



Further Advice on Employment Land and Premises Study

Vale of Glamorgan Council



Final Report

May 2015

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1.0 INTRODUCTION

1.1 The BE Group provides the following additional advice to the Vale of Glamorgan Council in regards to employment growth and its potential implications for employment land and housing needs.

1.2 The BE Group is a property and regeneration consultancy firm based in Warrington. We have consulted throughout the United Kingdom, including extensive employment land studies for local authorities as input into Local Plans. The BE Group has also provided studies for specific industry sectors and employment locations such as Enterprise Zones.

1.3 The BE Group prepared the Employment Land and Premises Study (ELPS) on behalf of Vale of Glamorgan Council in 2013 as part of the evidence base for the Local Development Plan. The Council received representations in relation to its Deposit Local Development Plan, including from the Welsh Government and the Home Builders Federation (prepared on their behalf by Nathaniel Lichfield and Partners) in 2013. Comment from these entities included commentary on the relationship between employment growth and household growth. As a consequence of their submissions, the BE Group has been asked to provide additional advice in response to these comments, in particular to provide detail on:

- The relationship between employment growth projections and likely household need;
- The projections in relation to the latest available data;
- The allowances in the future projections for the zero take-up of employment land in recent years;
- Commentary by NLP and the Welsh Government on the Deposit Plan in relation to employment and housing growth; and
- The effect of the LDP employment policy on overall housing requirements.

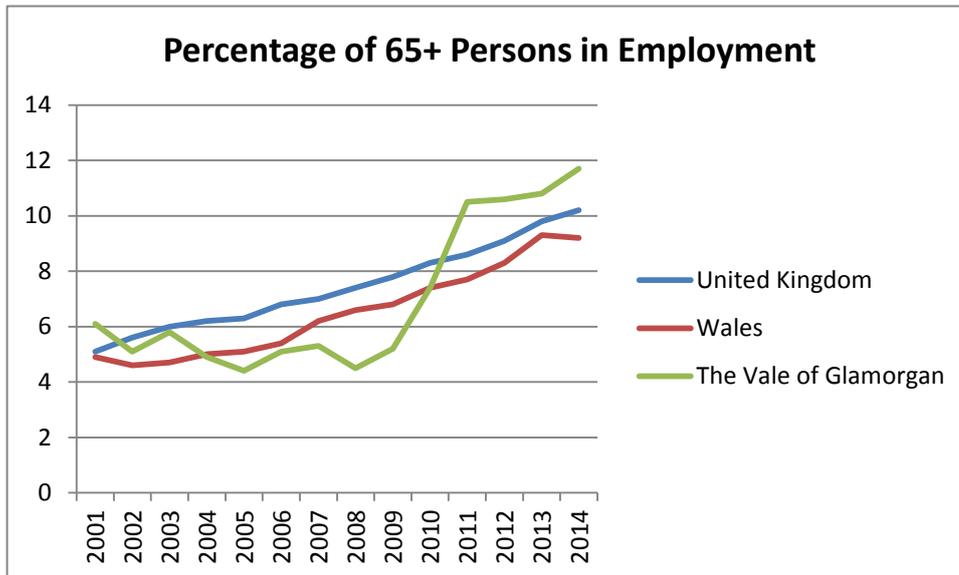
1.4 The advice below refers to and is to be read in conjunction with the ELPS, as well as the responses from NLP and the Welsh Government.

2.0 UPDATE ON EMPLOYMENT PROJECTIONS BASED ON LATEST WELSH GOVERNMENT PROJECTIONS

- 2.1 Since the development of the ELPS in 2013 further population projections have been released by the Welsh Government. These projections are based on 2011 data, rather than the 2008-based projections used in the ELPS.
- 2.2 Chapter 8.0 of the ELPS included employment land growth forecasts based on three methodologies, including growth of the resident population as a potential labour supply (Model 3). This methodology used Oxford Economics (OE) population forecasts as the basis for the labour force projections to 2026 and the resultant employment land implications to cater for this land. The OE projection was for an increase in population to 137,000 persons by 2026, which equates to an additional 470 working residents between 2011 and 2026. Employment density calculations led to an estimate of an additional land demand of 0.81-0.89 ha. Even if all of this land was to be provided within the Vale of Glamorgan (i.e. no out-commuting), the supply of employment land at that time was substantially in excess of the demand generated by the growth of resident workers.
- 2.3 The most recent update of population projections from the Welsh Government forecasts that the resident population of the Vale increased from 126,679 in 2011 to 132,529 by 2026, significantly lower than the OE forecasts used in the 2013 study. In particular, the 2011-based Welsh Government projections include a decline in the working age population from 79,677 persons in 2011 to 76,403 persons in 2026, whereas the previous OE forecast was from a lower 2011 base (76,000) and included a rise in the working age population to 79,000 by 2026. Using the model based on labour supply, the decline in the working age population would result in a net decline in the employment land required to meet the needs of that residential workforce, assuming the same levels of employment participation as adopted in the earlier study.
- 2.4 Even adopting more bullish assumptions in regards to employment rate (which is reasonable given employees would be in high demand given the declining workforce numbers) would result in a low demand. If, rather than an assumed decline in the employment rate from 78 percent to 75 percent, as assumed in the OE projections, the rate is assumed to increase to 82 percent (a 5 percent rise on 2011 levels to allow for higher demands for workers on the smaller local pool of workers), the

