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# Revised 2018-2033 Local Development Plan

## Topic Paper Population and Household Projections



February 2023

# Population and Household Projection Topic Paper

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## 1. Introduction

1.1 The Council is responsible for preparing and keeping an up-to-date 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.

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 projection 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 report.

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 The Population and Household projections were updated by Edge Analytics for the 1<sup>st</sup> Deposit rLDP in early 2020 which updated various housing requirement scenarios in the light of a range of new evidence, including Carmarthenshire's 2018 mid-year population estimate and the consultation on the then draft National Development Framework. The Edge Analytics report also considered the relationship of employment growth estimates as part of its alignment with the housing growth requirements. These scenarios are identified in Appendix 1.

1.5 Given the requirement to provide updated evidence as part of the 2<sup>nd</sup> Deposit LDP, the Council commissioned Turley (with the support of Edge Analytics) to undertake a Housing and Economic Growth Paper to reflect the WG 2018-based sub national population and household projections, in addition to other population estimated published since the first Deposit Revised LDP.

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<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 for the 2<sup>nd</sup> Deposit due regard is 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 are considered.

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

2.1 Since the inception of the Local Development Plan process in Wales, the Welsh Government has published five sets of population and household projections. The 2006 and 2008 WG based projections were 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 translated into a much lower anticipated household growth requirement for Carmarthenshire.

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

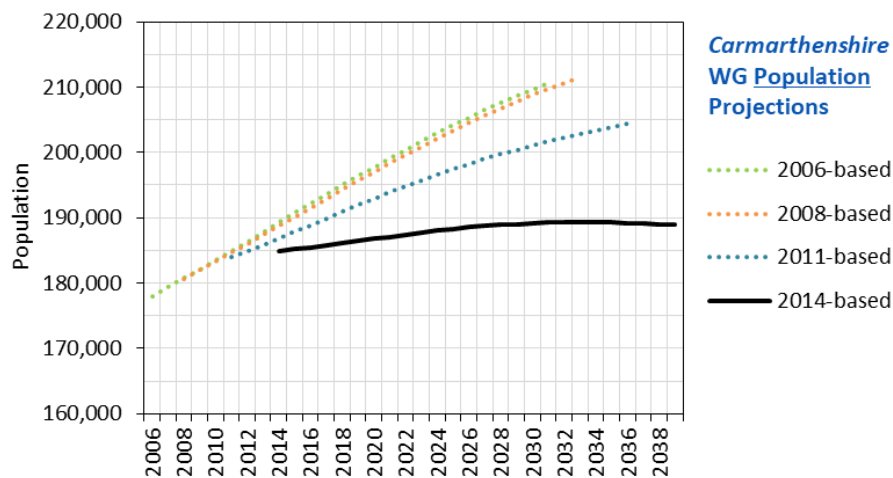


Figure 1: Carmarthenshire WG Population Projections

### WG- 2018 based projections

2.3 At the time of writing, the latest official projections available from the Welsh Government are based to 2018 and are the fifth set published by WG. The principal projection largely bases its assumptions on the demographic trends recorded over the preceding five years (2013-2018) thus providing an indication of how the population of Carmarthenshire could change if these trends were to continue. A series of variants are also available, including “high” and “low” variants

that respectively make more optimistic and pessimistic assumptions on fertility, life expectancy and migration from other parts of the UK.

2.4 At a Wales level, the birth rate has continued to fall (with the total fertility rate falling from 1.78 in 2014 to 1.63 in 2018), and improvements in life expectancy have stalled, while migration patterns have been fluctuating. For Carmarthenshire, the number of deaths exceed the number of births, with a positive net migration supporting the population increase.

2.5 The Welsh Government’s 2008-based projections largely drew upon trends prior to the current plan period and suggested that the average household in Carmarthenshire would contain 2.05 people in 2021. The latest 2018-based projections, in contrast, drew upon more recent trends and anticipated an average of 2.26 people per household in the same year. Initial data from the latest Census suggests that there were slightly more (2.30) than anticipated even by the most up-to-date projection.

2.6 These official projections suggest that Carmarthenshire could accommodate as many as 9,460 additional residents between 2018 and 2033, or as few as 1,650. The principal projection sits slightly above the midpoint of this range and suggests that there could be an additional 6,197 residents by the end of the Revised LDP plan period.

