
Hart, Rushmoor & Surrey Heath Strategic Housing Market Assessment

APPENDICES

Contents

| | |
|---|-----------|
| Appendix A: Stakeholder Consultation | 1 |
| Early Stage Consultation, March 2014 | 1 |
| Consultation on the Draft SHMA, May 2014 | 3 |
| The Methodology for Demographic Projections | 3 |
| The Economic Scenarios..... | 4 |
| The Assessment of Affordable Housing Requirements | 5 |
| Market Signals..... | 5 |
| Other Issues | 5 |
| Appendix B: The Housing Market Area | 7 |
| The Geography of Hart, Rushmoor and Surrey Heath..... | 9 |
| Migration between Local Authorities in North Hampshire – West Surrey | 19 |
| Travel to Work Patterns in North Hampshire – West Surrey..... | 24 |
| Housing Market Area Conclusions | 28 |
| Annex 1: Ward Based Definition of Blackwater Valley..... | 30 |
| Annex 2: ONS Defined Farnborough – Aldershot Urban Area | 31 |
| Appendix C: Hart, Rushmoor and Surrey Heath Household Movement Analysis..... | 33 |
| Approach | 33 |
| Out-migration from Hart, Rushmoor and Surrey Heath in the year 2010-11 | 34 |
| In-migration to Hart, Rushmoor and Surrey Heath in the Year 2010-11 | 35 |
| Net migration Pattern March 2010-2011 | 36 |
| Appendix D: Hart, Rushmoor and Surrey Heath Commuting Analysis | 37 |
| Housing Market Area..... | 37 |
| Where do those who work in Hart, Rushmoor and Surrey Heath live? | 38 |
| Where do those who live in Hart, Rushmoor and Surrey Heath work? | 39 |
| Appendix E: Projection Methodology | 43 |
| Introduction | 43 |
| Projections Run | 44 |
| Past Population Dynamics..... | 44 |
| Baseline Population..... | 49 |
| Fertility and Mortality Rate Assumptions | 51 |
| Migration Assumptions..... | 52 |
| Workforce Assumptions | 54 |
| Household (and Housing) Growth Projections | 56 |
| Appendix F: Detailed Projection Outputs | 61 |
| Introduction | 61 |
| Population Projections..... | 61 |

| | |
|--|----|
| Population Change Dynamics | 62 |
| Population in Employment..... | 64 |
| Household (and Housing) Growth | 64 |
| Summary of Projections by Local Authority | 67 |
| Appendix G: Implications of the 2012-based Sub-National Population Projections | 74 |
| Alternative Demographic Projections | 75 |

Appendix A: Stakeholder Consultation

1. Stakeholders were consulted on the preparation at two points in the process of preparing the SHMA for Hart, Rushmoor and Surrey Heath:
 - An initial consultation on the methodology for the SHMA was undertaken in March 2014.
 - Stakeholders were invited to comment on a Consultation Draft SHMA which was published in May 2014.
 -
2. Information on the scope of each stage of the consultation process and the issues raised is set out below.

Early Stage Consultation, March 2014

3. The three local authorities invited comment from selected stakeholders, primarily neighbouring local authorities, on the proposed methodology for assessing objectively assessed housing need (OAHN) and Wessex Economics' analysis of the market area.
4. A stakeholder event was held on 25th March 2014 which was attended by 40 individuals from a mix of organisations including local authority officers, Councillors, house builders and their representatives and registered providers.
5. This summary does not attempt to cover all of the issues raised by stakeholders in detail but draws out some of the common themes and concerns. Where possible, we have attempted to pick up and address these points in the document.
6. Key feedback from stakeholders on the emerging evidence in the SHMA can be summarised in headline form as follows:
 - Concerns about the **market area** identified: some stakeholders highlighted the links between the three authorities and other neighbouring authorities and questioned how these links would be taken into account given that the SHMA focuses on Hart, Rushmoor and Surrey Heath. The challenges of planning without a county or regional oversight were acknowledged. It was suggested that the local economic partnership might provide some oversight, though its resources and powers in this respect were limited.
 - This linked to calls for the need for **cross boundary working** between the three authorities in the housing market area but also with local authorities in neighbouring SHMAs. The difficulties of planning without a South East Plan (and an overview of housing required at this level) and that different local authorities were on different timetables was highlighted as a real challenge.
 - There were some questions about how **London's housing needs** had been taken into account and the moves made by the Mayor of London to have discussions with London fringe authorities about taking London's 'overspill'.
 - **Objectively Assessed Housing Need:** stakeholders broadly accepted the **methodology** used to identify OAHN, though there was significant scepticism about the **employment forecasts** for 2011-2031 and therefore the level of housing required to expand the labour force. One particular point was that no allowance had been made for any downturn/recession over a 20 year period. There

was some concern that other SHMAs were using similar forecasts and these were being accepted nationally and that perhaps there was risk in identifying a level of housing provision which did not meet these forecasts in full. Overall, it was felt that more explanation of the limitations of forecasts was needed and explanation of the dynamics of the labour market to adjust to job growth.

- **Affordable Housing:** there was discussion about the methodology and how this compared to previous HNAs. It was noted by some stakeholders that the affordable housing needs identified were lower than in previous assessments. There was some concern that perhaps Surrey Heath's waiting list was 'missing' some households that might be in need due to the approach taken to discourage applications from households who do not meet priority need criteria or could meet their own needs in the market. Some stakeholders pointed to the emphasis on the need for subsidised rented housing and argued the need for intermediate housing – and the fact that developers would like to deliver this.
- **Older People:** there were a range of issues raised in relation to the accommodation needs of older people. Questions were raised about the scale of needs from this group in terms of overall housing supply and the extent of need/demand for older person specific housing. Suggestions were made about accessing County data on older person accommodation needs. It was also suggested that older person housing, specifically extra care accommodation, was a growth market and a more popular form of development at present because of the lack of affordable housing required in these schemes.
- A range of points were made about **the changing policy context:** these included the Government's review of **housing standards** and linked to this, whether the three authorities should be requiring greater levels of Lifetime homes to be built. There was also a review into local authorities' role in increasing housing supply. Questions were asked about how the local authorities were taking **custom builders/self-builders** into account in their policies. This was also an area where the policy context was changing with announcements made in the 2014 Budget the week before the stakeholder event. **Welfare reform** was also a key concern, particularly among the Registered Providers at the stakeholder event. They cited difficulties in building larger properties because of the benefit cap and concerns about affordability.
- **Policy Implications:** stakeholders considered some of the implications of the evidence for policy. A key concern was how the three local authorities and other neighbouring authorities would join up to plan for housing (and other requirements). Stakeholders acknowledged the political difficulties around this challenge and specifically the likely difficulty in agreeing a **distribution of housing requirements** between the three authorities. Some questioned whether there would be any review of Rushmoor and Surrey Heath's housing requirements given that they already have **adopted Core Strategies**. Stakeholders raised the issue of local **constraints** on house building, particularly the Special Protection Area. There was also discussion about how the SPA, in limiting past house building, had fed into the demographic projections by constraining population and household growth.

Consultation on the Draft SHMA, May 2014

7. A Consultation Draft of the Strategic Housing Market Assessment was published in May 2014 and made available publicly for comment. Responses were received from nine different organisations or individuals, though respondents varied greatly in the scope of their comments. This Appendix highlights the key issues that were raised by respondents; Wessex Economics' observations on those comments; and the amendments or additional material added in response to comments made.
8. Comments on the Consultation Draft of the SHMA were received from the following organisations:
 - NLP on behalf of Berkeley Strategic
 - Barton Willmore on behalf of Martin Grant Homes
 - Gleeson
 - Runnymede Borough Council
 - Waverley Borough Council
 - Woking Borough Council
 - Basingstoke and Deane Borough Council
 - Rushmoor Borough Councillor
 - The Yateley Society
9. There are two responses that raise a number of methodological issues (from NLP and Barton Willmore). Often the other responses raise similar issues as those raised by NLP or Barton Willmore, though some raise additional points of substance.
10. Rather than respond to each individual submission, this Appendix identifies the key issue raised by respondents, sets out Wessex Economics' response to the point being raised; and identifies what, if any, action has been taken to address the point being made.
11. Wessex Economics have categorised the points being made by respondents to the consultation under five headings, and these are considered in turn:
 - The methodology for demographic projection
 - The economic scenarios
 - The assessment of affordable housing requirements
 - Market signals
 - Other issues

The Methodology for Demographic Projections

12. NLP express concern in the commentary that only a limited number of demographic scenarios have been tested, suggesting that alternative scenarios should have been undertaken to '*sense test*' the modelling based on the ONS 2011-based interim Population Projections and linked CLG Household Projections.
13. The National Planning Policy Guidance is very clear that modelling undertaken for SHMA purposes should be '*proportionate*'. The Guidance does not state that multiple scenarios should be run. As a

matter of fact six different population projections have been undertaken (subsequently increased to seven variant population projections).

14. NPPG makes it very clear that the starting point for the objective assessment of housing need is the most recent Government Population and Household Projections. At the time the Consultation Draft SHMA was prepared, the most up to date Government projections were the 2011-based interim Population and Household Projections. These projections were updated in the light of data published since their release and variants based on changing assumptions about the rate of household formation made.
15. The 2012 ONS Sub-National Population Projections were issued on 29th May 2014, after the Consultation draft SHMA was issued. However, these new projections are clearly relevant to the study, both because they are more up-to-date than the 2011-based Interim Population Projections, and cover the period to 2031 (the end date for the assessment) and beyond. Therefore, Wessex Economics have prepared demographic scenarios based on the 2012-based SNPP. These are presented in Appendix G of the final report.
16. In response to the call for more demographic scenarios, three additional demographic scenarios are presented in Appendix G, examining different time frames in terms of migration and using the 2010 SNPP as the starting point. All of these alternative scenarios generate a lower demographically driven housing requirement than that presented in the SHMA.
17. A final additional scenario was tested in response to consultees' comments. This is based on the assumption of a return to the Headship Rates embedded in the CLG 2008-based household projections. This scenario, also presented in Appendix G, generates a higher demographically driven requirement than identified in the SHMA, but still generates a requirement for housing below the Objectively Assessed Housing Need recommended in the SHMA.

The Economic Scenarios

18. The consultation responses from NLP, Barton Willmore and Gleeson maintain that Scenario 3 set out in Section 7 of the Consultation Draft SHMA should be used at the basis for planning for new homes in the Housing Market Area.
19. The NPPG clearly states first *that 'establishing future need for housing is not an exact science' (p8); and that 'plan makers should make an assessment of the likely change in job numbers based on past trends and/or economic forecasts as appropriate and having regard to the growth of working age population on the housing market area.'*
20. Wessex Economics decided that it was appropriate to take into account both past trends and economic forecasts, rather than solely relying on either the evidence of past trends or economic forecasts, which when extended out over a 17-year period are associated with high levels of uncertainty. Wessex Economics have come to a balanced judgement of the level of employment growth that it is appropriate to plan for, a level which is ambitious in terms of past trends before the economic downturn, and recognising the inherent uncertainties of economic forecasting techniques.
21. The rationale for the assumed level of employment growth in the HMA is fully set out in Section 7 of the SHMA.

22. Basingstoke and Deane Borough Council commented that the implied ratio of workers used in the SHMA looks unrealistic given the ageing of the resident population. Wessex Economics are aware that the ratio of workers to homes can be quite variable between areas. This will reflect variant age profiles, economic activity rates and commuting patterns. In view of this, no amendment has been made to the report.

The Assessment of Affordable Housing Requirements

23. Consultees raised a number of issues surrounding the methodology for the assessment of housing need. One specific issue has been the interpretation of guidance requiring the assessment to identify gross newly arising need. Wessex Economics have investigated the issue further, and accepted the need for a change in the modelling of affordable housing need. The final SHMA is based on the revised analysis.
24. Some consultees argue that the identified requirement for affordable housing should be delivered in the first five years of the plan period. There is no reference in Government Guidance to a requirement to meet all the backlog of affordable housing need in the first five years of the plan period, and to make this a requirement would very likely result in the Plan being deemed undeliverable.
25. A full explanation of why it is sensible to plan to meet the backlog of housing need over the plan period is set out in the revised Section 8 of the SHMA.
26. One consultee commented that the assessment of housing need in the Consultation Draft SHMA does not identify the demand for intermediate housing, and excluded from the assessment of housing need households that can afford to rent in the open market.
27. The revised Section 8 of the report addresses more fully than the Consultation Draft SHMA the nature of demand for intermediate housing and its incorporation into policy for affordable housing.

Market Signals

28. Some consultees made the case that additional analysis should be included in terms of market signals, with specific mention of the need to add additional analysis around historic delivery rates, homelessness and overcrowding. Wessex Economics have reviewed the data presented on market signals and added to the analysis in the relevant sections of the report.
29. Consultees also suggested that market signals have not been used to boost the OAHN above those required based on the demographic projections. Wessex Economics do not see any need to make this specific adjustment since the OAHN recommended in the SHMA is substantially higher than that required, based on the demographic projections. This reflects the upward adjustment over and above demographically driven housing need to accommodate higher than trend employment growth.

Other Issues

30. One consultee indicated that there was a need to acknowledge that London would be unable to accommodate its housing needs in future. Wessex Economics do not regard unmet need arising from London as something that should be included in arriving at the Objectively Assessed Housing Need for the Hart, Rushmoor, Surrey Heath Housing Market Area. The demographic projections already take into account patterns of migration between London and the HMA.

-
31. A different consultee argued that the market area for the SHMA should have included Waverley and Guildford Borough. The SHMA sets out the basis for the three authorities of Hart, Rushmoor and Surrey Heath working together in preparing an SHMA, and demonstrates the weaker ties with Guildford and Waverley. The authorities, however, recognise the important linkages with both these authorities and the particular importance of working with these authorities under their Duty to Co-operate obligation.

Appendix B: The Housing Market Area

1. This section brings together the evidence on the geography of the housing market that relates to Hart, Rushmoor and Surrey Heath. This appendix is based on the research undertaken by Wessex Economics for each of the three Councils in advance of the Strategic Housing Market Assessment being commissioned. This Appendix summarises the findings of these studies.
2. Subsequently additional analysis has been undertaken that is relevant to the definition of the market area using the 2011 Census data on travel to work patterns and household movements in the year prior to Census Day 2011. This additional analysis is included in Section 2 of the SHMA, with further detail in Appendices 3 and 4. Separate studies have also been undertaken by Hart and Surrey Heath Councils to define their functional economic area.
3. Identifying the geography of the housing market is the first step in undertaking a strategic housing market assessment for the following reasons:
 - It is critical if housing and economic policies are to be effective since it is only possible to start to address housing demands and needs if measures are taken across the meaningful geographies of housing and labour markets.
 - There is a policy requirement to identify needs and demands in the housing market area. There is also a *'duty to cooperate'* in strategic planning.
 - To identify any implications for the rest of the analysis in the SHMA – particularly in terms of demographic and economic changes which are reflected in migration and travel to work patterns.
4. The rationale for developing an evidence base for a housing market area and then developing policies which apply to this area is that these policies are likely to be more effective because they take account of economic and social realities.
5. The importance of these functional relationships is now reflected in policy. The National Planning Policy Framework (NPPF)¹ states *'local planning authorities should have a clear understanding of housing needs in their area. They should (first of 2 bullet points) prepare a Strategic Housing Market Assessment to assess their full housing needs, working with neighbouring authorities where housing market areas cross administrative boundaries'* (Para 159).
6. The NPPF also states that local authorities should meet *'the full, objectively assessed needs for market and affordable housing in **the housing market area**'* (para 47) (Wessex Economics emphasis). Implicitly this indicates that, if a housing market area covers more than one authority, the planning authorities for that area have collectively to agree how the full, objectively assessed needs for housing will be distributed across that area.
7. This emphasis on the need to work together in planning how to meet housing demand and need is reinforced by Section 110 of the Localism Act. This places on all local authorities, and a number of other public bodies, a *'Duty to Co-operate'*. A brief summary of what the Duty to Co-operate means for

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Councils is presented in Figure 1. This shows that the Duty to Co-operate particularly applies to strategic plan making.

8. It is evident in examinations of Core Strategies and Local Plans that the Planning Inspectorate are scrutinising whether the evidence base used in plan making is up-to-date and robust; and whether local authorities have fulfilled the Duty to Co-operate. In many cases, Inspectors are also expecting authorities to show how any planned shortfall in housing requirements in one authority will be met within the market area by other authorities.

Figure 1: The Duty to Co-operate

What does the new duty to co-operate mean for Councils?

The new duty:

- relates to sustainable development or use of land that would have a significant impact on at least two local planning areas or on a planning matter that falls within the remit of a county council
- requires that councils set out planning policies to address such issues
- requires that councils and public bodies *'engage constructively, actively and on an on-going basis'* to develop strategic policies
- requires councils to consider joint approaches to plan making.

Paragraph 156 of the NPPF sets out the strategic issues where co-operation might be appropriate (summarised under Q2).

Paragraphs 178-181 of the NPPF give further guidance on *'planning strategically across local boundaries'*, and highlight the importance of joint working to meet development requirements that cannot be wholly met within a single local planning area, through either joint planning policies or informal strategies such as infrastructure and investment plans.

From: A Simple Guide to Strategic Planning and the Duty to Co-operate

<http://www.pas.gov.uk/pas/core/page.do?pagelId=2133454#contents-5>

9. The guidance is clear that local authorities should work together to undertake combined SHMAs for well-defined housing market areas. Across much of the country it is relatively easy to define sub-regional housing market areas, based on the pattern of major cities and rural hinterlands. But it is recognised that in London, housing markets overlap to the extent that it is not possible to define clearly distinct geographic sub-markets. Sub-markets in these areas overlap and merge.
10. Much the same issues arise in the London commuter belt, the area outside the administrative boundaries of London that form part of the London Travel to Work Area². The London commuter belt consists of an area with high levels of connectivity not just radially into/out of London, but also laterally between with the adjacent areas that encircle London. This means that housing markets have a

² The report *London in its Regional Setting*, London Assembly, 2004, discusses the relationship of London to the commuter belt outside London's administrative boundaries

tendency to overlap. Defining housing market areas in the commuter belt is less easy than elsewhere in the country. This applies to much of the West Surrey and part of North Hampshire.

11. There also needs to be an element of pragmatism. The complexity of completing a SHMA on time to a standard that meets all clients' expectations increases as the number of authorities participating in an SHMA increases. When determining the area for which a SHMA should be undertaken it is important to seek to distil which of the authorities in an area it is most important to work with; and which are of less importance to work with because they are less tightly tied into the relevant market area.
12. This Appendix sets out the evidence on the geography of the housing market that relates to the three authorities and the implications this has for the SHMA and for the key task of identifying objectively assessed need. It considers:
 - evidence from the existing research on the housing and labour markets that relate to the three authority areas
 - evidence on housing markets based on migration patterns to and from each of the local authorities
 - evidence on housing and labour markets based on travel to work patterns relating to each of the three authorities.

The Geography of Hart, Rushmoor and Surrey Heath

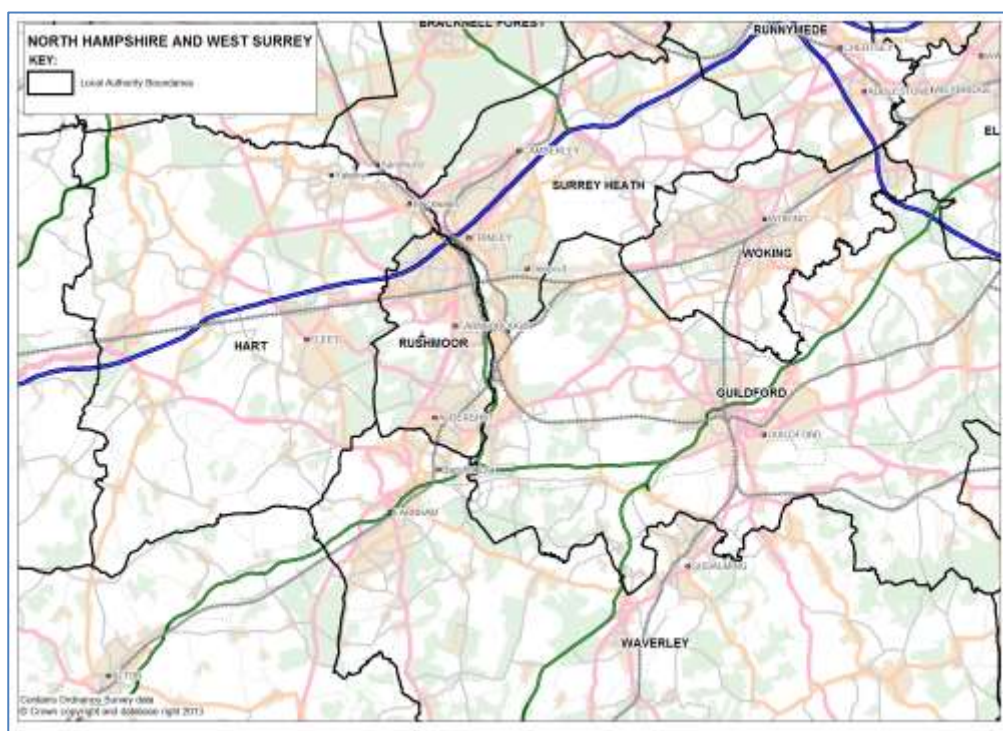
The Blackwater Valley

13. Rushmoor has a population of 94,900 people³, virtually all of whom live in two large urban areas, Aldershot and Farnborough. These two towns, however, form part of a larger functional urban area often referred to as the Blackwater Valley (see Annex 1).
14. Hart has a population of 92,200 people. Hart is a predominately rural district within North Hampshire although around half the population live within the two largest towns - Fleet (population of around 32,000) and Yateley (population around 21,000). The district as a whole is bisected by the M3 motorway.
15. Surrey Heath has a population of 86,600. The largest town is Camberley, with a population of around 31,000, followed by Frimley with around 13,000 people.
16. With the exception of Hook in Hart District, the majority of the population of the three authorities live within the urban area commonly referred to as the Blackwater Valley (see Annex 1).
17. The Blackwater Valley is a rather wider area than the Farnborough-Aldershot urban area defined by the Office for National Statistics (see Annex 2). The Farnborough-Aldershot urban area has a population of over a quarter of a million people (252,000), which makes it the 29th largest urban area in England and Wales. Fleet, which is not included in the Farnborough-Aldershot urban area, has a population of 32,000 people.
18. The Blackwater Valley area includes the following settlements (local authority in brackets):

³ ONS 2012 Mid Year Population Estimates

-
- Aldershot (Rushmoor)
 - Farnborough (Rushmoor)
 - Camberley (Surrey Heath)
 - Frimley (Surrey Heath)
 - Fleet (Hart)
 - Church Crookham (Hart)
 - Blackwater (Hart)
 - Yateley (Hart)
 - Sandhurst (Bracknell Forest)
 - Badshot Lea (Waverley)
 - Farnham (Waverley)
19. The smaller settlements of Ash, Ash Valley and Tongham (Guildford Borough), Frimley Green, Mytchett and Deepcut (Surrey Heath), Frogmore (Hart) and Hale (Waverley) are included in the area. The town of Fleet is recognised to be part of the Blackwater Valley urban area, but is not included in the ONS defined Farnborough-Aldershot urban area, because of the strategic gap that the planning authorities have maintained between the settlements. (The ONS define urban areas as areas of continuous and contiguous urban development).
20. Figure 2 shows the general context of the area in terms of settlements and key road networks. Essentially the M3 runs through the northern part of the area, and the A31 through the south of the area, the two being connected by the dual A331 route. Rail routes run through the area along the M3 corridor (Southampton to London Waterloo), from Farnham to London Waterloo, with rail connections through the area on the Reading to Guildford and Gatwick line.

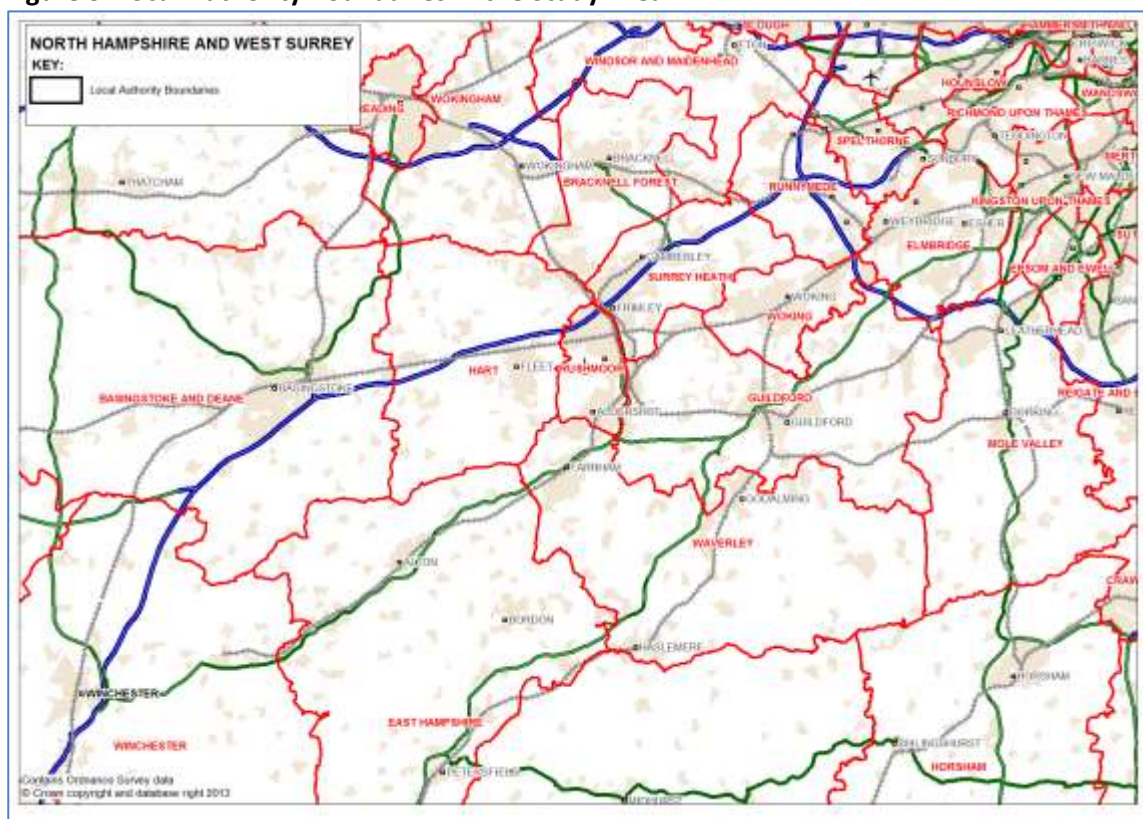
Figure 2: The Geography of the Blackwater Valley Conurbation



Source: Wessex Economics

21. The administrative areas of the local authorities in the area do not conform in any logical way to the urban area of the Blackwater Valley (see Figure 3). Rushmoor is wholly within the Blackwater Valley area but only accounts for somewhat over a third of the population. The largest population settlements in Surrey Heath, Camberley and Frimley, are part of the Blackwater Valley area. If taken together Fleet, Yateley and Blackwater account for over half of the population of Hart District. **Each of these three authorities, Rushmoor, Surrey Heath and Hart have a strong interest in working together since more than half of their resident population lives in the Blackwater Valley.**
22. In contrast, those parts of the Blackwater Valley area that are within Guildford Borough and Bracknell Forest account for a very small part of the total population of the respective local authority areas. Thus, Guildford and Bracknell Forest Councils can be expected to have relatively less interest in the overall planning of the Blackwater Valley, than Rushmoor, Surrey Heath and Hart. Just under a third (32%) of the population of Waverley Borough live in Farnham and the immediately adjoining settlements. So whilst over two thirds of the population of the Borough live outside of the Blackwater Valley, Waverley Council is likely to take a key interest in the planning of the Blackwater Valley.
23. The geography of each local authority needs to be borne in mind throughout this Appendix, particularly in the interpretation of migration and travel to work statistics because these are presented for the local authority as a whole. For example, though Ash Vale (in Guildford Borough) is very much part of the Blackwater Valley housing and labour market, there is likely to be less connection in terms of household migration between Guildford town, the main centre of population in Guildford Borough, and the Blackwater Valley.

