

West Northamptonshire Joint Core Strategy

Population.
Households and
Labour Force
Technical Paper
Second Update –
To Inform Main Modifications
and Additional Work Requested
by the Inspector

December 2013



**West Northamptonshire
Joint Planning Unit**

**West Northamptonshire Joint Planning Unit
December 2013**

Contact Us:

01604 837838

westnorthantsjpu@northampton.gov.uk

www.westnorthamptonshirejpu.org

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1. Purpose of this Paper

- 1.1 The purpose of this technical paper update is to provide further information on the work which has been undertaken on population and associated households and labour force forecasting in support of the Joint Core Strategy (JCS) since the publication of the Pre-Submission JCS in February 2011 and Proposed Changes to the Pre-Submission JCS in July 2012. It provides the link between the underlying demographic evidence and the new housing and job numbers specified in the Proposed Main Modifications to the Proposed Changes to the Pre-Submission Joint Core Strategy (July 2012).
- 1.2 This Proposed Changes version of the JCS was submitted for Examination in December 2012. An independent Inspector appointed by the Planning Inspectorate (PINS) conducted hearings on matters relevant to the Joint Core Strategy between 16th April 2013 and 1st May 2013.
- 1.3 During the course of these hearings the Inspector invited the Joint Planning Unit to make modifications to the Submitted JCS to address any issues in relation to the soundness of the plan highlighted at Examination. The Inspector also requested that the Joint Planning Unit, representing the 3 Councils (Daventry District Council, Northampton Borough Council and South Northamptonshire Council), undertake additional work to address specific issues raised at the hearings: prepare a fresh assessment of the objectively assessed needs for new housing in the area; consider an extended plan period and any associated development requirements beyond 2026; and complete a Sustainability Appraisal / Strategic Environmental Assessment (SA/SEA) Addendum Report. More information can be found in the Programme Officer's Note published after the hearings, which can be found at: <http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=10024357>
- 1.4 The findings of the 'fresh assessment of objectively assessed needs for new housing in the area over the plan period and beyond' as requested by the Inspector are an important part of the basis for undertaking a revised assessment of the supply and delivery of jobs through this Technical Paper. Therefore this document should be read alongside the outcomes from this work which can be accessed here: <http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=3869072>
- 1.5 This paper is related to, and informs, both the Housing Technical Paper Second Update (December 2013) and the Employment Technical Paper Second Update (December 2013). The new dwellings numbers which are proposed in the Proposed Main Modifications to the Joint Core Strategy are no longer specified as a key constraint on the population forecasts which are set out in this paper. Rather, the population forecasting work which was independently commissioned from the 'Cambridge Centre for Housing and Planning Research' to inform the assessment of Objectively Assessed Needs has been accepted. As a result there is a direct

relationship between the amount of housing that it has been determined the plan should provide for and the underlying projection for population growth.

- 1.6 This paper first briefly summarises the process of determining the objectively assessed need for West Northamptonshire. It then sets out how providing for this requirement has been reflected in the scale, phasing and distribution of housing provision through proposed Main Modifications to the Joint Core Strategy. This includes an explanation of how the pattern of population growth identified in the objectively assessed needs has been modelled to take account of this phasing and distribution.
- 1.7 This primary purpose of this paper is then to offer more detail on the demographic outputs related to the objectively assessed needs; for example in terms of the age structure of the population, the number and type households formed and the size of the labour force. This has been achieved by creating a scenario for the population projections associated with the objectively assessed need within the 'PopGroup' software suite used by the Joint Planning Unit to present detailed outputs for these topics.
- 1.8 The original Population, Households and Labour Force Technical Paper (2011) and Update Paper (2012) remain key background evidence supporting the version of the Joint Core Strategy, as Submitted for Examination. The demographic outputs shown in these papers (most recently the 'Dwellings G' projection informing the Proposed Changes to the Pre-Submission JCS) were prepared under a different methodology to the objective assessment of housing needs. However, it is relevant to compare these with the pattern of population growth now being planned for as a result of proposed Main Modifications to the Joint Core Strategy.

2. Changes to the Policy Context

- 2.1. Following the revocation of the East Midlands Regional Plan in April 2013, immediately prior to the first set of Hearings into the Joint Core Strategy, the National Planning Policy Framework (NPPF) has provided the primary policy framework for the West Northamptonshire Joint Core Strategy. The Inspector in the Joint Core Strategy Examination is required to ensure that the Joint Core Strategy complies with this guidance.
- 2.2. The Joint Planning Unit at the Joint Core Strategy Examination Hearings, which started on 16th April 2013, accepted that because the housing requirement in the Joint Core Strategy was based on a dwelling-constrained scenario based upon the requirement set out in the RSS, it did not meet the requirements specified in the NPPF, and hence the request for additional work relating to objectively assessed need.
- 2.3. Where this Technical Paper presents additional evidence, either in defence of the existing provisions of the Plan or as the basis for suggested modifications, this will be justified using elements of the guidance in the NPPF if relevant.

3. The National Planning Policy Framework (NPPF)

- 3.1. The NPPF (paragraph 14) requires that Local plans should meet objectively assessed needs. This is amplified in paragraph 17, which requires that “every effort should be made objectively to identify and then meet the housing, business and other development needs of an area ...”
- 3.2. The Proposed Changes to the Pre-Submission Joint Core Strategy (July 2012) had housing numbers which had their origins in the Regional Spatial Strategy (RSS) but modified by consideration of the factors affecting the anticipated scale and distribution of housing delivery. The Joint Planning Unit (JPU) prepared population projections based on the proposed pattern of housing delivery to provide demographic and household evidence to inform the Joint Core Strategy. This approach is no longer valid with the revocation of the RSS, and the JPU commissioned consultants to advise it on the objectively assessed needs of the area as required by the NPPF. This work has been published by the JPU, together with the JPU’s interpretation of that work. These papers can be downloaded from: <http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=3869072>.
- 3.3. The commissioned work has included population projections, and the objectively assessed housing need figures are derived from population forecasts based on the Office for National Statistics (ONS) and Department for Communities and Local Government (DCLG) latest official forecasts, extended beyond 2011 and modified to reflect positive planning and promote economic growth, as required by the NPPF.
- 3.4. The NPPF itself does not provide any detailed guidance as to how the Objectively Assessed Housing Need (OAHN) should be calculated, but the government published Draft on-line guidance for consultation in August 2013. Although the consultation ran to October, the draft guidance has not yet been updated or amended, but remains available to use.
- 3.5. It is evident from the guidance that the official population and household projections should be a key component to the assessment of local need, and then modified to reflect local knowledge and circumstances. The draft National Planning Practice Guidance is explicit in this regard in stating:

“Household projections published by the Department for Communities and Local Government should provide the starting point estimate of overall housing need¹.”
- 3.6. The key output of applying this guidance to derive an objective assessment of need is to establish the need for housing within the area being planned for. However, the

¹ The full guidance can be read online here: <http://planningguidance.planningportal.gov.uk/>

guidance recognizes that these household projections are themselves produced by “applying projected household representative rates” to the population projections published by the Office for National Statistics”. By extension this means that the evidence available through these projections, although requiring careful consideration of the suitability and relevance of their inputs, are an essential component of methodology for determining objectively assessed need.

- 3.7. The following section sets out the level of future housing provision that has been accepted as the objectively assessed level of housing need from the work commissioned on the basis of taking these considerations into account.

4 Establishing Objectively Assessed Housing Need for West Northamptonshire

Objectively Assessed Need for West Northamptonshire

- 4.1 In the light of the timescale and the uncertainty around the calculation of Objectively Assessed Needs (given that the Inspector's request for additional work pre-dated publication of Draft National Planning Practice Guidance), the JPU commissioned two pieces of work to help them to determine the areas OAHN. Details of these two pieces of work from Peter Brett Associates (PBA) and Cambridge Centre for Housing and Planning Research (CCHPR) have been published, together with the JPU paper "Objectively Assessed Housing Needs V2", which sets out the conclusions it has drawn from these reports². These reports all looked at the impact of extending the plan period from 2026 to 2029 and 2031. This was considered necessary to ensure that the plan, when adopted, will have a potential life span of at least 15 years to comply with the requirements of the NPPF.
- 4.2 It is important to note that the OAHN marks a step change from the previous calculations set out in the previous versions of the technical paper. These all had their origin in the RSS projections based on the 2004 and 2006-based Sub Nation Population Projections and their linked household projections. The JPUs own projections updated these with inputs from the 2008-based projections.
- 4.3 Both PBA and CCHPR considered the 2008-based projections and both rejected them as a suitable basis for the calculation of the areas housing need. Both report that the results from the 2011 census show that the 2008-based projections were based on some incorrect assumptions, and resulted in projections which were significantly too high, especially for South Northamptonshire, and also, to a lesser extent, for Daventry. PBA also choose to reject the 2011-based interim projections, which are the most recent nationally-available figures, while CCHPR used these figures as a base upon which to build its OAHN figure. Particular weight is attached to this element of the findings, with the robustness of the CCHPR considered to be significantly greater as a result of providing analysis and justification for the use of the latest (interim 2011-based) population and household projections as the basis for deriving objectively assessed need; seen as according with available guidance on this matter.
- 4.4 For the reasons set out in its Objectively Assessed Housing Needs paper, the JPU has recommended the CCHPR "2008-Tracking" approach as its Objectively Assessed Housing Need figure. A key consideration has been the treatment of household formation rates into the future, and the fundamental question about whether the recent increase in average household size is a fundamental shift in long term patterns, or simply a response to the economic recession. The JPU's own evidence

² Can be downloaded here:

<http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=3869072>

was that there were signs of this trend before the recession occurred, and that this was accentuated by the recession. It therefore accepts the CCHPR conclusion that there will be a return to increasing household formation rates, but not to the full extent expressed in the 2008-based projections. The JPU notes the reinforcement for this approach that can be evidenced nationally since CCHPR’s recommendations were accepted: with a similar approach used successfully in the course of preparing Local Plans elsewhere³; and similar analysis on a national basis endorsed by the Town and Country Planning Association⁴.

- 4.5 The Tables used as the basis for the Objectively Assessed Needs are set out in the CCHPR Appendices, and in there are expressed as a number of households and as annual household growth; associated levels of population growth are also provided. To convert the level of household growth into dwelling requirements, the numbers are increased by 3% to make an allowance for dwelling vacancies.
- 4.6 The JPU also considered the issue of the plan period, and because of the high degree of uncertainty surrounding the 2011-based interim projections, and the end date of much of the evidence base, particularly involving highways infrastructure, it concluded that it would recommend an end date of 2029.
- 4.7 In conclusion, therefore, the OAHN for West Northamptonshire is recommended to be that set out in Table 1 below:

	Total Housing Requirement 2001-2029	Completions 2001-2006	Completions 2006-2011	Remaining requirement 2011-2029	Overall population growth 2011-2029
Daventry District	9,839	1,725	1,130	6,984	11,040
Northampton Borough	35,108	5,175	4,170	25,758	48,580
South Northamptonshire Council	13,183	2,975	1,195	9,018	15,890
Total	58,130	9,875	6,495	41,760	75,510

Table 1: Housing Need by Local Authority Area

Spatial Distribution and Housing Delivery and Phasing in Relation to Objectively Assessed Need for West Northamptonshire

- 4.8 This section should be read in conjunction with the Housing Technical Paper Second Update (December 2013) which sets out in more detail the total scale, phasing and distribution of housing delivery reflected in proposed Main Modifications to the JCS, including the housing trajectory based on this information. The reasons set out

³ For example, see the interim conclusions of the Inspector in relation to patterns of household formation (Paragraph 29-32) in the South Worcestershire Development Plan at <http://www.swdevelopmentplan.org/wp-content/uploads/2013/02/EX-401.pdf>

⁴ See ‘New estimates of housing demand and need in England, 2011 to 2031’ at <http://www.tcpa.org.uk/pages/new-estimates-of-housing-demand-and-need-in-england-2011-to-2031.html>

in this paper explain why the delivery trajectory may not precisely match annual requirements as suggested from the objectively assessed need, including:

- Taking into account the findings of the Sustainability Appraisal / Strategic Environmental Assessment Addendum Report in proposed Main Modifications to the JCS;
- Other proposed Main Modifications put forward following the April 2013 Examination Hearings;
- The expected pattern of recovery of housing output following the economic downturn; and
- Taking into account the expected and realistic phasing of delivery for individual Sustainable Urban Extensions

4.9 This section also takes into account one further adjustment that the JPU has made to the CCHPR figures recommended as the objectively assessed need; this is in relation to the development, between 2001 and 2008, of 1433 dwellings in Grange Park. This is a parish in South Northamptonshire on the edge of Northampton Borough, and the development here was specifically to meet the needs of Northampton as identified in the Northamptonshire County Structure Plan Alteration No 1 1992, and put into effect for Grange Park in the South Northamptonshire Local Plan 1997 (Policies GPH1; GPE1; GPR1;GPT1 and GPRC1 and 2). Outline planning permission was granted in 1998, and the bulk of the houses were completed between 2001 and 2008; the annual housing completion monitoring records show that 1,433 dwellings were completed between these dates. A comparison between the 2001 and 2011 census for Grange Park results show an increase of 1,465 dwellings. A simple calculation, therefore, was that averages of 143-147 dwellings per annum were constructed between 2001 and 2011. For the purposes of this report, this has been rounded up to 150 dwellings per annum.

4.10 The CCHPR report in Appendix 2 notes that Northampton's population growth between 2001 and 2007 was uneven, and that the development of Grange Park on its border was a possible contribution to this; adjusting the Northampton population growth figures to include Grange Park would go some way to smoothing the growth pattern. Paragraph 4.18 of the PBA report also highlights the impact of Grange Park on the South Northamptonshire trend forecasts. Even accepting that the PBA figures are too low, the impact of Grange Park is clear.

4.11 The JPU has therefore determined that 150 dwellings should be moved from the South Northamptonshire requirement and added to the requirement associated with the Northampton Related Development Area (NRDA). This decision is informed by the Objective 11 of the plan to focus development at the most sustainable location of Northampton. Given that a substantial element of South Northamptonshire's projected growth derives from recent population at Grange

Park (i.e. an extension of Northampton⁵) it would detract from this objective to seek to provide their requirements across the District *without* seeking to make adjustments for these spatial patterns. The proposed change to the requirement related to Northampton is considered to be the maximum adjustment that is justified by the data available. It therefore follows from this that the resulting NRDA “need” figure set out below is the maximum “need” which can be justified, and the South Northamptonshire “need” is the minimum figure that can be justified.