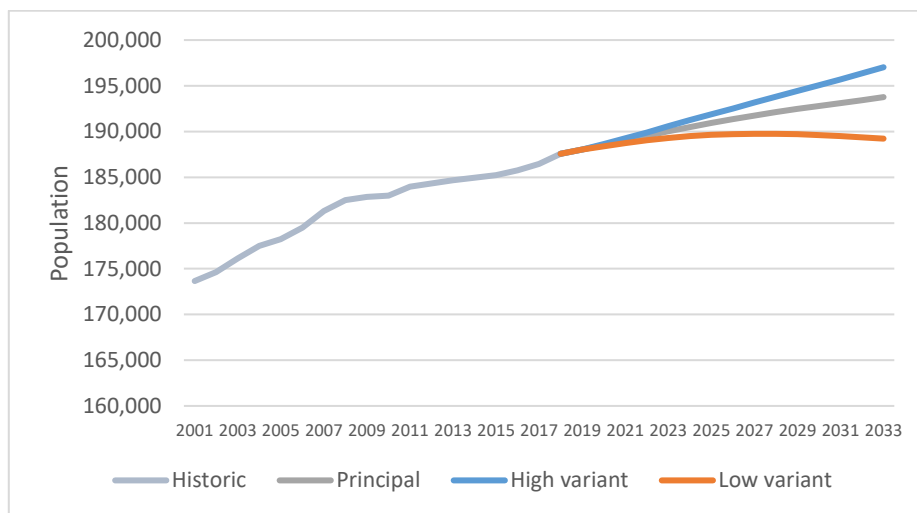


Figure 2 - presents the variants within the WG 2018 based projections

2.7 The projections suggest that population growth would be driven in each case by net in-migration from other parts of the UK. The principal projection allows for an average net inflow of circa 1,043 people per annum, increasing to 1,111 per annum under the high variant – which is still less than the average over the past five years (1,265pa) and falling to 974 under the low

variant. All scenarios consistently allow for a net inflow of circa 209 international migrants per annum, with this assumption not varied and consistent with the short-and long-term trends. Deaths are projected to outnumber births in each scenario, with natural change therefore continuing to have a consistently negative effect on the population that is most pronounced under the low variant.

### **Mid-Year estimates 2020 (MYE)**

2.8 The mid-year estimates refer to the population on the 30th of June 2020. The variant demographic scenarios use the ONS 2020 MYE as their base year.

### **Census 2021**

2.9 It is important to acknowledge that these scenarios, like the official projections, are based on population estimates that are routinely reviewed. The 2021 Census found the population of Carmarthenshire to be slightly lower than previously estimated. As the Revised LDP goes towards examination, further information will be provided to support the conclusions set out within this paper.

### **Future Wales – The National Plan 2040**

2.10 Future Wales – the National Plan 2040 is our national development framework, setting the direction for development in Wales to 2040. Future Wales identifies Llanelli and south-eastern areas of the county as part of the National Growth area for the South West region (which comprises the local authorities of Carmarthenshire, Neath Port Talbot, Pembrokeshire, 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 25,600 additional homes are required in the South West region by 2039. It is noted that Future Wales is based on the principal 2018-based population and household projections without policy intervention. It therefore does not consider the local nuances and each local authorities’ strategic direction on the development of its communities.



### 3. Carmarthenshire's Profile

3.1 With a population of 187,900 in 2021, 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.

3.2 Pembrokeshire borders Carmarthenshire to the West, Ceredigion is to its 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.

3.3 Since 2011 the Census data indicates that Carmarthenshire's population has increased by + 4,100 people, which equates to a 2.2% increase. Higher annual population growth (averaging +0.7% per annum) was recorded pre-2008, with notably lower annual growth recorded thereafter. The make-up of the population within the county is from the following outcomes:

- Natural Growth is falling – 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.
- There has been an increase of 18.9% in people aged 65 years and over
- Decrease of 2.5% in people aged 15 to 64 years.
- Decrease of 0.8% in children aged under 15 years.
- A net inflow is recorded in all older (65+) age groups, contributing to Carmarthenshire's ageing population profile.
- The proportion of people living in Carmarthenshire that were born outside of the UK has decreased by 1% since the last Census.

## 4. Demographic Scenarios

4.1 The requirement to undertake alternative scenarios for Carmarthenshire's population growth is evident with the data from the WG 2018-based projection highlighting limited growth potential for Carmarthenshire.

4.2 The Council commissioned Turley (supported by Edge Analytics' Demographic work) to undertake a Housing and Economic Paper to provide various demographic scenarios to inform the future growth opportunities for Carmarthenshire for the plan period 2018-2033. 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.

4.3 Appendix 1 of this Paper provides a summary of all potential population and household projections from the Pre-Deposit Preferred Strategy and the 1<sup>st</sup> Deposit LDP. These summaries are for reference only given that the Revised LDP is considered against the newer evidence.