numbers of the working age population in employment would increase from 62,150 workers in 2011 to 62,650 workers in 2026, an increase of 500 workers. This is a similar figure to the 470 additional workers projected in the earlier study, with corresponding implications for employment land, with a need for a further 0.88-0.96 ha of employment land.

2.5 A recent trend that was not factored in as part of the 2013 report was the rise in the proportion of 65+ year olds remaining in the workforce. As the chart below shows, the proportion of the population aged 65+ in employment has increased in recent years, most markedly in the Vale of Glamorgan, in comparison to Wales and the UK. This increase has only become apparent as a trend in the most recent years in the Vale.



Source: Stats Wales 2011-based estimates

2.6 The trend for 65+ year olds to be in the workforce is likely to continue as the baby boomer cohort approaches retirement age. However, as this group continues to age, the percentage in the workforce would decline again, as the baby boomer cohort eventually does retire and the younger portion of the 65+ year olds would be in smaller numbers.

2.7 Assuming that as at 2026 some 10 percent of those aged 65+ years were in employment equates to some 3,290 workers, an addition of about 850 workers over 2011 in that age group. 850 additional workers equates to a land demand of about 1.4-1.5 ha. Once again, this is a small amount in comparison to currently available

land stock in the Vale. Therefore, even if all of this demand generated by resident workers aged 65+ years was provided by the Vale (i.e. no out-commuting) there is currently sufficient land to cater for this growth. The most interesting implication of the employment land modelling based on labour supply is that the only labour supply cohort growing is the 65+ cohort. Employers would need to understand this structural change in the workforce and respond accordingly to their needs.

- 2.8 The most recent Welsh Government population projections include a decline in the number of residents of a traditional working age population (16-64 years) between 2011 and 2026. Employment land demand calculations based on resident worker population projections would see a corresponding decline. Even adopting more strident assumptions in terms of employment rates of this working age population and considering demand for land generated by 65+ year old residents in the workforce would generate a modest demand of up to about 2.5 ha of additional employment land. Assuming all of this demand is provided for in the Vale, such demand could be accommodated by the existing supply of vacant employment land. That is, changes to the workforce age profile in the Vale of Glamorgan to 2026 are not anticipated to significantly impact on the need for further employment land.
- 2.9 The 2011-based Welsh Government projections were developed in a period of lower economic activity in Wales and the population projections reflect this. The Welsh Government considers these projections as a starting point for local authorities in their planning deliberations. The Welsh Government appears to be cautioning that there is more of a likelihood that these population projections would underestimate actual growth, rather than overestimate actual growth. Therefore planning for housing and employment should be cognisant of this.
- 2.10 A sensitivity analysis of the population projections and the implications for the residential labour generated employment land demand has been undertaken as a means of addressing this. The Welsh Government release five population projection sets, based on differing migration assumptions. The main population projection released is based on the migration trend of the last five years, with four variants released which make different migration assumptions – zero migration, low variant, high variant and ten year average. The 2011-based population projections for 2026 for both the total population and the working age population are provided in Table 1 for the five variations.

Table 1 – 2011-based Population Projections

Variant	2026 Total Population	Growth on 2011 for Total Population	2026 Working Age Population	Growth on 2011 for Working Age Population
Main population projection	132,529	5,850	76,403	-3,274
Lower variant	130,983	4,304	76,364	-3,313
Higher variant	133,606	6,927	76,441	-3,236
Zero migration	129,586	2,907	75,282	-4,395
10-year average	136,281	9,602	78,710	-967

Stats Wales

2.11 It is noted that the working age population is projected to decline under all scenarios. Therefore, assuming the employment rate would follow the earlier OE projections (i.e. a decline from 78 percent to 75 percent) between 2011 and 2026 this would also result in a net decline in demand for employment land to meet the demand of the residential workforce for all scenarios.

2.12 However, the BE Group has run a sensitivity analysis using the more bullish assumption for employment rate and including the 65+ year old cohort as outlined in paragraphs 2.4-2.7 for the ten year migration average scenario (the highest projection scenario) and calculated the employment land demand generated under these assumptions. That is, the land demand has been calculated using positive assumptions for migration, employment rate and workforce participation of those aged 65+ years. Under this scenario it was calculated that the traditional working age population in employment would increase by 2,400 resident workers between 2011 and 2026 and the number of residents in employment aged 65+ years would increase by 900 workers.

