

## HOUSING TASK GROUP

### Review and analysis of regional evidence base relating to housing provision

#### Introduction

The Housing Task Group was set up as a technical task and finish group to assist Partnership Board officers in preliminary work to inform the new South East England Strategy. The group comprised planning officers from, or representing, a range of local authorities across the region, and was supported in its work by Partnership Board and SEEDA officers.

The key task of the Group was to review and analyse the regional evidence base so far as it relates to housing provision – in particular the drivers for housing provision, the factors that influence housing deliverability, and the regional constraints and opportunities for housing growth.

This paper presents the main conclusions of that work. It is based on a detailed and comprehensive analysis undertaken by the Housing Task Group and pulls together in one place a summary of what the regional-level evidence considered by the Group suggests about:

- How much housing growth the South East might plan for
- The impact of this growth on the South East
- Whether that growth might be deliverable; and
- What this would mean for the pattern of future growth.

In particular, it highlights some of the challenges and opportunities facing the South East, and identifies some key messages relating to the broad scale and distribution of future housing growth in the South East which are likely to need further consideration as the South East Strategy is developed.

The paper forms one part of the wider evidence base for the regional strategy. It has been prepared as an officer-level report and has not been formally endorsed by decision makers within the Partnership Board or constituent organisations. The Housing Task Group recommends that the analysis and conclusions presented in this paper are used as part of the evidence base for the preparation of the new South East England Strategy. It will be particularly important to consider this paper alongside local and sub-regional evidence given the key message about the importance of particular constraints in determining more detailed distribution issues.

#### Notes on the scope of the paper

Evidence

In preparing this paper, the Housing Task Group has considered a range of evidence beyond that which 'traditionally' relates to housing. This has included:

- Drivers – housing demand, affordability
- Environmental and physical capacity – housing supply, biodiversity and landscape, flood risk, water resources, water quality and minerals
- Infrastructure capacity and delivery – capacity of the housebuilding industry, flood risk management, water supply and treatment, energy and waste
- Cross cutting issues – climate change.

Given the early stage in the strategy development process at which this paper has been prepared, there are a few notable 'gaps' in the evidence that the Group has considered. In particular these relate to economic forecasting, transport and inter-regional relationships. These are all key aspects of the regional evidence base that will need to be considered alongside this paper as the development of the regional strategy progresses:

- Work on the Delivering A Sustainable Transport System studies is currently ongoing
- Work on economic forecasting is underway but has been delayed because of the uncertain economic climate of the past couple of years
- A review of inter-regional working arrangements is underway.

#### Annex 1 - Matrix

The paper is accompanied by a matrix (Annex 1) which provides a more detailed topic-by-topic breakdown of the possible implications of future housing development at different regional scales of growth. The purpose of this matrix is to demonstrate the potential impact of theoretical levels of growth in the region. The range of housing growth used in the matrix has been identified specifically for the purposes of this technical assessment, and should be taken as illustrative only. The limits of the range broadly reflect:

- the level of housing set out in the South East Plan (32,700dpa)
- the average annual provision implied by the National Housing and Planning Advisory Unit's affordability model (49,700dpa).

Use of this range for testing by the Housing Task Group should not be taken to imply that the same range should be taken forward for detailed testing through the regional strategy development process.

## SUMMARY OF KEY MESSAGES

- A range of 32,000-40,000 new homes p.a. for South East England (2011-2031) merits detailed testing through the new Regional Strategy process
- The Sustainability Appraisal of the South East Plan suggests that growth above the current planned level (32,700 homes p.a.) would better address a range of socio-economic imperatives
- There appears to be no absolute environmental/resource constraint to future growth in the South East within a range of 32,000-40,000 homes p.a. (2011-2031), although further work is needed to confirm this
- Traditional constraints such as landscape, water resources, flooding and energy are likely to be much more of an issue for the distribution of growth in the South East
- Very considerable infrastructure investment, new delivery mechanisms, behavioural changes and efficiency measures would be required to facilitate further growth in certain parts of the region
- Having regard to the capacity of the housebuilding industry and the public expenditure outlook for the foreseeable future, an average of 40,000 homes p.a. appears to be the maximum that could reasonably be delivered in the South East over the lifetime of the new Regional Strategy
- Some significant adjustments to the existing spatial strategy for the region are likely to be required in planning for future growth within the above range, with less reliance on the current Growth Areas and South Hampshire in particular and a corresponding need for some other parts of the South East to play a relatively greater role than hitherto

### 1. How much growth should we plan for?

- 1.1 Over the past few months, an examination of the demographic and economic drivers for future housing growth in South East England has been undertaken at the regional level. Whilst this analysis still has some way to go, particularly in relation to the changing regional economy, the outputs of the work to date point towards a level of provision somewhere between 32,000 and 40,000 new homes p.a. during the period to be covered by the new Regional Strategy (2011-2031).
- 1.2 The lower end of this range is slightly below the average of 32,700 homes p.a. proposed in the current South East Plan to 2026, but it is supported by new demographic projections recently prepared for the Regional Partnership Board. These projections are based on a 2009 report to the CLG<sup>1</sup> which suggests that future migration to the UK will be lower than previously thought. Indeed, the South East is already starting to see lower rates of migration, something which is now being reflected in the very latest national population projections.

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<sup>1</sup>Projections of migration inflows under alternative scenarios for the UK and world economies, A Report for CLG', National Institute of Economic and Social Research, 2009.

- 1.3 The upper end of the range represents the level of housing growth implied by the CLG's principal 2006-based Household Projections. Produced in pre-recession times, this level of growth accordingly needs to be treated with some caution, but should not be discounted yet, for two particular reasons. Firstly, because it represents the "official" projection of future household growth in the region and as such merits further detailed examination at the local level. But perhaps more important than this are the potential socio-economic implications. At an average of 40,000 homes p.a., the increase in the working age-population of the South East to 2026 would be more than double what it would be at an average of 32,000 homes p.a.<sup>2</sup>, while in the years post-2026 that same population cohort would be in absolute decline at the lower end of the housing range. These are no small considerations given the relationships between demographic and economic growth and the fact that the working-age population will need to help support a much larger retired population<sup>3</sup> in the future.
- 1.4 Continuing the economic theme, a very provisional analysis carried out by the Regional Development Agency<sup>4</sup> as an input to the work of the Housing Task Group suggests that an average of some 42,000 new homes p.a. would be consistent with a growth in GVA of around 2.5 % p.a. over the Strategy period (lower than the present 3% target in the South East Plan). However, so-called "smart" economic growth could offer the potential to lower that housing requirement (possibly quite significantly) and/or deliver a higher economic growth rate by improvements in productivity and by bringing up to a quarter of a million people who are currently economically-inactive back into work. That said, these aspirations are proving somewhat difficult to deliver at present<sup>5</sup>. The prospect of delayed retirement ages could also have a significant impact upon the number of new homes implied by economic growth targets, very provisional calculations suggesting that this might add another 200,000 people to the working age population in the South East by 2031.
- 1.5 Between the lower and upper ends of the suggested housing growth range lies a demographic projection produced by the National Housing & Planning Advisory Unit (NHPAU). Not to be confused with the outputs of its Affordability model (more about which below), the NHPAU's demographic model – which assumes similar levels of migration to 2014 as those in the Partnership Board's new "low migration" projection but a return to higher long-run trends thereafter – implies an average of around 38,000 new homes p.a. Given the potential effects of the recession, this might be regarded as a "more realistic" maximum than the CLG's projections, although for the reasons given above, 40,000 p.a. is still suggested as the upper limit for now.
- 1.6 Finally, a word about the NHPAU's better-known Affordability modelling, the aim of which is to establish the level of housing supply that would stabilise (not improve) affordability over the long-term in each region. Outputs from this model in 2008 suggested that an average of 50,000 homes p.a. would be

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<sup>2</sup> At 32,000 homes p.a., the 16-64 age group would increase by less than 200,000 to 2026, whereas at 40,000 homes p.a. the same cohort would increase by over 400,000. The differences are accounted for by assumptions of greater in-migration (and the associated age-structure of in-migrants) in the CLG's household projections.