Figure 3: Local Authority Boundaries in the Study Area



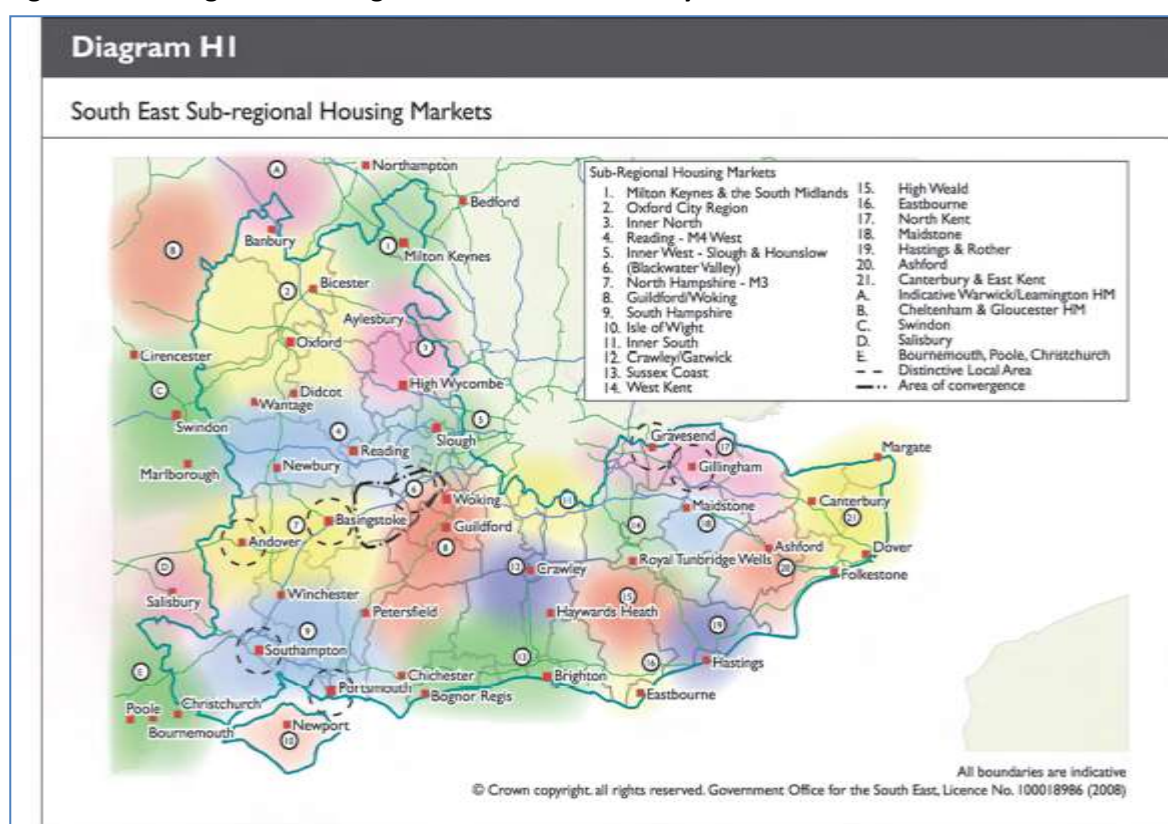
Source: Wessex Economics

Housing Market Areas Identified in Previous Research

24. In 2004 the South East Regional Assembly commissioned DTZ Pieda Consulting to prepare a report on *Identifying the Local Housing Markets of South East England* (DTZ Pieda Consulting, 2004).
25. The DTZ study undertook detailed analysis of household migration and travel to work data from the 2001 Census. The patterns that emerged from mapping these data clearly identified the foci of migration movements and employment hubs. These were used to identify housing markets; these were sense checked through a process of consultation with local authorities and other interested parties.
26. Having identified housing markets, the report then identified which local authorities should work together on SHMAs. It is important to note that there was a degree of pragmatism in the recommendations made regarding which authorities should work together.
27. Figure 4 shows the pattern of housing markets identified in the 2004 study. Across much of the South East the commissioning of SHMAs has broadly followed the pattern identified in the report. The pattern of housing markets identified played an important part in the development of strategic planning policy across the South East of England and was subsequently incorporated into the South East Plan (GOSE/South East Regional Assembly, 2009). The South East Plan highlighted the importance of joint working in the production of joint strategic housing market assessments.

28. The 2004 study made it clear that the Blackwater Valley did not fit the pattern across the South East of fairly clearly defined sub-regional markets. Instead the Blackwater Valley was identified as an '*area of convergence*'. This term was used to identify a distinct area where a number of housing markets overlapped, notably the Guildford/Woking, North Hampshire/M3, and Reading/M4 West markets.
29. **Thus, the 2004 analysis identified the Blackwater Valley and the immediately surrounding areas as the part of the South East with the most complex housing market geography. It was recommended that it would be appropriate to undertake a SHMA for this area in its own right because of its distinct characteristics, and the fact that it would not be easily incorporated into a SHMA undertaken for any one of the surrounding areas which have better defined market areas.**

Figure 4: Sub-Regional Housing Markets DTZ Pieda Study and South East Plan



Source: South East Plan

30. Since the 2004 report was produced, ONS have published Travel to Work Area maps based on analysis of 2001 Census data. To some degree the boundaries of TTWA and Strategic Market Areas can be expected to be similar, in that TTWAs are defined as being the smallest areas within which two thirds of the working population both live and work (66.7% self-containment).
31. Figure 5 puts the Blackwater Valley at the geographic centre of a very large Guildford and Aldershot travel to work area covering North Hampshire and West Surrey, but with most of Elmbridge and much of Spelthorne falling within the London TTWA. Broadly those areas within the M25 fall into the London TTWA rather than the Guildford and Aldershot TTWA. Logically the closer a settlement is to London the greater will be the bias in travel to work patterns to be orientated to London.

35. In particular the research team states that *‘we expect longer distance commuters to define the boundaries of housing market areas.....longer distance commuters determine the area within which houses are substitutable for each other, whilst providing access to the same employment opportunities.’* The research team also investigated patterns of self-containment based on migration patterns; and how house price data might be used to inform the selection of housing market areas. However, the research team concluded that while price patterns should reflect market geographies, the data required for such an analysis this made the approach impractical.
36. The report concludes *‘there are no easy answers to the definition of housing market areas given both theoretical and practical challenges. Indeed it is not possible to have a uniquely ‘right’ answer – rather it is important to go for the most appropriate self-contained set of areas. The key task is to generate a widely acceptable geography in a transparent way, using consistent criteria.’*
37. The report suggests that conceptually the best way to think about housing markets is as a nested geography comprising three tiers, as follows:
- framework housing market areas, defined by a high level of commuting closure (77.5 per cent self-containment)
 - local housing market areas, defined by migration patterns (50 per cent self-containment)
 - sub-markets, defined by neighbourhood or house type

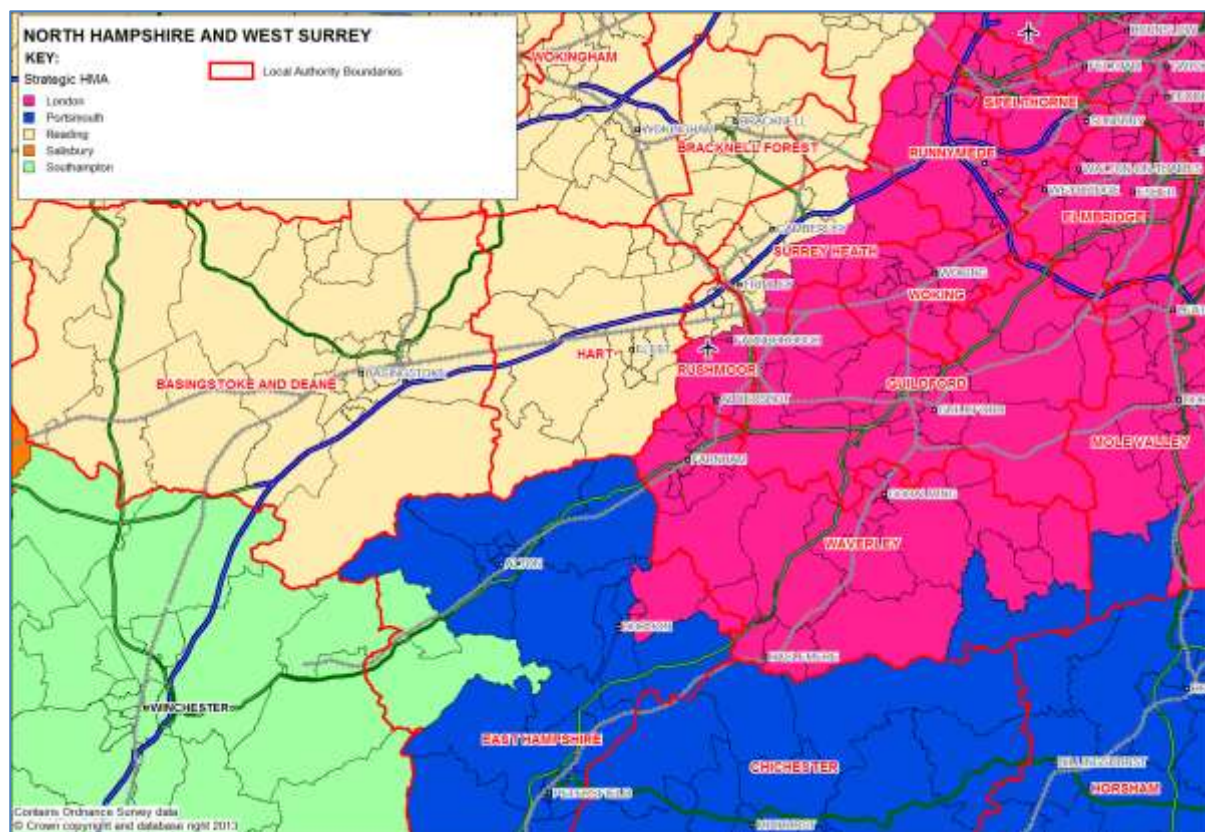
Mapping the NHPAU HMAs in North Hampshire and West Surrey

38. The maps published in the suite of reports on the CLG website are not at a scale that can show precisely where the boundaries of the different tiers and types of housing market fall at local level. Wessex Economics has therefore accessed the ward level data made available on the University of Newcastle’s website⁶ and mapped these using GIS. These are shown below in Figures 6, 7 and 8.
39. To avoid the rather confusing terminology used in the NHPAU report, this Appendix refers to the three different market areas that have been mapped as follows:
- Strategic Housing Market Areas (these being the framework housing market areas, defined by a high level of commuting closure (77.5 per cent self-containment))
 - Local Housing Market Areas (these being the areas that nest within the Strategic Housing Market Areas, and by definition cover a smaller geography)
 - Sub-Regional Housing Market Areas (being the single tier housing market areas identified in the NHPAU reports).
40. Figure 7 shows how the Strategic HMA maps onto the geography of the area covered by Hart, Rushmoor and Surrey Heath councils. This indicates that all of the West Surrey authorities fall into the huge London Strategic Housing Market Area. Rushmoor is divided, with Aldershot defined as being part of the London Strategic HMA, and Farnborough as part of the extensive Strategic Reading HMA. Hart falls in the Strategic Reading HMA, as does Basingstoke and Deane. Where Strategic HMA boundaries cut

⁶ <http://www.ncl.ac.uk/curds/research/defining/NHPAU.htm>

across an individual local authority's boundary the NHPAU research team allocated each authority to a particular Strategic HMA. Rushmoor is allocated to the London HMA, while Hart, Surrey Heath and Basingstoke and Deane (along with Wokingham, Bracknell Forest and many others) are allocated to the Reading Strategic HMA.

Figure 6: Strategic Housing Market Areas (NHPAU) in North Hampshire and West Surrey

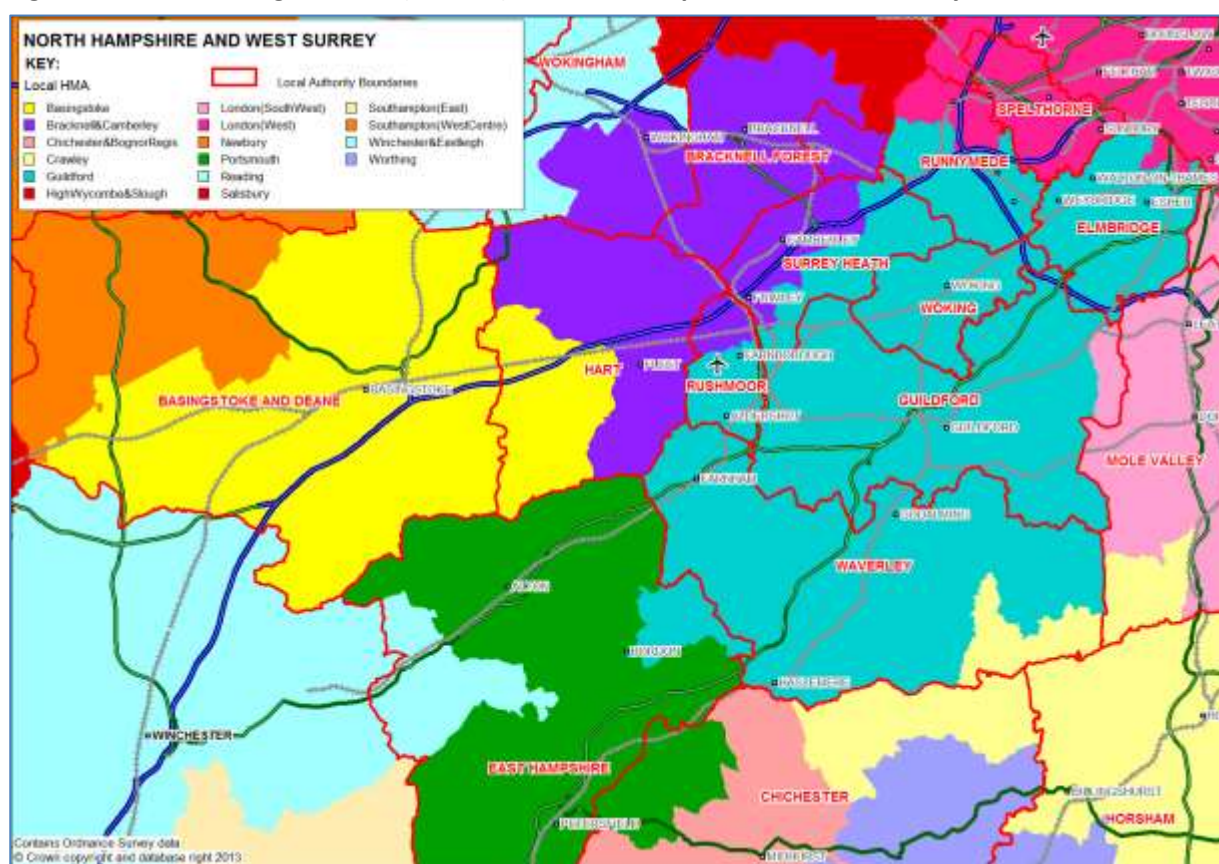


Source: Newcastle University (CURDS), Wessex Economics

41. Figure 7 maps the Local HMAs which nest within the Strategic HMAs shown in Figure 6. This shows that the three authorities considered in this study are all split between two Local HMAs.

- The main urban settlements of Hart are part of the Bracknell Local Market, which forms part of the Reading Strategic HMA. The more rural part of Hart is included in the Basingstoke Local HMA, which is also part of Reading Strategic HMA.
- The northern part of Rushmoor is placed in the Bracknell local market which forms part of the Reading Strategic HMA, with the south of Rushmoor Borough in the Guildford Local HMA, which is part of the London Strategic HMA.
- The northern half of Surrey Heath is also placed into the Bracknell Local HMA, with the southern part in Guildford Local HMA, which is part of the London Strategic HMA.
- The Guildford Local HMA includes all or the great majority of 5 authorities (Guildford, Woking, Waverley, Elmbridge and Runnymede), plus parts of three more (Rushmoor, Surrey Heath and East Hampshire).

Figure 7: Local Housing Markets (NHPAU) in North Hampshire and West Surrey

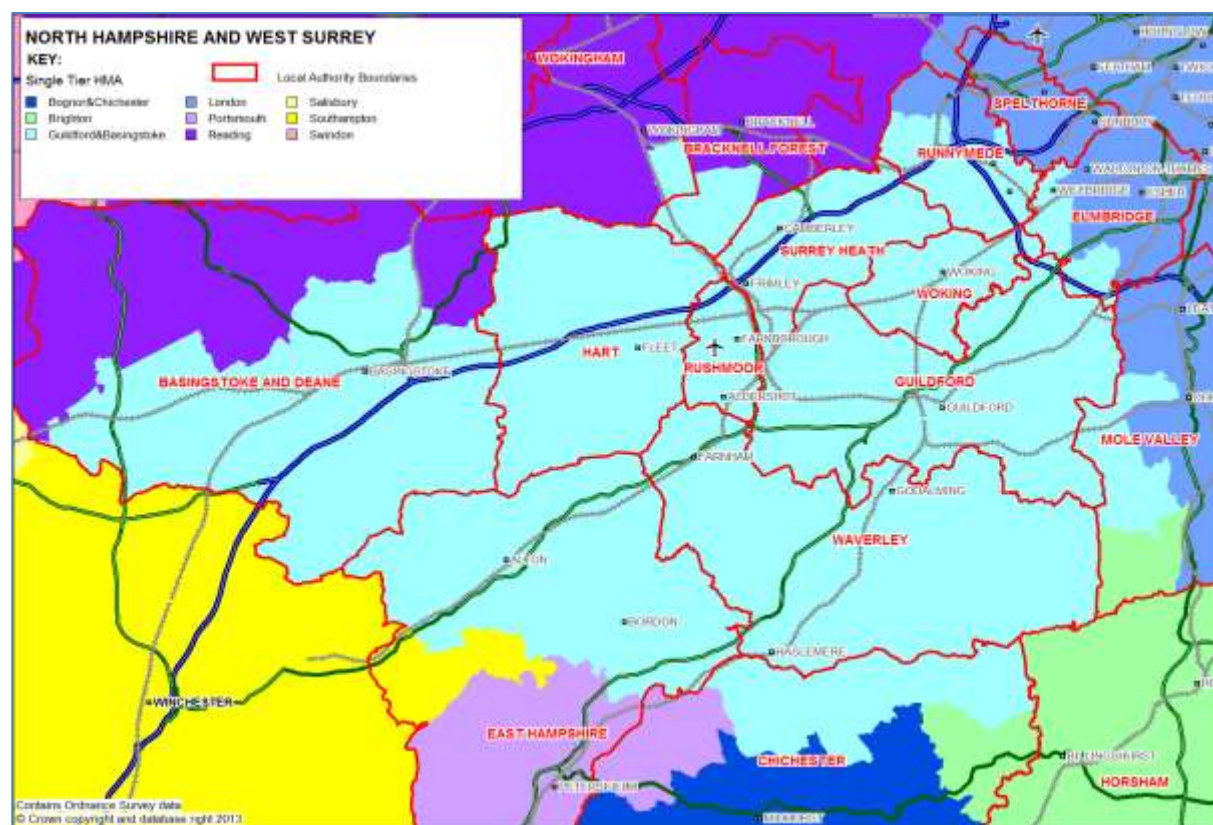


Source: Newcastle University (CURDS), Wessex Economics

42. Figure 8 shows the boundaries of the Sub-Regional HMA (the 'unitary' HMA structure developed by the NHPAU team). A single Guildford/Basingstoke Sub-Regional HMA covers the great majority of West Surrey and North Hampshire. Virtually all of the authorities in West Surrey except Spelthorne and Elmbridge fall into this area, along with Hart, Rushmoor, Surrey Heath, much of Basingstoke and Deane (including Basingstoke itself) and the northern part of East Hampshire. The parts of the area that fall into Chichester District and Mole Valley are not material considerations since they do not contain the majority of the population of those Districts. Small but populated parts of Bracknell Forest and Wokingham fall within this market area.
43. In the allocation of local authorities to this Sub-Regional HMA, the NHPAU team places the following authorities in the single tier North Hampshire and West Surrey HMA:
- Basingstoke and Deane
 - East Hampshire
 - Hart
 - Rushmoor
 - Guildford
 - Runnymede
 - Surrey Heath

- Waverley
- Woking

Figure 8: Sub-Regional HMAs in North Hampshire and West Surrey



Source: Newcastle University (CURDS), Wessex Economics

The Implications for Hart, Rushmoor and Surrey Heath

44. In commenting on the NHPAU reports it is worth noting that the analysis undertaken is based on 2001 Census data. The mapping confirms the conclusion reached by the 2004 DTZ Study that shows that Rushmoor sits at a point of intersection between housing markets – with the two tier structure of HMAs putting Farnborough and Aldershot in different market areas. Similarly Hart and Surrey Heath are divided between two different Strategic HMAs. This highlights the problem of hard and fast boundaries, and is why the 2004 DTZ study deliberately used fuzzy boundaries.
45. The Strategic, Local and Sub-Regional HMAs give different conclusions – which is itself evidence of the degree to which housing markets overlap and merge into each other.
 - Hart – in the Strategic Reading HMA, but in the Sub-Regional North Hampshire - West Surrey HMA (rather than the Sub-Regional Reading HMA)
 - Surrey Heath – in the Strategic Reading HMA, but in the Sub-Regional North Hampshire - West Surrey HMA
 - Basingstoke and Deane – in the Strategic Reading HMA, but included in the Sub-Regional North Hampshire - West Surrey HMA

- East Hampshire – in the Strategic Portsmouth HMA but in the Sub-Regional North Hampshire - West Surrey HMA
 - Elmbridge – in the Local Guildford HMA, but not in the Sub-Regional North Hampshire - West Surrey HMA
 - Runnymede – in the Sub-Regional North Hampshire - West Surrey HMA and in the Guildford Local HMA.
46. **Wessex Economics appreciates that this analysis presents a confusing picture. When the practicalities of commissioning and co-ordinating a joint SHMA are taken into consideration, Wessex Economics are of the firm opinion that none of the above definitions of market areas are very helpful.** A SHMA undertaken for the Strategic London HMA would be a huge task involving over 70 authorities. Even a SHMA undertaken for those authorities in West Surrey and North Hampshire that fall into the Strategic London SHMA would involve 7 authorities, too large in Wessex Economics' view for effective project management. Similarly, undertaking a SHMA for the Sub-Regional North Hampshire - West Surrey HMA, would involve 9 authorities.
47. It is therefore the Local HMA that provides the best basis for what might be a sensible geography in terms of the options provided by the NHPAU for a joint SHMA. The NHPAU team do not identify the specific authorities that would make up this this area, but the Guildford Local HMA would involve at least 5 authorities: Waverley, Guildford, Woking, Elmbridge and Runnymede. Rushmoor falls half within this Local HMA and half in the Bracknell Forest Local HMA. Hart and Surrey Heath are also divided, though the main population centres in both authorities are located, along with Farnborough in Rushmoor to the Bracknell Forest Local HMA.
48. **The NHPAU does not therefore provide an unequivocal answer of which authorities in this area should work with in terms of a joint SHMA. However, further analysis set out in the following sections of this Appendix support the particular importance of Hart, Rushmoor and Surrey Heath working together, and is the reason why these three authorities have chosen to work together in preparing a joint SHMA.** This analysis examined the linkages between the three authorities and their other neighbouring authorities, with a focus on more recent data than that used by the NHPAU team or by the 2004 DTZ study.