### 2<sup>nd</sup> Deposit LDP

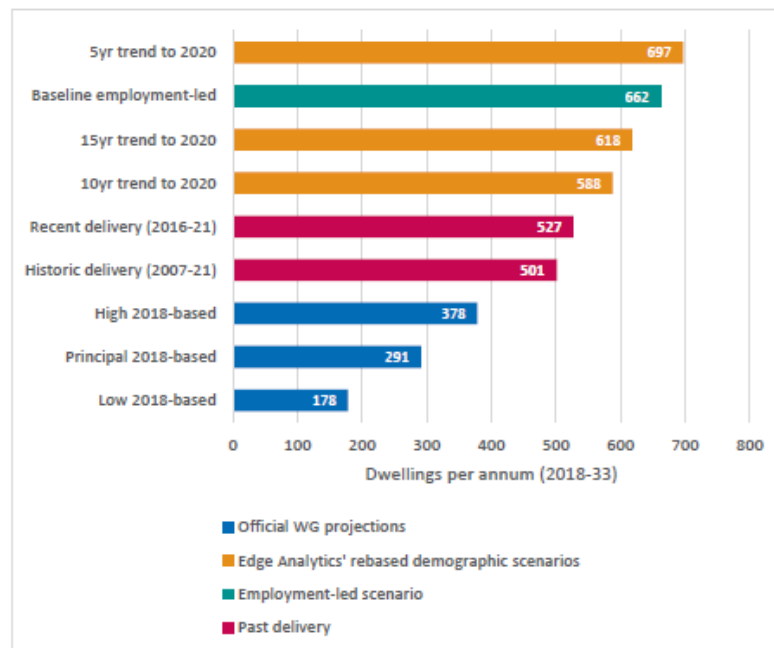
4.4 The evidence within the Turley Report is based on the areas of Carmarthenshire outside the Brecon Beacons National Park Area. For reference, the BBNPA identify their own population and household growth strategy as they are the Local Planning Authority for the area of Carmarthenshire that is in the Park.

4.5 The demographic scenarios considered by Turley in their 2022 report include the:

- **Principal 2018 based WG Projections** - Replicates the WG 2018-based *Principal* population projection, using historical population evidence for 2001–2018.
- **WG High 2018 based variant** - Replicates the WG 2018-based *High* population projection, using historical population evidence for 2001–2018 and incorporating high fertility, life expectancy and migration assumptions.
- **WG Low 2018 based variant** - Replicates the WG 2018-based *Low* population projection, using historical population evidence for 2001–2018 and incorporating low fertility, life expectancy and migration assumptions.

- **Ten-year trend-based projection** - Uses an ONS 2020 MYE base year and calibrates its migration assumptions from a 10-year historical period (2010/11–2019/20).
- **Fifteen-year trend-based projection** - Uses an ONS 2020 MYE base year and calibrates its migration assumptions from a 15-year historical period (2005/06–2019/20).
- **Rebased principal projection** – Rebases the Principal projection by effectively moving its five-year trend forward to 2020
- **Baseline employment-led scenarios** - Models the population impact of an average annual employment growth of +316 per year (following Turley’s independent application of a double jobbing assumption) between 2020 and 2036,

4.6 The housing need associated with each scenario is further illustrated, and benchmarked against past delivery, at Figure 3 below. It should be noted that the vacancy rate is set at 3.8% which is the most up-to-date Council Tax data.



Source: Welsh Government; Edge Analytics; Council monitoring; Turley analysis

Figure 3 Demographic scenarios against past delivery

### WG 2018-based Projection

Projected population change between 2018-2033: **+6,197**

New homes requirement: **+ 291 per year**

New Homes requirement during the plan period: **4,359 homes**

Jobs creation value per annum: **+201**

**Conclusion:**

4.7 Using this growth trend for Carmarthenshire’s Revised LDP would adversely impact upon the Council’s strategic ambitions from both an economic and social perspective. The homes and jobs growth scenario from the principal 2018-based projection would result in significantly less growth than identified in the historic build rates since 2007. This would result in the annual homes requirement being 42% lower than the historic trend on completions.

4.8 Given the potential negative impacts highlighted above, it is not considered prudent to utilise the principal WG 2018-based projection for the Revised LDP.

4.9 Using this scenario would not deliver the Plan’s Vision and Strategic Objectives.

**WG 2018-based “High Population” Variant**

Projected population change between 2018-2033: **+9,460**

New homes requirement: **+ 378 per year**

New Homes requirement during the plan period: **5,670 homes**

Jobs creation value per annum: **+257**

**Conclusion:**

4.10 This scenario utilises the principal WG 2018-based projection but additionally inputs high fertility, life expectancy and migration assumptions into the model. The new homes requirement significantly falls below the rate of provision recorded in the historic trends. This would result in the annual homes requirement being 24.5% lower than the historic trend on completions.

4.11 The job creation figure (although greater than the principal Projection) would still show weaker economic growth.

4.12 Given the potential negative impacts highlighted above, it is not considered prudent to utilise the High Projection scenario as the growth option for the revised LDP. It would not deliver the Plan’s Vision and Strategic Objectives.

**WG 2018-based “Low Population” Variant**

Projected population change between 2018-2033 - **+1,650**

New homes requirement: **+178 per year**

New Homes requirement during the plan period: **2,670**

Jobs creation value per annum: **+143**

**Conclusion**

4.13 This scenario utilises the principal WG 2018-based projection but additionally inputs low fertility, life expectancy and migration assumptions into the model. The new homes requirement significantly falls below the rate of provision recorded in the historic trends, and 1,689 less dwellings than the principal 2018-based projection during the Plan period.

