

Proposal for Hanley Grange Eco Town

A commentary on reports by Bone Wells
Associates & Sellwood Planning in
relation to the labour market

June 2008

Contents

1: Introduction	1
2: Updates to Population, Housing, Labour Force and Employment Forecasts.....	2
3: The Geographic Sector Analysis	5
4: Other Labour Market Issues Relating to the Hanley Grange Eco Town Proposal.....	13
5: Summary of Key Issues	15
Annex A: Statistical Appendix.....	A-1

Contact:	Jill Tuffnell	Tel:	01223 209400	email:	JTuffnell@sqw.co.uk
-----------------	---------------	------	--------------	--------	---------------------

Approved by:	Christine Doel	Date:	June 2008
	Associate Director		

1: Introduction

- 1.1 SQW Consulting was commissioned by Cambridgeshire County Council, in association with South Cambridgeshire District Council, to review and update labour market information pertinent to the proposed development of an Eco Town south of Cambridge.
- 1.2 This paper's main focus is to provide a commentary on the Bone Wells Associates (BWA) 'Report on Socio-economic context for Hanley Grange', commissioned by Jarrow Investments and published in May 2006. The BWA report provided the basic jobs/resident workforce arguments supporting the current proposal for Hanley Grange Eco Town. This paper is primarily concerned with updating information on forecasts (Chapter 2 in the BWA report), and responding to the analysis included in Chapter 4, which looked at South Cambridgeshire in terms of four geographical sectors. In particular this paper updates information for the BWA-defined 'South sector' which includes the proposed Hanley Grange site, challenging both data and assumptions in the original 'Context' document. This paper also comments on the 'Hanley Grange Rationale' as outlined in the Sellwood Planning (SP) bid for an 8,000 dwelling Eco Town submitted to DCLG in October 2007. A statistical Annex is attached containing labour market data for alternative 'South' zones.
- 1.3 A fundamental issue of concern to Cambridgeshire County Council – and the reason for commissioning this review - is that both the BWA report and more recent SP proposal concentrate almost entirely on analysing marginal changes, both in respect of employment land/floorspace and in terms of dwellings and hence population and labour supply. There is no reference to changes occurring in the wider economy as a result of changes in productivity, production methods and industry sector employment. This paper contains updated information on employee jobs for December 2000 through to 2005 which suggests that growth in employment on B1, B2 and B8 (land use category) sites in the BWA-defined 'South sector' has been counter-balanced by job losses of other types. And the profile of employment forecasts by industry sector shows that South Cambridgeshire is not immune from the same changes occurring elsewhere in the country/region. Indeed, with its relatively large manufacturing sector, the district is particularly vulnerable to selective job losses.
- 1.4 The following chapters firstly review recent updates to the broad framework of demographic and labour market forecasts which relate to South Cambridgeshire for the period through to 2021. Secondly they provide a critique of BWA's geographic sector analysis, with local area labour market estimates updated for the period since 2001. A detailed discussion of recent and forecast changes to the labour market focuses on BWA's 'South' sector and is accompanied by proposals for alternative zone definitions, based on functional links. Finally a number of labour market issues likely to arise from a major new development at Hanley Grange are considered. The paper concludes with a synopsis of the major issues raised.

2: Updates to Population, Housing, Labour Force and Employment Forecasts

- 2.1 In reviewing the arguments set out by BWA, it is important to take stock of the most up-to-date forecasts that have been produced for South Cambridgeshire. (Similar data is also available for Cambridge City). Both of the following forecasts incorporate the total dwellings proposed in the adopted East of England Plan. The first forecast was produced by Cambridgeshire County Council’s Research Group in 2007; the second is the very recent forecast produced by Oxford Economics for EEDA and the region’s Labour Market & Economy Group in February 2008.
- 2.2 Cambridgeshire County Council has produced forecasts of population, dwellings and the resident labour force – but not jobs/employment. It should be noted that the economic activity rates used are based on the national set of rates published by ONS in 2006, calibrated using 2001 census differentials. These economic activity rates are overall somewhat lower than the ‘mid’ variant adopted in the draft RSS. The main difference relates to a view on the proportion of people aged 50 + who will in future be employed or actively seeking work. This age group will grow significantly over the next 15 years and higher levels of economic participation are a real possibility given the squeeze on final salary pension schemes and the increase in the State pension age for women. Consequently the forecast of the resident labour force is considered to be a minimum in Table 2-1. In order to show how critical the economic activity assumptions are, Table 2-1 also incorporates the labour force forecast produced by ARU in their Chelmer model, using the ‘mid variant’ option and the final East of England Plan dwelling figures. Because economic activity rates apply to the entire resident population, a relatively small change in rate has a significant impact on the size of the labour force.

Table 2-1: Cambridgeshire County Council population, housing & labour force forecasts for South Cambridgeshire, 2001, 2006 and 2021; ARU Chelmer labour force variant

Element	2001	2006	2021	Change 2006 to 2021
Population	130,400	138,200	170,600	32,400
Housing	54,200	57,700	77,700	20,000
Households	52,300	55,700	75,000	19,300
Resident Labour Force, (ONS ARs)	71,200	75,300	88,200	12,900
<i>Resident labour force (ARU Chelmer mid variant)</i>	<i>71,200</i>	<i>74,900</i>	<i>97,300</i>	<i>22,400</i>
Ratio LF (ONS) to housing	1.314	1.305	1.14	- .165

Source: Cambridgeshire County Council Research Group; ARU Chelmer Model 2006

- 2.3 As stated above, a change in assumptions about future economic activity rates can make a vast difference to the labour force by 2021 – up from around 13,000 in the ONS-based forecast to over 22,000 in the ARU Chelmer model for the period 2006 to 2021.

