

DENBIGHSHIRE REPLACEMENT LOCAL
DEVELOPMENT PLAN

2018 – 2033

STRATEGIC OPTIONS

BACKGROUND PAPER:

GROWTH LEVEL OPTIONS REPORT
2019

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Headlines

This paper has been produced to provide background information to support the preferred strategy consultation stage of the Denbighshire Replacement Local Development Plan 2018-2033, which is produced by Denbighshire County Council.

The background paper sets out proposed options for growth within the County and how these will potentially affect population totals and structures, dwelling requirements and housing mix, and it identifies the possible jobs and employment land implications of the projected growth.

The summary of dwelling and employment impacts over the Plan period is shown in the table below. All data is for change between 2018 and 2033 for the growth option selected for the preferred growth strategy (full details are available in section 5 of this report).

	Change 2018-2033
Household growth	3,100
Dwelling impacts	
Households to dwellings	3,250
Plus contingency	525
Total	3,775
Average annual requirement	220
Average annual requirement (inc. contingency)	250
Economic impacts	
Jobs growth	1,500
Land (ha)	10.5

Before testing different growth scenarios for the County, we looked at some of the factors which influence change, including the demographic profile of Denbighshire, economic growth; past housing completion rates and the Council's aspirations for the new LDP. The evidence was used to help shape the wide range of different growth scenarios which were looked at before settling on the one presented in this paper.

This paper updates work which was undertaken for the key stakeholder pre-deposit participation stage of the Replacement Local Development Plan.

1. Background

- 1.1 This paper has been produced to provide background information on growth options for the Denbighshire Replacement Local Development Plan 2018-2033 which is produced by Denbighshire County Council. It forms part of the evidence base for the preferred strategy consultation of the process. The background paper sets out proposed options for growth within the area and how these will potentially affect population totals and structures, dwelling requirements and housing mix. It also identifies the jobs and employment land implications of the projected growth.
- 1.2 This paper updates work which was undertaken for the key stakeholder pre-deposit participation stage of the Replacement Local Development Plan. From the range of projections which were produced at that stage, five were selected as being the most robust representations of the evidence, and which also support the aspirations of the Replacement Local Development Plan. Three of the growth options were population led projections which used Welsh Government's official projections methodology as a starting point, but use different trends and assumptions about future growth. The two additional growth scenarios were employment led and derived from information in the Employment Land Review (ELR).
- 1.3 Whilst some of the options presented at this stage provided realistic and deliverable growth options for housing, and some offered economic growth that was in line with the results of the Employment Land and Economic Growth Assessment, it was felt that none quite balanced the Council's aspirations in these two areas. Therefore a new set of projections were commissioned, which took a combined approach. These are based on projected jobs growth of +1,500 over the Plan period. They allow for sustainable housing growth, but would also offer flexibility when looking at the employment land requirement. Section 4 of this report looks in more detail at why the Council chose this set of projections.
- 1.4 The paper looks at the evidence which was examined when considering which growth options to present. The statistical methodologies and policy assumptions used to make this selection are also explained. Some detail of the other growth options that were considered and reasons why they were rejected are also included (see appendix A2).
- 1.5 Planning Policy Wales recommends that:

(t)he latest Welsh Government local authority level Household Projections for Wales, alongside the latest Local Housing Market Assessment (LHMA) and the Well-being plan for a plan area, will form a fundamental part of the evidence base for development plans. These should be considered together with other key evidence in relation to issues such as what the plan is seeking to achieve, links between homes and jobs, the need for affordable housing, Welsh language considerations and the deliverability of the plan, in order to identify an appropriate strategy for the delivery of housing in the plan area. Appropriate consideration must also be given to the wider social, economic, environmental and cultural factors in a plan area in order to ensure the creation of sustainable places and cohesive communities

and that

(p)lanning authorities need to assess whether the various elements of the projections are appropriate for their area, and if not, undertake modelling, based on robust evidence, to identify alternative options¹

The guidance also emphasises the duty of Planning Authorities to take note of the Public Service Board 'Well-being Plans' as a key part of the evidence base.

- 1.6 There are additional caveats to consider when looking at moving beyond the officially produced projections the key predictor of future growth, particularly those which are produced to a standardised methodology across a number of geographical areas and for a range of different, often competing, purposes.
- Any set of projections presents only one possible future.
 - They are based on past trends – projections only take what has happened in the past and see what would happen if those trends continue. And if the period from which the trend is measured is anomalous, it may not give the full picture.
 - No policy elements are included in the official projections, even if these are already known about².
- 1.7 Before testing different growth scenarios for Denbighshire, we looked at some of the factors which influence change at the local level including the demographic profile of the area, economic growth; past housing completion rates and the Council's aspirations for the new LDP.
- 1.8 We've also looked at the issues which were identified in the assessment of local well-being that was prepared in 2017 for the Conwy and Denbighshire Public Service Board and how they sit with the Replacement Local Development Plan and its duties under the Well-being of Future Generations Act. We have focussed specifically on well-being aspirations for a more balanced population that retains younger people within the area, offers employment opportunities to help achieve this, and provides suitable and affordable housing for our existing and future population.
- 1.9 All data is for change between 2018 and 2033 (the Plan period) unless otherwise stated.
- 1.10 As numbers are only a projection of future requirements and are not an exact count, the results are rounded to the nearest 50 or 25 for publication, except for projected annual dwelling requirements and annual migration, which are rounded to the nearest 10. Any calculations are undertaken before rounding is applied, so individual figures in tables may not add to the column or row totals.
- 1.11 Projections were produced using the POPGROUP suite of software, which is the software used by Welsh Government to produce its sub-national projections. Where appropriate, the projections which were produced used the same methodologies

¹ Planning Policy Wales Edition 10, December 2018 - Chapter 4 Active and Social Places

² Examples of policy decisions that we know about that will have an impact on growth levels but are not part of the Welsh Government projections methodology include Brexit and the North Wales Economic Ambition Board's jobs growth bid. Though we know that things are likely to change because of these policy decisions, we have no reliable way of predicting *how* they will change or even precisely *what* they will change, and so cannot produce a robust estimate of future growth based on these 'unknowns' that would meet the strict requirements of National Statistics designation.

and data sources as those used by Welsh Government, though assumptions about growth levels and trends have been varied.

- 1.12 Conwy County Borough Council's Corporate Research and Information Unit have been commissioned to provide demographic support to Denbighshire's Local Development Plan. This paper was produced by the Senior Researcher from the Corporate Research and Information Unit, who has experience of producing growth options papers for her own Planning Authority and for Wrexham Borough Council, as well as providing planning related projections support to a number of other Planning Authorities in Wales. She is a founder member of Welsh Government's Sub-national Projections Working Group (WASP). She was involved in devising the projections methodology used by Welsh Government and has over 25 years of experience of demographic research in North Wales. She is also a member of the Office for National Statistics' Central and Local Government Information Partnership advisory group on population, and is a long standing member of the POPGROUP steering committee.

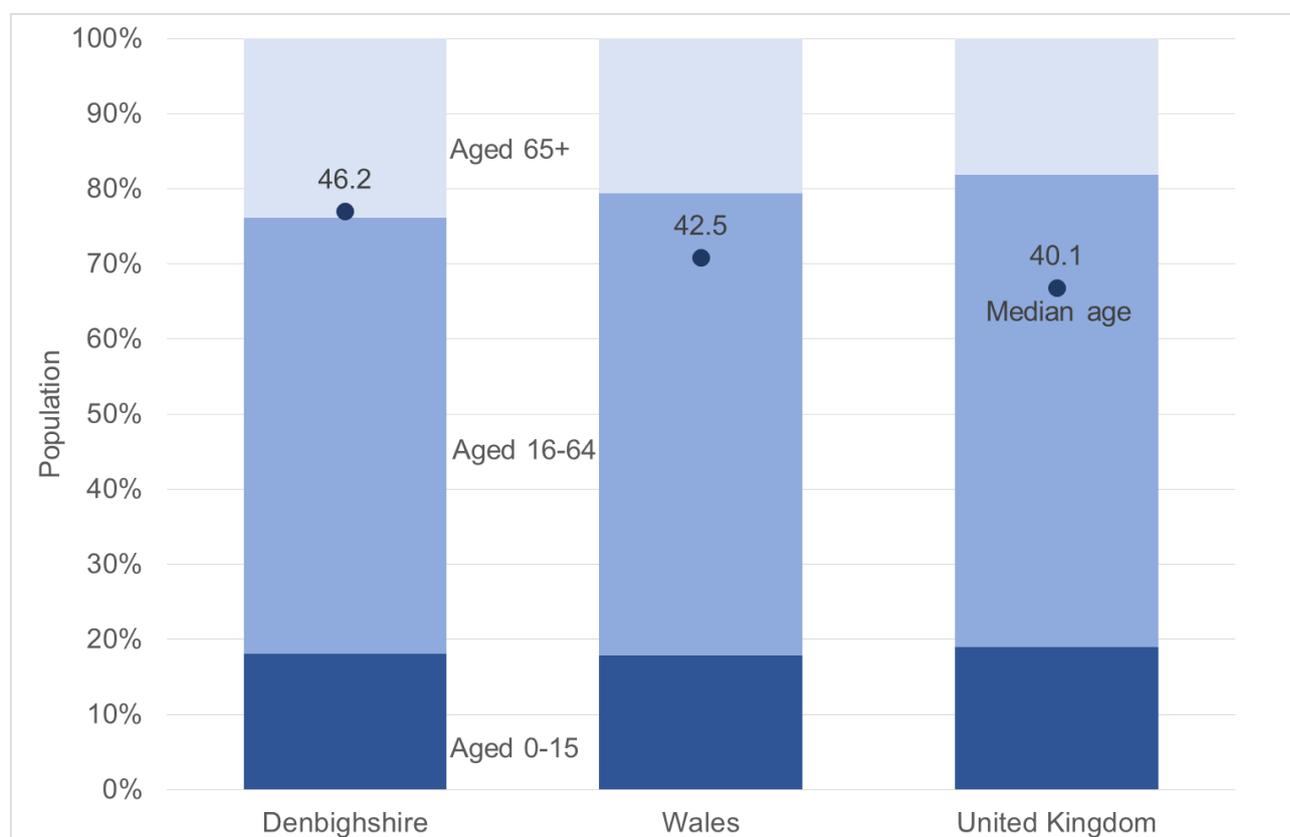
2. Looking at the evidence

Demographic profile for Denbighshire

- 2.1 The size, shape and key characteristics of the population of the area are the starting point for any analysis of evidence that may shape future growth over the Plan period. We have provided an overview of the population, and have then looked at migration in more detail, as this is the key driver of population change in Denbighshire.
- 2.2 The main data sources used to look at the demographic profile of the area are the Office for National Statistics' population estimates and supporting data on components of population change; and Welsh Government's 2014-based sub-national population projections.
- 2.3 The size of the resident population in Denbighshire at 30 June 2017³ was estimated to be 95,150 people. In the 15 years since 2002 the population of Denbighshire has increased by 1,700, which is 1.8% – an average of about 0.1% per year, though rates of change have not been evenly spread across the period. In the same period the population of Wales increased by 6.9% and the population of the UK grew by 11.2%.

