

TAMWORTH BOROUGH COUNCIL

EMPLOYMENT LAND STUDY

FUTURE LAND ESTIMATION

SUMMARY REPORT

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1.0 Background to project

- 1.1 As an integral part of the evidence gathering exercise for the Local Development Framework preparation process in Tamworth Borough, a comprehensive review of employment land in the Borough is being undertaken.
- 1.2 The Employment Land Review is being undertaken following the broad guidelines which are set out in the document "Employment Land Reviews: Guidance Note published by the Office of the Deputy Prime Minister in December 2004, and consists of three main phases:
 - i. An assessment of the existing employment land situation
 - ii. An examination of how much employment land may be required for the future
 - iii. The identification of a portfolio of sites for the future
- 1.3 In particular, the Development Services Directorate Research Unit has been commissioned to provide input into phase 2 of this work for Tamworth Borough. The input takes the form of technical advice and support to help assist in the identification of future employment land requirements in Tamworth Borough. The findings of this work are summarised in this report. An accompanying technical appendix highlights the detailed findings, and outlines the methodologies employed in assessing employment land requirements.
- 1.4 In order to estimate the potential levels of employment land that may be required, 3 approaches to land estimation have been employed, in line with the approaches set out in the ODPM's Employment Land Guidance note (a further explanation of each of the methods will be presented at the relevant parts of this paper). The 3 methods comprise:
 - i. A "Continuation of past development trends" approach, which analyses employment land completions over recent years to establish average annual building rates for the periods of the past 5 years and past 10 years. Average building rates are then factored forwards to provide estimated land requirements.
 - ii. A "Labour Demand" approach, which focuses on the amount of employment land required, as generated by the demand of forecasted employment change from published employment forecasts.
 - iii. A "Labour Supply" approach, which focuses on the amounts of employment land required, generated by likely changes to the labour force in the district. The labour supply approach allows policy assumptions to be tested, such as the preferred option for

housing development outlined in the revision of the West Midlands Regional Spatial Strategy for Tamworth Borough.

- 1.5 The three approaches to estimation of future employment land requirements should be considered collectively and on the basis of their own strengths and weaknesses. A further examination of each of the approaches is outlined later in this report.

2.0 The Tamworth Borough Context

- 2.1 Tamworth is an ancient borough located in the south-eastern corner of Staffordshire, on the edge of the Birmingham Green Belt. Tamworth is the smallest district council area in the County covering an area of just 31sq.km. and a population of 75,400 people¹. The Borough is unique within the Staffordshire context with the physical extent of the urban area of the town of Tamworth being the same as the physical extent of the Borough. Geographically Tamworth is related to the neighbouring districts of North Warwickshire and Lichfield, and socially has many links with Birmingham as a consequence of significant levels of housing development in the 1960s and 1970s to accommodate overspill from Birmingham. Tamworth's urban area is continuous with Fazeley and Mile Oak, both of which are situated outside the Borough in Lichfield District. As Tamworth is almost exclusively urban with only a tight circle of countryside around its edges, there are limited development opportunities within the Borough.
- 2.2 Tamworth is traditionally a working class town with its roots in manufacturing. However, more recently the town has experienced decline in manufacturing jobs which has resulted in a need for the Borough to restructure and diversify its economy. While manufacturing and its associated employment remains important to the economic wellbeing of the Borough many of the new jobs created are in the service sectors.
- 2.3 Several major communications run through and adjacent to the Borough and these have an important function in shaping the local area. The Borough of Tamworth is strategically located at the heart of the Motorway network with links to both the M42 and M6 Toll and the A5 runs through the Borough. These provide a quick and convenient connection to the wider Motorway network including the M6, M1 and M69 and onto the M40 and M5 ensuring Tamworth is within easy reach of all parts of the country.
- 2.4 Tamworth is also well served by the rail network with the West Coast main line linking Tamworth to London and the North West and a Cross Country Region Link connecting the town with Birmingham and the East Midlands. London is within 1 hour 20 minutes travel time of Tamworth with direct trains to the capital running every 2 hours and an hourly service with a change of trains at Nuneaton. Birmingham is also within easy reach with up to four trains an hour into the City at peak times with journey times of less than half an hour. There is also a half hourly service from Tamworth to Nottingham with a journey time of around 1 hour.
- 2.5 The employment land study will help to identify a range of the locally important factors in Tamworth Borough which may not be borne out by

¹ 2006 Registrar General's Mid Year Population Estimate

hard quantitative evidence, but are significant in their influence on the local economy, and in particular, how they may relate to the future employment land requirements of the Borough.

- 2.6 Future employment development in Tamworth Borough is likely to be partially shaped by the revision of the West Midlands Regional Spatial Strategy. Although Tamworth has not been identified as a focus for significant growth, the impact of the proposed housing distribution in the Borough and in neighbouring local authority areas in the Phase 2 revision of the West Midlands Regional Spatial Strategy will have an impact upon the Borough. In tandem with the housing options set out in the Preferred Option, Tamworth Borough is also expected to accommodate 30,000sq.m. of new office development in the period 2006 to 2026, and also provide a 5 year reservoir of employment land of 14 hectares, and an indicative longer term requirement of 42 hectares.
- 2.7 The identification of a balanced supply of employment land, spread across a portfolio of good quality sites will be a key element to the sustainable development of the area for future years, in particular through its ability to support and drive forward any future growth proposals in the Borough.

3.0 The Current Economic Base of Tamworth Borough

- 3.1 As at 2006², Tamworth Borough was home to some 31,500 employee jobs. This means that it has the third lowest number of employee jobs of the eight district councils in Staffordshire (after Staffordshire Moorlands and South Staffordshire). Table 1 below highlights the levels of employment by broad industrial group in the Borough, and how this compares to the situation in Staffordshire County, the West Midlands Region and nationally. The employment situation in Tamworth Borough remains quite robust with a modest increase of around 800 employee jobs in the District between 2001 and 2006, which equates to a 2.6% increase during that period.
- 3.2 Proportionally Tamworth Borough has a smaller concentration of employee jobs in the manufacturing sector when compared with averages for Staffordshire and the West Midlands Region. The 4,500 jobs in manufacturing in the Borough represents 14.3% of all jobs in the Borough whereas it accounts for only 15.6% and 14.7% in Staffordshire and the West Midlands Region respectively. The proportion of manufacturing jobs in Tamworth is above the average for Great Britain where only 10.9% of employee jobs are in this sector. Recently there has been a 34% decline in the number of employee jobs in the manufacturing sector in Tamworth between 2001 and 2006 with a reduction of 2,300 jobs in this sector. Other employment sectors experiencing a decline between 2001 and 2006 were the distribution, hotels and restaurant sector (-200 jobs) and public administration, education and health sector (-200 jobs). This equates to a 2.4% and 4% decline respectively in the number of employee jobs in these sectors.
- 3.3 The banking, finance and insurance sector has the highest number of employee jobs in the Borough with 8,200 jobs. This represents 25.9% of the total jobs in the District and is significantly higher than the average for Staffordshire, West Midlands Region and Great Britain. In addition, the distribution, hotels and restaurant sector has nearly as many employee jobs as the banking, finance and insurance sector with 8,100 jobs which equates to 25.6% and is again above the average for Staffordshire, West Midlands Region and Great Britain.
- 3.4 Between 2001 and 2006 the banking, finance and insurance sector has seen a significant increase in the number of employee jobs in Tamworth of 2,200 jobs which equates to a 34% increase during this period. Other sectors that have seen a significant increase in jobs since 2001 include the construction sector with a 57% increase in jobs and transport and communications sector with a 19% increase.
- 3.5 The banking, finance and insurance sector, which is seen as a key driver for future growth of the service sector in local economies

² Source: Annual Business Inquiry 2006 (provisional). NOMIS

employs proportionally more people in Tamworth Borough compared with Staffordshire County, the West Midlands Region and Great Britain. Indicators suggest that there is the potential for additional growth in these sectors. However, in order to maximise the benefits of growth in these sectors there will be a requirement for significant improvement among the skills base of the local working age population, which currently lags behind national averages particularly at level 4 and above. In order to develop its economy further into the future, a growth in the financial and business sector will be important.

