

Topic Paper

# Revised Local 2018-2033 Development Plan

September 2019

Population and  
Household Projections

## 1. Introduction

1.1 The Council is responsible for preparing and keeping up-to-date the Local Development Plan (LDP)<sup>1</sup>. The LDP sets out planning policies and allocates sites for different types of development. The Council is also responsible for development control which involves the processing and determination of planning applications with the LDP guiding and controlling development by providing the foundation for consistent and clear decision making. In meeting the above responsibilities, we are in the process of preparing a Revised LDP.

1.2 In December 2018, the Council published its Preferred Strategy, which set out the long term vision for Carmarthenshire (excluding that part within the Brecon Beacons National Park) As part of the evidence base the Council commissioned Edge Analytics to provide a range of demographic and economic scenarios to inform a likely future growth projections for the county during the plan period 2018-2033. Based upon the range of demographic and economic evidence presented in the report, the Council's Preferred Strategy set out a housing requirement figure of 9,887 dwellings (2018-2033), aligning directly to the PG Long Term scenario presented in the Edge Analytics analysis.

1.3 In considering this projection as the basis for the revised LDP, it sought to align a number of factors to support that growth; including past build rates, job creation, economic aspirations, supporting the retention of younger people in the county, amongst others.

1.4 As the County Council moves towards the publication of the Deposit Revised LDP, it was anticipated that the Welsh Government would publish the 2017 sub-national Population and Household projections in time to be considered for the Deposit Plan. In light of this delay, the Council recommissioned Edge Analytics to update various housing requirement scenarios in the light of a range of new evidence, including Carmarthenshire's 2018 mid-year population estimate and the draft National Development Framework. The Edge Analytics report also considered the relationship of employment growth estimates as part of the housing growth requirements.

1.5 These scenarios are identified within the report below, and are considered against the housing and economic growth scenarios previously identified and addressed in the Preferred Strategy.

---

<sup>1</sup> The Planning and Compulsory Purchase Act 2004 and the Local Development Plan (LDP) Regulations 2005 sets the framework and legal context for the preparation of Local Development Plans in Wales.

1.6 In assessing the likely preferred scenario due regard will be given to national and regional planning policy, and to consider factors which arise in the issues, options and objectives of the LDP. In supporting the evidence for this Paper, the content of the Role and Function Paper, the Strategic and Spatial Options Paper and the Vision and Strategic Options will be considered.

## 2. Carmarthenshire's Profile

2.1 With a population of 187,568 in 2018, Carmarthenshire is home to approximately 6% of Wales' total population, making it the fourth largest Unitary Authority in Wales (after Cardiff, Swansea and Rhondda Cynon Taff). However given Carmarthenshire's land area, the Unitary Authority has a population density of just 78 per km<sup>2</sup>, with only Powys, Pembrokeshire, Gwynedd and Ceredigion being more sparsely populated.

2.2 Carmarthenshire borders Pembrokeshire to the West, Ceredigion to the North, Powys to the East, and both Neath Port Talbot and Swansea to the South-East, the Brecon Beacons National Park covers approximately 9% of Carmarthenshire, with approximately 1% of Carmarthenshire's population estimated to reside within the National Park.

2.3 In formulating the revised LDP, the Demographic Forecast paper identifies historic population growth and trends within the County since 2001. Since 2001, Carmarthenshire's population has increased by +13,916 people, an 8% increase in seventeen-years. Higher annual population growth (averaging +0.7% per annum) was recorded pre-2008, with notably lower annual growth recorded thereafter (averaging + 0.2% per annum). The make-up of the population increase within the county is from the following outcomes:

- Natural Growth is negative – more people are dying than being born;
- Inflow from internal migration has been the dominant driver of population change;
- Net migration high up to 2008, and then low. Since 2013/14, population change has been increasing with a sharp increase in the level of net inflow, reaching approximately +1600 in 2017/18 and showing a significant increase of over 700 compared to the previous year.
- Large net outflow of 15-19 year olds as they go to university elsewhere with a small return flow of 20-24 ages;
- A net inflow is recorded in all older (65+) age groups, contributing to Carmarthenshire's ageing population profile;
- The percentage of +65 years old increased from 19% to 23%;
- International migration averaged +291 persons per year since 2001/2002.

### 3. Welsh Government based sub-national population and household projections - Overview

3.1 Since the inception of the Local Development Plan process in Wales, the Welsh Government has published four population and household projections. The 2006 and 2008 WG based projections have been influenced by high net migration statistics (internal and international) which identified significant growth for Carmarthenshire (as reflected in the Adopted LDP). However the WG 2011 and 2014-based projections reflected a post-recession phase which indicated a lower in-migration trend which has translated into a much lower anticipated household growth requirement for Carmarthenshire.

3.2 Figure 1 shows the clear disparity between the population growth estimates in each of the four published projections. This shows the volatility of trend based projections, and identifying a reasonable housing requirement for Carmarthenshire cannot be considered against the principle projections only, but should consider a number of various factors which influences population change.

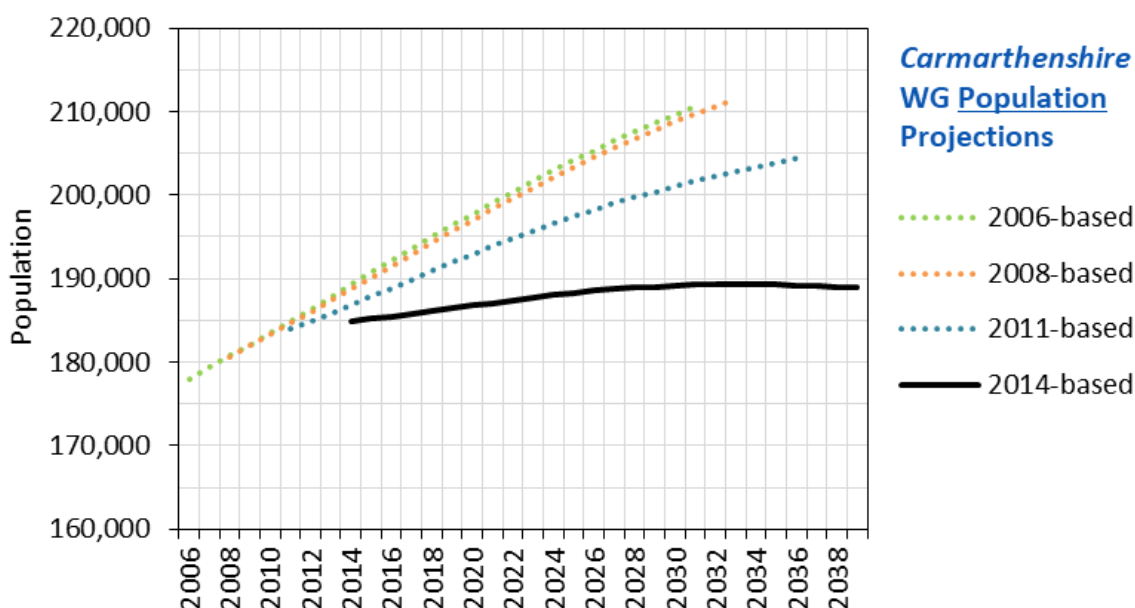


Figure 1

#### WG 2014-based projections

3.3 In undertaking the background evidence for the revised LDP, the Welsh Government’s 2014-based population and household projections provides the starting point for the analysis of future growth outcomes for Carmarthenshire. The 2014-based projections are the latest available, incorporating the ONS 2014 mid-year population estimate, plus fertility, mortality and migration assumptions based on an historical five-year period prior to 2014.

3.4 Under the 2014-based projection, the population of Carmarthenshire is estimated to grow by approximately 2.2% over the 2014–2039 projection period, an increase of +4,004 persons. Over Carmarthenshire’s LDP 2018–2033 plan period, a 1.7% increase is estimated, equivalent to an additional 3,207 persons.