Chart 2.1: comparative population structures for Denbighshire, Wales and the UK

Source: 2017 mid-year population estimates, ONS

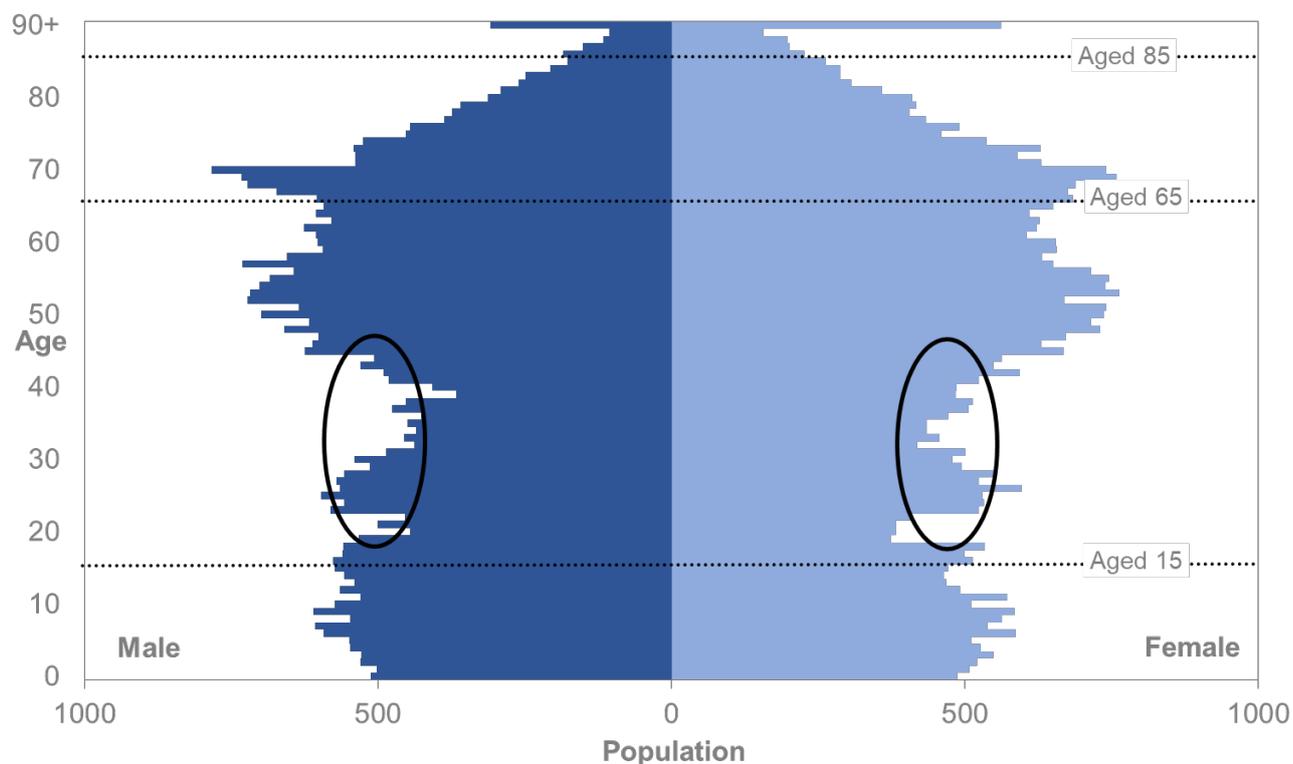


³ Mid-year population estimates and components of population change, Office for National Statistics

- 2.4 The population of Denbighshire does not replace itself naturally as there are more deaths than births in the area every year. With deaths over a ten year period at an average of 1,200 each year and births at just 1,050 the population of Denbighshire would decrease by around 150 persons per year if there were no net in-migration into the area.
- 2.5 The age structure of the County is significantly older than that for Wales or the UK as a whole. Denbighshire's 23.8% of the population aged 65 and over compares to 20.6% in Wales as a whole and only 18.2% across the UK. The median age of the population in 2017 was 46.2 years (Wales = 42.5; UK = 40.1). The median age has increased from 43.5 to 46.2 years over the last decade.
- 2.6 The increase in the number of people aged over 65 is mainly due to two factors; firstly improvements in mortality rates mean people are living longer; and secondly the ageing on of the large 'baby boom' cohort born after the Second World War.
- 2.7 Denbighshire's 58.1% of the population aged 16-64 compares to 61.5% in Wales as a whole and 62.9% across the UK. This is relatively low, and leads to a high dependency ratio – that is, the ratio of people of working age to those who are theoretically 'dependent' on that working age population. In 2017 the dependency ratio in Denbighshire was 722 dependents for every 1,000 of working age. In Wales this was 625:1,000 (UK ratio is 590:1,000). A high dependency ratio can put strain on the local economy and on the resources needed to provide social care.
- 2.8 The number of people in the working age population group is particularly affected by the out-migration of young adults in the 18-24 age group and the large post-Second World War 'baby boomers' cohort moving out of the working age group as they reach retirement age.
- 2.9 Retaining young people within the area is a major issue, as the population estimates for Denbighshire show a big gap in the age structure between the ages of around 18 to 40. This is the age group which is mostly likely to be economically and socially mobile, seeking work, education and other social opportunities outside the area. Many young people have to leave the area for higher education and though this in itself is not an issue the failure to attract them back to the area after graduation leads to a generational imbalance.
- 2.10 The chart below shows that our population is very obviously not the traditional pyramid shape, which would show lots of children and young people at the 'base' supporting a narrower 'peak' of elderly people. Our population is very top-heavy within the older age groups. Though other demographic drivers have all had an impact on this population imbalance (improved life expectancy, reduced fertility and the effects of the post war baby boom), out-migration of young people is a key influence, and one which has impacts on the economic well-being of the area as well as on its social and cultural make-up.

Chart 2.2: population pyramids showing the age structure gaps in population aged between 18 and 40 years

Source: 2017 mid-year population estimates, ONS



2.11 Migration patterns for Denbighshire are looked at in more detail in the next sub section of this report.

2.12 Welsh Government's 2014-based sub national population projections⁴ predict that by the end of the proposed plan period in 2033:

- if the 5 year migration trend continues Denbighshire will have a population of 97,400 – an increase of 1,900 (2.0%) from 2018, the start of the plan period.
- if the 10 year migration trend continues Denbighshire will have a population of 101,100 – an increase of 4,900 (5.1%).
- net increases in the population total will come from in-migration, as natural change alone (births and deaths) would lead to static population totals⁵.
- population growth will be in the 65+ age group. The number of people of working age will decline.
- dependency ratios are predicted to increase as the whole of the baby-boomer cohort moves into post retirement age group.

⁴ <https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Projections/Local-Authority/2014-based>

⁵ This is based on the results of the Welsh Government's 2014-based projections. Updated 2017-based projections suggest population totals would decline under a natural change scenario. See paragraph 2.4 for more information.

Migration

- 2.13 Migration is the component of population change which has the biggest impact in the County. Without a net gain of in-migrants, the population would not naturally replace itself and the number of people living in the area would decline each year, as there are about 150 more deaths than births in the area every year. However, migration levels fluctuate year by year, are difficult to measure and hard to predict.
- 2.14 Over the past 10 years average annual net migration has been about 300 persons into Denbighshire each year. Migration is, however, a volatile component of population change and has fluctuated between a net figure of +100 and +1,350 persons over the past 20 years. This can be a particular problem when using migration to help predict population change in the future. The set of years selected to provide a past trend can produce very different results, as seen in the table below.