4.12 Taking account of this adjustment, the distribution of housing need by spatial plan area is set out as follows in Table 2 below:

	Total Housing Requirement 2001-2029	Completions 2001-2006	Completions 2006-2011	Remaining requirement 2011-2029
Daventry District (excluding NRDA)	9,839	1,725	1,130	6,984
Northampton Related Development Area	39,241	6,550	4,235	28,458
South Northamptonshire Council (excluding NRDA)	9,050	1,600	1,130	6,318
Total	58,130	9,875	6,495	41,760

Table 2: Housing Need by Spatial Plan Area

4.13 It is important to highlight that the Proposed Main Modifications in relation to total housing delivery provided for in the Joint Core Strategy do not constrain this quantum to the requirements set out based on objectively assessed need. The modified supporting text for JCS Policies S3 and S4 sets out that⁶:

“The housing numbers being proposed in this Plan are slightly higher than the need figures presented in Tables 1 and 2 above. The full objectively assessed need will be met in Daventry (excluding the NRDA), and in the NRDA itself. The proposed number for South Northamptonshire (excluding the NRDA) is a little higher than the need, reflecting the following 4 matters:

- *There is a substantial supply of sites with consent which*

⁵ Appendix 2 to the Joint Planning Unit’s Statement on Housing (Issue 3) Matter I (‘Housing Scale and Distributions) (April 2013) deals with the issue of population growth at Grange Park and can be found as Examination Document 3HSJ10 here:

<http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=9881701>

⁶ The full text can be found under ‘MM4’ in the ‘Schedules of the Proposed Main Modifications to the Joint Core Strategy Pre-Submission Version, as amended by Proposed Changes (as Submitted)’ (December 2013) that can be downloaded here:

<http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=11254533>

are required to fulfil the 5 year land supply until the SUEs come on stream;

- The allocated SUEs should not be artificially constrained to meet the “need”;
- There are specific sites identified in village masterplans which should be encouraged; and
- Limited small scale developments in the rural areas are expected to continue to provide support to the rural economy”

4.14 The total amount of housing provision identified in the Proposed Main Modifications to Joint Core Strategy Policy S3 for the plan period 2011 to 2029 is therefore set out as follows in Table 3 below:

	Total Housing Delivery 2001-2029	Completions 2001-2006	Completions 2006-2011	Remaining delivery planned 2011-2029
Daventry District (excluding NRDA)	9,839	1,725	1,130	6,984
Northampton Related Development Area	39,256	6,550	4,233	28,473
South Northamptonshire Council (excluding NRDA)	9,905	1,602	1,130	7,173
Total	59,000	9,875	6,495	42,630

Table 3: Total Housing Provision (by Spatial Plan Area) included as part of Proposed Main Modifications to the Joint Core Strategy (December 2013)

4.15 The scale of delivery identified in the plan for 2011 to 2029 (in modified JCS Policy S3) is a key component of ensuring the objectives of the plan are delivered as a whole. This additional delivery identified in South Northamptonshire (excluding the NRDA) is specifically important in relation to ensuring support for growth in the District is focused on the towns of Towcester and Brackley. Because the plan will work to ensure that this level of delivery (along with its anticipated phasing) is achieved this provides the appropriate basis against which to assess the expected patterns of population, household and labour force growth to be assessed by this Technical Paper. How this is achieved is set out below.

Variant Migration Model of Objectively Assessed Housing Need Based on JCS Housing Delivery

4.16 The Joint Planning Unit deemed that it was appropriate to maintain contact with the Cambridge Centre for Housing Policy and Research (CCHPR) as a means of helping to analyse the relationship between the starting point for objectively

assessed needs in West Northamptonshire and the proposed Main Modifications to the delivery of housing in terms of scale, distribution and phasing as set out above (see Table 3). To achieve this, the CCHPR recommended construction of a 'West Northamptonshire Variant Migration Model' that would work on following basis, giving scope to associate the starting point for objectively assessed needs with a given pattern of housing delivery:

"Introduction

1. The purpose of the model is to explore the potential consequences for the population and age distribution of the three West Northamptonshire local authorities of planning for more or fewer homes than is suggested by the "Tracking" projection produced by the Cambridge Centre for Housing and Planning Research (CCHPR). The model could equally be applied to other projections produced by CCHPR.

Method

2. The model assumes that if more or fewer homes are built in a local authority area than suggested by the "Tracking" projection) then there will be more or fewer net migrants into the area than assumed in the "Tracking" projection. Those differences in the net migrants flows could be either be internal or international migrants or both. The user can choose the relative size of the internal and international components.

3. The model makes the following assumptions:

- There is a constant vacancy rate/proportion of second homes in the extra homes built. The user can specify the rate.
- The age profile of the additional internal and international net migrants is the same as the historic age profiles of those migrants for the individual authorities.
- The ratio between the number of additional net migrants of a given age and the number of households they form will be the same as the ratio for the same age group in the "Tracking".
- National age specific mortality rates apply to the additional net migrants;
- Babies are born to women of child bearing age amongst the additional net migrants in line with national age specific fertility rates
- The additional net migrants have the same out migration rates as the rest of the population in the three authorities.⁷

4.17 An additional caveat with the use of such a model that varies assumptions made in other projection work is that it works best from small changes in the base assumption; in this case those from the "2008-Tracking" scenario recommended as the objectively assessed needs (OAHN) for West Northamptonshire. The total housing delivery, with its associated phasing and distribution, set out in Proposed Main Modifications to the Joint Core Strategy represents a small additional element of delivery against the base positions for OAHN. On this basis it is viewed as appropriate to analyse this proposed delivery within the type of model as set out above.

4.18 It should also be noted, for the avoidance of doubt, that the Variant Migration Model as proposed takes into account the demographic implications of the

⁷ Taken from Guidance Notes and Introductory Information from the 'West Northamptonshire Variant Migration Model' prepared for the WNJPU by CCHPR (November 2013).

adjustments made to the respective requirements for the Northampton Related Development Area (NRDA) and South Northamptonshire (excluding the NRDA) as detailed in 4.10 - 4.12 above. The full requirement for housing delivery in the Northampton Related Development Area shown in Table 3 above relates to provision in the context of meeting the needs and objectives of the Principal Urban Area of Northampton. In terms of patterns of demographic change and household formation it is therefore appropriate to apply the projected trends associated with Northampton itself to this requirement regardless of whether delivery occurs within the Borough or on land adjoining Northampton Borough that is identified within the NRDA. Because the projected trends informing the OAHN are taken from data specific to Local Authority administrative areas it is the inputs for Northampton Borough that are used. It is seen as appropriate that the Variant Migration Model should be able to account for this adjustment so that future projections accurately relate to the total growth related to the Principal Urban Area of Northampton and associated patterns of migration and natural change reflect the trends for this location.

- 4.19 The Joint Planning Unit commissioned preparation on the Variant Migration Model on the basis of the justification as set out above. This product was delivered in November 2013 and allowed the “2008 Tracking” projection prepared by the CCHPR to be modified by, and subsequently compared to, the Proposed Main Modifications to Joint Core Strategy Policies S3 and S4 and associated Housing Trajectory at Appendix 3 of the Plan. Table 4 below compares the key outputs from the “2008 Tracking” baseline scenario for OAHN and the Proposed Main Modifications Variant Migration Model:

	Total Extra Dwellings 2011 - 2029	Total Extra Households 2011 - 2029	Total Population at 2029	Total Population Growth 2011 - 2029
“2008 Tracking” OAHN Scenario – West Northamptonshire	41,760	40,523	451,512	75,510
Proposed Main Modifications “2008 Tracking” Variant Migration Model Scenario – West Northamptonshire	42,631	41,389	453,456	77,450

Table 4: Comparison of Outputs from “2008-Tracking” and ‘Variant Migration Model’ Scenarios

- 4.20 It is clear from the above table the outputs from the ‘Proposed Main Modifications “2008 Tracking” Variant Migration Model’ scenario produce a slightly greater (1,940 extra people) population growth to 2029 than projected under the baseline “2008 Tracking” scenario. This primarily relates to the additional dwelling delivery proposed above the OAHN baseline as described in Paragraphs 4.13 - 4.14 above but the output is also a composite of a number of other factors that relate to the

proportion of dwellings being provided for in the NRDA and the phasing of delivery. The clear result of these factors in combination is that the level of provision being sought in the Proposed Main Modifications to the Joint Core Strategy meets the OAHN as a minimum and in-fact has scope to slightly exceed that projection of population change. The Proposed Main Modifications to the Joint Core Strategy, as Submitted, therefore demonstrate positive planning in accordance with the NPPF in two important respects: the scale of development identified can be shown to meet the development needs of the area (Paragraph 14); whilst having regard to associated infrastructure requirements and realistic prospects for delivery and wider opportunities for growth (Paragraphs 17 and 182).

- 4.21 The outputs from the ‘Proposed Main Modifications “2008 Tracking” Variant Migration Model’ scenario are the appropriate data to demonstrate more detailed patterns of demographic and household change associated with the dwelling delivery in the Proposed Main Modifications to the Joint Core Strategy. The remainder of this Technical Paper firstly uses these outputs to set out and compare the predicted pattern of population growth for West Northamptonshire with previous estimates; including the ‘Dwellings G’ scenario that informed the Proposed Changes to the Pre-Submission JCS as Submitted (Section 6). A detailed breakdown of the age structure, labour force growth and pattern of household formation associated with the ‘Proposed Main Modifications “2008 Tracking” Variant Migration Model’ scenario for each constituent area of the projection (Daventry District (excluding NRDA), South Northamptonshire (excluding NRDA), and Northampton Related Development Area) is then provided at Sections 7, 8 and 9 respectively.
- 4.22 Both of these elements of analysis follow a brief discussion of factors that have affected previous evidence informing patterns of population and household change since preparation of the previous Population, Households and Labour Force Technical Paper Update (July 2012) in Section 5 below.

5. Additional Considerations since July 2012 Regarding Previous Evidence of Population and Household Change

- 5.1. This section offers additional analysis and a brief commentary on some of the inputs – in terms of nationally available projections for population and household growth – that have previously been used to prepare demographic outputs for West Northamptonshire but have subsequently been affected by the findings of the 2011 Census for England and Wales. These comments aim to reinforce the reasons for selecting the objectively assessed need figure for West Northamptonshire as detailed above.

ONS 2008-Based Household Projections

- 5.2. The ONS National 2008 based Household Projections⁸ (as opposed to the 2008 Population Projections) were published just as the Pre-Submission Joint Core Strategy was being finalised, and were not therefore taken into account in that Plan, but were considered as a part of the Proposed Changes JCS.
- 5.3. The 2008-based household projections produced by the Department for Communities and Local Government (DCLG), based on population projections published by the Office for National Statistics (ONS) remain the last full set of projections (25 years). The 2010 population projections (ONS) were never converted into household projections by DCLG, largely due to questions about the accuracy of the 2010 population projections – owing to them being based on indicative revised Mid-Year population estimates as part of the Migration Statistics Improvement Programme and subsequent discrepancies between the projected population and the preliminary 2011 Census results. Subsequently, significantly more Census information has been released, and both the ONS and DCLG have prepared and published 2011-based interim population and household projections respectively. These now represent the latest official projections, but they are not full 25 year projections, being limited to a period of 10 years (i.e. 2021). The Quality Report published alongside the 2011 based household projections makes it clear that users are discouraged from using the 2008 based projections to estimate change beyond 2021 as these are not consistent with data from the 2011 Census.
- 5.4. Due to the overlaps in the time series used to produce each set of projections, and their general consistency over time, patterns of household formation only change incrementally between each revision. The use of decennial Census data in generating household representative rates further reduces the degree of variation over time. In summary, the long-term trends towards smaller average household size and growing numbers of single and elderly households are represented in the 2008-based household projections. However, the 2008-based household projections do show a slower rate for household growth compared to the 2006-

⁸ More information on the Household Projections 2008-2033 prepared by the Office of National Statistics for the Department of Communities and Local Government can be found here: <http://www.communities.gov.uk/publications/corporate/statistics/2033household1110>.

based projections. The two regions where this change was most pronounced were the North West and East Midlands, demonstrating potential implications for demographic modelling in West Northamptonshire. These changes are based on revisions to the estimate of households at the 2008 base for the revised projections and the relationship with population growth over time. In combination these factors suggest slightly larger average household sizes than previously indicated in the 2006-based household forecasts.

- 5.5. The 2011 Census estimates for households in West Northamptonshire demonstrate a significant discrepancy between recorded totals and the projected figures from both the 2006-based or 2008-based household forecasts and therefore neither accurately reflects household formation trends over recent years. This indicated that household formation rates had slowed very significantly and also that the average household size had increased for the first time in over forty years. The 2011 census found 6% fewer households in West Northamptonshire than predicted by the 2008 Based projections, and the 2011 based household projections suggests growth in households in West Northamptonshire between 2011 and 2021 will be 19.4% lower than that predicted in the 2008 based household projections.

ONS 2010-Based Population Projections

- 5.6. The 2010 based population projections have been largely discounted because of the differences between these and the actual 2011 census results. A fuller comparison of the 2008 based and 2010 based population projections is set out in Chapter 6 of the Population, Households and Labour Force Technical Paper Update (July 2012). The 2010 based population projections were never processed to produce a set of 2010 based household projections. The ONS have produced the 2011 census based interim population projections to replace the 2010 based population projections. Paragraph 5.4 above highlights the importance of decennial data in producing accurate household representative rates. Household projections prepared from the 2010-based projections would not have been able to use the 2011 census results and would have constituted the last projections based on the 1991-2001 decennial period, updated by other administrative data and small surveys. Given the differences between the projected 2011 populations in West Northamptonshire and the 2011 estimates for both households and population, it seems likely that any household representative rates prepared from the 2010-based projections would not have been as accurate as would normally be expected.

ONS 2011-Census based Interim Household Projections

- 5.7. The census based 2011 interim population projections (ONS) have been converted into the 2011 Census based interim household projections, running for 10 years (2011 – 2021), and these now represent the latest official government projections. The interim projections are not fully based on 2011 census results, but still rely on pre-census material for some key components, hence their interim status. Specifically, there was not enough census data available to derive estimates for Household Representative Rates (HHR) by age, gender and marital status. Therefore the change in HHRs in the Labour Force Survey between 2002 and 2011

was imposed onto the census data available, and the previously projected 2008 HRRs (from the 2008 based projections) were used to disaggregate by marital status and gender. The Quality Report published alongside the 2011 based household projections also point out that they are derived from the sub national population projections, and that these generally update the underlying demographic assumptions on fertility and migration in line with new available data. However, the Quality report notes that in the 2011 population projections trends from the 2010 based population projections were used.

5.8. It is therefore evident that there are three specific areas of concern with the 2011 based interim household projections:

- The change in HRRs are based on relatively small Labour Force Surveys, and not the observed census data;
- The underlying population projections are based on the 2010 based projected fertility and migration rates; and
- The official projections are only until 2021. The Quality Report notes that user requiring a longer time span need to judge whether recent household formation trends are likely to continue.