2.13 Using the same methodology to convert the number of additional workers to B-class employment land results in additional land generated by the resident labour force as seen in Table 2.

Table 2 – Resident Labour Force Demand, 10-year Migration and Bullish Assumptions

Variant	Additional Workers 2011-2026	Additional B-Class Land Demand, Hectares
Traditional Working Age	2,400	4.1-4.5
65+ Workers	900	1.6-1.8
Total	3,300	5.7-6.3

BE Group

2.14 This sensitivity analysis has analysed the potential land requirements generated using positive assumptions for migration, employment rate and workforce participation of those aged 65+ years. If this scenario is realised, there would be a requirement for about 5.7-6.3 hectares of additional B-class land generated by the resident workforce. Even assuming that all of this land is provided in the Vale (i.e. no out-commuting) the supply as at 2011 would have been sufficient to meet this demand and further allocated stock to 2026 would have added to the choice for local firms.

3.0 COMPARISON OF HISTORIC LAND TAKE-UP AND WORKFORCE GROWTH

3.1 Labour demand which is expressed through the projected and actual change in jobs within the Vale is considered to be a more appropriate method of forecasting land needs than population change only. However, it is considered that this method in isolation is still unreliable and can distort, or underestimate actual land needs. To assess whether this is the case in the Vale of Glamorgan, historic trends have been analysed to look at jobs change over different time periods, and compare these with land take-up during the same periods.

3.2 Table 3 summarises the historic and projected growth rates of the population, working age population (16-64 year olds) and persons employed in the Vale during different periods which demonstrates that the period selected can generate different results.

Table 3– Historic and Projected Growth Rates

	1996-2007		1996-2011		2011-2026	
	Average Annual Growth	Average Annual Growth Rate (percent)	Average Annual Growth	Average Annual Growth Rate (percent)	Average Annual Growth	Average Annual Growth Rate (percent)
Resident population*	760	0.64	690	0.57	390	0.30
Working age population*	650	0.88	540	0.72	-220	-0.28
Employed in the Vale^	-190	-0.42	-50	-0.11	100	0.22

*Stats Wales data on the resident population

^ Oxford Economic data on the local workforce

3.3 Three approaches were used in the ELPS to project employment land take-up in the Vale to 2026:

- Model 1: Historic take-up (land consumed per annum)
- Model 2: Employment based forecast (local jobs growth)
- Model 3: Labour supply forecast (population growth)

3.4 The employment based forecast of the ELPS used OE jobs projections as the foundation of the forecasting. The historic OE modelling for employment has been used in this comparison exercise, using the period 1996-2007, which was the growth period in the Vale. In this period OE calculated a decline in the number of employment positions in the Vale of Glamorgan of approximately 2,040 jobs or about 190 positions per year on average. By industry, the largest declining sectors were

public administration and defence and manufacturing, with accommodation and food services and education having the largest growth. As the growth sectors are generally not located on B-class land and manufacturing is a key sector for B-class land, the modelling projects an overall decline in the amount of employment land demanded between 1996 and 2007 of 19.7-25.6ha, depending on the employment density assumptions adopted. This is summarised in Table 4 below, analogous to the approach of the ELPS.

Table 4 – Employment Based Modelling 1996-2007

Sector/Jobs	Workforce Growth (decline)	Percentage Workforce Change	Workforce Proportion (%) Occupying B1/2/8 Space	B1/2/8 Floorspace per job, sqm	Floorspace Required, sqm
Agriculture	(110)	-13.3	5	12	-60
Utilities	60	+11.3	5	12	+40
Manufacturing	(2,080)	-34.7	100	36-47	-75,000- -98,000
Construction	730	+29.9	26	12	+2,260
Transportation and Storage	120	+6.1	48	70	+4,070
Wholesale and Retail	(120)	-1.6	48	70	-3,900
Hotels and Catering	1,170	+53.9	0	-	-
Information and Communications	290	+82.9	100	12	+3,490
Real Estate	170	+70.3	100	12	+2,020
Finance and Insurance	(330)	-34.2	100	12	-3,910
Professional, Scientific and Technical Services	360	+25.5	100	12	+4,340
Administrative and Support Services	(20)	-1.1	100	12	-290
Public Administration	(2,350)	-43.5	30	12	-8,450
Education	810	+27.3	5	12	490
Health and Social Work	(1,000)	-12.5	15	12	-,1790
Arts, Entertainment and Recreation	130	+12.7	0	-	-
Other Services	140	+12.7	0	-	-
Total Floorspace					-76,710- -99,640
Developable Floorspace per hectare					3,900
Land Requirement (hectares)					-19.7- -25.5