Migration between Local Authorities in North Hampshire – West Surrey

49. The previous section examined analyses of housing market areas based on analysis of 2001 Census data. 2011 Census data are not yet published on household movements or travel to work patterns. However, more up to date data is available on migration between local authorities than the 2001 Census. This section examines the pattern of such movements between the authorities in the study area. Data relates to the number of moves between individual authorities in the year to July 2012. Data is sourced from the ONS.⁷ 2011 Census data on migration subsequently released is presented in Appendix C.
50. Figures 9 and 10 show the pattern of migration between Hart, Rushmoor and Surrey Heath and the other authorities in the surrounding area. In terms of total movements:

⁷ <http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc25/index.html>

- Between Rushmoor and the other authorities the largest number of movements are between Rushmoor and Hart (1,270 moves), followed by Guildford (1,120 moves), Surrey Heath (950), and Waverley (800).
 - Between Hart and the other authorities the largest number of movements are between Hart and Rushmoor (1,270 moves), followed by Basingstoke and Deane (830), Bracknell Forest (570) then Surrey Heath (500).
 - Between Surrey Heath and the other authorities the largest number of movements are between Surrey Heath and Rushmoor (950 moves), followed by Woking (760) and Guildford (560), closely followed by Bracknell Forest (550) and Hart (500).
51. The analysis indicates that in order of significance in terms of migration, judged by the overall **volume** of movements to and from the authorities, Rushmoor has the strongest relationships with Hart and Guildford, followed by Surrey Heath, then Waverley.
 52. Hart is most closely linked to Rushmoor, followed by Basingstoke and Deane. The next most important linkages are with Surrey Heath and Bracknell Forest.
 53. Surrey Heath is most closely linked to Rushmoor and Woking – the two large neighbouring urban centres. These two authorities account for the largest volume of movements to and from Surrey Heath. The next most important linkages are with Guildford, Bracknell Forest, Runnymede and Hart.
 54. It is relevant to note, since the SHMA undertaken by The Royal Borough of Windsor and Maidenhead identifies Surrey Heath as part of the RBWM market area, that the volume of migration to and from the RBWM and Surrey Heath is much less significant than with other authorities.⁸ The overall volume of movements in 2012 was 320 (ranking 7th in the overall volume of movements with Surrey Heath).
 55. Figure 9 examines the pattern of in-migration to the study authorities from neighbouring authorities in the study area. To read the table, identify which of the authorities you are interested in and find it in the column headings; then read the figures downwards in that column to find how many people moved into that authority from other authorities in the study area. Thus, 700 people in the year to July 2012 moved into Hart from Rushmoor; and 430 people moved into Surrey Heath from Rushmoor. The five largest migration flows for each authority are highlighted in yellow. This figure helps to identify which of the authorities are most closely tied to each other in terms of migration flows.

⁸ <http://consult.rbwm.gov.uk/portal/blp/poan2014/blppo?tab=files>

Figure 9: In-Migration to Core Authorities from Study Area Authorities, Year to July 2012

| From Sending Authority | To Receiving authority | | | | | |
|---------------------------------------|---------------------------|------|--------------|-----------|--------|----------|
| | Rushmoor | Hart | Surrey Heath | Guildford | Woking | Waverley |
| Rushmoor | | 700 | 430 | 500 | 80 | 400 |
| Hart | 570 | | 190 | 120 | 30 | 150 |
| Surrey Heath | 520 | 310 | | 280 | 250 | 120 |
| Guildford | 620 | 190 | 280 | | 460 | 1050 |
| Woking | 120 | 60 | 510 | 590 | | 170 |
| Waverley | 400 | 240 | 120 | 880 | 110 | |
| Bracknell Forest | 140 | 280 | 290 | 80 | | 40 |
| Runnymede | 60 | 50 | 250 | 100 | 410 | 60 |
| Elmbridge | 40 | 50 | 100 | 430 | 420 | 220 |
| Mole Valley | | | 30 | 310 | 60 | 120 |
| Horsham | | | | 60 | 30 | 110 |
| Chichester | 30 | 30 | | 90 | 20 | 260 |
| East Hants | 100 | 90 | 40 | 120 | | 430 |
| Basingstoke and Deane | 90 | 370 | 50 | 70 | 40 | 30 |
| Wokingham | 60 | 210 | 80 | 70 | | 40 |
| Royal Borough of Windsor & Maidenhead | 140 | 60 | 200 | 50 | 60 | 60 |

Source: ONS

56. Figure 10 is presented in the same format as Figure 9 but shows the pattern of out-migration from the authorities to the other authorities in the wider area. Thus, in the year to July 2012 620 people moved from Guildford into Rushmoor, and 400 people moved from Waverley into Rushmoor.

Figure 10: Out-Migration from Core Authorities from Study Area Authorities, Year to July 2012

| To Receiving Authority | From Sending authority | | | | | |
|---------------------------------------|---------------------------|------|--------------|-----------|--------|----------|
| | Rushmoor | Hart | Surrey Heath | Guildford | Woking | Waverley |
| Rushmoor | | 570 | 520 | 620 | 120 | 400 |
| Hart | 700 | | 310 | 190 | 60 | 240 |
| Surrey Heath | 430 | 190 | | 280 | 510 | 120 |
| Guildford | 500 | 120 | 280 | | 590 | 880 |
| Woking | 80 | 30 | 250 | 460 | | 110 |
| Waverley | 400 | 150 | 120 | 1050 | 170 | |
| Bracknell Forest | 190 | 290 | 260 | 60 | 70 | 40 |
| Runnymede | 50 | 30 | 150 | 90 | 440 | 40 |
| Elmbridge | 20 | | 50 | 180 | 200 | 90 |
| Mole Valley | 30 | | | 330 | 60 | 100 |
| Horsham | | | | 110 | 40 | 170 |
| Chichester | 30 | | 30 | 130 | 40 | 370 |
| East Hants | 160 | 120 | 80 | 200 | 70 | 740 |
| Basingstoke and Deane | 200 | 460 | 120 | 110 | | 60 |
| Wokingham | 60 | 170 | 110 | 70 | 50 | 30 |
| Royal Borough of Windsor & Maidenhead | 70 | 50 | 120 | 50 | 50 | 40 |

Source: ONS

57. Taking Figures 9 and 10 together, in terms of net migration, the largest net movements associated with the three authorities are as follows:
- The largest net movement into Rushmoor arose from Guildford (120 people), followed by the flows from Surrey Heath (90 people). There was net out-migration from Rushmoor to Woking (140 people) and Hart (130 people). Moves between Rushmoor and Waverley balanced.
 - The largest net movement into Hart arose from Surrey Heath (190 people), followed by Rushmoor (120 people). There was net out-migration from Hart to Basingstoke & Deane (90 people).
 - The largest net movement into Surrey Heath arose from Woking (260 people), followed by Runnymede (100 people). There was net out-migration from Surrey Heath to Hart (120 people) and Rushmoor (90 people).
58. Across all the authorities examined in the study there is a pattern of movement from locations in or close to London out along radial routes. Analysis of the source of in-migration to the area shows significant flows particularly to Woking and Guildford from London Boroughs in the south west quadrant such as Wandsworth and Kingston-upon-Thames (these data are not included in Figures 9 and 10).
59. There is also a pattern of out-migration from the authorities in the area close to London such as Spelthorne and Elmbridge and Runnymede, to authorities in the study area further from London; and from the authorities in the centre and furthest from London in the study area to adjacent areas still further from London, such as East Hampshire and Basingstoke and Deane.
60. This is a long standing pattern, often associated with the fact that London sucks in younger people; London has a much higher proportion of people aged 20-35 than most of the South East. Subsequently as people in London get older there is a pattern that they move out further from the centre of London. Often out-migration from central London is associated with various key trigger points in people's lives; when people form couples and have children; at key stages in the education process; and as household income increases. Many will still commute to London, but others will find work in the commuter belt outside the boundaries of London itself.
61. There is also a pattern that, as people who live in the London commuter belt get older, they too have a higher than average propensity to move further from London either in search of the perceived quality of life available in rural areas, or to areas of lower cost housing. Retirement is also a significant factor in household migration since people no longer need to live close to major centres of employment. There is a clear urban house price gradient from London, from central areas to outer areas of London, to the commuter belt, to more distant urban areas. The high values in attractive rural areas mean that the same is not necessarily true if one maps house prices passing through rural areas.
62. **Overall, the analysis of migration patterns demonstrates strong inter-linkages in terms of migration between the trio of authorities – Rushmoor, Hart and Surrey Heath. Rushmoor also has strong migration linkages with Guildford, but both Guildford and Waverley have stronger relationship with each other than with Rushmoor, Hart or Surrey Heath.**

Travel to Work Patterns in North Hampshire – West Surrey

63. The NHPAU work on housing markets makes great use of travel to work patterns, but the data used in those studies is from the 2001 Census. Wessex Economics has analysed data from the 2011 Annual Population Survey, to identify the pattern of travel to work in North Hampshire and West Surrey. It is important to note that the APS data is sample based and as such the data should be treated with caution since there are quite large margins of error associated with the data. Analysis of the 2011 Census data on commuting patterns is set out in Appendix D.
64. However the APS is used here to identify potential changes in commuting patterns between 2001, 2008⁹ and 2011, such as might be associated with infrastructure improvements or economic restructuring. 2008 was too early to pick up changes arising from the economic downturn, since it was the collapse of Lehman Brothers in September 2008 that triggered the financial crisis in the UK and Europe, but it is likely that these changes will have been reflected in the data from 2011.
65. Commuting patterns are examined for each of the authorities in turn, identifying key points. It should be noted that all of the authorities are likely to have quite significant numbers of people who work in London as a whole. However, this does not show up in the analysis since data is collected by local authority, and those working in London tend to be quite widely dispersed between the different London Boroughs.
66. Throughout this analysis it should be remembered that when flows from 'Guildford' are reported, this represents flows from the whole of the Borough, not just the town Guildford; and that a number of urban settlements that are in Guildford Borough are part of the Blackwater Valley Urban Area, and hence closer to the centres of employment in Rushmoor and Surrey Heath than to Guildford town.

Rushmoor

67. Figures 11 and 12 show patterns of commuting between Rushmoor and the other authorities in the study area. Only the most important flows are shown. Less than half (45.5%) of those in work who live in Rushmoor, work in the Borough.
68. Somewhat over a quarter of Rushmoor's labour force work in other local authority areas in North Hampshire – West Surrey. The largest local flows are to Surrey Heath, Waverley, Guildford and Hart. This pattern has changed little over the last decade. However, the data suggests that there has been an increase in commuting to Basingstoke and Deane in recent years, with almost 6% of Rushmoor's labour force working in the Borough in 2011.
69. However, there are also significant in-flows of people who live outside Rushmoor, but who work in the Borough. There are important inflows from Surrey Heath and Guildford (see Figure 12). The data suggests that in-flows of workers from Hart have been reduced in recent years. One possible explanation for this change is the relocation of Nokia. However, the figure needs to be treated with caution because of the APS sample size.

⁹ 2008 APS data on commuting was analysed as part of separate Housing Market Area studies undertaken by Wessex Economics for Rushmoor, Hart and Surrey Heath Councils

70. Comparisons with the 2001 Census data suggest that both in and out commuting increased between 2001 and 2011, which points to closer integration of the North Hampshire – West Surrey labour market; which very probably is also reflected in the closer integration of the housing market across the area.

Figure 11: Where Rushmoor Residents Work 2001-2011 (Top 5 Locations in 2001, 2008 and 2011)

| | 2001 | 2008 | 2011 |
|---------------------|--------------|--------------|--------------|
| Rushmoor | 55.1% | 46.3% | 45.5% |
| Surrey Heath | 7.5% | 7.7% | 12.5% |
| Waverley | 6.5% | 7.5% | 7.3% |
| Hart | 5.2% | 4.6% | 4.7% |
| Guildford | 4.0% | 5.6% | 4.8% |
| Hillingdon | - | 4.0% | 1.4% |
| Woking | - | 2.5% | - |
| Basingstoke & Deane | - | - | 5.9% |
| RBWM | - | - | 2.4% |
| East Hampshire | - | - | 2.1% |

Source: Census 2001, Annual Population Survey 2008 and 2011, Wessex Economics: Local authorities ranked according to commuting in 2001

Figure 12: Where Rushmoor's Workers Live 2001-2011 (Top 5 Locations in 2001, 2008 and 2011)

| | 2001 | 2008 | 2011 |
|---------------------|-------|-------|--------------|
| Rushmoor | | | 50.9% |
| Hart | 11.3% | 15.2% | 3.9% |
| Waverley | 6.9% | 5.3% | 2.1% |
| Guildford | 5.5% | 5.0% | 9.7% |
| Surrey Heath | 4.8% | 7.2% | 9.0% |
| East Hampshire | 2.0% | 3.2% | - |
| Wokingham | 1.6% | 1.4% | 1.3% |
| Bracknell Forest | 1.1% | 2.2% | 1.2% |
| Southampton | - | 1.5% | 0.4% |
| Basingstoke & Deane | - | - | 2.9% |

Source: Census 2001, Annual Population Survey 2008 and 2011, Wessex Economics: Local authorities ranked according to commuting in 2001

Hart

71. Figures 13 and 14 show patterns of commuting between Hart and the other authorities in the study area. Hart has a low level of labour market self-containment but this appears to have improved over the last 10 years. Nevertheless, less than half of those in work who live in Hart work in the District. Almost 20% of Hart residents who are in work commute to work in Rushmoor, Surrey Heath and Waverley – though the importance of Rushmoor seems to have reduced in recent years. There are significant outward commuter flows to Basingstoke and Deane (7%) and Reading (accounting for 5.5%) of resident workers.
72. There are relatively modest inflows of labour to Hart, and evidence that they have declined in percentage terms between 2001 and 2011. The largest sources of in-commuting are from Basingstoke and Deane and Rushmoor, which together account for 14% of jobs in Hart. Inflows from Guildford and Surrey Heath appear to have increased in recent years and accounted for almost 8% of jobs in Hart in 2011. Inflows from Berkshire amount to just under 7% of jobs and appear to have reduced over time.

On the basis of these data, this would suggest that Hart has become more integrated with the North Hampshire – West Surrey area, and its links to the Berkshire market may have become weaker. This may mean that if the NHPAU analysis was run with 2011 Census data, Hart might be incorporated into the Guildford Local HMA, rather than being part of the Bracknell Forest Local HMA.

Figure 13: Where Hart Residents Work 2001-2011 (Top 5 Locations in 2001, 2008 and 2011)

| | 2001 | 2008 | 2011 |
|---------------------|--------------|--------------|--------------|
| Hart | 37.3% | 36.6% | 45.1% |
| Rushmoor | 14.6% | 14.5% | 3.6% |
| Surrey Heath | 10.1% | 8.6% | 9.2% |
| Basingstoke & Deane | 5.9% | 4.6% | 7.0% |
| Bracknell Forest | 4.7% | 3.2% | 2.8% |
| Reading | 2.8% | 3.7% | 5.5% |
| Waverley | - | 6.6% | 5.3% |
| Southwark | - | - | 3.8% |
| City of London | - | - | 2.4% |

Source: Census 2001, Annual Population Survey 2008 and 2011, Wessex Economics: Local authorities ranked according to commuting in 2001

Figure 14: Where Hart's Workers Live (Top 5 Locations in 2001, 2008, 2011)

| | 2001 | 2008 | 2011 |
|---------------------|-------|------|--------------|
| Hart | | | 45.1% |
| Basingstoke & Deane | 11.8% | 6.8% | 7.6% |
| Rushmoor | 7.7% | 5.8% | 5.8% |
| Bracknell Forest | 2.7% | 3.8% | 3.0% |
| Wokingham | 1.9% | 3.1% | - |
| West Berkshire | 1.0% | 2.3% | 1.9% |
| Guildford | - | - | 4.0% |
| Surrey Heath | - | - | 3.7% |
| Reading | - | 1.5% | 1.4% |

Source: Census 2001, Annual Population Survey 2008 and 2011, Wessex Economics: Local authorities ranked according to commuting in 2001

Surrey Heath

73. Of those who work outside of Surrey Heath, the largest flows to individual authorities are to Rushmoor and Guildford. Commuting to Guildford has increased significantly over the decade and Guildford now provides work for 9% of Surrey Heath's residents who are in work. Out commuting to Woking appears to have reduced in recent years, from 7% in 2008 to just under 4% in 2011. In terms of local outward flows of workers to work outside the District, Surrey Heath is unusual in having a large identified flow into particular parts of London (Hillingdon and Southwark), and an outflow of workers to Reading, though commuting to all of these Boroughs appears to have reduced in recent years when the data for 2011 is compared to 2008. Just 1% of Surrey Heath residents worked in the Royal Borough of Windsor and Maidenhead in 2011 and hence RBWM is not included in Figure 15 since it is not one of the 'top 5' locations where Surrey Heath's residents work.
74. Employers in Surrey Heath pull in workers from Hart and Rushmoor in large numbers and the importance of Hart as a place of work for people living in Rushmoor has increased in recent years. A proportion of Surrey Heath's workforce commutes in from the Berkshire authorities of Bracknell Forest,

The Royal Borough of Windsor & Maidenhead and Wokingham (collectively accounting for 13% of the workforce).

75. The data lend support to the conclusion that emerges from the NHPAU work that, more so than other authorities in the North Hampshire – West Surrey area, Surrey Heath looks both ways – towards Berkshire and towards its neighbours in Hampshire and Surrey. In the NHPAU work this is shown by the boundary between the Berkshire Strategic HMA and the London Strategic HMA running lengthways through the District. However, as with the migration data, commuting patterns appear to show that links with the Surrey authorities are stronger than those with the Berkshire authorities.

Figure 15: Where Surrey Heath Residents Work 2001-2011 (Top 5 Locations in 2001, 2008 and 2011)

| | 2001 | 2008 | 2011 |
|---------------------|--------------|--------------|--------------|
| Surrey Heath | 43.3% | 44.8% | 40.9% |
| Woking | 6.9% | 7.0% | 4.3% |
| Rushmoor | 6.6% | 7.9% | 9.1% |
| Hillingdon | 4.7% | 6.0% | 0.7% |
| Reading | 3.9% | 3.1% | 1.7% |
| Bracknell Forest | 3.8% | 3.0% | 2.7% |
| Basingstoke & Deane | 3.1% | 3.0% | 0.8% |
| Guildford | - | - | 9.0% |
| Hart | - | - | 3.3% |
| Southwark | - | 3.7% | 1.7% |

Source: Census 2001, Annual Population Survey 2008 and 2011, Wessex Economics: Local authorities ranked according to commuting in 2001

Figure 16: Where Surrey Heath's Workers Live 2011-2011

| | 2001 | 2008 | 2011 |
|---------------------|--------------|--------------|--------------|
| Surrey Heath | 43.3% | 44.8% | 40.9% |
| Hart | 11.2% | 9.8% | 9.6% |
| Rushmoor | 9.4% | 7.8% | 13.4% |
| Bracknell Forest | 8.1% | 8.7% | 6.9% |
| Woking | 4.7% | 2.8% | 1.9% |
| Wokingham | 2.2% | 1.6% | 1.9% |
| RBWM | 1.6% | 2.7% | 3.6% |
| Guildford | - | - | 3.5% |

Source: Census 2001, Annual Population Survey 2008 and 2011, Wessex Economics: Local authorities ranked according to commuting in 2001

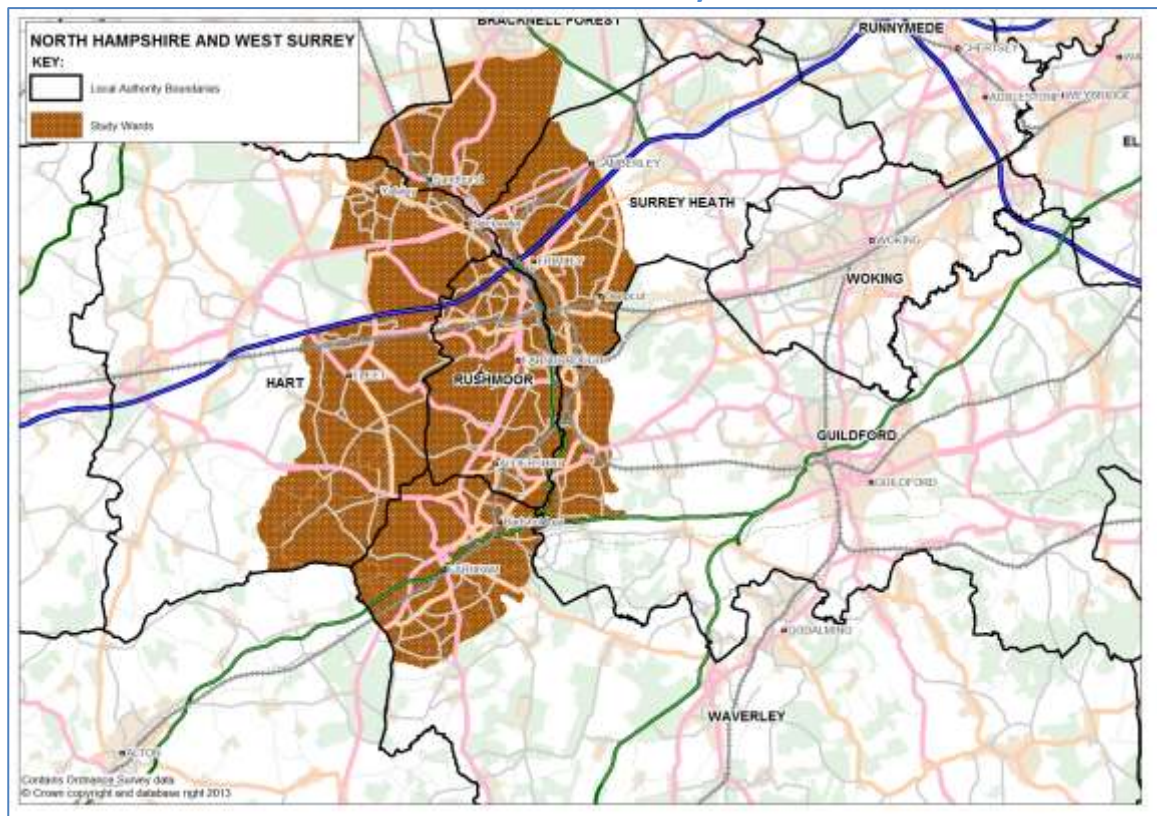
Housing Market Area Conclusions

76. The evidence presented in this section sets out the justification for a SHMA undertaken for the three authorities, on the basis that this approach would reflect the principal area covered by the Blackwater Valley urban area identified by ONS, plus Fleet. Rushmoor, Surrey Heath and Hart account for the majority of the population of the Blackwater Valley urban area (defined by ONS plus Fleet), and in each case have over half of their resident population in the area¹⁰.
77. The 2004 study undertaken by DTZ mapping housing markets across the South East, identified the Blackwater Valley as '*an area of convergence*', where a number of housing market areas overlap. This analysis identified the Blackwater Valley and the immediately surrounding areas as the part of the South East with the most complex housing market geography. It was recommended that it would be appropriate to undertake a SHMA for this area in its own right because of its distinct characteristics, and the fact that it would not be easily incorporated into a SHMA undertaken for any one of the surrounding areas which have better defined market areas.
78. Research on housing markets undertaken by the NHPAU in 2010 does not provide an unequivocal answer of which authorities in this area should work with in terms of a joint SHMA. Furthermore, those market areas identified by the NHPAU study include such a large number of authorities that it would present substantial practical difficulties. In addition, Waverley and Guildford had already commissioned a SHMA prior to Hart, Rushmoor and Surrey Heath Councils being in a position to commission a SHMA. Woking is not planning to undertake a SHMA since it has an adopted Core Strategy.
79. This Appendix has considered the relationships between the Hart, Rushmoor and Surrey Heath authorities in more detail and using up to date data. In terms of migration, the authorities are closely linked to one another. Rushmoor's most significant relationship is with Hart. Hart and Surrey Heath's most significant relationships are with Rushmoor. Hart and Surrey Heath are also connected to one another through migrations flows but these are less significant than those with Rushmoor and Basingstoke (for Hart) and Woking (for Surrey Heath).
80. There are also significant travel to work flows between the three authorities. Each authority experiences low levels of self-containment (the proportion of residents who work in the same authority). The majority of residents in work commute to work outside of the local authority in which they live. There are also significant flows of workers into each authority from neighbouring authority areas. Of those who do not live and work in the same authority area:
 - The largest proportion of Rushmoor's residents commute to Surrey Heath, Waverley, Guildford and Hart for work. There are significant inflows of workers to Rushmoor from Surrey Heath and Guildford.

¹⁰ All of Rushmoor's population live in the Blackwater Valley and an estimated 68% of the population of Hart and 66% of Surrey Heath live in the Blackwater Valley area. Together the three authorities have an estimated population of 213,000 residents in the Blackwater Valley, compared to the total population of the three authorities of 270,000; and an estimated population of the Aldershot-Farnborough urban area (which excludes Fleet) as defined by ONS of 252,000.

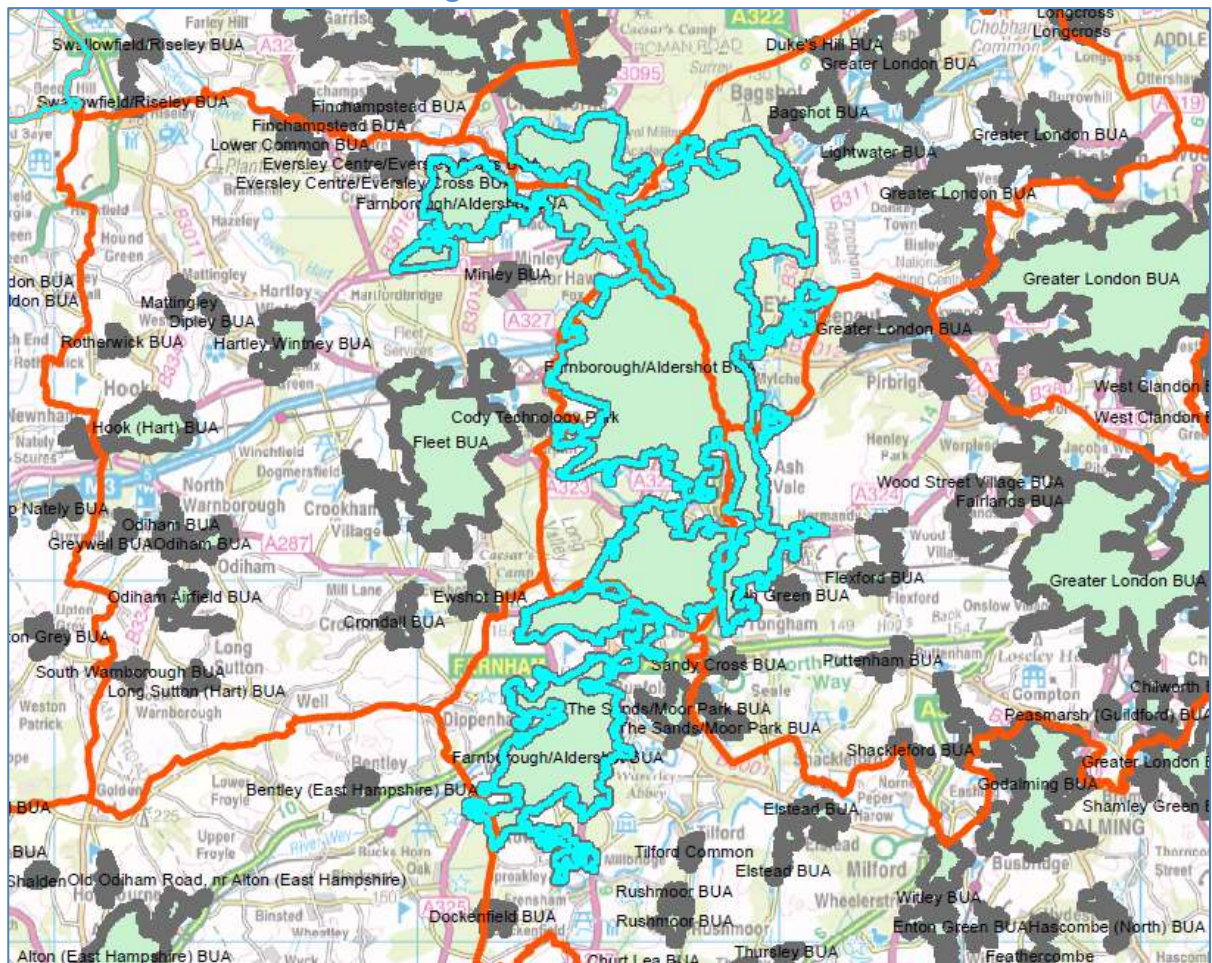
- The largest proportion of Hart's residents commute to Rushmoor and Surrey Heath for work. There are inflows of workers to Hart from Basingstoke and Deane, Rushmoor, Guildford and Surrey Heath.
- The largest proportion of Surrey Heath's residents commute to Rushmoor and Guildford. There are inflows of workers to Surrey Heath from Hart and Rushmoor.