- 3.6 In contrast the public administration, education and health employment sector is significantly under represented in Tamworth Borough compared with Staffordshire, the West Midlands Region and Great Britain. In total there are only 4,600 employee jobs in this sector in Tamworth, which represents just 14.5% of all jobs in the Borough, whereas in Staffordshire, the West Midlands Region and Great Britain the proportion of jobs in this sector is in excess of 25%.
- 3.7 A valid employment land study needs to take account of the needs of existing businesses in the local area, as well as the predicted future requirements which may be generated as a result of increased employment, or labour force in the area. The structure of the local economy and its recent fluctuations is therefore a critical consideration for a comprehensive Employment Land Review.

Table 1 – Economic Structure (Employment by Broad Industry Group 2006)

	Agriculture and fishing	Energy and water	Manufacturing	Construction	Distribution, Hotels and restaurants	Transport and communications	Banking, finance and insurance etc	Public administration, education and health	Other services	Total
Tamworth Borough (no.)	0	0	4,500	2,200	8,100	2,500	8,200	4,600	1,400	31,500
Tamworth Borough(%)	0	0	14.3%	7.1%	25.6%	8.0%	25.9%	14.5%	4.6%	100%
Staffordshire County (%)	1.1%	0.3%	15.6%	5.4%	24.7%	7.0%	14.9%	25.9%	5.0%	100%
West Midlands Region (%)	0.9%	0.5%	14.7%	5.0%	23.7%	5.6%	17.8%	26.6%	5.1%	100%
Great Britain (%)	0.9%	0.6%	10.9%	4.8%	23.5%	5.9%	21.2%	26.9%	5.3%	100%

Source: Annual Business Inquiry 2006 (provisional), Crown Copyright

4.0 The Future of the Economy

- 4.1 Predictions of how the economy is likely to change over the medium and longer term form an important part of the basis of identifying the suitability of the existing employment land stock, and for the identification of new employment land into the future.
- 4.2 Forecasts of the extent to which a local economy is expected to change over time can never be exact, and should be considered as more of a likely “direction of travel” but an appreciation of the way in which patterns of employment may change offers a key input to an employment land study, particularly when assessing the level of labour demand. A significant caveat of employment forecasts is that they are based on trends of historical economic performance and predict how these trends are likely to carry on into the future. The forecasts used in this piece of work offer a politically neutral indication of how the economy might change into the future, and don’t include any policy based growth assumptions (for example significant housing development under Regional Spatial Strategy or the promotion of employment growth in a targeted sector).
- 4.3 For the purposes of this study, Staffordshire County Council has sourced “off the peg” employment forecast projections based on the “Local Economic Forecasting Model” as produced by the recognised economic forecasting company “Cambridge Econometrics”. As highlighted above, these forecasts employ a trend based analysis, informed by locally important factors, taking into account historical trend data, and predicting the trend for future economic and employment growth.
- 4.4 “Off the peg” economic forecasting models do not take into account local policy implications which can have significant influence on an area. In the case of Tamworth Borough this could be related to the housing growth proposals set out as part of the revision of the West Midlands Regional Spatial Strategy.
- 4.5 Staffordshire County Council intends to develop a capacity for undertaking more sophisticated analysis of employment forecasts locally. For the purposes of future employment land reviews, it may be possible to develop alternative employment and economic forecasting approaches, inputting policy assumptions to the forecasting model where and when relevant.
- 4.6 The forecasted employment projections in the Tamworth Borough area are presented below in table 2.
- 4.7 The employment forecasts are based on an input data year of 2004. Any data beyond this date should therefore be treated as a forecast of the likely direction of travel of the sector, with appropriate caution being applied.

- 4.8 Table 2 highlights employment in Tamworth Borough for each 5 year period between 2001 and 2026. The projection identifies a quite significant increase in the overall levels of employment between 2001 and 2006, some 2,928 jobs over the 5 year period. A significant loss of manufacturing employment of 2,825 jobs between 2001 and 2006 is mainly offset by projected additional jobs in the retailing, transport, financial and business, and other service activities sectors during this period. For the purposes of this report employment change between 2006 and 2026 will be considered in the greatest levels of detail, which is the period over which the Tamworth Borough Local Development Framework will be based. Over the 2006 to 2026 period employment in Tamworth Borough is predicted to grow by 2,520, equating to a positive increase of 6.9%.
- 4.9 In 2006, the largest industry in Tamworth Borough is forecast to be the financial and business sector with 7,710 employees, followed by the health and education sector, with 4,877 employees; retailing with 4,748 employees; and manufacturing with 4,599 employees. There is a projected 39.3% increase in the number of employees in the financial and business sector by 2026, an increase of 3,028 jobs on 2006. This is by far the most rapid growth of any of the employment sectors in Tamworth. More modest growth is projected in the construction sector and distribution NES sectors with increases of 15.9% and 15.8% respectively between 2006 and 2026.
- 4.10 The financial and business sector is already the most important employment sector in Tamworth with 7,710 jobs in 2006, which equates to 21% of all jobs in the Borough. However, by 2026 this sector is projected to become more significant with 10,739 jobs and accounting for 27% of all jobs in the Borough. This is a common pattern throughout the Staffordshire area, and nationally, with the financial and business sector expected to become one of the biggest areas of growth. The dominance of the financial and business sector may be an issue for the local economy in the future, as over reliance on one employment sector could make the economy vulnerable should there be a downturn in the fortunes of this sector, as has recently been highlighted with the plight of the Northern Rock and the global 'credit crunch'.
- 4.11 The decline of the manufacturing sector in the Borough is highlighted by the employment forecast. A decrease in the manufacturing sector of some 2,825 jobs is forecast between 2001 and 2006. This pattern of decline is predicted to continue up to 2026 at which point the manufacturing sector is forecast to employ around 3,501 people. The overall predicted decline between 2006 and 2026 is some 1,098 jobs or a 23.9% decline in employment in the sector.
- 4.12 Employment forecasts do suggest that there will also be increases in the numbers of jobs between 2006 and 2026 in the construction,

retailing, distribution, and health and education sectors. In contrast, other than manufacturing, a decline in jobs in the Transport and Other Service sectors is also projected for Tamworth Borough between 2006 and 2026.

- 4.13 The findings of these employment forecasts are the key component used to inform the labour demand approach to establishing a future employment land requirement, which will be examined in further detail in section 5.

Table 2 – Forecasted Employment by Industry in Tamworth Borough – Local Economic Forecasting Model 2001-2026

	2001	2006	2011	2016	2021	2026	Change 2001-26	% Change 2001-26	Change 2006-26	% Change 2006-26
Primary and Utility	6	1	1	1	1	1	-5	-82.5%	0	0.0%
Manufacturing	7,424	4,599	4,344	4,048	3,769	3,501	-3,922	-52.8%	-1,098	-23.9%
Construction	1,974	3,052	3,134	3,203	3,355	3,538	1,564	79.2%	486	15.9%
Retailing	3,894	4,748	4,931	5,039	5,194	5,363	1,469	37.7%	615	12.9%
Distribution NES	2,914	3,192	3,411	3,497	3,596	3,696	782	26.8%	504	15.8%
Hotels and Catering	2,084	2,258	2,282	2,308	2,318	2,323	240	11.5%	65	2.9%
Transport	2,236	3,300	2,909	2,544	2,212	1,927	-309	-13.8%	-1,372	-41.6%
Communications	272	235	227	218	215	213	-59	-21.7%	-21	-9.1%
Financial and Business	6,669	7,710	8,372	9,060	9,867	10,739	4,070	61.0%	3,028	39.3%
Public Administration	587	417	423	428	432	436	-150	-25.6%	20	4.7%
Health and Education	4,291	4,877	5,154	5,288	5,411	5,527	1,236	28.8%	650	13.3%
Other Service Activities	1,369	2,257	2,197	2,095	1,997	1,902	533	38.9%	-356	-15.8%
TOTAL	33,717	36,645	37,386	37,728	38,367	39,165	5,448	16.2%	2,520	6.9%

Source: Cambridge Econometrics, Local Economic Forecasting Model. Data has been extrapolated by the Research Unit to 2026. These forecasts are consistent with Regional Economic Prospects. July 2006.