<sup>3</sup> It should be noted that the growth in the older (64+) age-group to 2031 would be very little different whether the regional housing total were 32,000 p.a. or 40,000 p.a. or any intermediate level

<sup>4</sup> Pending the analysis of new economic forecasts which have recently been commissioned

<sup>5</sup> In this context, it should be noted that the latest forecasts for 2009 show a decline in labour productivity of c.1%

required to achieve such an outcome in the South East England, a figure subsequently increased to almost 58,000 homes p.a.<sup>6</sup> in a later 2009 update. However, as the preceding analysis has sought to demonstrate, there is no demographic or economic<sup>7</sup> case for housing growth at such levels of growth and it is accordingly far from clear who would occupy so many new homes - attempts to obtain an answer to this question from the NHPAU having met with no success to date. There is in any event considerable doubt as to whether increasing supply could ever achieve the affordability outcomes suggested by the NHPAU in an area such as the South East – but even if it could, an earnings to house price ratio of 8.70 would do nothing to deal with the “real world” pressures facing many families and local authorities in the region. Lastly, but no less important, such a rate of growth would almost certainly be undeliverable (refer Section 3 below).

## **2. What would be the impact of this growth on the South East?**

2.1 To try and answer this question, it is useful to look back at what the Sustainability Appraisal (SA) of the current South East Plan had to say about the likely impacts of that document. In summary, the authors of the SA<sup>8</sup> suggested that South East Plan would lead to:

- Some economic benefits resulting from increased housing provision (although this is less than the level necessary to fully support economic growth) and the provision of employment sites and new infrastructure
- Some community benefits from the provision of more homes although the increase in provision to 32,700 homes p.a. is clearly insufficient to accommodate the forecast number of households and combat the housing backlog. This level of housing is also unlikely to increase housing affordability, although it will provide opportunities for the provision of affordable housing (although the South East as a region has a poor record in delivering affordable housing).
- Significant environmental costs, despite concerted attempts to minimise these costs, to the point of potentially approaching environmental limits (although this is difficult to demonstrate empirically). These include:
  - water resources throughout much of the region;
  - water quality in the Solent area, and possibly elsewhere due to constraints on wastewater treatment;
  - air quality near the region's airports;
  - biodiversity, as exemplified by problems in ensuring that the integrity of sites of international nature conservation importance is not significantly affected; and

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<sup>6</sup> But well over this rate in the later phases of the Strategy period: From 20021-26 and 2026-31, NHPAU's latest affordability modelling implies over 80,000 homes p.a. and 65,000 homes p.a. respectively

<sup>7</sup> Provisional conclusion pending new economic forecasts due to be published during 2010

<sup>8</sup> Scott Wilson & Levitt-Therivel, April 2009. Refer Paragraph 16.2.5



### 3. Would it be deliverable?

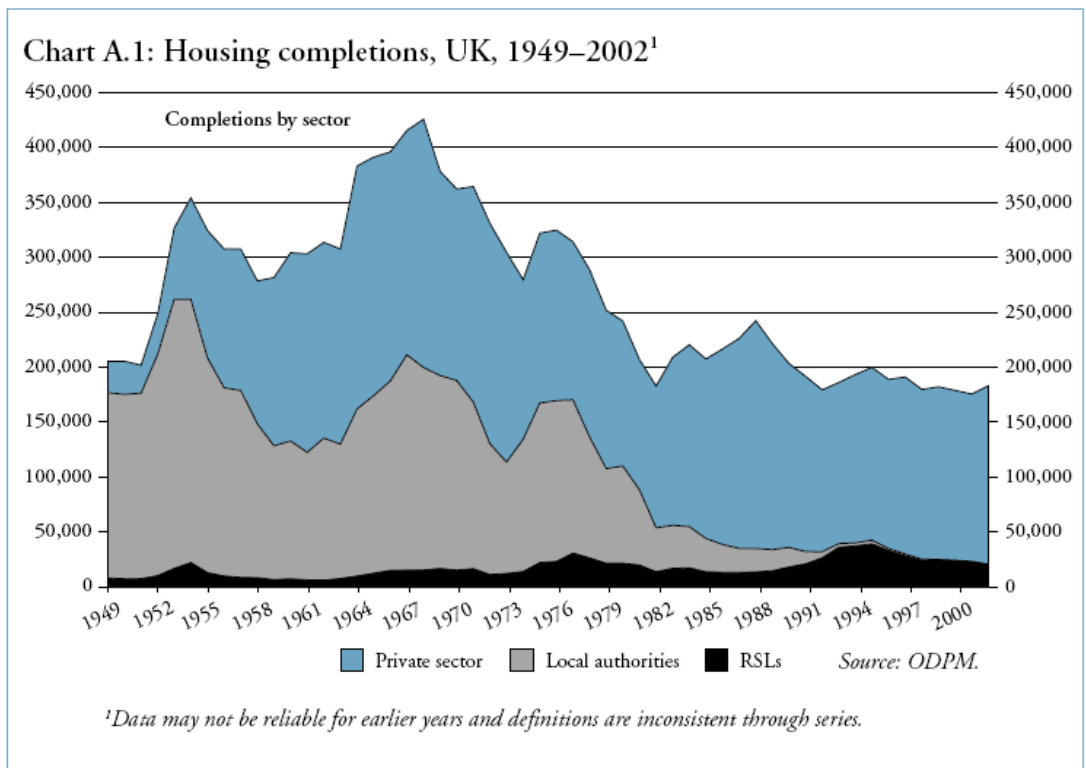
3.1 On the basis of the evidence that we have examined, the house building industry could deliver higher rates of development than it has in the past, provided the conditions are right. However, there are very real market, economic and financial considerations related to the long-term impact of the credit crunch which would, on the basis of available information, prevent the industry from delivering new housing development in South East England above a certain level. The main finding of our investigations into the likely capacity of the house building industry is that an average of around 40,000 homes p.a. would be the maximum that could reasonably be expected over the lifetime of the new Regional Strategy. However, even this would require some fundamental changes in a wide variety of policies, practices, behaviours, opinions and attitudes. Such necessary changes could include:

