71**	**-68**
18 non-students	107	-49	-38	-42	27	**5**	**-102**
18 students	56	-7	-2	-17	15	**45**	**-11**
19 non-students	134	8	3	-145	70	**70**	**-64**
19 students	25	10	8	-24	14	**33**	**8**
20-24 non-students	555	76	-234	-134	-144	**119**	**-436**
20-24 students	37	20	-1	-1	-8	**47**	**10**
25-29	-845	280	218	-55	116	**-286**	**559**
30-34	-1,184	-941	349	348	144	**-1,284**	**-100**
35-39	119	-1,294	-895	416	463	**-1,191**	**-1,310**
40-44	1,065	-122	-1,250	-829	478	**-658**	**-1,723**
45-49	473	1,007	-89	-1,166	-782	**-557**	**-1,030**
50-54	-448	599	1,076	-7	-1,091	**129**	**577**
55-59	668	-324	583	948	17	**1,892**	**1,224**
60-64	477	389	-67	376	580	**1,755**	**1,278**
65-69	135	152	131	-51	95	**462**	**327**
70+	24	10	21	29	12	**96**	**72**
Labour Force - No Commuting	1385	-314	-292	-433	26	372	-1,013
Labour Force - Out Commuting	698	-158	-147	-218	13	187	-511
Labour Force - Net Commuting	1101	-250	-232	-344	21	296	-805

Table 15 – Land required using RSS Preferred Housing Option for Cannock Chase (Hectares)

	2001-2026	2006-2026
Base Projection	4.2	-2.8
With Out Commuting	2.1	-1.4
With Net Commuting	3.3	-2.3

Table 16 – Using Cannock Chase District Council regeneration policy aim of increasing the district "job density" from 0.63 to 0.75

Based on Unconstrained Population Projection	**33.1 HA**
Based on Population Projection Constrained to the Preferred Option of RSS phase 2	**30.7 HA**

The regeneration policy aim of Cannock Chase District Council is to improve the sustainability of the district by increasing the current "Job Density Ratio" of 0.63 up to a desired level of 0.75. The jobs density ratio is defined as:

total employee jobs in district / all people of working age in district (16-59/64) F/M

In 2006 there were 37,000 employee jobs and a working age population of 59,200 in the district giving the ratio of 0.63.

The methodology employed has been to calculate the additional employee jobs required from those at the base year (2006) to provide a jobs density of 0.75 at 2026. The working age population denominators for the calculation are taken from the Population Projections which were constructed to inform the labour force projections used previously.

The additional jobs required to meet the 0.75 job density figure are then multiplied by the projected proportion of employment by industry from the 2006 Cambridge Econometrics Employment Projections to provide a potential number of employee jobs per sector of interest. The number of employee jobs are then multiplied by floorspace ratios and plot ratios as relevant to create an overall land requirement.

The totality of these employee jobs will be expected to be accommodated on B Class land, rather than an assumption being made of the proportion of land which may be expected to be accommodated on B Class land.

A policy directed towards increasing the employment density of Cannock Chase district could have implications for the land supply of the district with potentially higher amounts of development on Greenfield land. Further development on brown field land may be limited by the availability of new sites coming forward through the recycling of land from other employment land already in the district.

5 - CONCLUSIONS

The three different approaches of future employment land estimation in Cannock Chase District have yielded very different results of the potential levels of employment land required over the next 20 years. The resultant land requirements from the three approaches should be treated as an indicative level of land, rather than a prescriptive level of land to be identified.

These conclusions should be read alongside the examination of further issues section of the summary report.

Past Trends Approach

The continuation of past development trends approach yields by some margin the greatest potential levels of employment land requirements between 2006–2026.

Using average development levels taken from the last 10 years, around 108 hectares of employment land would be required, while taking into account development levels from the past 5 years, around 121 hectares of employment land would be required.

These land requirements are likely to be skewed towards the upper end of the “expected” levels of land requirement in Cannock Chase District over the next 20 year period, and would be the result of rapid growth levels in the area’s economy.

Past trends development in Cannock Chase District has been relatively buoyant over recent years. Employment forecasts suggest that such buoyant levels of local development, particularly in the B8 sector will lessen into the medium and longer term future. This may mean that a more accurate reflection of employment land requirements could fall somewhere below these figures.