3.5 Population growth under the WG 2014-based projection for Carmarthenshire is notably lower than that estimated under each of the previous WG projections. The WG 2011-based projection estimated population growth of +11,946 (6.3%), with the WG 2008-based projection estimating higher growth of +17,294 (8.9%), approximately five times higher than that estimated under the WG 2014-based projection.

3.6 The WG 2014 based projection is based on a 5 year period of lower net in-migration, particularly given the impact of the recession, whilst household sizes have not decreased as quickly as previously considered.

3.7 Under the WG 2014-based projection for Carmarthenshire, net internal migration is estimated to continue to be a key driver of growth, averaging +408 per year. Whilst this is consistent with the preceding five years of internal migration flows, it is notably lower than that evident pre-2008.

3.8 International migration is estimated to have a small but positive impact on population growth in Carmarthenshire, averaging +137 per year. This reflects the five-year net international migration history for Carmarthenshire, however it is consistently lower than the latter and earlier years of the historical period.

3.9 Conversely, natural change is estimated to have a negative impact on population change in Carmarthenshire, reducing further toward the end of the projection period, driven by an ageing population profile, operating in tandem with lower assumptions on fertility.

### **Draft National Development Framework**

3.10 In August 2019 the WG published its draft National Development Framework (NDF) which identifies Llanelli as a part of the primary growth area for the Mid and West Wales region (which comprises Carmarthenshire, Ceredigion, Neath Port Talbot, Pembrokeshire, Powys, Swansea and the Brecon Beacons and Pembrokeshire Coast National Parks). Carmarthen is also identified as a regional centre, which is to be supported by a ‘managed growth’ approach to enhance its regional role. The Welsh Government has estimated that 23,400 additional homes are required in the Mid and West Wales region by 2038. Apportioning this regional housing

requirement based upon population distribution, would allocate approximately 5,000 of these 23,400 additional homes to Carmarthenshire. It is noted that the draft NDF is based on the principle 2014 based population and household projections without policy intervention.

## Demographic Scenarios

3.11 The requirement to undertake alternative scenarios for Carmarthenshire's population growth is evident with the conclusion of the WG 2014-based projection highlighting very limited growth potential for Carmarthenshire.

3.12 The background evidence published by Edge Analytics provides various demographic scenarios to inform the future growth opportunities for Carmarthenshire. Whilst there is no single definite view on the likely growth expected within Carmarthenshire, ultimately a mix of demographic, economic and local policy issues will determine the speed and scale of change.

3.13 The Edge Analytics work also includes the above scenarios on the areas of Carmarthenshire outside the Brecon Beacons National Park Area. For reference, the BBNPA identify their own population and household growth strategy as they are the Local Planning Authority for the area of Carmarthenshire that is in the Park.

3.14 The demographic scenarios considered by Edge Analytics in the 2018 report include:

- WG 2014 based principal projection
- WG 2014 10yr migration projection
- Long Term (16 years of migration data)
- Medium Term (10 years of migration data)
- Short Term (Last 6 years of migration data)
- Pre-Recession migration data (2001-2008 migration data)

3.15 In September 2019, Edge Analytics also provided demographic scenarios based on the latest demographic evidence. This incorporated the latest components of population change (births, deaths and migration), historical patterns of international and internal migration, in addition to housing completion statistics and an updated analysis of the county's age profile. These alternative scenarios also considered the most recent information for 2017/2018.

3.16 The alternative demographic scenarios identified by Edge Analytics (September 2019) include:

- **Variant PG Short Term:** Internal migration rates and international migration flow assumptions are based on the four-year historical period (2014/15-2017/18) which corresponds with the four-year period of recovery in housing growth.
- **Variant PG Long term:** Internal migration rates and international migration flow assumptions are based on the full seventeen-year historical period (2001/02-2017/18).
- **Variant PG 10yr:** Internal migration rates and international migration flow assumptions are based on a ten-year historical period, ignoring the anomalous years around the immediate aftermath of the financial crash.

3.17 The 2001–2033 population growth trajectories for all demographic scenarios from the 2018 study are presented in Figure 2. In Table 1, each of the scenarios from the 2018 study are summarised in terms of population and household growth for the 2018–2033 plan period, alongside the average annual net migration and dwelling growth outcomes.

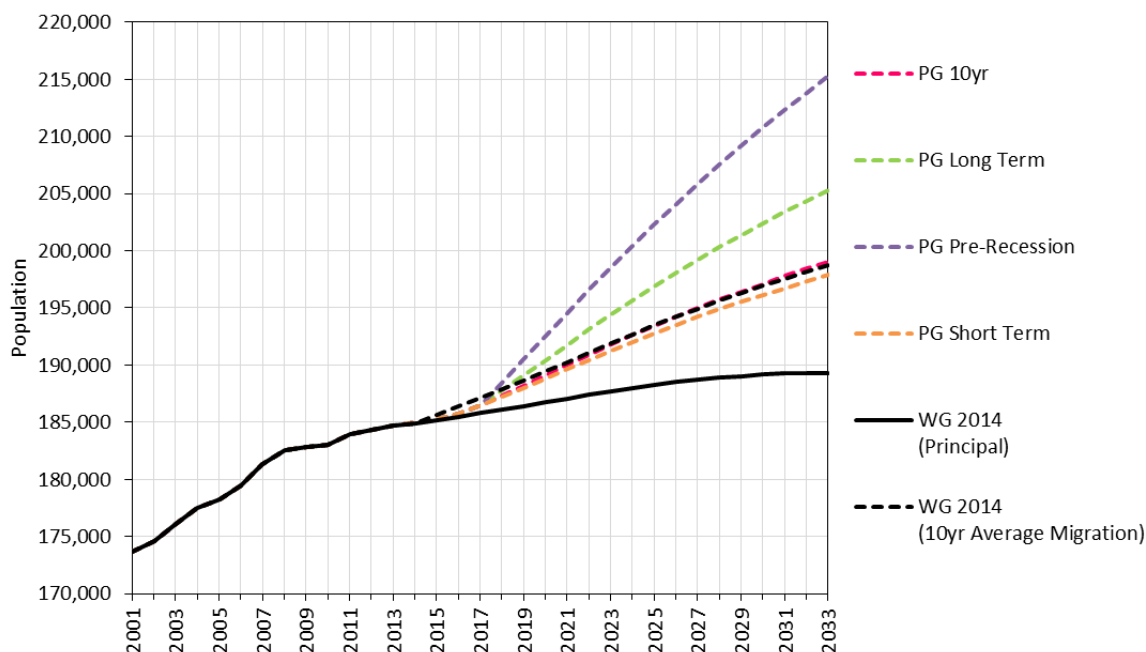


Figure 2: Carmarthenshire population change 2001-2033

3.18 The 2001-2033 growth trajectories for all demographic scenarios from the 2019 study are presented in Figure 3. In Table 4, each of these scenarios are summarised in terms of population and household growth for the 2018–2033 plan period, alongside the average annual net migration and dwelling growth outcomes.