5.0 Identifying a future employment land supply

- 5.1 This report follows the advice set out in the document – “Employment Land Reviews: Guidance Note”, published by the Office of the Deputy Prime Minister in December 2004.
- 5.2 In this report, three different approaches have been used for the calculation of a potential future employment land supply in Tamworth Borough. The three methods are:
- i. A continuation of past development trends approach.
 - ii. A labour demand led approach – based on likely employment land requirements as a factor of forecasted employment change.
 - iii. A labour supply approach – based on the likely employment land requirements generated by projected labour force change.
- 5.3 The three approaches differ quite significantly in both their methodologies and the results that they yield. It is important to recognise that no single approach should be classed as preferable to another, rather the three approaches should be considered together. Likewise, the suggested land requirement results generated from the three approaches should be seen only as a starting point for the identification of employment land requirements rather than a definitive statement of future needs.
- 5.4 An indication of the potential land requirements generated under each of the land forecasting approaches is presented below, alongside a brief commentary on the implications of each approach. For further more detailed explanation of the methodology used in each of these approaches, and the technical data which sits behind them, please see the accompanying technical appendix document.

Continuation of past trends approach

- 5.5 The continuation of past trends approach is a relatively straight forward land estimation exercise which considers the levels of B Class employment land development in the Borough over recent years to create an average building rate. This building rate is then factored forwards over the period of interest to calculate a potential land requirement.
- 5.6 For the purposes of this project, past development rates have been calculated for the past 5 years (2002/03 to 2006/07) and the past 10 years (1997/98 to 2006/07). Table 3 overleaf highlights total employment land completions in Tamworth Borough over the past 10 years.

5.7 The average building rate over the past 5 years in Tamworth Borough was 1.82 hectares per annum, while the average build rate over the past 10 years was 2.97 hectares per annum. These average build rates are shown below as part of table 4. The high levels of employment land development in certain years (such as 1998/99 and 2001/02) may be skewed in part by the significant levels of distribution and warehousing development which have been coming forward in Tamworth Borough

Table 3 – Employment Land Completions in Tamworth Borough 1996/97 to 2005/06 (Hectares)

	1997 /1998	1998 /1999	1999 /2000	2000 /2001	2001 /2002	2002 /2003	2003 /2004	2004 /2005	2005 /2006	2006 /2007
Total Employment Land Completions	2.15	7.14	4.06	0.55	6.68	0.14	1.03	3.87	3.45	0.59

Source: Staffordshire Employment Land Survey 2007

Table 4 – Total and Average Employment Land Building Rates in Tamworth Borough for past 5 and 10 years (Hectares)

	2002 - 2007	Average Build Rate (5 years)	1997 - 2007	Average Build Rate (10 years)
Total Land	9.08	1.82	29.66	2.97

Source: Staffordshire Employment Land Survey 2007

5.8 The average build rates are then factored forwards over the period of interest (20 years) to provide an indication of the future employment land requirements for the Borough. Using the average build rates of the past 5 years a total of 36 hectares of land would be required, while the development trends of the past 10 years would generate a new employment land requirement of 59 hectares. These requirements are highlighted below in Table 5.

Table 5 – Average Employment Land Building Rates in Tamworth Borough for past 5 and 10 years, and Future Employment Land Requirements (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)
Total Land	1.82	36.32	2.97	59.32

Source: Staffordshire Employment Land Survey 2007

- 5.9 The land requirements provided by this approach are likely to be towards the “upper end” of the expected employment land requirements in Tamworth Borough between 2006 and 2026. This approach uses recent development trends to calculate requirements for the future. In Tamworth Borough, development trends may have been skewed by the high levels of B8 type distribution and warehousing developments that have been completed in some of the recent years. The extent to which these land requirements will be reflective of the situation of land development in Tamworth Borough will be somewhat shaped by the types of development that the area is likely to accommodate, and willing to attract into the future. The most land hungry distribution and warehousing type developments may become less important to the local economy as a whole in the future, however, consideration must be given to the land required to accommodate any future growth needs for B8 type distribution and warehousing developments.
- 5.10 As with all approaches to land estimation, an element of caution should be applied to these findings. However, they do offer a useful at a glance approach estimate to the levels of employment land which may be required if Tamworth Borough was to experience sustained levels of growth similar to those which have taken place over recent years.

Labour Demand led approach

- 5.11 The labour demand led approach uses forecasted employment change to identify potential future land requirements in the Borough over the next 20 years. Forecasted employment change for each of the 5 year periods between 2006 and 2026 is taken into account. Employment change is then attributed to employment densities for different sectors to create an employment floor space requirement. This floor space requirement is then multiplied by a plot ratio factor to give an allocation of total employment land to accommodate the required level of floor space, and an overall employment land requirement is the final result.
- 5.12 The labour demand approach is useful, in that it takes account of the likely changes to employment in the area into the future. The approach uses the employment forecasts from Cambridge Econometrics as highlighted in tables 6 and 7 below as its starting point.

Table 6 – Employment Forecasts 2000-26 (absolute jobs)

	2006	2011	2016	2021	2026
1 Primary and Utility	1	1	1	1	1
2 Manufacturing	4,599	4,344	4,048	3,769	3,501
3 Construction	3,052	3,134	3,203	3,355	3,538
4 Retailing	4,748	4,931	5,039	5,194	5,363
5 Distribution NES	3,192	3,411	3,497	3,596	3,696
6 Hotels and Catering	2,258	2,282	2,308	2,318	2,323
7 Transport	3,300	2,909	2,544	2,212	1,927
8 Communications	235	227	218	215	213
9 Financial and Business	7,710	8,372	9,060	9,867	10,739
10 Public Administration	417	423	428	432	436
11 Health and Education	4,877	5,154	5,288	5,411	5,527
12 Waste Treatment and Other Service Activities	2,257	2,197	2,095	1,997	1,902
Total	36,645	37,386	37,728	38,367	39,165

Source: Cambridge Econometrics.

Table 7 – Employment Forecasts 2006-26 (change in absolute jobs)

	2006-11 change	2011-16 change	2016-21 change	2021-26 change	2006-26 change
1 Primary and Utility	0	0	0	0	0
2 Manufacturing	-255	-296	-279	-267	-1,098
3 Construction	83	69	153	182	486
4 Retailing	183	107	156	168	615
5 Distribution NES	220	85	100	100	504
6 Hotels and Catering	24	26	10	6	65
7 Transport	-391	-365	-332	-285	-1,372
8 Communications	-8	-8	-3	-2	-21
9 Financial and Business	662	688	807	872	3,028
10 Public Administration	6	5	4	5	20
11 Health and Education	277	134	124	115	650
12 Waste Treatment and Other Service Activities	-60	-102	-99	-95	-356
Total	741	342	640	798	2,520

Source: Cambridge Econometrics

- 5.13 The employment change highlighted in Table 7 forms the basis of employment land demand in each of the 5 year periods. Sectors which yield a forecasted negative employment change will not generally form a need for additional employment land so are discounted from further calculation. An allowance is made however for relocations from the important manufacturing sector.
- 5.14 An assumption is then made as to the expected proportions of forecasted employment change that will require the development of new B class industrial land. This assumption has been made using data from Staffordshire County Council's Research Unit, Industrial Estates Survey. The detailed background to these assumptions is highlighted in step 3 (page 8) of the accompanying technical appendix report.

5.15 To develop a floor space requirement, resulting from expected employment change, employment densities are applied as set out in table 8 below. Floor space is then factored by “plot ratios” (which are also highlighted in table 8) to create an overall employment land requirement. The sectors highlighted in bold in Table 8 are those which are likely to require development of B class employment land.

Table 8 – Sector to Use Class (Best Fit), Floor Space 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: 1) “Densities – A Simple Guide” – English Partnerships. 2001

2) Plot Ratios – Atkins Staffordshire Moorlands Employment Land Study August 2005.

5.16 Using a preferred methodology, which takes into account assumptions on the amounts of new employment taking B class employment land, and including a factor for relocations from manufacturing, a total expected land requirement between 2006 and 2026 would be in the region of 22 hectares.

Table 9 – Indicative land requirements from labour demand approach (hectares)

	2006-11	2011-16	2016-21	2021-26	2006-26
Total (HA)	7.32	4.86	5.00	4.86	22.04

5.17 For further information on the methodologies and assumptions used in the development of the labour demand land requirement please see page 11 of the accompanying technical appendix document. The technical appendix also includes details of the potential land requirements generated by alternative development scenarios to this preferred method, including a scenario where all positive employment change would be catered for by B class land. This scenario which could be seen as an “upper end” estimate using the labour demand approach generated a requirement of around 36 hectares of employment land over the period 2006 to 2026.

