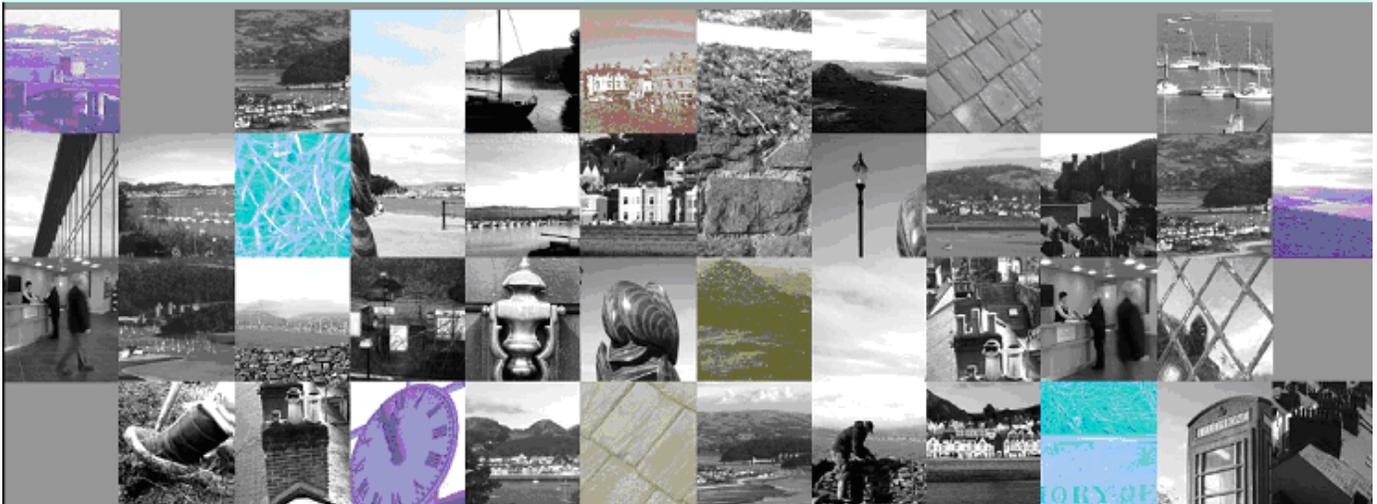


Conwy Deposit Local Development Plan 2007 – 2022 (Revised edition 2011)



BACKGROUND PAPER 2

Population and Household Projections

March 2011

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Introduction

This paper is one of a series of background papers accompanying the Revised Deposit Local Development Plan (LDP) document. When the Council publishes its Revised Deposit LDP, it must explain how the relevant policy has been formulated based on the evidence base available to the Council at the time.

This briefing paper looks at the 2008-based sub national population and household projections which were published in 2010 by the Statistical Directorate at the Welsh Assembly Government. It compares them with past projections, looks at the implications of the projections for Conwy County Borough and the Council, and provides a critique of the uses of projections. The paper was produced by the Corporate Research and Information Unit, Conwy County Borough Council.

Headlines

The main outcomes from these projections for Conwy County Borough show that, if past trends continue, between 2008 and 2023:-

- new sub-national population projections have been released by Welsh Assembly Government. The projections show significant differences to the official projections which were produced two years ago.
- usually resident population of Conwy County Borough is predicted to increase by almost 5,000 between 2008 and 2023. This is a growth rate of 4.4% - equal to an increase of about 0.3% each year.
- net increases in the population total will come from in-migration, as natural change alone (births and deaths) would lead to a fall in total.
- population growth will be in the 65+ age group. The number of people of working age and the population aged under 18 will decline.
- household numbers will increase at a greater rate than population, due to a nationally predicted trend towards smaller household size. In particular, growth will be amongst one person households in the older age groups.
- the dwelling impacts of the projections suggest that around 6,800 additional dwellings will need to be provided between 2008 and 2023. This is about 450 additional dwellings each year.