5.9. This latter point has been specifically considered by the consultants undertaking the Objectively Assessed Need for West Northamptonshire. The Cambridge Centre for Housing and Planning Research (CCHPR) view is that the 2008 projections are higher than the likely expectations, while the 2011 projection would appear to be pessimistic as it does not allow for any 'catch-up' in the future in comparison to past long-term trends. They have therefore suggested two alternative scenarios, both of which would result in an estimated annual growth some 10% below the 2008 based projections. The methodology and full reasoning is set out in their paper "The new Household Projections and their implications for West Northamptonshire"⁹.

⁹ Prepared by the Cambridge Centre for Housing and Planning Research (CCHPR) (August 2013) - available from the West Northamptonshire JPU website at <http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=10698565>

6. Demographic Implications Of Objectively Assessed Housing Need Population Projections

<i>Table 5: Notes and Abbreviations Used In Population Scenarios</i>	
ONS	Office of National Statistics
'Dwellings G' - 50,150 (G3)	(3) = Variant 3 - National birth and death rates, International migration reduced based on latest data, Household formation rates held static for 5 years from current base date ([Dwellings] G) = Reflects revisions to housing trajectory and delivery phasing from Proposed Changes to the Pre-Submission Joint Core Strategy (July 2012)
H/Hs	Number of households
AHS	Average Household size
Lab Force	Labour Force - Population living within West Northamptonshire expected to be economically active at a given point in time
EAR	Economic Activity Rate
NRDA	Northampton Related Development Area
OAHN	Objectively Assessed Housing Needs
VMM	Variant Migration Model – prepared by Cambridge Centre for Housing and Planning Research to compare Objectively Assessed Housing Need projections with the proposed scale, phasing and distribution of housing delivery in the Proposed Main Modifications to the Joint Core Strategy, as Submitted

- 6.1. Table 5 above sets out the key abbreviations and scenario identifiers that inform the information presented in this section. Table 6 below sets out the demographic outputs from the main sources of information that have underpinned population projections available during preparation of the Proposed Changes to the Pre-Submission Joint Core Strategy, as Submitted, since 2011. This provides the most relevant background and basis against which to compare previously projected demographic change in future years with the population growth projected in the Cambridge Centre for Housing and Planning Research 'Proposed Main Modifications "2008 Tracking" Variant Migration Modal (VMM) Scenario' that the Joint Planning Unit supports as being the objectively assessed need for the plan area – hereafter the 'preferred CCHPR [2008 Tracking] VMM Scenario'.

- 6.2. The projections included in this section are based on a composite total for the three Partner Local Authorities in West Northamptonshire. Outputs for each individual constituent area are explained separately in subsequent parts of this Technical Paper (Sections 7, 8 and 9) and are important to highlight where trends specific to a given area may have been masked by the overall total.
- 6.3. A broader range of scenarios was included in previous versions of the 'Population, Households and Labour Force' Technical Papers (2011 and 2012) including the ONS 2006-based population projections and the application of alternative constraints - including 'Natural Change' and 'Dwellings-led' scenarios. The former ONS 2006-based projections are excluded as these represented the key demographic input to the East Midlands Regional Plan; following the revocation of this document and also the datedness of these projections it is no longer relevant to include this series. The 'constrained' scenarios reflected anticipated constraints on dwelling delivery against the Regional Plan targets and do not represent an objective assessment of need following the revocation of these targets and publication of the NPPF. Planning on this basis has been replaced by the requirement of the JCS to provide for the scale of population and household growth as indicated by an objective assessment on needs; taken to be those represented by the preferred "2008-Tracking" Variant Migration Model scenario. However, the demographic implications of the final 'dwellings constrained' scenario – the 'Dwellings G' projection which informed the Proposed Changes to the Pre-Submission JCS, as Submitted (July 2012) – remain relevant for comparison. This is helpful as it demonstrates the implications of moving from the final inputs which informed the 'dwellings constrained' approach being planned for in the JCS to a Strategy of seeking to meet objectively assessed need as necessitated by the Inspector's request for additional work:

<i>Table 6: Comparison of Population Projections for West Northamptonshire</i>				
	ONS 2008¹⁰	50,150 (G) 2008-based¹¹	ONS 2010¹²	CCHPR '2008 Tracking' VMM Scenario (2011-based)¹³¹⁴
2001*	345,890	345,890	345,900	345,900
2006	365,650	365,650	N/A	362,450
2011	388,990	379,600	381,770	376,000
2016	412,150	387,300	407,520	388,000
2021	434,760	410,360	431,650	419,100
2026	455,940	426,950	453,870	443,750
2029	467,450	N/A ¹⁵	465,930	453,460
Total Change 2011-2026	66,950	47,350	72,100	67,750
2011-26 % Change	17.2%	12.5%	18.9%	18.0%
2011-29 % Change	20.2%	N/A	22.0%	20.6%
% Difference from 2011 Census Estimate	3.5%	1.0%	1.5%	N/A

¹⁰ Population estimates for 2001 are from the previous 2001 Census for England and Wales and represent a constant figure that is unchanged across all scenarios nor will this be revised in light of the 2011 Census. The population estimates for 2006 are taken from the 'official' series of Mid-Year Population Estimates prepared for each year of the intercensal period between 2002 and 2010.

¹¹ This scenario also uses the official series of Mid-Year population estimates as they were prepared prior to estimates from the 2011 Census becoming available, up to the mid-2010 estimate. A constraint on population growth based on the expected rates of dwelling delivery was applied to the projected rates of population growth for each year after this estimate.

¹² The 2010-based ONS Subnational Population Projections were derived from an indicative revised series of Mid-Year Population Estimates based on the work of the Migration Statistics Improvement Programme but prior to the release of 2011 Census information. This series only covered the period 2006-2010 for the purposes of preparing the projections, nor did they replace the official estimates, and therefore it is not considered robust to include these for years prior to 2011.

¹³ More information of the '2008 Tracking Scenario' prepared by the Cambridge Centre for Housing and Planning Research as part of determining objectively assessed housing needs in West Northamptonshire can be found in their report published here:

<http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=10698565>

¹⁴ Figures for 2006 are taken from the series of 2002-2010 Mid-Year Population Estimates revised in light of the 2011 Census and can be found at the link below. The population at 2001 and 2011 are taken from Census outputs for these years: <http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-england-and-wales/mid-2002-to-mid-2010-revised--national-/index.html>

¹⁵ Note that the 'dwellings constrained' scenarios the Joint Planning Unit prepared to inform the Pre-Submission Joint Core Strategy (February 2011) and Proposed Changes to the Pre-Submission Joint Core Strategy (July 2012) were based on a 2011-2026 plan period and thus no delivery profile and resulting demographic implications were projected beyond this date.

- 6.4. Readers should also be aware that the various scenarios included for comparison use different starting populations for the years prior to which the projection started. The explanation for the most important source of these differences is included in the footnotes for each projection set out in Table 6 above. It is also important to highlight that for each of the scenarios starting prior to 2011 the projected populations at 2011 vary quite widely. Following publication of population estimates from the 2011 Census for England and Wales a robust figure is available for this year –incorporated into the preferred CCHPR 2008 Tracking Variant Migration Model scenario as the starting population – which differs from previous projected estimates. It is not appropriate to revise previous projections to fit the most recent Census estimates for the purposes of this comparison and as a result there is no consistent baseline against which to measure expected levels of population change from 2011 in terms of simple numerical change. For this reason, percentage change for the future periods of 2011-26 and 2011-29 (where available) is included to present the scenarios on a comparable basis.
- 6.5. The projections shown in Table 6 above highlight that whilst the projection for the population at 2011 derived from previous 2008-based series deviates most significantly from the Census population estimates the relative rate of population growth expected in the future is broadly similar to that suggested in the preferred VMM scenario. Conversely, the ONS 2010-based projections suggest a noticeably higher rate of population growth than that suggested in the latest projections. The Cambridge preferred scenario projects that 6.03% fewer people will be added to the population between 2011 and 2026 compared to the ONS 2010-based series. This finding supports the Joint Planning Unit’s earlier decision to not predict future patterns of population change on the basis of these projections. It is also evident from the above table that that projected population growth under the dwellings-led scenario (‘Dwellings G’) has been constrained to a level below that considered the objective assessment in the preferred scenario. There is a difference of 19,924 people between the two approaches for the projected change in population between 2011 and 2026. However, the reasons for the difference are multifaceted - relating to the inputs for the underlying population and household projections and expected annual patterns of dwelling delivery – and are difficult to distinguish separately. It is more important to look at the expected relationship between projected population change and expected changes in the number of households to more fully understand the changes as a result of planning to meet objectively assessed housing need. This is considered below.
- 6.6. Table 7 below demonstrates alternative projections of household change under the preferred 2008 Tracking VMM scenario and those from alternatives previously used to inform preparation of the Joint Core Strategy. These consider more of the factors that interact to form the relationship between household and demographic change in combination – including those informing the preferred scenario taken to represent objectively assessed housing need.

Table 7: Comparison of Household Projections for West Northamptonshire

	50,150 (Dwellings G) H/HS[#]	50,150 (Dwellings G) AHS[#]	ONS 2008#	ONS 2008#	ONS 2010#	ONS 2010#	CCHPR '2008 Tracking' VMM Scenario (2011- based)*	CCHPR '2008 Tracking' VMM Scenario (2011- based)*
2001	141,490	2.40	141,494	2.40	141,494	2.40	141,494	2.40
2008	157,400	2.34	157,402	2.34	N/A	N/A	N/A	N/A
2011	161,330	2.31	165,350	2.31	162,050	2.32	155,450	2.38
2016	169,290	2.26	178,850	2.27	175,700	2.28	162,300	2.35
2021	183,220	2.21	191,800	2.23	188,750	2.25	177,650	2.32
2026	194,030	2.16	203,700	2.20	201,000	2.22	190,950	2.28
2029	N/A	N/A	210,400	2.18	208,150	2.20	196,900	2.26
Total Change 2011-26	32,700	-	38,350		38,950		35,500	
2011-26 % Change	20.27%		23.19%		24.04%		22.84%	
Total Change 2011-29	N/A	N/A	45,050		46,100		41,450	
2011-29 % Change	N/A	N/A	27.25%		28.45%		26.66%	
% Difference from 2011 Census Estimate	3.8%		6.4%		4.2%		N/A	

based on CLG 2008-based Household Rates

* based on Household Rates from CCHPR "2008 Tracking" Scenario

6.7. Table 7 above demonstrates that the pattern of household growth associated with the preferred "2008-Tracking" VMM scenario sees 8.6% more households forming between 2011 and 2026 than was provided for in the 'Dwellings G' scenario. Conversely, the scenario is associated with -7.4% fewer households forming than would have been expected under the ONS 2008-based scenario. The latter point is more significant, because the preferred scenario therefore manages to achieve a slightly faster rate of population growth than the ONS 2008-based population projections over the period despite a significantly lower expectation for household formation.

6.8. One of the primary reasons for this is the difference in the population assumed at the 2011 baseline as described in 6.4 above. This has the effect of suggesting a larger population in 2011 for every scenario apart from the preferred "2008-Tracking" VMM scenario when compared to 2011 Census estimates; the VMM

scenario is the only one based on these Census estimates. This larger population means a greater number of people would be subject to future changes in household formation trends; assuming all other factors (age structure and household representative rates) being equal a larger starting population would be proportionally more affected by changes in the future. Effectively there would be a greater number of people 'at risk' of moving to smaller households.

- 6.9. However, a key consideration is also that the preferred 2008-Tracking VMM scenario uses different household formation rates to those in all other scenarios shown above. The "2008-Tracking" rates are described in more detail in the work on objectively assessed needs prepared by the CCHPR¹⁶ but crucially they use the 2011-based Interim Household Projections¹⁷ prepared by the Department for Communities and Local Government (CLG) as their starting point. These are based on 2011 Census estimates for households that found fewer households for a given population than was projected under the previous 2008-based CLG household projections upon which all the other three scenarios in Table 7 above were based. This is a scenario relevant to West Northamptonshire but common across England and Wales as a whole. As a result recorded average household size in 2011 is larger than in previous projections – having decreased far less since 2001 than had been previously projected. Key components associated with this required correction relate to fewer than expected single households forming; with an associated increase in multi-person households and adult children living with parents or other adults.
- 6.10. The "2008-Tracking" rates prepared by CCHPR and applied to the preferred scenario make adjustments to the interim 2011-based household projections that mean the trend in the change in average household size over the 2011-2029 is broadly similar to that from the 2008-based headship rates. However, the revised baseline for the number of households and increased average household size at 2011 means that the projections start from a position where the same given population would require fewer households than under the previous 2008-based household projections. This affects the whole projection period, reducing the household formation requirement related to the population projection component of the objectively assessed needs. However, the adjustments made by CCHPR in generating the "2008 Tracking" household rates mean that the percentage growth in the number of households 2011-2029 is closer to that implied by the 2008-based household projections than if the unadjusted 2011-based interim household projections were used.
- 6.11. A final consideration notes that the average household size suggested by the preferred "2008-Tracking" VMM scenario at 2026 is significantly larger than that derived from the 'Dwellings G' projection. There are two reasons to explain this. It is true to say that if the revised "2008-Tracking" Rates were applied to the 'Dwellings G' projection the result would be larger average household size and a

¹⁶ <http://www.westnorthamptonshirejpu.org/connect.tj/website/view?objectId=3869072>

¹⁷ <https://www.gov.uk/government/publications/household-interim-projections-2011-to-2021-in-england>

somewhat greater scope for population growth. However, the average household size under the 'Dwellings G' projection to 2026 (2.16) was lower than the base ONS 2008 projection (2.20). This reflects the constraints on population growth resulting from the 50,150 dwellings figure; with a resulting impact that a greater proportion of population change was focused on older age groups more likely to form smaller households. Planning to meet the objectively assessed need requirements under the preferred "2008-Tracking" VMM scenario, also taking into account some changes to the underlying components of the population projection, does not demonstrate the same sharp decline in average household size as the 'Dwellings G' scenario. This indicates that the effect on the underlying population projection imposed by the application of the 'Dwellings G' constraint is removed by planning for objectively assessed needs; meaning outputs fully reflect future change in household size associated with meeting the full population projections.

