Further Employment Growth Scenarios Assessment

Flintshire County Council

Final Report

October 2015

CONTENTS

1.0 INTRODUCTION

1.1 This Report provides additional advice to Flintshire County Council in regards to employment growth and its potential implications for employment land.

1.2 The BE Group prepared the Employment Land Review (ELR) on behalf of Flintshire County Council and Wrexham County Borough Council (final report September 2015) as part of the evidence base for the two Councils' Local Development Plans. This further advice refers to the forecasting and findings of the ELR and should be read in conjunction with that report. The ELR report forecast employment land demand to 2030, based on historic land take-up and Cambridge Econometrics employment forecasting. The employment forecasts projected a significant decline in the manufacturing sector.

1.3 Flintshire County Council has requested further scenario modelling on the employment forecasts to 2030, to account for more positive prospects in the manufacturing sector, significant development intents for the Deeside Enterprise Zone and updated population forecasts. This advice outlines the further scenario modelling and the implications for Flintshire County's provision of employment land.

1.4 This advice draws upon data from the ELR, Welsh Government population projections and modelling prepared for Flintshire County Council by the Corporate Research and Information Unit of Conwy County Borough Council.

2.0 UPDATE ON EMPLOYMENT PROJECTIONS BASED ON LATEST WELSH GOVERNMENT PROJECTIONS

2.1 The ELR examined the 2011-based principal population projections for Flintshire County, released by the Welsh Government in 2014. These projections, which remain the most up-to-date projections released by the Welsh Government, forecast that the residential population of the County will increase from 154,115 persons in 2015 to 155,844 persons in 2030, an increase of 1,729 persons or 1.12 percent.

2.2 Flintshire County Council has commissioned population forecasting scenarios based on a recognition that recent migration levels had been higher than the Welsh Government's population forecasts had anticipated. The commissioned work also examined the resultant household formation and dwelling growth required to service such growth.

2.3 Table 1 summarises the updated forecasts for population, household and dwelling growth to 2030, prepared by Conwy County Borough Council on behalf of Flintshire County Council. The revised analysis used a 15-year average migration base to 2014 and a further scenario that adopted the highest level of annual migration within that 15-year period, which was the 2012/13 migration level. The projections maintained the Welsh Government's assumptions on fertility, birth and death rates and household formation. For comparison, the Welsh Government principal population projection (included in the ELR) and the 10-year migration trend projection are included. The 10-year migration scenario is higher than the principal projections, although is less than the revised population forecasts, as seen in Table 1.

Table 1: Revised Population Growth Forecasts

	WG 2011-based Principal Population	WG 2011-based 10-year Migration trend	2014-based 15-year Migration trend	2014-based Highest Migration Level over 15-year base
2030 Population projection	155,844	156,052	158,851	163,789
Population change 2015-30	1,729	1,865	4,516	9,230
2030 Households	68,710	68,947	69,929	71,760
Household change 2015-30	3,439	3,623	4,626	6,376
Dwellings change 2015-30*	3,550	3,740	4,776	6,582
Annual Dwelling growth*	237	249	318	439

Source: Corporate Research and Information Unit, Conwy County Borough Council and Stats Wales.
** Dwellings have been calculated by Conwy County for the 2014 based projections and the 10-year migration projection. BE Group have calculated the dwellings for the principal population projection using the same methodology as for the other scenarios.*

2.4 The revised projections also include calculations of the employment impacts arising from the increasing population under each scenario. The number of jobs needed in Flintshire to satisfy the growing population was calculated, with assumptions as to unemployment, economic activity and commuting. It should be noted that not all the jobs that this additional population will have will be located in Flintshire. The calculations include an allowance for out-commuting (41.1 percent of working residents working outside of the County for each scenario).