- the way projections are produced and used needs to be reviewed. They should not be used as targets. The production of migration-based variant projections would give a fuller picture of possible future trends.

1. Background

- 1.1 The Statistical Directorate of Welsh Assembly Government released a new set of population projections on 27th May 2010 and a new set of household projections on 29th September 2010, using 2008 as the base year.
- 1.2 These are significantly different from the previous set of projections produced by WAG two years ago, which used 2006 as the base year.

2. Why are they different from 2006-based projections?

- 2.1 Population totals over the projection period are much lower. This is partly due to the rebasing of population estimates, following changes to the methodology used by the Office for National Statistics (ONS) to calculate migration. The new population estimates give a lower starting point for the projections. They also give lower estimates of the migration figures for Conwy County Borough.
- 2.2 The changes to the ONS population estimates/migration methodology focused on students and international migrants.
 - Students – data from the Higher Education Statistics Agency have been used to provide better records of the movements of students at the start and end of higher education. **Impact in Conwy CB:** lower estimated count of residents in the 19-24 age group, which then has a cumulative effect on 25-34 age group (those who stay away after higher education, for employment, lifestyle or housing reasons)
 - International migration – the international passenger survey has been expanded. This survey is undertaken at ports to monitor the movement of international migrants. An improved methodology has been used to disaggregate estimates of the number of international migrants to their destination. This information has also been enhanced by using administrative records (from worker registration scheme, for example) to track migrants once they are in the country. **Impact in Conwy CB:** lower net figure, though international migration figures are relatively small anyway. Changes are mostly in the 19-24 age group (lower numbers in, higher numbers out), but there are also lower numbers of people in older age groups leaving the country.

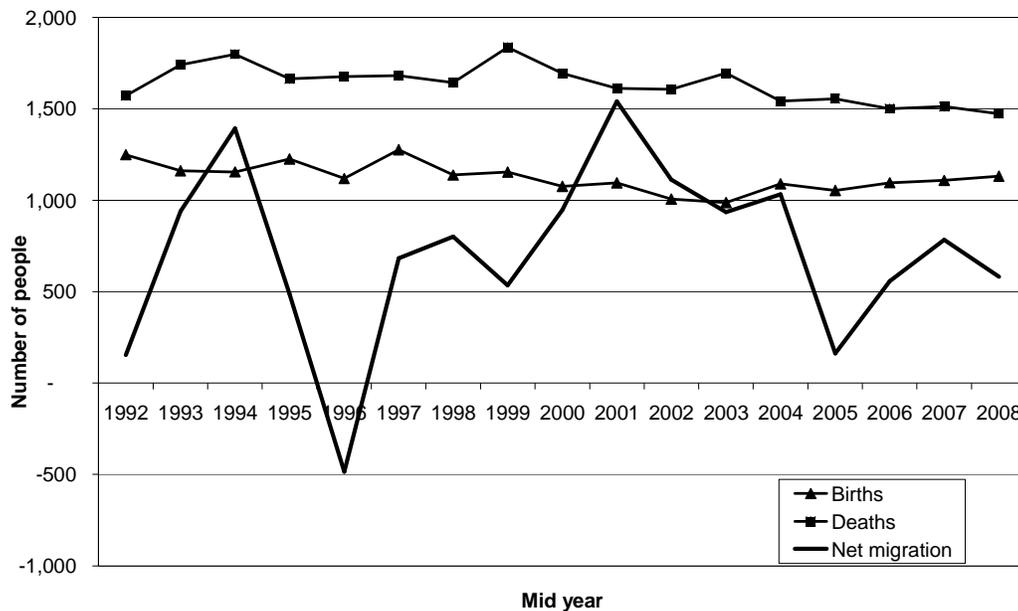
2.3 The overall impact of these changes has been that net migration levels are considerably lower than previously estimated.