Table 2.1: annual average net migration for Denbighshire over selected five year periods

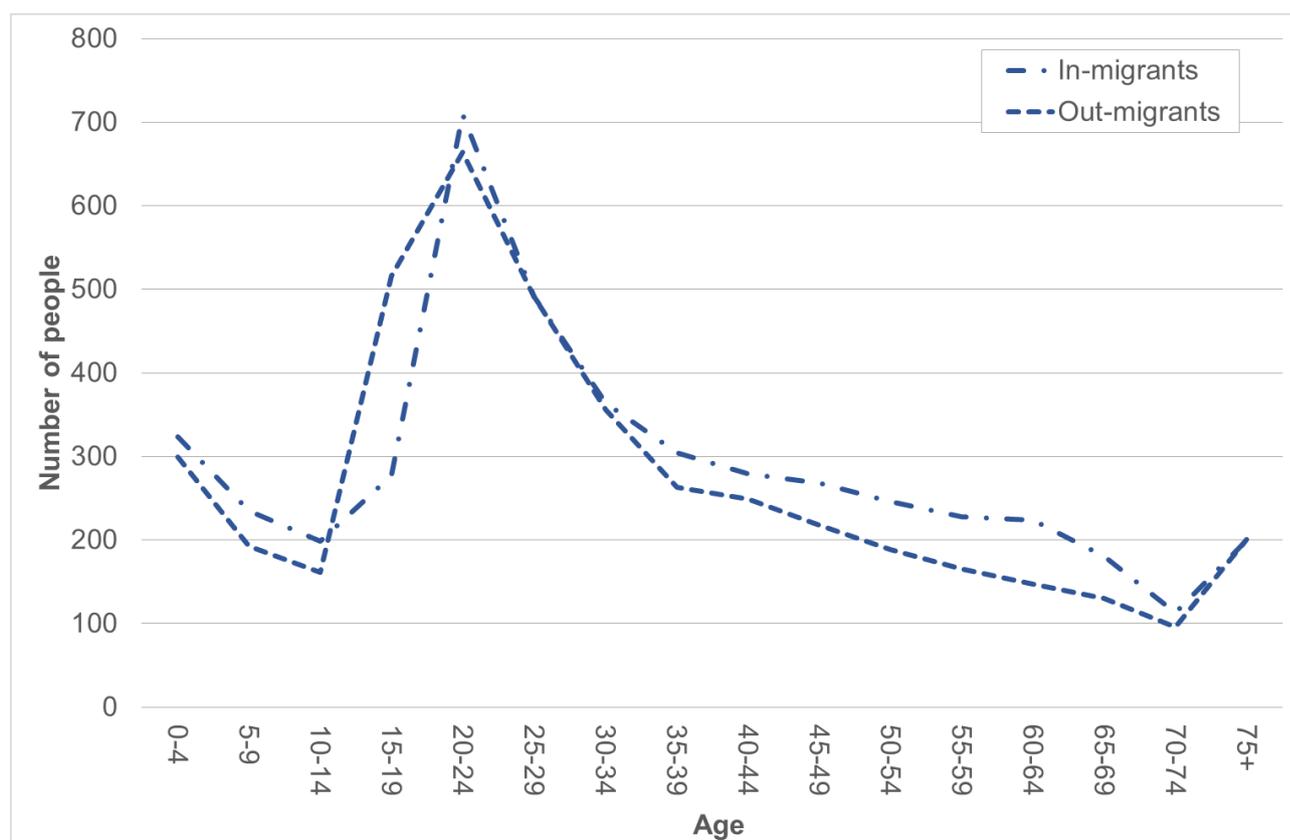
Source: ONS components of population change for mid-year population estimates

	Annual average net migration
Mid 2012-mid 2017 – most recent annual average	350
Mid 2008-mid 2013 – lowest annual average	250
Mid 1998-mid 2003 – highest annual average	1,050

- 2.15 To smooth out some of this fluctuation, when looking at the age structure of migrants to provide evidence for this background paper we have used a 10 year average. The relative age structure of migrants is actually much more stable than the total counts of in- or out-flows, so the ten year average gives a good indication of the pattern of migration.
- 2.16 Most age groups see a net gain of population due to more in-migration than out-migration. However, there is a big rise in out-migration in the 15-29 age groups. There is no higher education institution in Denbighshire, so most people wanting to go on to university or other higher education at age 18 have to leave the area. This is also the age group which is mostly likely to be economically and socially mobile, seeking work and other social opportunities outside the area. This age group has become increasingly mobile in recent years so the size and impact of their out-migration has grown. As a 10 year average, these age groups account for 39% of out-migrants.

Chart 2.3: average age profile of migrants in Denbighshire, 2007/08 to 2016/17

Source: internal and international migration flow data, ONS



2.17 The spike in the age profile for in-migrants in the 20-24 age group suggests that some of these young people return to the area when they have finished higher education. However, not all of those who leave in their late teens or twenties come back to the area, and this accentuates the older than average age profile of our population structure. About 1,650 people in the 15-29 age groups leave Denbighshire each year, and only about 1,450 move in – a net out-migration of about 200 a year.

Table 2.2: proportion of migration in Denbighshire, by age group (average 2007/08 to 2016/17)

Sources: internal and international migration flow data, ONS

	In-migrants	Out-migrants
Total migrants	4,650	4,350
Aged 0-14	16.3%	15.1%
Aged 15-29	31.8%	38.6%
Aged 30-49	26.2%	25.1%
Aged 50-64	15.0%	11.6%
Aged 65+	10.6%	9.9%
Aged 75+	4.3%	4.6%

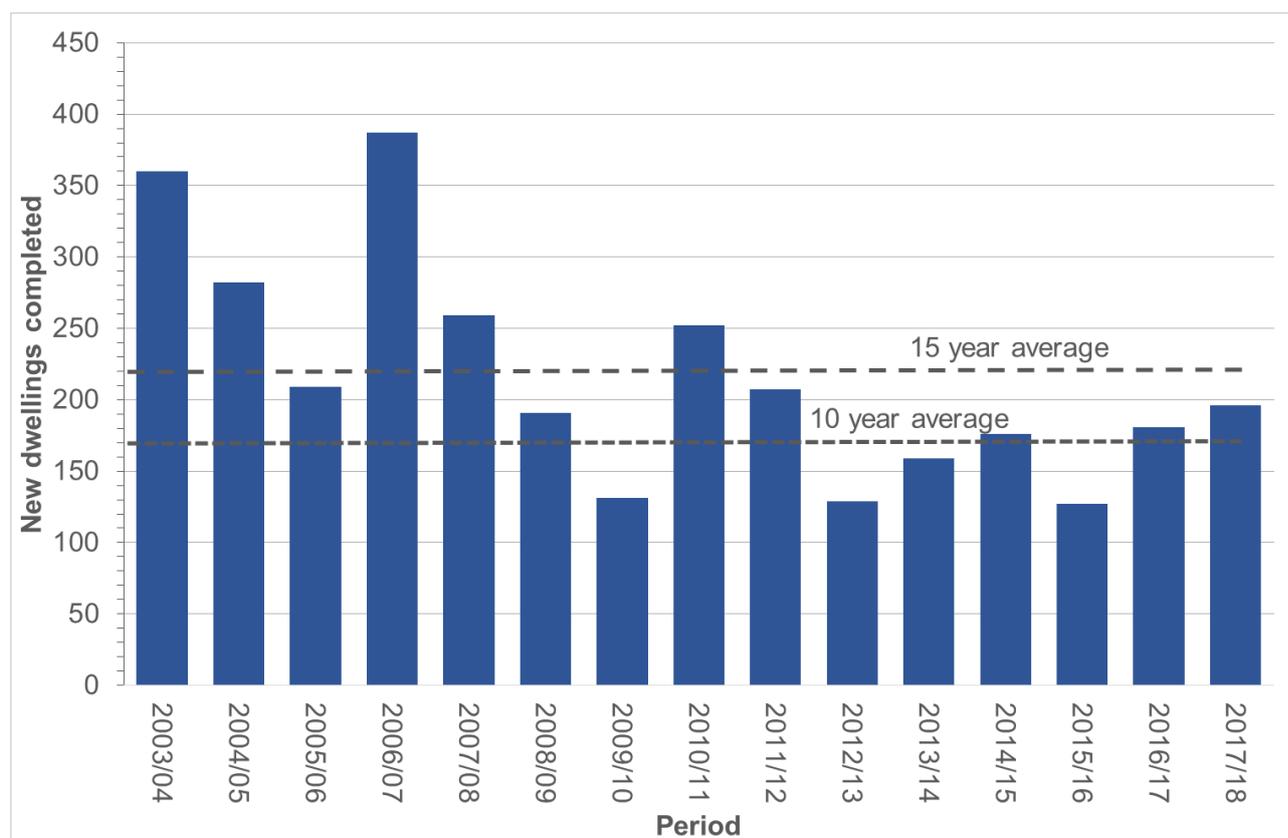
- 2.18 Though there is net in-migration of people in their 30s to 40s, it does not balance out this net loss of young adults, and leads to an imbalance in our population structure.
- 2.19 There is a bulge in net in-migration in the pre-retirement age groups – those aged 50 to 64 make up about 15% of in-migrants but only 12% of out-migration. In the last 10 years, net migration in this age group has been an average annual gain of 200 persons. There is much lower net migration gain in the 65-69 age group. On average, from ages 70 onward in-migration and out-migration are balanced.
- 2.20 Net out-migration of young adults has a knock-on effect on the whole population structure. As well as being the basis of the working age population that drives our economy, they are also the people who will become parents. Fewer babies being born because of an ‘absent’ parental cohort means even fewer young adults in the next generation, which then becomes a compound effect on the age imbalance in the population.
- 2.21 Taken together with the issues identified in the ‘demographic profile’ section above (slow population growth compared to national levels, an older than average population structure, high dependency ratios), the current migration patterns pose problems for the area’s aspirations for a more balanced population that retains younger people within the area, offers employment opportunities to help achieve this, and provides suitable and affordable housing for our existing and future population.
- 2.22 Retaining an age balanced population has benefits for the whole of society. The interchange of shared information, knowledge, and culture between generations helps form a vibrant, innovative and integrated resilient community – both ‘moving with the times’ and ‘passing on wisdom’ are essential in building social resilience. Community support and caring roles are also fostered through intergenerational integration, not just within families but with neighbours, friends and through volunteering. This can be a two way process, with older residents helping with child care and development as well as younger people providing formal and informal care for older residents.
- 2.23 For employers and the economy in general, recruiting, retaining and developing young people within the workforce and the wider population helps tackle issues such as an ageing workforce, skills gaps and shortages, talent development, succession planning and customer insight into emerging markets and trends.
- 2.24 It should be noted that migration is affected by many factors over which we have no control at a local level, such as national economic policy or social trends towards overseas retirement. Unforeseen or one-off events can also have a significant impact on migration, such as the influx of economic migrants from Eastern Europe which was seen after EU accession in 2004 or the slow-down in both internal and international migration after the 2008 economic downturn. It is also difficult to predict what the impact on population movement might be from events we know about, such as Brexit. We therefore need to be careful when trying to interpret trends in migration.

