

Topic Paper

Revised Local 2018-2033 Development Plan

December 2018

Population &
Household Projections

1. Introduction

1.1 The Council is responsible for preparing and keeping up-to-date the Local Development Plan (LDP)¹. 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. Once adopted, this LDP will play an important part in guiding future opportunities for the provision of new homes, jobs and leisure opportunities.

1.2 To inform the revised Local Development Plan, this paper will present a range of demographic and economic evidence which will support the preferred future growth option for Carmarthenshire.

1.3 Due regard will be had to national and regional planning policy and to consider factors which arise in the emerging 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.

1.4 As a basis for the content of this report, the development of a settlement hierarchy for Carmarthenshire through the adopted LDP took into account the main credentials of sustainability such as size, population, location, accessibility and the availability of services and facilities. This was a fundamental consideration for the LDP, however the success or otherwise of the LDP is considered against how the strategy and policies perform. Fundamentally the revised LDP will seek to look at the areas which performed well, and those that did not.

¹ 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.

2. Carmarthenshire's Profile

2.1 With a population of 186,452 in 2017, 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 km², 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, Edge Analytics, on behalf of the local authority have published a Demographic Forecast paper which identifies historic population growth and trends within the County since 2001. Since 2001, Carmarthenshire's population has increased by +12,800 people, a 7.4% increase in sixteen-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. It started to increase again three years ago with 2016/2017 recording a net inflow of 873;
- 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.

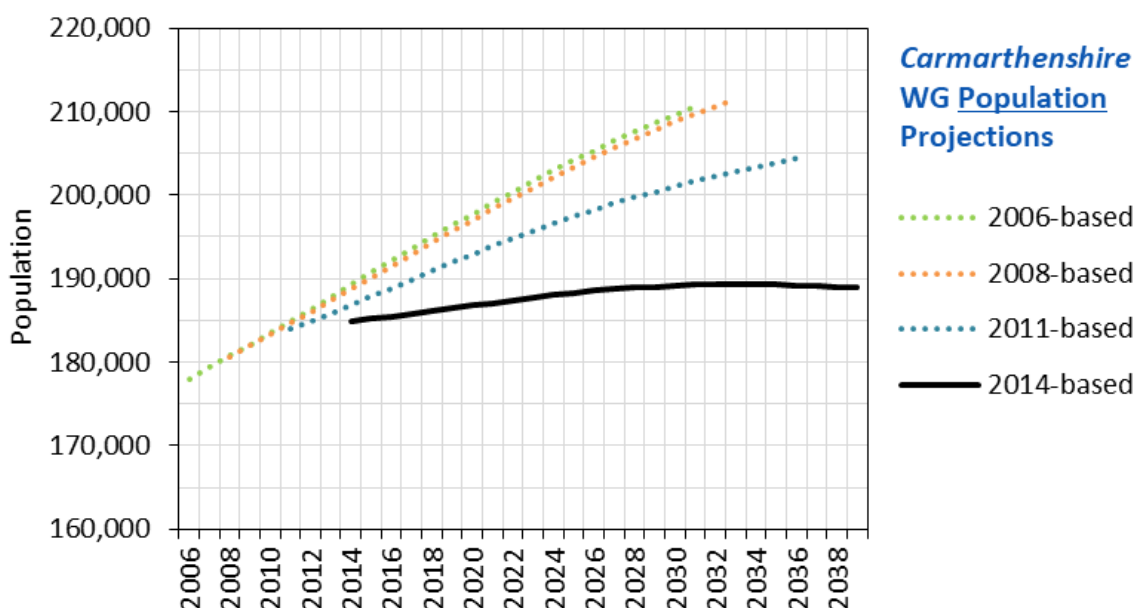


Figure 1

WG 2014-based projections

3.3 In undertaking the background evidence for the revised LDP 2018-2033, the Welsh Government’s (WG) 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.

Demographic Scenarios

3.10 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.

3.11 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.