2.4 Migration is the key component of population growth in Conwy CB. As there are about 500 more deaths than births every year in the County Borough, population totals would decline year-on-year if we didn't have more in-migration than out-migration.

2.5 The chart below looks at the components of population change within Conwy County Borough in more detail.

Chart 2.1: components of population change in Conwy County Borough, mid-year to mid-year

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



2.6 Whilst trends in births and deaths are relatively stable and easy to predict, migration is a volatile component of population change, as can be seen in chart 2.1 above. 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.

2.7 In great part, it is the volatile nature of migration trends which accounts for the differences between the 2008-based projections and those produced previously. The 5 year migration trend period which was used in the most recent projections is likely to be a low estimate. It takes in a period of high house price inflation, which depressed in-migration, and also the start of the recession, when economic out-migration is likely to have increased. The result is relatively low levels of net in-migration for the period.

2.8 The table below shows how the annual average net migration for selected five year periods can fluctuate.

Table 2.1: annual average net migration for Conwy County Borough over selected five year periods

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

	Annual average net migration
Mid 2003-mid 2008 – annual average (5 year)	600
Mid 2001-mid 2006 – annual average (5 year)	750
Mid 1999-mid 2004 – annual average (5 year)	1,100

2.9 The volatility of the migration element of population change highlights the limitations of using trend based projections in isolation of other data, or of using migration trends for only one short, fixed period. Migration data is a key component of the projections process, but the resultant outputs from a projections model can vary widely, depending on the trend period which is selected.

3. What do the 2008-based projections show? *Comparison with 2006-based projections*

Table 3.1: 2008-based projections for Conwy County Borough (latest release)

Sources: 2008-based population and household projections, WAG; indicative dwelling impacts of 2008-based and dwelling impacts, Corporate Research and Information Unit Conwy CBC

	2008 (base year)	2023	Change 2008-2023		Ave annual change	
			No.	%	No.	%
Population	111,400	116,350	4,950	4.4%	330	0.3%
Households	50,650	57,000	6,350	12.6%	420	0.8%
Dwellings (indicative figure)	-	-	6,800	12.6%	450	0.8%

Table 3.2: 2006-based projections for Conwy County Borough (superseded)

Sources: 2006-based population and household projections, WAG; indicative dwelling impacts of 2006-based household projections, Corporate Research and Information Unit Conwy CBC

	2008 (base year +2)	2023	Change 2008-2023		Ave annual change	
			No.	%	No.	%
Population	112,450	122,150	9,700	8.6%	650	0.6%
Households	51,100	59,800	8,700	17.0%	580	1.1%
Dwellings (indicative figure)	-	-	9,300	17.0%	620	1.1%

- 3.1 Table 3.1 above shows the change over 15 years for the latest set of projections. Table 3.2 gives data for the 2006-based projections and also shows change over 15 years.
- 3.2 Though the tables are for the same time period, and base-date information is not comparable due to amendments to the population estimation methodology (see section 2 above). However, as both sets of data look at change over 15 years, rates of change can be compared to give an indication of the differences between the two data sets.
- 3.3 Rates of growth are much lower for the latest set of projections.
- 3.4 The greatest difference between the two sets is in the rate of growth which is predicted for population. 2008-based population projections are much lower due to a significant reduction in the net migration trend over the past five years.
- 3.5 The expected growth in household and dwelling numbers in the 2008-based projections is also lower than was previously predicted. However, as trends towards smaller average household size continue, the difference between 2006- and 2008-based projections is not as marked as it is for population.

Population

- 3.6 The population pyramids on the next page show how the population structure in Conwy County Borough is predicted to change between 2008 and 2023.