Annex 1: Ward Based Definition of Blackwater Valley



Source: Wessex Economics

Annex 2: ONS Defined Farnborough – Aldershot Urban Area



Source: Rushmoor Borough Council

Contains Ordnance Survey data © Crown copyright and database right 2011

Appendix C: Hart, Rushmoor and Surrey Heath Household Movement Analysis

1. This Appendix presents the analysis of domestic household migration patterns for Hart District, Rushmoor Borough and Surrey Heath Borough (referred to as the HRSH area). The aim is to present an overview of migration patterns with the HRSH area as a whole, built up from the analysis of the migration patterns of each local authority.
2. The data set used is the MM01CEW table from the 2011 Census of Population, which provides data on the origin and destination of all domestic migrants in the year prior to the Census. The table can be analysed in two ways:
 - To identify where those who have moved from a home in Hart, Rushmoor and Surrey Heath now live. The Census data includes all those who have moved home in the year prior to the Census day itself. This includes those who have moved home within the same local authority, but broadly this data set gives a sense of patterns of domestic out-migration from the HRSH area.
 - To identify those who lived in Hart, Rushmoor and Surrey Heath on Census day 2011, but were living somewhere different a year before Census day. This helps to identify patterns of domestic in-migration to the HRSH area, though it also identifies the extent to which people have moved home within the same local authority area within the HRSH area.

Approach

3. Wessex Economics has analysed the MM01CEW dataset to answer two questions:
 - Where do those who move out of the HRSH area move to?
 - Where have those who now live in the HRSH area moved from?
4. The procedure for analysis has been:
 - Identify the migration flows between and within the HRSH area and every local authority in the South East of England
 - Identify the migration flows between and within the HRSH area and every region other than the South East
 - Ranking of all the migration flows in terms of overall volumes and any area (SE LA or region) to identify all areas that accounts for more than 0.5% (which is rounded up to 1%). These areas are identified in the tables generated.
 - Calculation of the percentage of the total accounted for by each LA or region is shown for each of Hart, Rushmoor and Surrey Heath

- An overview of the migration flows for the combined totals of Hart, Rushmoor and Surrey Heath and accompanying percentages by source is reported.

Out-migration from Hart, Rushmoor and Surrey Heath in the year 2010-11

- Figure 1 shows where those who used to live in the HRSH area and who moved home in the year prior to Census Day 2011 now live. Half of all those who lived in Hart, Rushmoor and Surrey Heath in March 2010 and moved home in the following year still live in the HRSH area. By implication half of all those who were resident in the HRSH area and moved home in the year March 2010-March 2011, moved out of the area.
- In terms of where people moved to, the data identifies significant outflows of migrants from the HRSH area to the South West Region as a whole and into London. In terms of local movements the most significant flows from the HRSH area are to Basingstoke and Deane, Guildford, Waverley and Woking. It is notable that longer distance moves (ie moves to a different region) feature quite strongly.
- It should be remembered that these moves will include all moves; students going to university (Census Day was during University term) and retirement moves as well as job related moves. Figure 1 shows that in Rushmoor, 47% of people who moved home simply moved within the Borough. The equivalent figures for Hart are 37% and for Surrey Heath 36%.

Figure 1: Where Those Who Moved Home in the Year Before Census Day Now Live

| Usual Residence 2011 | Address One Year Ago | | | | | | | |
|--------------------------|----------------------|------------|----------|------------|--------------|------------|-----------|------------|
| | Hart | | Rushmoor | | Surrey Heath | | HRSH Area | |
| | No. | % of total | No. | % of total | No. | % of total | No. | % of total |
| Rushmoor | 582 | 6% | 5,232 | 47% | 572 | 7% | 6,386 | 22% |
| Hart | 3,390 | 37% | 593 | 5% | 244 | 3% | 4,227 | 15% |
| Surrey Heath | 224 | 2% | 437 | 4% | 2,908 | 36% | 3,569 | 12% |
| South West | 719 | 8% | 633 | 6% | 542 | 7% | 1,894 | 7% |
| London | 510 | 6% | 458 | 4% | 639 | 8% | 1,607 | 6% |
| Basingstoke and Deane | 524 | 6% | 232 | 2% | 84 | 1% | 840 | 3% |
| Guildford | 124 | 1% | 466 | 4% | 243 | 3% | 833 | 3% |
| East Region | 225 | 2% | 283 | 3% | 214 | 3% | 722 | 3% |
| Bracknell Forest | 269 | 3% | 147 | 1% | 272 | 3% | 688 | 2% |
| West Midlands | 223 | 2% | 245 | 2% | 138 | 2% | 606 | 2% |
| Waverley | 187 | 2% | 303 | 3% | 104 | 1% | 594 | 2% |
| Yorkshire and The Humber | 171 | 2% | 251 | 2% | 97 | 1% | 519 | 2% |
| East Midlands | 199 | 2% | 153 | 1% | 124 | 2% | 476 | 2% |
| Woking | 30 | 0% | 93 | 1% | 287 | 4% | 410 | 1% |
| Wales | 148 | 2% | 183 | 2% | 67 | 1% | 398 | 1% |
| North West | 126 | 1% | 132 | 1% | 130 | 2% | 388 | 1% |
| East Hampshire | 155 | 2% | 139 | 1% | 54 | 1% | 348 | 1% |
| Wokingham | 159 | 2% | 54 | 0% | 122 | 2% | 335 | 1% |
| Windsor and Maidenhead | 45 | 0% | 58 | 1% | 149 | 2% | 252 | 1% |
| Southampton | 96 | 1% | 70 | 1% | 68 | 1% | 234 | 1% |
| Winchester | 96 | 1% | 71 | 1% | 48 | 1% | 215 | 1% |
| North East | 58 | 1% | 81 | 1% | 37 | 0% | 176 | 1% |
| Portsmouth | 67 | 1% | 65 | 1% | 35 | 0% | 167 | 1% |
| Reading | 46 | 0% | 62 | 1% | 58 | 1% | 166 | 1% |
| Runnymede | 20 | 0% | 29 | 0% | 112 | 1% | 161 | 1% |
| Test Valley | 55 | 1% | 45 | 0% | 43 | 1% | 143 | 1% |
| Brighton and Hove | 47 | 1% | 42 | 0% | 54 | 1% | 143 | 1% |
| Other | 774 | 8% | 654 | 6% | 671 | 8% | 2,099 | 7% |
| Total | 9,269 | 100% | 11,211 | 100% | 8,116 | 100% | 28,596 | 100% |

Source: Wessex Economics, 2011 Census

8. In terms of local moves the most important relationships with other local authorities are as follows:
- For Hart, the greatest flows of local out-migration is to Rushmoor, followed by Basingstoke and Deane
 - For Rushmoor, the greatest flows of local out-migration are to Hart, followed by Guildford (which will include those parts of Guildford in the Blackwater Valley)
 - For Surrey Heath, the greatest flows of local out-migration is to Rushmoor, followed by Woking.
9. These data provide evidence of the integration of the Hart, Rushmoor and Surrey Heath in terms of housing market dynamics.

In-migration to Hart, Rushmoor and Surrey Heath in the Year 2010-11

10. Figure 2 shows where those who moved home in the 12 month period before Census day and now live in the HRSH area have come from. Over half (52%) of all moves within or into Hart, Rushmoor and Surrey Heath in the year to Census Day were internal moves within the HRSH area. This confirms that there is quite a high level of self-containment in the HMA in terms of internal movements.
11. In terms of significant sources of in-migration to the HRSH area, it is no surprise that there is a significant inflow from London as a whole, with Guildford Borough, the South West region as a whole, Bracknell Forest, Waverley and Woking being the next most significant sources of in-migration.

Figure 2: Where Those that Live in Hart, Rushmoor and Surrey Heath Work

| Address One Year Ago | Usual Residence Census Day 2011 | | | | | | | |
|--------------------------|---------------------------------|------------|----------|------------|--------------|------------|-----------|------------|
| | Hart | | Rushmoor | | Surrey Heath | | HRSH Area | |
| | No. | % of total | No. | % of total | No. | % of total | No. | % of total |
| Rushmoor | 593 | 7% | 5,232 | 47% | 437 | 6% | 6,262 | 23% |
| Hart | 3,390 | 41% | 582 | 5% | 224 | 3% | 4,196 | 15% |
| Surrey Heath | 244 | 3% | 572 | 5% | 2,908 | 37% | 3,724 | 14% |
| London | 493 | 6% | 714 | 6% | 604 | 8% | 1,811 | 7% |
| Guildford | 185 | 2% | 602 | 5% | 300 | 4% | 1,087 | 4% |
| South West | 354 | 4% | 426 | 4% | 224 | 3% | 1,004 | 4% |
| Bracknell Forest | 257 | 3% | 237 | 2% | 315 | 4% | 809 | 3% |
| Waverley | 182 | 2% | 415 | 4% | 106 | 1% | 703 | 3% |
| Woking | 59 | 1% | 129 | 1% | 431 | 6% | 619 | 2% |
| East | 198 | 2% | 246 | 2% | 164 | 2% | 608 | 2% |
| West Midlands | 203 | 2% | 139 | 1% | 107 | 1% | 449 | 2% |
| Yorkshire and The Humber | 103 | 1% | 236 | 2% | 102 | 1% | 441 | 2% |
| Basingstoke and Deane | 256 | 3% | 117 | 1% | 60 | 1% | 433 | 2% |
| East Midlands | 131 | 2% | 112 | 1% | 109 | 1% | 352 | 1% |
| Wokingham | 184 | 2% | 60 | 1% | 76 | 1% | 320 | 1% |
| North West | 97 | 1% | 107 | 1% | 107 | 1% | 311 | 1% |
| Runnymede | 35 | 0% | 45 | 0% | 220 | 3% | 300 | 1% |
| East Hampshire | 108 | 1% | 144 | 1% | 38 | 0% | 290 | 1% |
| Windsor and Maidenhead | 43 | 1% | 45 | 0% | 189 | 2% | 277 | 1% |
| Wales | 83 | 1% | 76 | 1% | 89 | 1% | 248 | 1% |
| Scotland | 101 | 1% | 51 | 0% | 76 | 1% | 228 | 1% |
| Elmbridge | 45 | 1% | 40 | 0% | 76 | 1% | 161 | 1% |
| Other | 855 | 10% | 886 | 8% | 871 | 11% | 2,612 | 10% |
| Total | 8,199 | 100% | 11,213 | 100% | 7,833 | 100% | 27,245 | 100% |

Source: Wessex Economics, 2011 Census

Net migration Pattern March 2010-2011

12. If one examines the pattern of net migration based on Census data it is clear that, in terms of the HRSH area as a whole, often in-migration and out-migration flows from many parts of the South East broadly balance or the differences between inflows and outflows are modest (less than +/- 50 people). It is interesting however to identify the broader pattern of migration in terms of where inflows and outflows do not balance; that is where net in-migration or out-migration exceeds 50 people.
13. Overall the Census data points to a net domestic migration outflow from the HRSH area of around 1,700 people. The area 'imports' people from Guildford, Woking, London and a number of West Surrey, Berkshire and North Hampshire authorities; and 'exports' people in large numbers to the South West region but also to other regions outside the South East; to Basingstoke and Deane, and to the south coast.
14. This broadly seems to fit a pattern of net movement in from higher prices areas in or close to London and net movement out to potentially cheaper areas and/or more rural and coastal areas. For all movements it is quite probable that relocation decisions are informed by house price differentials and lifestyle choices, but linked to where people work, whether they work, and the nature of that work.

Figure 3: HRSH Net Migration Balance – Locations where the Net Migration Balance is > 50 Persons

| Local Authority/Region | HRSH In-migration less Out-migration |
|--------------------------|---|
| Guildford | 254 |
| Woking | 209 |
| London | 204 |
| Runnymede | 139 |
| Bracknell Forest | 121 |
| Waverley | 109 |
| Slough | 103 |
| Spelthorne | 55 |
| Elmbridge | 52 |
| Reading | -52 |
| Canterbury | -55 |
| East Hampshire | -58 |
| Portsmouth | -69 |
| North West | -77 |
| Yorkshire and The Humber | -78 |
| Winchester | -85 |
| Brighton and Hove | -90 |
| Southampton | -107 |
| East | -114 |
| East Midlands | -124 |
| Wales | -150 |
| West Midlands | -157 |
| Basingstoke and Deane | -407 |
| South West | -890 |
| Total All LAs/Regions | -1,687 |

Source: Wessex Economics, 2011 Census

Appendix D: Hart, Rushmoor and Surrey Heath Commuting Analysis

1. This Appendix presents the analysis of commuting patterns for Hart District, Rushmoor Borough and Surrey Heath Borough. The aim is to present an overview of commuting patterns with the HRSH area as a whole, built up from the analysis of commuting patterns of each local authority.
2. The data set used is the RF04AEW Tables taken from the 2011 Census of Population data, entitled '*Location of where people live when working and place of work*'. The 2011 Census is the first time this data has been available. It is distinguished from previous commuting datasets by virtue of the fact that the 2011 Census for the first time asked not just for people's principal residence but also for '*where they live when working*'.
3. The RF04AEW Table is based on '*where people live when working*'. In effect this allows for the fact that people may have a principal home in one part of the country, but live somewhere else during their working week – be that lodgings, a flat rented close to where they work, a pied-a-terre, on-site accommodation provided by an employer, etc – which will very likely be close to where they work. In common parlance, these are likely to be 'weekly commuters'.
4. This is likely to provide a more accurate reflection of daily commuting patterns than the RF03AEW Tables taken from the 2011 Census of Population data, entitled '*Location of usual residence and place of work*'. It is very likely that for the great majority of the population there is no difference between their '*usual residence*' and where they '*live when working*'. As yet no analysis has been done on how many people nationally or locally on how many people have a different usual place of residence and a place where they live when working.

Housing Market Area

5. Wessex Economics has analysed the RF04AEW dataset to answer two questions:
 - Where do those who work in Hart, Rushmoor and Surrey Heath live?
 - Where do those who live in Hart, Rushmoor and Surrey Heath work?
6. The procedure for analysis has been:
 - the flows between Hart, Rushmoor and Surrey Heath and every local authority in the South East of England have been identified
 - the flows between Hart, Rushmoor and Surrey Heath and every region other than the South East have been identified
 - the flows have been ranked in terms of overall volumes and any area (SE LA or region) that accounts for more than 0.5% (which is rounded up to 1%) has been reported on in the tables generated

- the percentage of the total accounted for by each LA or region is shown for each of Hart, Rushmoor and Surrey Heath
- an overview of flows for the combined totals of Hart, Rushmoor and Surrey Heath and accompanying percentages by source is reported.

Where do those who work in Hart, Rushmoor and Surrey Heath live?

7. Figure 1 shows where those who work in Hart, Rushmoor and Surrey Heath live, both for each of the individual authorities and for the HRSH area as a whole. Around 56% of all those who work in the HRSH area also live in the HRSH. It should also be noted when considering self-containment that these figures do not include those who work at or mainly from home.
8. In every case in North Hampshire-West Surrey, residents of a particular local authority are the most important source of labour for employers in their area; that is for every area more residents live and work locally than commute in from any other single area; but taken overall the number of people who commute into work in each local authority area, is larger than the number of people who live and work in that local authority area.
9. Thus none of the three HRSH local authorities are self-contained:
 - In Hart 39% of those who work in the District are local residents
 - In Rushmoor 41% of those who work in the Borough are local residents
 - In Surrey Heath 32% of those who work in the Borough are local residents
 - (Note all these figures exclude those working from home).

Figure 1: Where Those Working in Hart, Rushmoor and Surrey Heath Live.

| 2011 | Place of Work | | | | | | | |
|------------------------|---------------|-------------|---------------|-------------|---------------|-------------|----------------|-------------|
| | Hart | | Rushmoor | | Surrey Heath | | HRSH Area | |
| Address whilst Working | No. | % of total | No. | % of total | No. | % of total | No. | % of total |
| Rushmoor | 3,226 | 11% | 16,752 | 41% | 4,711 | 14% | 24,689 | 24% |
| Hart | 11,468 | 39% | 4,679 | 11% | 2,971 | 9% | 19,118 | 18% |
| Surrey Heath | 1,247 | 4% | 2,804 | 7% | 11,044 | 32% | 15,095 | 14% |
| Bracknell Forest | 1,163 | 4% | 1,072 | 3% | 2,887 | 8% | 5,122 | 5% |
| Guildford | 576 | 2% | 2,669 | 6% | 1,560 | 5% | 4,805 | 5% |
| Basingstoke and Deane | 2,863 | 10% | 1,210 | 3% | 652 | 2% | 4,725 | 5% |
| London | 974 | 3% | 1,480 | 4% | 1,655 | 5% | 4,109 | 4% |
| Waverley | 843 | 3% | 2,181 | 5% | 792 | 2% | 3,816 | 4% |
| East Hampshire | 868 | 3% | 1,238 | 3% | 417 | 1% | 2,523 | 2% |
| Wokingham | 915 | 3% | 760 | 2% | 835 | 2% | 2,510 | 2% |
| Woking | 236 | 1% | 629 | 2% | 1,357 | 4% | 2,222 | 2% |
| South West | 523 | 2% | 621 | 2% | 387 | 1% | 1,531 | 1% |
| Reading | 401 | 1% | 332 | 1% | 283 | 1% | 1,016 | 1% |
| Windsor and Maidenhead | 180 | 1% | 311 | 1% | 469 | 1% | 960 | 1% |
| East Region | 226 | 1% | 377 | 1% | 352 | 1% | 955 | 1% |
| West Berkshire | 415 | 1% | 249 | 1% | 164 | 0% | 828 | 1% |
| Winchester | 348 | 1% | 339 | 1% | 131 | 0% | 818 | 1% |
| Runnymede | 108 | 0% | 183 | 0% | 466 | 1% | 757 | 1% |
| Spelthorne | 97 | 0% | 166 | 0% | 327 | 1% | 590 | 1% |
| Test Valley | 252 | 1% | 213 | 1% | 101 | 0% | 566 | 1% |
| Elmbridge | 112 | 0% | 189 | 0% | 239 | 1% | 540 | 1% |
| Southampton | 240 | 1% | 140 | 0% | 80 | 0% | 460 | 0% |
| Slough | 113 | 0% | 127 | 0% | 198 | 1% | 438 | 0% |
| Other | 1,114 | 4% | 1,622 | 4% | 1,412 | 4% | 4,148 | 4% |
| Total | 29,195 | 100% | 41,217 | 100% | 34,065 | 100% | 104,477 | 100% |

Source: Wessex Economics, 2011 Census

10. For each of the three HSRH authorities one of the other two HRSH authorities is the next most important source of labour for employers in their area:
- In Hart, it is Rushmoor that is the next most important source of labour for its employers, followed by Basingstoke and Deane
 - In Rushmoor it is Hart that is the next most important source of labour for its employers, followed by Surrey Heath
 - In Surrey Heath it is Rushmoor that is the next most important source of labour for its employers, followed by Hart
11. These data provide strong evidence of the economic integration of the Hart, Rushmoor and Surrey Heath labour markets.

Where do those who live in Hart, Rushmoor and Surrey Heath work?

12. Figure 2 shows where those who live in Hart, Rushmoor and Surrey Heath work, both for each of the individual authorities and for the HRSH area as a whole. Around 53% of all those who live in the HRSH area (including all those who work at or from home) also work in the HRSH area.

Figure 2: Where Those that Live in Hart, Rushmoor and Surrey Heath Work

| | Address whilst Working | | | | | | | |
|-----------------------------|------------------------|-------------|---------------|-------------|---------------|-------------|----------------|-------------|
| | Hart | | Rushmoor | | Surrey Heath | | HRSH Area | |
| Place of Work | No. | % of total | No. | % of total | No. | % of total | No. | % of total |
| Rushmoor | 4,679 | 10% | 16,752 | 32% | 2,804 | 6% | 24,235 | 17% |
| Surrey Heath | 2,971 | 6% | 4,711 | 9% | 11,044 | 24% | 18,726 | 13% |
| Mainly work at or from home | 6,969 | 14% | 4,575 | 9% | 6,284 | 14% | 17,828 | 12% |
| Hart | 11,468 | 24% | 3,226 | 6% | 1,247 | 3% | 15,941 | 11% |
| London | 4,212 | 9% | 3,325 | 6% | 5,359 | 12% | 12,896 | 9% |
| No fixed place | 3,762 | 8% | 4,165 | 8% | 3,715 | 8% | 11,642 | 8% |
| Guildford | 1,293 | 3% | 3,568 | 7% | 2,221 | 5% | 7,082 | 5% |
| Bracknell Forest | 1,954 | 4% | 1,158 | 2% | 1,624 | 4% | 4,736 | 3% |
| Waverley | 1,146 | 2% | 2,704 | 5% | 656 | 1% | 4,506 | 3% |
| Basingstoke and Deane | 2,481 | 5% | 931 | 2% | 495 | 1% | 3,907 | 3% |
| Woking | 496 | 1% | 1,009 | 2% | 2,150 | 5% | 3,655 | 3% |
| Runnymede | 462 | 1% | 460 | 1% | 1,642 | 4% | 2,564 | 2% |
| Wokingham | 1,229 | 3% | 497 | 1% | 601 | 1% | 2,327 | 2% |
| Windsor and Maidenhead | 453 | 1% | 297 | 1% | 1,076 | 2% | 1,826 | 1% |
| Reading | 753 | 2% | 358 | 1% | 379 | 1% | 1,490 | 1% |
| East Hampshire | 520 | 1% | 633 | 1% | 172 | 0% | 1,325 | 1% |
| Elmbridge | 211 | 0% | 271 | 1% | 620 | 1% | 1,102 | 1% |
| Spelthorne | 293 | 1% | 213 | 0% | 589 | 1% | 1,095 | 1% |
| Slough | 274 | 1% | 245 | 0% | 436 | 1% | 955 | 1% |
| West Berkshire | 465 | 1% | 207 | 0% | 187 | 0% | 859 | 1% |
| South West | 234 | 0% | 277 | 1% | 146 | 0% | 657 | 0% |
| Winchester | 276 | 1% | 258 | 0% | 84 | 0% | 618 | 0% |
| Other | 1,997 | 4% | 1,901 | 4% | 1,696 | 4% | 5,594 | 4% |
| Total | 48,598 | 100% | 51,741 | 100% | 45,227 | 100% | 145,566 | 100% |

Source: Wessex Economics, 2011 Census

13. Not surprisingly a high proportion of those people in work in each of the authorities also work in that authority, but the areas are far from being self-contained. Thus:
- 38%¹¹ of those who live in Hart work in Hart, and 62% commute out to work in other areas
 - 41% of those who live in Rushmoor work in Rushmoor, and 59% commute out to work in other areas
 - 38% of those who live in Surrey Heath work in Surrey Heath, and 62% commute out to work in other areas.
14. Figure 2 highlights the most important commuting destinations for residents of each authority's area:
- For Hart residents the largest numbers of out-commuters travel to Rushmoor, followed by London as a whole, then Surrey Heath
 - For Rushmoor residents the largest numbers of out-commuters travel to Surrey Heath, then Guildford, London and Hart
 - For Surrey Heath residents the largest numbers of out-commuters travel to London, then Rushmoor, Guildford and Woking

¹¹ 11,468 + 6969 home workers

- Across the HRSH area less than half of residents in work commute out the area. The largest flows of out-commuters are to London, and then the surrounding authorities – Guildford, Waverley, Bracknell Forest, Woking and Basingstoke and Deane.