- less of an emphasis on high-density flatted developments, due to current high levels of supply and a more risk averse attitude on the part of developers and funding bodies (although some flats will continue to be needed);
- a recognition that family homes are likely to form a greater element of housing provision, in order to better meet the demand for this type of accommodation;
- an acceptance that greenfield development would need to play a greater role in meeting the need for new homes than it has for many years, mainly because of the above;
- fewer very large development projects and more small-scale schemes, again as developers and funding institutions seek to reduce risk;
- a greater focus on quality, driven by the demands of a more discerning and environmentally-aware public plus new regulations, policies and technical requirements;
- the revisiting of some recent planning permissions and S106 agreements in order to maintain project viability and enable developments to proceed

3.2 To achieve the much higher levels of growth that some suggest would appear wholly out of the question without a massively expanded non-market sector – something which simply cannot be regarded as realistic given the public expenditure outlook for the foreseeable future<sup>12</sup>. The chart below (from the Interim Report of the Barker Review) vividly illustrates the impact of public and third sector programmes on overall housing completions in the UK during most of the post-war period and particularly so during the boom construction years up to the mid-1970s. Also of note is how relatively constant private sector output has been for over forty years now – casting further doubt on that sector's ability to deliver (and sustain over a long period) completions in the South East greatly above the highest historic rates.

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<sup>12</sup> Long-range forecasts are not available but according to the Institute of Fiscal Studies, total public sector investment is likely to be cut by £1.5 billion in 2011/12, £5.0 billion in 2012/13 and £9.0 billion in 2013/14. The Treasury's own forecast is that investment will fall by half from £44 billion this year £22 billion in 2013/14.



3.3 A further important delivery consideration concerns phasing. The demographic projections prepared for the Partnership Board and the CLG respectively, both point to household growth being at its greatest in the first half of the new Regional Strategy period – i.e. between 2011 and 2021 – declining thereafter to 2031. Housing construction rates on the other hand look likely to remain depressed because of the recession/credit crunch for some years yet. A reasonable estimate is that it could take until 2016 (at the earliest) to return to the level required by the South East Plan and a few more years to compensate for the intervening shortfall and attain the required regional average of 32,700 homes p.a.<sup>13</sup> This accordingly raises the possibility of a significant dislocation between housing demand and housing provision in the early years of the new Strategy, with construction rates subsequently picking up at time when new household formation rates are slowing down. However, it is of course possible that the economic recession may suppress new household formation as well as housing construction for the next few years. Clearly, these are issues to keep a careful eye on as the new Strategy is developed, in order to ensure that so far as possible the phasing of new housing is properly synchronised with the growth in new households.

#### 4. What would all this mean for the pattern of future growth?

4.1 Achieving higher levels of provision (and possibly to do no more than continue at current rates of growth) may also require some significant adjustments to the distributional pattern of development in South East England. The Growth Areas and PUSH<sup>14</sup>, for example, are currently experiencing considerable challenges in delivering the very high levels (and concentrations) of housing

<sup>13</sup> Similar conclusions are reached in the report "Beyond the Credit Crunch: Building a Stronger South East", CBRE for SEEDA, May 2009

<sup>14</sup> The area covered by the Partnership for Urban South Hampshire

which the current SE Plan requires<sup>15</sup> and it now seems quite likely that, notwithstanding the much needed new infrastructure that has gone in, or is planned, the totality of these commitments will not be fully built-out by 2026<sup>16</sup>. This alone would limit the scale of any additional development which these areas could take by 2031, but add into the equation the fact that effective housing demand is by no means unlimited in these areas and that some or all of them:

- are struggling to attract sufficient jobs to support all the proposed housing (and are therefore at risk of becoming large out-commuting dormitories<sup>17</sup>);
- have extensive coverage of internationally and nationally important nature conservation designations;
- could face considerable water resource constraints; &
- are amongst the most vulnerable parts of the region to climate change/flooding

and it becomes clear that the current heavy reliance on these locations may not be sustainable to quite the same degree over the longer-term.

4.2 Whilst this is not in any way intended to diminish the key role which the Growth Areas perform in the South East, nor the benefits of the additional funding which has been made available to them in recent years<sup>18</sup>, the corollary of the above analysis is that some other parts of the region may have to play a relatively greater role in accommodating new development in the future, particularly at higher overall levels of regional housing provision. As to which other parts of the region might be called on to perform such a role, this is of course a matter for detailed examination and testing during the coming months as the Strategy Review gets underway. But for now, it is instructive to consider how future pressures for growth may bear upon different areas of the region.

4.3 The following diagrams illustrate how the housing provisions of the current South East Plan compare with the scale and pattern of future housing demand as implied, firstly, by the Partnership Board's new "low migration" (Scenario 3) household projections, which equate to 32,100 homes p.a., and secondly, by the CLG's current household projections, which equate to 40,000 homes p.a.<sup>19</sup> (*It should be noted that demographic projections become much less reliable at the level of individual Districts, so it is the broad patterns of demand that are significant here*).

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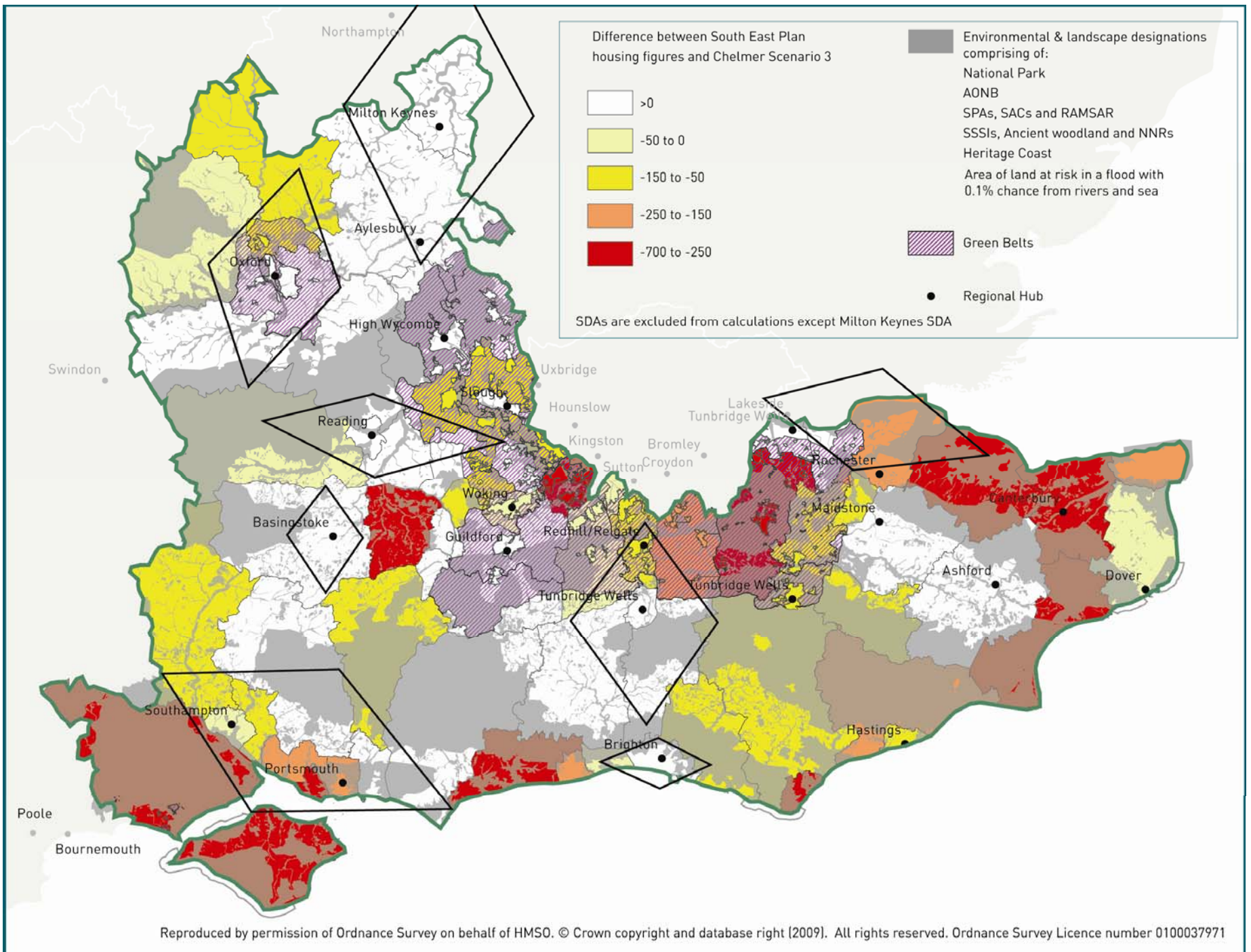
<sup>15</sup> In the context of which it is worth noting that it is the traditional urban areas of the region rather than the Growth Areas which have been behind the recent rise in housing completions in the South East