Dwelling requirement and past completions

2.25 Though completion rates for new build dwellings are affected by the land supply, and may be constrained by housing allocation constraints in the existing Development Plan, it is worth looking at past annual build rates to get some feel for trends over the past decade or so. Potentially, the figures can also be a starting point for understanding the capacity of the construction industry to cope with changes in annual requirements for new dwellings which are suggested by the LDP's growth options.

Chart 2.4: annual dwelling completions in Denbighshire

Source: joint housing land availability studies, Denbighshire Council

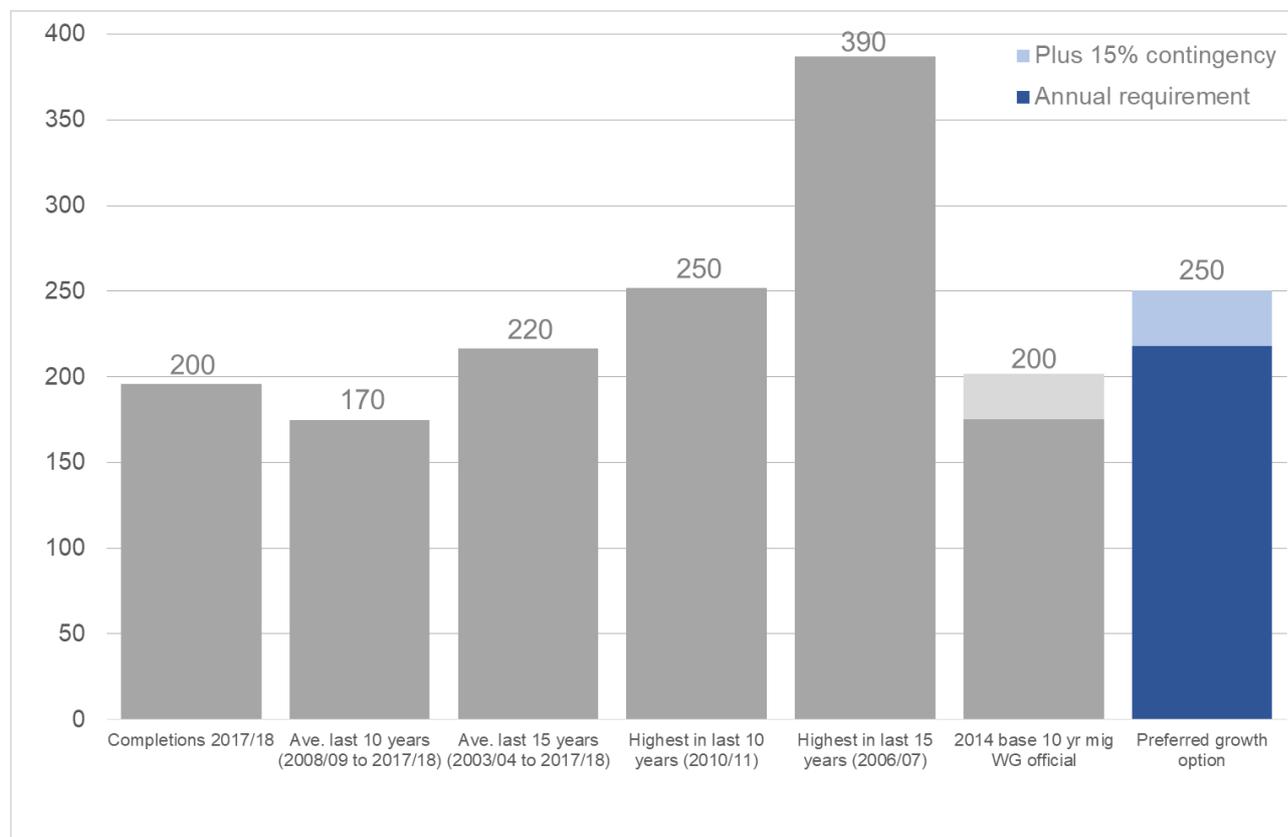


2.26 Chart 2.4 shows the annual completion rates for the past 15 years, as published in the Housing Land Availability Studies for Denbighshire. There was a significant reduction in house building activity following the global economic downturn of 2007/08, which is only just starting to show a recovery. Averages for the past 15 years and past 10 years are shown in these charts, to give some indication of the 'before' and 'after' impacts of the economic downturn. 10 year average is about 170 net new dwellings each year, and the 15 year average is about 220 each year.

2.27 Chart 2.5 compares the preferred growth strategy with a variety of measures of past completions. See sections 4 and 5 for more details.

Chart 2.5: dwelling requirement: annual average for growth options, with comparative data for past completions

Sources: 2017-based population and household projections, and employment led projections, Conwy County Borough Council; joint housing land availability studies, Denbighshire Council



2.28 The deliverability of land for housing, along with overall supply and the environmental impacts are also issues that need to be considered when planning for growth. Work is currently underway to look at site deliverability and housing land supply and additional background information will become available about these issues as the Replacement Local Development Plan process continues⁶.

Economic growth

2.29 As well as considering population and household growth, we also looked at the economic factors which might affect change in Denbighshire. This included future needs for employment land and the anticipated number of jobs created based on economic forecasts, which can bring significant changes to the local economy during the Plan period and so need to be planned for in a sustainable way.

2.30 Work done so far includes reviewing previous employment land availability reports, the Council’s corporate strategies, Welsh Government investment programmes, analysing national statistics, and assessing the views of local businesses. Topic papers, background papers and other documents that will help form part of the

⁶ <https://www.denbighshire.gov.uk/en/resident/planning-and-building-regulations/local-development-plan/replacement-ldp/replacement-ldp.aspx>

evidence base for the Plan will become available as the Replacement Local Development Plan process continues⁷. A summary of some of the key issues identified so far is below.

A Growth Vision for the Economy of North Wales (July 2016)

2.31 This is a single, joined-up vision for economic and employment growth for North Wales; based on a number of local strategies and programmes aiming for economic growth and infrastructure improvements at different locations in the region. It stresses the importance of collaboration and partnership in achieving its aims as set out in the vision:

- to improve the economic, social, environmental, and cultural wellbeing of North Wales;
- to support and retain young people in the region's communities;
- to address worklessness and inactivity across the region;
- to support and enable private sector investment in the region to boost economic productivity and to improve the economic and employment performance of North Wales.

2.32 The document identifies three high value economic clusters that are likely to benefit from further funding programmes and form part of the Growth Deal proposal with the United Kingdom and Welsh Government: energy; advanced manufacturing and digital.

2.33 The forecasted growth rate for the regional economy is 1.9% between 2016 and 2035 – based on current trends – and the value of the economy would increase by 56% in less than 20 years. It is also estimated that such growth levels will generate at least an additional 120,000 new employment opportunities. Such levels of growth will not only impact on the local infrastructure but also have implications for additional residential site allocations to be included in the forthcoming Local Development Plans.

Denbighshire County Council: Corporate Plan 2017 – 2022: Working Together for the Future of Denbighshire

2.34 The Corporate Plan sets out the overarching priorities for the term of the Council, which are supported, implemented and delivered through a number of strategies including the Local Development Plan and the Housing Strategy. The following corporate priorities are of relevance to the local economy:

- The Council works with people and communities to build independence and resilience;
- The environment is attractive and protected, supporting well-being and economic prosperity; and

⁷ <https://www.denbighshire.gov.uk/en/resident/planning-and-building-regulations/local-development-plan/replacement-ldp/replacement-ldp.aspx>

- Younger people want to live and work here and have the skills to do so.

Denbighshire County Council: Economic & Community Ambition Strategy 2013-2023

- 2.35 The Economic & Community Ambition Strategy (ECAS) has been developed to explain how the Council will achieve the corporate priority ‘Developing the local economy’. Its overarching aim is to help businesses go from strength to strength; offering good quality, well-paid and rewarding jobs for local communities; and providing residents with a means to enjoy a good quality of life in towns and rural areas.
- 2.36 From a strategic planning viewpoint it is crucial to identify from the outset the economic strengths and challenges faced by local businesses and residents in the County. Once agreed upon, challenges are translated into LDP Objectives, which are substantiated with local policy, progress is monitored, and they are tested regarding compliance with other strategies, legal requirements, etc.
- 2.37 The evidence base for the current Local Development Plan concluded that an employment land supply of about 50 ha was required for the period up to 2021. This figure was arrived at on the basis of three employment projection models, set out in the study undertaken by the University of Bangor in 2007. This study concluded that in terms of any forward planning contingency Denbighshire should be planning employment land requirement of around 3 ha a year – which is about 45 ha over the plan period (rounded up to 50 ha for the LDP). Much of the commercial demand for employment land was focussed in the northern part of the County, in particular the A55 corridor.
- 2.38 The Council carries out annual reviews of the employment land. This exercise focusses on the availability of employment land, land take up and completion rates. All data relate to land allocations that are shown on the LDP Proposals Maps. The survey focuses on 31 employment sites; referring to land allocations contained in the LDP under LDP Policy PSE2, BSC2, and BSC5. It hence includes changes relating to business premises on sites that were already contained in previous land use plans.

Table 2.3: take up of employment land in Denbighshire by LDP policy

Source: Denbighshire County Council

LDP policy	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
PSE 2	5.20	4.40	9.10	0.00	3.30	0.00	7.95	0.00	2.27	5.72
BSC 2	0.00	0.00	1.40	0.00	0.00	0.10	0.00	0.00	0.00	0.00
BSC 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

- 2.39 Land take up has been rather slow in the last five years, with the exception of 2014, due to the number of vacant offices and industrial units available in Denbighshire. This has meant that existing stock has to some extent satisfied demand from businesses without translating demand into new land requirements.
- 2.40 In November 2018, the Council commissioned BE Group to identify potential options for economic growth in the County. The study results not only inform decisions on

the amount and location of site allocations but form the basis for a potential employment-led growth option for the period 2018-2033. Aligned to the provisions contained in Welsh Government Technical Advice Note 23 and the accompanying best practice guidance, the study is based on property market assessment, (2) audit of selected employment land allocations, (3) future land requirements, and (4) policy options and recommendations.