Table 2: Jobs Requirements Resulting from Revised Population Growth Forecasts

	WG 2011-based Principal Population *	WG 2011-based 10-year Migration trend	2014-based 15-year Migration trend	2014-based Highest Migration Level over 15-year base
Growth in working age population	311	1,542	3,447	7,087
Growth in working population	226	1,426	2,805	5,439
Jobs in Flintshire to meet population growth needs	133	840	1,652	3,204
Land requirement for jobs in Flintshire (ha)	0.9	5.9	11.7	22.6

Source: Corporate Research and Information Unit, Conwy County Borough Council and Stats Wales.
** Calculation for the Principal Population scenario undertaken by BE Group using same assumptions as to working age and methodology used by Conwy to calculate other scenarios.*

2.5 Table 2 shows a substantial variation in the jobs projections depending on the population scenario adopted. The resultant land requirement to provide jobs in

Flintshire to service that growth also has significant variation, from 0.9 ha to 22.6 ha. It should be noted that the highest scenario assumes that the peak migration level of the last 15 years is replicated each year for the 15 years to 2030, which therefore makes no allowance for below peak periods of growth. Therefore this scenario would be considered an unlikely, upper level of population growth.

2.6 Points to note from the above scenarios, in relation to the analysis and findings of the ELR are:

- Even the highest land requirement (from the peak migration scenario) has a low employment land requirement compared to the 2014 existing realistic headline supply as identified in the ELR of 224 ha.
- The land requirement for the peak migration scenario is also low compared to the ELR's projected land requirement using the land take-up methodology of 82.5 ha between 2015 and 2030.
- This peak migration scenario land requirement is also low compared to the revised forecasting later in this report.

2.7 The 2011-based Welsh Government population projections were developed using the latest information at the time. This information was heavily influenced by the recession, which lowered migration levels into Wales, including Flintshire. These population projections have been recognised by the Welsh Government as potentially being low and underestimating growth during more typical economic conditions. Therefore, it is considered that at this stage the 2014-based, 15-year migration average scenario in the tables above represent the most realistic population projection for Flintshire, increasing the population by 4,516 persons between 2015 and 2030, including an increase of 2,805 working persons.

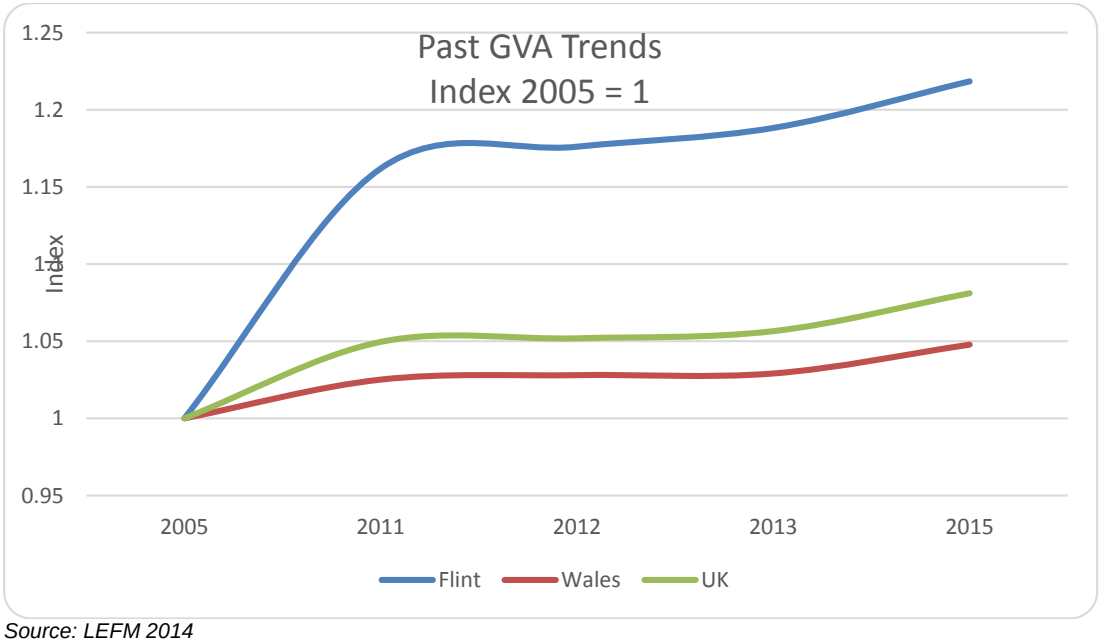
2.8 As seen in the following chapter an increase in the working population of this magnitude is less than the potential labour demand driven by major projects in Flintshire.