- 3.7 The usually resident population of Conwy County Borough is predicted to increase by almost 5,000 between 2008 and 2023. This is a growth rate of 4.4% - equal to an increase of about 0.3% each year.
- 3.8 The current population pyramid clearly shows we have a very high proportion of our population in the older age groups. The dramatic dip in the population at age 18/19 reflects the out-migration of young people who are leaving the area to go on to higher education, or are looking for work/lifestyle opportunities outside of the area. The 'missing' chunk of population in the 20s and 30s age group suggests that these people do not return to the area in great numbers. The very noticeable spikes around the 60, 40 and 15 age groups are the post war baby boomers, their children and their grandchildren.
- 3.9 The projected population structure for 2023 shows a considerable increase in the older age groups (as absolute numbers and also as a proportion of the total population), as both the baby boomers and their children are post pension-age. The number of people of working age has fallen significantly.

Chart 3.1: population structure 2008

Source: mid-year population estimates 2008, ONS

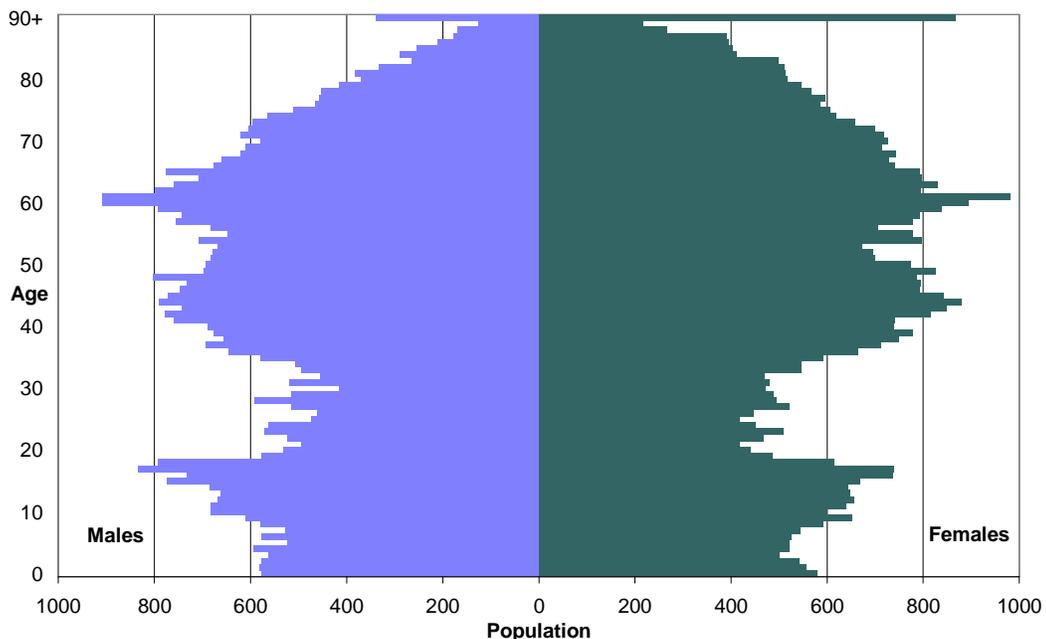
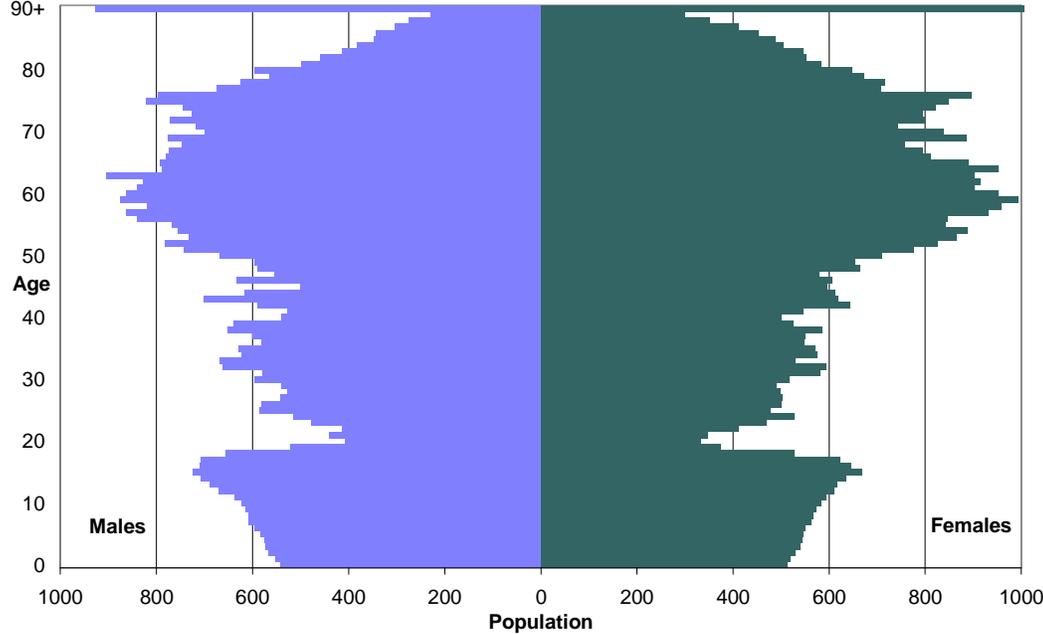