2.41 The Employment Land and Economic Growth Assessment 2019 presents two alternative growth options (methodologically reflecting Welsh Government guidance):

- **Employment land requirement option 1:** practice guidance method: past building completions (2007-2018); calculation is based on the last 11 years land take-up of 2.38ha/year projected forward for the new Plan period, plus considering a buffer of five years supply to reflect a choice of sites by size, quality and location – $(2.38\text{ha/year} \times 15 \text{ years}) + (2.38\text{ha/year} \times 5 \text{ years}) =$ **47.60 ha**
- **Employment land requirement option 2:** practice guidance method: labour demand forecast; calculations are based on differences in jobs transferred into floorspace requirements and land requirements as follows: B1-Offices = 3.81 ha; B2/B8 Industrial = 2.91ha which gives a total of 6.72 ha + 5 year flexibility of 2.24 ha = **8.96 ha**

These are represented in the growth options presented in this background paper (options 5 and 4 respectively).

2.42 The next step for the Council is to discuss how to address employment land requirements. The Employment Land and Economic Growth Assessment 2019 is available as part of the evidence base for the Replacement LDP⁸.

The Council's aspirations for the 2018-2033 RLDP

2.43 The Replacement Local Development Plan will be underpinned by the Wellbeing of Future Generations Act and the Conwy and Denbighshire Wellbeing Plan. The proposed objectives for the replacement LDP set out what the plan is trying to achieve. Those directly relevant to the economic aspirations for the County include:

- allocating sufficient land in accordance with a sustainable settlement strategy to meet the projected market and affordable needs of Denbighshire.
- supporting the provision, operation and development of infrastructure and services
- supporting a healthy economy including proposals for strategic growth, key economic sectors and the rural economy.

⁸ <https://www.denbighshire.gov.uk/en/resident/planning-and-building-regulations/local-development-plan/replacement-ldp/replacement-ldp.aspx>

- enabling the regeneration and renewal of Denbighshire's built environment and public realm to contribute to vital, viable and attractive town centres with employment premises that meet the needs of modern businesses.

3. Growth options that were considered

- 3.1 The evidence was used to help shape the wide range of different growth scenarios we looked at before settling on the five which are presented in this paper.
- 3.2 When looking at predicting future growth, there are three main factors which can drive projections work – demographic change, change in the number of new dwellings and change in employment provision. The three factors are all interrelated – an increase in employment in the area may lead to in-migration and thus population growth, which requires additional housing provision, or lack of sufficient housing provision may cause people to move out of the area, taking their employment skills with them and discouraging employers from developing within the local economy. We try to balance the three elements of growth but can't always do so within the statistical exercise of producing projections, as there is always a dominant driver of growth.
- 3.3 Part of the population and housing projection work has been to calculate the number of jobs (jobs density calculation) required to meet the projected population increase in the County over the Plan period. This is so we can provide evidence to Welsh Government and the Planning Inspector that, right from the outset, we have considered the relationship between housing numbers, employment and the level of employment land allocations required. This approach has been endorsed by the Inspectorate at the Cheshire West and Chester⁹ examination into their core strategy, as well as by the Inspector examining the Newport LDP¹⁰, and whilst they acknowledge that there is no perfect 'fit' between these three elements it is important nonetheless to show evidence of their relationships.
- 3.4 Only one projection is presented in this paper, and this is the Council's preferred growth option for the Replacement Local Development Plan. It is an employment led projection. However, we looked at a broad range of projections before we reached this stage.

Employment led projections

- 3.5 Employment led projections usually rely on either predictions of job numbers or employment land requirements as a starting point for future growth. Population and household impacts are calculated by using a backward iteration methodology which adjusts components of population change (mainly migration levels amongst the working age population and their dependents) to match jobs growth to population growth levels.

⁹ Cheshire West and Chester Local Plan (Part One) Inspectors Report, Paragraph 50 and 51

http://consult.cheshirewestandchester.gov.uk/portal/cwc_ldf/cwc_lp/localplanexamination/examination

¹⁰ Newport LDP Inspectors report, paragraph 3.18 – 3.23 <http://www.newport.gov.uk/documents/Planning-Documents/LDP-2011-2026/Newport-LDP---Inspectors-Report---515474.pdf>

- The growth options we initially looked at were based on economic growth forecasts and other evidence used in Employment Land and Economic Growth Assessment¹¹.
- The Employment Land and Economic Growth Assessment proposed a range of different growth scenarios based on sectorial analysis of both past trends in employment land take-up and projections of future jobs growth.
- Additional employment led projections based on jobs growth of +1,500 over the Plan period were produced after it was felt that none of the projections presented at the key stakeholder pre-deposit participation stage quite balanced the Council's aspirations for housing and the economy.

Population led projections

3.6 Population led projections use a prediction of population change as a starting point for future growth. There are several elements to population change which can be adjusted to give different pictures of future population. Variations in migration trends and household formation rates tend to be the elements which are most commonly used to build different growth scenarios, but fertility and mortality rates and population age structures can also be varied to look at different aspects of population change.

- Welsh Government's 2014-based 5 year and 10 year migration-trend projections were the starting point for considering dwelling and employment impacts for the Replacement Local Development Plan, together with other evidence about population, housing and employment growth and aspiration.
- Alongside these, we looked at other migration trend based projections. A range of new migration-led projections were also produced in-house, using data which updated the base year for projections to 2017 making use of data published in June 2018¹². Projections which used exactly the same methodology as the official Welsh Government projections were produced, as well as those that used a propensity model for migration.

Dwelling led projections

3.7 Dwelling led projections use a prediction of new house building rates as a starting point for future growth.

¹¹ The Employment Land and Economic Growth Assessment, commissioned from BE Group Planning Consultants, is available as part of the background evidence for the LDP <https://www.denbighshire.gov.uk/en/resident/planning-and-building-regulations/local-development-plan/replacement-ldp/replacement-ldp.aspx>

¹² Most recently published data at the time of the publication of the evidence for the key stakeholder pre-deposit participation.

- The dwelling led growth options we looked at included scenarios based on a number of past housing completion rates back to 2001/02.
- We also produced projections based on the Local Housing Market annual affordable housing need figures and an assumption of 20% deliverability to calculate overall need.

3.8 Other growth variants were considered but not worked up into full projections. These included variants based on past housing completion trends (not pursued as population led and employment led projections that had already been produced gave comparable levels of housing growth) and variants on household formation rates (not pursued as there is no robust evidence to support variance from the officially produced rates).

3.9 Altogether, sixteen different growth options were produced before selecting the preferred growth option which is presented in this report. A table giving more details of the case for and against each growth scenario is shown in appendix A2.

4. Selected growth option

- 4.1 From the range of projections which were produced for the key stakeholder engagement stage of the Replacement Local Plan process, five were selected as being the most robust representations of the evidence in section 3, and which also support the aspirations of the Replacement Local Development Plan. Three of the growth options were population led projections which use Welsh Government's official projections methodology as a starting point, but use different trends and assumptions about future growth. The two additional growth scenarios were employment led and derived from information in the Employment Land and Economic Growth Assessment.
- 4.2 Whilst some of the options presented at this stage provided realistic and deliverable growth options for housing, and some offered economic growth that was in line with the results of the Employment Land and Economic Growth Assessment, it was felt that none quite balanced the Council's aspirations in these two areas. Therefore a new set of projections were commissioned, which took a combined approach. These are based on projected jobs growth of +1,500 over the Plan period. They allow for sustainable housing growth, but would also offer flexibility when looking at the employment land requirement. More details about the selection of the growth option are available in the Preferred Strategy document
- 4.3 They are employment-led projections. That means jobs growth is the main driver of population change over the period.
- 4.4 The methodology for this growth scenario is different from the traditional migration-led projections methodology used in Welsh Government's sub-national projections. Population, household and dwelling impacts are calculated by using a backward iteration methodology which adjusts components of population change (mainly migration levels amongst the working age population and their dependents) to match jobs growth to population growth levels.
- 4.5 When selecting the growth option presented in this background paper, Conwy and Denbighshire Public Service Board's well-being aspirations for a more balanced population that retains younger people within the area, offers employment opportunities to help achieve this, and provides suitable and affordable housing for our existing and future population was a key consideration.

Justification for supporting this growth option

- 4.6 It gives dwelling growth within the range of recent completions figures (about 3,775 new dwellings over the Plan period or an average of about 250 each year).
- 4.7 Jobs driven in-migration sees growth in the working age population, supporting aspirations within the draft Replacement Local Development Plan of economic growth and a more balanced population structure.
- 4.8 Jobs growth of 1,500 helps match aspirations for economic growth for the area, suggesting a need for employment land of about 10.5 ha for new jobs over the Plan

period (additional employment land may be needed for replacement or expansion of existing sites).

- 4.9 It helps balance the Council's aspirations for housing and the economy.

Arguments against supporting this growth option

- 4.10 The projection does not match figures based on population trends – though we would not expect it to, as they are measuring different trends.
- 4.11 They may give an over optimistic view of potential for growth, given evidence of an ageing population structure across the Western world.
- 4.12 Back iteration modelling assumes behaviours and their drivers will not change, and does not adequately accommodate the 'pull' factors that may lead to out-migration (or restrict in-migration).

5. What the preferred growth option shows

- 5.1 This section of the report gives details of the change in population, jobs and household totals over the Plan period for Denbighshire County Council's preferred growth option, and also looks at the dwelling, housing mix and employment land implications which arise from these changes.
- 5.2 All data is for change between 2018 and 2033 (the Plan period) unless otherwise stated.