<sup>16</sup> For example, to deliver its current South East Plan commitments in full, Milton Keynes would need to sustain the delivery of new homes over the next sixteen years at an annual rate (c2,600 p.a.) that has not been achieved for a quarter of a century and only rarely in the past forty years.

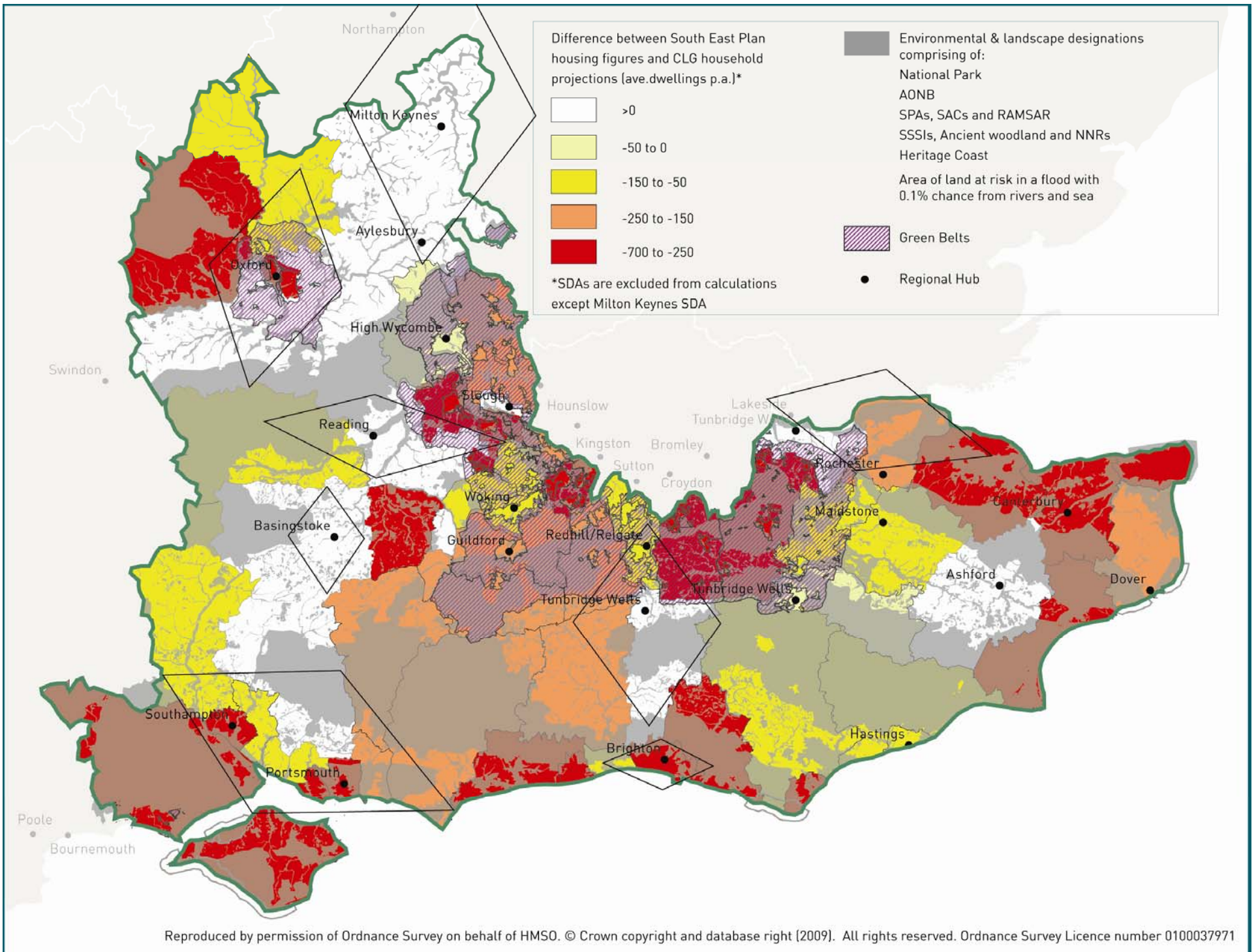
<sup>17</sup> It is assumed for the purposes of this paper that such an outcome would be "a bad thing" but it is recognised that an interesting debate could be had about whether there is a role for some well-connected settlements to perform a feeder role for more constrained areas with tighter labour markets

<sup>18</sup> Although the potential impacts of recent cuts in GAF (Growth Area Funding) are a major source of concern

<sup>19</sup> It has not been possible to produce an equivalent diagram to represent the NHPAU's demographic projection (38,000 homes p.a.), as component figures for this are not available at the sub-regional level