3.12 The demographic scenarios considered by Edge Analytics 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)

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

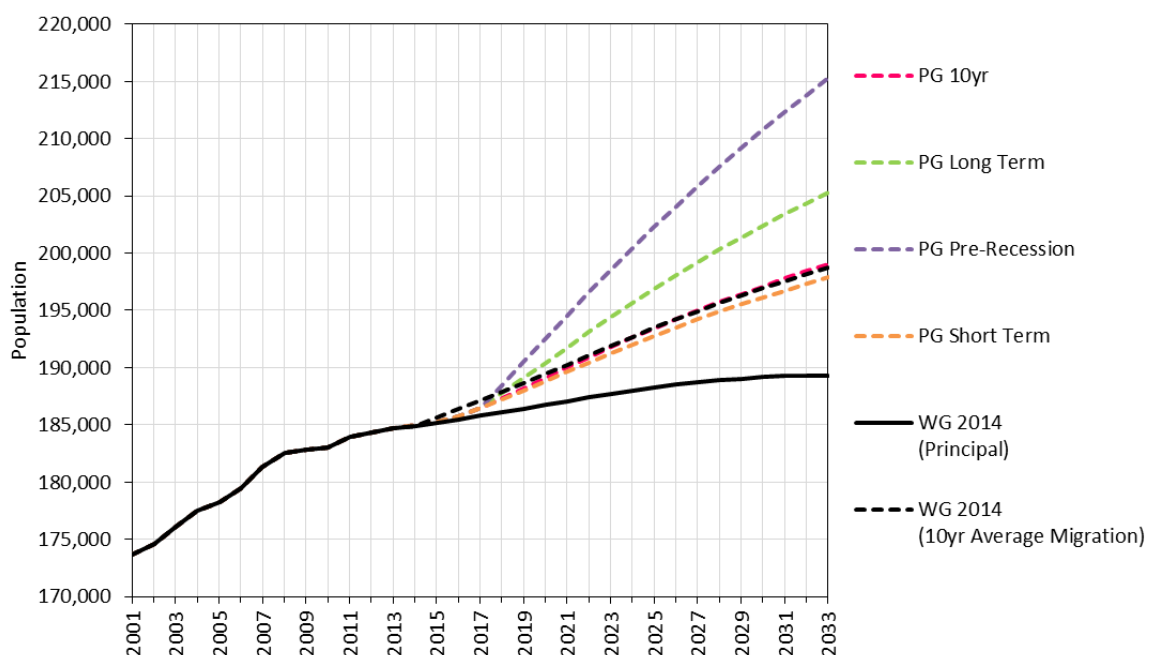


Figure 2: Carmarthenshire population change 2001-2033

3.14 In considering the dwelling growth outcomes which are calculated using the data from the projected household change figures, each scenario is 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 produces 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 1st September 2018.

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

Table 1

3.15 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.

3.16 In concluding the most appropriate housing requirement figure, the Edge Analytics Population and Household Forecast paper considers 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.

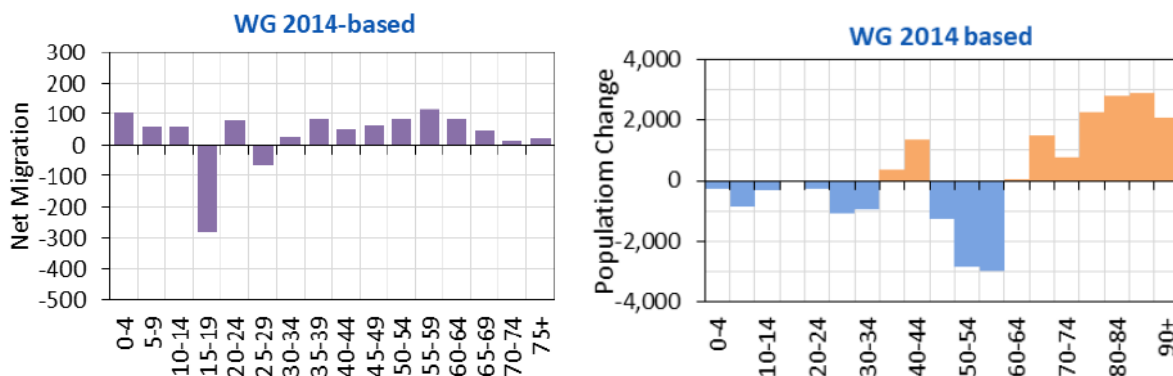
3.17 In determining a housing requirement figure, consideration must be given to various economic strategies and the economic growth aspirations which the Local Authority is looking to support.