Source: OE and BE Group 2015

- 3.5 As seen in Table4, the employment land modelling based on employment data results in a calculated *decline* in the demand for employment land between 1996 and 2007 of approximately 20-26ha. This compares to the actual take-up of employment land over this period of a positive 45.1ha.
- 3.6 However, the sensitivity of this method used in isolation is illustrated by the Stats Wales figures for 2001-2011, which showed a growth in the employed persons in the Vale from 2001 to 2011 of 560 workers per annum or 1.3% per annum growth (in comparison to the decline between 1996 and 2011 of the OE modelling). Adopting the same approach in calculating the employment land demand resulting from this growth leads to a calculated employment land of a positive 16.2-18.8ha, compared to the actual growth of approximately 41ha over this period. This is a closer reflection of the actual growth but still substantially different and demonstrates the significant fluctuations of the calculated land demand depending on the rate of growth adopted.
- 3.7 Given that employment projections would have a greater degree of uncertainty than estimates of historic employment, the land forecasting upon which such projections are based would have a significant degree of uncertainty. This is the basis for the BE Group adopting a range of approaches to corroborate the calculations in the employment study.
- 3.8 In summary:
- a. The historic employment numbers in the Vale have shown a different level of growth than the historic land take-up over the same period.
 - b. Employment land modelling based on jobs growth in isolation can underestimate actual land take-up, as was the case in the Vale for the period 1996-2007.
 - c. Employment land forecasts based on jobs projections have a significant degree of uncertainty due to the sensitivities to changes in the base data and inherent uncertainties in any future forecasting.
 - d. The BE Group adopts a multifaceted approach to land modelling as a means of limiting the uncertainty in regard to this forecasting.

4.0 COMMENTARY ON NATHANIEL LICHFIELD AND PARTNERS' REPORT

4.1 The BE Group has reviewed the NLP commentary prepared on behalf of the Home Builders Federation and provides the following comments.

Use of 2012 and 2013 land take-up in the analysis

4.2 The NLP report questioned the inclusion of the zero employment land take-up results for 2012 and 2013 in the ELPS, given that the base date for the study was 2011, calling it an “*artificial reduction of the employment land requirement*”. The NLP report adopted the land take up average of 1996-2011, which was 3ha per annum and projected land requirements to 2026 based on that average figure. This equates to requirement for 60ha (including a five-year buffer), compared to 53ha based on the 1996-2013 average of 2.65ha per annum.

4.3 In response to this, BE Group provides the following comments:

- There is no reason to ignore relevant information post-2011 that could inform the projections and planning for 2026;
- Six years of zero take-up (2007-2013) is an important trend and of significance to the planning for further employment land;
- Projecting a take-up of land for 2012 and 2013 that is known not to have occurred is an artificial inflation of the employment land requirement;
- It is reasonable to assume that the cyclical nature of land needs and economic growth will result in periods of zero take-up over a longer timeframe.

4.4 Notwithstanding this, if the 3ha per annum take-up is adopted for the projections and recognising that the actual take up in 2012 and 2013 was zero, equates to an additional land requirement of 54ha between 2011 and 2026, very similar to the projection of 53ha in the ELPS based on the 2.65ha per annum average.

Appropriateness of plot ratios and employment densities

4.5 The NLP report used a plot ratio of 0.4, which we consider reasonable for B class uses (we use 0.39).

4.6 The NLP forecast that the 60ha of additional land would equate to 4,500-7,200 additional B-class workers, which is a reasonable estimate if all land developed

adhered to the NLP model and if there is a full and efficient take up of the land (both in terms of the built form and employment within these businesses). On this basis it may even underestimate the number of additional B-class workers required if the workers are skewed more towards office based sectors. However, a full and efficient take up of the land is highly unlikely to occur by 2026 with a full workforce for the following reasons:

- Land take-up does not adhere to a strict translation of jobs created;
- Businesses may take larger premises than required for their short term needs;
- Businesses may purchase land and hold it;
- Developed premises may not be fully tenanted;
- Land is used inefficiently;
- Staged developments may see the entirety of the site considered taken-up but businesses establishing operations over a significant time period;
- The 60ha includes a five year buffer over and above the likely take-up level.

4.7 However, these reasons do not imply that all of this land should not be made available by 2026. The land allocation, including five year buffer allows for businesses to establish premises and subsequently expand on site and provides capacity for choice of premises. Such capacity is an important component of a well-functioning local economy.

4.8 As demonstrated in paragraphs 3.4-3.6 of the previous chapter, the relationship between employment land take-up and employment growth cannot be fully explained through calculations based on average employment densities on employment land. That section looked at historic workforce growth and the calculated employment land based on job densities and then compared to actual take-up, which was significantly higher. Doing the calculation in reverse, starting with land take-up and using job densities to calculate employed persons on site would result in an overestimation of the number of jobs.