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- 4.4 As revealed by the first of the two diagrams, the areas where planned housing growth would generally be insufficient to accommodate the projected increase in households under a low migration scenario are the “Green Belt crescent” closest to London; large parts of East Sussex and Kent; and one or two outlying areas to the extreme west of the region. However, at this overall level of growth (32,100 homes p.a.), sufficient compensating housing provision would be likely to exist elsewhere in the South East, principally within the Growth Areas, as would be expected (although note the cautions about delivery rates in para 4.1 above), but also throughout much of the south-western quadrant of the region. Evident here too, is the role that the various “Diamonds for Investment & Growth” would play in providing for future housing demand arising in those areas and their hinterlands.
- 4.5 At the top of the regional housing range (40,000 homes p.a.), however, the situation would change markedly, with significant additional swathes of the region now likely to see future household growth exceeding current planned housing provision – refer second diagram. Many of these additional areas would fall within the “Inner South East” as defined in the current Regional Economic Strategy<sup>20</sup>, an area also characterised by a particularly tight labour market. Elsewhere, West Sussex would join large parts of East Sussex and Kent, as a place where housing demand would also significantly exceed currently planned provision, while the extreme north-west of the region would experience a further deterioration in this relationship.
- 4.6 Not all of the above areas would necessarily be an appropriate location for significant further development, of course: as the two diagrams also illustrate, some are covered by high order environmental and/or planning policy designations to which the current South East plan attaches very strong protection. Again, some are subject to very challenging resource/infrastructure constraints which may considerably limit their growth potential (refer accompanying matrix), while others would find it very difficult to provide adequate local employment opportunities for so many new households, raising the prospect of a significant rise in out-commuting. And, of course, there are important inter-regional considerations that would need to be taken into account in considering the appropriateness or otherwise of further development in different parts of the region. These would include:
- the prospect of significant employment growth in outer London, with growing competition between suburban centres in that area and the inner South East; &
  - the effect of regional growth foci at Swindon, Poole, Bournemouth and Northampton on adjoining western and northern parts of the South East
- 4.7 Although there is accordingly much further analysis to be done before any new proposals could be prepared, the above material does provide a valuable high level insight into the kind of critical choices about the scale and distribution of future growth that will need to be made as the new Regional Strategy is taken forward.

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<sup>20</sup> Broadly, the London Fringe, Western Corridor/Blackwater Valley, Gatwick and Central Oxfordshire sub-regions of the South East Plan plus other parts of North East Hampshire.

## **5. Conclusions**

- 5.1 The Housing Task Group's deliberations over the past eighteen months have, self-evidently, focused principally on issues affecting the overall scale and distribution of new housing in the region. As such, they represent but one of several strands of activity that will need to inform the development of the new Regional Strategy – other key areas of work relate to the economy, climate change, water resources and transport, to give some examples. Nevertheless, what the findings of the Housing Task Group strongly suggest is that the South East cannot continue indefinitely to live off strategic decisions made up to forty years ago and that an incrementalist or “business as usual” approach may well not suffice over the medium to longer term. Rather, it seems that the existing spatial pattern and its supporting policy framework could be in need of some quite fundamental adjustment as we go forward, particularly - but possibly not only - if higher rates of housing growth were to be contemplated.
- 5.2 However, while the prospect of some challenging decisions lying ahead may be regarded in some quarters as an uncomfortable one, it is one that is not without some opportunities too. New development and new patterns of development can bring with them the possibility of new solutions being found to hitherto intractable problems. In no case is this perhaps more likely to be true than in the field of transport, where the ability to establish a “critical mass” of development may facilitate major new public transport infrastructure or other appropriate investment that would help mitigate worsening travel conditions. Again, it appears that some parts of the region would be well-placed to capitalise on the potential for decentralised power/heat and greater use of renewable energy, both of which are specifically encouraged by national policy.

**South East England Partnership Board  
Housing Task Group  
May 2010**

## Annex 1 - Summary matrix

The purpose of this matrix is to demonstrate the potential impact of different, theoretical, levels of growth in the region. The range of housing growth within the matrix has been identified specifically for the purposes of this technical assessment, and should be taken as indicative only. The limits of the range broadly reflect:

- the 'baseline' level of housing set out in the South East Plan (32,700dpa)
- the average annual provision implied by the National Housing and Planning Advisory Unit's affordability model (49,700dpa).

Use of this range for testing by the Housing Task Group should not be taken to imply that the same range should be taken forward for detailed testing through the regional strategy development process.

Topic Area		Regional average annual housing provision			
		32,000dpa	38,000dpa	44,000dpa	50,000dpa
<b>Drivers of housing</b>					
Housing Demand	Scale	This level of housing provision would be sufficient to accommodate the housing requirement generated from within the region and also provide for unmet housing needs and/or allow for significant net in-migration. It would be sufficient to accommodate a level of housing growth implied by demographic projections which reflect lower levels of migration as a result of the impact of the recession (the low migration variant projection).	This level of housing provision would allow greater scope for meeting unmet housing needs and/or higher rates of net in-migration. It is in line with the level of growth implied by the low end of the NHPAU demographic analysis which has been adjusted to reflect the likely effects of the recession in the short-term.	Housing provision at this level would accommodate the housing growth implied by the top end of the NHPAU demographic range – their demographic 'plus' approach which provides for trend-based household growth together with unmet need and demand, and allowances for second homes and vacancies in the new stock. A lower level of growth – just over 40,000 homes per annum – would be required to accommodate the growth implied by the CLG 2006-based household projections.	There is no demographic case for a level of housing provision at this rate.
	Distribution	<p>Demographic projections inevitably need to be treated with greater caution as you go down the geographical scale. That said, they do show the broad patterns of growth that would result if certain assumptions were to be realised.</p> <p>The overall level of housing growth implied by the South East Plan is the same as the overall level of growth which would be implied by lower levels of migration. However, but not surprisingly, the spatial patterns across the region are significantly different. Many areas – particularly in the south and west of the region – are currently planning to accommodate the level of household growth that would be implied by a low migration projection. Those areas that are not are mainly in the 'inner South East' and the east of the region. The Growth Areas are amongst those areas planning for the highest rates of housing compared to the low migration variant projection.</p> <p>Outside of the Growth Areas, relatively few areas in the South East are planning to accommodate the level of household growth that would be implied by the latest CLG projections.</p> <p>There are no 'sub-regional' outputs from the NHPAU demographic modelling.</p>			
Affordability	Scale	<p>Although the regional planning process is expected to take in to account evidence of housing market affordability pressures when making decisions about housing provision, the tools that planners are expected to use are limited. The main tool – the affordability model operated by the National Housing and Planning Advice Unit – establishes what level of housing supply would be required to stabilise (but not improve) affordability to 2007 levels in each region. The South East 'benchmark' is an earnings to house price ratio of 8.7. The 2008 NHPAU affordability modelling (ie. that which Government has confirmed should be taken into account in the Regional Strategy process) indicates that an average of around 50,000 homes per annum until 2026 would be required to stabilise affordability to 2007 levels. NHPAU's more recent 2009 affordability modelling indicates that an average of almost 58,000 homes per annum until 2031 would be required to stabilise affordability to 2007 levels. This latter figure has been 'damped' by NHPAU to an average of 53,800 homes. However, the Government has not yet responded to the 2009 modelling.</p>			