2.4 Table 2-2 is the outcome of the joint initiative to produce a comprehensive model of population, housing, labour supply and labour demand in the East of England. Oxford Economics have worked closely with the region's Labour Market & Economy Group on refining the model, which has a district-level set of outputs. This model incorporates a robust approach which takes account of up-to-date information, such as employee jobs data from the ABI, but is also based on the 2001 Census. Critically, it takes account of the fact that estimates of 'jobs' generally exceed estimates of the 'workforce population'. This issue was initially raised in 2001, when census data was compared with the ABI and LFS. However, the LFS/APS has consistently recorded the fact that a proportion of the population have two (or more) jobs. Work carried out by Cambridge Econometrics in relation to the 'Greater South East Commuting Study' in 2005 took this analysis further. The forecast of jobs by industry sector suggested that the phenomenon would increase in future. Part-time jobs were forecast to increase faster than full-time jobs. This provides the opportunity for more people to combine a number of jobs.

2.5 Consequently Oxford Economics were asked to build into their regional forecasting model a factor linking employment, expressed as a number of 'jobs', with the related working population who would hold them. As Table 2-2 shows, in 2001 South Cambridgeshire was estimated to have 67,300 jobs with an associated workplace population of 64,100. It is this latter figure which should be compared with the employed labour force, expressed as 'residents in employment', to give a residents : workplace population balance.

Table 2-2: Oxford Economics: Forecasting Model: Output for South Cambridgeshire 2001, 2005, 2006 and 2021, (model run February 2008)

Element	2001	2005	2006	2021	Change 2006 to 2021
Population	130,500	134,800	135,400	168,400	33,000
Dwellings	54,000	57,000	57,000	77,000	20,000
Households	52,000	55,000	56,000	76,000	20,000
Residents in employment	69,100	73,300	73,700	87,800	14,100
Jobs	67,300	71,400	73,300	86,100	12,800
Workplace population	64,100	67,800	69,700	81,400	11,700
Ratio workplace population to jobs	95.2%	95%	95.1%	94.5%	- 0.6%
Ratio employed residents to dwellings	1.28	1.29	1.29	1.14	- .15
Residents in employment workplace population balance	+ 5,000	+ 5,500	+ 4,000	+ 6,400	+ 2,400

Source: Oxford Economics: RSS dwellings scenario

2.6 In their model Oxford Economics have updated both regional and district-level jobs forecasts with information relating to 2005, giving derived workplace population forecasts. For South Cambridgeshire, the 2006 to 2021 jobs forecast is for an increase of 12,800; the related

‘workplace population’ forecast is a lower increment of 11,700. The forecast of change in the number of employed residents in South Cambridgeshire is 14,100.¹ This suggests that *for the district as a whole* there will be a **higher** increase in numbers of employed residents than of workplace population – 2,400 over 15 years. Over the 20 years 2001 to 2021 the Oxford Economics model shows for Cambridge City and South Cambridgeshire combined:

- employed residents: Increase of 33,500 (up from 118,300 to 151,800)
- jobs: Increase of 45,300 (up from 161,500 to 206,800)
- workplace population – allowing for people with 2 or more jobs: Increase of 38,200 (up from 142,800 to 181,000).

2.7 It can be seen that the ‘jobs’ forecast lies very much at the mid-point of the earlier Experian ‘EG21’ forecasts recorded in BWA Table 2-5 for the combined Cambridge City and South Cambridgeshire area – (49,400 in the 2003 scenario, 38,340 in the 2004 scenario).

2.8 The critical lessons to be drawn from this Oxford Economics update are:

- the ‘workplace population’ growth is lower than the crude ‘jobs’ growth due to people holding more than one job
- the Oxford Economics jobs forecast for the 2001 to 2021 period for Cambridge City/South Cambridgeshire (and indeed for the entire East of England) is in line with earlier Experian EG21 forecasts
- for South Cambridgeshire as a whole the new forecasts suggest that the increase in numbers of employed residents will outstrip the increase in workplace population by a small margin over the period 2006 to 2021.

¹ For the region as a whole, the new model gives, for the 15 years 2006 to 2021, employed residents: +282,100; jobs: +304,700; workplace population: +258,500. This suggests an increase in out-commuting from the region of 23,600 between 2006 and 2021.

3: The Geographic Sector Analysis

- 3.1 BWA identified four geographic sectors around Cambridge. However, they excluded a significant number of wards in South Cambridgeshire. For example, the ‘west’ sector excluded Barton and Comberton, Haslingfield & the Eversdens, Orwell & Barrington; the ‘south’ sector excluded Melbourn, Fowlmere & Foxton and Meldreth.
- 3.2 The BWA report suggests that ‘it makes sense to exclude the market towns of the sub-region that form a ring around the city on the radial transport corridors’. It infers that all these towns have population and jobs in balance – and hence links with South Cambridgeshire sectors are of little interest. However, in relation to the ‘east’ sector, Newmarket is very important. For the ‘south’ sector, Saffron Walden, Haverhill and Royston are all very close and there will be commuting flows between them and the BWA defined zone.
- 3.3 In the following analysis a fifth geographic sector has been included. This is termed the ‘omitted parishes’ sector and comprises all of the district not included in one of the four BWA sectors. It mainly lies to the south-west of Cambridge.