- 5.18 The labour demand led approach gives a good indication of the likely levels of land required under a trend based growth in the local economy. It is by nature a rather conservative approach as it does not take into account the influences on the local economy of planning policy led growth scenarios, and takes into account the economic trends of the past 25 years to predict what may happen into the future.
- 5.19 As with any estimation of employment land of this kind, assumptions are required in terms of employment densities to use, plot ratio factors and in the case of this piece of work, the expected levels of employment growth to be accommodated on B Class employment land. These all need to be taken into account when attaching any weight to the figures discussed above.

Labour Supply led approach

- 5.20 The labour supply approach to land estimation uses forecasted changes in the local labour force (labour supply), and then goes on to suggest the potential levels of employment land that may be required to service such levels of labour force growth.
- 5.21 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 Tamworth Borough as the revision of the West Midlands Regional Spatial Strategy which is currently at the Preferred Option Stage has proposed a significant amount of housing throughout the plan period, up to 2026.
- 5.22 In the case of Tamworth Borough three potential scenarios have been tested which might in turn influence local labour force growth.
- i. RSS Preferred Option – 2,900 dwellings (net) to be built in the period 2006 to 2026.
 - ii. 6,000 dwellings (net) to be built in the period 2006 to 2026.
 - iii. 9,000 dwellings (net) to be built in the period 2006 to 2026.
- * *Note – Given the limited opportunity for significant levels of housing development within Tamworth an assumption has been made that a proportion of the housing included in Scenario 2 and 3 would have to be accommodated outside of Tamworth but adjacent to the Borough boundary. Therefore, any demand for employment land arising from development of housing adjacent to the Borough boundary would need to be accommodated within the Borough.*

- 5.23 Population projections were created for each of these development scenarios using the “Popgroup” modelling software, which were then fed into a labour force projection model (Labgroup). For further information on this modelling work please see the accompanying technical appendix (page 12 onwards of the technical appendix).
- 5.24 A factor of commuting has been added to the labour force projection to establish a more realistic indication of the likely labour force patterns in the district. The favoured approach was to use a “net commuting” factor which takes into account the difference between those coming in to the district to work and those travelling out of Tamworth Borough for work – this equates to a net out commuting factor of -21.6%. Further details on the commuting factors used in the calculations can be found in the accompanying technical appendix (pages 12 and 13).
- 5.25 In order to quantify an appropriate employment density to translate to land requirements, an assumption is made as to which sectors people in the increased labour force will be employed. For consistency the proportion of employment identified by Cambridge Econometric employment forecasts for each of the 5 years between 2006 and 2026 have been applied to the labour force projection. This then establishes the potential labour force increase for each sector for each of these 5 years. The proportions are set out in table 10 below.

Table 10 – Forecasted proportion of overall employment (%) between 2006-2026

EMPLOYMENT PROPORTIONS	2006	2011	2016	2021	2026
1 Primary and Utility	0.0%	0.0%	0.0%	0.0%	0.0%
2 Manufacturing	12.6%	11.6%	10.7%	9.8%	8.9%
3 Construction	8.3%	8.4%	8.5%	8.7%	9.0%
4 Retailing	13.0%	13.2%	13.4%	13.5%	13.7%
5 Distribution NES	8.7%	9.1%	9.3%	9.4%	9.4%
6 Hotels and Catering	6.2%	6.1%	6.1%	6.0%	5.9%
7 Transport	9.0%	7.8%	6.7%	5.8%	4.9%
8 Communications	0.6%	0.6%	0.6%	0.6%	0.5%
9 Financial and Business	21.0%	22.4%	24.0%	25.7%	27.4%
10 Public Administration	1.1%	1.1%	1.1%	1.1%	1.1%
11 Health and Education	13.3%	13.8%	14.0%	14.1%	14.1%
12 Waste Treatment and Other Service Activities	6.2%	5.9%	5.6%	5.2%	4.9%
Total	100%	100%	100%	100%	100%

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*

5.26 Using the labour supply methodology, indicative land requirements were calculated for the three different growth scenarios highlighted in paragraph 5.22. These employment land requirements under the net commuting assumption as set out in table 11 below. Using the labour supply methodology it is only the scenario with the highest rate of house building that generates a positive requirement for employment land.

Table 11 – Labour Supply led employment land requirements 2006-26 (Hectares)

Scenario	Land Required (Hectares)
RSS Preferred Option – 2,900 dwellings (net) to be built in the period 2006 to 2026	-26.7
6,000 dwellings (net) to be built in the period 2006 to 2026	-12.3
9,000 dwellings (net) to be built in the period 2006 to 2026	1.9

5.27 One of the key benefits of the labour supply approach is its ability to take into account policy led growth assumptions rather than the trend based analysis of the other two approaches.

Conclusions – Identifying future land requirements

5.28 The three approaches to quantifying new employment land requirements used in this study have yielded significantly different results. The continuation of past trends approach, which looks to roll forward historical development patterns to establish a predicted land requirement yields a much greater indicative land requirement than the 2 approaches which seek to predict levels of land needed to serve predicted future growth in employment and the labour force.

5.29 It is not the purpose of this report to provide a definitive employment land requirement in Tamworth Borough over the next 20 years. Rather the indicative figures should be seen as a starting point to stimulate the further investigation of both the suitability and availability of the existing stock of employment land in the district, and how appropriate this will be for the future development vision of the area.

5.30 In the simplest terms, if Tamworth Borough continues to develop its employment land along the lines of recent years, with a significant focus on development in the distribution and warehousing sector it is likely that new sites for employment land will need to be identified, above and beyond the portfolio of land currently identified (the total current land portfolio extends to 32 hectares at April 2007). The exact amount of land will be subject to a detailed market testing of the employment land portfolio to assess its fitness for purpose for the range of likely future uses.

- 5.31 At the other end of the development scale, if Tamworth Borough's future employment development pipeline follows the lines of those forecast by employment and labour force projections, the existing portfolio of land could quite possibly accommodate expected levels of growth. Once again, this would be subject to the detailed market testing of the portfolio of land to ensure sites are suitable both in type and quality and their location.
- 5.32 The key consideration for identification of employment land in Tamworth Borough will therefore be linked to the development vision of the Borough, and how this vision will relate to employment land requirements. A high growth vision would therefore intimate much higher employment land requirements and potentially the need to identify new land, whereas a conservative development approach may see employment growth accommodated by the existing supply, albeit subject to the testing of the suitability and quality of sites.
- 5.33 An investigation of some of the issues which are not necessarily highlighted by the quantitative land identification approach is considered in further detail in section 6 below.

6.0 Further issues to take into account

- 6.1 In addition to the issues drawn out in earlier sections of this report, there are a number of other important local factors which need to be taken into account as part of this employment land study. The three methods of land estimation provide a good starting point for the investigation of the needs of future employment land requirements. However, finer details of interest which are not necessarily picked up by examining quantitative evidence, form an important basis to the study. These issues will be considered in some part below, and while these issues are by no means exhaustive, they do offer an additional insight to the employment land situation in Tamworth Borough.

The Economic Structure of Tamworth Borough

- 6.2 Tamworth Borough's economic structure at 2006 was skewed towards the distribution, hotel and restaurant, and banking, finance and insurance sectors, with 25.6% and 25.9% of total employee jobs in the Borough respectively in each sector. The manufacturing sector has seen a decline in employee jobs of around 2,300 jobs over the past five years, while the banking, finance and insurance sector has shown significant growth and the distribution, hotel and restaurant sector has remained relatively stable. Only the construction sector has experienced greater proportional growth in the last five years with a 57% increase in jobs, which equates to an additional 800 jobs in this sector in the last five years. The decline in the number of employee jobs in the manufacturing sector has not been matched in other sectors, with the next biggest decrease recorded in the public administration, education and health sector (-200 jobs). Employment forecasts to 2026 suggest that there is likely to be further loss of employee jobs in the manufacturing sector (around 1,100 jobs in the period 2006-26 or -23.9%). The employment forecasts also show a significant decline in the number of jobs in the transport sector, between 2006 and 2026 with a reduction of 1,370 jobs, which equates to a 41.6% decline in jobs in this sector.
- 6.3 It is difficult for an employment land review to predict how, when and where the economy may haemorrhage such a large number of manufacturing jobs. Such losses do present opportunities to restructure the employment base and redevelop land away from manufacturing to other employment uses. However, such land may be more appropriate to be released for housing or other potential uses. The employment land review must consider the possible weakness in the manufacturing sector and the potential issues and opportunities that may present themselves in the future as a result of this vulnerability.
- 6.4 One of the most important implications for the identification for the location and type of future employment land supply in Tamworth Borough will be the extent to which new development will be concentrated among the different types of property which will be suited