		There are unanswered technical questions about the NHPAU affordability modelling, not least who would actually occupy all the additional homes and explanations for the 'damping' approach. However, and more significantly, work carried out by one of the country's leading independent experts, throws doubt on the extent to which increasing housing supply would achieve the affordability outcomes suggested by the NHPAU modelling, particularly in a high demand area such as the South East. And, even if NHPAU were right, then affordability would not improve: an earnings to house price ratio of 8.70 would leave owner-occupation well beyond many in the South East. In other words, the policy response suggested by NHPAU – setting much higher long-term housing targets – seems unlikely to be an effective response to affordability problems. As such the NHPAU affordability modelling should be treated cautiously in making decisions about the future level of housing provision.	
	Distribution	There are no 'sub-regional' outputs from the NHPAU affordability modelling.	
Economy and employment	Scale	There are considerable complexities around economic forecasting at the current time; and underlying concerns about the extent that economic forecasts can be used to inform work on housing scale and distribution. We do not feel able at this stage – therefore – to draw any detailed conclusions around the implications of the economy and employment for the scale or distribution of development in the region; however, taking into account the above, the very preliminary indications are that at least 38,000 dpa will be needed to support the economy of the region unless substantial progress is made on delivering smart growth and productivity increases.	
	Distribution		
<b>Environmental and physical capacity</b>			
Housing supply	Scale	Local authority feedback on known housing capacity and expected phasing of housing completions indicates that housing delivery will return to recent peak levels within a few years, and that the South East Plan target will be comfortably met for the decade into the early 2020's. However, this might in part be based on pre-recession delivery assumptions rather than a detailed and up-to-date, site-by-site assessment of scheme deliverability. Supply becomes much less certain later in the SE Plan period, as LDF and SHLAAs for the most part do not look that far ahead. Sites remain to be identified for around a third of the homes required to deliver the full 2006-2026 SE Plan requirement (circa (214,000 homes requiring approximately 7,000 hectares of land).	At no point do expected delivery levels reach 38,000dpa, nor does any of the available housing supply data suggest it could. But the evidence available reflects work local authorities are doing to deliver their South East Plan targets, a 'business as usual' approach rather than a deeper testing of land supply options and potential. There is no shortage of land in absolute terms were the various tiers of government committed to the deeper policy changes and investment planning needed to realise its 'potential'.
	Distribution	As the supply evidence reflects South East Plan targets it reinforces the short to medium term deliverability of the housing distribution and strategy of the current SE Plan, including its urban and brownfield land focus.	For the same reasons supply evidence sheds little light on possible distribution alternatives, but - in the absence of a radically revised spatial strategy - it is likely that the pressures for additional growth will be focussed around existing urban areas.
Biodiversity	Scale	At a regional level, biodiversity is unlikely to be an absolute constraint to development. However at higher levels of growth there is likely to be greater (detrimental) potential impact on biodiversity through direct (habitat loss), indirect (disturbance, pollution) and cumulative effects.	
	Distribution	Districts with a high percentage land coverage on internationally designated sites may face major local constraints to the delivery of housing if those international sites are sensitive to the impacts of housing development (including from any need to provide mitigation measures alongside development). Further analysis of this constraint will be needed particularly in	

		<p>North Kent, South Hampshire and the Hampshire/Surrey/Berkshire borders. National designations may also act as a constraint to development in some areas, although this may depend on the interest features of those sites, so further analysis will be needed at a local level. In general the districts in the northern part of the region face fewer constraints (in terms of absolute land take) from nationally designated nature conservation sites, whilst coastal districts and the eastern parts of the region face a higher level of constraint (ie more extensive land take).</p>			
Landscape	Scale	<p>The presence of strategic landscape and heritage designations is unlikely – in itself – to act as an absolute constraint to development, however the extent of designations in any district may have implications for the location of development within that district. The higher the level of development, the more likely this is to have a detrimental impact on strategic landscape and heritage sites.</p>			
	Distribution	<p>Data demonstrates that several districts face considerable constraints in relation to landscape/heritage designations. These are largely the region's more rural districts – for example Rother, New Forest and West Berkshire all have over 75% coverage by these designations; Wycombe, Chiltern and Chichester all have over 70% coverage. Districts with a high level of constraint are likely to face limited options for major development in and around those designated areas.</p>			
Flood risk	Scale	<p>The capacity to accommodate growth depends to some extent on the balance of risk, as some areas identified as at high potential risk (probability) from flooding are well protected by defences. The degree of risk depends on (i) the probability of flooding and (ii) the impact of that flooding. Local level assessment is required to accurately assess risk – the probability of flooding will depend on the provision of existing or new flood protection measures; the impact may depend on the nature of flooding and design of developments.</p>			
		<p>The risks to low-lying land adjacent to the coast and rivers are generally higher than in other areas. These risks are likely to increase as the impacts of climate change are increasingly felt.</p>			
	Distribution	<p>An analysis of the current planned patterns of housing growth indicates that (based on 32,700dpa), areas where high growth and high flood risk coincide include South Hampshire, the Kent Thames Gateway, Ashford, Milton Keynes, Aylesbury, Oxford, Didcot, Reading, Crawley and Shoreham. For the Thames Gateway and South Hampshire in particular there are comparatively high risks across most aspects of flood risk.</p>			<p>Analysis of the implications of a pro-rata increase of housing growth across the region (assuming the same spatial distribution of growth) indicates that additional areas where a coincidence of high growth and high flood risk may occur include Spelthorne / Runnymede, Cherwell, Canterbury, Eastbourne / Wealden and Chichester / Arun.</p>
		<p>Our analysis of current planned patterns of housing growth indicates that the following districts have been identified with a coincidence of growth and flooding: East Hampshire, Chiltern, Basingstoke and Deane, Epsom and Ewell, Mid Sussex, Winchester, Bracknell Forest. However this analysis was undertaken at a strategic level and does not take account of the localised distribution of growth.</p>			
Water resources	Scale	<p>Growth can be accommodated if required supply and demand management schemes are implemented. The water companies' Water Resource Management Plans (WRMPs) will provide the context for development of schemes for the next 25 years.</p>			
	Distribution	<p>Findings of research undertaken to inform the South East Plan Examination in Public by the EA and water companies suggested that growth of 28,900dpa could be accommodated in the region with only modest (8%) water efficiency savings.</p>	<p>Research by the EA looks at supply-demand balance based on housing growth assumptions of 35,000 dpa as set out in water companies draft Management Plans, and the implications of different per capita demand – assuming no additional investment in infrastructure to increase water supply. The results indicate that the supply-demand balance and the need for new supply infrastructure would depend significantly on a</p>		<p>Further research by the EA looking at a supply-demand balance based on housing growth assumptions of 50,000 dpa is underway and the results are expected shortly. However, again, the modelling does not factor in any future supply options due to the current uncertainty about which schemes will come forward.</p>