4.14 The job creation figure is the lowest of all projections scenarios and would contribute to weak economic growth.

4.15 Given the potential negative impacts highlighted above, it is not considered prudent to utilise the Low Variant Projection scenario as the growth option for the revised LDP. It would not deliver the Plan’s Vision and Strategic Objectives.

**Ten-year trend-based projection**

Projected population change between 2018-2033: **+14,468**

New homes requirement: **+ 588 per year**

New Homes requirement during the plan period: **8,822**

Jobs creation value per annum: **+276**

**Conclusion:**

4.16 This scenario rebases the principal Welsh Government projection to take into account two further years of known data and increases the length of the trend period to 10 years.

4.17 On balance, utilising this scenario would provide a positive outlook and provide an appropriate provision for housing delivery within the county. This would result in the annual homes requirement being 17.3% higher than the historic trend on completions. It would allow the flexibility to drive sustainable housing growth and contribute to supporting the economic ambitions of the county.

**Fifteen-year trend-based projection**

Projected population change between 2018-2033: **+15,854**

New homes requirement: **+ 618** per year

New Homes requirement during the plan period: **9,272**

Jobs creation value per annum: **+353**

**Conclusion:**

4.18 This scenario rebases the principal Welsh Government projection to take into account two further years of known data and increases the length of the trend period to 15 years.

4.19 On balance, utilising this scenario would provide a positive outlook for housing growth and job creation. This would result in the annual homes requirement being 23.3% higher than the historic trend on completions. It is considered however that the requirement of 618 new homes per year is slightly in excess of the Plan's housing growth potential.

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

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**Rebased principal projections-(Five year trend)**

Projected population change between 2018-2033: **+17,635**

New homes requirement: **+ 697 per year**

New Homes requirement during the plan period: **10,445**

Jobs creation value per annum: **+401**

**Conclusion**

4.21 This scenario rebases the principal Welsh Government projection to take into account the two further years of known data and maintains 5 years of data.

4.22 Whilst this scenario would be ambitious in driving economic aspirations, setting such a high growth requirement would result in an undeliverable and unsustainable growth strategy. This scenario would result in the annual homes requirement being 39.1% higher than the historic trend on completions.

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

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**Baseline employment-led scenario**

Projected population change between 2018-2033: **+16,407**

New homes requirement: **+ 662 per year**

New Homes requirement during the plan period: **9,933**

Jobs creation value per annum: **+337**

**Conclusion:**

4.24 This scenario utilises the baseline Experian data and the principal projection to correlate job creation to household growth.

4.25 Whilst this scenario would be ambitious in driving economic aspirations, setting such a high growth requirement through the Baseline employment-led scenario would result in an undeliverable and unsustainable growth strategy. This scenario would result in the annual homes requirement being 32.1% higher than the historic trend on completions

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

## 5. Revised LDP Preferred Option

### Summary of the previous Revised LDP housing growth requirements

5.1 Within the Pre-Deposit Preferred Strategy of the Revised LDP the PG Long Term scenarios from the 2018 Edge Analytics study was considered the most appropriate for Carmarthenshire. This was followed by updated evidence in the 2019 Edge Analytics report which identified a reduction in population and household estimates, leading to the 1<sup>st</sup> Deposit LDP lowering the housing requirement for the plan period. The Council, in the consultation of the 1<sup>st</sup> Deposit in early 2020, chose to support the evidence provided in the PG10yr projection scenario. The preferred scenario of the PG10 year (2019) included meeting the economic ambitions of the county, and the job creation targets set out in the Regeneration Plan. More importantly the scenario was more in alignment with the build rates within the county since 2008. The average dwelling growth per year in this scenario was 589 dwellings per year, or 8,835 dwellings over the whole plan period.

### Choosing the 2<sup>nd</sup> Deposit Revised LDP housing growth requirement

5.2 In considering the future growth potential for Carmarthenshire, Turley have identified several different demographic and economic scenarios which could be utilised for the period 2018-2033. This responds to the Manual by considering demographics, past trends and policy-based factors as well as the relationship with the local economy. The Turley report has identified that to meet the economic growth potential for Carmarthenshire it would require a significant investment in new housing – to the point that it becomes unsustainable. The Revised LDP seeks to maximise its economic output but must do so against other significant factors such as the impact on the Welsh Language, and the ability of the housing market to provide the level of housing required.

### Migration Evidence in the Rebased projections

5.3 The growing net inflow from other parts of the UK notably appears to have been comprised of people of all ages. This last year included those aged 18 to 24, more of whom have historically tended to move elsewhere than move to Carmarthenshire, with the change appearing to have been driven by reduced outmigration as a likely result of fewer young people leaving home during the early months of the COVID-19 pandemic. It will be of relevance in future iterations of population data if the trend continues in the following years.