3.18 These include:

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

WG 2014-based projection

3.19 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.



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)		
WG 2014 (Principal)	3,207	1.7%	3,254	4.0%	546	231	224	3,472	3,367

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%

3.20 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.

3.21 Housing build rates within Carmarthenshire since 2007 have been (on average) 493 houses per year. Adopting the 2014-based projection as the Preferred Strategy 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.

3.22 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.

Conclusion

3.23 Using this growth trend as the Preferred Strategy 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 Preferred Strategy.

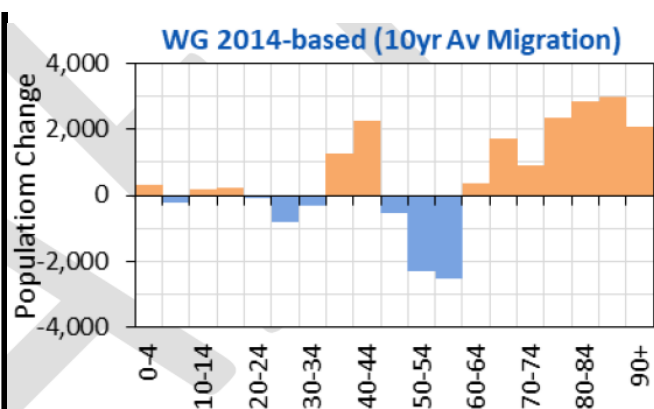
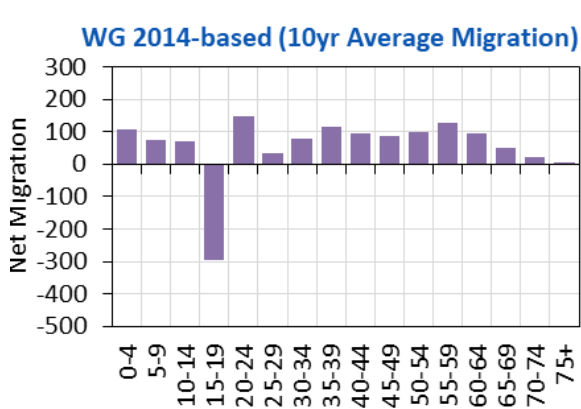
3.24 Using this scenario would not deliver the Plan's Vision and Strategic Objectives.

WG 2014-based (10 year average migration) projection

3.25 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.

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)		
WG 2014 (10yr Av Mig)	10,842	5.8%	6,322	7.7%	921	450	436	6,746	6,542

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%



3.26 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.

3.27 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.

3.28 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.

3.29 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.

3.30 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.

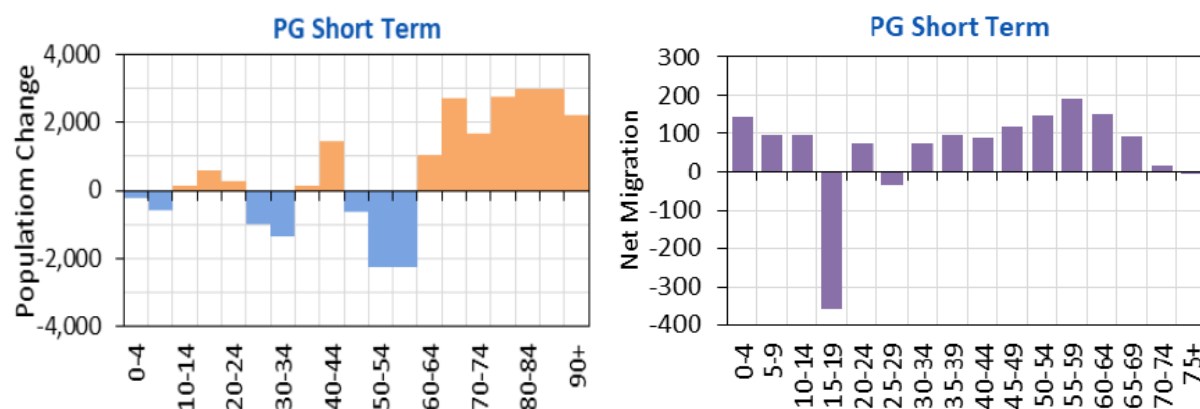
Conclusion

3.31 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 Preferred Strategy.