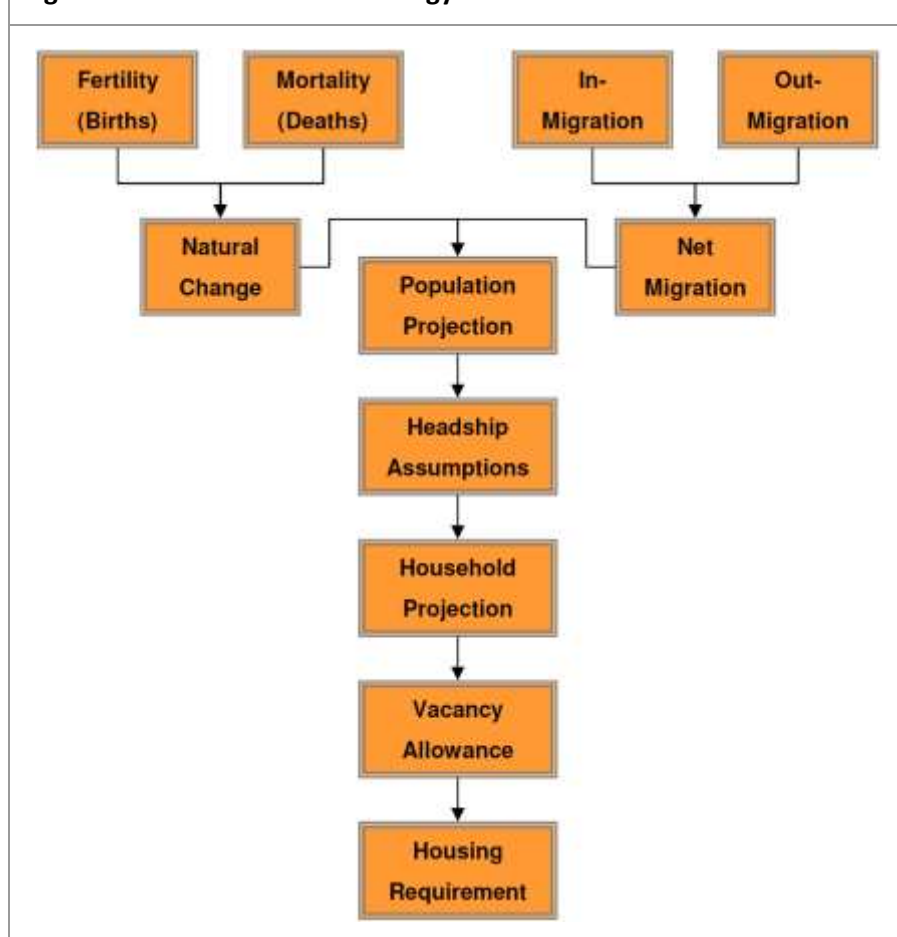
15. It is worth noting that a significant proportion of those in work in each of the local authorities (c8%) in each authority have no fixed place of work. These are likely to be contractors and self-employed people who are mobile workers working at different sites for different clients.

Appendix E: Projection Methodology

Introduction

1. The methodology used to determine population growth and hence housing requirements is based on standard population projection methodology consistent with the methodology used by ONS and CLG in their population and household projections. The approach establishes the current population and how this will change in the period from 2011 to 2031/2036. This requires calculation of:
 - how likely it is that women will give birth (the fertility rate)
 - how likely it is that people will die (the death rate)
 - how likely it is that people will move into or out of each local authority area.
2. These are the principal components of population change and are used to construct Wessex Economics' population projections.
3. Figure 1 shows the key stages of the projection analysis through to the demographically based assessment of housing requirements.

Figure 1: Overview of Methodology



Projections Run

4. As part of this assessment a number of projections have been generated to assess how the population and local economy (number of people in employment) might change under different assumptions. The projections were developed to follow the logical set of steps set out in CLG advice of August 2013 and are listed below:
- PROJ 1 (2011-based ONS and CLG projections rolled-forward to 2031/36)
 - PROJ 2 (2011-based ONS and CLG projections updated to take account of more recent data about population growth)
 - PROJ 2A (Linked to PROJ 2 above with a reduced household formation constraint)
 - PROJ 3 (Linked to employment scenario based on Experian employment growth projections)
 - PROJ 4 (Linked to employment scenario based on trends in employment growth in the 1998-2008 period)
 - PROJ 5 (Linked to employment scenario based on a midpoint between the figures in PROJ 3 and PROJ 4 above)

Past Population Dynamics

5. Before describing the projection process and key inputs it is of interest to study past population growth and the components of change. Figure 2 summarises key data from ONS mid-year population estimates (MYE) going back to 2001. The data for 2001-11 is from the revised MYE which uses Census data to adjust past estimates to ensure consistency between data for 2001 and 2011. Subsequent Figures provide the same data for each of the individual local authorities.

| Figure 2: Components of population change (2001-12) - HMA | | | | | | |
|---|----------------|------------------------|-----------------------------|---------------|------------------------|--------------|
| Year | Natural change | Net internal migration | Net international migration | Other changes | Other (unattributable) | Total change |
| 2001/2 | 976 | -1,641 | 58 | 102 | 187 | -318 |
| 2002/3 | 1,094 | -953 | 959 | 119 | 153 | 1,372 |
| 2003/4 | 1,237 | -594 | 277 | 396 | 195 | 1,511 |
| 2004/5 | 1,266 | 254 | 853 | -34 | 185 | 2,524 |
| 2005/6 | 1,470 | 884 | 646 | 94 | 249 | 3,343 |
| 2006/7 | 1,698 | 538 | 285 | -34 | 261 | 2,748 |
| 2007/8 | 1,595 | -405 | 90 | -19 | 268 | 1,529 |
| 2008/9 | 1,543 | -691 | -150 | 180 | 318 | 1,200 |
| 2009/10 | 1,591 | -516 | 259 | 164 | 318 | 1,816 |
| 2010/11 | 1,514 | 36 | -31 | 74 | 285 | 1,878 |
| 2011/12 | 1,556 | -377 | -39 | 112 | | 1,252 |

Source: ONS Components of Change

6. The information in Figure 2 highlights a number of interesting trends in relation to the HMA and these are summarised below:
- Natural change (the number of births minus the number of deaths) has been increasing over time from around 1,000 people in 2001/2 up to 1,698 in 2006/7. Since then the level has dropped very slightly and levelled off in the region of 1,500-1,600 per annum. This trend is consistent with that seen in many areas where relatively high birth rates have driven a greater level of population growth than was observed earlier in the past decade.
 - Net internal migration (people moving from one part of the country to/from the HMA) shows considerable variation over time. From 2001/2 to 2003/4 there was a notable level of net out-migration (averaging over 1,000 persons per annum). From 2004/5 to 2006/7 there was net in-migration (averaging about 560 persons per annum). The last five years generally show net out-migration (other than a small net in-migration in 2010/11).
 - Looking at international migration the data again shows considerable variation over time. Up until 2008/9 the HMA saw net in-migration for all years with particularly high figures of 853 persons in 2004/5 and 646 persons in 2005/6. In the more recent past, the data shows net international out-migration in three of the last four years although the one positive year (2009/10) shows a level of net in-migration in excess of the level of net out-migration seen for the other three years.
 - The other changes are relatively minor in number compared to the migration figures although the figures are quite high compared with many other areas where Justin Gardner Associates (JGA) have carried out a similar analysis. Other changes are largely linked to estimated changes in the prison and armed forces populations – the latter group is likely to have had some influence on the higher figures in the HMA than elsewhere.
 - The other (unattributable) column of data reflects an adjustment made by ONS to ensure consistency between Census based mid-year population estimates and the mid-year estimates prior to Census data being available. In the HMA the positive figures imply that the various components of population change (once added together) are about 2,400 people lower than the overall level of population growth (in the decade to 2011). Whilst it is unknown as to what components of change this difference is linked to it is most probable that this will be due to the under-recording of in-migration or over-recording of out-migration; this in turn may be linked to international migration data which has historically been the most difficult component of population change to accurately measure. The ONS data does not provide a figure for other (unattributable) in 2011/12 as there is no Census data against which to measure whether or not population change has been over- or under-estimated.

Figure 3: Components of population change (2001-12) - Hart

| Year | Natural change | Net internal migration | Net international migration | Other changes | Other (unattributable) | Total change |
|---------|----------------|------------------------|-----------------------------|---------------|------------------------|--------------|
| 2001/2 | 363 | 0 | 420 | 15 | -150 | 648 |
| 2002/3 | 435 | 17 | 570 | 85 | -165 | 942 |
| 2003/4 | 353 | 560 | 253 | 178 | -157 | 1,187 |
| 2004/5 | 415 | 469 | 444 | -14 | -162 | 1,152 |
| 2005/6 | 506 | 726 | 254 | 19 | -150 | 1,355 |
| 2006/7 | 524 | 388 | 220 | 3 | -143 | 992 |
| 2007/8 | 511 | 175 | 156 | -3 | -139 | 700 |
| 2008/9 | 491 | -154 | 192 | 31 | -140 | 420 |
| 2009/10 | 505 | -278 | 146 | 32 | -115 | 290 |
| 2010/11 | 452 | -121 | 118 | 37 | -100 | 386 |
| 2011/12 | 463 | 220 | -62 | -121 | - | 500 |

Source: ONS

Figure 4: Components of population change (2001-12) - Rushmoor

| Year | Natural change | Net internal migration | Net international migration | Other changes | Other (unattributable) | Total change |
|---------|----------------|------------------------|-----------------------------|---------------|------------------------|--------------|
| 2001/2 | 429 | -1,440 | -286 | 97 | 185 | -1,015 |
| 2002/3 | 402 | -868 | 93 | 15 | 208 | -150 |
| 2003/4 | 563 | -1,195 | -173 | 213 | 223 | -369 |
| 2004/5 | 560 | -87 | -9 | -16 | 234 | 682 |
| 2005/6 | 650 | -80 | 109 | 76 | 270 | 1,025 |
| 2006/7 | 755 | -135 | -63 | 1 | 268 | 826 |
| 2007/8 | 715 | -268 | -32 | -3 | 286 | 698 |
| 2008/9 | 650 | -748 | -288 | 25 | 344 | -17 |
| 2009/10 | 772 | -386 | 64 | 70 | 305 | 825 |
| 2010/11 | 791 | -124 | -51 | 51 | 290 | 957 |
| 2011/12 | 776 | -656 | 177 | 219 | - | 516 |

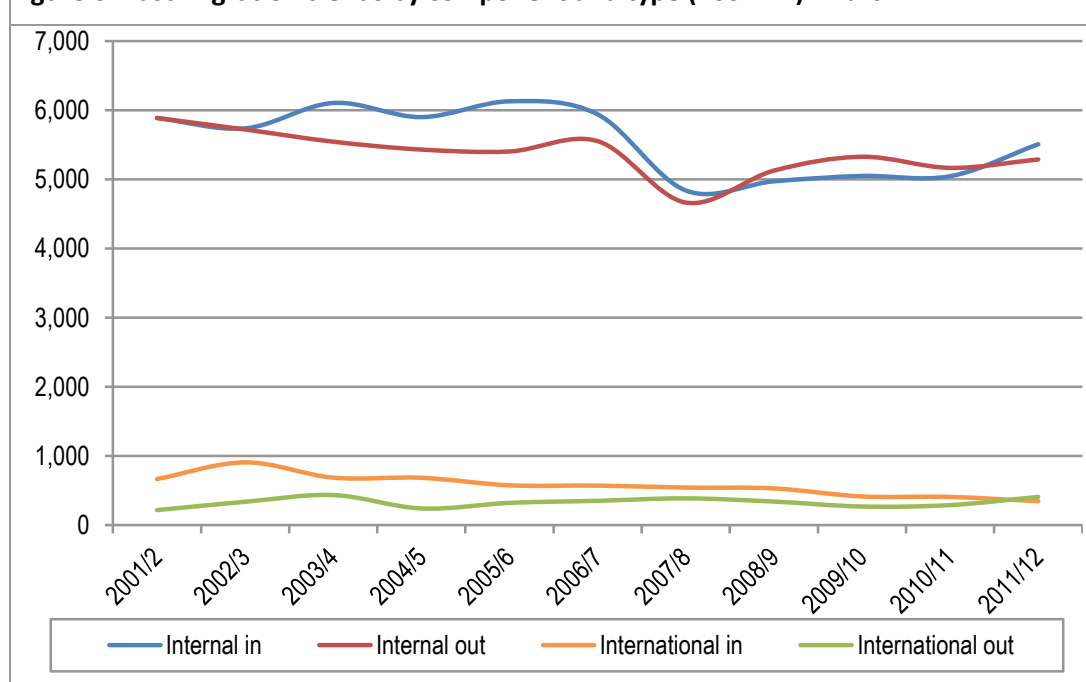
Source: ONS

Figure 5: Components of population change (2001-12) – Surrey Heath

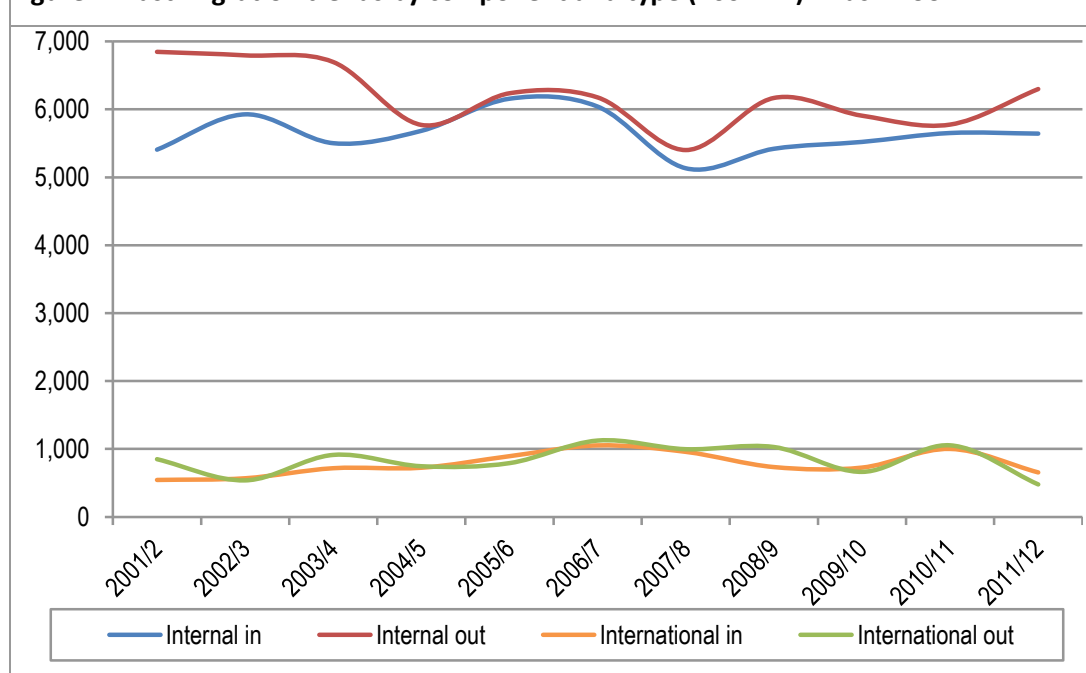
| Year | Natural change | Net internal migration | Net international migration | Other changes | Other (unattributable) | Total change |
|---------|----------------|------------------------|-----------------------------|---------------|------------------------|--------------|
| 2001/2 | 184 | -201 | -76 | -10 | 152 | 49 |
| 2002/3 | 257 | -102 | 296 | 19 | 110 | 580 |
| 2003/4 | 321 | 41 | 197 | 5 | 129 | 693 |
| 2004/5 | 291 | -128 | 418 | -4 | 113 | 690 |
| 2005/6 | 314 | 238 | 283 | -1 | 129 | 963 |
| 2006/7 | 419 | 285 | 128 | -38 | 136 | 930 |
| 2007/8 | 369 | -312 | -34 | -13 | 121 | 131 |
| 2008/9 | 402 | 211 | -54 | 124 | 114 | 797 |
| 2009/10 | 314 | 148 | 49 | 62 | 128 | 701 |
| 2010/11 | 271 | 281 | -98 | -14 | 95 | 535 |
| 2011/12 | 317 | 59 | -154 | 14 | | 236 |

Source: ONS

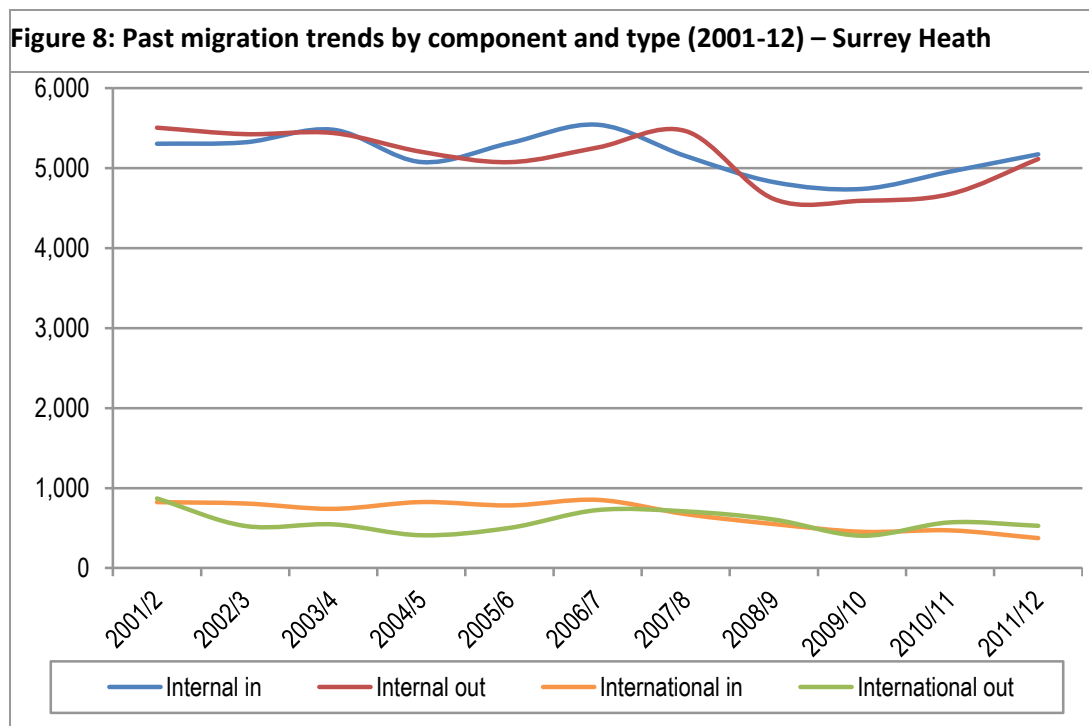
7. Overall the key finding from this analysis is that migration has fluctuated significantly over time. This makes it difficult to develop a demographic trend based projection with absolute confidence. The fluctuations in migration are more clearly illustrated in Figures 6, 7 and 8 which separate out in and outmigration (rather than just showing the net figures as in the Figures above). Figures are provided only for each of the three local authorities as it is not possible to simply sum the data to make a HMA-level output. This is due to the fact that there will be important migration flows between each of the three authorities in the HMA area.

Figure 6: Past migration trends by component and type (2001-12) - Hart

Source: ONS Components of Change

Figure 7: Past migration trends by component and type (2001-12) - Rushmoor

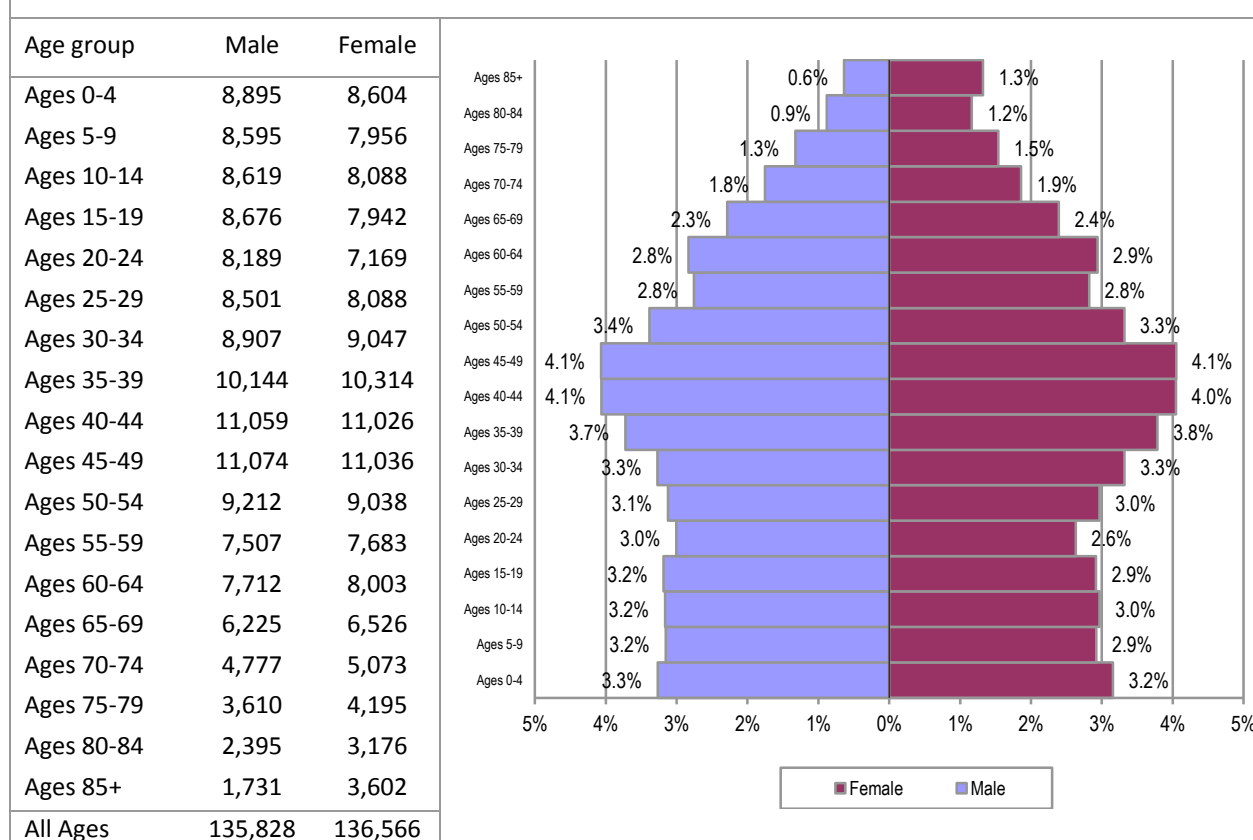
Source: ONS Components of Change



Source: ONS Components of Change

Baseline Population

8. The baseline for the projections in this report are the 2011 figures, with the projection run for each year over the period up to 2036 (and core outputs provided in the report to 2031). The estimated population profile as of 2011 has been taken from ONS mid-year population estimates. The overall population in 2011 is estimated to be 272,400 with slightly more females than males.

Figure 9: Population of HMA (5 year age bands) – 2011

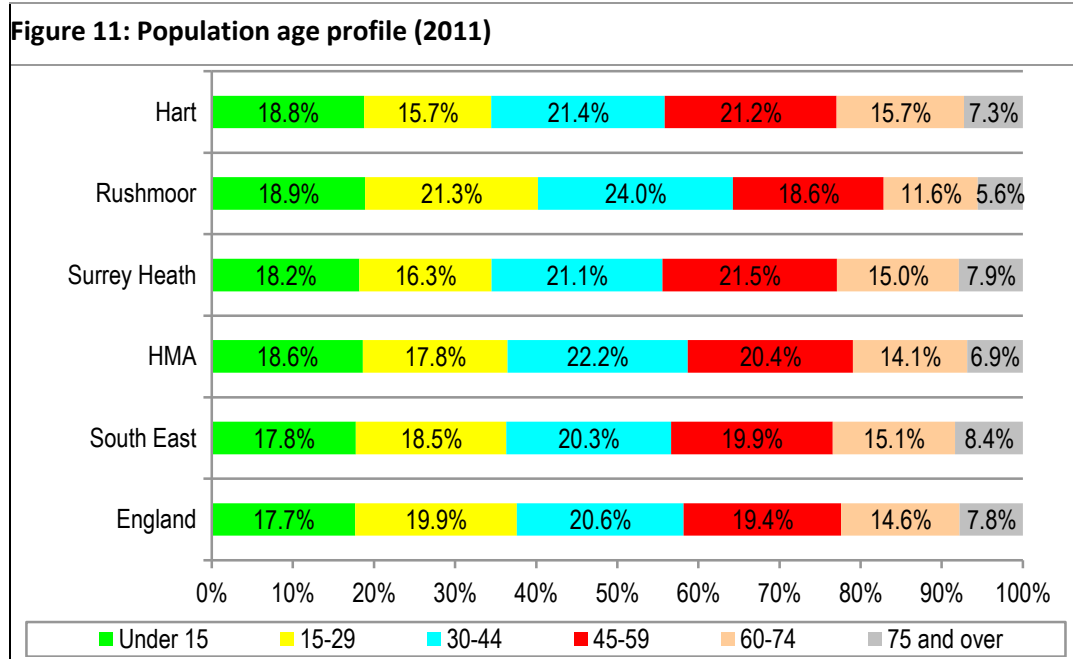
Source: ONS mid-year population estimates

9. Figures 10 and 11 show the population distribution in each local authority area in broad 15-year age categories. The data shows that all areas have a similar population size; ranging from 86,400 in Surrey Heath to 94,400 in Rushmoor. When looking at the population age structure for the whole HMA the data shows a similar profile when compared with the national average and a slightly younger profile when compared with data for the South East. There are some differences within each of the different local authorities. Rushmoor in particular has a younger population with 40% of the population aged under 30 (compared with a HMA average of 36%). In contrast, the other two areas have older populations. In Hart and Surrey Heath some 23% of the population is aged 60 or over compared with just 17% in Rushmoor.