The past trends approach should be seen as a suggestion of potential land requirements under some of the higher levels of employment growth, particularly where growth may be concentrated in the B8 distribution and warehousing sector

Labour Demand Approach

The labour demand approach uses forecasted employment change to identify potential future land requirements in the district.

The labour demand approach identifies increases in overall employment between 2001 and 2006, which are mainly due to a significant increase in employment in the finance and business sector. For the period of the employment land study 2006 – 2026, employment is forecasted to increase, with by far the greatest increases being expected in the financial and business sector, followed by less significant increases in health and education sector, construction and distribution sectors.

Under the different scenarios and assumptions tested in the labour demand approach, the preferred approach yields an employment land requirement of 28.4 hectares in the period 2006 to 2026. An “upper end” approach which would see all B class employment provided on new B class land, as well as an element of relocation for manufacturing, suggests an employment land requirement of around 45 hectares.

Labour demand approaches are useful for identifying the land requirements of expected, trend based employment change.

The labour demand approach should be seen as a prediction of land requirements as a "direction of travel" under expected economic growth conditions. It does not offer a prediction of the land requirements that may be driven through planning policy led growth. In addition, a step change to the nature of the local economy (for example the introduction of a major new firm intensifying local supply chains, or a major firm closing down can have significant impacts on the local economy, and subsequently potential employment land levels.

Labour Supply Approach

The labour supply approach is based primarily around labour force projections which suggest the amount of labour which will be available to serve the economy over future years.

A key advantage of the labour supply approach is that it allows policy led inputs to be incorporated into the land requirement calculation. For the purposes of calculations in this project the most realistic growth scenario is likely to be that under the house building options for the preferred option of the phase 2 revision of the West Midlands Regional Spatial Strategy. Because the labour force change generated out of the preferred house building shows a negative net change in labour force between 2006 and 2026, the subsequent land requirements as a result of this are also negative. To yield a positive land requirement from the labour force approach would require a house building option over and above that set out in the RSS phase 2 preferred option.

For the purposes of this project the labour supply approach was calculated solely on the basis of the labour force projection, with a factor for commuting. No further assumptions, such as those made for the relocation of manufacturing in the labour demand approach have been applied to the labour supply approach. Economic restructuring in Cannock Chase district over recent years may mean that the economic activity rates used to create the labour force projection may in reality, now be significantly higher than those which have been used in this project. This is an especially pertinent consideration among the 45+ element of the local labour force. If the Government asks Cannock Chase district council to accept a greater level of housing allocation it is possible that the labour force of the district will change positively, and thus generate a positive land requirement under the labour supply projection method.

The labour supply approach provides a realistic approach of identifying land requirements through their relation to planning policy inputs. However, caution should be applied to the results which suggest a negative land requirement as a consequence of the negative change in labour force generated by both the unconstrained labour force projection and preferred option projection.

Using Cannock Chase Council Regeneration Policy Aim of Increased Job Density

The logic behind the policy aim of increasing the job density in Cannock Chase district is that a greater provision of employee jobs in the area will improve the sustainability and overall prosperity of the district. In order to provide for the additional employee jobs needed to satisfy the jobs density ratio at 2026 based on the population which would result from the preferred option and the unconstrained population projections, land requirements of 31 to 33 hectares would be required. This however excludes any replacement land requirements as part of the process to get up to this number of jobs. In theory, the increased job density policy should also help to promote the sustainability of the district as there should be less out commuting from the district to surrounding areas.

The figure of 31 to 33 hectares should therefore be a minimum figure in relation to the amounts of land required to meet the regeneration policy aim of a job density of 0.75.

SUMMARY

Over the period 2006 to 2026, new employment land requirements in Cannock Chase district are likely to be in the region of between 28 hectares as a minimum, and as a maximum, around 121 hectares.

It is very difficult to prescribe with any confidence a suggested amount of land for the employment development needs of the area but a figure in the middle of this range, of around 80 hectares, would seem to be appropriate.

The further issues section of the accompanying summary report will identify other factors which are not necessarily borne out by hard quantitative evidence but could pose to be significant contributory factors in an employment land study, and an employment land identification exercise.

Report Author – Jonathan Vining
Date – 28th January 2008

Tel – 01785 277353

E mail – jonathan.vining@staffordshire.gov.uk