to office, general industrial and distribution/warehousing style premises. The employment forecasts provided by Cambridge Econometrics suggest that the greatest levels of growth in employment in the area will be experienced in the financial and business sector and therefore appropriate accommodation should be provided to meet this potential increase in demand. The financial and business sector is forecast to grow by 39.3% (3,000 jobs) in the period between 2006 and 2026 in Tamworth Borough. Employee jobs within this sector are likely to have specific requirements, and are possibly more likely to need office style accommodation. The other sector which is forecasted to grow over the next 20 years in Tamworth and is likely to require office type accommodation is the health and education sector which is forecast to see a growth of 650 jobs in the next 20 years, an increase of 13.3% in this sector. Office accommodation is more likely to be sited at town centre locations through policy and market influences, the sequential test proposes that town centres should act as the primary focus for office development. Edge of centre development in areas accessible to good public transport links should form the next most suitable locations for office development, with out of centre development the next level of the sequential approach to development.

- 6.5 The employment forecasts provided by Cambridge Econometrics predict a 15.8% (+500 jobs) increase in the number of employee jobs in the distribution and warehousing sector between 2006 and 2026. This is a relatively modest growth and represents a cooling of the development in the sector between 2001 and 2006. However, the floor space densities in this sector means that projected growth in the sector could have the impact of raising employment land requirements in the district. This may prove problematic with such a limited portfolio of employment land in Tamworth Borough. Therefore, when taking into account the future needs of the distribution and warehousing sector consideration should be given to the potential of meeting this requirement on land outside of Tamworth but within close proximity to the Borough boundary. In addition, as the distribution and warehousing sector becomes ever more sophisticated and technologically advanced, operators may require new and updated premises which may introduce the need for relocation. It would be pertinent to allow for such possibilities when investigating the future portfolio of employment land for Tamworth Borough.

Economic Activity Rates used in the Labour Supply methodology

- 6.6 The underlying data for the Labour Supply methodology approach to employment land forecasting uses a labour force projection which was calculated in house by the Research Unit. One of the most important factors influencing the projected labour force in these projections is the economic activity rates which have been used to calculate the proportion of the overall population who are forecasted to be feeding into the labour market.

- 6.7 For the purposes of this project, economic activity rates into the future forecasted at the national level have been adjusted using a factor of economic activity for the relevant age groups for Tamworth Borough as at the time of the 2001 Census of Population. These factors have been used to calculate the indicative land requirements based on the labour supply method as highlighted in section 5.
- 6.8 While this approach offers the most logical method of calculating the labour force into the future, it should only be seen as an assumption of the potential labour force. Structural changes to the labour market and the wider economy overall in Tamworth Borough could have significant implications for economic activity rates in the Borough (for example, cyclical changes in the labour force since those experienced at 2001 are likely to have increased the overall levels of economic activity in the working age population over the past 6 years). It is also very possible that the demographic structure of the Borough could change over time, with new development taking place in the area, and the possibility of attracting in migration of younger age groups.
- 6.9 Changing the economic activity assumptions used in the labour force projections can have a small but potentially significant effect on the need to identify new employment land. Using a very crude calculation methodology it is estimated that by increasing the economic activity rate assumptions used in the labour supply model by a factor of 1%, an additional 2 hectares of employment land would be required over the 2006 to 2026 period. Whilst this is not a huge increase in the predicted land requirements, this issue highlights the need to allow for elements of flexibility in the calculations when interpreting both employment land predictions and labour force forecasts.

Commuting patterns

- 6.10 The influences of commuting patterns in the area have been considered as an integral part of the labour supply employment land calculation process. 3 different assumptions of commuting have been taken into account which may have impacts on the levels of the labour force who will service expected development in Tamworth Borough.
- 6.11 The 3 different scenarios take into account: a “base projection”, which considers only the labour force projection with no account for commuting, an “out commuting scenario” which corrects the labour force by taking away an element of the predicted labour force growth which may be expected to commute out of Tamworth Borough for work purposes, and a “net commuting scenario” which takes into account the balance of in and out commuting, by calculating those people who live and work in the district, those who live in the district but work outside, and those who live outside and work in Tamworth Borough.
- 6.12 The most reliable source of data for commuting patterns comes from the Journey to Work analysis which was undertaken for the 2001

Census of Population. This analysis, however, is now some 7 years old and although the overall patterns of movement to and from work are likely to be broadly similar, there will have undoubtedly been some significant changes to the journey to work dynamics of the area over this period of time. At the time of the 2001 Census of Population Tamworth Borough had a smaller proportion of people working in the Borough compared with the number of economically active residents travelling out of the Borough for employment purposes. The net out commuting factor of Tamworth Borough is a factor of -21.6%.

- 6.13 The most up to date information available on economic activity and the working age population suggests that Tamworth Borough has a Borough “job density” of 0.72 (meaning that there are 0.72 employee jobs for every person of working age in the Borough). This is the fourth highest job density of the Staffordshire Districts after East Staffordshire, Stafford and Lichfield. Although Tamworth is just below the average for Staffordshire at 0.74, it is significantly below the average for the West Midlands Region at 0.82 and Great Britain which has a job density of 0.84.
- 6.14 It is difficult to predict with any certainty how the commuting patterns of Tamworth Borough may have changed over time since the publication of the 2001 Census of Population. The levels of development in the Borough since 2001 suggest that there are a greater number of employee jobs in the Tamworth at present than 5 years ago, and as such there may be slightly different commuting dynamics in place, however, there remains significant levels of out commuting, suggesting a continuing need for local residents to travel out of the Borough for work, largely towards Birmingham, North Warwickshire and Lichfield.
- 6.15 Recent improvements to the rail network mean that it is now easier to commute by rail from Tamworth Borough. The fastest train to London Euston now completes the journey from Tamworth Station in just over 1 hour 15 minutes offering the potential to commute to the capital, and with up to 4 trains an hour to Birmingham and a half hourly service to Nottingham, Tamworth is well served by the rail network. While these improved links may mean greater levels of out commuting than in 2001, they also offer the opportunity to capitalise on the links attracting people to work in Tamworth.
- 6.16 The road network of Tamworth Borough offers good links to other towns in the area and to further afield, offering the chance to commute both into and out of the Borough. Travel to work patterns from the 2001 Census have identified Tamworth as a relatively defined travel to work area with people travelling in from some distance to help service the local economy. Overall 35% of the Tamworth’s workforce commute into the Borough for work purposes from other areas, with the remaining 65% of the workforce actually living in the Borough.

- 6.17 Although the levels of in commuting into the Borough do not suggest that these would create significant additional demand for employment land based on the unadjusted labour force projection or preferred option for housing of the RSS revision, commuting issues should be considered with some importance in the preparation of the employment land review. The development of a comprehensive portfolio of land can have the potential to help in the development of sustainable local growth where expected housing development and employment development are considered in parallel.

The Impact of Migrant Workers

- 6.18 The impact of migrant workers to the local economy is a further potential consideration for this employment land study. In common with the majority of localities in Staffordshire, Tamworth Borough has a relatively small proportion of its population made up from Black and Minority Ethnic groups, with 1.9% at the time of the 2001 Census. More recently, the area has seen some increases in migrants, largely from the Accession 8 countries which joined the European Union in May 2004, although not quite as significant an amount of migrants as other districts in Staffordshire.
- 6.19 Between April 2004 and September 2006, 283 people registered under the workers registration scheme as being employed in Tamworth Borough. A significant proportion of these people (79%) having come from Poland. The majority of these migrant workers from the Accession countries are employed in the administration, business and management sector (although this category does include people working for employment agencies which can incorporate a wide variety of different industries).
- 6.20 This data only offers a snap shot of the current labour market situation in the Tamworth Borough area, but highlights that at present the reliance and importance of migrant worker groups to the local labour market is not especially strong. This may however change over time as the dynamics of the labour market in the area move forwards. Nevertheless, the influence of migrant workers on the local labour market and more widely the local economy could have some impact on the future land requirements, especially if their numbers continue to rise significantly.

