

**REFRESH OF HIIS
JANUARY 2013**

FOREWORD

In early 2012 I was commissioned by Hertfordshire County Council on behalf of the Hertfordshire Infrastructure & Investment Partnership (HIPP) and the Hertfordshire Local Enterprise Partnership (Herts LEP) to undertake a refresh of the 2009 Hertfordshire Infrastructure and Investment Strategy (HIIS - a study in which I had acted as project manager for the 11 Hertfordshire authorities who had collectively commissioned it.

The need for the refresh of the 2009 study was felt to be self evident. Since the date of publication, whilst the need for new infrastructure for the county had not diminished, much of the context in which it was being promoted had changed. HIPP and the Herts LEP wanted to understand these changes and the impact they were having, particularly insofar as they were likely to affect the likelihood of delivery. Equally however they also wanted to consider ways in which the drive to deliver new infrastructure could be ramped up.

The document is partly a statement of where we are now and what that means for infrastructure planning in Hertfordshire, but partly also an attempt to point the way forward for the key Hertfordshire agencies - what they need to do deliver more infrastructure projects in the county. This calls for both new ways of thinking and new alliances of agencies working constructively together.

Much is made in this report of the changes to the infrastructure planning landscape since 2009 and now. What is perhaps quite striking is the change of emphasis that has come about in the last few months, after the report's contents had been finalised following the October 2012 Hertfordshire Infrastructure Planning Conference. I cover this in Chapter 11, which provides in many ways a very positive postscript to the rest of the report.

There is no doubt that infrastructure planning and delivery is now more 'centre stage' than it has been for many years - not only seen as key to Hertfordshire's general health and wellbeing, but also crucial in terms of the role it is expected to play in leading the country out of the economic doldrums. For that reason, this report is very timely. The next stage will be to turn the findings into reality

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EXECUTIVE SUMMARY

1. This review of the 2009 Hertfordshire Infrastructure & Investment Strategy (HIIS) has been jointly commissioned by the Hertfordshire Infrastructure Planning Partnership (HIPP) and the Hertfordshire Local Enterprise Partnership (Herts LEP) as a result of the many changes to the world of infrastructure planning and delivery that have come about since the original report's publication.
2. Much of what the 2009 HIIS study was able to cover remains valid, so this review covers only specific areas that need to be addressed because of changed circumstances. Only a partial review of infrastructure needs has been conducted, therefore, and this review does not revisit historic infrastructure needs, developer receipts or viability issues.
3. It does however focus on the relationship between future growth and infrastructure needs, the managing of infrastructure and delivery, and the relationship between strategic and local infrastructure need. These are all areas that the 2009 HIIS report was unable to explore in full, or where other changes in the political and planning landscape means that a new set of circumstances needs to be considered.
4. Those changes include the ongoing impact of the recession: the adoption of a National Planning Policy Framework; the removal of the regional planning tier and the new emphasis on localism; new funding mechanisms, some of which are more likely to 'reward' Hertfordshire; and finally the emergence of the Hertfordshire LEP and its potential role in infrastructure planning.
5. Additionally, the recent experiences of the assessment of bids to the government's Growing Places Fund shows that Hertfordshire is not yet in the place it needs to be in having a depth of infrastructure projects ready and able to take advantage of new funding opportunities.
6. The review updates the county's infrastructure needs by revisiting the key services that provide the county's infrastructure, and asks the question of what has changed. The position is patchy: much for instance has happened to move events forward in terms of transportation needs, including strategic planning and partnership work which will lead to the delivery of the Croxley Rail Link in Watford.
7. A range of other services - education, adult care, children's services for instance, have a solid basis for planning and delivering new facilities to respond to the growth agenda (although they are also having to cope with in some cases, demographic changes, including a rising birth rate and an aging population).
8. Other infrastructure provision, it is fair to say, has some way to go: green infrastructure provision needs to move beyond strategy to implementable projects, health infrastructure providers are having to cope with service delivery and procurement changes simultaneously, whilst a number of utility providers have the tendency to be reactive to changing needs, rather than taking a more proactive role. And since 2009, 'new' infrastructure - superfast broadband and the delivery of renewable energy projects - has grown in importance.