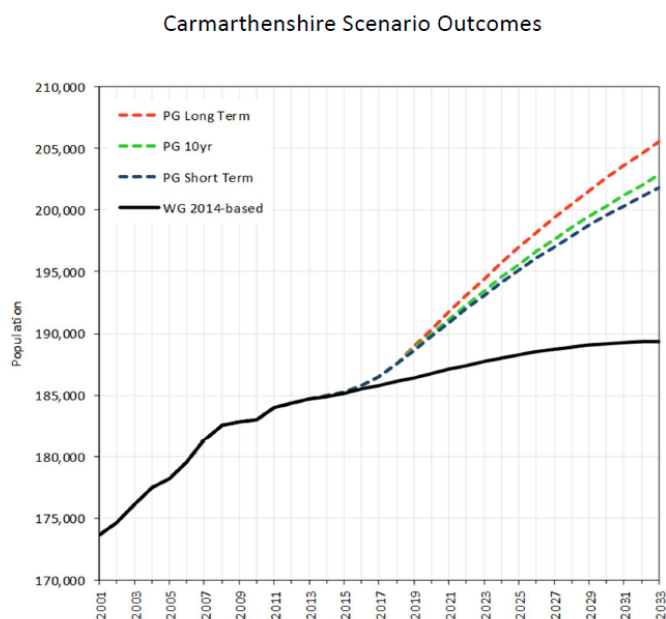


Figure 3. Carmarthenshire Population Growth 2001-2033

3.19 The dwelling growth outcomes which are calculated using the data from the projected household change figures are considered against the 2011 Census vacancy rate of 6.3%. Secondly, an additional variant vacancy rate has been calculated from Carmarthenshire’s council tax records which produced a variant dwelling growth figure. This vacancy rate includes the percentage of private properties which are second homes, and those which have been empty for more than 6 months, in addition to the percentage of social homes which have been empty. In total, the vacancy rate when rounded up is calculated as 3.4%. This vacancy rate is calculated as at 1<sup>st</sup> September 2018. For the purposes of this report and the future direction of the growth strategy of the LDP, it is considered that the alternative vacancy rate of 3.4% will be used as the Council’s preferred rate, as it the most up-to-date information available.

### Edge Analytics 2018 Demographic Scenarios

Demographic Scenarios	Change 2018–2033				Average per year			Total Dwelling Growth (Census VR)	Total Dwelling Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG Pre-Recession	26,811	14.2%	13,616	16.6%	2,028	969	939	14,529	14,090
PG Long Term	17,567	9.4%	9,555	11.7%	1,423	680	659	10,195	9,887
PG 10yr	11,755	6.3%	6,992	8.6%	1,043	497	482	7,461	7,236
WG 2014 (10yr Av Mig)	10,842	5.8%	6,322	7.7%	921	450	436	6,746	6,542
PG Short Term	10,691	5.7%	6,807	8.4%	997	484	470	7,263	7,044
WG 2014 (Principal)	3,207	1.7%	3,254	4.0%	546	231	224	3,472	3,367

Scenarios are ranked in order of population change. Dwelling growth estimated under the 2011 Census Vacancy of 6.3% (Census VR) and alternative vacancy rate of 3.4% calculated using council tax data (Alt VR).

Table 1 Carmarthenshire Demographic Scenario 2018-2033

Scenario	Change 2018–2033				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)
PG Pre-Recession	26,559	14.2%	13,479	16.6%	2,097	959	930
PG Long Term	17,502	9.4%	9,505	11.7%	1,505	676	656
PG 10yr	11,799	6.3%	6,993	8.6%	1,128	497	482
PG Short Term	10,639	5.7%	6,772	8.4%	1,082	482	467
WG 2014-based (Principal)	2,581	1.4%	2,878	3.6%	481	205	199

Table 2 Carmarthenshire (outside the Brecon Beacons National Park Area)

### Edge Analytics 2019 Demographic Scenarios

Scenario	Change 2018 - 2033				Average per year			Total Dwellings Growth (Census VR)	Total Dwellings Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG Long Term	17,991	9.6%	9,842	12.1%	1,448	700	679	10,502	10,185
PG 10yr	15,284	8.1%	8,641	10.6%	1,266	615	596	9,221	8,942
PG Short Term	14,273	7.6%	8,573	10.5%	1,245	610	591	9,147	8,871
WG 2014-based	3,207	1.7%	3,254	4.0%	546	231	224	3,472	3,367

Table 3: Carmarthenshire demographic Scenario Outcomes 2018-2033

Scenario	Change 2018 - 2033				Average per year			Total Dwellings Growth (Census VR)	Total Dwellings Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG Long Term	17,811	9.6%	9,726	12.0%	1,516	692	671	10,375	10,065
PG 10yr	15,115	8.1%	8,538	10.6%	1,337	607	589	9,108	8,835
PG Short Term	14,133	7.6%	8,474	10.5%	1,317	603	585	9,040	8,769
WG 2014-based	2,581	1.4%	2,878	3.6%	481	205	199	3,070	2,978

Table 4 Carmarthenshire (outside the Brecon Beacons National Park Area)

3.20 The following section considers each of the demographic scenarios in turn and assesses their appropriateness in setting a housing requirement figure for the revised LDP period.

3.21 In concluding the most appropriate housing requirement figure, the 2018 Edge Analytics Population and Household Forecast paper considered the alignment between population growth and employment growth. That is, an increase in the population will support the creation of new, additional jobs, and the modelling through POPGROUP can quantify the number of jobs that

each demographic scenario can support. For the additional scenarios in the 2019 study, these are also considered in light of job growth.

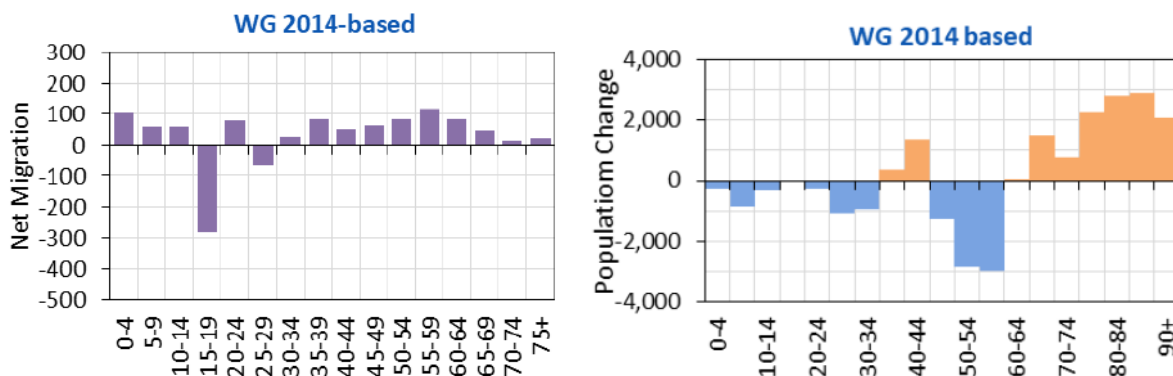
3.22 In determining a housing requirement figure, consideration must be given to various economic strategies and the economic growth aspirations which the Local Authority is looking to support.

3.23 These include:

- Swansea Bay City Deal
- Carmarthenshire's Strategic Regeneration Plan
- Carmarthenshire's Employment Sectoral Study.

## WG 2014-based projection – (from the 2018 study)

3.24 The **WG 2014-based** scenario bases its migration assumptions on the five-year 2009/10–2013/14 period, which recorded notably lower net in-migration to Carmarthenshire.



## Carmarthenshire's Scenario Outcome

Demographic Scenarios	Change 2018–2033				Average per year			Total Dwelling Growth (Census VR)	Total Dwelling Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
<b>WG 2014 (Principal)</b>	<b>3,207</b>	<b>1.7%</b>	<b>3,254</b>	<b>4.0%</b>	<b>546</b>	<b>231</b>	<b>224</b>	<b>3,472</b>	<b>3,367</b>

Scenario	Population Change 2018–2033				Population Change % 2018–2033			
	0–15	16–64	65+	80+	0–15	16–64	65+	80+
WG 2014-based	-1,373	-7,735	12,315	7,769	-4%	-7%	28%	66%

## Carmarthenshire Outside the Brecon Beacons National Park Scenario Outcome

Scenario	Change 2018–2033				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)
<b>WG 2014-based (Principal)</b>	<b>2,581</b>	<b>1.4%</b>	<b>2,878</b>	<b>3.6%</b>	<b>481</b>	<b>205</b>	<b>199</b>

3.25 Using this growth trend for Carmarthenshire would significantly affect Carmarthenshire's strategic ambition from both an economic and social perspective. In principle, the population change for those under the age of 65 would be a negative one. This would have a significant impact on the labour force within Carmarthenshire resulting in a net outflow of workers and

residents to outside of the County. The population change graph above highlights the significant increase within the 65+ age cohort which would result in an unbalanced demographic within the County.