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

PG Short Term Growth Projection

3.33 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 the latest three years of data.



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%

3.34 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.

3.35 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.

3.36 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.

3.37 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.

3.38 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*.

Conclusion

3.39 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 Preferred Strategy.

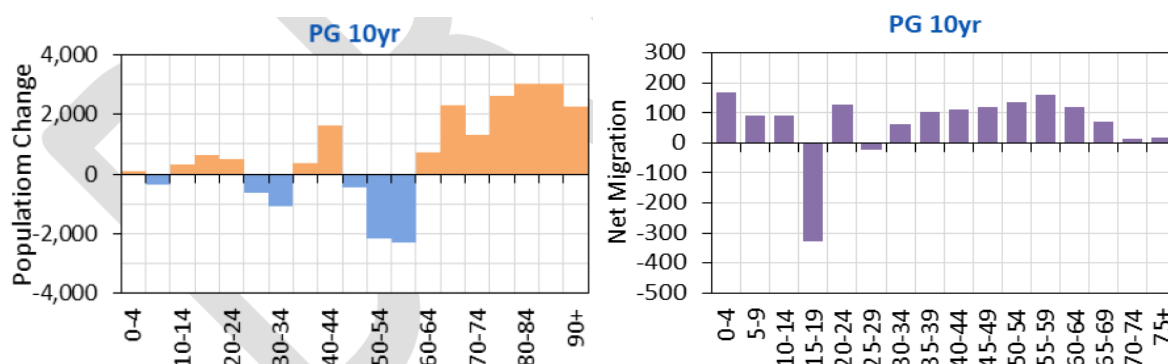
3.40 **It would not deliver the Plan's Vision and Strategic Objectives.**

PG 10 year projection

3.41 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.

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%



3.42 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.

3.43 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.

3.44 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.

3.45 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 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*.

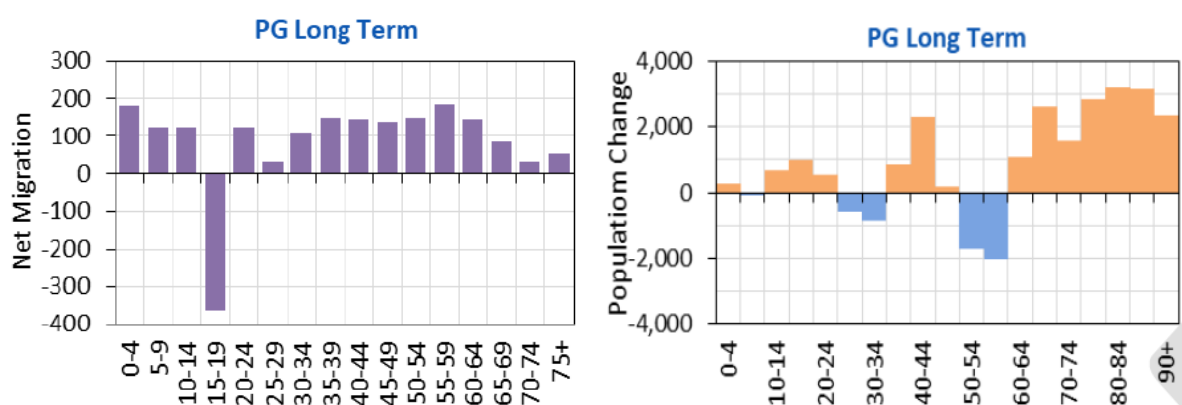
Conclusion

3.46 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 545 dwellings per year and restricting the housing requirement through this scenario as the Preferred Strategy would limit Carmarthenshire's economic ambitions in terms of job creation and provide opportunities for younger adults within the County to live and work.

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

PG Long Term Growth Projection

3.48 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.



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%

3.49 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.

3.50 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.

3.51 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.

3.52 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.