3.0 COMMENTARY ON STRATEGIC EMPLOYMENT SITES

3.1 One of the limitations of forecast modelling is that it draws upon past trends to project future levels of growth. Therefore, in areas, particularly smaller regions, where there is significant structural change to the economy, the forecast models poorly account for those changes. Most overarching changes, such as demographic changes or movements in the economy, are understood and more predictable at the national or regional level. Such changes can be inferred to the local level and are incorporated into the forecast models. However, the smaller the area being analysed, the larger the risk that the area will vary from national averages and therefore not be modelled well.

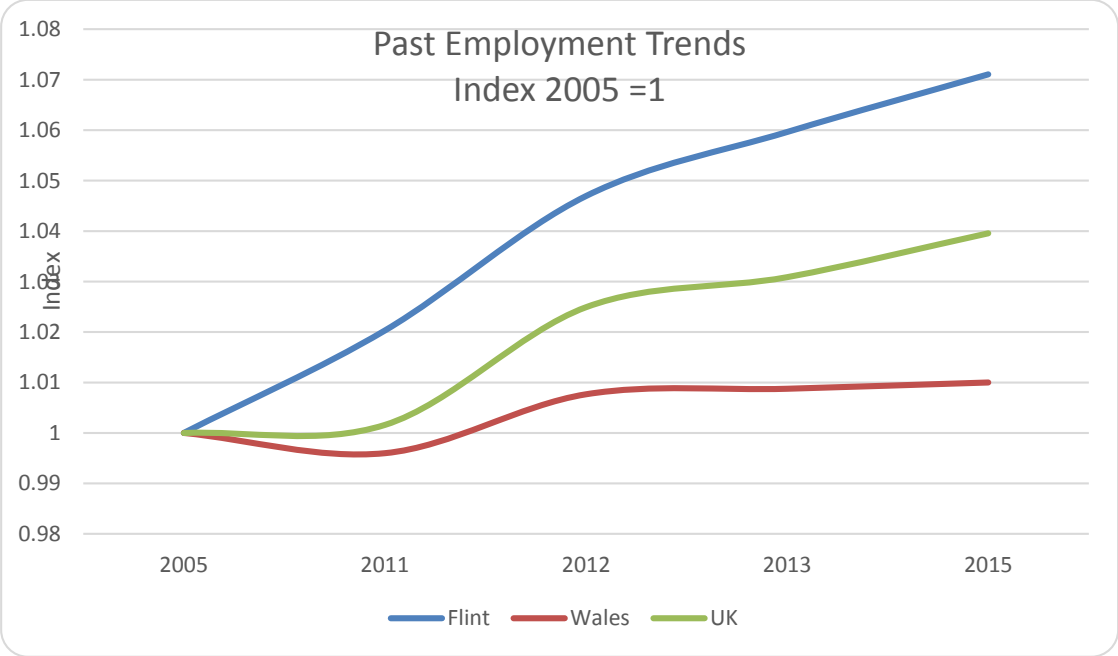
3.2 The danger of implementing national averages to smaller areas is illustrated in the GVA and employment trends graphs of Figures 8 and 9 of the ELR, replicated below. They demonstrate the improved performance on these metrics of Flintshire, relative to Wales or the UK over the past decade.

Figure 8 of the ELR – GVA Trends in Flintshire



Source: LEFM 2014

Figure 9 of the ELR – Past Employment Trends in Flintshire



Source: LEFM 2014

3.3 It is appropriate to augment the forecast models to account for characteristics and dynamics in the local economy. Local projects, availability of employment land, the performance of neighbouring areas, housing growth, strategic policies and knowledge of existing businesses' future intents can all be used as further inputs to refine the forecast models.

3.4 In regards to Flintshire, it is considered that the potential employment impacts of strategic employment sites are not fully incorporated into the Cambridge Econometrics forecast model used in the ELR. As such the potential yields of the Deeside Enterprise Zone and Warren Hall Business Park have been examined to provide input into revised labour growth forecasts for Flintshire.