Portfolio of Employment Land

- 6.21 Using a base situation as at April 2007, Tamworth Borough's portfolio of employment land extended to a total of around 32 hectares of land. Of this total, some 28 hectares had the benefit of full or outline planning permission, with around 4 hectares having no planning permission. At April 2007, none of the sites were under construction, but 23 hectares of land was classed as being readily available for development and a further 9 hectares being suitable for development within the next five

years. Within the current portfolio of sites there is no identified land which is classed as being constrained beyond five years for development purposes.

- 6.22 At April 2007 a total of 26.2 hectares of land was identified on sites above 5 hectares in size. The remaining 6 hectares of land being identified on 6 smaller sites which range in size from 0.14 hectares up to 2.60 hectares.
- 6.23 In considering the portfolio of employment land against the range of categories identified in the Regional Spatial Strategy and Regional Employment Land Study, Tamworth Borough has no employment land in the category of Regional Logistics Site, Major Investment Site or Regional Investment Site. The majority of the employment land portfolio (19.5 hectares) is classed as of 'sub-regional importance' with the remaining land classed as either 'good' or 'other local' employment sites.
- 6.24 The suitability of this portfolio of employment land to accommodate the potential levels of growth suggested in this paper will be an important element of the examination of the existing stock of employment land in Tamworth Borough, and the market testing of these sites (as identified by stage 1 of the ODPM's Employment Land Review Guidance). This element of the employment land review, combined with an identification of future requirements, will go towards the stage 3 objective of identifying the suitable portfolio of employment land for the future.
- 6.25 It is quite possible that the existing portfolio of employment land in Tamworth Borough will not be entirely suitable for the expected levels and types of economic growth in the area (for example with regard to the office sector). In this respect, there is a possibility that new employment land allocations may need to be identified, while the existing portfolio is tested for its fitness for purpose, especially in the light of office allocations proposed by the preferred option of the RSS.

Constraints to the development of sites

- 6.26 While existing employment land allocations in Tamworth Borough are not subject to a great degree of physical constraint (the portfolio does not contain any sites which have been identified as being available beyond 5 years), constraint issues need to be considered when bringing forward employment land over the medium to longer term future, and in the light of an employment land review which tests the suitability of the use of sites for employment and whether more appropriate uses could be identified.
- 6.27 Looking some distance into the future (beyond the next 5 years and longer into the horizon), the proportion of new employment land opportunities in Tamworth is likely to diminish. The future limited availability of new land for employment uses is predominantly due to

physical constraints in the Borough ie. greenbelt designations and the overall size of the Borough may limit the choice of potential employment locations, particularly when considering the need to identify appropriate sufficient housing land to meet the requirement of the phase 2 revision of the West Midlands Regional Spatial Strategy. Therefore, careful consideration should be given to the reuse and redevelopment of land when the opportunity arises, and potentially meeting the employment land requirements in sustainable location outside of the Borough but adjacent to or within a reasonable distance of the Tamworth Borough boundary. While this is not a major consideration at present, these issues need to be considered when looking at the need to develop sites beyond the next 5 years.

- 6.28 There will need to be careful consideration applied to the designation of employment land into the future to ensure the flexibility and development of sites, whilst still maintaining an element of control on their final use class category. This principle is reinforced by the recently published consultation of PPS 4 “Planning and Sustainable Economic Development” which encourages against the designation of large scale single use class sites. Such a degree of flexibility will enable sites to develop under the relevant market conditions as time goes by.
- 6.29 In common with several other local authority districts in Staffordshire, the skills base of the local working age population is relatively poor and well below national averages. The current skills base of the district means that there are issues of out migration of skilled workers to surrounding areas and in migration from other areas to fill the need for higher level skilled work in the district. Improvements to the skills base of the working age population will take some time to come to fruition, but will be critical in helping to ensure the longer term prosperity aims of Tamworth Borough, and the development of a higher value added economy.
- 6.30 As well as the physical and infrastructural constraints to a particular site, ownership issues of a site can provide some additional barriers to development. Some sites may have remained dormant for long periods of time as developers and other owners may prefer to hold on to their land banks (especially if they have significant other land banks in their own portfolios) to speculate on whether a site may be re-allocated for a more profitable land use in the future.
- 6.31 The lack of intent to develop identified land is a key constraint, and a combination of other physical and infrastructural factors will be key considerations for investigation during stages 1 and 3 of the employment land study. Information gleaned during the assessment of existing employment land can then be tested alongside the findings of section 5 of this study to identify whether new employment land should be allocated, with the ultimate aim of establishing a deliverable and sustainable portfolio of employment land.

Phasing of employment land and identifying a “buffer” of land

- 6.32 In order to establish a sustainable supply of employment land in Tamworth Borough over the next 20 years, it may be pertinent to establish a phasing policy, which will help to manage the release of land over the full plan period, rather than seeing significant spikes of development during particular periods of market strength.
- 6.33 Any phasing policy would also ideally be tied into the possible phasing of housing development proposed for Tamworth Borough as part of the revision of the West Midlands Regional Spatial Strategy.
- 6.34 An additional element to the phasing of employment land is the concept of providing a “buffer” of employment land which attempts to resolve some of the issues related to landowners “stock piling” land, and not bringing forward their sites for development, as well as to take into account the problems associated with those sites which although they have been identified for employment development, are less likely to come forwards for development as a result of infrastructural and other constraints as identified above. For this reason it is sensible to identify an additional “buffer” of employment land additional to the indicative requirements identified in section 5 to help alleviate some of these problems.
- 6.35 It is difficult to accurately estimate the extent of land to be included in this buffer for future requirements. An Employment Land study in South Derbyshire undertaken by Roger Tym and Partners suggested that the equivalent of an additional 10% of the existing employment floor space in the district should be identified as “buffer” land, which can help to satisfy the ongoing churn of the property market. This part of the Tamworth Borough employment land study (which is primarily based around identifying a future supply of land) has not assessed the existing property market in detail. In order to quantify a buffer of employment land under the same approach used by Roger Tym and partners, a 10% element of the existing B1 office, B2 general industrial, and B8 distribution and warehousing floor space stock of the district is calculated – this floor space is then factored by the relevant plot ratios to establish an overall land requirement. To meet the methodology adopted by Roger Tym and Partners, this additional buffer of land should then be added to the predicted land requirements, as identified in section 5 above.
- 6.36 While these approaches will not necessarily alleviate the problems associated with land banking, and related to infrastructural problems, they do offer some potential for helping to ensure that an adequate supply of land is made available. The prudent identification of future employment land requirements should incorporate some element of phasing and land buffers. These issues will need to be taken into account when considering the future portfolio of employment land in stage 3 of the employment land study.

The need to match housing development with complementary growth in employment land

- 6.37 The revision to the West Midlands Regional Spatial Strategy Preferred Option has identified 2,900 dwellings to be built in Tamworth Borough between 2006 and 2026. In addition, the RSS suggests that co-operation and joint working should be considered in delivering the most sustainable portfolio of new housing sites. It recommends that Tamworth Borough work jointly with Lichfield District and North Warwickshire District on delivering new housing sites and address potential cross boundary issues in order to meet the RSS housing targets for the area. This clearly has significant implications for future development across the Borough as a whole.
- 6.38 It will be important to ensure that the location, scale and phasing of this potential development will be considered in harmony with the findings of the employment land review to promote sustainable development throughout the Borough and cross boundary.
- 6.39 This report provides an initial indication of the potential additional employment land requirements of the area based on identifying historic development trends, using predicted forecasts of employment in the area (which don't take into account policy growth assumptions in the area), through labour force forecasts (which take into account the policy led growth assumptions).

7.0 Overall Summary

- 7.1 This report has consistently highlighted the need to interpret future land requirements cautiously, and to appreciate that the findings of section 5 of the report represent the very first steps towards the identification of a future portfolio of employment land.
- 7.2 The 3 methods of land forecasting have yielded quite different results, with the lowest levels of requirement being identified through using the labour force projection led approach, whilst the recent buoyancy experienced in the distribution and warehousing sector has led the continuation of past development trends approach to yield the greatest future land requirement.
- 7.3 For the identification of the future portfolio of employment land in Tamworth Borough, it will be important to establish the development vision of Tamworth Borough Council for the Borough over the next 20 years. Such a development vision will ultimately shape the future land requirements of the Borough. A vision focusing on the predicted growth of the financial and business sector (which employment forecasts suggest will be a key growth sector over the next 20 years) is likely to require a lower level of land take than a vision which includes a significant element of development in the distribution and warehousing sectors.