5.4 The past five years, in which the net inflow to Carmarthenshire from other parts of the UK has grown, have seen an average of more than 2,000 people move between the county and Swansea each year. This is by some distance the strongest relationship shared by Carmarthenshire and has brought an average net inflow of circa 213 people per annum. There has also been a net inflow from Ceredigion, with which Carmarthenshire shares its next strongest relationship in terms of gross migration. This is followed by Pembrokeshire and Cardiff, albeit these relationships contrastingly involve a net *outflow* from the county (Turley's report (para 2.10)). The consequences of such are explored in other Topic Papers, however it is important to recognise the headline figures of net migration to and from the county.

## Summary

5.5 In summarising the scenarios identified in Paragraph 4.5, only two of the scenarios provide a balanced household growth which would be supportive of the Council overall strategic aims. The fifteen-year projection would provide a positive outlook for housing growth and job creation. The main issue in using this scenario is that the proposed build rates would be above what is currently being built since 2008, including an allowance for a flexibility. This would total 618 dwellings a year against a build rate of 527 over the last 5 years.

5.6 The ten-year trend-based projection provides the most balanced scenario of growth for the Revised LDP. The annual growth of 588 dwellings is the most reasonable in considering past levels of housing completions. It is also noted that the varying migration data seen in the last few years has been included and informed the preferred demographic trend for the Revised LDP. None of the demographic scenarios previously introduced in this section would be likely to support such a level of job growth, when assuming that the labour force behaves in the way previously described in the Turley's report, although the ten-year trend-based scenario looks to meet the majority of this growth, unlike the principal and variant scenarios from the WG 2018-based projections.

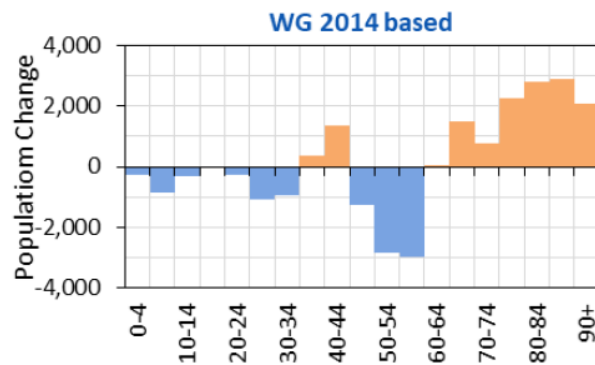
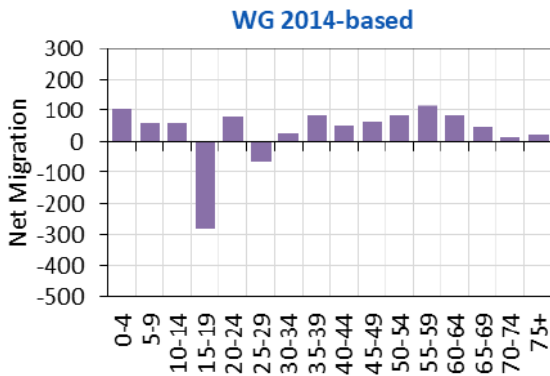
## Appendix 1 – Summary of previous Revised LDP Scenarios

A1.1 The following scenarios are based on evidence provided as part of the Revised LDP Preferred Strategy (2018) and the 1<sup>st</sup> Deposit LDP (2020). The summaries will be on the following scenarios:

- WG 2014 based projection
- WG 2014 based (10-year average migration) projection (from the 2018 study)
- PG Short Term Growth Projection (from the 2018 study)
- PG 10-year projection (from the 2018 study)
- PG Long term Growth Projection (from the 2018 Study)
- Pre-Recession Growth Projection (from the 2018 study)
- PG Short Term – Variant (from the 2019 study)
- PG Long term – Variant (from the 2019 Study)
- PG 10yr Variant (from the 2019 Study)
- Employment Led scenarios

### WG 2014 based projection

A1.2 The **WG 2014-based scenario** based its migration assumptions on the five-year 2009/10–2013/14 period, which recorded notably lower net in-migration to Carmarthenshire than previous data.



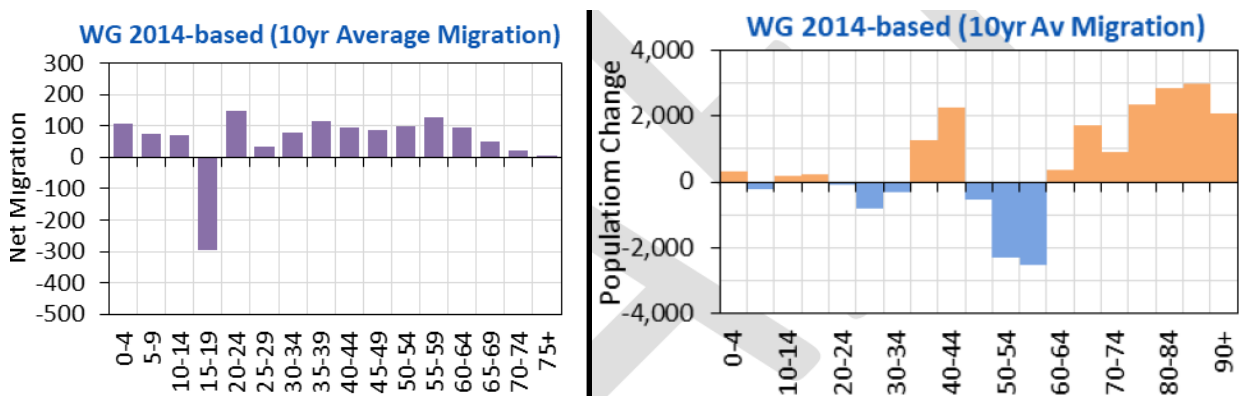
Scenario	Change 2018–2033				Average per year		
	Population Change	Population Change %	Households Change	Households Change %	Net Migration	Dwellings (Census VR)	Dwellings (Alt. VR)
<b>WG 2014-based (Principal)</b>	<b>2,581</b>	<b>1.4%</b>	<b>2,878</b>	<b>3.6%</b>	<b>481</b>	<b>205</b>	<b>199</b>