3.26 Housing build rates within Carmarthenshire since 2007 have been (on average) 485 houses per year. Adopting the 2014-based projection as the housing growth requirement would result in a far lower level of growth, with on average 231 dwellings per annum using the Census vacancy rate, or 224 dwellings per annum on the alternative vacancy rate being required for the revised LDP period of 2018-2033.

3.27 In recognising the link between population growth and jobs growth, the 2014-based projection would stifle any future development opportunity for the county and would mean that the Corporate drive for new employment growth would not be met, and be in conflict with other elements of the LDP strategy. The combination of the decrease in the population change percentage of the workforce cohorts 16-64 and increase in the 65+ age cohort would mean that the job creation value of 55 per year would be identified. As this scenario would not drive job creation, it would result in the outflow of workers and residents from the county. This would mean that there would be implications in terms of keeping younger people within the county to live and work.

3.28 The trend above also identified a large household change in Carmarthenshire's area within the Brecon Beacons National Park with a change of 376 households. This appears to be an excessive figure given the rural nature of the settlements within the Brecon Beacons area.

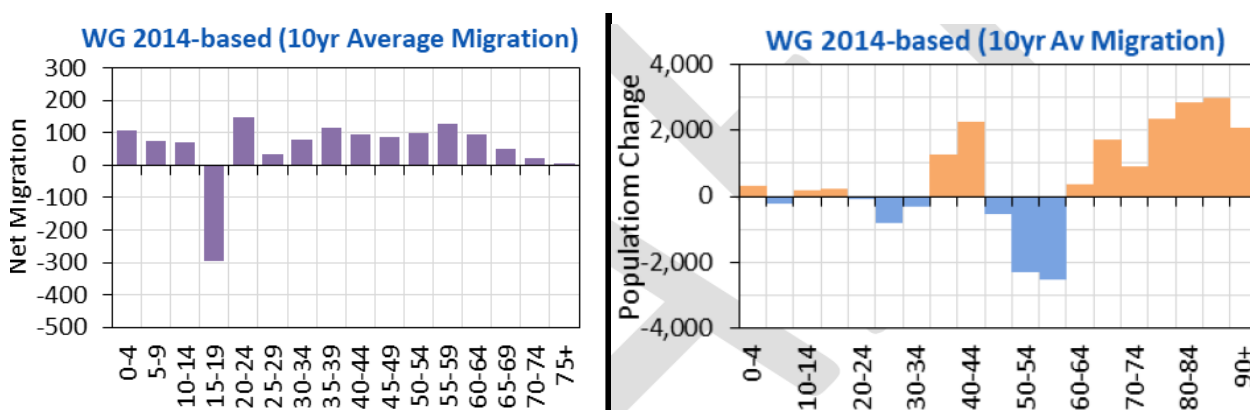
### **Conclusion**

3.29 Using this growth trend as the housing requirement for Carmarthenshire would adversely impact upon the Council's strategic ambitions from both an economic and social perspective. Furthermore given the potential negative impacts highlighted above, it is not considered prudent to utilise the WG 2014-based projection in the revised LDP.

**3.30 Using this scenario would not deliver the Plan's Vision and Strategic Objectives.**

### WG 2014-based (10 year average migration) projection (from the 2018 study)

3.31 This projection utilises the WG 2014-based natural change assumptions but also considers the 10 year migration period between 2003/2004 and 2012/13. This trend uses a migration period prior to, and post-recession, which would see a population and household change of 5.8% and 7.7% respectively during the plan period of 2018-2033.



### Carmarthenshire’s Scenario Outcome

Demographic Scenarios	Change 2018–2033				Average per year			Total Dwelling Growth (Census VR)	Total Dwelling Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
<b>WG 2014 (10yr Av Mig)</b>	<b>10,842</b>	<b>5.8%</b>	<b>6,322</b>	<b>7.7%</b>	<b>921</b>	<b>450</b>	<b>436</b>	<b>6,746</b>	<b>6,542</b>

Scenario	Population Change 2018–2033				Population Change % 2018–2033			
	0–15	16–64	65+	80+	0–15	16–64	65+	80+
WG 2014-based (10yr Average Migration)	413	-2,539	12,968	7,957	1%	-2%	29%	67%

3.32 The pattern of population change within this scenario is similar, (albeit at a reduced level) to that within the principal WG 2014-based projection. The population change for those over 65+, and those over 80+ age is set at 29% and 67% respectively, whilst there is a negative 1% change for those in the labour force age group.

3.33 The net migration within Carmarthenshire future population would see a large outflow within the 15-19 age group, but a net inflow within all other age cohorts. This is a similar trend to all other demographic scenarios considered as part of the modelling exercise.

3.34 The housing requirement within this scenario (2011 Census vacancy rate) would equate to 450 dwellings per year, which would be less than that currently being built within Carmarthenshire on an average yearly basis. This equates to 6,746 dwellings over the LDP period 2018-2033.

3.35 In considering this projection against the variant vacancy rate of 3.4%, the dwelling requirement within this scenario reduces to 436 dwellings per year. This equates to 6,542 dwellings over the LDP period 2018-2033.

3.36 In recognising the link between population growth and jobs growth, the 2014-based (10 year average migration) projection would stifle any future development opportunity for the county and would mean that the Corporate drive for new employment growth would not be met, and be in conflict with other elements of the LDP strategy. The combination of the decrease in the population change percentage of the workforce cohorts 16-64 and increase in the 65+ age cohort would estimate the creation of 198 additional jobs per year value for the county. As this scenario would not drive job creation, it would result in the outflow of workers and residents from the county. This would mean that there would be implications in terms of keeping younger people within the county to live and work.

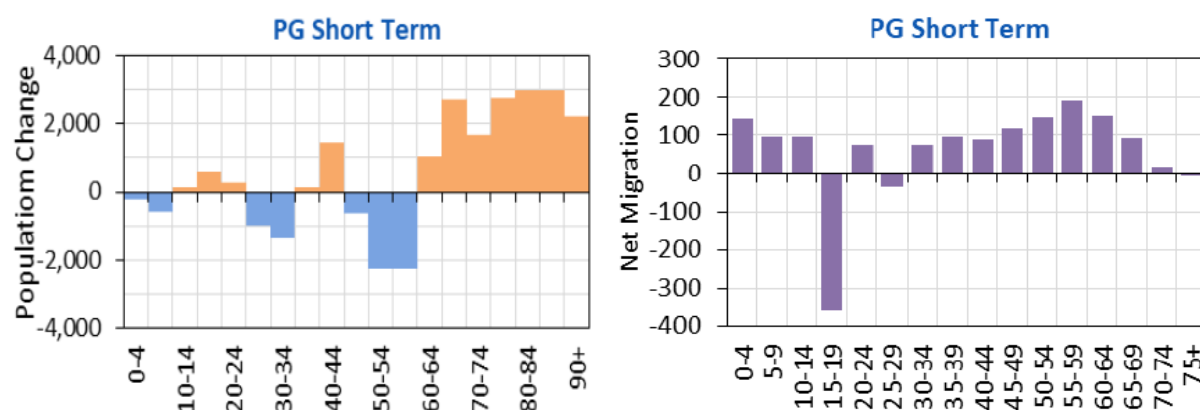
### **Conclusion**

3.37 Given the potential negative impacts highlighted above, it is not considered prudent to utilise the WG 2014-based (10 year average migration) projection as the growth option for the revised LDP. .