Deeside Enterprise Zone

3.5 The Deeside Enterprise Zone comprises 2,000 ha straddling the River Dee. Its position close to the major centres of Liverpool and Manchester and with good motorway access make it an attractive business location. Furthermore, access to major port facilities at Liverpool means good links to international markets. It has several large manufacturers across a range of sectors, including aviation, automotive, pharmaceutical, metal fabrication, electronics, food, paper and packaging. Major employers include Airbus, Tata Steel, Toyota and ConvaTec. Therefore it has a strong, established manufacturing base and thus considerable appeal for additional businesses looking to locate to the area.

3.6 Northern Gateway, within the Deeside Enterprise Zone, is a large 81 ha development site with planning permission for a range of employment uses, including storage, general industrial, light industrial, offices, retail, hotel and sui generis uses. The final mix of these uses would have an influence on the ultimate yield of employment within Northern Gateway. However, it is estimated that some 5,500-7,000 jobs could ultimately be located within the Northern Gateway site. The estimated breakdown of employment by use is provided in Table 3, inferred from information as to the development yields of the masterplan for Northern Gateway and with an assumption of a 30:70 split for the B2/B8 floorspace.

Table 3 – Potential Ultimate Employment Yield, Northern Gateway

	Floorspace (sqm)	Estimated Jobs
B1a Office	10,844	900
B1c Light Industrial	7,400	160
B2 Industrial	10,960	300
B8 Storage	205,000	2,560
B2/B8 Industrial/Storage	120,000	2,050
A1 Retail Warehouse	7,146	80
C1 Hotel	3,000	40
Sui Generis (car sales)	7,779	30
Total	372,129	6,120

Source: Northern Gateway Comprehensive Development Schedule, BE Group

3.7 The timeframe of the forecasts for the ELR is to 2030. Schemes such as Northern Gateway are large and take many years to be built out and be fully operational. It is expected that by 2030 Northern Gateway should be fully built, however factors other than employment generation can influence decisions to expand/relocate, and the employment figures may well not reach the levels shown in Table 3.

3.8 The key industry sectors that would use such space can be inferred by the planning use classes and will be transport and storage and manufacturing, with other sectors such as wholesale, retail, accommodation and office-based professional services also being represented. It is noted from the Cambridge Econometrics projections for Flintshire that it is forecast that the manufacturing sector employment will decline by about 3,900 workers between 2015 and 2030. The employment opportunities in the Northern Gateway demonstrate that, if sites are taken up by businesses, then

employment in the manufacturing and transport and storage sectors could grow in Deeside.

3.9 Other areas within the Deeside Enterprise Zone have capacity for further employment growth. Deeside Technology and Skills Park and Hawarden Business Park are other strategic locations within the Enterprise Zone that have significant capacity to expand. Infill opportunities would also be available to enable business growth. Deeside Enterprise Zone is the primary employment node in Flintshire.

Warren Hall Business Park, Broughton

3.10 This 36.5 ha site has been earmarked for employment uses for several years although has yet to be developed. It has been identified as a business park and has outline consent for B1 uses, although there is some doubt as to the viability of a development comprising only B-class uses. As identified in the ELR, the Warren Hall Business Park is considered a low priority of the Welsh Government and is unlikely to be developed in the short term. There is the potential for a revised and broader mix of uses that would help make the project financially viable.

3.11 If all 36.5 ha of the Warren Hall site is developed for B1 office uses, the site could ultimately yield a workforce of about 12,000 workers. This assumes a development yield of 3,400 sqm/ha and 10 sqm/job, which were assumptions in the full ELR. It also assumes no loss of land for open space or to protect vegetation. A revision of the development intent for the Warren Hall site, recognising that a wider array of uses is required in order to make the project viable, is likely to substantially alter the ultimate workforce on the site. Without a revised masterplan for the site it is difficult to precisely estimate the ultimate yield of employment within the Warren Hall Business Park. Assuming that some land is taken for other uses e.g. housing uses (50 percent), in order to improve the financial viability of the development project, and assuming a mix of B1, B2 and B8 uses on the remaining land, it is estimated that a more realistic ultimate workforce on the site would be approximately 3,000 workers. The key sectors would be office based professional services, manufacturing and transport and storage.