Figure 10: Comparison of population profile in different local authorities (2011)

| Age group | Hart | Rushmoor | Surrey Heath | HMA |
|-----------|--------|----------|--------------|---------|
| Under 15 | 17,216 | 17,823 | 15,718 | 50,757 |
| 15-29 | 14,371 | 20,120 | 14,074 | 48,565 |
| 30-44 | 19,606 | 22,683 | 18,208 | 60,497 |
| 45-59 | 19,413 | 17,549 | 18,588 | 55,550 |
| 60-74 | 14,400 | 10,935 | 12,981 | 38,316 |
| 75+ | 6,656 | 5,244 | 6,809 | 18,709 |
| Total | 91,662 | 94,354 | 86,378 | 272,394 |

Source: 2011-Mid-Year population estimates



Fertility and Mortality Rate Assumptions

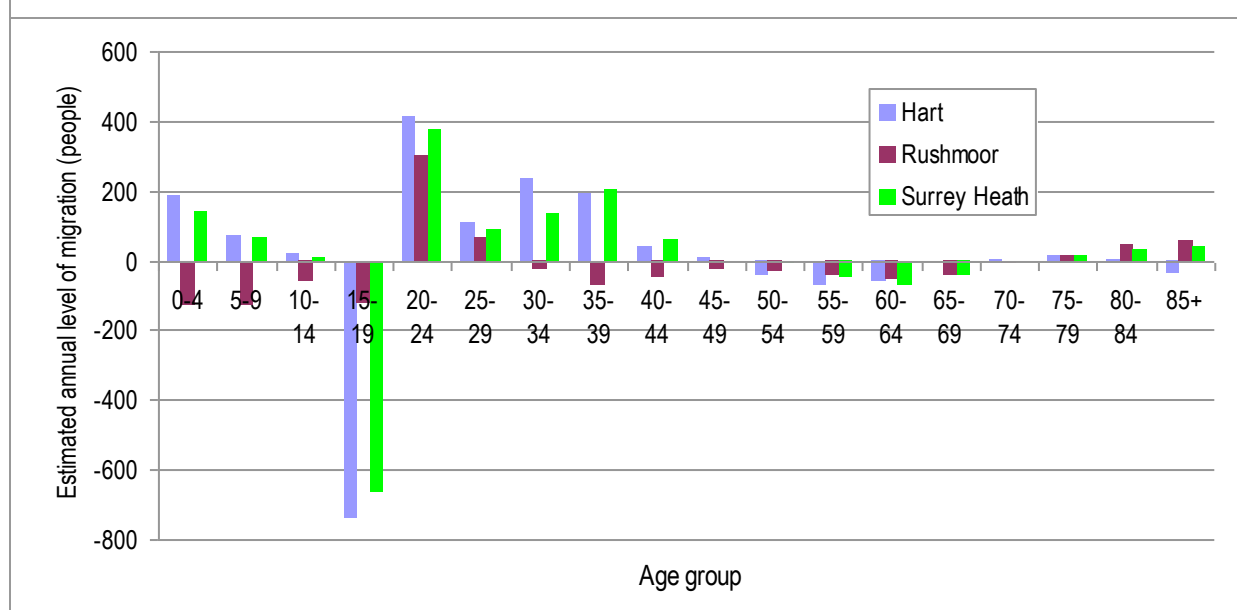
10. For modelling of fertility JGA have used the rates contained within the ONS 2010-based population projections (with very small adjustments to ensure consistency with the 2011-based SNPP). In all areas fertility rates are expected to drop quite notably through the projection period. JGA also interrogated the ONS 2010-based projections with regard to death rates; this indicates that life expectancy is expected to increase over time for both males and females.
11. Figure 12 shows figures for the fertility rates (TFR) and life expectancy (e0) in each area for key dates at the start and towards the end of the projection period. The data indicates that fertility rates are broadly similar in all parts of the HMA, though highest in Rushmoor and lowest in Hart. Life expectancy shows some variation between the different parts of the HMA with Hart in particular having the highest life expectancy and Rushmoor the lowest.
12. There is no evidence to suggest that either the fertility or mortality estimates used by ONS are unreasonable and it is worth noting that the expected figures and changes in the HMA are consistent with past trend data and future expected patterns as published by ONS on a national basis.

| Figure 12: Fertility and Mortality Assumptions (key periods) | | | |
|---|------|----------|--------------|
| | Hart | Rushmoor | Surrey Heath |
| TFR – 2011/12 | 2.08 | 2.24 | 2.19 |
| TFR – 2030/31 | 1.91 | 2.03 | 1.98 |
| Male e0 – 2011/12 | 80.8 | 79.2 | 80.3 |
| Male e0 – 2030/31 | 84.5 | 83.0 | 83.6 |
| Female e0 – 2011/12 | 84.9 | 82.8 | 83.6 |
| Female e0 – 2030/31 | 88.1 | 86.3 | 86.9 |

Source: Derived from ONS 2010-based SNPP

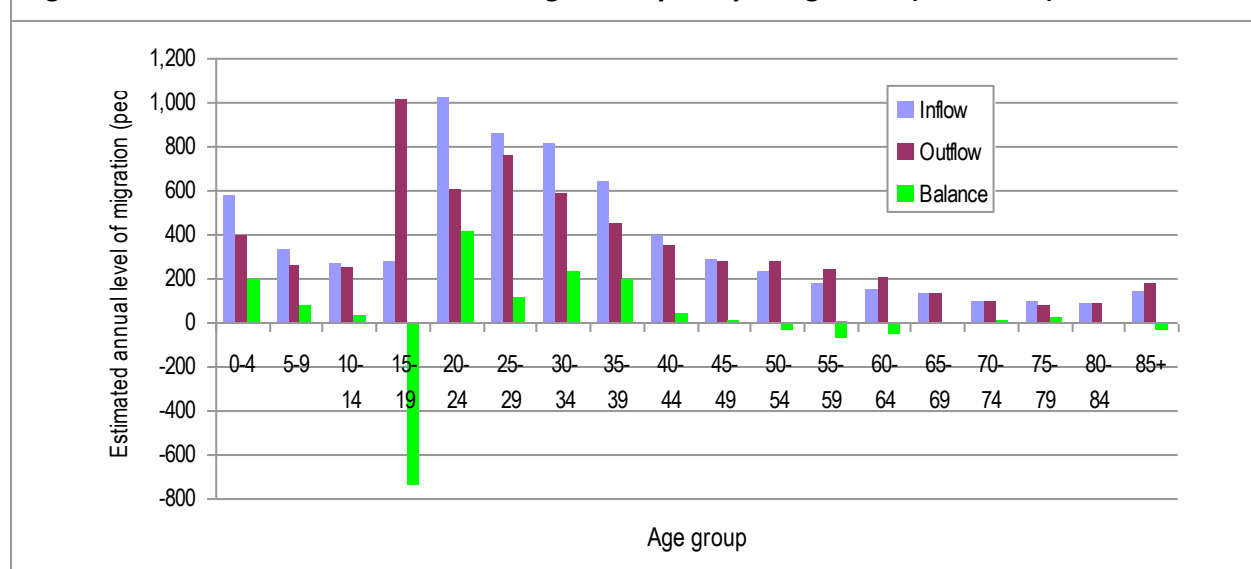
Migration Assumptions

13. For the purposes of understanding the profile of migrants, data from the ONS 2010-and 2011-based sub-national population projections have been used. Over the period from 2011 to 2031, the data shows an average annual level of net in-migration of 371 people (this is based on the PROJ 2 which uses ONS data with a small adjustment due to over or under-estimations of population growth shown in the 2011 Census). Figure 13 clearly shows that the most important age groups in terms of migration are from 15 to 19 and 20 to 24 which is strongly linked to student migration patterns.
14. Looking at the data it is clear that there are differences between areas. Hart and Surrey Heath see the most significant outflow of people aged 15-19 with stronger in-migration of people aged up to 44 and also an in-migration of children. Rushmoor sees in-migration of people aged 20-24 and 25-29 along with net out-migration of most other age groups. The data for Rushmoor also indicates an expected net in-migration of older people (aged 80 and over). The general pattern of migration observed suggests a movement of families from Rushmoor to other parts of the HMA.
15. When projecting migration patterns for the various projection scenarios use has been made of the migration data and adjusted levels of net migration to match the requirements of our scenario (e.g. when testing what level of migration is required to support a workforce of a particular size). This approach has consistently been adopted across all analysis.

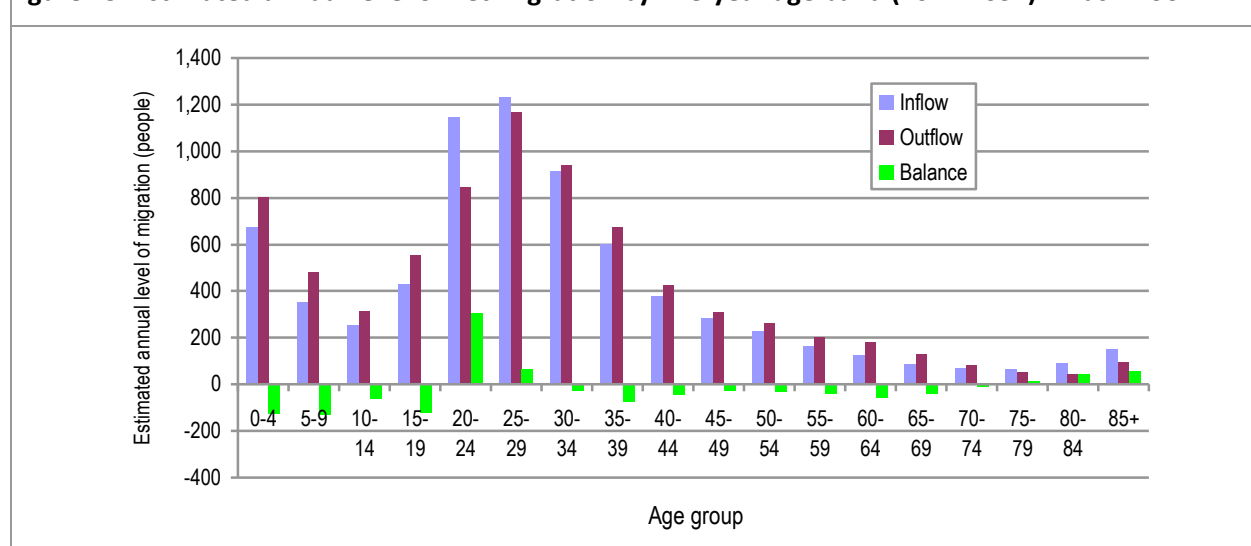
Figure 13: Estimated annual level of net migration by five-year age band (2011-2031) – HMA

Source: Derived from ONS 2010- and 2011-based population projections

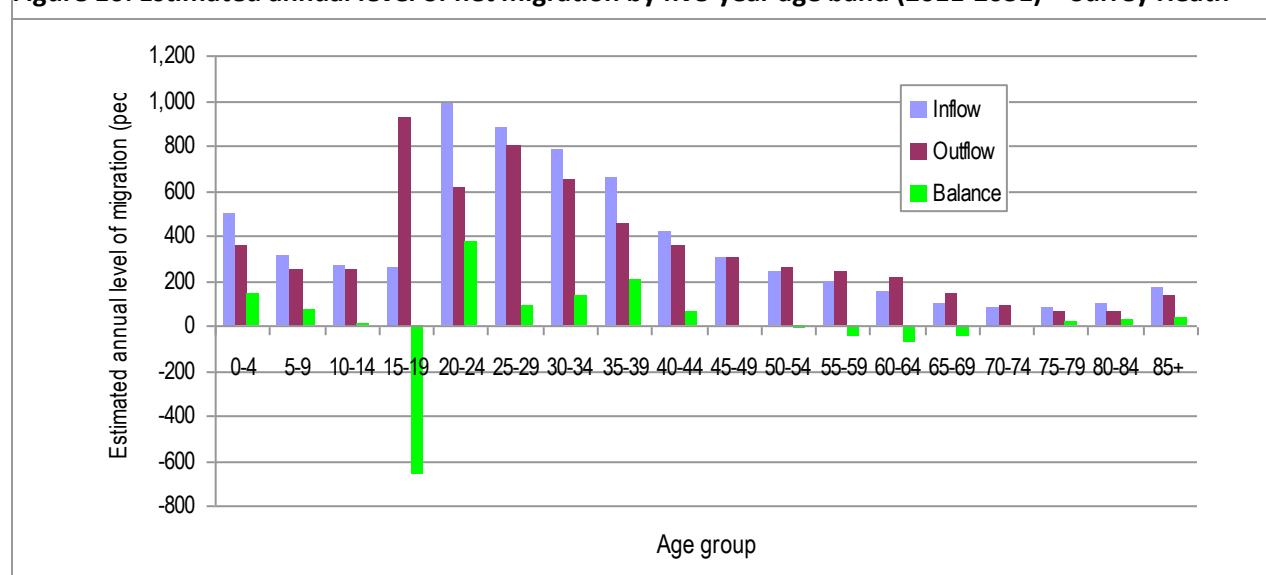
16. Figures 14, 15 and 16 show the migration data for individual local authorities. As well as showing net migration these figures show levels of in- and out-migration separately. A similar analysis is not possible for the whole HMA as some of the migration movements will be from one local authority in the HMA to another.

Figure 14: Estimated annual level of net migration by five-year age band (2011-2031) – Hart

Source: Derived from ONS 2010- and 2011-based population projections

Figure 15: Estimated annual level of net migration by five-year age band (2011-2031) – Rushmoor

Source: Derived from ONS 2010- and 2011-based population projections

Figure 16: Estimated annual level of net migration by five-year age band (2011-2031) – Surrey Heath

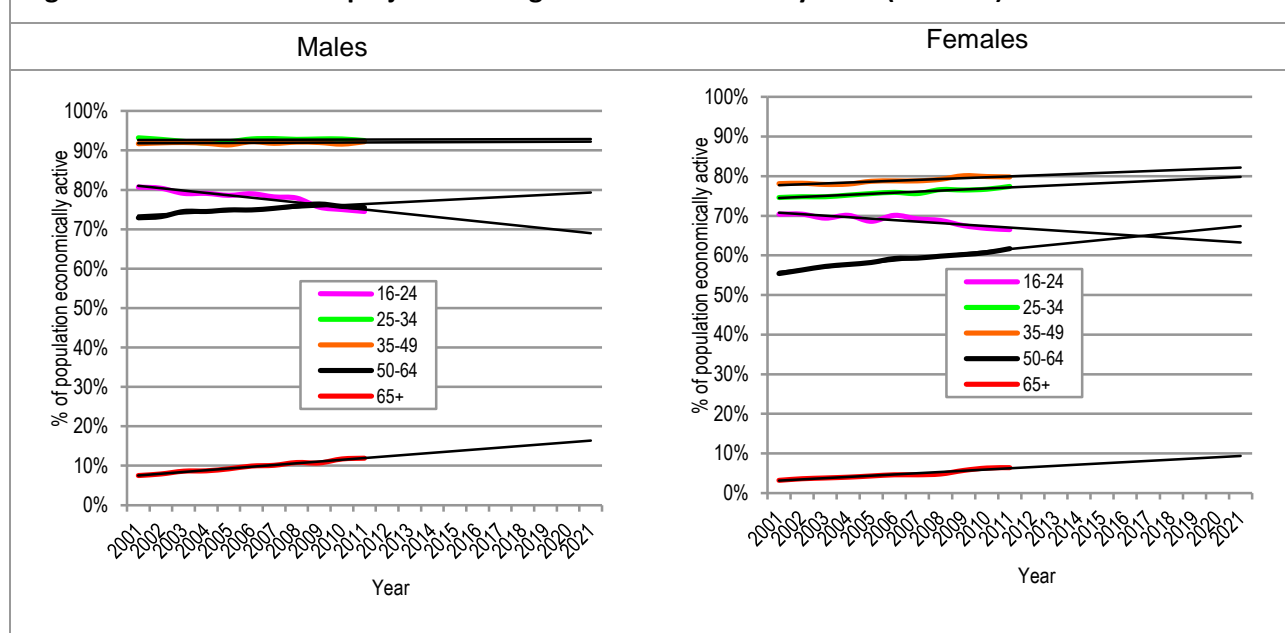
Source: Derived from ONS 2010- and 2011-based population projections

Workforce Assumptions

17. Changes in demographic structure of an area generate changes in the available workforce of an area – those willing and able to work – as the population of people of working age changes. The next stage of the projection process entails estimating how the working age population will change with each of the demographic projections and hence the change in the available workforce. Figure 17 illustrates the process of arriving at estimates of the available workforce. The process is set out in the figure below.

Figure 17: Workforce Projections

18. The first stage of the process is to establish working patterns in each local authority area. Data from the 2011 Census on the number of people in employment in each of five core age groups (and by sex) has been used. To establish the future size of the workforce consideration also needs to be given to how economic activity rates will change in future for different age groups. This includes consideration of whether people some people will work longer due to changes in pensionable age, improving health, and a desire to boost incomes to compensate for inadequate pension income.
19. Figure 18 shows past trends in economic activity rates (nationally) from 2001 to 2011. The black lines show the pattern of change if these trends are projected forward to 2021. The data shows that there have been some notable increases in activity rates for older age groups over the past decade (and indeed for all age groups other than 16-24 in the case of females). In examining the future availability of labour to meet expected employment growth, it has been assumed that these trends continue into the future to 2031. The only exceptions to this are: a) for the 16-24 age group, the decrease in economic activity rates are largely due to increased student numbers and this trend is not expected to continue; and b) the change in rates for those aged 65+ have only been applied to the population aged 65-74.

Figure 18: Past trends and projected change to economic activity rates (national)

Source: Derived from Labour Force Survey (LFS) data

20. Figure 19 shows the employment rates used for modelling from 2011 to 2031. From the population modelling exercise it is estimated that in mid-2011 there were 145,680 people in employment in the HMA area, an employment rate of 73.0% (this being the percentage of people age 16-74 who are in work). Based on the assumed trend in economic activity rates, it is expected that the employment rate

will rises to 76.7% by 2031.

Figure 19: Employment Rates by Age and Sex

| Area | Sex | Year | Aged 16 to 24 | Aged 25 to 34 | Aged 35 to 49 | Aged 50 to 64 | Aged 65 to 74 |
|----------|--------|------|---------------|---------------|---------------|---------------|---------------|
| Hart | Male | 2011 | 64.5% | 93.7% | 95.4% | 81.8% | 29.8% |
| | | 2031 | 64.5% | 94.1% | 96.4% | 87.5% | 47.0% |
| | Female | 2011 | 66.0% | 81.8% | 80.6% | 65.8% | 18.7% |
| | | 2031 | 66.0% | 86.8% | 85.3% | 78.2% | 33.7% |
| Rushmoor | Male | 2011 | 64.9% | 91.8% | 91.7% | 79.6% | 25.3% |
| | | 2031 | 64.9% | 92.2% | 92.7% | 85.3% | 42.5% |
| | Female | 2011 | 61.4% | 78.4% | 81.0% | 65.9% | 18.8% |
| | | 2031 | 61.4% | 83.4% | 85.7% | 78.3% | 33.8% |
| Surrey | Male | 2011 | 59.9% | 90.2% | 92.7% | 81.6% | 31.4% |
| | | 2031 | 59.9% | 90.6% | 93.7% | 87.3% | 48.6% |
| Heath | Female | 2011 | 62.7% | 81.0% | 80.2% | 67.8% | 20.0% |
| | | 2031 | 62.7% | 86.0% | 84.9% | 80.2% | 35.0% |

Source: Derived from a range of data sources (including 2011 Census and LFS)

Household (and Housing) Growth Projections

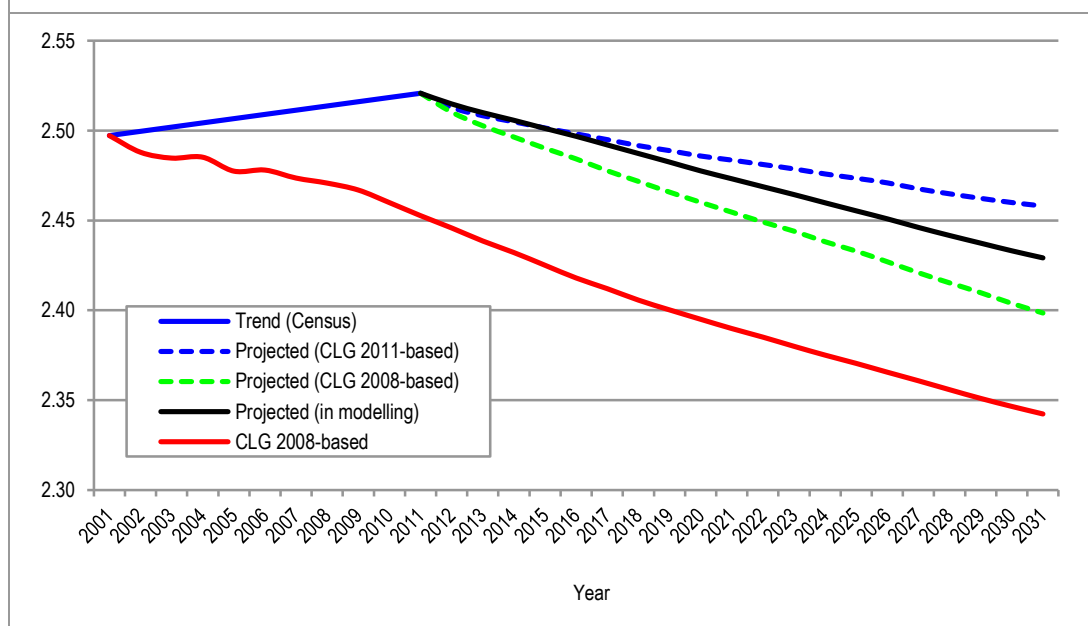
21. Having estimated the population size and the age/sex profile of the population the next step in the process is to convert this information into estimates of the number of households in the area. To do this the concept of headship rates is used. Headship rates can be described in their most simple terms as the number of people who are counted as heads of households (or in this case the more widely used Household Reference Person (HRP)).
22. For the purposes of this analysis the start point is data contained in the 2011-based CLG household projections about the relationship between the total population in an age group and the number of household reference persons (HRPs) in that age group. Because the 2011-based CLG household projections only go up to 2021 it has been necessary to make assumptions for the remainder of the projection period. The analysis of projected changes to 2021 is based on a linear basis based on the headship rate assumptions in each of 2011 and 2021 in the CLG projections.
23. Whilst the 2011-based CLG household projections contain headship rates based on trends from 2001 to 2011 it is also necessary to consider the extent to which household formation in the HMA may have been constrained by housing market factors such as the difficulty in obtaining mortgage finance. Such a check is required by the CLG advice of August 2013.
24. The extent of any suppression of household formation can be gauged through a comparison between 2008- and 2011-based household projections. The 2008-base projections were produced at a time when the housing market was fairly buoyant and can be considered to provide an unconstrained view of household formation whilst the 2011-based data looked at a trend period including the economic downturn and may well therefore include some degree of constraint.
25. By looking at expected average household sizes (rebased to the same 2011 population profile) it is

possible to see if household formation has fallen below what might have been expected. This does appear to be the case in the HMA. The 2011-based projections show an average household size of 2.52 whilst the 2008-based projections anticipated a figure of 2.45. In projecting forward it is important to consider the extent to which any constraint is expected to continue and make allowances for housing market recovery where relevant.

26. However, despite there being some evidence through analysis of average household sizes of suppressed household formation this may not be due solely to households being unable to form. A recent (September 2013) study produced by CCHPR on behalf of the TCPA sheds some light on this issue, stating:

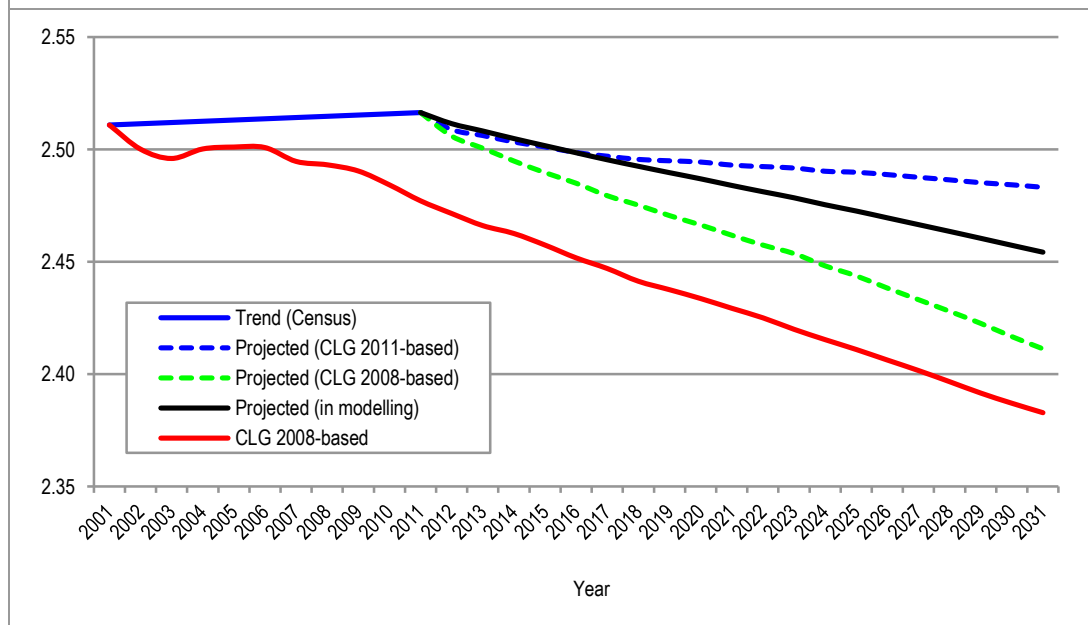
“The central question for the household projection is whether what happened in 2001 – 11 was a structural break from a 40-year trend; or whether household formation was forced downwards by economic and housing market pressures that are likely to ease with time. At the time of the 2011 Census, the British economy was still in recession and the housing market was depressed. The working assumption in this study is that a considerable part but not all of the 375,000 shortfall of households relative to trend was due to the state of the economy and the housing market. 200,000 is attributed to over-projection of households due to the much larger proportion of recent immigrants in the population, whose household formation rates are lower than for the population as a whole. This effect will not be reversed. The other 175,000 is attributed to the economy and the state of the housing market and is assumed to gradually reverse.”

27. On the basis of this analysis it can broadly be suggested that half of the lack of expected households is due to market factors, with roughly half attributable to other issues (linked to international migration). The approach taken in modelling data for the HMA has been to take a pragmatic approach that future household formation will fall somewhere between figures in the 2011-based CLG projections (which appear to project forward a trend of constraint) and the data in the 2008-based figures (which are largely unconstrained). This is shown in Figure 20. The main demographic modelling anticipates that average household size will fall from 2.52 persons per household in 2011 to 2.43 in 2031.