4.9 It is difficult to provide an estimate of the likely level of employment on that additional land by 2026, due to the above reasons. Also, the NLP forecast suggests that labour demand will be created to fit land supply, whereas the BE Group's premise is that land should be provided to provide sufficient choice to meet the needs of businesses, and thus is demand led, not supply led. The BE Group has undertaken an estimate of the households supplying the workforce for the 60ha, under the assumption it is

taken up by the market by 2026. Allowance has been made for inefficient use of the land for the reasons outlined in the dot points of paragraph 4.6. Quantifying that level of inefficiency is inexact and thus the employment levels are provided as a range. The following assumptions have also been used:

- Percentage of local workforce also living in the Vale – 75 percent (an increase from 70.5 percent in 2013 and the 10-year average of 66.8 percent in line with policies to reduce out-commuting)
- Average persons per household – 2.20 (continuation of a long term trend for declining average number of people in a household)
- Percentage of workers per population in Vale of Glamorgan – 46.3 percent, which has remained relatively constant for several years.

4.10 The workers estimated to be on the additional employment land by 2026 was projected to be about 3,000-5,000. This equates to approximately 2,200-3,700 households in the Vale of Glamorgan providing workers for these sites. Given the 60ha projection is based on typical growth trends in the Vale the household projections flowing from this take-up projection would also be included in household projections that draw upon past trends and typical growth rates, other than the allowance for reduced out-commuting of workers. That is, the 2,200-3,700 household projection should be included as part of the Welsh Government household projections. However, the most recent Welsh Government population and household projections were influenced by slow growth in recent years due to the sluggish economy, particularly the scenarios based on five-year trends (see Table 1).

4.11 The household projections for the workers in the 60ha were based on employment land take-up rates over a longer period than the last five years. The Welsh Government projections using the ten-year migration scenario including periods of higher growth and are more indicative of the Vale's average growth levels. Therefore this scenario is most likely to truly incorporate the 2,200-3,700 household projection derived from employment land workers.

4.12 Given the projected growth of employment land is based on historic take-up, it is assumed that the overall function of the economy would be similar in the projection period. That is, there would be a similarly local focus to the function of businesses and that most premises would be for small or medium enterprises.

Extent to which Oxford Economics forecasts account for the recession

- 4.13 The date of the OE forecasts was 2013 and based on available information at that time, including lower growth rates due to the recession. The OE forecasts used in the ELPS are attached at the end of this document.
- 4.14 OE projected population growth from 127,000 persons in 2011 to 137,000 persons in 2026. It was stated in NLP's commentary that the 2026 figure was below the baseline and Option 1 forecasts of the Population and Housing Projections Background Paper. The latest Welsh Government forecasts, based on 2011 data are lower again, with a projected 2026 population of 132,529 persons.

Robustness of land take-up based on employment forecasts

- 4.15 The BE Group has some reticence in relying on land take-up based purely on employment forecasts, without taking other factors that influence land needs into account. The reasons for this are outlined in Chapter 8.0 of the ELPS, including under the Model 2 and Summary sections. In summary, our concerns with relying on this approach in isolation are that:
- It cannot account for the vagaries of the office market, including inefficient use of space or changes in businesses' use of space;
 - The economics of redeveloping underutilised or brownfield sites may mean that such sites remain vacant for a considerable time;
 - There is a need for choice in locations and sites to encourage businesses to expand operations, improve competitiveness and to provide options for incoming businesses;
 - Some firms hold onto land for their long term needs, thereby taking out of the market underutilised land;
 - There is uncertainty as to on what land classes the employment is undertaken. That is, some industry sectors include employment on B class land and non-B class land, such as transportation, construction, education and public administration, which may take a mix of office, industrial, home-based and institutional land or on no fixed location. Therefore there are assumptions required in forecasting land requirements based on employment growth projections, which introduce a level of uncertainty.
- 4.16 The comparison of historic take-up against net jobs change in section 3.0 of this advice demonstrates the relationship is not strict. This is why the BE Group uses the

three methodologies adopted in Chapter 8.0 of the ELPS. All three methodologies have their limitations and looking at the demand for employment land from three perspectives provides corroboration to the analysis.

Exclusion of economic activity assumptions

- 4.17 The NLP report commented that the ELPS assumed that all of the additional working age persons would be in employment and “*makes no assumptions about economic activity, unemployment or out-commuting*”. This is not the case. The forecasts from OE include assumptions as to the employment rate of the working age population, declining from 78 percent in 2011 to 75 percent in 2026, as seen in paragraph 8.29 of the ELPS.
- 4.18 The study did calculate the additional land requirements based on all additional resident workers, that is, regardless of whether they would work in the Vale or commute outside. However, the additional land requirements for all additional workers was only 0.81-0.89ha, which, even assuming all land is taken up in the Vale, is substantially lower than the current supply.