Table 8: Comparison of Labour Force Projections for West Northamptonshire

	50,150 (G) 2008 Lab Force*	50,150 (G) 2008 EAR*	CCHPR '2008 Tracking' VMM Scenario (2011-based) – Lab Force*	CCHPR '2008 Tracking' VMM Scenario (2011-based) - EAR*	CCHPR '2008 Tracking' VMM Scenario (2011-based) – Lab Force#	CCHPR '2008 Tracking' VMM Scenario (2011-based) - EAR#	ONS 08 Baseline Lab Force#	ONS 08 EAR#
2008	206,910	68.6%	202,450	68.6%	202,450	68.6%	206,900	68.6%
2011	206,890	67.7%	204,400	67.8%	203,900	67.6%	213,400	68.0%
2016	207,090	66.0%	205,850	66.4%	202,900	65.4%	220,850	66.3%
2021	218,800	65.4%	221,600	66.3%	215,900	64.6%	228,750	65.2%
2026	224,000	63.7%	231,000	65.0%	224,950	63.3%	236,250	63.8%
2029	N/A	N/A	233,550	64.0%	227,450	62.4%	240,050	63.1%
2011-26 Change	17,110		26,600		21,050		22,850	
2011-29 Change	N/A	-	29,150	-	23,550		26,650	-

* - Adjusted to take account of changes in retirement age

- Not adjusted for proposed changes in retirement age

6.12. Table 8 above shows a comparison of the size of the labour force generated under the preferred "2008-Tracking" VMM scenario with the 'Dwellings G' scenario that informed the JCS, as Submitted, and the ONS 2008 baseline. The labour force is derived by taking the size of the population aged over 16+ and applying economic activity rates by age and gender that reflect those in employment or self-employment; or actively seeking work. Two sets of results are given: the first

adjusted to reflect changes in pensionable age for retirement and the state pension; with the second using baseline economic activity rates without this adjustment. This is necessary because the retirement age adjustment has been made to all previous dwelling-constrained projections informing the Joint Core Strategy, as Submitted. More detail can be found in the Employment Technical Paper Second Update (December 2013) and the previous two versions (2011 and 2012)¹⁸. It is prudent to apply the unadjusted activity rates to the ONS 2008 baseline figures as this projection was prepared prior to the adjustments to retirement age.

- 6.13. Key findings from Table 8 are that the preferred “2008-Tracking” VMM scenario generates a substantially greater growth in the size of the labour force to 2026 – 9,421 extra labour force members - than the ‘Dwellings G’ scenario when applying the same retirement-age adjustment economic activity rates. This primarily relates to the higher rates of population growth provided for under the preferred scenario for factors relating to the pattern of household formation and underlying age structure of the population. This serves to reinforce the clear impact the previous dwelling-constrained projections applied to patterns of population growth in West Northamptonshire. This is especially clear when noting that labour force growth under the preferred “2008-Tracking” VMM scenario when not adjusted for changes to retirement age (+21,050 for 2011-2026) is still higher than the adjusted ‘Dwellings G’ scenario (+17,179); effectively the changes to retirement age under ‘Dwellings G’ do not fully offset constraints on the main working-age population in that projection.
- 6.14. Comparing the unadjusted economic activity rates for the preferred “2008-Tracking” VMM scenario and the ONS 2008 baseline position shows a broadly similar level of labour force growth for 2011 to 2029. The preferred scenario gives 11.5% growth, whilst under the ONS 2008 baseline this is 12.4%. However, a key element of this difference comes from the baseline position for ONS 2008 projection, which has not been adjusted to take account of revisions from the 2011 Census. This gives a greater number of people than recorded in official 2011 Census estimates. These [projected] additional numbers of people were concentrated in the younger working age-groups and those aged 16-24 who had not yet reached peak economic activity, with the effect that the economic activity rate recorded in 2011 is higher than in the preferred VMM scenario (68.0% versus 67.6%). This has an affect over the projection as there are fewer people recorded in the main age groups likely to be working that would become part of the labour force and remain so over the period covered under the more up-to-date preferred VMM scenario. This gives a higher proportion of older people who leave the labour force over time, with the effect that the economic activity rate declines slightly faster.
- 6.15. Using economic activity rates adjusted for changes in retirement age within the preferred “2008-Tracking” VMM scenario a greater growth is recorded in the

¹⁸ The latest version can be downloaded here:

<http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=11253157>

labour force 2011 – 2029 than under the ONS 2008-baseline. This is considered prudent for reasons set out in the Employment Technical Papers (2011, 2012 and 2013)¹⁹ and forms part of analysis in setting the Joint Core Strategy jobs figure. In this case, the additional labour force growth related to retirement age changes more than offsets the difference between the ONS 2008 projection and the preferred “2008-Tracking” VMM scenario.

¹⁹ The latest version can be downloaded here:

<http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=11253157>

7. Comparative Population Forecasts for Constituent Local Authorities in West Northamptonshire

7.1. The comparisons given in this sector for the detailed breakdown of age structure, household formation and labour force growth are on the basis of the spatial planning areas referred to in Proposed Main Modifications to the Joint Core Strategy as described in 4.15 above. For clarity, these are the Northampton Related Development Area (NRDA); and Daventry District (excluding the NRDA) and South Northamptonshire (excluding the NRDA). To give a more consistent base for comparison, equivalent figures from the 'Dwellings G' projection that informed the Proposed Changes to the Pre-Submission JCS, as Submitted, are also provided on the basis of the 50,150 dwelling constraint applied to the same spatial planning areas. This 'Dwellings G' figures may not therefore reflect those given in previous Population Technical Papers²⁰ (2011 and 2012) in cases where figures were given as administrative area totals. For this section analysis is also given against the ONS 2011-based interim population and household projections as these represent the most recently available national data for comparison.

Daventry District (Excluding NRDA)

Comparative Population Forecasts²¹

<i>Table 9: Daventry District (Excluding NRDA) Comparisons of Population Change</i>				
	ONS 2008	50,150 (G3) 2008-based	ONS 2011-based Interim²²	CCHPR '2008 Tracking' VMM Scenario (2011-based)
2001	72,040	72,040	72,040	72,040
2006	77,110	77,110	76,530	76,530
2011	79,930	78,940	78,070	78,070
2016	83,210	79,500	81,000	79,560
2021	86,850	81,500	84,200	84,500
2026	90,430	83,730	N/A	87,840
2029	92,360	N/A	N/A	89,130

7.2. Table 9 above demonstrates that the preferred "2008-Tracking" Variant Migration Model scenario for Daventry District (excluding the NRDA) shows a population

²⁰ Previous versions of the Population, Households and Labour Force Technical Papers (February 2011 and July 2012) can be downloaded here:

<http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=2759824>

²¹ Any differences in totals are due to rounding individual counts to the nearest 10

²² Includes Mid-Year Population Estimate for 2006 revised in-light of 2011 Census for England and Wales. Note that the Interim 2011-based ONS Population Projections only cover the period 2011-2021 in their published form.

increase of 9770 people between 2011 and 2026; or 11060 for the years 2011 to 2029. Over the equivalent 2011-2026 period from the 'Dwellings G' scenario that informed the Joint Core Strategy (JCS), as Submitted, suggested a population growth of 4790 people; around 5000 lower than now projected under the VMM scenario. When compared with the ONS 2011-based interim series of population projections to 2021, the pattern of growth anticipated under the VMM scenario is marginally slower to 2016 but gives a slightly greater population at 2021 than projected in the ONS series – 84,500 compared with 84,200. The projected level of population growth is similar to the ONS 2008-based population projections. The majority of the difference in the projected population at 2029 relates to the revision of population estimates at 2011 in light of the 2011 Census for England and Wales, although there has been a slight downward revision in the projected rate of population growth since the 2008-based series was prepared.

- 7.3. Figures 1 and 2, along with Table 10, below look in more detail at the projected age structure of the population in Daventry District (excluding the NRDA) based on the preferred "2008-Tracking" VMM scenario. The greatest amount of growth in any single age-band is concentrated in the 70-89 categories, which is in common with the previous 'Dwellings G' scenario that informed the JCS, as Submitted. This reflects the underlying age structure of the District whereby a large proportion of the 45-64 and 65-69 categories 'age-through' to the older age group over the 2011 to 2029 period with relatively limited out-migration from this demographic over the same years. However, Figure 2 comparing the age-structure in the preferred VMM scenario and 'Dwellings G' projections demonstrates that the additional population expected to arise the VMM scenario is concentrated in the younger (0-64 age bands). In this way the preferred VMM scenario goes some way to balancing the overall ageing of the population, with resulting increase in the numbers of people expected to be economically active. There is also a relationship between the number of people aged 20-44 and 0-19, as a greater population in the former category is associated with more women of child-bearing age and a corresponding increase in fertility – in terms of the number of births expected.

	2011	2016	2021	2026	2029
0-19	18,690	18,346	19,267	20,025	20,092
20-44	22,772	21,258	22,173	22,835	22,914
45-64	23,276	23,705	24,545	24,056	23,546
65-69	4,498	5,401	4,846	5,407	5,944
70-89	8,280	10,147	12,758	14,321	15,252
90+	554	702	915	1,192	1,386
Total	78,070	79,558	84,504	87,837	89,133

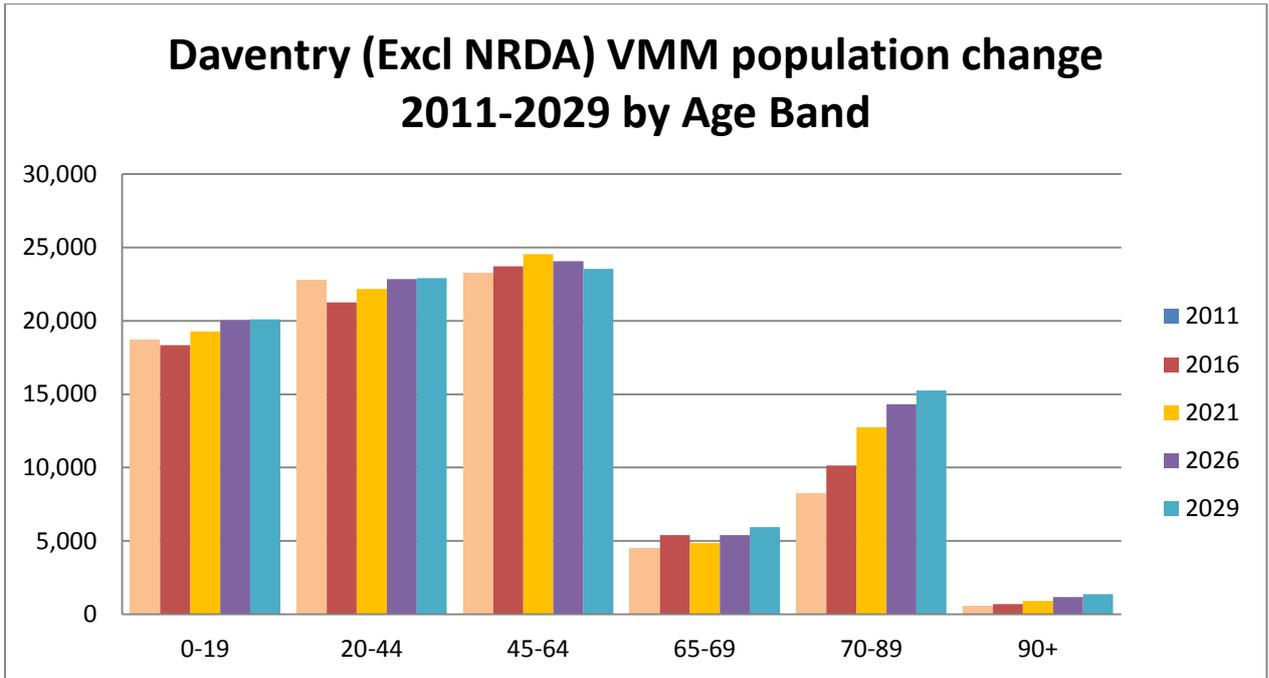


Figure 1: Population Change 2011-2029 in Daventry District (Excluding NRDA) - By Broad Age Band

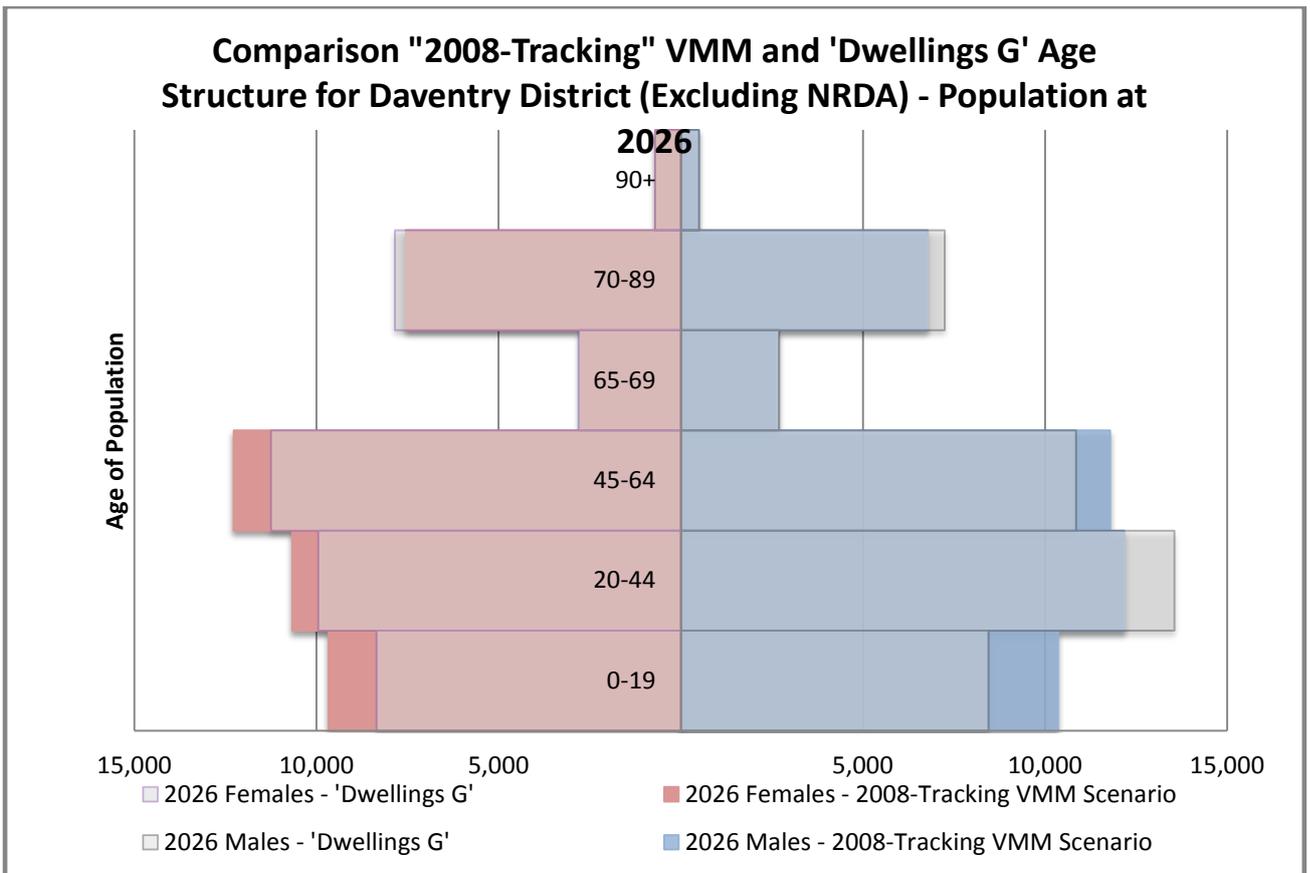


Figure 2: Comparison of Projected Population to 2026 by Broad Age Band (Preferred "2008-Tracking" VMM Scenario and 'Dwellings G')

Household Forecasts

- 7.4. Table 11, set out as a full-page table below, gives a detailed breakdown of the expected pattern of household formation in Daventry District (excluding the NRDA) under the preferred “2008-Tracking” VMM scenario. The expected rate of growth in households to 2026 is also compared with equivalent figures for the ‘Dwellings G’ projection informing the JCS, as Submitted. The key difference to note is the projected average household size at 2026 under the preferred VMM scenario being 2.28, compared to 2.16 under the ‘Dwellings G’ projection. This can be explained by the existence of substantially fewer ‘one person’ households at 2026 than under the ‘Dwellings G’ projection – 11,360 compared to 12,416. The rate of growth in these household types over the period is relatively similar (38.9% and 39.6% respectively); the difference therefore mainly being accounted for by there being substantially fewer one person households identified in the 2011 Census that expected under previous household projections. Compensating differences accounting for larger average household size can be identified in the number of households with children and households with ‘couples and one or more other adult’. More of these households are expected to arise at 2026 under the preferred VMM scenario than under the ‘Dwellings G’ projection.