Population change

Table 5.1: population projections for Denbighshire

Sources: 2017-based population and household projections, and employment led projections, Conwy County Borough Council

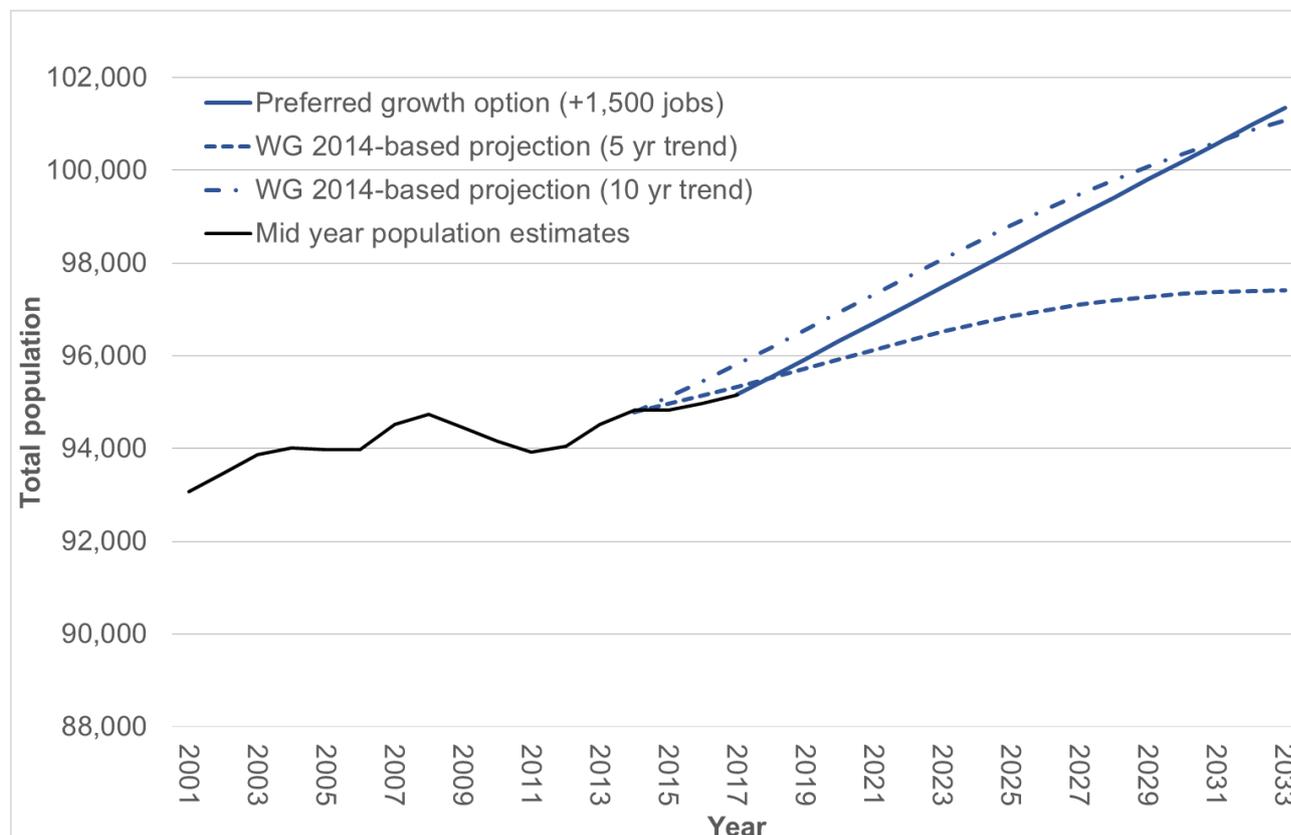
Change 2018-2033	
Number	5,800
Percentage	6.1%
Average annual net migration	640
Increase caused by	
Natural change	-3,750
Migration	9,600

- 5.3 The projections shows population growth over the Plan period of 5,800 (6.1%). In the 15 years to 2017 the population of Denbighshire increased by 1.8%.
- 5.4 Migration is the biggest driver of change. Migration levels vary each year depending on age/gender specific propensities and the impact on migration on the number of people of working age needed to fill the new jobs that are being created. Net migration figures are an average over the plan period, and annual figures may be higher or lower than this average for any given year.
- 5.5 The natural change figures presented in this table are not the same as would be produced by a natural change (no migration) projections scenario – births and deaths figures include people who have moved into the area during the period, and by 2033 will include measures of these life events that occur to all people who have moved into the area since 2018 and not just the population who were resident in mid-2018.
- 5.6 Welsh Government's official 2014-based projections are referred to in the following chart and accompanying analysis, to give an indication of how the employment-led projections used for the preferred growth option may help to rebalance the population structure of Denbighshire.
- 5.7 The preferred growth option gives a population total that is only very slightly higher than that shown by the 10 year migration trend variant of the 2014-based Welsh Government projections. Though the rate of growth (at 6.7% over 15 years) is higher

than the recent local trend, it is below the overall growth rate seen across the UK as a whole for the same period (7.7%).

Chart 5.1: population projections for Denbighshire

Sources: mid-year population estimates; ONS; 2014-based population projections, Welsh Government; and employment led projections, Conwy County Borough Council



5.8 The official projections and the preferred growth option all have age structures which are older than the Welsh average, which is to be expected given Denbighshire’s current age structure. However by 2033 the dependency ratio¹³ is lowest with the employment-led projection. (770:1,000 for the preferred growth option compared to 809:1,000 for the main Welsh Government projection). The employment-led projection used for the preferred growth option encourages more in-migration amongst younger age groups – primarily amongst those of working age, but it also has an impact on the number of children within the population as people of working age are of course more likely to be or become parents than older age groups. The UK as a whole (and most of the western world) will see age structures become older and dependency ratios increase in the same period as the large baby-boomer cohort moves out of the working age group.

5.9 By the mid-2030s (just beyond the end of the Plan period), we will start to see a decrease in the older age groups (particularly aged 75+) as we begin to see the

¹³ Dependency ratio – number of people within the population who are not of working age for each 1,000 people of working age. Working age population is defined as those aged 16 to 66 by the end of the Plan period.

demise of the large post-World War 2 baby-boomer cohort (born mid-1940s to early 1960s). This needs to be kept in mind when planning longer term for an ageing population (see section 2 ‘Looking at the evidence: demographic profile’ for more information).

Household growth

- 5.10 Household projections are obtained by removing institutional populations¹⁴ from the population projections and then sharing the remaining population between household types, based on age/gender specific likelihoods of them being members of different types of household.
- 5.11 Household membership rates continue to change at the same rate as they did between 2001 and 2011. (Household membership rates show the likelihood of people of different ages and genders to form households of different types, such as one person households or two adult + two children households).

Table 5.2: household projections for Denbighshire

Sources: 2017-based population and household projections, and employment led projections, Conwy County Borough Council

Change 2018-2033	
Number	3,100
Percentage	7.4%
Average household size 2033	2.226
Increase caused by	
Population growth	2,450
Change in ave. household size	650

- 5.12 The projections show household growth over the Plan period of 3,100 (7.4%).
- 5.13 Household growth rates are higher than population growth rates. This is because, as well as increasing due to growth in the population, the number of households within the population is also affected by the long-term trend towards smaller household size. The last two rows in the table above show the relative impact of both types of change.

¹⁴ Institutional (or communal establishment) populations are people who are not living as part of a household. It counts only those who are expected to live in a communal establishment for six months or longer. It includes care homes, hospitals, boarding schools, prisons, nurses accommodation, hotels/guesthouses with room for 10 or more guests, sheltered accommodation where fewer than half of units have cooking facilities and/or the main meal is provided communally, and all accommodation provided solely for students (privately or university owned halls of residence, student villages or cluster flats/houses). It does not include houses rented to students by private landlords.

Dwelling requirements

- 5.14 When converting household projections to dwelling requirements, an allowance for vacant dwellings and second/holiday homes of about 5.1% is made. This is because there is a need to provide more dwellings than there are households to allow for churn within the housing market and to make a provision for potentially 'hidden' households to be accommodated. This 5.1% is in line with past trends¹⁵ and is applied to the whole of the dwelling stock. Part of this 5.1% is an allowance for holiday/second homes within the dwelling stock. A continued supply of this kind of accommodation is an important contributor to the local economy, which is heavily reliant on the tourism industry. Welsh Government recommends a notional average allowance across Wales of about 4%, with a range between 1.5% and 9% depending on local evidence¹⁶.

Table 5.3: new dwelling requirements for growth options for Denbighshire¹⁷

Sources: 2017-based population and household projections, and employment led projections, Conwy County Borough Council

Change 2018-2033	
Households to dwellings	3,250
Plus contingency	525
Total	3,775
Average annual requirement	220
Average annual requirement (inc. contingency)	250

- 5.15 An additional contingency of 15% has been added to the figure which results from this calculation, to allow flexibility in the amount of land which is allocated for housing development. This is in case some of the sites which are expected to be developed during the Plan period do not come forward or experience unforeseen delays in development.
- 5.16 The projections show a dwelling requirement over the Plan period of 3,775. This is about 250 new dwellings a year (220 without contingency). Chart 2.5 in the section 'Looking at the evidence; dwelling requirements and past completions' looks at how these figures compare with past provision.
- 5.17 Not all of these new dwellings will require new allocations of land for housing. Land with existing permissions, dwellings which have already been built in the early years of the Plan's life and developments of 'windfall' sites will all contribute to the provision of new dwellings.

¹⁵ 2001 and 2011 Censuses of Population give rates of 4.3% and 5.1% respectively

¹⁶ Welsh Government response to Cardiff Local Development Plan session on housing, 15th January 2015

¹⁷ As numbers are only a projection of future requirements and are not an exact count, the results are rounded to the nearest 50 for publication, except for projected annual dwelling requirements, which are rounded to the nearest 10.