5.0 IMPLICATIONS OF LOWER GROWTH FORECASTS

- 5.1 Under each of the three forecast methodologies in Chapter 8.0 of the ELPS, it was forecast that the additional land requirements to 2026, including a five year buffer, were less than the available supply of land as at 2011.
- 5.2 As explained above the forecasting based on the population growth would not result in a need for further land to be provided. Indeed, adopting the same employment rate assumptions, there would be a negative land requirement. Even adopting more bullish assumptions in regards to employment rate and accounting for a rise in the 65+ year old cohort in the workforce, the land requirement based on the growth forecasts would be significantly less than the supply.
- 5.3 It is important to consider the implications for businesses of the lower population forecasts, regardless of the actual employment land take-up. A lower level of population growth would mean less population driven economic activity, which would most affect consumer based sectors such as retail or food/beverage services, but would have impacts on other sectors based on B class land, such as accountancy, financial services, real estate, mechanical repairs, etc. Indeed newly relocated residents from outside of the area are more likely to have a particular demand for services related to their move, such as legal, real estate, financial or storage services. A lower rate of population growth would mean a lower rate of growth in the demand for such services in the local area.
- 5.4 The other consideration is that there would be a smaller local pool of workers upon which businesses could draw, compared to the higher population growth scenario. This is likely to be exacerbated as the population ages and the proportion of the population of a traditional working age declining. Businesses may face increasing difficulty in sourcing local labour, potentially resulting in wage pressures, longer recruitment timeframes, less than ideal workers being employed and higher levels on in-commuting. Availability of local jobs may also result in some out-commuters choosing to change jobs to a local position.
- 5.5 However, more attractive conditions for workers would encourage more local economically-inactive residents to enter the workforce and encourage new workers to the area, thereby providing an impetus to population growth and establishing a new equilibrium in the labour force market.

- 5.6 It is also important to remember that the population is still anticipated to rise, the latest forecast are just forecasting a slower rate of growth. Therefore, there would still be opportunities for businesses to benefit from population growth and associated economic activity.
- 5.7 The employment policy is a positive and growth-oriented policy, making sufficient employment land available for growth in local businesses as well as providing strategic sites for aviation and associated industries and major operators to position along the M4. By presenting a policy that demonstrates that the Vale of Glamorgan is open for business would encourage business decision-makers to consider the Vale in any business relocation deliberations.
- 5.8 The implications from a successful implementation of the employment policy and take up of the land as anticipated to 2026 may be that the population growth rate is higher than the latest Welsh Government projections, which are lower than the earlier 2008-based projections. This would offset some of the outcomes discussed above in regards to the downward revision of the population growth rate.
- 5.9 Importantly there is a lag between employment growth and housing growth, as people do not change dwellings as often as they change jobs. Workers encouraged to work in the area from the increase in employment opportunities may commute from outside (e.g. Cardiff) for some time before choosing to relocate to the area to be closer to work.

6.0 COMMENTARY ON STRATEGIC EMPLOYMENT SITES

6.1 The strategic sites identified in the Deposit Plan include the following, totalling 433.5ha (gross area):

- Land south of Junction 34 of the M4 (51.1ha)
- Land adjacent to Cardiff Airport and Port Road, Rhoose (77.4ha)
- Aerospace Business Park, St Athan Rhoose (305ha)

6.2 The Cardiff Airport and St Athan Aerospace Business Park (ABP) sites comprise a single Enterprise Zone, which builds upon the existing infrastructure and facilities already in place. The Welsh Government, informed by the St Athan and Cardiff Airport Enterprise Zone board, is continuing to master-plan for the wider Enterprise Zone. The St Athan ABP site includes substantial runway and aviation infrastructure and buffer areas which are very land consumptive but do not include, nor will include, any employment. Therefore the employment densities on the site as calculated on the gross land area will be very low. The 2009 ABP Planning Statement included the following employment projections for the Enterprise Zone as it relates to the St Athan ABP:

Table 5 – Aerospace Business Park Employment Projections

Employment	Phase 1 2010-14	Phase 2 2015-20	Phase 3 2021-28
On wing direct	346	996	1,493
Off wing direct	85	190	315
Ancillary	20	59	90
Total on-site	451	1,245	1,898

Source: Planning Statement, Aerospace Business Park, Welsh Government, 2009

6.3 The projections are based on previous proposals for the ABP, in conjunction with a Defence Training College (DTC). While there is uncertainty as to whether the DTC will proceed, the St Athan base remains a focus of activity for the Ministry of Defence and the Welsh Government has maintained its development aspirations for the St Athan ABP which has since been designated within the Enterprise Zone. Whilst proposals for the ABP will contain revised plans to build on existing infrastructure and work on a master plan is ongoing this projection demonstrates the employment aspirations for the strategic site at St Athan.