Daventry (excluding NRDA) - Variant Migrant Model

Category of Households	2011	2016	2021	2026	2029	2011-2026 % Change - VMM	2026 Households - Dwellings G	2011-2026 % Change - Dwellings G
OPMAL	3,786	4,208	4,996	5,760	6,158	52.1%	5,915	45.3%
OPFEM	4,395	4,599	5,145	5,600	5,759	27.4%	6,502	34.8%
<i>One person households</i>	<i>8,181</i>	<i>8,807</i>	<i>10,141</i>	<i>11,360</i>	<i>11,917</i>	38.9%	<i>12,416</i>	39.6%
FAM C0	10,471	10,899	12,135	12,979	13,316	24.0%	14,284	21.5%
FAM C1	2,194	2,195	2,050	1,867	1,791	-14.9%	1,576	-20.8%
FAM C2	3,001	2,866	2,808	2,758	2,715	-8.1%	2,612	-17.1%
FAM C3	1,264	1,224	1,257	1,337	1,355	5.8%	1,225	-6.7%
<i>One family and no others</i>	<i>16,930</i>	<i>17,185</i>	<i>18,250</i>	<i>18,942</i>	<i>19,177</i>	11.9%	<i>19,696</i>	8.2%
MIX C0	2,649	2,776	2,681	2,551	2,549	-3.7%	1,655	-14.0%
MIX C1	439	398	323	241	216	-45.2%	201	-52.0%
MIX C2	137	107	88	69	59	-49.3%	83	-46.7%
MIX C3	48	36	31	28	26	-42.4%	31	-42.4%
<i>Couple & 1 or more adults</i>	<i>3,273</i>	<i>3,318</i>	<i>3,123</i>	<i>2,889</i>	<i>2,850</i>	-11.7%	<i>1,970</i>	-22.8%
MIX L1	123	114	117	127	129	3.3%	115	-7.8%
MIX L2	55	55	61	67	68	20.9%	70	8.9%
MIX L3	16	14	16	18	17	10.0%	20	6.8%
<i>Lone parent & 1 or more adults</i>	<i>194</i>	<i>184</i>	<i>194</i>	<i>211</i>	<i>214</i>	8.8%	<i>205</i>	-1.3%
FAM L1	1,023	1,201	1,371	1,515	1,585	48.1%	1,364	40.4%
FAM L2	410	391	415	426	421	4.0%	488	-0.1%
FAM L3	264	295	363	428	451	62.3%	439	47.5%
<i>Lone Parent and no others</i>	<i>1,697</i>	<i>1,887</i>	<i>2,150</i>	<i>2,370</i>	<i>2,456</i>	39.6%	<i>2,291</i>	30.3%
OTHHH	1,461	1,637	1,745	1,845	1,896	26.3%	1,445	24.2%
<i>Other households</i>	<i>1,461</i>	<i>1,637</i>	<i>1,745</i>	<i>1,845</i>	<i>1,896</i>	26.3%	<i>1,445</i>	24.2%
Total	31,736	33,016	35,603	37,617	38,511	18.5%	38,023	16.0%
Private household population	76,097	77,515	82,321	85,585	86,832	N/A	82,017	N/A
Population / Households	2.40	2.35	2.31	2.28	2.25	N/A	2.16	N/A

Table 11: Daventry District (Excluding NRDA) Household Projection – CCHPR ‘2008 Tracking’ VMM Scenario (2011-based)

Economic Forecasts

<i>Table 12: Daventry District (Excluding NRDA) Projections of Labour Force and Economic Activity</i>				
	50,150 (G3) 2008 Lab Force*	50,150 (G3) 2008 EAR*	CCHPR '2008 Tracking' VMM Scenario (2011-based) Lab Force*	CCHPR '2008 Tracking' VMM Scenario (2011-based) EAR*
2008	42,460	67.9%	41,803	67.6%
2011	42,490	66.5%	41,861	66.2%
2016	42,000	64.1%	41,329	63.9%
2021	42,830	63.0%	43,600	63.5%
2026	42,890	61.0%	44,287	61.8%
2029	N/A	N/A	44,282	60.6%

- Not adjusted for proposed changes in retirement age

* - Adjusted to take account of changes in retirement age

- 7.5. Projections for labour force growth under the preferred “2008-Tracking” VMM scenario for Daventry District (excluding the NRDA) are shown in Table 12 above and compared against the ‘Dwellings G’ projection informing the JCS, as Submitted. The preferred VMM scenario shows a growth of 2426 people in the labour force 2011-2026, compared to only 400 under the ‘Dwellings G’ scenario. Both scenarios make the same adjustments to economic activity rates associated with proposed changes to state pension retirement age up to 2020 (see 6.12 above). Therefore, the difference between the two scenarios reflects the differences in the overall growth of the population under the two scenarios and especially the relative change in the age structure giving a higher proportion of the population in younger age groups – who are more likely to be economically active. This has the effect of generating a slightly higher economic activity rate at 2026 under the preferred VMM scenario (61.8%) compared to the under ‘Dwellings G’ (61.0%).

Northampton Related Development Area

Comparative Population Forecasts

	ONS 2008	50,150 (G3) 2008-based	ONS 2011-based Interim²³	CCHPR '2008 Tracking' VMM Scenario (2011-based)
2001	194,350	194,350	194,350	194,350
2006	201,450	201,450	200,360	200,360
2011	217,700	211,990	212,490	212,490
2016	232,100	218,500	228,820	220,780
2021	245,540	237,380	242,747	242,610
2026	257,950	249,830	N/A	260,680
2029	264,770	N/A	N/A	267,690

- 7.6. The preferred “2008-Tracking” VMM scenario for the Northampton Related Development Area (NRDA) as set out in Table 13 above shows a population increase of 48,190 people between 2011 and 2026; or 55,200 for the years 2011 to 2029. Over the equivalent 2011-2026 period the ‘Dwellings G’ scenario that informed the Joint Core Strategy (JCS), as Submitted, suggested a population growth of 37,840 people; around 10,350 lower than now projected under the VMM scenario. When compared with the ONS 2011-based interim series of population projections to 2021, the pattern of growth anticipated under the VMM scenario is marginally slower to 2016 but gives almost identical projected population growth at 2021 to that in the ONS series – 242,610 compared with 242,747.
- 7.7. The projected level of population growth compared to the ONS 2008-based population projections (2011-2029), taking into account differences in the base population at 2011, is slightly greater under the preferred “2008-Tracking” VMM scenario – 55,200 versus 47,070. This relates to the spatial distribution being planned for under Proposed Main Modifications to the Joint Core Strategy as detailed in sections 4.8 - 4.15 above meaning that growth in the NRDA extends beyond the administrative boundaries to which the ONS 2008-based projections relate. The same spatial distribution was incorporated under the ‘Dwellings G’ scenario informing the JCS, as Submitted - albeit that this projection constrained growth to below the ONS 2008-based projection for Northampton Borough alone.
- 7.8. Figures 3 and 4, along with Table 14, as set out below look in more detail at the projected age structure of the population in the Northampton Related

²³ Includes Mid-Year Population Estimate for 2006 revised in-light of 2011 Census for England and Wales. Note that the Interim 2011-based ONS Population Projections only cover the period 2011-2021 in their published form.

Development Area based on the preferred “2008-Tracking’ VMM scenario. The greatest amount of growth in any single age-band is concentrated in the 0-19 and 20-44 categories, followed by the 70-89 age-groups. This is significant in reflecting the underlying younger age structure of the Northampton Related Development Area, related to higher than average fertility rates and in-migration concentrated at younger ages, e.g. students and economic migrants. Figure 4 comparing the age-structure in the preferred VMM scenario and ‘Dwellings G’ projections demonstrates that the additional population expected to arise the VMM scenario is concentrated in the same age-groups. This reflects that the increased provision as part of Proposed Main Modifications to the JCS does not change underlying trends in projected population growth and imposes fewer constraints on migration or natural changes relative to the ‘Dwellings G’ projection.

<i>Table 14: Population of Northampton Related Development Area by Age CCHPR ‘2008 Tracking’ VMM Scenario (2011-based)</i>					
	2011	2016	2021	2026	2029
0-19	53,872	56,321	61,910	67,434	68,683
20-44	79,319	79,174	87,134	91,995	92,871
45-64	50,825	51,979	55,905	58,181	59,213
65-69	8,556	10,787	10,084	11,627	12,812
70-89	18,484	20,691	25,283	28,490	30,625
90+	1,436	1,830	2,290	2,955	3,483
Total	212,492	220,782	242,606	260,682	267,687

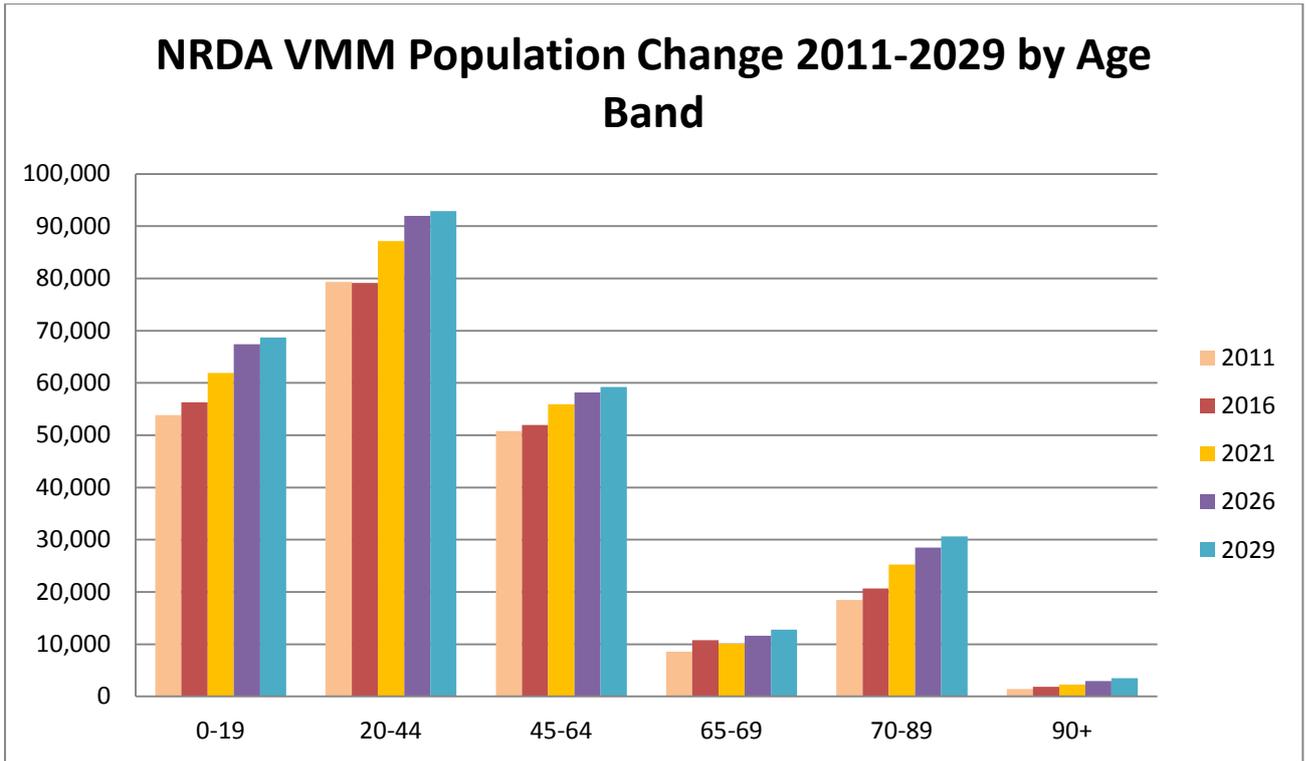


Figure 3: Population Change 2011-2029 in Northampton Related Development Area - By Broad Age Band