Updating 2001 to 2005/6 data

- 3.4 It is valuable to look at the most up-to-date information available on the estimates of dwellings, population, jobs and workplace population for South Cambridgeshire – and, where possible, the geographic sectors are those defined by BWA. This analysis is critical because the 2005 data included in the BWA report were forecasts, rather than estimates; the latest survey and administrative data for 2005 were not available at the time the report was written.
- 3.5 Table 3-1 shows the 2001 and 2006 estimates of dwellings and population for the four geographic sectors as defined by BWA. It also shows the ‘omitted’ wards/parishes in South Cambridgeshire. However, it should be noted that the two Essex parishes, Great and Little Chesterford, are excluded from the South sector because no population estimates post 2001 are available. The 2001 census recorded 704 dwellings and there has been only modest development since.

Table 3-1: Population & Dwelling Estimates, 2001 to 2006, South/East Cambridgeshire Sectors as defined by BWA

Sector (first 4 as defined by BWA)	Dwellings 2001	Dwellings 2006	% change dwells 2001-06	Population 2001	Population 2006	% change pop 2001-06
West	6,710	9,260	38%	16,280	21,340	31.1%
North	16,520	17,100	3.5%	39,550	41,250	4.3%
East	8,540	8,650	1.3%	20,100	20,420	1.6%
South	11,870	12,130	2.2%	27,480	27,700	0.8%
‘Omitted’ parishes in South Cambs	14,100	14,440	2.4%	35,450	36,130	1.9%
Total 5 sectors	57,790	61,590	6.6%	138,840	146,800	5.7%

Sector (first 4 as defined by BWA)	Dwellings 2001	Dwellings 2006	% change dwells 2001-06	Population 2001	Population 2006	% change pop 2001-06
(excl Chesterfords)						

Source: Research Group, Cambridgeshire County Council

- 3.6 It should be noted that South Cambridgeshire accounts for almost all of the dwellings and population; the ‘East’ sector additionally contains 10 East Cambridgeshire parishes which accounted for the following:
- dwellings: 3,590 in 2001 and 3,690 in 2006 (2.8% increase)
 - population: 8,340 in 2001 and 8,600 in 2006 (3.1% increase).
- 3.7 The bulk of the growth has occurred in the West sector, in line with the major development programme at Cambourne. Growth in the north sector relates in part to the improved public transport being developed along the new ‘guided busway’. The ‘omitted parishes’ sector experienced modest growth, similar to that assessed in the South sector. The East sector also experienced low growth.
- 3.8 It is a more difficult task to estimate changes in labour supply and, especially, labour demand, both in terms of ‘jobs’ and related ‘workplace population’. Data on employment is not very robust at even a district level and at a smaller sector level is even more problematic. This is because the main data source on employee jobs, the ‘Annual Business Inquiry’, (ABI), is a sample survey of businesses which relies on modelled estimates for some industry sectors below the regional level. The ABI methodology has also changed in recent years and ONS gives a ‘health’ warning on the NOMIS website that 2006 data should not be compared with previous years’ data. Consequently this paper does not include the 2006 estimates.
- 3.9 The following sections bring together available information on labour supply and demand. Where the data source permits, the analysis is carried out for geographic sectors.

The Annual Population Survey

- 3.10 The Annual Population Survey (APS), produced by ONS, is a household survey which has replaced the Labour Force Survey in recent years. Since 2004 it has asked employed respondents which district they work in, but it does not check how accurate this information is. Consequently the data is accurate as regards residency but requires careful interpretation for workplace. It is a potentially very valuable data source, however, as it closely approximates the Census interpretation of the labour force and commuting flows.
- 3.11 In the case of the Cambridge area it is clear that significantly more people think they work in Cambridge City than actually do. This is explained by the fact that a number of large employment sites, such as Marshalls and the Cambridge Science Park, straddle the City boundary. Table 3-2 shows the estimates of employed residents and workplace population for both Cambridge City and South Cambridgeshire.

Table 3-2: Employed Residents and Workplace Population, Cambridge City & South Cambridgeshire, 2001 to 2006

Period	Employed residents Cambridge City	Employed residents South Cambridgeshire	Total ER CC & SC	Workplace population Cambridge City	Workplace Population South Cambridgeshire	Total WP CC & SC
March - Feb 2002	57,000	70,000	127,000	n.a.	n.a.	n.a.
March – Feb 2003	57,000	70,000	127,000	n.a.	n.a.	n.a.
March – Feb 2004	57,900	72,900	130,800	n.a.	n.a.	n.a.
Apr – March 2005	57,900	73,100	131,000	106,800	56,300	163,100
Apr – March 2006	57,000	73,900	130,900	97,000	65,600	162,600
Apr – March 2007	57,700	73,600	131,300	104,400	61,200	165,600