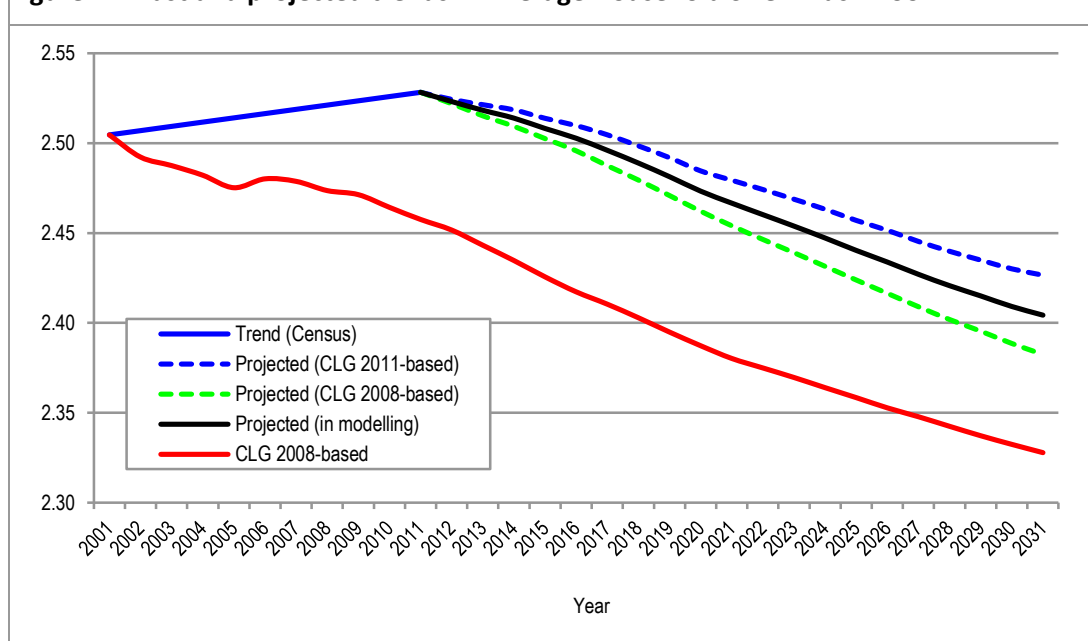
Figure 20: Past and projected trends in Average Household Size – HMA

Source: Derived from ONS and CLG data

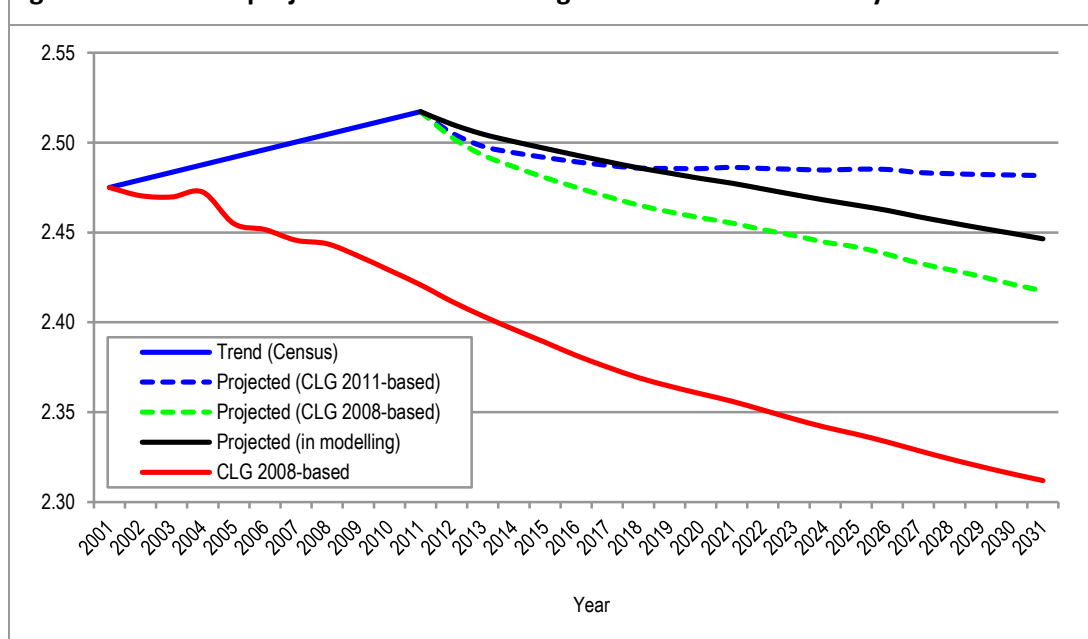
28. Figures 21, 22 and 23 show the projected average household size used in preparing the projections of household numbers. The projections anticipate that average household size will fall over time from 2011. The CLG data shows sharp changes from year to year. In developing the projections for this study the decline in average household sizes over the decade has been smoothed. This is particularly evident in Surrey Heath and to a lesser extent Hart. The smoothing does not have any impact on the outputs when taken through to 2031 (or beyond to 2036).

Figure 21: Past and projected trends in Average Household Size – Hart

Source: Derived from ONS and CLG data

Figure 22: Past and projected trends in Average Household Size – Rushmoor

Source: Derived from ONS and CLG data

Figure 23: Past and projected trends in Average Household Size – Surrey Heath

Source: Derived from ONS and CLG data

29. Figure 24 shows headship rates derived from the analysis for each of the key periods of 2011 and 2031. The data shows that whilst most headship rates remain at a fairly constant level over time there are a number of groups where notable changes are projected to occur (both in an upward and downward direction and particularly in relation to females).

| Figure 24: Estimated Headship Rates by Age and Sex (2011 and 2031) | | | | | | | | | | | | |
|---|-------|-------|--------|-------|----------|-------|--------|-------|--------------|-------|--------|-------|
| Age group | Hart | | | | Rushmoor | | | | Surrey Heath | | | |
| | Male | | Female | | Male | | Female | | Male | | Female | |
| | 2011 | 2031 | 2011 | 2031 | 2011 | 2031 | 2011 | 2031 | 2011 | 2031 | 2011 | 2031 |
| Ages 15-19 | 0.7% | 0.7% | 0.7% | 1.0% | 1.4% | 1.3% | 1.1% | 1.3% | 1.6% | 1.3% | 1.4% | 1.4% |
| Ages 20-24 | 16.6% | 15.0% | 6.4% | 7.5% | 22.7% | 20.7% | 7.0% | 7.8% | 15.6% | 13.9% | 8.3% | 9.2% |
| Ages 25-29 | 52.5% | 45.5% | 12.3% | 14.1% | 54.7% | 46.3% | 10.7% | 11.7% | 48.5% | 42.3% | 14.3% | 16.0% |
| Ages 30-34 | 77.2% | 69.1% | 13.6% | 16.8% | 81.8% | 75.6% | 18.3% | 22.0% | 78.6% | 73.8% | 15.0% | 19.4% |
| Ages 35-39 | 86.9% | 84.0% | 13.3% | 12.9% | 88.0% | 88.8% | 18.3% | 21.4% | 84.7% | 80.5% | 16.2% | 19.5% |
| Ages 40-44 | 93.5% | 92.5% | 13.7% | 6.9% | 91.2% | 90.6% | 22.6% | 26.3% | 93.2% | 92.9% | 14.5% | 13.0% |
| Ages 45-49 | 94.8% | 93.1% | 16.6% | 16.6% | 91.2% | 91.8% | 21.6% | 21.0% | 94.1% | 93.1% | 16.4% | 15.4% |
| Ages 50-54 | 95.9% | 94.1% | 16.2% | 17.7% | 91.3% | 87.8% | 24.4% | 27.6% | 95.4% | 94.9% | 17.3% | 17.5% |
| Ages 55-59 | 97.4% | 96.5% | 17.5% | 21.1% | 96.4% | 96.4% | 24.9% | 29.1% | 96.4% | 96.0% | 18.0% | 21.9% |
| Ages 60-64 | 97.8% | 97.2% | 20.5% | 23.7% | 97.1% | 97.0% | 29.9% | 34.8% | 95.9% | 94.2% | 19.6% | 22.1% |
| Ages 65-69 | 98.4% | 97.7% | 23.9% | 26.6% | 97.7% | 97.1% | 37.2% | 42.7% | 97.4% | 97.0% | 25.6% | 28.4% |
| Ages 70-74 | 98.7% | 98.8% | 31.9% | 31.2% | 98.7% | 99.0% | 46.9% | 46.2% | 97.9% | 97.6% | 31.6% | 29.7% |
| Ages 75-79 | 97.8% | 98.3% | 47.6% | 39.9% | 97.7% | 98.3% | 56.1% | 49.7% | 96.5% | 96.2% | 42.1% | 34.1% |
| Ages 80-84 | 97.5% | 98.6% | 60.0% | 46.3% | 98.0% | 99.4% | 69.5% | 58.7% | 96.6% | 97.5% | 57.8% | 47.0% |
| Ages 85+ | 94.9% | 98.1% | 76.4% | 68.5% | 95.7% | 97.5% | 77.7% | 70.0% | 93.8% | 95.9% | 71.5% | 61.5% |

Source: Derived from CLG 2011- and 2008-based household projections

30. When applying these headship rates to the population an estimated number of households in 2011 of 105,943 is derived. This figure is consistent with the number of households shown in the 2011 Census and the 2011-based household projections (CLG).
31. In converting an estimated number of households into requirements for additional dwellings we have also factored in a small vacancy allowance which is normal to allow for movement of households between properties. For the analysis we have taken information from the 2011 Census about the number of unoccupied household spaces to derive the vacancy figure. This source suggests a vacancy rate of 2.9% in Hart, 3.8% in Rushmoor and 3.6% for Surrey Heath. It is assumed that these figures will be reflective of what can be achieved in new housing stock and includes an allowance for second homes.

Appendix F: Detailed Projection Outputs

Introduction

1. This section provides detailed outputs of the modelling under each of the scenarios run to look at population growth, employment change and housing requirements. All the projections examine the period from 2011 to 2031 and onward to 2036 with outputs available for each year of the projection (although these have generally been summarised for five year periods). The projections run are summarised in the Figure below.

| Figure 1: Description of Projections used for Demographic Modelling | |
|---|---|
| Projection | Description |
| PROJ 1 | Based on the 2011-based ONS and CLG projections rolled-forward to 2031/36 |
| PROJ 2 | Based on 2011-based ONS and CLG projections updated to take account of more recent data about population growth |
| PROJ 2A | Linked to PROJ 2 above with a reduced household formation constraint |
| PROJ 3 | Linked to employment growth shown in an Experian economic forecast |
| PROJ 4 | Linked to trends in employment growth in the 1998-2008 period |
| PROJ 5 | Linked to a midpoint between the figures in PROJ 3 and PROJ 4 above |

Population Projections

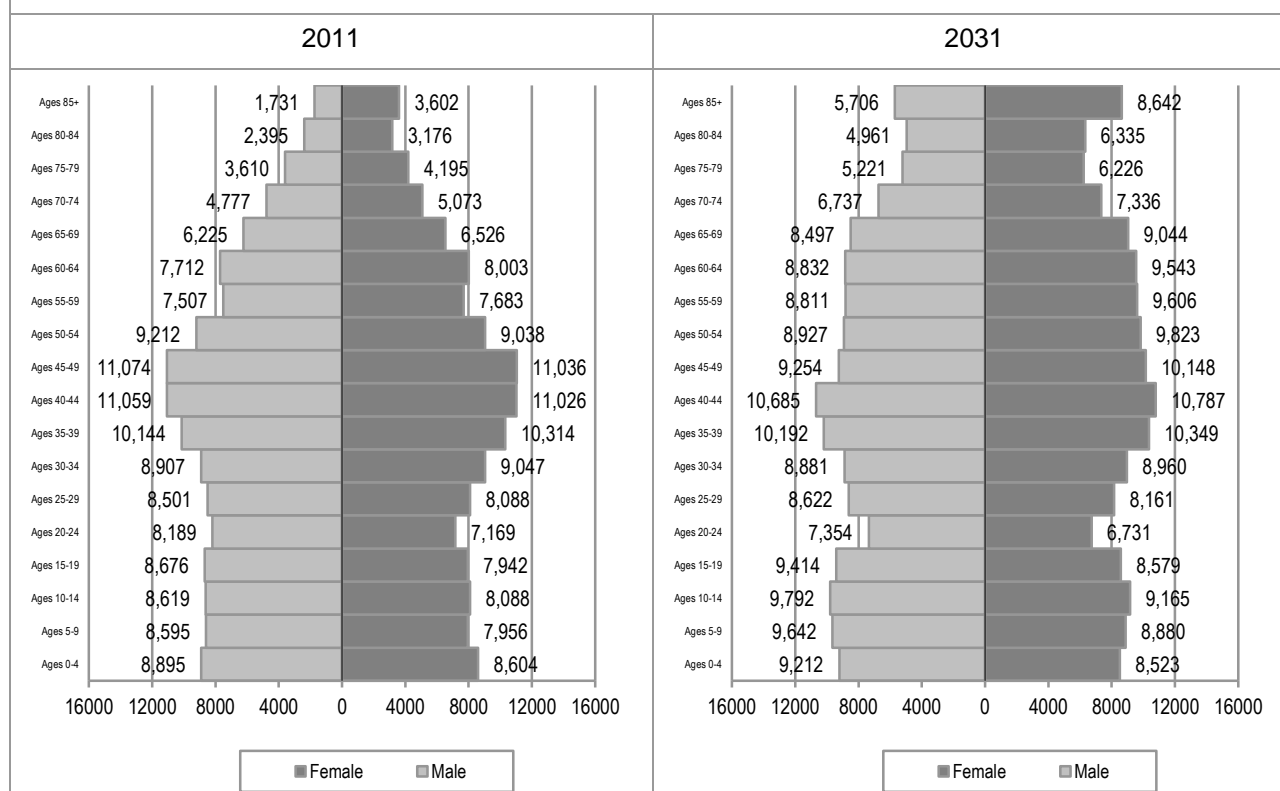
2. Figure 2 shows the expected growth in population under each of the scenarios. (PROJ 2 and 2A are not shown separately due to population growth figures being exactly the same under these two projections). Under demographic assumptions linked to the SNPP (PROJ 1 and 2) the population of the HMA is expected to increase by between 39,800 and 44,200 people over the 25-year period; this represents population growth of 15%-16%. The difference between the two projections is driven by the increased migration assumptions linked to a positive unattributable population change in the HMA recorded by ONS.
3. If new homes are built on a scale required to meet the full labour force requirements associated with Experian employment growth scenario (PROJ 3), population growth is significantly higher than under the employment scenario associated with the historic trend employment scenario (PROJ 4). The level of population growth associated with the historic employment trend scenario entails a similar level of population growth as the main demographic based projection (PROJ 2). Taking a midpoint job growth scenario (PROJ 5) is associated with population growth of 57,200 (21%) over the full 25-year projection period 2011-36.

Figure 2: Population Estimates 2011 to 2036

| | 2011 | 2016 | 2021 | 2026 | 2031 | 2036 |
|-------------------------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| PROJ 1 (2011-based SNPP) | 272,394 0.0% | 279,582 2.6% | 288,012 5.7% | 296,279 8.8% | 304,113 11.6% | 312,144 14.6% |
| PROJ 2 (2011-based SNPP (updated)) | 272,394 0.0% | 280,332 2.9% | 289,604 6.3% | 298,786 9.7% | 307,578 12.9% | 316,600 16.2% |
| PROJ 3 (Experian job-led) | 272,394 0.0% | 290,968 6.8% | 308,940 13.4% | 323,176 18.6% | 334,354 22.7% | 343,509 26.1% |
| PROJ 4 (Job trends) | 272,394 0.0% | 284,039 4.3% | 294,196 8.0% | 303,480 11.4% | 310,202 13.9% | 315,672 15.9% |
| PROJ 5 (Midpoint employment growth) | 272,394 0.0% | 287,503 5.5% | 301,570 10.7% | 313,326 15.0% | 322,278 18.3% | 329,598 21.0% |

Population Change Dynamics

4. Figure 3 shows population pyramids for 2011 and 2031 under the projection linked to ONS/CLG trends (as updated) – PROJ 2. The ‘pyramids’ clearly show the growth in population overall and highlight the ageing of the population with a greater proportion of the population expected to be in age groups aged 60 and over (and even more so for older age groups). In particular the oldest age group (85+) shows an increase from 5,333 people to 14,330.

Figure 3: Distribution of Population 2011 and 2031 for PROJ 2 (SNPP (updated))

5. Figure 4 summarises the findings for key (5 year) age groups under PROJ 2 (SNPP (updated)). The largest growth will be in people aged 65 and over. In 2031 it is estimated that there will be 68,700 people aged 65 and over. This is an increase of 27,400 from 2011, representing growth of 66%. The population aged 85 and over is projected to increase by an even greater proportion, 169%. Looking at the other end of the age spectrum the data shows that there are projected to be around 9% more people aged under 15 with moderate increases (and some decreases) shown for other age groups.

| Figure 4: PROJ 2 (SNPP (updated)) population change 2011 to 2031 by five year age bands | | | | |
|--|-----------------|-----------------|----------------------|--------------------|
| Age group | Population 2011 | Population 2031 | Change in population | % change from 2011 |
| Under 5 | 17,499 | 17,735 | 236 | 1.3% |
| 5-9 | 16,551 | 18,522 | 1,971 | 11.9% |
| 10-14 | 16,707 | 18,957 | 2,250 | 13.5% |
| 15-19 | 16,618 | 17,992 | 1,374 | 8.3% |
| 20-24 | 15,358 | 14,085 | -1,273 | -8.3% |
| 25-29 | 16,589 | 16,783 | 194 | 1.2% |
| 30-34 | 17,954 | 17,842 | -112 | -0.6% |
| 35-39 | 20,458 | 20,540 | 82 | 0.4% |
| 40-44 | 22,085 | 21,472 | -613 | -2.8% |
| 45-49 | 22,110 | 19,402 | -2,708 | -12.2% |
| 50-54 | 18,250 | 18,750 | 500 | 2.7% |
| 55-59 | 15,190 | 18,417 | 3,227 | 21.2% |
| 60-64 | 15,715 | 18,375 | 2,660 | 16.9% |
| 65-69 | 12,751 | 17,541 | 4,790 | 37.6% |
| 70-74 | 9,850 | 14,073 | 4,223 | 42.9% |
| 75-79 | 7,805 | 11,447 | 3,642 | 46.7% |
| 80-84 | 5,571 | 11,296 | 5,725 | 102.8% |
| 85+ | 5,333 | 14,348 | 9,015 | 169.0% |
| Total | 272,394 | 307,578 | 35,184 | 12.9% |

Population in Employment

6. Figure 5 shows the estimated number of people living in the HMA who are working under each of the projections (again only PROJ 2 is shown as the figures are identical to those in PROJ 2A). The analysis shows under demographic based assumptions (PROJ 1 & 2) that the number of people working is projected to increase by 20,400 to 22,900 from 2011 to 2036. The projection linked to the Experian job growth scenario (PROJ 3) shows a significantly higher workforce increase of 38,300; whilst the scenario linked to past trends in job growth (PROJ 4) shows an increase in-line with the demographic based figures. Taking a midpoint job growth scenario (PROJ 5) shows an increase in the resident workforce of 30,200 people.

| Figure 5: Employment Estimates 2011 to 2036 | | | | | | |
|--|---------|---------|---------|---------|---------|---------|
| | 2011 | 2016 | 2021 | 2026 | 2031 | 2036 |
| PROJ 1 (2011-based SNPP) | 145,681 | 147,533 | 151,133 | 155,184 | 160,325 | 166,083 |
| | 0.0% | 1.3% | 3.7% | 6.5% | 10.1% | 14.0% |
| PROJ 2 (2011-based SNPP (updated)) | 145,681 | 147,962 | 152,022 | 156,561 | 162,233 | 168,590 |
| | 0.0% | 1.6% | 4.4% | 7.5% | 11.4% | 15.7% |
| PROJ 3 (Experian job-led) | 145,681 | 154,219 | 163,074 | 170,070 | 177,001 | 183,939 |
| | 0.0% | 5.9% | 11.9% | 16.7% | 21.5% | 26.3% |
| PROJ 4 (Job trends) | 145,681 | 150,124 | 154,559 | 159,004 | 163,444 | 167,880 |
| | 0.0% | 3.1% | 6.1% | 9.1% | 12.2% | 15.2% |
| PROJ 5 (Midpoint employment growth) | 145,681 | 152,171 | 158,818 | 164,536 | 170,223 | 175,914 |
| | 0.0% | 4.5% | 9.0% | 12.9% | 16.8% | 20.8% |

Household (and Housing) Growth

7. Figure 6 shows the projected growth in the number of households under each of the scenarios. The SNPP-based projection (PROJ 1) shows household growth of about 18% over the 25-year period whilst the updating of this projection (PROJ 2) to take account of more recent data shows a higher figure (of 19%). With the same projection and an adjustment for suppressed household formation (PROJ 2A) the household growth comes out slightly higher (a 21% increase). PROJ 2A implies a 22,400 increase in households over the period 2011-36 (about 900 per annum).
8. The projection linked to the Experian baseline scenario (PROJ 3) shows a 30% increase in households whilst linking population growth to past job growth trends is somewhat lower (a 21% increase) which is in-line with demographic forecasts once suppressed household formation has been taken into account). Finally, the projection linked to a midpoint job growth scenario (PROJ 5) shows a 25% increase in the number of households (26,900 – 1,077 per annum).

| Figure 6: Household Estimates 2011 to 2036 | | | | | | |
|---|---------|---------|---------|---------|---------|---------|
| | 2011 | 2016 | 2021 | 2026 | 2031 | 2036 |
| PROJ 1 (2011-based SNPP) | 105,943 | 109,730 | 113,692 | 117,528 | 121,223 | 124,775 |
| | 0.0% | 3.6% | 7.3% | 10.9% | 14.4% | 17.8% |
| PROJ 2 (2011-based SNPP (updated)) | 105,943 | 109,970 | 114,212 | 118,358 | 122,384 | 126,272 |
| | 0.0% | 3.8% | 7.8% | 11.7% | 15.5% | 19.2% |
| PROJ 2A (PROJ 2 – reduced household formation constraint) | 105,943 | 110,030 | 114,691 | 119,325 | 123,837 | 128,364 |
| | 0.0% | 3.9% | 8.3% | 12.6% | 16.9% | 21.2% |
| PROJ 3 (Experian job-led) | 105,943 | 113,414 | 120,965 | 127,334 | 132,740 | 137,574 |
| | 0.0% | 7.1% | 14.2% | 20.2% | 25.3% | 29.9% |
| PROJ 4 (Job trends) | 105,943 | 111,204 | 116,189 | 120,872 | 124,736 | 128,156 |
| | 0.0% | 5.0% | 9.7% | 14.1% | 17.7% | 21.0% |
| PROJ 5 (Midpoint employment growth) | 105,943 | 112,309 | 118,578 | 124,102 | 128,738 | 132,868 |
| | 0.0% | 6.0% | 11.9% | 17.1% | 21.5% | 25.4% |

9. The analysis above has concentrated on the number of additional households. In reality there are always likely to be some vacant homes in the area and so the number of properties required to house all of these households will be slightly greater than the projected household numbers. A vacancy allowance of between 2.9% and 3.8% has therefore been applied to all of the above figures to make estimated housing requirements; the resulting figures are shown in Figure 7.

| Figure 7: Estimated housing numbers with vacancy allowance (to 2036) | | | |
|---|-------------------------|---|---------------------------|
| Projection variant | Annual household growth | Annual requirement with vacancy allowance | Requirement over 25-years |
| PROJ 1 (2011-based SNPP) | 753 | 779 | 19,466 |
| PROJ 2 (2011-based SNPP (updated)) | 813 | 841 | 21,025 |
| PROJ 2A (reduced household formation constraint) | 897 | 927 | 23,187 |
| PROJ 3 (Experian job-led) | 1,265 | 1,309 | 32,727 |
| PROJ 4 (Job trends) | 889 | 919 | 22,983 |
| PROJ 5 (Midpoint employment growth) | 1,077 | 1,114 | 27,858 |

10. Figure 8 develops this information to show estimated housing need for each year of the projection along with a summary for every five years.

| Figure 8: Estimated housing need in each year of projection – HMA | | | | | | |
|--|------------------------------------|---|--|---------------------------------|------------------------|--|
| Period | PROJ 1 (2011- based SNPP) | PROJ 2 (2011- based SNPP (updated)) | PROJ 2A (reduced household formation constraint) | PROJ 3 (Experian job-led) | PROJ 4 (Job trends) | PROJ 5 (Midpoint employment growth) |
| 2011/12 | 801 | 848 | 760 | 1,405 | 983 | 1,194 |
| 2012/13 | 756 | 804 | 815 | 1,485 | 1,047 | 1,266 |
| 2013/14 | 754 | 804 | 842 | 1,543 | 1,086 | 1,314 |
| 2014/15 | 805 | 856 | 905 | 1,635 | 1,159 | 1,397 |
| 2015/16 | 796 | 849 | 900 | 1,660 | 1,166 | 1,413 |
| 2011-16 | 3,911 | 4,161 | 4,223 | 7,727 | 5,441 | 6,584 |
| 2016/17 | 796 | 851 | 925 | 1,487 | 990 | 1,239 |
| 2017/18 | 804 | 861 | 928 | 1,514 | 996 | 1,256 |
| 2018/19 | 822 | 880 | 975 | 1,574 | 1,043 | 1,309 |
| 2019/20 | 845 | 905 | 998 | 1,612 | 1,064 | 1,338 |
| 2020/21 | 829 | 890 | 995 | 1,626 | 1,063 | 1,345 |
| 2016-21 | 4,096 | 4,387 | 4,820 | 7,813 | 5,157 | 6,486 |
| 2021/22 | 811 | 873 | 973 | 1,333 | 989 | 1,161 |
| 2022/23 | 790 | 854 | 952 | 1,317 | 967 | 1,142 |
| 2023/24 | 796 | 861 | 954 | 1,314 | 966 | 1,140 |
| 2024/25 | 786 | 852 | 962 | 1,318 | 968 | 1,143 |
| 2025/26 | 783 | 849 | 952 | 1,307 | 957 | 1,132 |
| 2021-26 | 3,966 | 4,289 | 4,792 | 6,589 | 4,847 | 5,717 |
| 2026/27 | 801 | 868 | 950 | 1,142 | 826 | 984 |
| 2027/28 | 770 | 838 | 936 | 1,127 | 808 | 968 |
| 2028/29 | 760 | 830 | 929 | 1,113 | 794 | 954 |
| 2029/30 | 758 | 828 | 938 | 1,118 | 798 | 958 |
| 2030/31 | 731 | 802 | 916 | 1,095 | 772 | 934 |
| 2026-31 | 3,820 | 4,166 | 4,668 | 5,595 | 3,999 | 4,798 |
| 2031/32 | 751 | 821 | 906 | 968 | 689 | 829 |
| 2032/33 | 750 | 822 | 935 | 998 | 712 | 855 |
| 2033/34 | 738 | 806 | 949 | 1,012 | 719 | 866 |
| 2034/35 | 740 | 809 | 966 | 1,031 | 731 | 881 |
| 2035/36 | 694 | 764 | 927 | 994 | 689 | 842 |
| 2031-36 | 3,673 | 4,023 | 4,683 | 5,003 | 3,539 | 4,273 |
| 2011-36 | 19,466 | 21,025 | 23,187 | 32,727 | 22,983 | 27,858 |

Summary of Projections by Local Authority

11. The series of Figures below show summary outputs for each local authority under each of the projection scenarios. In each case the first Figure shows annual figures with the second one showing data for the 20-year period to 2031. Additional information has been provided about the changing population age structure (based on the SNPP (updated) projection – PROJ 2) to show the extent of population ageing in each area. The final Figure in the section shows estimated housing needs in each year of the projection and for each scenario – this data is provided up to 2036.