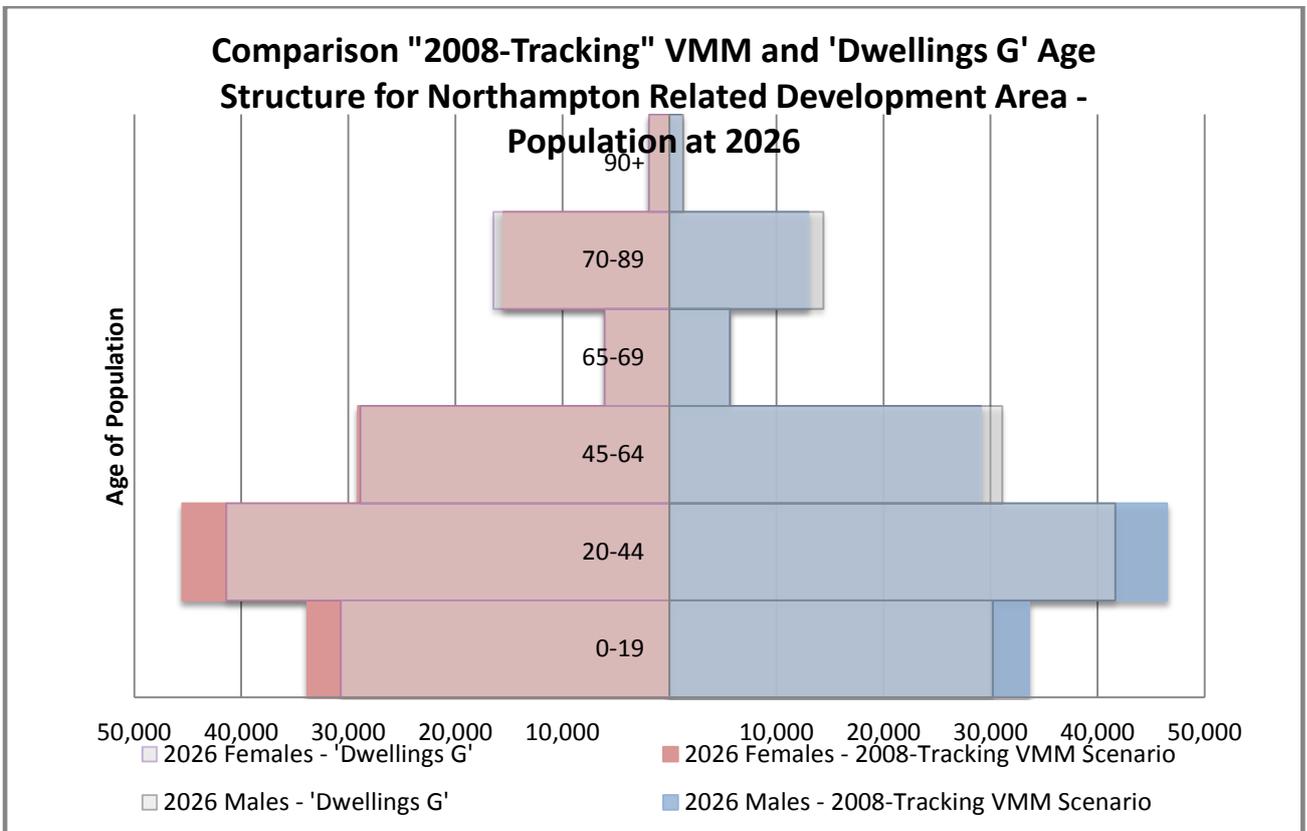


Figure 4: Comparison of Projected Population to 2026 by Broad Age Band (Preferred "2008-Tracking" VMM Scenario and 'Dwellings G')

Northampton Related Development Area (NRDA) - Variant Migrant Model

Category of Households	2011	2016	2021	2026	2029	2011-2026 % Change - VMM	2026 Households - Dwellings G	2011-2026 % Change - Dwellings G
OPMAL	13,180	14,336	17,529	20,744	22,235	57.4%	22,242	45.8%
OPFEM	14,292	14,986	17,434	20,000	21,114	39.9%	23,016	38.2%
<i>One person households</i>	<i>27,472</i>	<i>29,322</i>	<i>34,963</i>	<i>40,744</i>	<i>43,349</i>	48.3%	<i>45,258</i>	41.8%
FAM C0	22,211	22,673	25,027	26,832	27,789	20.8%	29,971	20.2%
FAM C1	5,949	6,254	6,474	6,570	6,586	10.4%	5,546	8.6%
FAM C2	6,227	6,053	6,146	6,151	6,004	-1.2%	5,934	-1.0%
FAM C3	3,427	3,560	3,822	4,065	4,093	18.6%	3,724	16.6%
<i>One family and no others</i>	<i>37,814</i>	<i>38,540</i>	<i>41,469</i>	<i>43,619</i>	<i>44,471</i>	15.4%	<i>45,175</i>	15.2%
MIX C0	6,375	6,546	6,280	5,811	5,712	-8.8%	4,128	-15.8%
MIX C1	1,531	1,479	1,383	1,258	1,208	-17.8%	1,142	-16.9%
MIX C2	636	644	656	651	651	2.4%	618	1.5%
MIX C3	304	302	308	311	312	2.3%	300	3.6%
<i>Couple & 1 or more adults</i>	<i>8,846</i>	<i>8,971</i>	<i>8,627</i>	<i>8,031</i>	<i>7,883</i>	-9.2%	<i>6,188</i>	-13.8%
MIX L1	751	832	911	980	1,014	30.5%	889	28.3%
MIX L2	369	412	496	575	598	55.9%	525	43.2%
MIX L3	107	103	109	113	109	5.7%	115	1.5%
<i>Lone parent & 1 or more adults</i>	<i>1,227</i>	<i>1,347</i>	<i>1,517</i>	<i>1,668</i>	<i>1,721</i>	36.0%	<i>1,529</i>	30.4%
FAM L1	3,635	4,185	4,935	5,622	5,863	54.7%	4,771	45.5%
FAM L2	2,333	2,602	3,150	3,669	3,821	57.3%	3,323	43.4%
FAM L3	971	1,051	1,259	1,462	1,511	50.6%	1,342	38.3%
<i>Lone Parent and no others</i>	<i>6,939</i>	<i>7,838</i>	<i>9,345</i>	<i>10,753</i>	<i>11,195</i>	55.0%	<i>9,437</i>	43.7%
OTHHH	6,614	7,025	7,410	7,710	7,964	16.6%	6,434	10.3%
<i>Other households</i>	<i>6,614</i>	<i>7,025</i>	<i>7,410</i>	<i>7,710</i>	<i>7,964</i>	16.6%	<i>6,434</i>	10.3%
Total	88,912	93,043	103,331	112,525	116,584	26.6%	114,021	24.1%
Private household population	208,889	217,093	238,724	256,368	263,068	N/A	245,102	N/A
Population / Households	2.35	2.33	2.31	2.28	2.26	N/A	2.15	N/A

Table 15: Northampton Related Development Area Household Projection – CCHPR ‘2008 Tracking’ VMM Scenario (2011-based)

Household Forecasts

- 7.9. Table 15, set out as a full-page table above, gives a detailed breakdown of the expected pattern of household formation in the NRDA under the preferred “2008-Tracking” VMM scenario. The expected rate of growth in households to 2026 is also compared with equivalent figures for the ‘Dwellings G’ projection informing the JCS, as Submitted. The key difference to note is the projected average household size at 2026 under the preferred VMM scenario being 2.28, compared to 2.15 under the ‘Dwellings G’ projection. This can be explained by the existence of substantially fewer ‘one person’ households at 2026 than under the ‘Dwellings G’ projection – 40,744 compared to 45,258. The rate of growth in these household types over the period is similar, actually being greater under the preferred “2008-Tracking” VMM scenario (48.3% and 41.8% respectively). The difference is therefore mainly being accounted for by there being substantially fewer one person households identified in the 2011 Census that expected under previous household projections. The younger age-structure of the population in Northampton provided a proportionally greater number of people who were expected to form one-person households under previous household projections; as a result of recent changes in household formation revealed by the 2011 Census it appears many in this category have sought alternative household arrangements.
- 7.10. Compensating differences accounting for larger average household size can be identified in the number of households with children and households with ‘couples and one or more other adult’. More of these households are expected to arise at 2026 under the preferred VMM scenario than under the ‘Dwellings G’ projection.

Economic Forecasts

Table 16: Northampton Related Development Area (NRDA) Labour Force and Economic Activity

	50,150 (G3) 2008 Lab Force*	50,150 (G3) 2008 EAR*	CCHPR ‘2008 Tracking’ VMM Scenario (2011-based) Lab Force*	CCHPR ‘2008 Tracking’ VMM Scenario (2011-based) EAR*
2008	116,660	69.1%	114,240	69.3%
2011	117,000	68.7%	117,080	69.2%
2016	118,170	67.7%	119,430	68.4%
2021	127,740	67.3%	130,940	68.5%
2026	133,210	66.0%	138,960	67.4%
2029	N/A	N/A	141,405	66.5%

- Not adjusted for proposed changes in retirement age

* - Adjusted to take account of changes in retirement age

7.11. Projections for labour force growth under the preferred “2008-Tracking” VMM scenario for the NRDA are shown in Table 16 above and compared against the ‘Dwellings G’ projection informing the JCS, as Submitted. The preferred VMM scenario shows a growth of 21,880 people in the labour force 2011-2026, compared to only 16,210 under the ‘Dwellings G’ scenario. Both scenarios make the same adjustments to economic activity rates associated with proposed changes to state pension retirement age up to 2020 (see 6.12 above). Therefore, the difference between the two scenarios reflects the differences in the overall growth of the population under the two scenarios. In-particular, because Northampton is relatively less affected by trends towards an ageing population additional growth is concentrated at younger age groups – who are more likely to be economically active. These findings further reinforce the evidence that planning to meet objectively assessed needs under the preferred “2008-Tracking” VMM scenario informing Proposed Main Modifications to the JCS removes the constraints on population growth that may previously have been implicit under the ‘Dwellings G’ projection. This has the effect of generating a slightly higher economic activity rate at 2026 under the preferred VMM scenario (67.4%) compared to that under ‘Dwellings G’ (66.0%).

South Northamptonshire (Excluding NRDA)

Comparative Population Projections

<i>Table 17: South Northamptonshire (Excluding NRDA) Comparisons of Population Change</i>				
	ONS 2008	50,150 (G3) 2008-based	ONS 2011-based Interim²⁴	CCHPR '2008 Tracking' VMM Scenario (2011-based)
2001	79,500	79,500	79,500	79,500
2006	87,080	87,080	85,540	85,540
2011	91,370	88,670	85,450	85,450
2016	96,840	89,310	89,750	87,630
2021	102,370	91,480	94,300	92,000
2026	107,570	93,380	N/A	95,240
2029	110,330	N/A	N/A	96,640

- 7.12. The preferred “2008-Tracking” VMM scenario for South Northamptonshire (excluding the NRDA) set out in Table 17 above shows a population increase of 9790 people between 2011 and 2026; or 11,190 for the years 2011 to 2029. Over the equivalent 2011-2026 period the ‘Dwellings G’ scenario that informed the Joint Core Strategy (JCS), as Submitted, suggested a population growth of 8850 people; around 940 lower than now projected under the VMM scenario. When compared with the ONS 2011-based interim series of population projections to 2021, the projected growth anticipated under the VMM scenario is lower to 2021 than that in the ONS series – 6550 compared with 8850. This relates to the spatial distribution being planned for under Proposed Main Modifications to the Joint Core Strategy as detailed in sections 4.8 - 4.15. This means that part of the projected growth within the administrative boundaries of South Northamptonshire (the basis on which ONS projections are prepared) is associated with requirements for the Northampton Related Development Area and shown in the VMM projections for that area. The same spatial distribution was incorporated under the ‘Dwellings G’ scenario informing the JCS, as Submitted – hence both projections suggest growth rates slower than those in the ONS series.
- 7.13. Of potentially more significance for South Northamptonshire is comparison between projected rates of growth between the 2008-based and 2011-based ONS series’ calculated from Table 17 above. Taking into account differences in the base population at 2011 the growth in the ONS 2011-based interim projections 2011-2021 is 10.4%; the equivalent rate for the ONS 2008-based projections being 12.0%. This demonstrates the downward revision in the projected growth rate within South

²⁴ Includes Mid-Year Population Estimate for 2006 revised in-light of 2011 Census for England and Wales. Note that the Interim 2011-based ONS Population Projections only cover the period 2011-2021 in their published form.

Northamptonshire between 2008 and 2011; further revealed by the evidence that the projected South Northamptonshire population at 2011 under the 2008-based ONS projections was 5920 higher than the 2011 Census estimate actually recorded. After taking account of the adjustment in spatial distribution South Northamptonshire (excluding the NRDA) identifies more provision than the residual requirement for objectively assessed needs (see 4.13 - 4.15 above). The projections from the preferred “2008-Tracking” VMM scenario therefore show a closer relationship with the latest national projections (ONS 2011-based) than was the case under the ‘Dwellings G’ projection; this is more related to changes in national projections than an increase in the scale of development proposed in South Northamptonshire (excluding the NRDA) as part of Proposed Main Modifications to the JCS.

- 7.14. Figures 5 and 6, along with Table 18, as set out below look in more detail at the projected age structure of the population in South Northamptonshire (excluding the NRDA) based on the preferred “2008-Tracking’ VMM scenario. The greatest amount of growth in any single age-band is concentrated in the 70-89 categories, which is in common with the previous ‘Dwellings G’ scenario that informed the JCS, as Submitted. This reflects the underlying age structure of the District whereby a large proportion of the 45-64 and 65-69 categories ‘age-through’ to the older age group over the 2011 to 2029 period with relatively limited out-migration from this demographic over the same years. Figure 6 comparing the age-structure in the preferred VMM scenario and ‘Dwellings G’ projections reflects the similarities between the two projections in terms of total population, given the broadly similar scale of housing delivery anticipated under each scenario. The additional population expected to arise under the preferred “2008-Tracking” VMM scenario is concentrated in the 0-19 and 20-44 age groups and is mostly related to changes in projected household size and fertility both suggesting larger family units on average. The population in age groups for 45 and over (and males aged 20-44) is actually slightly lower under the preferred VMM scenario compared to the ‘Dwellings G’ projection – reflecting downward revision in light of 2011 Census estimates and also lower projected rates of growth overall described in 7.13 above.