TAMWORTH BOROUGH COUNCIL

EMPLOYMENT LAND STUDY

FUTURE LAND ESTIMATION

TECHNICAL APPENDIX REPORT

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TECHNICAL APPENDIX

MAIN FINDINGS OF TAMWORTH BOROUGH 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	0.59	0.00	21.92	9.30	0.00	9.75	17.47	4.00	31.22
Redevelopment Land	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00
Total Land	0.59	0.00	22.92	9.30	0.00	10.75	17.47	4.00	32.22

Source: Staffordshire Employment Land Survey 2007

As of April 2007, a total of 28.22 hectares of employment land was committed by planning permission with a further 4.00 hectares identified in the adopted local plan. As at April 2007 none of the committed employment land was under construction in the Tamworth Borough 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). For the purposes of this project consideration will only be given to total employment land.

Of the total employment land supply in Tamworth Borough, some 22.92 hectares (71% of the total stock) is classed as being readily available, with 9.3 hectares (29% of the total stock) classed as being available within the next 5 years.

The majority of the Borough's land supply has the benefit of planning consent (28.22 hectares), however, only 33.4% (10.75 hectares) of the total supply has detailed planning consent at April 2007. Of the supply of employment land 4 hectares (12.4% of the total stock) does not have planning permission, although all of this land was identified in an adopted local plan.

Tamworth Borough's employment land portfolio is spread across a limited number of sites. Just over half of the identified capacity (16.9 hectares) is located on one site at Bonehill Road, Bitterscote in Tamworth. Of the remaining sites identified there is a good range of site size and type. However, with only eight sites in the current land portfolio this may be an issue to consider when addressing the future supply of employment land in the Borough.

The majority of the employment land stock in Tamworth Borough (30.16 hectares) is classified as being suitable for a mixture of uses (B1/B2/B8 use). In addition, 0.49 hectares is available for B1 use, while B1 and B2 uses accounted for 1.27 hectares and only 0.30 hectares is available for B1 and B8 uses of the identified employment land in the Borough.

With such a limited portfolio and a relatively low completion rate over the last 5 years Tamworth could miss opportunities to enhance, strengthen and diversify its economic base. Tamworth has the opportunity to attract new economic development to the Borough given its prime location and the strategic transportation links offered. 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 Borough.

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 Tamworth Borough. (The sum of the levels of new land and redevelopment land).

Table 2 – Employment land completions 1997/98 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	2.15	7.14	4.06	0.55	6.68	0.14	1.03	3.87	2.74	0.59
Redevelopment Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.00
Total Land	2.15	7.14	4.06	0.55	6.68	0.14	1.03	3.87	3.45	0.59

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	8.37	1.67	28.95	2.90
Redevelopment Land	0.71	0.14	0.71	0.07
Total Land	9.08	1.82	29.66	2.97

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	1.67	33.48	2.90	57.90
Redevelopment Land	0.14	2.84	0.07	1.42
Total Land	1.82	36.32	2.97	59.32

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.

The relatively low levels of development in Tamworth during the last five year may be as a result of not enough land available in the Borough to accommodate land hungry B8 uses. These B8 uses have invariably located in neighbouring authority areas where there are larger supplies of land suitable for distribution and warehousing uses. However, these low levels of development recently may have under played the potential for new employment related development in Tamworth. As the employment markets change in the future and demand for B8 uses decline and demand for the less land hungry B1 uses increases Tamworth may be in a better position to compete and meet the needs of this changing market.

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 basis on which indicative land requirements at the district council level has been calculated in the Preferred Option of the Phase Two 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 in 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.

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 how 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 Tamworth Borough 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	6	1	1	1	1	1
2 Manufacturing	7,424	4,599	4,344	4,048	3,769	3,501
3 Construction	1,974	3,052	3,134	3,203	3,355	3,538
4 Retailing	3,894	4,748	4,931	5,039	5,194	5,363
5 Distribution NES	2,914	3,192	3,411	3,497	3,596	3,696
6 Hotels and Catering	2,084	2,258	2,282	2,308	2,318	2,323
7 Transport	2,236	3,300	2,909	2,544	2,212	1,927
8 Communications	272	235	227	218	215	213
9 Financial and Business	6,669	7,710	8,372	9,060	9,867	10,739
10 Public Administration	587	417	423	428	432	436
11 Health and Education	4,291	4,877	5,154	5,288	5,411	5,527
12 Waste Treatment and Other Service Activities	1,369	2,257	2,197	2,095	1,997	1,902
Total	33,717	36,645	37,386	37,728	38,367	39,165

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	-5	0	0	0	0	-5	0
2 Manufacturing	-2,824	-255	-296	-279	-267	-3,922	-1,098
3 Construction	1,078	83	69	153	182	1,564	486
4 Retailing	854	183	107	156	168	1,469	615
5 Distribution NES	278	220	85	100	100	782	504
6 Hotels and Catering	175	24	26	10	6	240	65
7 Transport	1,063	-391	-365	-332	-285	-309	-1,372
8 Communications	-38	-8	-8	-3	-2	-59	-21
9 Financial and Business	1,042	662	688	807	872	4,070	3,028
10 Public Administration	-170	6	5	4	5	-150	20
11 Health and Education	586	277	134	124	115	1,236	650
12 Waste Treatment and Other Service Activities	889	-60	-102	-99	-95	533	-356
Total	2,927	741	342	640	798	5,448	2,520

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, 460 jobs, in 2011, 434 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	13,798	13,032	12,144	11,306	10,504
3 Construction	3,234	248	206	458	546
5 Distribution NES	18,077	14,281	5,538	6,468	6,478
7 Transport	17,011	Neg	Neg	Neg	Neg
8 Communications	Neg	Neg	Neg	Neg	Neg
9 Financial and Business	3,125	1,986	2,063	2,421	2,616
10 Public Administration	Neg	13	10	8	9
11 Health and Education	1,172	555	267	248	231
12 Waste Treatment and Other Service Activities	1,777	Neg	Neg	Neg	Neg
Total (Sq M)	58,194	30,114	20,227	20,908	20,383

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) 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	34,495	32,581	30,360	28,265	26,260
3 Construction	8,085	620	514	1,144	1,365
5 Distribution NES	45,191	35,701	13,845	16,170	16,195
7 Transport	28,352				
8 Communications					
9 Financial and Business	5,209	3,310	3,438	4,035	4,359
10 Public Administration		21	16	13	15
11 Health and Education	1,953	924	445	413	385
12 Waste Treatment and Other Service Activities	4,443				
Total (Sq M)	127,727	73,158	48,618	50,040	48,579
Total (HA)	12.77	7.32	4.86	5.00	4.86

Using the above methodology and assumptions:

Between 2001-26: 34.81 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 assessed over this period)

Between 2006-26: 22.04 Hectares of B Class land will be required

(The period 2006 to 2026 is the overall period of interest for the Tamworth Borough 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.

(3) 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), including negative change, and without relocations for manufacturing (this is the most unrealistic approach as the negative employment change in some sectors included under the approach, can yield negative land requirements).

These 3 scenarios generated the following land requirements

(1)

Between 2001-26: 19.62 hectares of land required

Between 2006-26: 10.29 hectares of land required

(2)

Between 2001-26: 59.99 hectares of land required

Between 2006-26: 35.91 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).

(3)

Between 2001-26: 6.12 hectares of land required

Between 2006-26: 20.08 hectares of land required

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 for Tamworth which is limited in the amount of housing growth that can be accommodated within the Borough boundaries. It is important that alongside any proposed growth in housing levels, the potential need for new employment land is also examined to promote the sustainability of local communities into the future.

For Tamworth Borough three house building scenarios were used to determine labour force growth. The first scenario is set out in the West Midlands Regional Spatial Strategy Preferred Option, Phase Two Revision. The growth scenarios include:

Scenario 1 – RSS Preferred Option – 2,900 dwellings (net) to be built in the period 2006 to 2026

Scenario 2 – 6,000 dwellings (net) to be built in the period 2006 to 2026

Scenario 3 – 9,000 dwellings (net) to be built in the period 2006 to 2026

Note – Given the limited opportunity for significant levels of housing development within Tamworth an assumption has been made that a proportion of the housing included in Scenario 2 and 3 would have to be accommodated outside of Tamworth but adjacent to the Borough boundary. Therefore, any demand for employment land arising from development of housing adjacent to the Borough boundary would need to be accommodated within the Borough.