		range of factors such as the projected demand for/consumption of water		
		As water supply schemes cover large areas, different schemes to those currently planned would only be required if there is a significant geographical change in housing distribution. Water Cycle Studies may identify potential capacity limits locally where they are undertaken.		
Water quality	Scale	The original modelling work undertaken by the EA for the South East Plan identified no growth constraints for 28,900 at a district level. However, the identified capacity limits in specific locations have to be recognized and infrastructure capacity improvements may be required, alternative discharge solutions found, or limits on the numbers of new houses connecting to sewage works.	The original modelling work by the EA also investigated 40,000dpa. Compared to 28,900 it found that it is likely that growth will exceed capacity at a greater number of treatment works earlier in the plan period	
	Distribution	<p>The identified capacity limits of waste water treatment works in individual locations will need to be recognised and infrastructure capacity improvements may be required, alternative discharge solutions found, or limits placed on the number of new connections (and thus location of new housing). Modelling work by the EA identifies that in the following catchment areas it may not be possible to deliver the South East Plan (Proposed Changes) housing allocations unless potentially expensive action is taken: Hogsmill (Elmbridge), Horsham, Hailsham North and South (Wealden) and potentially Peel Common (Fareham).</p> <p>However, aiming to meet tight WFD requirements could add constraints at a number of additional individual locations depending on the availability/feasibility of policies/measures to address non-compliance in particular with phosphorus standards. Further modelling is underway to assess the implications of the Water Framework Directive (WFD) as its requirements for improvement in water quality is underway.</p> <p>A concentrated pattern of development on existing urban areas could potentially exacerbate the problem for receiving waters. A more dispersed pattern may require costly additional infrastructure, in the form of provision of new sewage treatment capacity. Water Cycle Studies may identify potential capacity limits locally where they are undertaken.</p>		
Minerals	Scale	At 32,700dpa, there is no evidence of minerals supply being an absolute constraint to housing development either at regional or sub-regional level.	Higher housing distribution levels are unlikely to be directly constrained by primary aggregate supply. However, if higher housing growth levels are reflected in increased demand for aggregates, there will most likely be significant impacts on the marine and built environment - through increased need for transport of minerals (leading to increased carbon emissions and pressure on rail freight path capacity), and more intense exploitation of sea-bed resources (with associated environmental implications) and of land-based resources in net-exporting regions.	
	Distribution	<p>Some Mineral Planning Authorities (MPAs) have limited landbanks of permitted aggregate reserves below the national/regional guideline of at least seven years.</p> <p>MPAs with landbanks below seven years at the end of 2007 were Berkshire, East Sussex, Hampshire, Isle of Wight, Medway, Milton Keynes, Oxfordshire, Surrey and West Sussex.</p>	<p>At MPA level, areas like Hampshire and East Sussex, despite experiencing sharp decreases in the sales of primary land-won sand and gravel, permitted sand and gravel reserves and landbanks, continue to meet a major proportion of their aggregates supply need from marine-dredged sources. Crushed rock imports into the region have also fallen since 2001 with its share of regional consumption declining. Additionally, the substitution of primary aggregates by alternative materials is also occurring and is assumed to continue.</p> <p>This implies an evolving market that is difficult to predict in terms of the sustainability implications of changes in the future composition of aggregate supply (based on demand) and delivery patterns for the region.</p>	
<b>Infrastructure capacity and delivery</b>				

Capacity of the house building industry	Scale	<p>The capacity of the house building industry is unlikely to be a constraint to the delivery of 32,700 dwellings per year. Completion rates in the recent past have consistently exceeded 32,700 dwellings per year and, even with the effects of the credit crunch and the current recession, there would appear from the evidence available to be sufficient underlying demand and industry capacity to achieve this average level of development across the region</p>	<p>It is likely that the industry could rise to the challenge of meeting a target of 38,000 dwellings per year over the Plan period. Completion rates have been rising in the recent past and were on target to achieve this level until the credit crunch and the recession made their marks felt. There would appear to be the level of demand to sustain this 38,000 dwellings per year. However, whether or not it can be achieved will depend on a number of external and policy factors. The target would certainly be achievable if these external factors allow the capacity of the industry to be fully realised.</p>	<p>Evidence suggests that that the maximum capacity of the industry is somewhere in the range of 38,000 to 44,000 dwellings per year and probably towards the lower rather than the higher end of this range. On balance of probability it is unlikely that the industry would be able to sustain an annual rate of delivery of 44,000 dwellings per year over the 20 year Plan period to 2031. Even to average 42,000 dwellings per year would require annual completions of almost 47,000 dwellings per year in the later part of the Plan period. Precisely where in the 38,000 to 44,000 range the maximum industry capacity lies depends on external factors allowing industry capacity to be realised. These factors include the nature and extent of effective demand in the future, the depth, length and long term effects of the recession, the future availability of credit (development and mortgage finance), the structure and operation of the house building industry, the planning policies which apply and the public and political appetite for new development. All of these factors will have to be favourable (from the perspective of the industry) in order for a target towards the higher end of this range to be delivered.</p>	<p>The evidence suggests that the capacity of the house building industry would be an absolute constraint to delivering 50,000 dwellings per year over a sustained 20 year period. Annual completion rates in the later years of the Plan period would be required to hit and maintain almost 60,000 completions per year. There is no historical precedent for such a delivery rate and no evidence of such a high level of effective demand for new housing existing.</p>
	Distribution	<p>It is difficult to determine industry capacity issues other than in the very general terms above. Evidence of past completion rates suggests that, if the housing ranges were allocated to districts on a pro rata basis based on existing SE Plan allocations, theoretically, some areas may be likely to be able to meet higher targets. There is evidence that East Sussex has achieved a level of completions in the past equivalent to a pro rata allocation of a 50,000 dwellings per year. Conversely however, past completion rates in West Sussex and Buckinghamshire would not even meet the level of a 38,000 per year pro rata allocation. But this is just a simple technical and theoretical paper extrapolation and not much should be read into these figures. The capacity of the industry will be affected mainly by the macro-scale factors described above and how these are manifest locally. There is no evidence of any particular local industry capacity issues, though effective demand in localised markets in the future could affect the capacity of the industry to deliver in those localised markets (the market saturation issue). Skills shortages may also have localised impacts.</p>			
Transport	Scale	<p>A number of transport studies, as part of the 'Delivering a Sustainable Transport System' project, are underway in the region. These will help identify challenges related to delivery of the scale and pattern of growth in the South East Plan. In developing the regional strategy, further work will be undertaken to explore the transport challenges being faced and implications of different scales and distributions of growth.</p>			
	Distribution				
Flood risk management	Scale	<p>See 'Environmental and physical capacity' section, above.</p>			
	Distribution				
Water supply	Scale	<p>See 'Environmental and physical capacity' section, above.</p>			
	Distribution				

Water treatment	Scale Distribution	See 'Environmental and physical capacity' section, above.	
Energy	Scale	<p>At 32,000dpa, there is no evidence of energy (principally electricity and gas) supply being an absolute constraint to housing development either at regional or sub-regional level. This judgement is based on previous assessment undertaken in preparing the South East Plan and more recent consultation with the main electricity distribution network operators (DNOs) in the region, EDF and Scottish and Southern Electricity.</p>	<p>Higher housing distribution levels are unlikely to be directly constrained by energy supplies in the region, assuming that national policies for the replacement of ageing power stations and for greater decentralised energy generation are implemented, through private sector investment in generation and distribution. The National Policy Statements on energy are intended to provide the framework in which decisions for major new generation and distribution infrastructure can be made more quickly.</p> <p>Potential for decentralised energy generation and distribution, including combined heat and power, may be greater with increasing levels of development (especially mixed use) given that this could increase demand in given locations and make provision of decentralised energy and heat distribution economically and technically viable (as demand reaches necessary thresholds and profiles). There is potential for decentralised energy, heat only and CHP to be powered by renewable energy, principally biomass including biomass component of waste. An assessment of potential recently completed for the Partnership Board identifies new development as a major driver in increasing potential for decentralised energy and heat distribution.</p> <p>Developing to higher environmental (energy efficiency) standards may to some extent mitigate increases in demand for electricity and gas (for heating), although it is difficult to assess the degree to which potential savings in efficiency of buildings may be offset by greater per capita consumption driven by other factors such as consumer electronics and communications infrastructure eg data centres required to facilitate growth in electronic and digital communication.</p> <p>Installation of on site renewables (solar water heating and PV) together with off site (wind and biomass) is likely to be increasingly required to deliver increasing levels of the Code for Sustainable Homes up to zero carbon standards by 2016 and beyond. Higher housing numbers should result in greater overall contribution by on-site renewable energy sources. Higher housing numbers should not effect viability of developing large-scale renewables such as wind and biomass.</p> <p>Improvements (retrofitting) to existing inefficient housing stock will be likely to have the largest impacts on energy consumption by the domestic sector.</p>
	Distribution	<p>There are national distribution grids for both gas and electricity. Electricity is fed into the National Grid from a range of power stations nationally. The main distributional issue appears to be the adequacy of the electricity distribution networks that carry electricity from the transmission systems, including the National Grid, and some generators that are connected to the distribution networks, to industrial, commercial and domestic users. This is known to be an issue in at least one location (Aylesbury) in the region although this is an issue of phasing and funding for new infrastructure rather than an absolute constraint. Enquiries to the DNOs have not identified similar issues elsewhere, unless developments of a very large scale (50,000 new dwellings was quoted) are located in specific locations. Even then it may be an issue of phasing and arranging for funding of necessary infrastructure.</p>	<p>At higher housing levels there is the potential that there may be greater likelihood of distribution network capacity issues arising if there is very large-scale development at individual locations.</p> <p>Larger scale new development, especially mixed-use development, offers more opportunity for master-planning (including heating networks) and greater financial and practical feasibility, than many smaller-scale developments. Higher housing levels could therefore increase the potential for CHP development in the region.</p>