Chart 3.2: population structure 2023

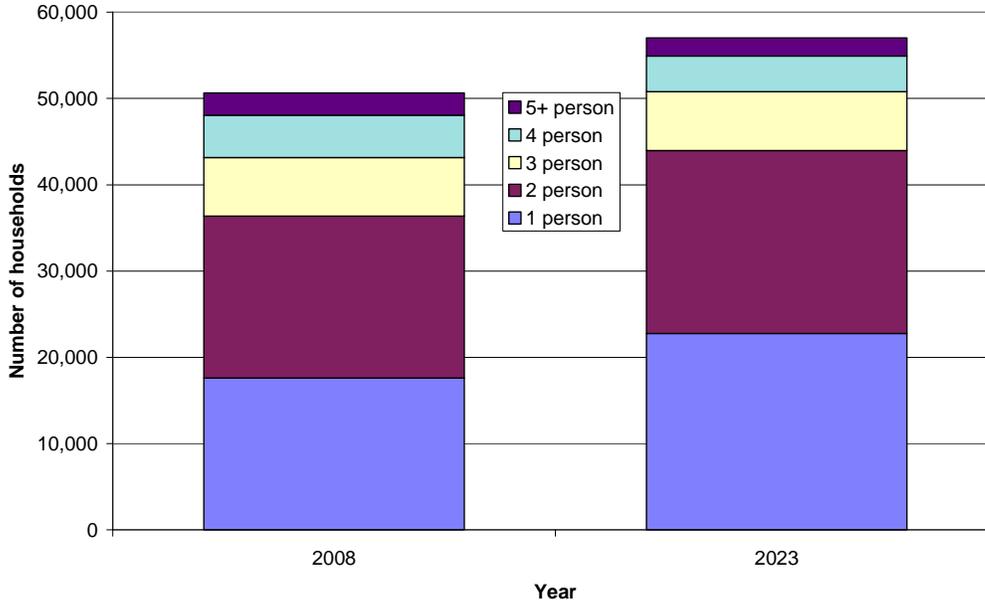
Source: 2008-based population projections, WAG



Households

Chart 3.3: comparison of household types 2008 and 2023

Source: 2008-based household projections, WAG



- 3.10 Average household size is expected to fall from 2.15 in 2008 to 1.99 in 2023. This is in line with past trends.
- 3.11 By far the biggest factor affecting the number of households and average household size in 2023 is the expected growth in the number of single person households. This is not a trend which is unique to Conwy, but its effect is more pronounced here because of the high number of older people in our population.
- 3.12 Most single person households are pensioners living alone. In 2008 there were an estimated 10,000 lone pensioner households in Conwy County Borough – this was 20% of all households, and 57% of all single person households.
- 3.13 As life expectancy increases we can expect to see the number of lone pensioner households increase. By 2023 it is projected that there will be over 13,500 lone pensioner households in the County Borough, and that these will make up 24% of all households and 60% of all single person households.