A1.3 Using this growth trend for Carmarthenshire would have significantly affected Carmarthenshire’s strategic ambition from both an economic and social perspective. In principle, the population change for those under the age of 65 would have been a negative one. This would have had a significant impact on the labour force within Carmarthenshire resulting in a net outflow of workers and residents to outside of the County.

**A1.4 Using this scenario would not have delivered the Plan’s Vision and Strategic Objectives**

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

A1.5 This projection utilised the WG 2014-based natural change assumptions but also considered the 10 year migration period between 2003/2004 and 2012/13. This trend used a migration period prior to, and post-recession, which would have seen 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)		
<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>

A1.6 The pattern of population change within this scenario was 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 was determined to be 29% and 67% respectively, whilst there was a negative 1% change for those in the labour force age group.

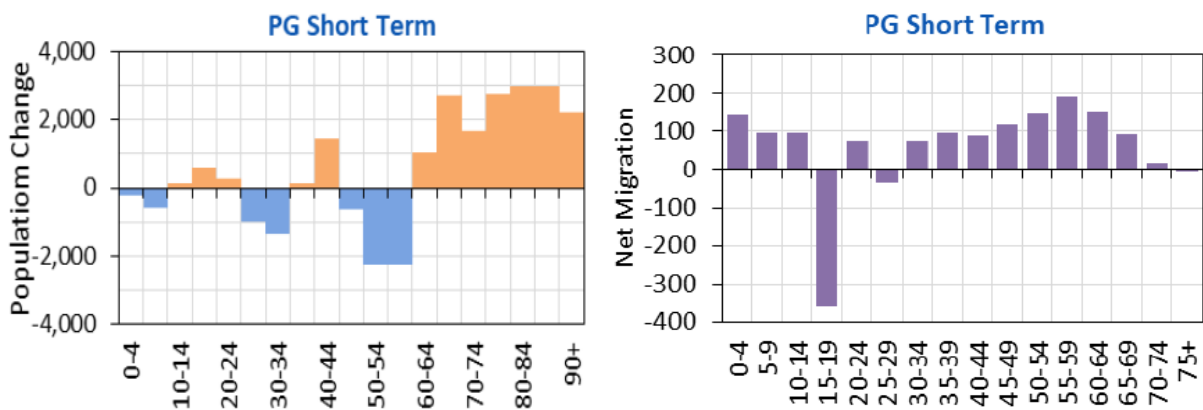
A1.7 The net migration within Carmarthenshire future population would have seen a large outflow within the 15-19 age group, but a net inflow within all other age cohorts.

A1.8 The housing requirement within this scenario (2011 Census vacancy rate) would have equated to 450 dwellings per year, which would be less than that currently being built within Carmarthenshire on an average yearly basis. This equated to 6,746 dwellings over the LDP period 2018-2033.

A1.9 It would not have delivered the Plan’s Vision and Strategic Objectives.

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

A1.10 The PG Short Term scenario was based on internal migration rates and international migration flow assumptions from a six-year historical period (2011/12–2016/17). This was a similar time period to the WG projection (i.e. 5–6 years), but included three years of additional data.



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

A1.11 This trend increased 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 increased.

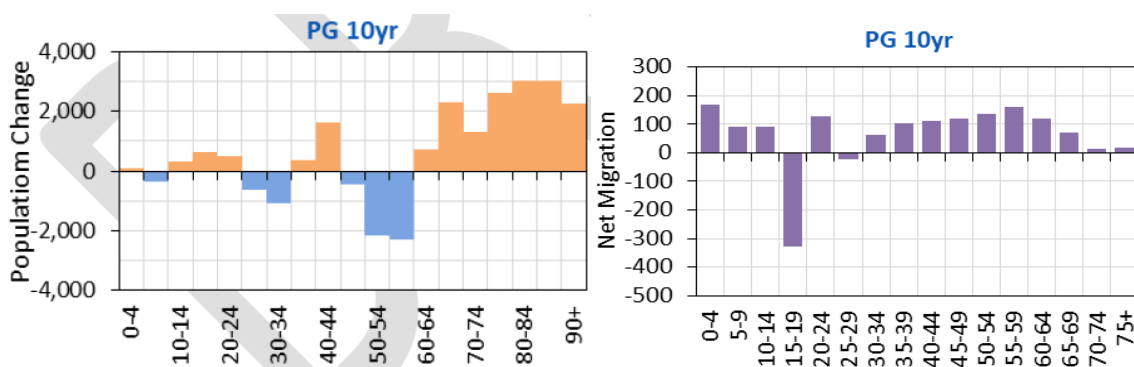
A1.12 The PG Short Term projection would have stifled any future development opportunity for the county and would have meant that the Corporate drive for new employment growth would not have been met, and be in conflict with other elements of the LDP strategy. The combination of