Conclusion

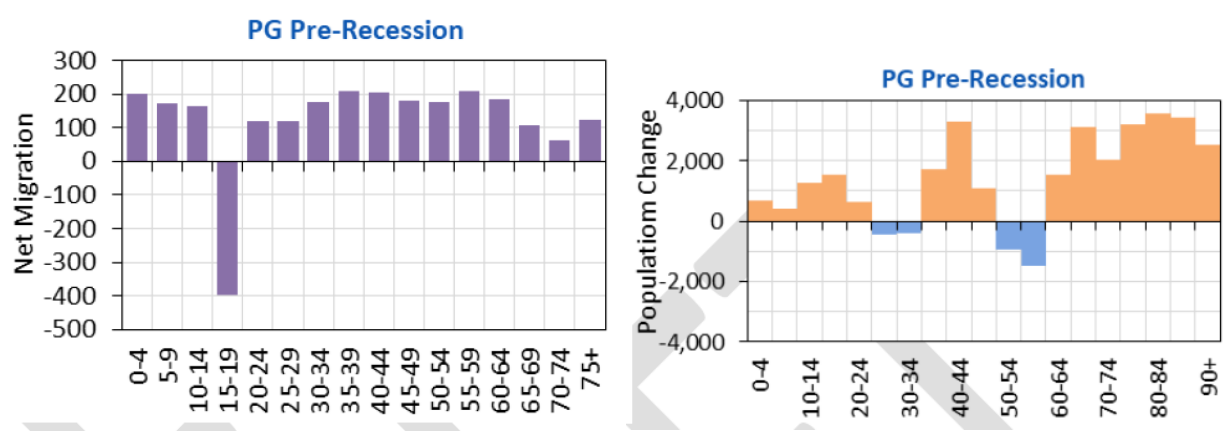
3.53 On balance, utilising this scenario as the Preferred Strategy would provide a positive outlook and provide an appropriate provision for housing delivery within the county. Housing build rates within Carmarthenshire since 2007 have been (on average) 493 houses per year with the three years since 2015 delivering on average 545 dwellings per year. It would allow the flexibility to drive sustainable housing growth and support the economic ambitions of the county.

3.54 Whilst this scenario identifies a higher population growth than all but one of the considered scenarios, it will see a continuation of people aged 15-19 leaving the county, however it does identify a consistent net in-migration in all other age cohorts which would result in a balanced demographic outlook for the county.

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

Pre-Recession Growth Projection

3.56 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.



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%

3.57 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.

3.58 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.

3.59 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.

Conclusion

3.60 Utilising this projection scenario as the revised LDP Preferred Strategy 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.

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

Employment-led Scenarios

3.62 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.

3.63 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.

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

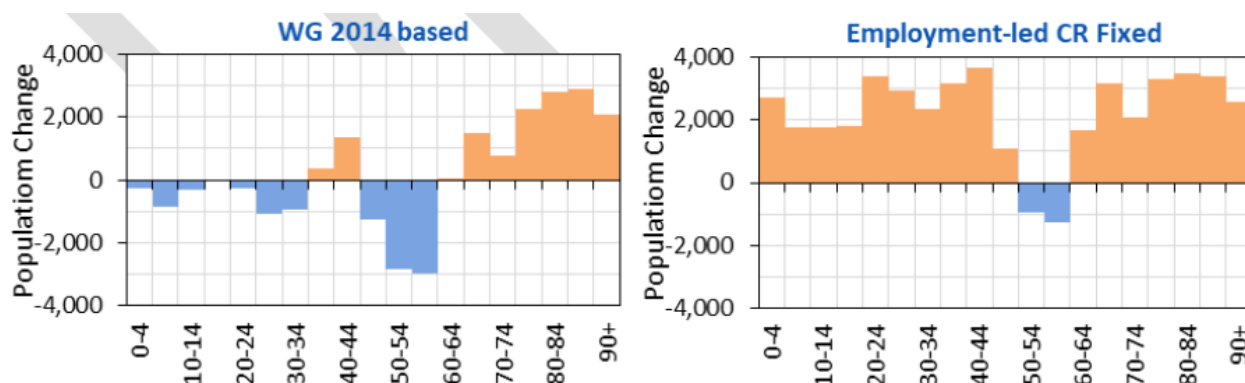
3.64 The POPGROUP model considers factors such as economic activity rate, unemployment rates and commuting ratios which quantifies the demographic impact of an economic growth trajectory. Carmarthenshire's commuting ratio is a key component of the balance between local employment and the available labour 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.

3.65 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.

3.66 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

3.67 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.



3.68 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.

3.69 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

3.70 Utilising the employment-led scenarios as the Preferred Strategy 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.

3.71 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.

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