Source: NOMIS – APS and Local Labour Force Survey

- 3.12 It is important to note that the ‘confidence interval’ relating to each district’s estimate of employed residents is relatively high: around 6,000 for Cambridge City and 4,300 for South Cambridgeshire – i.e. the April to March 2007 Cambridge City ‘true’ estimate is likely to lie between 51,700 and 63,700. The ‘true’ South Cambridgeshire estimate for this period lies between 69,300 and 77,900. The ‘confidence intervals’ for the workplace population are not available but will be at least as large. (The confidence intervals are smaller when districts are aggregated and when data for 3 years is combined – i.e. effectively drawing on a much larger sample of respondents).
- 3.13 Overall Table 3-2 suggests that the numbers of employed residents living in the combined Cambridge City and South Cambridgeshire area has increased relatively modestly between 2001 and 2007 – by just over 4,000, with much of the growth occurring before 2004. Most of this growth has occurred in South Cambridgeshire. Table 4-1 in the BWA report suggests that the number of ‘workers’ living in their four defined Sectors increased by 3,340 between 2001 and 2005 (growing from 54,440 to 57,780).
- 3.14 The evidence relating to the change in the workforce population, (i.e. people holding jobs in an area), since 2001 is partial and suggests a small increase in the past two years. Significant variations from one survey year to the next at a district level probably reflect data deficiencies rather than any underlying job changes.
- 3.15 What are the implications at a geographic sector level? The only guidance that can be given is to assume that changes in employed residents are broadly linked to the overall change in population – apart from when the latter arises from an increase in student numbers. (This will generally be confined to Cambridge City). Population growth, however, appears to be slightly higher than the recorded increase in the numbers of employed residents (5.7% as compared with 3.5%, 2001 to 2006).

Employee jobs – the Annual Business Inquiry

- 3.16 Table 3-3 looks at the evidence available on employee jobs, (excepting agriculture). It provides annual data by BWA sector; it should be noted that there is a discontinuity between 2002 and 2003 when the ward-base changed from 1991 ‘frozen’ wards to the 2001 Census wards. The series starts at 2000 because the ABI has been undertaken each December and this is a relevant date for comparisons with April 2001 Census data sets.

Table 3-3: Employee jobs, Annual Business Inquiry, by Sector 2000 to 2005 (rounded to nearest 100), South Cambridgeshire / BWA Sectors (excludes agriculture, armed forces, self-employed)

Sector (BWA-defined for first 4)	2000	2001	2002	2003	2004	2005	2000 - 2005
West	6,300	6,900	7,200	7,700	8,200	9,000	+2,700
North	16,900	17,400	17,900	18,600	17,900	19,300	+2,400
East	5,700	5,900	5,800	6,500	7,800	8,300	+2,600
South	13,600	13,800	14,400	13,800	13,200	13,800	+200
‘Omitted’ parishes in SC	13,700	13,400	13,400	12,100	9,900	10,600	-3,100
Total Area	56,200	57,200	58,700	58,600	57,000	61,000	+4,800

Source: ABI Nomis; Cambridgeshire County Council Notice. Note: whole wards, not apportioned

- 3.17 The ABI has a high ‘confidence interval’ for the district as a whole and this will be replicated at the smaller geographic sector level. Overall, however, the analysis suggests that employee jobs in the total area increased by just under 5,000 between December 2000 and December 2005; if the ‘omitted parishes’ sector is subtracted, the increase in employee jobs is closer to 8,000 in the four geographic sectors as defined by BWA.
- 3.18 The sectors which have recorded most job growth are the North (with an additional 2,400 jobs), the East, (2,600 extra jobs) and the West (with an extra 2,700 jobs). Interestingly, the ‘South’ sector recorded a modest increase of just 200 jobs in total. This analysis contradicts the conclusions of BWA in their Table 4-3 and the assertion made by Sellwood Planning in the ‘Hanley Grange Rationale’ proposal that in 2005 the South sector experienced a job surplus of around 4,600. Table 3-4 compares the sources and conclusions/assertions.

Table 3-4: Comparison of Estimates/Forecasts of Jobs, Workplace Population & Employed Residents, 2001 to 2005, various sources, South sector as defined by BWA

Source of data	2001	2001 to 2005	2005
BWA Table 4-1 (jobs – employed residents)	61	Jobs: 4,358 Employed residents: 333	4,086
SP proposal letter (jobs – workers)	500	Not stated	4,600
Official statistics-based: ABI	61	Jobs: 200 workplace population: 190	166
SQW estimate (2.75% of 3,100 district increase)		Employed residents: 85	

Source: BWA, SP, ONS, SQW Consulting

- 3.19 The ‘official statistics/SQW’ row assumes that the South sector’s share of employed resident growth from 2001 to 2005 reflects its share of overall population growth, i.e. 2.75% of the

district total. There is little information available regarding changes in the numbers of self employed jobs. It is generally considered that numbers have remained relatively stable in recent years. Hence the changes in employees can be assumed to reflect the total change in employment.

- 3.20 Table 3-4 indicates that there has been virtually no change in the jobs to employed residents balance in the South sector since 2001. This has very important implications for the BWA/SP assumptions about changes of jobs: employed residents in the period 2005 to 2021.
- 3.21 This analysis of recent change 2001 to 2005 in numbers of employee jobs by geographic sector contradicts the findings of the information presented in Table 4-1 in the BWA report. The latter suggests that the four defined sectors experienced overall job of 8,800 (based entirely on the net increase of jobs attributable to increases in B1, B2 and B8 employment land). It shows the South sector accounting for over 4,350 job growth, whereas the ABI indicates an increase of just 200 jobs.
- 3.22 Additionally we would make a number of further observations:
- The BWA study contains no analysis of job changes in the wider economy in each geographic sector – such as declines in employment on existing sites without any land or floorspace loss.
 - It actually incorporates information on employment completions since 1999 – so it spans a period of 7 years, not the 5 stated.
 - Gross losses of B1 land have not been included.
 - The assumptions made about employment densities do not match those actually observed on the Science/Research Park sites, (see below)
 - Both the BWA and SP papers relate to changes in employee jobs, rather than ‘workplace population’. As discussed above, with an increasing share of the labour force holding more than one job we should expect the growth in ‘workforce population’ to be lower than the increase in ‘jobs’.