- 5.18 Further information is presented in the Joint Housing Land Availability report (2019) and the Replacement Local Development Plan Draft Preferred Strategy¹⁸.

Impact on deliverability of affordable housing

- 5.19 An indication of the deliverability of new social and intermediate tenure affordable housing from these dwelling figures can be provided with a simple calculation, making assumptions of 10% or 20%¹⁹ deliverability within the overall dwelling figure, as laid out in the table below.
- 5.20 The definition of affordable housing used here is social rented, affordable rented and intermediate housing, provided to eligible households whose needs are not met by the market²⁰. It does not include the wider definition of low-cost market housing.

Table 5.4: potential deliverability of affordable housing to meet social and intermediate need

Sources: 2017-based population and household projections, and employment led projections, Conwy County Borough Council

Affordable housing potential at 10% of total dwelling requirement	
Total over Plan period	400
Average annual figure	30
Affordable housing potential at 20% of total dwelling requirement	
Total over Plan period	750
Average annual figure	50

Housing mix

- 5.21 Household projections can be used to provide an indication of the potential change in future housing mix requirement. As already stated in paragraph 5.11 above, average household sizes are expected to decrease in line with past trends.
- 5.22 These figures are based on household change rather than dwelling figures and so will match those in the ‘household growth’ section above, rather than the figures in the section on ‘dwelling requirement’.
- 5.23 Further analysis shows that one and two person households make up nearly all of the projected increase in household numbers between 2018 and 2033.

¹⁸ <https://www.denbighshire.gov.uk/en/resident/planning-and-building-regulations/local-development-plan/replacement-ldp/replacement-ldp.aspx>

¹⁹ 10% is the level of deliverability for affordable housing as a proportion of all new build housing as presented in the current LDP. The 20% figure gives a possible aspirational total for future deliverability.

²⁰ See <https://www.gov.uk/guidance/definitions-of-general-housing-terms>

- 5.24 Though the *number* of households of four or more persons is expected to increase during the period, the *proportion* of households of 4+ people will decrease slightly (falling from about 18% of all households in 2018 to about 17% of all households in 2033).
- 5.25 2011 Census data also supports the notion that new provision should be concentrated on dwellings for smaller households, and not on larger dwellings, as Denbighshire is already significantly over provided with larger properties that are under occupied. Using a very simplified measure of under occupation, in 2011 there were over 20,000 households living in accommodation that had more bedrooms than inhabitants. This was 49.5% of all households, and included 3,500 households containing only one or two residents who were living in dwellings containing four or more bedrooms²¹.

Table 5.5: projected change in number of households in Denbighshire 2018-2033, by household type

Sources: 2017-based population and household projections, and employment led projections, Conwy County Borough Council

Change 2018-2033	No.	%
Total households	3,100	7.4%
1 person households	1,350	10.3%
2 person households	1,500	9.7%
3 person households	0	-0.4%
4 person households	200	4.3%
5+ person households	50	2.7%
All households with children	350	3.0%
Lone pensioner households	1,300	20.0%

Table 5.6: proportion of change by household type (2018-2033)

Sources: 2017-based population and household projections, and employment led projections, Conwy County Borough Council

Total households	3,100
1 person households	43.3%
2 person households	48.4%
3 person households	-0.7%
4 person households	6.8%
5+ person households	2.1%
All households with children	10.5%

²¹ 2011 Census table DC4405EW: Tenure by household size by number of bedrooms. The calculation allocated each household member a bedroom of their own, making no adjustments for couples or siblings who might share a room. Any dwelling with more bedrooms than occupants was considered under occupied.

Lone pensioner households	42.5%
----------------------------------	-------

- 5.26 Consideration also needs to be given to providing housing which is suitable to meet the needs of an ageing population, with particular emphasis on the needs of lone pensioner households. By 2033, around 55% of all one person households are expected to be pensioners living alone. In 2017 there were an estimated 6,500 lone pensioner households²² in Denbighshire – this was 16% of all households, and 50% of all one person households²³.
- 5.27 However by the late-2030s (just beyond the end of the Plan period) we are likely to see a decrease in the number of lone pensioner households as we begin to see the demise of the large post-World War 2 baby-boomer cohort. This needs to be kept in mind when planning longer term for an ageing population (see section 2 ‘Looking at the evidence: population’ for more information’).
- 5.28 Concentrating new provision towards smaller dwellings also increases the potential to make more affordable housing available in the County. Within the market, smaller properties are usually cheaper, and generally meet the needs of newly forming households/first time buyers better than larger dwellings. Within the social housing sector, providing smaller dwellings could help meet the needs of households who have faced cuts to benefits as a result of the introduction of the under occupancy charge (the so called bedroom tax) and thus need to move to smaller accommodation.

Employment impacts

- 5.29 Table 5.7 shows the jobs growth and employment land requirements which are projected to arise from the growth options for Denbighshire Council’s Replacement Local Development Plan.

Table 5.7: employment impacts of growth options for Denbighshire

Sources: 2017-based population and household projections, and employment led projections, Conwy County Borough Council

Economic impacts	
Jobs growth	1,500
Land (ha)	10.5

- 5.30 The projections show growth over the Plan period of 1,500. This equates to employment land requirements of about 10.5 ha for new jobs over the Plan period (additional employment land may be needed for replacement or expansion of

²² People aged 65 and over living alone

²³ 2017 household estimates, Knowledge and Analytical Services Division, Welsh Government

existing sites or to allow flexibility in the amount of land which is allocated for employment development).

- 5.31 The employment impacts of the projections are obtained using two different methodologies. This employment led growth scenario starts with jobs and employment land requirement and back-engineers the population, household and dwelling requirement figures from those figures. This methodology was applied to the preferred growth option²⁴.
- 5.32 The total jobs requirement is converted to an employment land requirement by using a national average jobs density of 21 sqm per job to get a total floorspace requirement. The floorspace figure is then divided by an average developer density of 3,000 sqm/ha to get an overall employment land requirement²⁵.
- 5.33 These methodologies for determining a relationship between population, dwelling requirement and the employment impacts will not produce the same figures that come from Employment Land and Economic Growth Assessment²⁶ and other parts of the Replacement Local Development Plan evidence base that are looking specifically at economic issues. These reviews use different methodologies and different assumptions about the drivers of growth to look at different issues, so it would not be expected that they will match precisely²⁷. The Employment Land and Economic Growth Assessment uses a sector based analysis that has a finer tuned calculation for determining land requirement by employment type that could not be accommodated within the models that look more specifically at population growth and dwelling requirement. Employment Land and Economic Growth Assessment land requirements may also include allowances for expansion or relocation of existing premises.

²⁴ With population led projections, the working age population is the starting point for calculations that take into account economic activity rates, commuting patterns, and development densities before arriving at jobs and employment land growth. This methodology is not used for the preferred growth option, but was used in the growth options paper that was presented as part of the key stakeholder pre-deposit participation stage of the Replacement Local Development Plan process.

²⁵ Methodology advice originally obtained from BE Group, who produced the Employment Land Review background papers for Flintshire and Wrexham LDPs as well as the Denbighshire paper. Average jobs density is an average for most service sectors.

²⁶ The Employment Land and Economic Growth Assessment, commissioned from BE Group Planning Consultants, is available as part of the background evidence for the LDP <https://www.denbighshire.gov.uk/en/resident/planning-and-building-regulations/local-development-plan/replacement-ldp/replacement-ldp.aspx>

²⁷ See paragraphs 2.29-2.42, 3.2 and 3.3 for more detail

Appendix 1: Wider implications of population and household growth

Projections, whilst not being an absolute truth about future population totals and structures, do give an indication of what might happen in coming years – and not just in terms of housing requirements and changes in the labour supply. The future population structure and household numbers in the County will impact on many factors which affect service delivery and sustainability, such as pupil numbers, social care needs for an ageing population, the amount of refuse produced and the need for employment land.

We use projections because we need to forward plan our business and our service provision. If used alongside other knowledge, research and data sources, they give an indication of what is likely to happen in the future. We can then plan to accommodate the predicted changes, or form strategies which will minimise their impact (or even change the future).

However, projections are only a starting point when trying to understand the future, and we need to regularly review the projections process, because trends change.

The table below shows, in simplified form, some possible impacts of the RLDP preferred growth option on service delivery for Denbighshire County Council. It focuses on some of the uses Unitary Authorities have made of projections over the past few years. Figures are for change between 2018 and 2033 – the current intended end date for the Replacement Local Development Plan.

Table A1.1: possible impacts on service delivery of preferred growth option

Sources: 2017-based projections, Conwy County Borough Council; jobs density figures, ONS

Impact indicator	Totals 2018	Potential change/impact 2018-2033
Projection		
Population	95,500	5,800
Households	41,700	3,100
Housing		
Total dwelling requirement (inc. contingency)	-	3,775
Annual dwelling requirement	-	250
Affordable housing provision potential (at 10% of total requirement)	-	25-30 a year
Business and employment		
Working age population*	55,200	2,050
Labour force (working age pop. who are econ. active)	41,750	1,350
Jobs growth	45,000	1,500
Income in local economy	-	Increase
Business impact	-	Positive
Employment land requirement for jobs growth (ha)**	-	10.5 ha
Dependency ratio***	0.730	0.770
Transport		
Traffic level increase (relative)	-	Medium
Bus passes	-	Much higher
School bus cost	-	Slightly higher
Education		
Pre school age (0-4)	5,200	-150
Primary school age (5-10)	6,800	-200
Secondary school / FE places (11-17)	7,500	750
Social care		
Aged 75-84 (potential increased support)	7,400	2,700
Aged 85+ (potential increased support)	2,700	2,100
Change in "care" sector employment	-	More needed
Potential impact on children's services	-	Increased client base
Refuse collection		
Amount of domestic refuse	-	6.1%
Number of domestic collection points	-	7.4%
Council tax		
Change in tax base	-	Increase
Number of one adult household allowances	13,050	1,350

* Changes in state pension age are taken into account when calculating the working age population. At the end of the 2018-33 projection periods that age is 67 for men and women, so working age is all residents aged 16-66. In 2018 the working age population are in the age range 16-64 as state retirement age is 65 for men and women.