3.38 **It would not deliver the Plan's Vision and Strategic Objectives.**

## PG Short Term Growth Projection (from the 2018 study)

3.39 The PG Short Term scenario is based on internal migration rates and international migration flow assumptions from a six-year historical period (2011/12–2016/17). This is a similar time period to the WG projection (i.e. 5–6 years), but includes three years of additional data.



### Carmarthenshire’s Scenario Outcome

Demographic Scenarios	Change 2018–2033				Average per year			Total Dwelling Growth (Census VR)	Total Dwelling Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG Short Term	10,691	5.7%	6,807	8.4%	997	484	470	7,263	7,044

Scenario	Population Change 2018–2033				Population Change % 2018–2033			
	0–15	16–64	65+	80+	0–15	16–64	65+	80+
PG Short Term	-533	-4,126	15,350	8,184	-2%	-4%	35%	71%

### Carmarthenshire Outside the Brecon Beacons National Park Scenario Outcome

Scenario	Change 2018–2033				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)
PG Short Term	10,639	5.7%	6,772	8.4%	1,082	482	467

3.40 This trend increases the population and household change percentage from that in the WG 2014 based projection, but the outflow of those within the 15-19 age cohort increases. The



population change for those over 65+, and those over 80+ age is set at 35% and 71% respectively, whilst there is a negative 4% change for those in the labour force age group.

3.41 The net migration within Carmarthenshire future population would see a large outflow within the 15-19 age cohort, a small outflow in the 25-29 age cohort, but a net inflow within all other age cohorts.

3.42 The housing requirement within this scenario (2011 Census vacancy rate) would equate to 484 dwellings per year, which would be less than that currently being built within Carmarthenshire on an average yearly basis. This equates to 7,263 dwellings over the LDP period 2018-2033.

3.43 In considering this projection against the variant vacancy rate of 3.4%, the dwelling requirement within this scenario reduces to 470 dwellings per year. This equates to 7,044 dwellings over the LDP period 2018-2033.

3.44 In recognising the link between population growth and jobs growth, the PG Short Term projection would stifle any future development opportunity for the county and would mean that the Corporate drive for new employment growth would not be met, and be in conflict with other elements of the LDP strategy. The combination of the decrease in the population change percentage of the workforce cohorts 16-64 and increase in the 65+ age cohort would estimate the creation of 126 additional jobs per year value for the county. As this scenario would not drive additional job creation, it would result in the outflow of workers and residents from the county. This would mean that there would be implications in terms of keeping younger people within the county to live and work and it would fall short of the targets outlined in Carmarthenshire's *Strategic Regeneration Plan*.

3.45 In terms of the relationship of Carmarthenshire within the BBNP, this scenario identified an increase of 35 households within the Brecon Beacons over the Plan period. In this regard, this equates to less than 1% of the overall household change within the county.

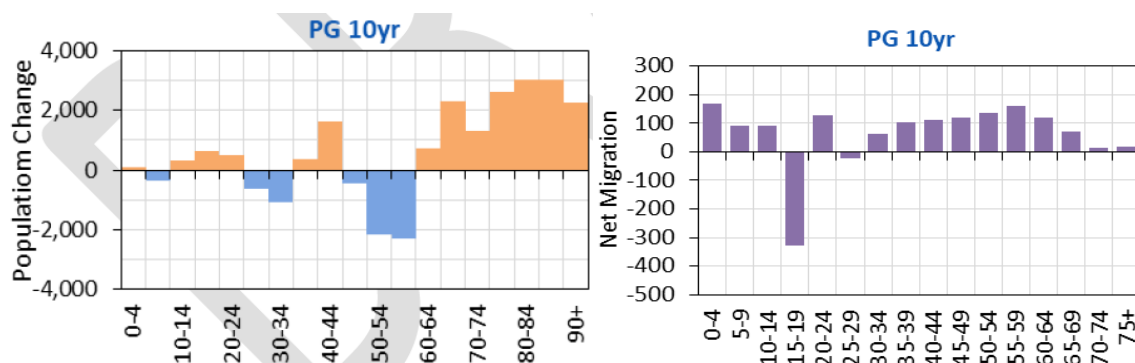
## **Conclusion**

3.46 Given the potential negative impacts highlighted above, it is not considered prudent to utilise the PG Short Term projection as the growth option for the revised LDP.

**3.47 It would not deliver the Plan's Vision and Strategic Objectives.**

## PG 10 year projection (from the 2018 study)

3.48 The PG 10 year projection utilises the migration trend of the previous 10 years, which takes into account the first couple of years of the pre-recession period, but with the majority of the migration data being since 2008. This trend offers a slightly more optimistic outlook than that considered in the 10yr migration data from the WG 2014 based projection, and similar to the PG Short term Scenario. This scenario does identify the net out-migration of those in the 15-19 and 25-29 age cohorts, with comparable net in-migration in the 30+ year old cohorts.



## Carmarthenshire's Scenario Outcome

Demographic Scenarios	Change 2018–2033				Average per year			Total Dwelling Growth (Census VR)	Total Dwelling Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG 10yr	11,755	6.3%	6,992	8.6%	1,043	497	482	7,461	7,236

Scenario	Population Change 2018–2033				Population Change % 2018–2033			
	0–15	16–64	65+	80+	0–15	16–64	65+	80+
PG 10yr	183	-2,932	14,503	8,299	1%	-3%	33%	72%

## Carmarthenshire Outside the Brecon Beacons National Park Scenario Outcome

Scenario	Change 2018–2033				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)
PG 10yr	11,799	6.3%	6,993	8.6%	1,128	497	482

3.49 This trend increases the population and household change percentage from that in the WG 2014 based projection, but the outflow of those within the 15-19 age cohort increases. The

population change for those over 65+, and those over 80+ age is set at 33% and 72% respectively, whilst there is a negative 3% change for those in the labour force age group.

3.50 The net migration within Carmarthenshire future population would see a large outflow within the 15-19 age cohort, a small outflow in the 25-29 age cohort, but a net inflow within all other age cohorts.

3.51 Utilising the 2011 Census vacancy, this scenario would, on average provide 497 dwellings per annum within the revised LDP period 2018-2033, with the variant vacancy rate highlighting a provision of 482 dwellings per year. This equates to 7,461 dwellings and 7,236 dwellings over the revised LDP period respectively.

3.52 In recognising the link between population growth and jobs growth, the PG10yr projection would stifle any future development opportunity for the county and would mean that the Corporate drive for new employment growth would not be met, and be in conflict with other elements of the LDP strategy. The combination of the decrease in the population change percentage of the workforce cohorts 16-64 and increase in the 65+ age cohort would estimate the creation of 178 additional jobs per year value for the county. As this scenario would not drive additional job creation, it would result in the outflow of workers and residents from the county. This would mean that there would be implications in terms of keeping younger people within the county to live and work, and it would fall short of the targets outlined in Carmarthenshire's *Strategic Regeneration Plan*.

3.53 In terms of the relationship of Carmarthenshire within the BBNP, this scenario identifies a decrease of one household within the Brecon Beacons over the Plan period, even though population increases by 44 persons. In this case, this is negligible between Carmarthenshire as a whole, and Carmarthenshire that lies outside the BBNP area.