<i>Table 18: Population of South Northamptonshire (Excluding NRDA) by Age CCHPR ‘2008 Tracking’ VMM Scenario (2011-based)</i>					
	2011	2016	2021	2026	2029
0-19	20,566	20,457	21,217	21,679	21,658
20-44	24,492	23,050	23,582	24,122	24,296
45-64	25,740	26,175	26,908	26,586	26,065
65-69	4,875	5,968	5,253	6,008	6,529
70-89	9,146	11,109	13,896	15,365	16,375
90+	627	865	1,148	1,482	1,712
Total	85,446	87,625	92,004	95,241	96,635

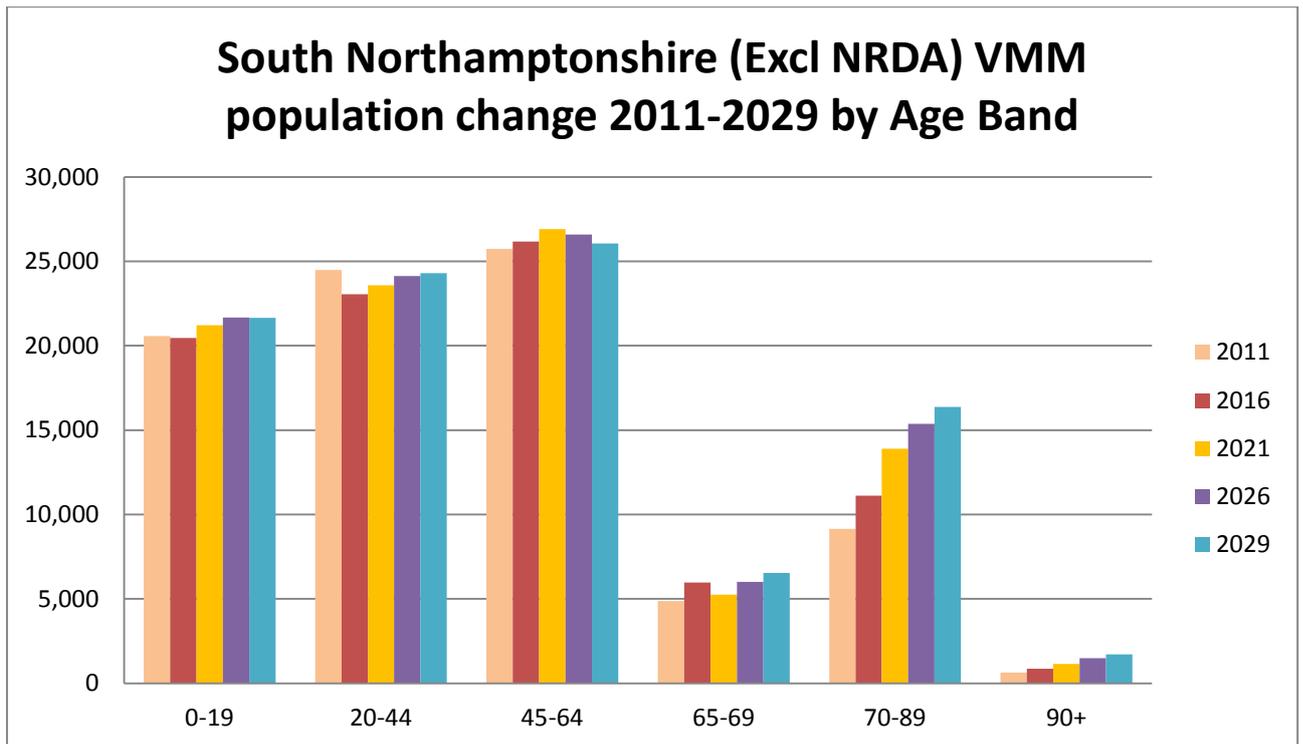


Figure 5: Population Change 2011-2029 in South Northamptonshire (Excluding NRDA) - By Broad Age Band

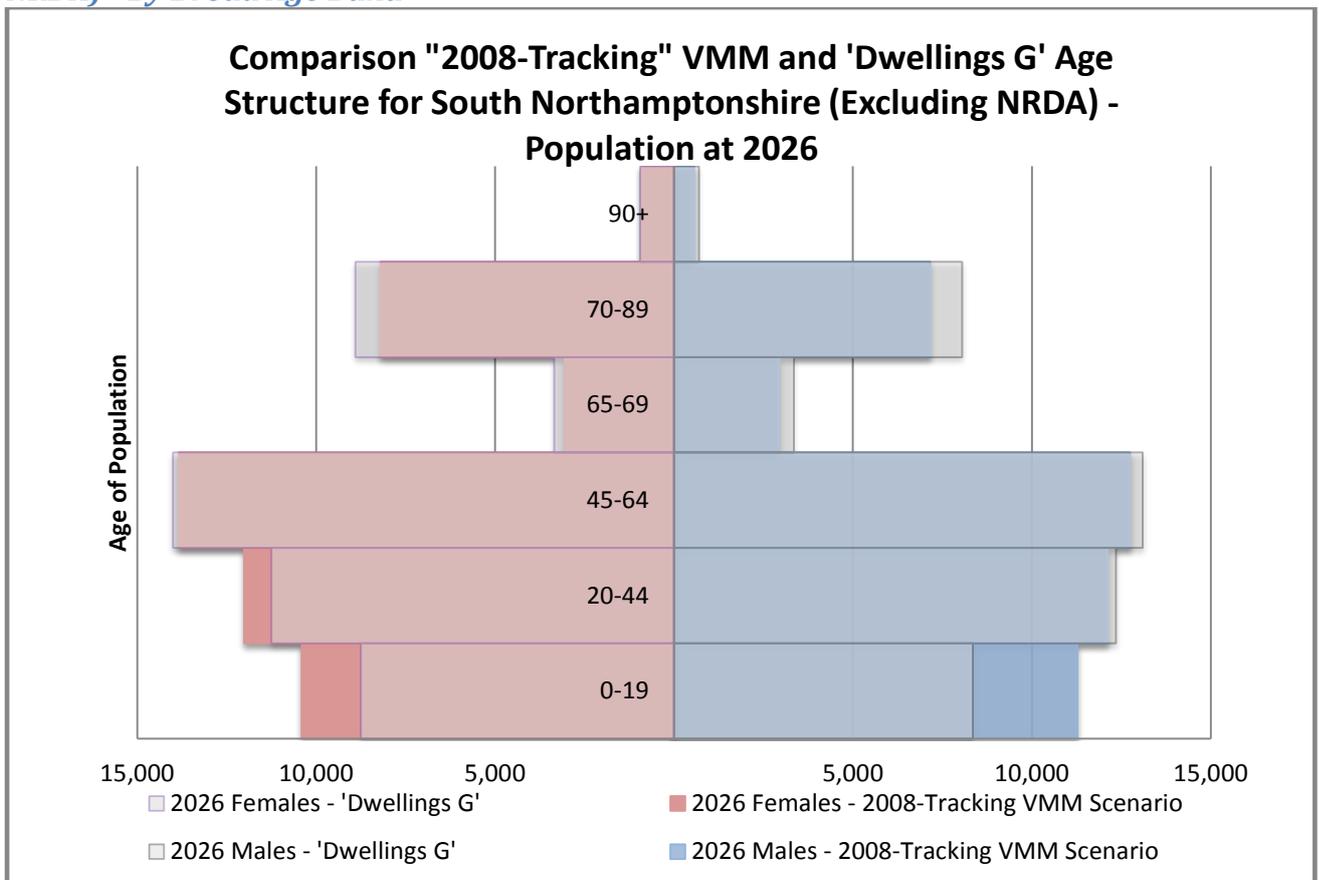


Figure 6: Comparison of Projected Population to 2026 by Broad Age Band (Preferred "2008-Tracking" VMM Scenario and 'Dwellings G')

Household Projections

- 7.15. Table 19, set out as a full-page table below, gives a detailed breakdown of the expected pattern of household formation in South Northamptonshire (excluding the NRDA) under the preferred “2008-Tracking” VMM scenario. The expected rate of growth in households to 2026 is also compared with equivalent figures for the ‘Dwellings G’ projection informing the JCS, as Submitted. The key difference to note is the projected average household size at 2026 under the preferred VMM scenario being 2.31, compared to 2.19 under the ‘Dwellings G’ projection. This can be explained by the existence of substantially fewer ‘one person’ households at 2026 than under the ‘Dwellings G’ projection – 12,211 compared to 13,825. The rate of growth in these household types over the period is relatively similar (40.3% and 40.0% respectively); the difference therefore mainly being accounted for by there being substantially fewer one person households identified in the 2011 Census that expected under previous household projections. Compensating differences accounting for larger average household size can be identified in the number of households with children and households with ‘couples and one or more other adult’. More of these households are expected to arise at 2026 under the preferred VMM scenario than under the ‘Dwellings G’ projection. The most significant such category under the preferred “2008-Tracking” VMM scenario is couples with 1 or more other adults but no children aged under-18 (2,595 at 2026 compared to 1,704 under ‘Dwellings G’).

South Northamptonshire (Excl NRDA) - Variant Migrant Model

Category of Households	2011	2016	2021	2026	2029	2011-2026 % Change - VMM	2026 Households - Dwellings G	2011-2026 % Change - Dwellings G
OPMAL	3,691	4,004	4,801	5,675	6,072	53.7%	6,117	45.0%
OPFEM	5,013	5,208	5,901	6,536	6,770	30.4%	7,709	36.3%
<i>One person households</i>	<i>8,704</i>	<i>9,212</i>	<i>10,702</i>	<i>12,211</i>	<i>12,842</i>	40.3%	<i>13,825</i>	40.0%
FAM C0	11,743	12,430	13,620	14,458	14,913	23.1%	16,021	23.4%
FAM C1	2,580	2,691	2,678	2,647	2,615	2.6%	2,354	-5.9%
FAM C2	3,167	2,974	2,858	2,778	2,702	-12.3%	2,733	-22.6%
FAM C3	1,617	1,645	1,735	1,893	1,956	17.1%	1,632	-6.0%
<i>One family and no others</i>	<i>19,107</i>	<i>19,740</i>	<i>20,892</i>	<i>21,775</i>	<i>22,186</i>	14.0%	<i>22,740</i>	9.6%
MIX C0	3,010	3,186	2,955	2,595	2,504	-13.8%	1,704	-23.7%
MIX C1	550	484	398	312	284	-43.2%	306	-46.1%
MIX C2	202	169	141	121	110	-40.2%	133	-42.9%
MIX C3	52	46	39	31	29	-39.8%	34	-44.1%
<i>Couple & 1 or more adults</i>	<i>3,814</i>	<i>3,885</i>	<i>3,534</i>	<i>3,059</i>	<i>2,928</i>	-19.8%	<i>2,177</i>	-29.6%
MIX L1	174	177	173	171	171	-1.5%	143	-14.6%
MIX L2	51	50	52	57	60	12.5%	50	-9.9%
MIX L3	23	24	26	30	31	29.7%	26	5.0%
<i>Lone parent & 1 or more adults</i>	<i>248</i>	<i>251</i>	<i>252</i>	<i>259</i>	<i>261</i>	4.3%	<i>219</i>	-11.6%
FAM L1	687	772	803	846	876	23.1%	696	14.8%
FAM L2	522	559	619	653	659	25.2%	640	15.5%
FAM L3	227	260	305	356	379	56.8%	297	29.5%
<i>Lone Parent and no others</i>	<i>1,436</i>	<i>1,591</i>	<i>1,728</i>	<i>1,855</i>	<i>1,913</i>	29.2%	<i>1,632</i>	17.5%
OTHHH	1,497	1,577	1,627	1,658	1,651	10.7%	1,396	7.4%
<i>Other households</i>	<i>1,497</i>	<i>1,577</i>	<i>1,627</i>	<i>1,658</i>	<i>1,651</i>	10.7%	<i>1,396</i>	7.4%
Total	34,806	36,255	38,734	40,816	41,781	17.3%	41,990	14.6%
Private household population	84,713	86,826	91,107	94,187	95,469	N/A	91,958	N/A
Population / Households	2.43	2.39	2.35	2.31	2.28	N/A	2.19	N/A

Table 19: South Northamptonshire (Excluding NRDA) Household Projection – CCHPR ‘2008 Tracking’ VMM Scenario (2011-based)

Economic Projections

<i>Table 20: South Northamptonshire (Excluding NRDA) Labour Force and Economic Activity Projections</i>				
	50,150 (G3) 2008 Lab Force*	50,150 (G3) 2008 EAR*	CCHPR '2008 Tracking' VMM Scenario (2011-based) Lab Force*	CCHPR '2008 Tracking' VMM Scenario (2011-based) EAR*
2008	47,790	67.9%	46,390	67.7%
2011	47,400	66.4%	45,470	66.0%
2016	46,920	63.8%	45,110	63.7%
2021	48,240	62.6%	47,050	63.3%
2026	47,900	60.1%	47,740	61.6%
2029	N/A	N/A	47,860	60.5%

- 7.16. Projections for labour force growth under the preferred “2008-Tracking” VMM scenario for South Northamptonshire (excluding the NRDA) are shown in Table 20 above and compared against the ‘Dwellings G’ projection informing the JCS, as Submitted. The preferred VMM scenario shows a growth of 2,270 people in the labour force 2011-2026, compared to only 500 under the ‘Dwellings G’ scenario. Both scenarios make the same adjustments to economic activity rates associated with proposed changes to state pension retirement age up to 2020 (see 6.12 above). Therefore, the difference between the two scenarios reflects the differences in the overall growth of the population under the two scenarios and especially the relative change in the age structure giving a higher proportion of the population in younger age groups – who are more likely to be economically active. This has the effect of generating a slightly higher economic activity rate at 2026 under the preferred VMM scenario (61.6%) compared to the under ‘Dwellings G’ (60.1%).

West Northamptonshire

7.17. Figure 7 below shows how the population is aging over the Plan period. The chart shows the population by Age Band percentage for the three Councils in West Northamptonshire in 2011 and as predicted in 2029. This chart has been updated to show the revised implications of the planning to meet objectively assessed needs under the preferred “2008-Tracking” VMM scenario. The changes when viewed against the proportionate population distribution in the ‘Dwellings G’ scenario do not suggest any fundamental shift from overall trends towards an ageing population, but a slightly greater percentage of people are concentrated in the younger age groups. This is especially true in the case of increasing fertility under the preferred VMM scenario; all three constituent areas retain a proportion of the 0-19 population over 20% whereas Daventry and South Northamptonshire fell below 20% under ‘Dwellings G’.