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 are economic activity rates. 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 resultant 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 Tamworth Borough 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 Tamworth Borough there is evidence to suggest that it has 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 travel into the district for employment.

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 Tamworth Borough 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 49.1% of the working age population in 2001 travelled out of the borough 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 borough is a negative factor of -21.6% - 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. The 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 is 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

<i>EMPLOYMENT PROPORTIONS</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>	<i>2021</i>	<i>2026</i>
1 Primary and Utility	0.0%	0.0%	0.0%	0.0%	0.0%
2 Manufacturing	12.6%	11.6%	10.7%	9.8%	8.9%
3 Construction	8.3%	8.4%	8.5%	8.7%	9.0%
4 Retailing	13.0%	13.2%	13.4%	13.5%	13.7%
5 Distribution NES	8.7%	9.1%	9.3%	9.4%	9.4%
6 Hotels and Catering	6.2%	6.1%	6.1%	6.0%	5.9%
7 Transport	9.0%	7.8%	6.7%	5.8%	4.9%
8 Communications	0.6%	0.6%	0.6%	0.6%	0.5%
9 Financial and Business	21.0%	22.4%	24.0%	25.7%	27.4%
10 Public Administration	1.1%	1.1%	1.1%	1.1%	1.1%
11 Health and Education	13.3%	13.8%	14.0%	14.1%	14.1%
12 Waste Treatment and Other Service Activities	6.2%	5.9%	5.6%	5.2%	4.9%
Total	100%	100%	100%	100.0%	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 Scenario 1 – RSS Preferred Option – 2,900 dwellings (net) to be built in the period 2006 to 2026

Age group	2001-06	2006-11	2011-16	2016-21	2021-26	2001-26	2006-26
16 non-students	-12	-25	-7	-14	-7	-65	-53
16 students	-22	-66	-17	-34	-13	-152	-130
17 non-students	-47	-60	-43	-17	-41	-208	-161
17 students	-34	-48	-43	-15	-31	-171	-137
18 non-students	52	-63	-65	-21	-53	-150	-202
18 students	48	-17	-28	-14	-27	-38	-86
19 non-students	46	-22	-48	-124	8	-140	-186
19 students	14	3	-5	-26	2	-12	-26
20-24 non-students	509	-330	-414	-150	-244	-629	-1,138
20-24 students	30	-9	-13	-6	-13	-11	-41
25-29	-527	-252	-150	-232	33	-1,128	-601
30-34	-650	-970	-127	-2	-76	-1,825	-1,175
35-39	106	-913	-864	-46	103	-1,614	-1,720
40-44	202	-1	-831	-788	21	-1,397	-1,599
45-49	-129	251	51	-747	-727	-1,301	-1,172
50-54	-243	14	341	118	-687	-457	-214
55-59	839	-173	61	301	123	1,151	312
60-64	424	530	6	45	214	1,219	795
65-69	119	95	143	-21	6	342	223
70+	23	24	25	39	25	136	113
Labour Force - No Commuting	748	-2,032	-2,028	-1,754	-1,384	-6,450	-7,198
Labour Force - Out Commuting	381	-1034	-1032	-893	-704	-3283	-3664
Labour Force - Net Commuting	586	-1593	-1590	-1375	-1085	-5057	-5643

Table 13 – Land required using Scenario 1 – RSS Preferred Option – 2,900 dwellings (net) to be built in the period 2006 to 2026

	2001-2026	2006-2026
Base Projection	-30.32	-34.06
With Out Commuting	-15.43	-17.34
With Net Commuting	-23.77	-26.7

Table 14– Labour Force Projection using Scenario 2 – 6,000 dwellings (net) to be built in the period 2006 to 2026

Age group	2001-06	2006-11	2011-16	2016-21	2021-26	2001-26	2006-26
16 non-students	-12	-24	-5	-12	-5	-58	-46
16 students	-22	-62	-14	-30	-7	-135	-113
17 non-students	-47	-55	-39	-10	-35	-186	-139
17 students	-34	-44	-39	-10	-25	-152	-118
18 non-students	52	-56	-58	-11	-43	-116	-168
18 students	48	-13	-23	-8	-19	-15	-63
19 non-students	46	-9	-38	-116	25	-92	-138
19 students	14	5	-2	-24	6	-1	-15
20-24 non-students	509	-175	-376	-96	-185	-323	-832
20-24 students	30	0	-11	-3	-10	6	-24
25-29	-527	-9	-21	-213	88	-682	-155
30-34	-650	-769	87	122	-66	-1,276	-626
35-39	106	-762	-707	163	234	-966	-1,072
40-44	202	121	-711	-648	235	-801	-1,003
45-49	-129	330	163	-644	-596	-876	-747
50-54	-243	64	417	227	-594	-129	114
55-59	839	-136	104	370	221	1,398	559
60-64	424	555	28	73	263	1,343	919
65-69	119	100	151	-15	12	367	248
70+	23	26	26	43	27	145	122
Labour Force - No Commuting	748	-913	-1,068	-842	-474	-2,549	-3,297
Labour Force - Out Commuting	381	-465	-544	-429	-241	-1297	-1678
Labour Force - Net Commuting	586	-716	-837	-660	-372	-1998	-2585

Table 15 – Land required using Scenario 2 – 6,000 dwellings (net) to be built in the period 2006 to 2026

	2001-2026	2006-2026
Base Projection	-11.87	-15.61
With Out Commuting	-6.04	-7.95
With Net Commuting	-9.31	-12.24

Table 16– Labour Force Projection using Scenario 3 – 9,000 dwellings (net) to be built in the period 2006 to 2026

Age group	2001-06	2006-11	2011-16	2016-21	2021-26	2001-26	2006-26
16 non-students	-12	-22	-4	-10	-3	-51	-39
16 students	-22	-59	-10	-27	0	-118	-96
17 non-students	-47	-51	-34	-3	-30	-165	-118
17 students	-34	-40	-35	-5	-19	-133	-99
18 non-students	52	-50	-51	-1	-33	-83	-135
18 students	48	-8	-19	-2	-12	7	-41
19 non-students	46	3	-28	-109	41	-47	-93
19 students	14	8	0	-23	10	9	-5
20-24 non-students	509	-26	-345	-44	-128	-34	-543
20-24 students	30	8	-9	0	-7	22	-8
25-29	-527	230	106	-204	137	-258	269
30-34	-650	-571	306	245	-73	-743	-93
35-39	106	-616	-547	383	365	-309	-415
40-44	202	238	-595	-501	467	-189	-391
45-49	-129	405	269	-542	-456	-453	-324
50-54	-243	111	488	330	-501	185	428
55-59	839	-101	144	434	312	1,628	789
60-64	424	578	49	99	306	1,456	1,032
65-69	119	104	159	-11	18	389	270
70+	23	27	29	44	30	153	130
Labour Force - No Commuting	748	168	-127	53	424	1,266	518
Labour Force - Out Commuting	381	86	-65	27	216	644	264
Labour Force - Net Commuting	586	132	-100	42	332	993	406

Table 15 – Land required using Scenario 3 – 9,000 dwellings (net) to be built in the period 2006 to 2026

	2001-2026	2006-2026
Base Projection	6.17	2.43
With Out Commuting	3.14	1.24
With Net Commuting	4.84	1.90

5 - CONCLUSIONS

The three different approaches of future employment land estimation in Tamworth Borough 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 59 hectares of employment land would be required, while taking into account development levels from the past 5 years, around 36 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 Tamworth Borough over the next 20 year period, and would be the result of rapid growth levels in the area’s economy.

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 and health and education sectors.

Under the different scenarios and assumptions tested in the labour demand approach, the preferred approach yields an employment land requirement of 22.04 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 36 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 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. The analysis shows that without significant levels of house building, as indicated in Scenario 3, it is likely that Tamworth will experience a contraction in its labour force and as a possible consequence of this a reduction in the demand for employment land.

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.

The labour supply approach provides a more realistic approach of identifying land requirements through their relation to planning policy inputs.

SUMMARY

Over the period 2006 to 2026, new employment land requirements in Tamworth Borough is likely to be at the very minimum around 10 hectares, and as a maximum, around 60 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 40 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.

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