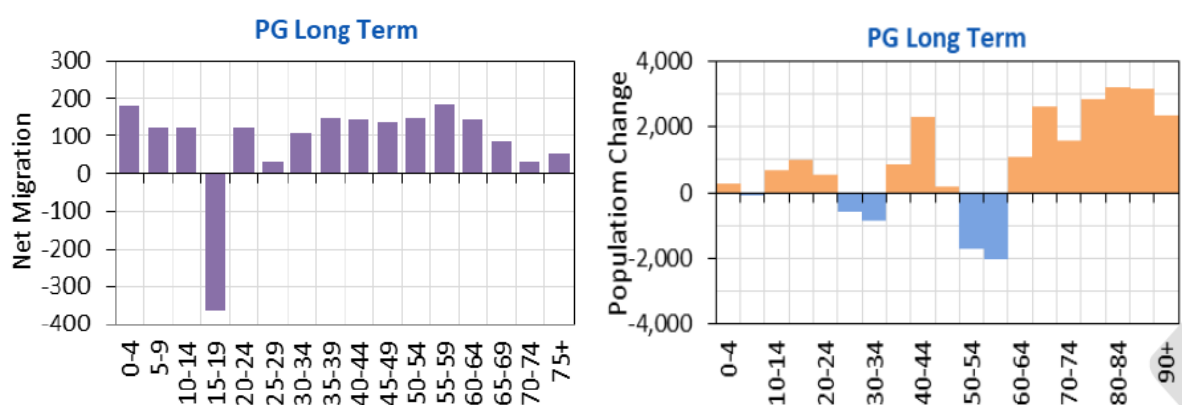
### **Conclusion**

3.54 Whilst the delivery of 497 or 482 dwellings per year is similar to that delivered since 2007, it does not offer the flexibility to pick up on those years where housing delivery and the housing market has been more buoyant. Since 2015, housing delivery has been on average 507 dwellings per year and restricting the housing requirement through this scenario would limit Carmarthenshire's economic ambitions in terms of job creation and provide opportunities for younger adults within the County to live and work.

3.55 **This scenario would not deliver the Plan's Vision and Strategic Objectives.**

## PG Long Term Growth Projection (from the 2018 study)

3.56 The PG Long Term scenario is based on internal migration rates and international migration flow assumptions from a sixteen-year historical period (2001/02–2016/17). This period takes into account the high net in-migration flows during 2001-2008 and the lower net in-migration post 2008.



### Carmarthenshire’s Scenario Outcome

Demographic Scenarios	Change 2018–2033				Average per year			Total Dwelling Growth (Census VR)	Total Dwelling Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG Long Term	17,567	9.4%	9,555	11.7%	1,423	680	659	10,195	9,887

Scenario	Population Change 2018–2033				Population Change % 2018–2033			
	0–15	16–64	65+	80+	0–15	16–64	65+	80+
PG Long Term	1,139	592	15,836	8,747	3%	1%	36%	75%

### Carmarthenshire Outside the Brecon Beacons National Park Scenario Outcome

Scenario	Change 2018–2033				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)
PG Long Term	17,502	9.4%	9,505	11.7%	1,505	676	656

3.57 Under the **PG Long Term** scenario, higher net migration flows are estimated (averaging +1,423 people per year), resulting in higher population change (9.4%). In terms of its

representation in the age cohorts, there is a net positive migration in all age cohorts bar the 15-19 years.

3.58 There is a decrease in the population change between 25-34 age cohort and 50-59 age cohort, however in terms of the overall population change of the labour force cohort, there is a 1% increase. The population change for those over 65+, and those over 80+ age is set at 36% and 75% respectively.

3.59 In utilising the 2011 Census vacancy, this scenario would, on average provide 680 dwellings per annum within the revised LDP period 2018-2033, with the variant vacancy rate highlighting a provision of 659 dwellings per year. This equates to 10,195 dwellings and 9,887 dwellings over the revised LDP period respectively.

3.60 In recognising the link between population growth and jobs growth, the PG Long Term scenario would provide a more optimistic outlook in seeking to achieve the targets outlined in Carmarthenshire's *Strategic Regeneration Plan* with a larger population increase supporting the creation of approximately 353 additional jobs per year. This would equate to 5,295 additional jobs over the revised LDP period.

3.61 In terms of the relationship of Carmarthenshire within the BBNP, this scenario identifies an increase of 50 households within the Brecon Beacons over the Plan period. In this regard, this equates to less than 1% of the overall household change within the county, or 3 dwellings per year.

### **Conclusion**

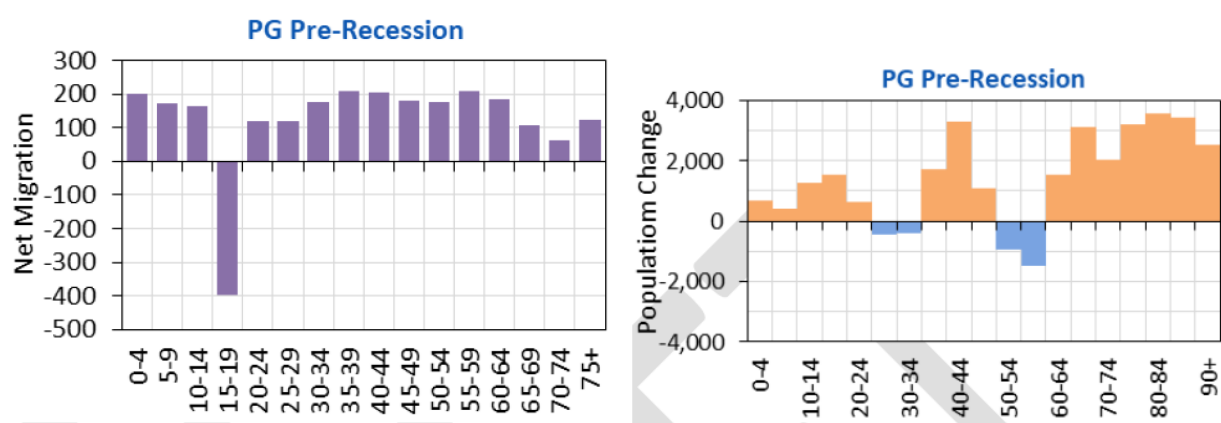
3.62 In terms of the publication of the Preferred Strategy, this scenario was considered the most appropriate for Carmarthenshire. It provided a positive outlook and an appropriate provision for housing delivery within the county. Housing build rates within Carmarthenshire since 2007 have been (on average) 485 houses per year with the four years since 2015 delivering on average 507 dwellings per year. This would allow the flexibility to drive sustainable housing growth and support the economic ambitions of the county.

3.63 The scenario identified a higher population growth than the majority of the considered scenarios and it would see a continuation of people aged 15-19 leaving the county, however it did identify a consistent net in-migration in all other age cohorts which would result in a balanced demographic outlook for the county.

**3.64 Using this scenario would assist in delivering the Plan's Vision and Strategic Objectives.**

### Pre-Recession Growth Projection (from the 2018 study)

3.65 The PG Pre-Recession scenario is based on internal migration rates and international migration flow assumptions for the period pre-2008 recession (2001/02–2007/08), in which higher in-migration flows to Carmarthenshire were recorded. Consequently, future estimation of net migration is highest under the PG Pre-Recession scenario.



### Carmarthenshire’s Scenario Outcome

Demographic Scenarios	Change 2018–2033				Average per year			Total Dwelling Growth (Census VR)	Total Dwelling Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG Pre-Recession	26,811	14.2%	13,616	16.6%	2,028	969	939	14,529	14,090

Scenario	Population Change 2018–2033				Population Change % 2018–2033			
	0–15	16–64	65+	80+	0–15	16–64	65+	80+
PG Pre-Recession	2,705	6,218	17,888	9,512	8%	6%	40%	82%

### Carmarthenshire Outside the Brecon Beacons National Park Scenario Outcome

Scenario	Change 2018–2033				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)
PG Pre-Recession	26,559	14.2%	13,479	16.6%	2,097	959	930

3.66 Whilst utilising a scenario with higher population growth will see a continuation of people aged 15-19 leaving the county, more return in the 20-24 age cohort which results in a balanced

demographic outlook for the county. There would also be a significant population change that would see a 40% increase in the 65+ age cohort, whilst an 82% increase in the 80+ age cohort.

3.67 Utilising the 2011 Census vacancy, this scenario would, on average provide 969 dwellings per annum within the revised LDP period 2018-2033, with the variant vacancy rate highlighting a provision of 939 dwellings per year. This equates to 14,529 dwellings and 14,090 dwellings over the revised LDP period respectively.