Relationship between employed residents and dwellings

- 3.23 For South Cambridgeshire in 2001, the Census records 70,000 employed residents and 54,200 dwellings: giving a ratio of 1.29 employed residents per dwelling. By 2006 employed residents had increased to 73,900, set against 57,900 dwellings, giving a slightly reduced ratio of 1.28. As outlined in the first section, the anticipated reduction in household size in future years could result in a downward shift in this ratio to as low as 1.14 by 2021. This has major implications for the calculation of future forecasts of the economically active and employed resident population. However, both larger average household size and higher economic activity rates are possible, keeping the ratio above 1.20 or even 1.25.

The Balance of Projected Jobs and Employed Residents

Forecasting Jobs

- 3.24 BWA has produced projections of ‘jobs’ (the workplace population) and ‘workers’ (or employed residents) at 2021. Their methodology is to concentrate totally on marginal change – assuming that the only future change in employment will arise from people working on B1 to B8 land. The likelihood of more people working at or from home, working in the community and employed outside of the ‘B1-B8’ sector is not addressed. More critically, there is no expectation of job loss elsewhere in the economy.
- 3.25 The BWA analysis suggests, in Tables 4-1 and 4-2, an overall increase of 22,560 jobs (from 57,350 to 79,910) between 2005 and 2021 in the four geographic sectors alone. As Table 2-2 above shows, this is much higher than Oxford Economics are currently forecasting for the larger South Cambridgeshire district area as a whole, (a 14,700 increase in jobs and a 13,600 increase in workplace population, 2005 to 2021). It is important to note that BWA assume that B1 land will support jobs at a ratio of 20 square metres per worker. However, South Cambridgeshire District Council’s monitoring of recent developments on the three Science/research parks in the South sector shows that the actual densities average 29.4 square metres per worker. This suggests the potential employment capacity of the sites is significantly lower than claimed by BWA. The implication of changing this assumption is summarised in the statistical appendix.
- 3.26 It is interesting to explore the implications of applying the BWA approach to B1 to B8 employment land commitments in every district in Cambridgeshire and compare the results with the Oxford Economics’ forecasts. Table 3-5 shows the results. Although covering the slightly longer 1999-2021 period, the estimate of net employment increase ‘not completed’ by 2007 is very high – with over 76,000 ‘potential’ jobs potentially in the pipeline. Oxford Economics’ forecast for Cambridgeshire is for a lower 54,000 net additional jobs in total, 2007 to 2021 – including all types of employment.
- 3.27 It is concluded that, although important in policy terms, B1 to B8 employment land availability is not a sound basis for forecasting future employment growth in total.

Table 3-5: Employment Capacity of B1 to B8 land developed/committed/allocated in Cambridgeshire Districts, 2001 to 2021

District	BUILT jobs estimate 1999-2007	NOT COMPLETED jobs estimate *	TOTAL jobs estimate
Cambridge City	-1,529	10,541	9,012
East Cambridgeshire	2,906	6,279	9,185
Fenland	4,540	14,836	19,375
Huntingdonshire	7,755	24,394	32,149
South Cambridgeshire	11,108	20,001	31,109
CAMBRIDGESHIRE	24,781	76,051	100,831

Source: Cambridgeshire County Council, Research & Monitoring Group

*(Note: * 'Not completed' includes an assessment of future floorspace development at Northstowe and the edge of Cambridge).*

Forecasting employed residents

- 3.28 The BWA analysis, applying a fixed 1.28 'employed residents to dwellings' ratio to future housing growth alone, suggests that the number of employed residents living in the four Sectors combined will be around 14,000 between 2005 and 2021 (from 57,780 to 72,180). Oxford Economics forecast an increase of 14,500 employed residents in South Cambridgeshire as a whole. Their methodology involves assumptions about changes in economic activity rates and builds on changes to the underlying demography of every district in the East of England. The higher BWA figure, pro rata, reflects the assumed constant ratio of employed residents to workers throughout the period to 2021.
- 3.29 It is argued that the assumptions made by BWA in their geographic sector 'jobs' forecasts are simplistic and fail to take account of recent labour market trends and, most critically, evidence on changes in the wider employment market. BWA has produced a 'jobs' forecast very much higher than that recently produced by Oxford Economics.