the decrease in the population change percentage of the workforce cohorts 16-64 and increase in the 65+ age cohort estimated the creation of 126 additional jobs per year value for the county. As this scenario would not have driven additional job creation, it would have resulted in the outflow of workers and residents from the county. This meant that there would have been implications in keeping younger people within the county to live and work and it would have fallen short of the targets outlined in Carmarthenshire’s *Strategic Regeneration Plan*.

A1.13 It would not have delivered the Plan’s Vision and Strategic Objectives.

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

A1.14 The PG 10-year projection utilised the migration trend of the previous 10 years, which took into account the first couple of years of the pre-recession period, but with the majority of the migration data being since 2008.



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

A1.15 This trend offered 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 did 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.

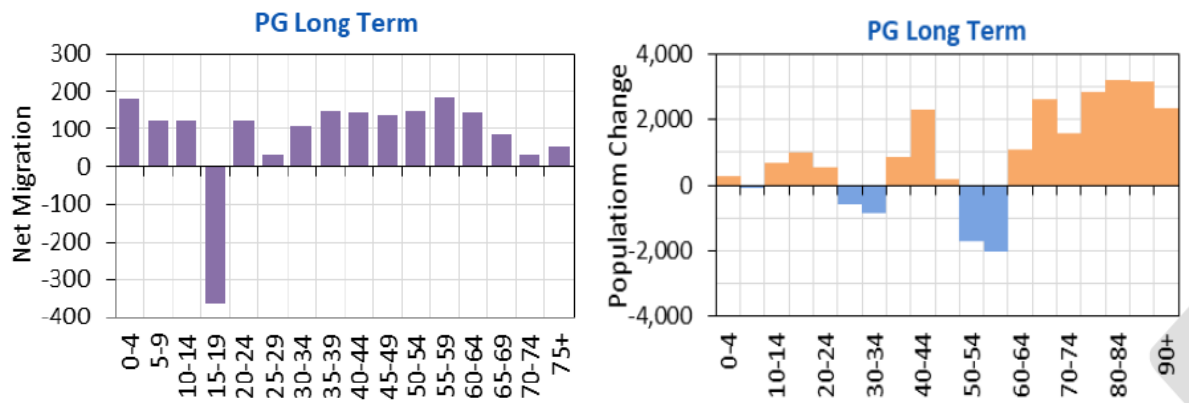
A1.16 Whilst the delivery of 497 or 482 dwellings per year was similar to that delivered since 2007, it did not offer the flexibility to pick up on those years where housing delivery and the

housing market had been more buoyant. Restricting the housing requirement through this scenario limited Carmarthenshire’s economic ambitions in terms of job creation and provide opportunities for younger adults within the County to live and work.

**A.1.17 This scenario would not have delivered the Plan’s Vision and Strategic Objectives**

**PG Long term Growth Projection (from the 2018 Study)**

A1.18 The PG Long Term scenario was based on internal migration rates and international migration flow assumptions from a sixteen-year historical period (2001/02–2016/17). This period took into account the high net in-migration flows during 2001-2008 and the lower net in-migration post 2008.



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

A1.19 In recognising the link between population growth and jobs growth, the PG Long Term scenario would have provided 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 equated to 5,295 additional jobs over the revised LDP period.

A1.20 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

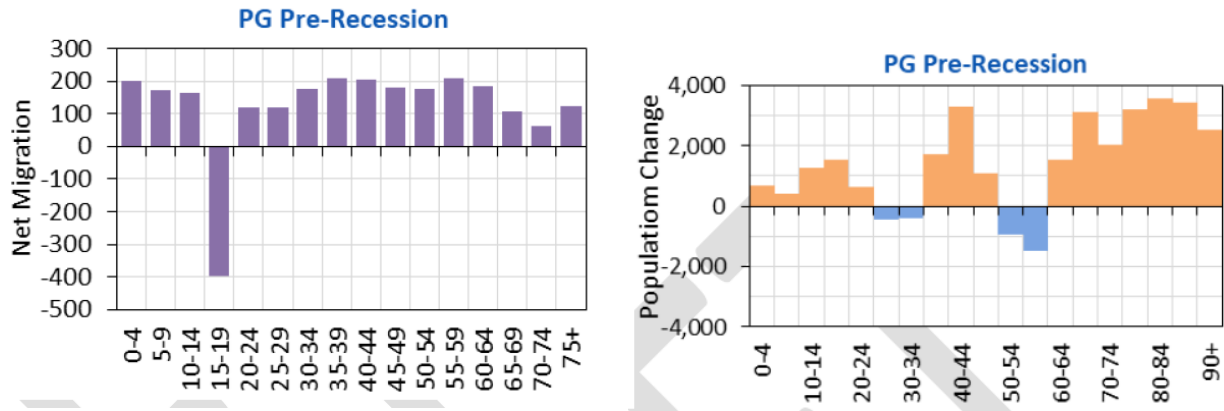
have been (on average) 485 houses per year with the four years since 2015 delivering on average 507 dwellings per year. This would allow the flexibility to drive sustainable housing growth and support the economic ambitions of the county.