3.68 In recognising the link between population growth and jobs growth, the PG Pre-recession scenario would provide a more optimistic outlook in seeking to achieve the targets outlined in Carmarthenshire's Strategic Regeneration Plan with the largest population change of the demographic scenarios supporting the creation of approximately 632 additional jobs per year. This would equate to 9,480 additional jobs over the revised LDP period.

3.69 In terms of the relationship of Carmarthenshire within the BBNP, this scenario identifies an increase of 137 households within the Brecon Beacons over the Plan period.

### **Conclusion**

3.70 Utilising this projection scenario as the housing growth requirement target within the revised LDP would be commensurate to the growth strategy within the adopted LDP. Whilst this scenario would be ambitious in driving economic aspirations, setting such a high growth requirement through the PG Pre-Recession scenario would result in an undeliverable and unsustainable growth strategy.

3.71 **This scenario would not deliver the Plan's Vision and Strategic Objectives.**



### PG Short Term – Variant (from the 2019 study)

3.72 The PG Short Term variant (2019) considers internal migration rates and international migration flow assumption which are based on the four year historical period (2014/15-2017/18) which corresponds with the four year period of recovery in housing growth. This is the shortest trend based scenario of all those considered within this paper.

### Carmarthenshire Demographic Scenario Outcomes 2018-2033

Scenario	Change 2018 - 2033				Average per year			Total Dwellings Growth (Census VR)	Total Dwellings Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG Short Term	14,273	7.6%	8,573	10.5%	1,245	610	591	9,147	8,871

### Carmarthenshire Outside the Brecon Beacons National Park Scenario Outcome

Scenario	Change 2018 - 2033				Average per year			Total Dwellings Growth (Census VR)	Total Dwellings Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG Short Term	14,133	7.6%	8,474	10.5%	1,317	603	585	9,040	8,769

3.73 The PG Short Term scenario projects the lowest population change over the plan period, consistent with the scenarios in the previous 2018 Edge Analytics report. Under this scenario, estimated population growth is 7.6% over the plan period, compared to 5.7% previously. This is due to the sharp rise in net internal migration in 2017/18 that is now captured in this scenario, and the focus on the four years of housing growth recovery. The estimated population growth would support a total dwelling growth of 9,147 over the plan period or 8,871 using the alternative vacancy rate. This would require an average annual dwellings growth of +610/+591 dwellings per annum (dpa).

3.74 In terms of the area of Carmarthenshire that falls within the Brecon Beacons National Park Area, the average based on the Census Vacancy Rate and the Alternative Vacancy of 3.4% equates to a housing requirement of 7 dwellings and 6 dwellings respectively.

3.75 In terms of supporting economic growth, the employment growth estimates highlight that this scenario would support an annual employment growth figure of 288 jobs. This equates to 4,320 jobs over the Plan period.

### Conclusion

3.76 On balance, utilising this scenario would provide a positive outlook and provide an appropriate provision for housing delivery within the county. It would allow the flexibility to drive

sustainable housing growth, but has a lesser impact on supporting the economic ambitions of the county than other scenarios. A job creation value of 288 jobs per year, or 4,320 jobs over the LDP period would not meet the ambitions of the Council's Regeneration Plan.

3.77 The PG Short Term scenario in the 2019 is much higher than that considered in the 2018 report as it uses a 4 years of data instead of 6 years. This shows the volatility of trends based assumption over a shorter time period.

**3.78 This scenario would not deliver the Plan's Vision and Strategic Objectives.**

### PG Long term – Variant (from the 2019 study)

3.79 The PG Long Term Variant scenario looks at the internal migration rates and international migration flow assumptions that are based on the full seventeen-year historical period (2001/02-2017/18). This variant uses one more year of data (2017/18) compared to the original PG Long Term scenario in the Edge Analytics 2018 report. The 2017/18 figure for migration increases the overall population and household change under this scenario.

### Carmarthenshire Demographic Scenario Outcomes 2018-2033

Scenario	Change 2018 - 2033				Average per year			Total Dwellings Growth (Census VR)	Total Dwellings Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG Long Term	17,991	9.6%	9,842	12.1%	1,448	700	679	10,502	10,185

### Carmarthenshire Outside the Brecon Beacons National Park Scenario Outcome

Scenario	Change 2018 - 2033				Average per year			Total Dwellings Growth (Census VR)	Total Dwellings Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG Long Term	17,811	9.6%	9,726	12.0%	1,516	692	671	10,375	10,065

3.80 Of the three trend-based scenarios in the 2019 study, the PG Long Term scenario returns the highest population, household and dwelling growth by a significant margin. This is due to the recent trend of relatively high net internal migration, in conjunction with the higher migration totals pre-recession, which are all encompassed in this scenario. Total dwelling growth in the plan period exceeds 10,000 dwellings under each vacancy rate, equivalent to 679 dpa assuming the lower vacancy rate.

3.81 In terms of the area of Carmarthenshire that falls within the Brecon Beacons National Park Area, the average dwelling growth based on the Census Vacancy Rate and the Alternative Vacancy of 3.4% equates to a housing requirement of 8 dwellings per year.

3.82 In terms of supporting economic growth, the employment growth estimates highlight that this scenario would support an annual employment growth figure of 439 jobs. This equates to 6,585 jobs over the Plan period.

### Conclusion

3.83 This projection would provide a positive outlook and provide an appropriate provision for housing delivery within the county. The increase in migration to Carmarthenshire evidenced in the 2018 mid-year estimates slightly increases both the population and household projection from

that considered in the PG Long Term 2018 report scenario. The housing requirement numbers are not markedly different from those considered the favoured option in the Preferred Strategy, and it would allow the flexibility to drive sustainable housing growth and support the economic ambitions of the county.

**3.84 This scenario would deliver the Plan’s Vision and Strategic Objectives.**

**PG 10yr Variant (from the 2019 study)**

3.85 The PG 10yr scenario looks at internal migration rates and international migration flow assumptions are based on a ten-year historical period, ignoring the anomalous years around the immediate aftermath of the financial crash.

**Carmarthenshire Demographic Scenario Outcomes 2018-2033**

Scenario	Change 2018 - 2033				Average per year			Total Dwellings Growth (Census VR)	Total Dwellings Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG 10yr	15,284	8.1%	8,641	10.6%	1,266	615	596	9,221	8,942

**Carmarthenshire Outside the Brecon Beacons National Park Scenario Outcome**

Scenario	Change 2018 - 2033				Average per year			Total Dwellings Growth (Census VR)	Total Dwellings Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
PG 10yr	15,115	8.1%	8,538	10.6%	1,337	607	589	9,108	8,835

3.86 The PG 10yr scenario results in higher population compared to the PG Short Term scenario. This is because it captures migration estimates in years immediately preceding the recession and the more recent recovery period. This results in average annual dwellings growth of +615 dpa and +596 dpa with the alternative vacancy rate.

3.87 In terms of the area of Carmarthenshire inside the Brecon Beacons National Park Area, the average based on the Census Vacancy Rate and the Alternative Vacancy of 3.4% equates to a housing requirement of 8 dwellings and 7 dwellings respectively.

3.88 In terms of supporting economic growth, the employment growth estimates highlight that this scenario would support an annual employment growth figure of 354 jobs. This equates to 5,310 jobs over the Plan period.

**Conclusion**

3.89 On balance, utilising this scenario would provide a positive outlook and provide an appropriate provision for housing delivery within the county. It would allow the flexibility to drive sustainable housing growth and support the economic ambitions of the county. The relationship between job creation and population increase is more positive than the scenario identified within the Preferred Strategy as the household requirement is lower, with the proportional growth of the working age population being higher.

3.90 Whilst utilising a scenario with higher population growth will see a continuation of people aged 15-19 leaving the county, more return in the 20-24 age cohort which results in a balanced demographic outlook for the county in the future.