** Additional employment land may be needed for replacement or expansion of existing sites.

*** Dependency ratio – number of people within the population who are not of working age for each 1,000 people of working age.

Appendix 2: List of growth options that were considered

Altogether, sixteen different growth options were considered. The following table gives details of these.

Projection / growth scenario	Justification for supporting this growth option		Included in options paper?
	For	Against	
Population led - 2017-based 5 year migration trend (Welsh Government methodology)	* Uses same methodology and assumptions used in official Welsh Government projections and updates them with latest available data.	* Based on only 5 years migration trend, but projecting for 15 years for Plan period. * Growth levels too low to support aspirations within the draft RLDP. * Perpetuates trend toward out-migration amongst young adults, and does not support the aspiration within the draft RLDP of a more balanced population structure.	No
Population led - 2017-based 10 year migration trend (Welsh Government methodology)	* Uses same methodology and assumptions used in official Welsh Government projections and updates them with latest available data.	* Based on only 10 years migration trend, but projecting for 15 years for Plan period. * Growth levels too low to support aspirations within the draft LDP. * Perpetuates trend toward out-migration amongst young adults, and does not support the aspiration within the draft LDP of a more balanced population structure.	No
Population led - 2017-based 15 year migration trend (Welsh Government methodology)	* Uses same methodology and assumptions used in official Welsh Government projections and updates them with latest available data. * Migration trend formed from 15 years of data, which matches the length of the Plan period.	* Growth levels possibly too low to support aspirations within the draft LDP. * Perpetuates trend toward out-migration amongst young adults, and does not support the aspiration within the draft LDP of a more balanced population structure.	Yes - option 1 key stakeholder pre-deposit participation stage

Projection / growth scenario	Justification for supporting this growth option		Included in options paper?
	For	Against	
Population led - 2017-based 5 year migration trend (propensity model)	<ul style="list-style-type: none"> * Uses some of the same methodology and assumptions used in official Welsh Government projections and updates them with latest available data. * Propensity model helps to mitigate impact of trend toward outward migration amongst young adults and sees growth in the working age population, supporting aspirations within the draft LDP of economic growth and a more balanced population structure. 	<ul style="list-style-type: none"> * Based on only 5 years migration trend, but projecting for 15 years for Plan period. * Propensity modelling assumes behaviours and their drivers will not change, and do not adequately accommodate the 'pull' factors that may lead to out-migration (or restrict in-migration). * May give an over optimistic view of potential for growth, given evidence of an ageing population structure across the Western world. 	No
Population led - 2017-based 10 year migration trend (propensity model)	<ul style="list-style-type: none"> * Uses some of the same methodology and assumptions used in official Welsh Government projections and updates them with latest available data. * Propensity model helps to mitigate impact of trend toward outward migration amongst young adults and sees growth in the working age population, supporting aspirations within the draft LDP of economic growth and a more balanced population structure. 	<ul style="list-style-type: none"> * Based on only 10 years migration trend, but projecting for 15 years for Plan period. * Propensity modelling assumes behaviours and their drivers will not change, and do not adequately accommodate the 'pull' factors that may lead to out-migration (or restrict in-migration). * May give an over optimistic view of potential for growth, given evidence of an ageing population structure across the Western world. 	Yes - option 2 key stakeholder pre-deposit participation stage

Projection / growth scenario	Justification for supporting this growth option		Included in options paper?
	For	Against	
Population led - 2017-based 15 year migration trend (propensity model)	<ul style="list-style-type: none"> * Uses some of the same methodology and assumptions used in official Welsh Government projections and updates them with latest available data. * Propensity model helps to mitigate impact of trend toward outward migration amongst young adults and sees growth in the working age population, supporting aspirations within the draft LDP of economic growth and a more balanced population structure. * Migration trend formed from 15 years of data, which matches the length of the Plan period. 	<ul style="list-style-type: none"> * Propensity modelling assumes behaviours and their drivers will not change, and do not adequately accommodate the 'pull' factors that may lead to out-migration (or restrict in-migration). * May give an over optimistic view of potential for growth, given evidence of an ageing population structure across the Western world. 	Yes - option 3 key stakeholder pre-deposit participation stage
Employment led - 8.96 ha employment land requirement during Plan period	<ul style="list-style-type: none"> * Based on evidence in the Employment Land Review, using labour demand modelling methodology. * Takes into account sectoral employment analysis and national economic trends. * Jobs driven in-migration sees growth in the working age population, supporting aspirations within the draft LDP of economic growth and a more balanced population structure. 	<ul style="list-style-type: none"> * Does not match figures based on population trends - though would not expect it to, as they are measuring different trends. * May give an over optimistic view of potential for economic growth, given evidence of an ageing population structure across the Western world. 	Yes - option 4 key stakeholder pre-deposit participation stage
Employment led - 47.60 ha employment land requirement during Plan period	<ul style="list-style-type: none"> * Based on evidence in the Employment Land Review, using past employment land take-up rates methodology. * Trends forward 11 years average take-up of 2.38 ha/pa, plus additional flexibility buffer. * Jobs driven in-migration sees growth in the working age population, supporting aspirations within the draft LDP of economic growth and a more balanced population structure. 	<ul style="list-style-type: none"> * Does not match figures based on population trends - though would not expect it to, as they are measuring different trends. * Levels of growth are high, and might be above those which would be sustainable or deliverable within the aspiration of the draft LDP. * May give an over optimistic view of potential for economic growth, given evidence of an ageing population structure across the Western world. 	Yes - option 5 key stakeholder pre-deposit participation stage

Projection / growth scenario	Justification for supporting this growth option		Included in options paper?
	For	Against	
Employment led - 1,500 new jobs during Plan period	<ul style="list-style-type: none"> * Gives dwelling growth within the range of recent completions figures. * Jobs driven in-migration sees growth in the working age population, supporting aspirations within the draft Replacement Local Development Plan of economic growth and a more balanced population structure. * Jobs growth of 1,500 helps match aspirations for economic growth for the area. 	<ul style="list-style-type: none"> * Does not match figures based on population trends - though would not expect it to, as they are measuring different trends. * May give an over optimistic view of potential for economic growth, given evidence of an ageing population structure across the Western world. 	Yes - growth option presented in preferred strategy
Housing led - affordable housing need calculation	<ul style="list-style-type: none"> * Based on affordable housing need as identified by the LHMA affordable housing need calculation. * Identifies potential total housing requirement to achieve affordable housing need, presuming deliverability of affordable housing at 20% (total dwelling requirement would be a 5x gross-up of this figure). 	<ul style="list-style-type: none"> * Land requirement for housing unlikely to be deliverable - annual figure is more than twice the highest level seen in last 15 years. * All levels of growth are significantly above those which would be sustainable within the aspiration of the draft LDP. 	No
Population led - 2017-based natural change (zero migration)	<ul style="list-style-type: none"> * Illustrates the impact of a natural change only scenario (that is, what would happen to the population if all migration stopped). * A zero migration projection is always produced as a variant projection as part of the publication of Welsh Government's official sub-national projections. 	<ul style="list-style-type: none"> * Unrealistic scenario, which allows for no in- or out-migration. Population change is based solely on births and deaths within the existing population. * Growths levels too low to support aspirations within the draft LDP. * Unlikely to be supported by WG or the Inspector. 	No

Projection / growth scenario	Justification for supporting this growth option		Included in options paper?
	For	Against	
Population led - 2014-based 5 year migration trend (official Welsh Government principal projection)	* Welsh Government's 2014-based 5 year migration trend projection and a suggested starting point for assessing growth options for the LDP (Planning Policy Wales 2016).	* Based on only 5 years migration trend, but projecting for 15 years for Plan period. * Population base data has been revised and three more years of data are available, so now out of date. * Growths levels too low to support aspirations within the draft LDP.	No
Population led - 2014-based 10 year migration trend (official Welsh Government variant projection)	* Welsh Government's 2014-based 10 year migration trend projection and a suggested starting point for assessing growth options for the LDP (Planning Policy Wales 2016).	* Based on only 10 years migration trend, but projecting for 15 years for Plan period. * Population base data has been revised and three more years of data are available, so now out of date. * Growths levels too low to support aspirations within the draft LDP.	No
Population led - 2008- based 5 migration trend (superseded official Welsh Government projection)	* Welsh Government's 2008-based projections, which have now been superseded * Included to provide comparison with the extant 2007-2022 LDP, which used this projection as the basis of its growth strategy.	* Evidence is significantly out of date. * Unlikely to be supported by WG or the Inspector.	No
Employment led - past land take up	* Based on 22 year employment land take-up rate, which when trended forward would equate to 90.60 ha during the Plan period	* Trends forward an anomalously high employment land take-up rate which will not be sustainable over the Plan period. * Does not take into account evidence from official sources on labour force and sectoral trends * Land requirement for housing unlikely to be deliverable. * All levels of growth are significantly above those which would be sustainable within the aspiration of the draft LDP.	No

Projection / growth scenario	Justification for supporting this growth option		Included in options paper?
	For	Against	
Housing led - highest past completions (390 per year)	<ul style="list-style-type: none"> * Based on highest annual housing completion rate in past 15 years (2006/07) * Tests deliverability of high dwelling requirement, trending forward the upper end of capacity within the local construction industry. * Other past completion rates(annual figures and averages of different time periods) were also considered but not worked up to full projections as the variant growth levels were likely to be covered by other projections that had already been produced. 	<ul style="list-style-type: none"> * Trends forward an anomalously high completion rate, which the construction industry may not be able sustainable over a 15 year period. * Land requirement for housing may not be deliverable. * Levels of growth may be above those which would be sustainable within the aspiration of the draft RLDP 	No