Implications for Employment Growth

3.12 The significant employment land availability in Flintshire at committed projects such as Deeside and Warren Hall will attract new businesses to the area. It is considered that the Cambridge Econometrics forecasts do not adequately account for such

projects and their resulting influence on jobs growth. The forecasts are based on past trends and it is considered that the major projects represent an opportunity to grow employment above trend levels.

3.13 Therefore in assessing employment growth it is prudent to factor in additional growth in the key sectors likely to take up premises in these areas. The industrial based sectors of manufacturing and transport and storage will have significant growth opportunities for businesses, as will office-based sectors such as professional services.

3.14 Employment would be available for Flintshire residents and workers residing in neighbouring authorities. It is reasonable to assume that the major projects would have commuting characteristics similar to that currently exhibited in the County, particularly in the Deeside Enterprise Zone. That is, there would be in-commuting from neighbouring authorities to the east for the employment opportunities in Deeside.

3.15 The peak migration resident forecast detailed in the previous chapter suggests that some 3,200 additional jobs will be needed in Flintshire by 2030 to service this population growth. The more likely population projection (2014-based, 15-year migration average) leads to a requirement of an additional 1,650 jobs in Flintshire. Both of these scenarios could be satisfied by the additional jobs at Deeside and Warren Hall, without accounting for further opportunities elsewhere in the County.

3.16 The following chapter has revised the Cambridge Econometrics forecasts to account for the major projects.

4.0 REVISED EMPLOYMENT FORECASTS

4.1 Drawing on the employment potential of the major projects in Flintshire County outlined in the previous chapter, the BE Group has augmented the Cambridge Econometrics employment forecasts for Flintshire to 2030.

4.2 The actual mix of businesses taking up premises within the growth areas will influence the number of jobs and the industry breakdown of those jobs. Warehousing businesses have a lower jobs density than manufacturing or office based uses and thus the mix of such operations will influence the final jobs growth. The BE Group has made assumptions as to the likely mix of sectors, based on the mix of planning use classes proposed (where available), the current market dynamics and the established mix in Deeside.

4.3 Three scenarios have been developed for employment change in Flintshire to 2030 having regard to the major projects. The assumptions for the three scenarios are:

Table 4: Scenario Assumptions – Changes to Cambridge Econometrics 2030 Baseline

Sectors	Scenario A	Scenario B	Scenario C
Construction	No change	No change	No change
Retail, Wholesale, Hotels & Restaurants	No change	2% above 2030 CE	2% above 2030 CE
Transport & Communications	5% above 2030 CE	10% above 2030 CE	15% above 2030 CE
Financial, Professional & Other Business Services	No change	5% above 2030 CE	10% above 2030 CE
Government & Other Services	No change	No change	No change
Agriculture & Mining	No change	No change	No change
Manufacturing & Utilities (all sectors)	5% above 2030 CE	10% above 2030 CE	15% above 2030 CE

Source: BE Group

4.4 The influence of the major projects is likely to be most pronounced later in the projection period. The scenarios presented in Table 4 are for changes compared to the 2030 forecasts for each sector group. It is not assumed that the percentage changes above will occur in the early years of the forecast period. While the Deeside Enterprise Zone is an active and growing area, the momentum generated by the major projects is likely to take some years to form.

4.5 The changes to each sector group, including the percentage levels, have had regard to the likely scale of jobs growth as outlined in the previous chapter. Table 5 summarises the 2030 employment levels for each sector group for the three scenarios in comparison to the original Cambridge Econometrics forecasts.