**3.91 Using this scenario would assist in delivering the Plan's Vision and Strategic Objectives**

## Employment-led Scenarios (from the 2018 study)

3.92 As part of the Population and Household Forecast paper, two future housing requirement scenarios have been considered against the Council's Employment Sectoral Study. This study assumes a fixed annual rate of growth for key employment sectors which would maximise Carmarthenshire's economic potential. This anticipated growth equates to an estimate of 1,245 jobs per year in nine priority employment sectors.

3.93 In estimating the required housing requirement to meet this economic aspiration, a 5.1% adjustment is made to the employment growth total to account for double-jobbing. This results in an average annual employment growth of 1,182 jobs.

### Carmarthenshire's Scenario Outcome

Employment-led Scenarios	Change 2018–2033				Average per year			Total Dwelling Growth (Census VR)	Total Dwelling Growth (Alt. VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)		
CR Fixed	42,050	22.2%	19,027	23.2%	2,814	1,354	1,313	20,303	19,690
CR Reducing	36,481	19.3%	16,810	20.5%	2,483	1,196	1,160	17,938	17,396

Table 2

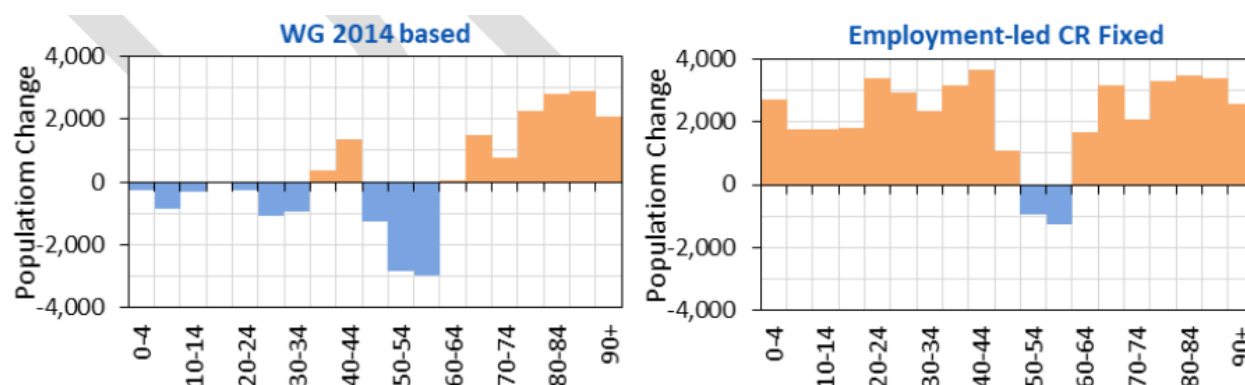
3.94 The POPGROUP model considers factors such as economic activity rate, unemployment rates and commuting ratios which quantifies the demographic impact of an economic growth trajectory. Carmarthenshire's commuting ratio is a key component of the balance between local employment and the available labour force. The 2011 Census recorded 81,402 workers living within Carmarthenshire and 74,569 people working in Carmarthenshire. This demonstrates a net outflow of workers to other local authority areas.

3.95 The table above identifies two variant scenarios of employment growth:

- **CR Fixed** applies the 2011 Census commuting ratio of 1.09. This assumes that the level of commuting is fixed throughout the plan period.
- **CR Reducing** scenario assumes a reduction from 1.09 to 1.06 by the end of the plan period. The reduction is signified by a greater retention of a labour force within Carmarthenshire as the plan progress towards 2033.

3.96 As table 2 indicates, in meeting the target of 1,245 jobs per year highlighted in the Employment Sectoral Study, population growth within the county would need to be substantial. The population growth within the scenarios CR Fixed and CR Reducing would need to equate to 42,050 and 36,481 persons respectively

3.97 A comparison of population change by age group under the highest and lowest population growth scenarios (Employment-led CR Fixed and WG 2014-based respectively), illustrates how migration can do little to change the size of the older age groups but can bolster the labour force age groups.



3.98 In translating this to the number of dwellings required during the revised LDP period, this would equate 1,354 and 1,196 dwellings per year using the 2011 Census vacancy. This would equate to 20,303 and 17,938 dwellings over the revised LDP.

3.99 Using the 3.4% vacancy rate, this would equate to CR Fixed scenario highlighting 1,313 dwellings per year, or 19,690 dwellings over the revised LDP period, whilst CR Reducing scenario identifies 1,160 dwellings per year or 17,396 dwellings over the revised LDP period.

## Conclusion

3.100 Utilising the employment-led scenarios for the revised LDP and the high growth requirement set out within it would result in an undeliverable and unsustainable growth strategy for the county. The housing growth requirement set out in the adopted LDP is 1,013 dwellings per year, and one of the reasons to undertake a LDP review was to reconsider this housing requirement as the housing growth targets were not being achieved.

3.101 Whilst these scenarios would be ambitious in driving economic aspirations, setting such a high growth requirement would result in an undeliverable and unsustainable growth strategy.

3.102 **This scenario would not deliver the Plan’s Vision and Strategic Objectives**



## Summary

3.103 In considering the future housing growth potential for Carmarthenshire, Edge Analytics have identified a number of different demographic and economic scenarios which could be utilised for Carmarthenshire during the period 2018-2033.

3.104 These scenarios have been identified through two various sources; the 2018 study which was used for the Preferred Strategy and the updated 2019 study which provides additional scenarios to be considered. In total, 3 potential scenarios have been determined to be assist in meeting the LDP's Vision and Strategic Objectives, namely the PG Long Term (2018 study) and the PG10yr and the PG Long Term from the 2019 study.

3.105 The 3 demographic scenarios are as follows:

Scenario	Change 2018-2033				Average per year			Total Dwellings growth (Census VR)	Total Dwellings (Alt VR)
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt VR)		
PG Long Term (2019 study)	17,811	9.6%	9,726	12%	1,516	692	671	10,375	10,065
PG Long term (2018 Study)	17,567	9.4%	9,555	11.7%	1,423	680	659	10,195	9,887
PG10yr (2019 study)	15,115	8.1%	8,538	10.6%	1,377	607	589	9,108	8,835

### Preferred Demographic Scenario for the LDP.

3.106 Within the Preferred Strategy of the revised Local Development Plan, the PG Long Term scenario from the 2018 Edge Analytics study was considered the most appropriate for Carmarthenshire. This growth requirement used the projections for the county as a whole. However in coming to a view, it is noted that the demographic scenarios which are outside the Brecon Beacon National Park should be used, as the BBNP utilise their own housing growth strategy for their area.

3.107 Whilst this scenario had been supported, the Council has sought to reflect on additional information and trends to re-evaluate this approach. It was anticipated that the principle WG 2017 sub-national projection would reflect the most recent published official projections, however the delay in their publication means that they cannot be used for Carmarthenshire's LDP.

3.108 The PG10 year and PG Long Term from the 2019 Edge Analytics study are a product of the positive outlook in the 2018 mid-year estimates, and these are reflected in the dwelling growth outcomes from the two scenarios. The target level of 8,835 and 10,065 dwellings respectively would achieve the same overarching positive impacts of PG Long Term (2018).

3.109 The preferred scenario of the PG10 year (2019) includes meeting the economic ambitions of the county, and the job creation targets set out in the Regeneration Plan. More importantly the scenario is in alignment with the build rates within the county since 2008. The average dwelling growth per year in this scenario is 589 dwellings per year, whilst the number of dwellings constructed since 2008 is 484 dwellings. Within the 12 years of data, 3 of the years have seen over 600 dwellings per year being built, therefore the LDP should use a positive and ambitious target housing figure to meet this need. This figure would be used to meet market and affordable housing provisions.

3.110 In addition, the strategy of the LDP is to remove development limits from Tier 4 settlements within the settlement hierarchy, and setting an ambitious figure would support the potential for growth within the rural areas.