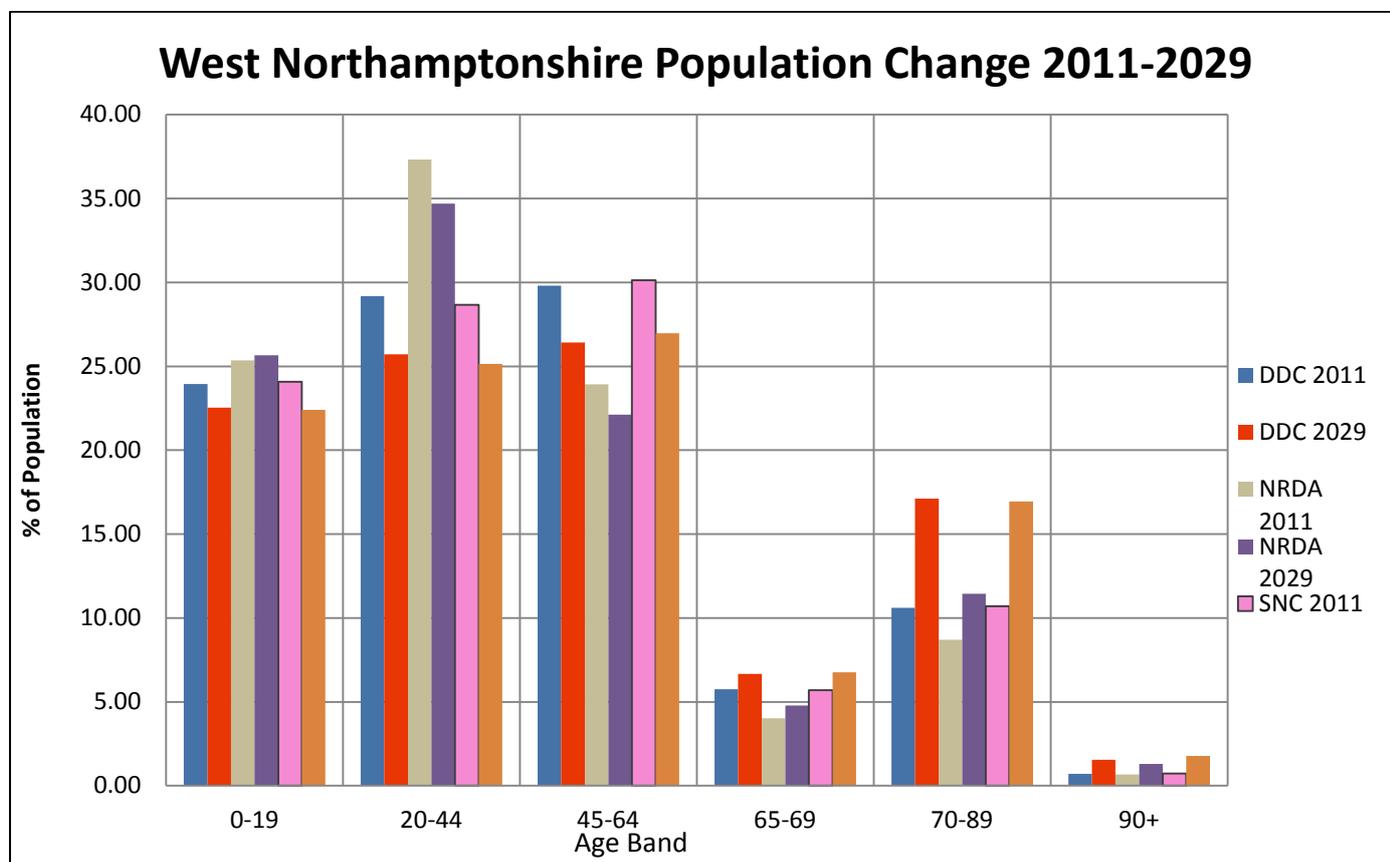


Figure 7: Change in Proportion of Total Population 2011-2029 -- By Broad Age Band

7.18. Figure 8 below shows this small change in the overall age structure of the population under the preferred “2008-Tracking” VMM scenario more clearly. The ‘Dwellings G’ projection was based on pre-2011 Census population estimates higher than those actually recorded, and this provides the main explanation for why the total population in age groups for 65+ is higher at 2026 under ‘Dwellings G’ than the preferred VMM scenario. All age groups were subject to some downward revision in population estimates in 2011 when previous estimates were rebased to

those provided by the 2011 Census for England and Wales. However, changes to the underlying population and household projections associated with larger average households and higher fertility – alongside the additional scope for population growth by providing for the housing requirements suggested by objectively assessed needs – means that for the 0-64 age groups the population under the preferred scenario is greater than under 'Dwellings G'. In other words, any downward revision as a result of 2011 Census estimates is more than offset in these age-bands because of where additional growth associated with the objectively assessed needs scenario is concentrated.

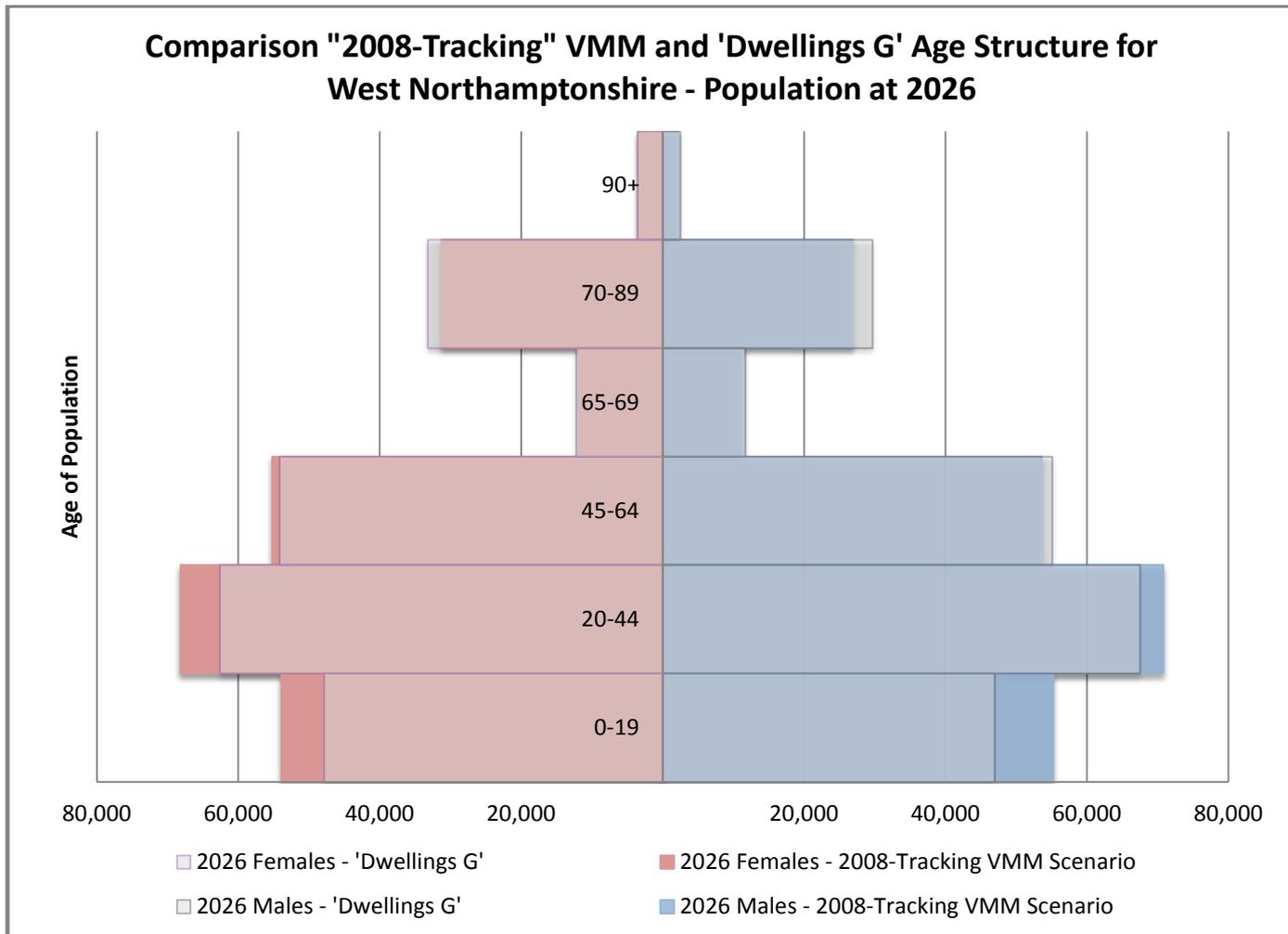


Figure 8: Comparison of Projected Population to 2026 by Broad Age Band (Preferred "2008-Tracking" VMM Scenario and 'Dwellings G') – West Northamptonshire Total

8. Conclusions

- 8.1. This Technical Paper has set out in the detailed changes in terms of population structure, households and labour forced associated with providing for the objectively assessed housing needs for West Northamptonshire under the preferred “2008-Tracking” Variant Migration Model scenario. This represents a substantial change from the methodology informing projections (the latest being the ‘Dwellings G’ scenario) in the Proposed Changes to the pre-Submission Joint Core Strategy, as Submitted (December 2012). However, this paper has set out why this change has been necessary in light of the Joint Core Strategy Examination Hearings (April / May 2013) and the latest available guidance through the National Planning Policy Framework (NPPF).
- 8.2. The update provided by undertaking this additional work is also, however, important and beneficial in ensuring the most up-to-date evidence has been used to inform population and household projections in West Northamptonshire. In-particular, it has been possible to make substantially greater use of evidence emerging through the 2011 Census for England and Wales relative to the previous ‘Dwellings G’ projection and as detailed in the Population, Households and Labour Force Technical Paper Update (July 2012)²⁵. This is particularly relevant in terms of accounting for differences in previous projections of the population to 2011 and beyond and rebasing these on more accurate evidence for the total number of people and households emerging from the Census.
- 8.3. This work has served to reinforce some of the assertions made in previous versions of the Population, Households and Labour Force Technical Paper (2011 and 2012) about the suitability of using some sources of data in future projections. In-particular, the ONS 2010-based population projections have been shown to be particularly unrealistic in terms of future projected growth rates, while ONS 2008-based projected populations to 2011 show greatest deviation from official 2011-based Census estimates. This validates the Joint Planning Unit’s preferred choice of options – as well as reflecting advice set out in National Planning Practice Guidance – to take the latest available projections as the starting point when deriving a figure for objectively assessed housing needs.
- 8.4. A number of the inputs are the same as those used in previous versions of the Population, Households and Labour Force Technical Paper²⁶ where it is appropriate to retain these assumptions – for example changes in economic activity associated with the increases in State Pension retirement age between 2010 and 2020.

²⁵ Previous versions of the Population, Households and Labour Force Technical Papers (February 2011 and July 2012) can be downloaded here:

<http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=2759824>

²⁶ *Ibid.*

- 8.5. Work to release information from the 2011 Census at the national level is not yet complete, and the types of evidence described above will be used going forward to derive new projections for population and households, with the next release of 2012-based information for population projections due Spring 2014 (with 2012-based household projections not due until late 2014 or early 2015). The work to derive the objectively assessed needs figure for West Northamptonshire has made the best use of the evidence currently available. This includes a reasoned justification for extending the 2011-based interim population projections beyond 2021, a pragmatic approach to establish the most likely patterns of future household formation rates, and consideration of the spatial distribution of housing provision²⁷. On this basis a robust assessment of the objectively assessed needs for West Northamptonshire can be established using available data; whilst awaiting future projections that may themselves be subject to doubt and uncertainty would impose unnecessary delays in providing a strategic policy framework for West Northamptonshire. It will, however, remain important to monitor and address any future changes in demographic evidence.
- 8.6. This Technical Paper has also explained how, following establishment of an objectively assessed figure for housing needs, resulting outputs in terms of population, households and labour force have been modelled with regard to the proposed scale, distribution and phasing of housing delivery as set out in the Proposed Main Modifications to the Joint Core Strategy. This has been achieved through development of the ‘Variant Migration Model’ prepared by the Cambridge Centre for Housing and Planning Research to associate the “2008-Tracking” projection with the provision for housing identified within the plan.
- 8.7. This approach provides the most realistic estimates of the outputs that are likely to arise when the provisions within the Joint Core Strategy are delivered as anticipated within the overall strategic planning framework. This specifically is able to address the amount of growth associated with the Northampton Related Development Area and when households are expected to form in-line with the proposed phasing of dwelling delivery.
- 8.8. Modelling on this basis reveals that the delivery and phasing outlined in the Proposed Main Modifications to the Joint Core Strategy will generate a population increase of 77,450 people between 2011 and 2029, compared to 75,510 under the baseline “2008-Tracking” Scenario for objectively assessed needs, as shown in Table 21 below. This is partly based on the total dwellings provision in the Proposed Main Modifications to the Joint Core Strategy being 42,630, compared to a requirement of 41,760 in the “2008-Tracking” scenario; although the spatial distribution and phasing of deliver also influences this outcome. In summary, however, the Proposed Main Modifications to the Joint Core Strategy can be shown to be positively planning to meet the objectively assessed needs of the area.

²⁷ Full reasoning can be found in “The new Household Projections and their implications for West Northamptonshire”, prepared by the Cambridge Centre for Housing and Planning Research (CCHPR) (August 2013) - available from the West Northamptonshire JPU website at <http://www.westnorthamptonshirejpu.org/connect.ti/website/view?objectId=10698565>

	Total Extra Dwellings 2011 - 2029	Total Extra Households 2011 - 2029	Total Population at 2029	Total Population Growth 2011 - 2029
“2008 Tracking” OAHN Scenario – West Northamptonshire	41,760	40,523	451,512	75,510
Proposed Main Modifications “2008 Tracking” Variant Migration Model Scenario – West Northamptonshire	42,631	41,389	453,456	77,450

Table 21: Summary of Objectively Assessed Need projection (“2008-Tracking”) and Proposed Main Modification Variant Migration Model outputs for West Northamptonshire

- 8.9. This Technical Paper has also demonstrated the change in terms of the resulting number of people and households, as well as the size of the labour force, relative to the ‘Dwellings G’ projection informing the Joint Core Strategy, as Submitted. Specifically, this includes population growth of 67,750 2011-2026 compared to only 47,350 under the ‘Dwellings G’ projection. This substantial increase in the growth of the population is associated with some changes to the underlying projection, especially in terms of fertility rates, but also arises because planning to meet objectively assessed needs removes the constraints on population growth resulting from the dwellings-constrained ‘Dwellings G’ scenario. These constraints had the most significant effects on migration flows, which are concentrated in younger age-groups and have a range of impacts over the projection period; including affecting patterns of fertility and the proportions of different household types that are likely to form. One significant outcome from positively planning to meet objectively assessed needs is a significant increase in the size of the additional labour force, relative to the difference in the total population: the preferred ‘Variant Migration Model’ scenario gives labour force growth 2011-2026 of 26,600, compared to only 17,110 under the ‘Dwellings G’ scenario.
- 8.10. Comparison of the Variant Migration Model scenario and ‘Dwellings G’ also reveals a difference in the change in the number of households 2011-2026: 35,500 compared to 32,700. This solely relates to the additional scale of housing delivery associated with planning to meet objectively assessed housing needs through the Proposed Main Modifications. However, the difference in the number of households (2,800) is relatively minimal compared to the additional population growth as described in 8.9 above. This shows the significance in the change in household formation rates highlighted in the 2011 Census and as applied to future projections by CCHPR in their “2008-Tracking” projection. This has an effect over the full projection period: average house size at 2026 is 2.28 under the Variant Migration Model Scenario compared to 2.16 under the ‘Dwellings G’ projection. This shows the significance of different (on average, larger) household units in

demonstrating additional scope for population growth for a given housing requirement.

- 8.11. The detailed outputs presented by this paper therefore provide important evidence of the demographic implications from planning to positively meet the objectively assessed needs for housing as part of the Proposed Main Modifications to the Joint Core Strategy. These should provide a key starting point for future service planning, including projections for the need for school places or healthcare requirements, for example. This is particularly relevant given the projection's close relationship with the latest national projections. The evidence set out here is also an important, sound, and robust base from which to monitor future demographic change in West Northamptonshire.