Table 5: 2030 Employment for Each Scenario

Sectors	CE	Scenario A	Scenario B	Scenario C
Construction	6,780	6,780	6,780	6,780
Retail, Wholesale, Hotels & Restaurants	16,130	16,130	16,450	16,450
Transport & Communications	5,580	6,060	6,350	6,640
Financial, Professional & Other Business Services	17,510	17,510	18,390	19,260
Government & Other Services	18,530	18,530	18,530	18,530
Agriculture & Mining	740	740	740	740
Manufacturing (all sectors) & Utilities	20,220	21,230	22,240	23,250
Total	**85,670**	**86,970**	**89,470**	**91,670**
Total above CE Baseline		**+1,300**	**+3,800**	**+6,000**

Source: BE Group

4.6 The three scenarios represent a range of growth levels above the Cambridge Econometrics forecasts for 2030. Compared to the ultimate employment potential of the major projects, the additional employment in the scenarios by 2030 are less than full employment in the major projects. The reasoning for this is that the major projects may not be at full employment by 2030 and the Cambridge Econometrics forecasts are based on trend growth, some of which would be accommodated within these sites. Therefore, to avoid double counting of the additional jobs, a lower level was adopted.

4.7 Tables 6-8 summarise the floorspace and land area requirements resulting from the three scenarios, analogous to Table 116 of the ELR.

Table 6 – Scenario A Assessment Forecast

Sectors	Employment Change 2015-2030	Percentage Occupying B1, B2, B8 Floorspace	No. of jobs	Average density (B1,B2,B8 Floorspace per person, sqm)	Net Requirement (sqm)
Growth Sectors					
Construction	879	26	229	21	4,800
Retail, Wholesale, Hotels & Restaurants	669	48	321	67.4	21,630
Transport & Communications	421	48	202	67.4	13,630
Financial, Professional & Other Business Services	2,951	100	2951	21	61,970
Government & Other Services	917	22	202	21	4,240
Total from Growth Sectors					***106,270***
Land requirement at 3,400 sqm per hectare (ha)					**31.25**
Declining Sectors					
Agriculture & Mining	-401	5	-20	21	-420
Manufacturing (all sectors) & Utilities	-2,914	100	-2914	41.1	-119,750
Total from Declining Sectors					***-120,170***
Negative land requirement at 3,400 sqm per hectare (ha)					**-35.35**
Net Total (Requirement from sectors projected to grow less that from those projected to decline)					-13,900
Land requirement at 3,400 sqm per hectare (ha)					-4.09

Source: BE Group 2015

Table 7 – Scenario B Assessment Forecast

Sectors	Employment Change 2015-2030	Percentage Occupying B1, B2, B8 Floorspace	No. of jobs	Average density (B1,B2,B8 Floorspace per person, sqm)	Net Requirement (sqm)
Growth Sectors					
Construction	879	26	229	21	4,800
Retail, Warehouse, Hotels & Restaurants	991	48	476	67.4	32,070
Transport & Communications	710	48	341	67.4	22,970
Financial, Professional & Other Business Services	3,826	100	3826	21	80,350
Government & Other Services	917	22	202	21	4,240
Total from Growth Sectors					***144,430***
Land requirement at 3,400 sqm per hectare (ha)					**42.48**
Declining Sectors					
Agriculture & Mining	-401	5	-20	21	-420
Manufacturing (all sectors) & Sectors	-1,903	100	-1,903	41.1	-78,200
Total from Declining Sectors					***-78,630***
Negative land requirement at 3,400 sqm per hectare (ha)					**-23.13**
Net Total (Requirement from sectors projected to grow less that from those projected to decline)					65,800
Land requirement at 3,400 sqm per hectare (ha)					19.35

Source: BE Group 2015

Table 8 – Scenario C Assessment Forecast

Sectors	Employment Change 2015-2030	Percentage Occupying B1, B2, B8 Floorspace	No. of jobs	Average density (B1,B2,B8 Floorspace per person, sqm)	Net Requirement (sqm)
Growth Sectors					
Construction	879	26	229	21	4,800
Retail, Warehouse, Hotels & Restaurants	991	48	476	67.4	32,070
Transport & Communications	999	48	479	67.4	32,310
Financial, Professional & Other Business Services	4,702	100	4702	21	98,740
Government & Other Services	917	22	202	21	4,240
Total from Growth Sectors					***172,160***
Land requirement at 3,400 sqm per hectare (ha)					**50.63**
Declining Sectors					
Agriculture & Mining	-401	5	-20	21	-420
Manufacturing (all sectors) & Utilities	-892	100	-892	41.1	-36,660
Total from Declining Sectors					***-37,080***
Negative land requirement at 3,400 sqm per hectare (ha)					**-10.90**
Net Total (Requirement from sectors projected to grow less that from those projected to decline)					135,080
Land requirement at 3,400 sqm per hectare (ha)					39.73