- 3.14 Other factors which have led to smaller average household sizes over past decades have been the trend towards smaller family size and the increase in family break-down. These trends are expected to continue.
- 3.15 The table below summarises the impacts of population change and differences in the household formation rates on the total number of households in the area.

Table 3.3: decomposition of household change in Conwy County Borough, 2008-2023

Sources: 2008-based household projections, WAG

	Number	As % all change
Change 2008-2023	6,350	
Caused by change in population	4,050	63.9%
Caused by change in household formation	2,300	36.1%

Dwellings

Table 3.4: indicative dwelling requirement in Conwy County Borough, 2008-2023

Sources: 2008-based household projections, WAG; indicative dwelling impacts of 2008-based and dwelling impacts, Corporate Research and Information Unit Conwy CBC

Change 2008-2023		Ave annual change	
No.	%	No.	%
6,800	12.6%	450	0.8%

- 3.16 Over the period 2008-2023 it is predicted that around 6,800 new dwellings will be required to meet the growth in household numbers of 6,350. This is about 450 additional dwellings each year. Of these, between 5 and 10 would be expected to be within the part of Snowdonia National Park which is within Conwy County Borough boundaries.
- 3.17 There will be a need to provide more dwellings than there are households to allow for churn within the housing market. When converting household projections to dwelling implications, an allowance for vacant dwellings and second/holiday homes of about 6% is made. This is in line with past trends.

- 3.18 Because the housing market is an open market, there will be a demand for housing from existing residents and in-migrants whether or not additional dwellings are provided. Conwy County Borough is a desirable location; therefore it is likely that an insufficient supply of housing stock would push up house prices, possibly pricing local people out of the market.
- 3.19 If this happened, young people especially would struggle to afford to buy (or even rent) housing within the area. As seen in point 3.8 above, young people do not return to the area after college. The reasons why are complex, and are to do with jobs and lifestyle choices as well as housing, but these are the age bracket least able to afford high house prices, and without suitable affordable housing provision it is unlikely they will be attracted back to the area.
- 3.20 Figures produced by the Corporate Research and Information Unit suggest that, even if there were no migration in or out of the area, the expected growth in single person households would mean that the existing population would require over 100 additional dwellings to be provided each year.
- 3.21 The Local Development Plan uses the 6,800 15 year figure as the principal indicator of new dwelling requirement for the 2008-2023 period. The LDP also provides a high contingency of +15% for housing and employment, which would give a requirement of 7,900 new dwellings for the period. A figure of 5,500 new dwellings over 15 years has been set as the lower growth range for the period, based on the household and dwelling impacts of the Welsh Assembly Government's low growth variant population projections.

4. Problems and limitations with using official projections

4.1 Projections are only one possible future

- 4.1.1 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.
- 4.1.2 No policy elements are included in the projections, even if these are already known about.

4.1.3 Projections are not an ultimate truth – many factors we can't control or don't know about will affect population dynamics: the recent global recession and the migration of Eastern European workers following EU accession could not have been predicted, for example, yet both have had an impact on population flows. We can even influence the future by our own decisions. Approval for the development of employment land could attract workers and their families to the area, for example.

4.1.4 It's very hard to verify the accuracy of projections – no data is available for the future.

4.2 Projections are used as targets

4.2.1 Projections are not performance indicators – they simply give an idea of what might happen in the future, given a specific set of circumstances. However, projections are often used – or at least viewed – as targets, particularly by policy makers. This perception has not been helped by policy departments at WAG appearing to present them as such.

4.3 No variant projections – no 'wobble room'

4.3.1 A set of projections based on only one migration-trend period does not give a full picture. The production and promotion of only one 'official' projection gives the impression that one figure = one truth.