Figure 9: Summary of projections 2011 to 2031 – annual - Hart

| Projection Scenario | Population growth | | Housing numbers | | Employment growth | |
|---|-------------------|----------|-----------------|----------|-------------------|----------|
| | Per annum | % change | Per annum | % change | Per annum | % change |
| PROJ 1 (2011-based SNPP) | 795 | 0.9% | 332 | 0.9% | 412 | 0.8% |
| PROJ 2 (2011-based SNPP (updated)) | 715 | 0.8% | 306 | 0.8% | 365 | 0.8% |
| PROJ 2A (reduced hh formation constraint) | 715 | 0.8% | 337 | 0.9% | 365 | 0.8% |
| PROJ 3 (Experian job-led) | 993 | 1.1% | 431 | 1.2% | 523 | 1.1% |
| PROJ 4 (Job trends) | 599 | 0.7% | 299 | 0.8% | 297 | 0.6% |
| PROJ 5 (Midpoint employment growth) | 796 | 0.9% | 365 | 1.0% | 410 | 0.8% |

Figure 10: Summary of projections 2011 to 2031 – total - Hart

| Projection Scenario | Population growth | | Housing numbers | | Employment growth | |
|---|-------------------|----------|-----------------|----------|-------------------|----------|
| | Per annum | % change | Per annum | % change | Per annum | % change |
| PROJ 1 (2011-based SNPP) | 15,908 | 17.4% | 6,648 | 18.1% | 8,233 | 16.9% |
| PROJ 2 (2011-based SNPP (updated)) | 14,293 | 15.6% | 6,112 | 16.6% | 7,297 | 15.0% |
| PROJ 2A (reduced hh formation constraint) | 14,293 | 15.6% | 6,749 | 18.3% | 7,297 | 15.0% |
| PROJ 3 (Experian job-led) | 19,854 | 21.7% | 8,625 | 23.4% | 10,455 | 21.5% |
| PROJ 4 (Job trends) | 11,974 | 13.1% | 5,980 | 16.3% | 5,932 | 12.2% |
| PROJ 5 (Midpoint employment growth) | 15,912 | 17.4% | 7,302 | 19.8% | 8,192 | 16.8% |

Figure 11: PROJ 2 (SNPP (updated)) population change 2011 to 2031 by five year age bands – Hart

| Age group | Population 2011 | Population 2031 | Change in population | % change from 2011 |
|-----------|-----------------|-----------------|----------------------|--------------------|
| Under 15 | 17,216 | 18,883 | 1,667 | 9.7% |
| 15-29 | 14,371 | 15,251 | 880 | 6.1% |
| 30-44 | 19,606 | 20,450 | 844 | 4.3% |
| 45-59 | 19,413 | 20,258 | 845 | 4.4% |
| 60-74 | 14,400 | 17,605 | 3,205 | 22.3% |
| 75+ | 6,656 | 13,508 | 6,852 | 102.9% |
| Total | 91,662 | 105,955 | 14,293 | 15.6% |

Figure 12: Estimated housing need in each year of projection – Hart

| Period | PROJ 1 (2011-based SNPP) | PROJ 2 (2011-based SNPP (updated)) | PROJ 2A (reduced household formation constraint) | PROJ 3 (Experian job- led) | PROJ 4 (Job trends) | PROJ 5 (Midpoint employment growth) |
|---------|--------------------------------|---|--|----------------------------------|------------------------|--|
| 2011/12 | 406 | 384 | 351 | 491 | 353 | 422 |
| 2012/13 | 370 | 347 | 362 | 507 | 364 | 435 |
| 2013/14 | 385 | 362 | 375 | 524 | 377 | 450 |
| 2014/15 | 377 | 353 | 374 | 530 | 376 | 453 |
| 2015/16 | 381 | 357 | 373 | 533 | 375 | 454 |
| 2011-16 | 1,919 | 1,803 | 1,835 | 2,586 | 1,844 | 2,215 |
| 2016/17 | 359 | 334 | 364 | 487 | 327 | 407 |
| 2017/18 | 349 | 323 | 353 | 482 | 314 | 398 |
| 2018/19 | 349 | 323 | 365 | 495 | 325 | 410 |
| 2019/20 | 335 | 308 | 351 | 485 | 309 | 397 |
| 2020/21 | 348 | 321 | 354 | 490 | 311 | 400 |
| 2016-21 | 1,741 | 1,610 | 1,787 | 2,438 | 1,587 | 2,012 |
| 2021/22 | 328 | 301 | 344 | 413 | 303 | 358 |
| 2022/23 | 319 | 291 | 333 | 403 | 292 | 347 |
| 2023/24 | 319 | 291 | 328 | 395 | 285 | 340 |
| 2024/25 | 301 | 272 | 320 | 388 | 277 | 332 |
| 2025/26 | 307 | 279 | 322 | 388 | 278 | 333 |
| 2021-26 | 1,575 | 1,434 | 1,647 | 1,985 | 1,434 | 1,710 |
| 2026/27 | 291 | 263 | 303 | 333 | 233 | 283 |
| 2027/28 | 286 | 257 | 299 | 327 | 227 | 277 |
| 2028/29 | 284 | 254 | 296 | 322 | 223 | 272 |
| 2029/30 | 278 | 248 | 296 | 321 | 221 | 271 |
| 2030/31 | 273 | 243 | 287 | 312 | 211 | 262 |
| 2026-31 | 1,413 | 1,265 | 1,481 | 1,616 | 1,115 | 1,365 |
| 2031/32 | 277 | 247 | 280 | 277 | 186 | 232 |
| 2032/33 | 279 | 248 | 285 | 283 | 188 | 236 |
| 2033/34 | 272 | 236 | 291 | 289 | 192 | 241 |
| 2034/35 | 265 | 228 | 296 | 295 | 194 | 245 |
| 2035/36 | 259 | 222 | 293 | 292 | 190 | 241 |
| 2031-36 | 1,353 | 1,181 | 1,446 | 1,435 | 951 | 1,194 |
| 2011-36 | 8,001 | 7,293 | 8,195 | 10,060 | 6,931 | 8,496 |

Rushmoor

Figure 13: Summary of projections 2011 to 2031 – annual - Rushmoor

| Projection Scenario | Population growth | | Housing numbers | | Employment growth | |
|---|-------------------|----------|-----------------|----------|-------------------|----------|
| | Per annum | % change | Per annum | % change | Per annum | % change |
| PROJ 1 (2011-based SNPP) | 287 | 0.3% | 222 | 0.6% | 69 | 0.1% |
| PROJ 2 (2011-based SNPP (updated)) | 466 | 0.5% | 283 | 0.7% | 169 | 0.3% |
| PROJ 2A (reduced hh formation constraint) | 466 | 0.5% | 303 | 0.8% | 169 | 0.3% |
| PROJ 3 (Experian job-led) | 1,178 | 1.2% | 549 | 1.4% | 555 | 1.1% |
| PROJ 4 (Job trends) | 738 | 0.8% | 397 | 1.0% | 315 | 0.6% |
| PROJ 5 (Midpoint employment growth) | 958 | 1.0% | 473 | 1.2% | 435 | 0.8% |

Figure 14: Summary of projections 2011 to 2031 – total - Rushmoor

| Projection Scenario | Population growth | | Housing numbers | | Employment growth | |
|---|-------------------|----------|-----------------|----------|-------------------|----------|
| | Per annum | % change | Per annum | % change | Per annum | % change |
| PROJ 1 (2011-based SNPP) | 5,737 | 6.1% | 4,434 | 11.7% | 1,384 | 2.7% |
| PROJ 2 (2011-based SNPP (updated)) | 9,322 | 9.9% | 5,665 | 14.9% | 3,373 | 6.5% |
| PROJ 2A (reduced hh formation constraint) | 9,322 | 9.9% | 6,063 | 16.0% | 3,373 | 6.5% |
| PROJ 3 (Experian job-led) | 23,554 | 25.0% | 10,979 | 28.9% | 11,100 | 21.5% |
| PROJ 4 (Job trends) | 14,757 | 15.6% | 7,945 | 20.9% | 6,295 | 12.2% |
| PROJ 5 (Midpoint employment growth) | 19,159 | 20.3% | 9,463 | 24.9% | 8,700 | 16.8% |

Figure 15: PROJ 2 (SNPP (updated)) population change 2011 to 2031 by five year age bands – Rushmoor

| Age group | Population 2011 | Population 2031 | Change in population | % change from 2011 |
|-----------|-----------------|-----------------|----------------------|--------------------|
| Under 15 | 17,823 | 18,869 | 1,046 | 5.9% |
| 15-29 | 20,120 | 19,731 | -389 | -1.9% |
| 30-44 | 22,683 | 20,940 | -1,743 | -7.7% |
| 45-59 | 17,549 | 17,117 | -432 | -2.5% |
| 60-74 | 10,935 | 15,784 | 4,849 | 44.3% |
| 75+ | 5,244 | 11,235 | 5,991 | 114.2% |
| Total | 94,354 | 103,676 | 9,322 | 9.9% |

Figure 16: Estimated housing need in each year of projection – Rushmoor

| Period | PROJ 1 (2011-based SNPP) | PROJ 2 (2011-based SNPP (updated)) | PROJ 2A (reduced household formation constraint) | PROJ 3 (Experian job-led) | PROJ 4 (Job trends) | PROJ 5 (Midpoint employment growth) |
|---------|--------------------------|------------------------------------|--|---------------------------|---------------------|-------------------------------------|
| 2011/12 | 126 | 173 | 191 | 493 | 347 | 420 |
| 2012/13 | 130 | 179 | 209 | 526 | 372 | 449 |
| 2013/14 | 143 | 194 | 217 | 553 | 390 | 471 |
| 2014/15 | 190 | 242 | 259 | 610 | 440 | 524 |
| 2015/16 | 181 | 236 | 258 | 626 | 448 | 537 |
| 2011-16 | 770 | 1,025 | 1,133 | 2,808 | 1,997 | 2,401 |
| 2016/17 | 200 | 256 | 281 | 563 | 382 | 473 |
| 2017/18 | 225 | 283 | 299 | 592 | 404 | 498 |
| 2018/19 | 244 | 304 | 322 | 624 | 429 | 527 |
| 2019/20 | 268 | 329 | 342 | 651 | 451 | 551 |
| 2020/21 | 246 | 309 | 334 | 653 | 446 | 550 |
| 2016-21 | 1,184 | 1,481 | 1,578 | 3,083 | 2,111 | 2,599 |
| 2021/22 | 240 | 303 | 325 | 534 | 404 | 469 |
| 2022/23 | 241 | 306 | 324 | 535 | 403 | 469 |
| 2023/24 | 243 | 309 | 328 | 538 | 406 | 472 |
| 2024/25 | 258 | 324 | 339 | 546 | 415 | 480 |
| 2025/26 | 244 | 312 | 332 | 541 | 409 | 475 |
| 2021-26 | 1,226 | 1,553 | 1,648 | 2,693 | 2,037 | 2,364 |
| 2026/27 | 265 | 333 | 347 | 487 | 369 | 428 |
| 2027/28 | 255 | 324 | 342 | 483 | 363 | 423 |
| 2028/29 | 248 | 318 | 336 | 473 | 354 | 414 |
| 2029/30 | 253 | 325 | 347 | 483 | 364 | 424 |
| 2030/31 | 234 | 306 | 333 | 469 | 349 | 410 |
| 2026-31 | 1,255 | 1,606 | 1,704 | 2,394 | 1,800 | 2,099 |
| 2031/32 | 244 | 316 | 333 | 409 | 309 | 359 |
| 2032/33 | 246 | 320 | 350 | 428 | 326 | 377 |
| 2033/34 | 251 | 326 | 357 | 433 | 330 | 381 |
| 2034/35 | 248 | 324 | 358 | 436 | 330 | 383 |
| 2035/36 | 211 | 289 | 326 | 407 | 298 | 353 |
| 2031-36 | 1,201 | 1,575 | 1,724 | 2,113 | 1,594 | 1,854 |
| 2011-36 | 5,635 | 7,241 | 7,787 | 13,091 | 9,539 | 11,317 |

Surrey Heath

| Figure 17: Summary of projections 2011 to 2031 – annual - Surrey Heath | | | | | | |
|---|-------------------|----------|-----------------|----------|-------------------|----------|
| Projection Scenario | Population growth | | Housing numbers | | Employment growth | |
| | Per annum | % change | Per annum | % change | Per annum | % change |
| PROJ 1 (2011-based SNPP) | 504 | 0.6% | 236 | 0.7% | 251 | 0.6% |
| PROJ 2 (2011-based SNPP (updated)) | 578 | 0.7% | 261 | 0.7% | 294 | 0.6% |
| PROJ 2A (reduced hh formation constraint) | 578 | 0.7% | 285 | 0.8% | 294 | 0.6% |
| PROJ 3 (Experian job-led) | 928 | 1.1% | 406 | 1.2% | 488 | 1.1% |
| PROJ 4 (Job trends) | 554 | 0.6% | 276 | 0.8% | 277 | 0.6% |
| PROJ 5 (Midpoint employment growth) | 741 | 0.9% | 341 | 1.0% | 383 | 0.8% |

| Figure 18: Summary of projections 2011 to 2031 – total – Surrey Heath | | | | | | |
|--|-------------------|----------|-----------------|----------|-------------------|----------|
| Projection Scenario | Population growth | | Housing numbers | | Employment growth | |
| | Per annum | % change | Per annum | % change | Per annum | % change |
| PROJ 1 (2011-based SNPP) | 10,073 | 11.7% | 4,711 | 13.5% | 5,027 | 11.1% |
| PROJ 2 (2011-based SNPP (updated)) | 11,569 | 13.4% | 5,225 | 15.0% | 5,882 | 13.0% |
| PROJ 2A (reduced hh formation constraint) | 11,569 | 13.4% | 5,692 | 16.3% | 5,882 | 13.0% |
| PROJ 3 (Experian job-led) | 18,552 | 21.5% | 8,120 | 23.3% | 9,765 | 21.5% |
| PROJ 4 (Job trends) | 11,078 | 12.8% | 5,519 | 15.8% | 5,537 | 12.2% |
| PROJ 5 (Midpoint employment growth) | 14,813 | 17.1% | 6,819 | 19.6% | 7,650 | 16.8% |

| Figure 19: PROJ 2 (SNPP (updated)) population change 2011 to 2031 by five year age bands – Surrey Heath | | | | |
|--|-----------------|-----------------|----------------------|--------------------|
| Age group | Population 2011 | Population 2031 | Change in population | % change from 2011 |
| Under 15 | 15,718 | 17,461 | 1,743 | 11.1% |
| 15-29 | 14,074 | 13,879 | -195 | -1.4% |
| 30-44 | 18,208 | 18,464 | 256 | 1.4% |
| 45-59 | 18,588 | 19,194 | 606 | 3.3% |
| 60-74 | 12,981 | 16,601 | 3,620 | 27.9% |
| 75+ | 6,809 | 12,349 | 5,540 | 81.4% |
| Total | 86,378 | 97,947 | 11,569 | 13.4% |

Figure 20: Estimated housing need in each year of projection – Surrey Heath

| Period | PROJ 1 (2011-based SNPP) | PROJ 2 (2011-based SNPP (updated)) | PROJ 2A (reduced household formation constraint) | PROJ 3 (Experian job-led) | PROJ 4 (Job trends) | PROJ 5 (Midpoint employment growth) |
|---------|--------------------------|------------------------------------|--|---------------------------|---------------------|-------------------------------------|
| 2011/12 | 269 | 290 | 218 | 421 | 283 | 352 |
| 2012/13 | 256 | 278 | 245 | 452 | 311 | 382 |
| 2013/14 | 226 | 248 | 251 | 465 | 319 | 393 |
| 2014/15 | 238 | 261 | 272 | 495 | 343 | 419 |
| 2015/16 | 233 | 256 | 270 | 500 | 344 | 422 |
| 2011-16 | 1,222 | 1,334 | 1,255 | 2,334 | 1,601 | 1,968 |
| 2016/17 | 238 | 261 | 279 | 436 | 280 | 358 |
| 2017/18 | 229 | 254 | 277 | 441 | 278 | 359 |
| 2018/19 | 228 | 253 | 289 | 455 | 289 | 372 |
| 2019/20 | 241 | 267 | 305 | 476 | 305 | 390 |
| 2020/21 | 234 | 260 | 306 | 483 | 306 | 394 |
| 2016-21 | 1,171 | 1,296 | 1,456 | 2,291 | 1,459 | 1,874 |
| 2021/22 | 243 | 270 | 304 | 387 | 282 | 334 |
| 2022/23 | 230 | 257 | 294 | 380 | 272 | 326 |
| 2023/24 | 234 | 261 | 299 | 382 | 274 | 328 |
| 2024/25 | 227 | 255 | 303 | 385 | 276 | 330 |
| 2025/26 | 231 | 258 | 298 | 378 | 271 | 324 |
| 2021-26 | 1,165 | 1,301 | 1,498 | 1,911 | 1,375 | 1,643 |
| 2026/27 | 245 | 273 | 299 | 322 | 224 | 273 |
| 2027/28 | 228 | 257 | 295 | 317 | 217 | 267 |
| 2028/29 | 228 | 257 | 297 | 317 | 217 | 267 |
| 2029/30 | 227 | 255 | 296 | 314 | 214 | 264 |
| 2030/31 | 225 | 253 | 296 | 313 | 212 | 263 |
| 2026-31 | 1,153 | 1,295 | 1,483 | 1,584 | 1,084 | 1,334 |
| 2031/32 | 230 | 258 | 293 | 281 | 194 | 238 |
| 2032/33 | 226 | 255 | 299 | 287 | 197 | 242 |
| 2033/34 | 214 | 244 | 301 | 290 | 197 | 244 |
| 2034/35 | 226 | 257 | 312 | 300 | 206 | 253 |
| 2035/36 | 223 | 253 | 308 | 296 | 201 | 249 |
| 2031-36 | 1,119 | 1,267 | 1,513 | 1,455 | 994 | 1,226 |
| 2011-36 | 5,830 | 6,492 | 7,205 | 9,575 | 6,513 | 8,045 |

Appendix G: Implications of the 2012-based Sub-National Population Projections

1. On the 29th May 2014 a new set of Sub-National Population Projections (SNPP) were published by ONS. They replace the 2010- and 2011-based projections. The new SNPP are largely based on trends in the 2007-12 period (2006-12 for international migration trends).
2. Whilst these projections were published after the SHMA report had been substantially drafted and conclusions reached, it is worthwhile to briefly consider the potential implications of this new data release on housing need in the three local authority areas.
3. Figure 1 shows estimated levels of population growth in the 2012-based SNPP as compared to the core demographic projection presented in Section 7 of the main report, which is based on previous SNPPs, but uses more recent migration information, examines the link between migration and housebuilding and possible errors in ONSs recording of population growth (Unattributable Population Change).
4. The data shows in all areas that the 2012-based SNPP expect a lower level of population growth in the 2011-31 period than the central projections used in the SHMA. Overall, the SHMA anticipates population growth of some 35,200 people over the 20-year period to 2031 whilst the SNPP puts this at just 23,400 – 34% lower. The differences in the two sources are strongest in Hart and Surrey Heath although all three areas are lower in the 2012-based data.

| Figure 1: Projected population growth (2011-2031) | | | | | |
|--|-----------------|--------------------|--------------------|-------------------------|----------|
| | | Population 2011 | Population 2031 | Change in population | % change |
| Hart | SHMA | 91,662 | 105,955 | 14,293 | 15.6% |
| | 2012-based SNPP | 91,662 | 100,145 | 8,483 | 9.3% |
| Rushmoor | SHMA | 94,354 | 103,676 | 9,322 | 9.9% |
| | 2012-based SNPP | 94,354 | 102,351 | 7,997 | 8.5% |
| Surrey Heath | SHMA | 86,378 | 97,947 | 11,569 | 13.4% |
| | 2012-based SNPP | 86,378 | 93,337 | 6,959 | 8.1% |
| HMA | SHMA | 272,394 | 307,578 | 35,184 | 12.9% |
| | 2012-based SNPP | 272,394 | 295,833 | 23,439 | 8.6% |

Source: 2012-based SNPP data from ONS

5. The implication of the above analysis is that lower population growth would translate into lower household (and housing) growth. This however will, to some extent, be determined by the expected changes to the age profile of the population. Using the 2012-based SNPP JGA has therefore rerun household formation rates to see what level of housing provision the 2012-based SNPP might imply. As with core projections in the SHMA, the headship methodology is based on taking a midpoint between trends shown in the 2011- and 2008-based CLG household projections.
6. Figure 2 shows that by applying the same headship rates as used in the SHMA analysis, the estimated housing need (including a vacancy allowance) would be 717 homes per annum across the HMA. This is

some way below the 925 derived from the SHMA analysis. The reduction in housing need is only 22%, compared with a reduction in population growth of 34% although the analysis is clearly in a significantly downward direction. Each of the local authority areas sees a reduction in need when based on the 2012-based SNPP as compared with figures in the SHMA.

Figure 2: Estimated housing need in SHMA and based on 2012-based SNPP (figures per annum, 2011-31)

| | SHMA | 2012-based SNPP |
|--------------|------|-----------------|
| Hart | 337 | 247 |
| Rushmoor | 303 | 254 |
| Surrey Heath | 285 | 216 |
| HMA | 925 | 717 |

7. Had the 2012-based projections been available at the time when the SHMA was prepared then these would have been used as a start point for analysis of housing need. However, it would still be necessary to overlay an understanding of past trends in population growth and to test the linkages between housebuilding and migration. The demographic estimates in the SHMA remain sound in terms of the methodology used with the 2012-based SNPP showing that they do not under-estimate the need for housing moving forward.

Alternative Demographic Projections

8. The main SHMA analysis takes the latest available projections available at the time of initial drafting (which were 2011-based) and then works through the various stages of assessment as set out in guidance to reach a view about the level of housing provision which would be most appropriate in the three local authorities. It would have been possible to develop a number of different scenarios for growth based on different assumptions. Such an approach would not change the core analysis carried out but would give some indication of the sort of range of numbers the Councils might need to consider.
9. A number of external consultees invited to comment on the draft SHMA suggested that alternative scenarios to those used in the SHMA should be tested. These included use of:
 - 5-year migration trends
 - 10-year migration trends
 - 2010-based SNPPs
10. In response to these responses to the Consultation Draft SHMA, further scenario testing has been undertaken to explore if using any of these assumptions would lead to any significant change in the identified Objectively Assessed Housing Need as reported in the SHMA. The results of this exercise are presented below and the housing need based on these alternative assumptions compared with the OAHN as set out in the SHMA. For consistency all of the projections use a midpoint headship rate assumption.

11. For both of the alternative migration based scenarios migration data for the period to 2012 has been used as this was the latest data available at the time of drafting the SHMA. More recent data (for 2012/13) is now available and this points to lower migration averages than used in the SHMA, which would translate into lower housing numbers.
12. Figure 3 shows the annual level of migration over the past 10 years (excluding Unattributable Population Change) and calculates both the 5 year and 10 year averages. For the whole HMA the data shows a positive net migration of 116 persons per annum over the 10-year period, compared with a lower figure, net out-migration of 369 persons per annum over the years to 2007/12.

| Figure 3: Net Migration (2002/3 to 2011/12) | | | | |
|--|------|----------|--------------|-------|
| | Hart | Rushmoor | Surrey Heath | HMA |
| 2002/3 | 587 | -837 | 179 | -71 |
| 2003/4 | 812 | -1,391 | 235 | -344 |
| 2004/5 | 913 | -109 | 287 | 1,091 |
| 2005/6 | 980 | 22 | 519 | 1,521 |
| 2006/7 | 608 | -206 | 412 | 814 |
| 2007/8 | 331 | -307 | -346 | -322 |
| 2008/9 | 36 | -1,043 | 155 | -852 |
| 2009/10 | -132 | -323 | 197 | -258 |
| 2010/11 | -3 | -177 | 181 | 1 |
| 2011/12 | 158 | -479 | -95 | -416 |
| Past 10-years | 429 | -485 | 172 | 116 |
| Past 5-years | 78 | -466 | 18 | -369 |

Source: ONS

13. Figure 4 shows the modelling outputs for each of the three alternative scenarios being tested. For the migration based scenarios it has been assumed that migration is at the same rate each year of the projection whilst for the 2010-based SNPP the actual population figures (by age and sex) have been modelled. The analysis shows that of the alternative scenarios the highest figures come out when using longer-term migration data. However, all these alternative scenarios generate a level of housing need somewhat lower than in the main SHMA modelling exercise.

| Figure 4: Estimated housing need in SHMA and based on alternative demographic scenarios (figures per annum, 2011-31) | | | | |
|---|------|----------------|---------------|-----------------|
| | SHMA | 10-year trends | 5-year trends | 2010-based SNPP |
| Hart | 337 | 372 | 231 | 301 |
| Rushmoor | 303 | 236 | 244 | 171 |
| Surrey Heath | 285 | 224 | 160 | 209 |
| HMA | 925 | 832 | 635 | 681 |

14. A final query emerging from the consultation exercise concerned what the level of housing need would be if headship assumptions embedded in the 2008-based CLG household projections were used, rather than the midpoint between 2011- and 2008-based rates. Figure 5 shows the impact of assuming that headship rates 'track' those in the 2008-based projections from 2011 onwards. The analysis shows that using the 2008-based rates would see the housing need across the HMA (based on demographic projections) rise from 925 homes per annum up to 1,007 (a 9% increase). This level of need is still below the objectively assessed need identified in the report.

| Figure 5: Estimated Housing Need in SHMA and based on tracking 2008-based Headship Rates (Figures per annum, 2011-31) | | |
|--|------|------------------------------------|
| | SHMA | Tracking 2008-based headship rates |
| Hart | 337 | 370 |
| Rushmoor | 303 | 323 |
| Surrey Heath | 285 | 314 |
| HMA | 925 | 1,007 |