Source: BE Group 2015

4.8 Points to note from the scenario analysis include:

- The growth sectors are anticipated to generate an employment land requirement of 31.3-50.6 ha between 2015 and 2030.
- This land requirement from the growth sectors equates to 2.1-3.4 ha/year over the 15 years to 2030, compared to 1.9 ha/year for the growth sectors in the baseline analysis. Historic take-up levels were reported in the ELR at about 4.5 ha/year.
- The annual growth sector land requirement is similar to the optimistic approach of 2-3 ha/year in the ELR.
- The sectors anticipated to decline or grow in the Cambridge Econometrics forecasts are still anticipated to move in the same direction under each scenario forecast. The degrees of decline or growth vary for each scenario.

- While the baseline Cambridge Econometrics forecast and Scenario A's forecast result in a negative employment land requirement, Scenarios B and C result in positive land requirements.
- The highest net land requirement at 39.7 ha (Scenario C) is below the forecast land requirement of the ELR using the land take-up methodology. The net land requirement includes declining sectors and it should be noted that declining sectors do not necessarily result in an immediate land release.
- Despite a decline in the manufacturing and utilities sector under each scenario, this sector is still anticipated to comprise 24.4-25.4 percent of the County's employment in 2030. This compares to 23.6 percent under the Cambridge Econometrics forecast.
- All land requirements from the scenarios (whether net or just from the growth sectors) is less than the reported realistic land supply as at 2014 in the ELR of 224 ha in Flintshire.

5.0 SUMMARY OF IMPLICATIONS FOR EMPLOYMENT LAND REVIEW

5.1 All of the agents stated that the current economic conditions are having, or have had, a considerable impact upon the market conditions in general due to a lack of finance to enable growth. Though the level of enquiries have picked up since 2013, the level of conversions remain the same for the majority of agencies. One agency described the upturn in Wrexham's property market, a result of key investments such as the super-prison. All consultees were in conformity with the success and popularity of Deeside Industrial Estate, with only one agent stating that Wirral could be a threat to the area.

5.2 This review of the population and employment projections for Flintshire has had regard to more up-to-date residential population information and the employment potential of major projects committed for Flintshire.

5.3 In regards to the population forecasts, it is reasonable to assume that the 2011-based Welsh Government forecasts would underestimate the population growth in coming years, as they are overly influenced by recessionary years. The BE Group considers that the 15-year migration average forecast produced by Conwy County Borough Council for Flintshire is the most reasonable forecast of population growth for the County. The resulting employment land requirement in Flintshire for this forecast is 11.7 ha, which would easily be able to be accommodated within the current realistic supply of land in Flintshire.

5.4 The major projects have the potential to accommodate several thousands of workers upon completion, including about 5,500-7,000 workers in the Northern Gateway and some 3,000 workers at Warren Hall. The timing and ultimate mix of these projects is unclear at this time and would influence the employment mix in Flintshire at 2030.

5.5 Due to the uncertainty of the growth and influence of these projects, three scenarios were devised to augment the projected employment of Cambridge Econometrics to accommodate this additional growth. The growth sectors within these scenarios generated a demand for some 31.3-50.6 ha of employment land, or 2.1-3.4 ha/year. This is more than that forecast using the same methodology in the ELR, although similar to the recommended optimistic level of 2-3 ha/year.

5.6 The ELR's conclusion that there is sufficient realistically available employment land to accommodate forecast demand remains current, even having regard to the growth generated by the major projects. The advice that there is no immediate need to allocate further land is still valid.

5.7 The recommendations regarding deallocation of sites, annual monitoring and delivery mechanisms are unaffected by this analysis.