- 6.4 The Enterprise Zone is also comprised of the strategic employment site at Cardiff Airport known as the 'Gateway Development Zone'. Development of the Gateway Development Zone is anticipated to bring several thousand jobs to the Enterprise Zone in the long run and it is understood that work on the master plan as part of the Enterprise Zone is still ongoing. Therefore it is difficult to estimate what the 2026 employment at the Gateway Development Zone would be, however a figure of 1,000 jobs at the Gateway Development Zone by 2026 would represent a successful growth of this component of the Enterprise Zone.
- 6.5 The actual growth of employment in the period 2010-2014 has been less than that forecast as at 2009. It was reported in January 2015 that 94 jobs had been created in the Enterprise Zone, an average of approximately 25 jobs per year. While the Enterprise Zone, which now includes the Cardiff Airport site may still yield the ultimate provision of jobs of the order forecast for Phase 3 (or potentially significantly higher), given the slow growth in the early years of this project due to the slow performance of the economy, it is likely that the ultimate employment would now occur beyond 2030.
- 6.6 Taking this into consideration and the fact that the St Athan site may offer revised plans from those linked to the previous DTC proposal, BE Group has undertaken a calculation of the household demand as at 2026 derived from the employment at the St Athan and Cardiff Airport Enterprise Zone. Given the uncertainty in the planning, timing and development of the Enterprise Zone, a range for the employment has been given. It is assumed that the on-site employment would be 1,500-2,500 jobs as at 2026.
- 6.7 It is noted that the Defence Technical College and Aerospace Business Park Economic Impact Assessment prepared in May 2009 assumed 50 percent of workers of the ABP (including the DTC) would reside in the Vale. BE Group has adopted this level, which is above the 2013 level for the Vale as a whole (70.5 percent) and the assumed increase to 75 percent adopted in paragraph 4.9. The lower figure of 50 percent has been adopted as the employment in the Enterprise Zone would be of a specialised nature and thus less likely to be able to draw from a local workforce than a more typical job provided in the Vale. The other assumptions of paragraph 4.9 have been adopted.
- 6.8 Using these assumptions, 1,500-2,500 jobs at the Enterprise Zone would equate to approximately 700-1,200 households for those workers in the Vale of Glamorgan.

Success of the Enterprise Zone is likely to bring workers to the Vale to live that otherwise would not have come and thus would not be accounted for in the Welsh Government's population growth projections and corresponding housing assessment.

- 6.9 It is considered that 1,500-2,500 workers employed at the Enterprise Zone by 2026 would be a successful outcome for the project. To reach this employment figure would require an acceleration of the relocation of businesses to the St Athan and Cardiff Airport areas. Furthermore, given it is a specialist aviation Enterprise Zone, there is likely to be substantial lead times on growth of the site, even with the existing infrastructure and the impetus of the Enterprise Zone designation. The nature of specialist economic areas can be such that it can take several years for momentum on the site to take hold before a more rapid period of growth as the area matures. Therefore it is BE Group's opinion that the 2,500 employment figure would be an upper level as at 2026.
- 6.10 The Deposit Plan states that the net developable area of the strategic employment land (B1/B2/B8) at Junction 34 is 28.26ha, with a further 6.64ha to meet local employment needs. The Travel Plan prepared by BWB on behalf of Renishaw for the full site (strategic land and local employment) included calculations for the employment of the site at capacity. The calculated total B-class employment on the site was estimated to be 3,110 FTE jobs, including 563 Renishaw positions that were already in place at the time of the writing of the report. A higher proportion of logistics uses at the site, which appears to be the intended focus of this location, is likely to lead to a lower total employment yield at about 1,600-2,000 FTE jobs.
- 6.11 The site's motorway location at the north of the Vale of Glamorgan area also means that it is accessible for employees residing outside of the Vale. Indeed it is more accessible for some urban centres of Rhondda Cynon Taff and Cardiff than for the coastal areas of the Vale of Glamorgan. Appendix B of BWB's Transport Assessment submitted as part of the planning application includes a gravity model to show the light vehicle traffic movement for the Transport Assessment's morning and evening peak analysis. Only 11.7 percent of the trips were to/from the Vale of Glamorgan, with Cardiff having a 52.5 percent share and Rhondda Cynon Taff having an 8.6 percent share of trips.
- 6.12 This demonstrates the transport planning perspective on likely trip generation of employees based on current urban patterns and road networks. Changes to urban patterns, such as significant housing in the site's employee catchment would

influence the model's findings. If the jobs figure presented in the Travel Plan for the strategic land and local employment land of 3,110 jobs and the gravity model's findings are adopted, then some 360 workers at the site at capacity would originate from the Vale of Glamorgan, This equates to some 340 households on current worker/population and population/household ratios.