Alternative 'South' zones based on functionality

- 3.30 The BWA geographic sectors appear somewhat arbitrary and should be checked against sustainability and journey to work criteria. Cambridgeshire County Council and South Cambridgeshire District Council have suggested two alternative classifications. The first takes account of 2001 **commuting** patterns, denoting a zone according to wards which contributed at least 40 residents who worked in either 'The Abingtons' or 'The Chesterfords' wards. However, Cambridge City has been excluded even though some wards meet this criterion. The second is based on **sustainable travelling distances** and is defined by wards which are within, or intersected by, a 5km travelling distance around the 4 Research parks. In ward terms, the alternative zones are
- **Commuting patterns**: The Shelfords & Stapleford, Sawston, Whittlesford, The Abingtons, Duxford, Linton, The Chesterfords, Balsham, Fulbourn, Teversham, Saffron Warden Audley, Saffron Walden Castle, Saffron Walden Shire, Haverhill North, Haverhill East, Haverhill South and Haverhill West
 - **Sustainable travelling distance**: The Shelfords & Stapleford, Sawston, Whittlesford, The Abingtons, Duxford, Linton, The Chesterfords, Ashdon, Littlebury, Saffron Warden Audley, Saffron Walden Castle and Saffron Walden Shire.
- 3.31 Using exactly the same methodology as BWA it is possible to calculate the potential employment arising from B1 to B8 land commitments in these two zones and assess the balance of 'potential jobs to employed residents'. This can be done using both BWA B1 land employment to floorspace densities and SCDC densities. Table 3-6 provides a summary for the three zones, looking at (i) potential jobs on B1 to B8 land 2007 to 2021 and (ii) a hypothetical balance between employed residents at 2021 and jobs. The latter is defined solely as the '2001 Census workplace population base plus the jobs' potential of all completed and committed B1 to B8 employment land, 1999 to 2021'.

Table 3-6: Comparison of B1 to B8 employment potential, 2007 to 2021, 3 zone definitions

Element	Source	BWA South sector *	SCDC Commuting zone *	SCDC Sustainable travel zone*
2007-2021: potential jobs increase B1 to B8 land	BWA	4,223	7,871	5,526
2007-2021: potential jobs increase B1 to B8 land	SCDC	2,830	6,317	3,972
2021: Employed residents to potential jobs balance	BWA	-7,748	-2,280	-6,739
2021: Employed residents to potential jobs balance	SCDC	-5,117	+488	-4,015

Source: BWA, South Cambridgeshire District Council; Cambridgeshire County Council Research & Monitoring

Note: * Jobs data after 2001 excludes development outside Cambridgeshire

- 3.32 Table 3-6 shows that, using the BWA methodology and **only** taking into account potential changes in the jobs on new/lost B1 to B8 land, there are still concerns about the validity/robustness of the BWA/SP forecasts for their South sector. Even adopting BWA's own density assumptions, the potential employed residents to jobs imbalance at 2021 is under 7,800, not the 9,200 claimed. Applying the actual recorded jobs to floorspace densities in the South sector to future B1 land commitments brings the potential imbalance down to just over 5,000 in 2021.
- 3.33 The same methodology applied to the larger 'Commuting zone' shows that the employed residents to jobs imbalance in 2021 could rise to around 2,300 adopting BWA density assumptions. SCDC density assumptions indicate that there could even be a small surplus of employed residents by 2021. However, this analysis takes no account of potential job increases in Saffron Walden and Haverhill.
- 3.34 Changing the zone definition to one which explicitly recognises travel sustainability is in line with PPG13. There is the potential for a much higher percentage of the population to cycle to work. BWA density assumptions suggest that the 2021 employed residents to potential jobs imbalance could be just over 6,700; SCDC density assumptions would reduce this figure to just over 4,000.
- 3.35 However, it is very important to understand that these figures are entirely hypothetical. The methodology, as devised by BWA, takes no account of the evidence from recent surveys. This shows that there is effectively no current imbalance of employed residents to total jobs in the South sector. The methodology as followed in Table 3-6 indicates a large imbalance as at 2007: a 4,306 shortfall of jobs using the BWA jobs density assumptions and a 3,068 shortfall if using the SCDC assumptions, (see Table A-3).
- 3.36 On this basis we would advise against using the BWA methodology for forecasting jobs to employed residents balances in the future.

4: Other Labour Market Issues Relating to the Hanley Grange Eco Town Proposal

- 4.1 This final section draws on a number of data sources to show that the Hanley Grange development proposal could have implications for the achievement of sustainable economies elsewhere in the South Cambridgeshire and Cambridge City sub-region.

Competition for jobs

- 4.2 The employment forecasts for South Cambridgeshire take full account of the potential for development at the three Research Parks included in the Hanley Grange area, (see Statistical Appendix, Table A-6). The proposal to develop a further 60,000 sq metres of ‘high-tech’ floorspace at Hanley Grange, over and above the commitments at the existing Research Parks, would appear to suggest potential over-supply of hi-tech floorspace in the sub-region. Such a development could support 2,000 jobs, over and above the 5,700 capacity of the three South Cambridgeshire Research Parks in the South sector. Competition in relation to established development areas to the north of Cambridge could be a particular challenge.
- 4.3 There is a similar issue in relation to the proposal for 20,000 sq metres of other ‘office’ floorspace planned for Hanley Grange, potentially giving rise to 1,000 jobs.