		National policy encourages a more diverse and decentralised electricity (and heat) supply system, including smaller decentralised power stations (power and/or heat) and greater use of renewables.	
Waste	Scale	At 32,700dpa, there is no evidence of waste generation being an absolute constraint to housing or other development either at regional or sub-regional level.	Higher housing distribution/population levels, whilst presenting significant waste management challenges to the region, is unlikely, in itself, to pose a significant constraint or barrier to waste management. There will however be the need to address projected deficits/gaps in waste management capacity in a timely manner over the plan period.
	Distribution	<p>Modelling work indicates that there are large differences in waste management capacity within WPAs. WPAs like Berkshire, East Sussex, Medway and West Sussex are projected to exhaust their non-hazardous landfill capacity by 2010. For recycling and composting, the most constrained areas projected to have inadequate capacity by 2015 are Hampshire, Isle of Wight, Kent, Surrey and West Sussex although new capacity can be built in this timeframe. Similar scenarios are projected for other waste streams like construction and demolition (C&amp;D) waste and hazardous waste.</p> <p>The timely delivery of waste management capacity is critical in terms of bridging the 'capacity gap' and ensuring under-provision in the identified constrained areas is avoided. Delivery is however ultimately affected by investments by the private sector (and largely out of local authority control for waste other than municipal solid waste) and the uncertainties that facilities will gain planning permission and necessary licences. The growth of houses will have a negligible impact on the level of funding required for additional waste infrastructure.</p> <p>While capacity for 'diversion' of waste from landfill can be developed (recycling, composting, recovery and incineration) there are increasing constraints on the limited opportunities for landfill in parts of the region, primarily due greater groundwater protection controls by the Environment Agency. This emphasises the need to move rapidly towards a waste management system that minimises landfill. Regional waste policy aims to reduce (and even minimise) landfilling of waste that can be subject to recovery (recycling, composting and recovery of energy or materials through other processes).</p>	

**Cross cutting issues**

Climate change	Scale	Climate change is an important cross cutting issue that will impact on a number of the topic areas covered above, including water resources, water quality, flooding and biodiversity. It may also impact on the distribution of development and infrastructure in the region. A risk assessment of some of the likely impacts of climate change for the South East is currently being undertaken and will be an important part of the evidence base to the regional strategy.																																			
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Inter-regional Issues	Scale	<p>All regions implicitly or explicitly assume that economic growth will return to longer term trend within the medium term, and favour approached to long term growth that essentially roll forward current spatial approaches based on concentrating development in the main urban areas and identified growth areas/points. No major new settlement are proposed (&gt;20,000 homes). The most recent regional housing targets are tabled below, and emerging updated targets generally reflect household latest growth projections and the lower level of NHPAU testing range. The primary but currently unanswerable question is whether the longer term investment in the required social and physical infrastructure will follow in a timely fashion, and even if it does if there is a 'sustainability limit' to continuous incremental growth in all southern regions.</p> <table border="1"> <thead> <tr> <th></th> <th>Lastest annual housing target</th> <th>Source/status</th> <th>NHPAU lower level (2008)</th> <th>ONS household projection (2006)</th> </tr> </thead> <tbody> <tr> <td>South East</td> <td>32,700</td> <td>RSS/SE Plan 2009</td> <td>38,200</td> <td>40,400</td> </tr> <tr> <td>London</td> <td>33,800</td> <td>Draft London Plan 2010</td> <td>34,000</td> <td>34,000</td> </tr> <tr> <td>East</td> <td>25,000</td> <td>Draft RSS 2010</td> <td>30,000</td> <td>34,000</td> </tr> <tr> <td>South West</td> <td>29,600</td> <td>Draft RSS (PC stage) 2008</td> <td>30,000</td> <td>32,000</td> </tr> <tr> <td>West Midlands</td> <td>18,300-22,300</td> <td>Draft RSS Phase 2</td> <td>19,000</td> <td>21,000</td> </tr> <tr> <td>East Midlands</td> <td>22,000</td> <td>Draft RSS 2010</td> <td>23,400</td> <td>28,600</td> </tr> </tbody> </table>		Lastest annual housing target	Source/status	NHPAU lower level (2008)	ONS household projection (2006)	South East	32,700	RSS/SE Plan 2009	38,200	40,400	London	33,800	Draft London Plan 2010	34,000	34,000	East	25,000	Draft RSS 2010	30,000	34,000	South West	29,600	Draft RSS (PC stage) 2008	30,000	32,000	West Midlands	18,300-22,300	Draft RSS Phase 2	19,000	21,000	East Midlands	22,000	Draft RSS 2010	23,400	28,600
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	Distribution	There are focal points for growth and housing development in greater South East-facing parts of adjoining regions, including Poole/Bournemouth and Swindon in the South West; and Northamptonshire, the East Midlands part of the MKSM growth area; and in the London fringe, MKSM and Thames Gateway areas of the East subregion. Cumulative effects especially																																			

		<p>on nearby growth focal points in the South East will need to be considered (especially PUSH, Basingstoke growth point, MKSM (MK-AV), Kent Thames Gateway). At the high-level of testing in this report there is clear no evidence of incompatible approaches, subject to sufficient and timely investment in supporting infrastructure eg to create capacity and/or manage demand in pressured road and rail corridors. A complex set of planned interventions will progressively improve rail and tube capacity into London towards 2020. Rising demand in the longer term absorbs the extra capacity and future resourcing is required to address this.</p> <p>East of England propose levels of housing growth significantly below both projected household growth and the lower NHPAU testing level. If formally adopted this could dampen trend outmigration from London to the East, and corresponding additional displacement pressure can be anticipated to exacerbate housing demand in the inner South East (also East Midlands, to a lesser extent, with possible MKSM implications).</p>
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