- 6.13 The market for this strategic site is narrow at present, with better located regional distribution sites that could serve a similar market to the east (Bristol, Chepstow, Cardiff). Therefore take-up of the site may be slow in the early years. However, its high profile position on the M4 and large sites mean that it would still be attractive to potential users. The land is likely to be positioned at a lower price point than similar products in the established distribution areas.
- 6.14 The Deposit Plan includes a statement that the strategic sites could generate an additional 12,000-15,000 jobs within the economy of South East Wales. That is, it will include flow-on (direct and indirect) jobs for the region, generated by the increase in economic activity and not all jobs would be located within the Vale. Given the specific employment calculations for the strategic sites, this figure for the overall economy appears to be an overstatement. Notwithstanding this, once again, this is likely to be a long-term level of jobs, significantly post-2026.
- 6.15 However, it is recognised that these strategic sites are an important contribution of the Vale of Glamorgan to the regional economy. The Vale has traditionally been in Cardiff's economic sphere of influence, with higher order services provided in Cardiff and the Vale providing workers for the City. The strategic sites represent an opportunity for the Vale to broaden its regional role, The successful development of the Enterprise Zone would provide impetus to the South Wales economy in advanced manufacturing/engineering, which can provide substantial flow-on effects for components suppliers and smaller engineering enterprises, which service the core aviation sector. The Enterprise Zone would also provide significant opportunities for linkages with higher education facilities for apprenticeships and research. The development of the Junction 34 strategic site would allow larger enterprises to locate to the area, servicing all of South Wales.

7.0 CONCLUDING COMMENTS

- 7.1 This advice has been to clarify positions of the ELPS in light of submissions to the Deposit Plan as well as commenting implications from updated data.
- 7.2 The lower Welsh Government population projections to 2026 have implications for the availability of local labour and potentially for the uptake of employment land. However, as discussed, employment land take up is not directly correlated to population growth, due to the vagaries of the property market, changes in business operations, need for spare capacity and the uncertainty of the projections. Hence, the BE Group regularly uses a range of methodologies to forecast employment land demand to reduce the level of uncertainty.
- 7.3 The additional local and strategic employment lands have implications for housing needs, although as outlined in this advice, the relationship between employment land take-up and jobs is inexact and thus the implications for housing are difficult to quantify with precision. BE Group has projected additional household to service the employment on these sites, summarised in the Table 6.

Table 6 – Summary of Household Projections from Employment

Employment	Potential 2026 Jobs	Potential 2026 Jobs taken by VoG residents	Projected VoG Households resulting from additional employment land in VoG	Total above WG 10-year migration scenario projections
Local Employment Land	3,000-5,000	2,300-3,800	2,200-3,700	-
Enterprise Zone	1,500-2,500	1,100-1,900	700-1,200	700-1,200
Junction 34 Site	3,110	360	340	340
Total	7,610-10,610	3,760-6,060	3,240-5,240	1,040-1,540

Source: BE Group

- 7.4 The projected households for the local employment land employment would be included in the Welsh Government household projections (10-year migration scenario) as this employment land is based on typical, historic growth patterns in the Vale. The households projected for the Strategic sites are likely to be over and above the Welsh Government projections. The projections have not included an allowance for additional economic activity outside of the employment land that may result from a growing population and the subsequent implications for housing. However it does

assume an acceleration in the growth of these areas from the performance of recent years.

- 7.5 The Deposit Plan includes policies that encourage economic growth, retention of the workforce within the Vale of Glamorgan, its regional role, sustainable communities and affordable housing. There is an interrelationship of such policies within a community and housing needs and provision would need to consider the all policies in the Deposit Plan and the potential for their impact on housing.

Appendix 1

Oxford Economics Data

Table A1 – 2013 Oxford Economics Employment Projections

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Population (000s)	127	127	128	129	130	130	131	132	132	133	134	134	135	135	136	137
Working age population (000s)	76	76	77	77	77	78	78	78	78	78	78	78	78	78	79	79
Migration (000s)	0.2	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Employees - total (000s)	37	37	37	37	37	37	38	38	38	38	38	38	38	38	38	38
Self employed jobs - total (000s)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Employment (000s)	44	45	44	44	44	45	45	45	45	45	45	45	46	46	46	46
Employment - people based (000s)	37	38	38	37	38	38	38	38	38	38	38	38	38	38	38	38
Net commuting (000s)	-21.96	-21.28	-21.24	-21.26	-21.28	-21.35	-21.34	-21.30	-21.34	-21.33	-21.54	-21.73	-21.72	-21.68	-21.74	-21.81
Unemployment level ('000s)	3.0	2.8	2.8	2.9	2.8	2.8	2.8	2.7	2.6	2.6	2.5	2.4	2.3	2.3	2.3	2.3
Unemployment rate (% of labour force)	6%	6%	6%	6%	6%	6%	6%	6%	6%	5%	5%	5%	5%	5%	5%	5%
GVA - Total (£m 2009)	1575	1582	1592	1618	1653	1694	1737	1777	1818	1861	1906	1951	1998	2046	2094	2139
Resident employment (000s)	58.98	59.21	58.80	58.75	58.79	58.88	58.89	58.96	59.02	59.06	59.27	59.41	59.44	59.43	59.45	59.45
Resident employment rate (%)	78%	78%	77%	76%	76%	76%	76%	76%	75%	75%	76%	76%	76%	76%	75%	75%

SOURCE: Oxford Economics