Research Park employment profiles

- 4.4 The Research Parks employ significant numbers of professional staff, particularly scientists. Many are relatively new graduates, especially post-doctoral. Many staff are on short-term contracts as their employment is governed by research contracts. The BWA report acknowledges that high numbers of staff live in Cambridge, often sharing with colleagues and living in the large privately-rented housing sector. Such staff enjoy the social life of Cambridge outside work and are not at a life stage where they prefer to live in a village. It is interesting to note that in 2001, 17% of the workforce population of ‘The Abingtons’ ward lived in Cambridge City (512 of 2,988). This was a higher percentage than recorded in any of the other wards in the BWA South sector, even those immediately adjacent to the City, such as ‘The Shelfords & Stapleford’.
- 4.5 The SP proposal argues that 20% of Hanley Grange’s employed residents are likely to work in the four Research Parks – a total of over 2,000 people. This represents almost 40% of the potential new jobs on the sites, 2007 to 2021.

Long distance commuting

- 4.6 The proximity of the M11, A505 and Cambridge to London Liverpool Street railway line is cited by the Hanley Grange proposals as giving excellent transport links. However, access to these routes is also likely to be highly attractive to long-distance commuters. Evidence from the 2001 Census shows that Cambridgeshire wards with railway stations and good links to

London already have a higher than average proportion of employed residents working in London.

- 4.7 The 2001 Census shows that 5.9% of employed residents living in the BWA-defined South sector travelled 60km or more to work – significantly higher than the 5.1% of all South Cambridgeshire employed residents who travelled such a long distance to work;. (i.e. this is 13.6% higher than the district norm).
- 4.8 In contrast, 3.6% of the South sector’s workforce population travelled 60km or more to get to work. This compares with a higher 4.1% of the total South Cambridgeshire workforce population. This suggests that as at 2001 the South sector was not attracting in large numbers of commuters from a long distance away. (Looking at in-commuters travelling over 40km to work: (i) into the South sector – 6.8% of all; (ii) into all of South Cambridgeshire - 7.7% of all).²

² See 2001 Census tables UV80 and UV35

5: Summary of Key Issues

5.1 In the paragraphs below, we summarise the key findings of this report:

- revised job forecasts for South Cambridgeshire up to 2021 have recently been produced, drawing on the most up-to-date information available on employment and population and incorporating the approved East of England Plan dwellings targets. They are broadly in line with earlier Experian ‘EG21’ job forecasts. However, they imply significantly lower job growth than the BWA report suggests. This is because they relate to the entire economy – not hypothetical job increases on land identified for B1 to B8 use
- job forecasts are higher than the related ‘workplace population’ forecasts as they take into account the fact that a proportion of the workforce has more than one job
- the ABI can be broken down by the BWA geographic sectors to show employee job trends for the period December 2000 to 2005. This analysis suggests that there has been only marginal job increase in the ‘South’ sector over these five years – just 200 in total. This shows that job increases on the four research parks have effectively been counter-balanced by job losses elsewhere. The South sector experienced lower job growth than any of the other 3 sectors defined by BWA
- this suggests limitations to the BWA methodology. BWA assume that all job change in a Sector arises from net change in employment on B1 to B8 land – and assumes worker to floorspace densities which the local Research parks consider to be too high (i.e. not 30 sq metres per person, but 20 sq metres per person)
- BWA appear to have made a number of errors in producing their estimates of the recent and potential job capacity of B1 to B8 employment land in each of the four defined Sectors. These include: stating that employment land development occurring in the 6 years from 1999 to 2005 actually took place in the 4 years 2001 to 2005; failing to take account of gross losses of B1 employment land in this period; calculating employment to floorspace densities as 20sq metres per person when the local research and science parks state the actual density is a higher 30sq metres. Collectively these 3 factors combine to mean that BWA have assumed significantly higher job growth on employment land than the revised assumptions suggest is possible
- BWA’s analysis omits a significant number of wards in the south west of South Cambridgeshire
- the rationale for the selection of wards by BWA for their geographic sectors is not explained. The Sectors also exclude nearby market towns, even though there are commuting flows of some size with adjoining wards. Alternative approaches to defining the sectors, using actual commuting or distance of travel, show different results (even with the BWA methodology)

- the total capacity of the B1 to B8 employment land in South Cambridgeshire is likely to support (on its own) a further 35,000 jobs net, 2007 to 2021, (Cambridgeshire County Council's estimates). However, Oxford Economics forecast that total job increase in the district to be around 14,000 over this period. (The workplace population growth will be even lower). This is because there will be significant job losses on other sites and in other industry sectors, as manufacturing and primary sector job losses occur. This isn't just a South Cambridgeshire phenomenon: for Cambridgeshire as a whole Oxford Economics forecast a 53,900 job increase 2007 to 2021; the potential capacity of B1 to B8 land alone can support a much higher 76,000 jobs in this period.
- development of Hanley Grange involves providing a further 60,000 sq m of 'hi-tech' space, considered capable of supporting 2,000 jobs. It should be noted that the Oxford Economics employment forecasts are not in any way 'constrained' to limit the expansion of hi-tech employment. We should therefore expect this 'new' space to represent over-supply, possibly disadvantaging Research and Science Parks to the north of Cambridge
- the Hanley Grange prospectus also suggests that there will be further 20,000 sq m of 'office' development. Again, the 1,000 jobs this could support will represent over-supply in the Cambridge sub-region.
- looking at the implications of the up-to-date jobs information, the corrected assessment of the employment potential of B1 to B8 land and revised employment forecasts for South Cambridgeshire and also the Research Parks included as the 'core' employment base for Hanley Grange, we can draw quite different conclusions to those stated in the BWA study. In fact, rather than concluding that there will be an excess of jobs over numbers of 'employed residents', recent experience suggests that labour supply and demand could well continue to be in balance by 2021, as it appeared to be in 2006. Consequently on this basis there appears to be no need for a large new town. In fact, the building of a new town could create unwelcome competition for job growth elsewhere in the Cambridge/South Cambridgeshire area.
- the case for Hanley Grange argues that around 20% of the new settlement's employed residents would work on the research/science parks. This suggests that the lessons of current employment and commuting flows are not well understood. Significant numbers of professional scientists and professional workers at these Parks are relatively young – recently qualified, post-graduate and post-doctoral staff. A high percentage are on short, fixed-term employment contracts. For life-style and housing availability reasons, many live in Cambridge, sharing houses in the large privately-rented sector. There is no evidence to suggest that over 2,000 of the Science Park staff will actually live in Hanley Grange as the developers claim, (20% of the new town's 10,000 employed residents, based on 8,000 dwellings).