4.3.2 And when that one figure doesn't match people's expectations or requirements for the future they become suspicious of it, and hostile to the 'evidence'.

4.3.3 A range of officially produced variant projections would give a more robust evidence base, and help convince policy makers that there are definite trends in population dynamics and household formation rates, the consequences of which need to be addressed.

4.4 Figures are updated more regularly than policy

4.4.1 The differences between the 2006-based and 2008-based projections for Conwy County Borough are considerable. This apparent discontinuity in the data has disrupted the policy formation process, particularly in relation to the Local Development Plan.

4.4.2 This is a newly emerging problem, as we didn't have officially published sub-national projections until the 2006-based projections were released. Now, projections will be updated every two years. Policy cycles are usually longer than that. This causes some agitation that plans will be out of date before they are finalised. It may be just a settling in problem whilst we get used to a relatively new data set/evidence base – but it may be that we need to rethink the way we use this sort of statistical evidence in our policy making processes, or change the process to better fit the speed at which evidence becomes available.

5. Benefits of using projections

5.1 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. The future population structure and household numbers in the County Borough will impact on many factors which affect service delivery, such as pupil numbers, social care needs for an ageing population, the amount of refuse produced and the need for employment land.

5.2 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).

5.3 The need to forward-plan our business as a council is so important that the Corporate Research and Information Unit and its predecessors produced our own population and household projections in years when there were no WAG projections.

5.6 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.

5.7 The table below shows, in simplified form, some possible impacts of the WAG principal projection on service delivery for Conwy County Borough Council. It focuses on some of the uses we have made of WAG projections over the past few

years. Figures are for change between 2008 and 2023 – the current intended end date for the Local Development Plan.

Table 5.1: possible impacts of projected population and household change on service delivery

Sources: 2008-based population and household projections, WAG

Impact indicator	Totals at 2008	Potential change/impact 2008-2023
Projection		
Population	111,400	+4,950
Households (indicative figure – not official)	50,650	+6,350
Housing		
Total dwelling requirement	-	+6,800
Annual dwelling requirement	-	460
Affordable housing provision potential	-	low
Business and employment		
Working age population (16-65)	65,600	-2,250
Income in local economy	-	Slight decline
Business impact	-	Negative
Employment land requirement (new)	-	Reduction in existing
Transport		
Traffic level increase (relative)	-	Medium
Impact on commuting	-	Limited
School bus cost per user	-	Higher
Bus passes	-	Much higher
Education		
Pre school age (0-4)	5,600	-150
Primary school age (5-10)	6,950	+100
Secondary school / FE places (11-17)	9,750	-550
Social services		
Aged 85+ (potential increased support)	3,800	+1,950
Aged 75-84 (potential increased support)	9,300	+3,200
Change in “care” sector employment	-	Reduced labour pool
Potential impact on children’s services	-	Slight reduction
Refuse collection		
Amount of domestic refuse	-	+4%
Number of domestic collection points	-	+13%
Council tax		
Change in tax base	-	Increase
Number of single person household allowances		+5,150

5.8 Particularly of note is the projected decline in the population of working age, which will impact on the economy of the area and on the recruiting potential of the Council

as a local employer; and the predicted rise in the number of elderly people who may require social care. Taken together these two indicators of future population patterns suggest that the Council could be faced by an increased demand on its home care services, but with a reduced pool of potential employees from which to recruit its care workers.

6. Conclusion

- 6.1 There is no data available about the future, so projections and forecasts are no more than a best guess – a robust, scientific approach to best guessing, but still only so much crystal ball gazing. This leaves projections open to uncertainty, ripe for cross examination, and often quite scary to deal with, especially if they don't predict a future that we're comfortable with. However, until someone invents a time machine to take us forward in time to see what's happening in 2023, we'll have to rely on projections like these, and make the best use of them that we can to help us predict future trends and future needs.