A1.21 The scenario identified a higher population growth than the majority of the considered scenarios and it would have seen 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 have resulted in a balanced demographic outlook for the county.

A1.22 Using this scenario would have assisted in delivering the Plan’s Vision and Strategic Objectives

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

A1.23 The PG Pre-Recession scenario was 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.



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

A1.24 Whilst utilising a scenario with higher population growth would have seen a continuation of people aged 15-19 leaving the county, more would return in the 20-24 age cohort which would have resulted in a balanced demographic outlook for the county.

A1.25 Utilising this projection scenario as the housing growth requirement target within the revised LDP would have been commensurate to the growth strategy within the adopted LDP. Whilst this scenario would have been ambitious in driving economic aspirations, setting such a high growth requirement through the PG Pre-Recession scenario would have resulted in an undeliverable and unsustainable growth strategy

A1.26 This scenario would not have delivered the Plan's Vision and Strategic Objectives

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

A1.27 The PG Short Term variant (2019) considered internal migration rates and international migration flow assumption which were based on the four year historical period (2014/15-2017/18) and which corresponded with the four year period of recovery in housing growth.

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

A1.28 The PG Short Term scenario projected 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 was 7.6% over the plan period, compared to 5.7% previously. This was due to the sharp rise in net internal migration in 2017/18 that was captured in this scenario, and the focus on the four years of housing growth recovery.

A1.29 On balance, utilising this scenario would have provided a positive outlook and provided an appropriate provision for housing delivery within the county. It would have allowed the flexibility to drive sustainable housing growth, but it had 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 have met the ambitions of the Council's Regeneration Plan.

A1.30 This scenario would not have delivered the Plan's Vision and Strategic Objectives

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



A1.31 The PG Long Term Variant scenario looked at the internal migration rates and international migration flow assumptions which was 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

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

A1.32 Of the three trend-based scenarios in the 2019 study, the PG Long Term scenario returned the highest population, household and dwelling growth by a significant margin.

A1.33 This projection would have provided a positive outlook and provided an appropriate provision for housing delivery within the county. The increase in migration to Carmarthenshire evidenced in the 2018 mid-year estimates slightly increased both the population and household projection from that considered in the PG Long Term 2018 report scenario. The housing requirement numbers were not markedly different from those considered the favoured option in the Preferred Strategy, and it would have allowed the flexibility to drive sustainable housing growth and support the economic ambitions of the county.

A1.34 This scenario would have delivered the Plan's Vision and Strategic Objectives

### PG 10yr Variant (from the 2019 Study)

A1.35 The PG 10yr scenario looked at internal migration rates and international migration flow assumptions and were based on a ten-year historical period, ignoring the anomalous years around the immediate aftermath of the financial crash.

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

A.1.36 The PG 10yr scenario resulted in a higher population compared to the PG Short Term scenario. This is because it captured migration estimates in years immediately preceding the recession and the more recent recovery period. This resulted in average annual dwellings growth of +615 dpa, and +596 dpa with the alternative vacancy rate.

A1.37 Utilising this scenario would have provided a positive outlook and provided an appropriate provision for housing delivery within the county. It would have allowed the flexibility to drive sustainable housing growth and support the economic ambitions of the county. The relationship between job creation and population increase was more positive than the scenario identified within the Preferred Strategy as the household requirement was lower, with the proportional growth of the working age population being higher.

A1.38 Using this scenario would have assisted in delivering the Plan's Vision and Strategic Objectives

## Employment Led scenarios

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

A1.39 Two future housing requirement scenarios were considered against the Council's Employment Sectoral Study. This study assumed a fixed annual rate of growth for key employment sectors which would maximise Carmarthenshire's economic potential. This anticipated growth equated to an estimate of 1,245 jobs per year in nine priority employment sectors.

A1.40 Utilising the employment-led scenarios for the revised LDP and the high growth requirement set out within it resulted 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.

A1.41 Whilst these scenarios would be ambitious in driving economic aspirations, setting such a high growth requirement would have resulted in an undeliverable and unsustainable growth strategy.

A1.42 This scenario would not have delivered the Plan's Vision and Strategic Objectives