Annex A: Statistical Appendix

Table A-1 : Employed residents – BWA defined sectors & data (source Table 4-1, 4-2)

Year & source	West	North	East	South
2001 BWA	9,139	19,516	10,189	15,598
2005 BWA	11,527	19,944	10,380	15,931
2021 BWA	14,139	31,020	10,643	16,377
2001 to 2005	2,388	428	191	333
2005 to 2021	2,612	11,076	263	446
2001 to 2025	5,000	11,504	454	779

Source: Bone Wells Report 2006

Table A-2 : Workplace Population (Census 2001 base plus net jobs increase on B1 to B8 land)- BWA defined sectors (source Tables 4-1, 4-2)

Year & source	West	North	East	South
2001 BWA	8,407	15,661	8,824	15,659
2005 BWA	9,999	17,865	9,469	20,017
2021 BWA	13,661	30,117	10,537	25,599
2001 to 2005	1,592	2,204	645	4,358
2005 to 2021	3,662	12,252	1,068	5,582
2001 to 2021	5,254	14,456	1,713	9,940

Source: Bone Wells Report 2006

Table A-3 : Employee jobs (Census 2001 base plus net jobs increase on B1 to B8 land); BWA & SCDC densities South sector

Year & source	Employed residents	Dwellings	Net demand B1 to B8 jobs, BWA densities	Balance ER to WP BWA	Net demand B1 to B8 jobs, SCDC densities	Balance ER to WP SCDC
2001	15,597	12,506	15,659	-62	15,659	-62
2007	16,149	12,949	20,455	-4,306	19,217	-3,068
2021	16,930	13,549	24,678	-7,748	22,047	-5,117
2001 to 2007	552	443	4,796		3,558	
2007 to 2021	781	600	4,223		2,830	
2001 to 2021	1,333	1,043	9,019		6,388	

Source: South Cambridgeshire District Council, Cambridgeshire County Council Research & Monitoring

Table A-4 : Employee jobs (Census 2001 base plus net jobs increase on B1 to B8 land); CCC commuter zone: BWA & SCDC densities

Year & source	Employed residents	Dwellings	Net demand B1 to B8 workplace population/jobs BWA densities	Balance ER to WP BWA	Net demand B1 to B8 workplace population/jobs SCDC densities	Balance ER to WP SCDC
2001	39,605	32,162	34,159	5,446	34,159	5,446
2007	41,526	33,722	39,681	-1,845	38,467	3,059
2021	45,272	36,402	47,552	-2,280	44,784	488
2001 to 2007	1,921	1,560	5,522		4,308	
2007 to 2021	3,746	2,680	7,871		6,317	
2001 to 2021	5,667	4,240	13,393		10,625	

Source: South Cambridgeshire District Council, Cambridgeshire County Council Research & Monitoring

Table A-5 : Employee jobs (Census 2001 base plus net jobs increase on B1 to B8 land); CCC 5km zone: BWA & SCDC densities

Year & source	Employed residents	Dwellings	Net demand B1 to B8 workplace population/jobs BWA densities	Balance ER to WP BWA	Net demand B1 to B8 workplace population/jobs SCDC densities	Balance ER to WP SCDC
2001	23,360	19,111	22,226	1,134	22,226	1,134
2007	24,251	19,840	26,812	-2,561	25,642	-1,391
2021	25,599	20,497	32,338	-6,739	29,614	-4,015
2001 to 2007	891	729	4,586		3,416	
2007 to 2021	1,348	657	5,526		3,972	
2001 to 2021	2,239	1,386	10,112		7,388	

Source: South Cambridgeshire District Council, Cambridgeshire County Council Research & Monitoring

A.1 Tables A-3 to A-5 show revised figures of the potential for net employment (jobs) arising from B1 to B8 land in the South sector. The Tables incorporate both the BWA B1 employment density assumption, (20 sq metres per job) and SCDC's recorded Research Park figure of 29.4 sq metres per job. It should be noted that the different density assumption makes a significant difference to the crude 'employed residents to jobs' balance.

Table A-6 : Workplace Jobs potential, Research/Science Parks in South sector

Employment/ Development jobs estimate by time period	Babraham	Granta Park	Sanger Centre Hinxton	Total Science /Research Parks	All B1 to B8 land in South Sector SCDC estimate
1999-2007	-57	2,006	484	2,433	4,556
2007 with pp	466	2,326	509	3,301	5,545
Total	409	4,331	993	5,733	10,101

Source: South Cambridgeshire District Council, Cambridgeshire County Council Research & Monitoring