9. The review then turns its attention to the relationship between the spatial aspects of growth and infrastructure need, and finds big changes since 2009. With the sweeping away of both the regional tier of government and the imposition of minimum growth requirements on local authorities, numbers are changing; the review now anticipates that 22,000 fewer dwellings (102,000 down from 124,000) will be built in the county in the 30 years to 2031. Large scale greenfield releases which were being contemplated during the current decade are now not likely to take place until after 2021.
10. Consequently the nature of infrastructure planning will have a much greater emphasis on incremental growth rather than major urban extensions, although some shorter term smaller scale (c500 dwelling) proposals are anticipated over the next few years as well as the promotion of a range of strategic sites.
11. A number of uncertainties remain about precise numbers and locations of new development and until these are resolved, infrastructure planning will continue to pose difficulties for service providers. One thing is certain however, is even that even the reduced levels of development now expected will need new infrastructure to serve it, and that the backlog of infrastructure need (what the 2009 HHS report referred to as the Infrastructure Deficit, at some £2.4bn) still remains.
12. The review then turns to the funding of infrastructure, including the impact of the introduction of the Community Infrastructure Levy. When introduced in the county over the next few years, the charge will make a substantial difference to the funding of new infrastructure, but it will in no way be the complete answer - the review estimates that it is likely to fund less than 20% of the county's future infrastructure needs - a case study of Baldock's infrastructure needs backs this up, and illustrates the difficult choices that will be faced in prioritising CIL investment.
13. The answer is that CIL may have to be increasingly seen as providing 'top up' funding rather than 'whole project' funding - for instance plugging an infrastructure funding gap as part of an overall funding packages. The review examines how infrastructure funding packages work, firstly by taking a look at the structure of the £1.5bn Greater Manchester Transport Fund, and then moving closer to home by illustrating how the funding for the Croxley Rail Link came together.
14. A range of new and emerging funding initiatives are illustrated, with the commentary that the Hertfordshire agencies need to explore the opportunities they give rise to.
15. The relationship between strategic and local infrastructure is then considered. The review finds that there are strong reasons both for categorising infrastructure and then focusing on the delivery of the strategic element, because it is this type of infrastructure which is both easy to neglect and difficult to arrive at arrangements that ensure that it is secured. The review splits such infrastructure into countywide strategic infrastructure and more localised sub strategic infrastructure because they are likely to demand different actions to secure investment, but concludes concerted action is needed for both involving appropriate partnership and procurement arrangements.
16. Some initial attempts are made to define strategic infrastructure before the report considers the work that has taken place to define, plan and deliver such infrastructure

in the adjoining counties of Cambridgeshire and Essex. The conclusion is that the Cambridgeshire Integrated Development Programme and the Essex Integrated County Strategy both have strong features that would commend themselves to Hertfordshire.

17. This section of the review concludes with a tentative potential Strategic Infrastructure Plan for Hertfordshire, whilst acknowledging that more needs to be done to make this a reality.
18. The final part of the review of HISS turns its attention to the all important area of the management of infrastructure planning in Hertfordshire. There appear to be a number of good reasons for doing this, as the county appears to be lagging behind some of its neighbours, and again, Cambridgeshire and Essex both provide some basis for illustrating how strong collaborative infrastructure partnerships are paying dividends.
19. The need for new disciplines in infrastructure planning becomes particularly important with the introduction of CIL, and the review examines how a number of authorities are handling this issue: arrangements at Huntingdonshire DC, Milton Keynes, Shropshire and West Norfolk are examined in some detail.
20. The review concludes that Hertfordshire has some way to go before it could consider itself 'fit for purpose' to make the most of the new world of infrastructure planning and delivery. Three future actions are proposed to address this. These are: the preparation of a Strategic Infrastructure Plan for Hertfordshire; the creation of an 'Infrastructure Projects Chest' - a range of projects taken to the stage where they are able to take advantage of new funding opportunities; and a full appraisal of new sources of funding for infrastructure.
21. A postscript to the report examines the major changes that have come about since October, including the outcomes from the Hertfordshire Infrastructure Planning Conference, the 2012 autumn statement and the announcement about changes to the way in which the Community Infrastructure Levy is expected to operate.

CHAPTER 1: INTRODUCTION

WHAT'S THE CONTEXT FOR THE REVIEW OF HIIS?

- 1.1 The context of this update of the 2009 HIIS report was established in the debate that emerged during the closing weeks of 2011 between two bodies: the Hertfordshire Local Enterprise Partnership (hereafter referred to as the LEP) and the Hertfordshire Infrastructure & Enterprise Partnership (HIPP), the pan Hertfordshire member group set up to explore infrastructure issues and interests.
- 1.2 As the LEP started to find its feet during the course of 2011 it began to ask a number of questions about whether there was a role for it to play in strategic infrastructure planning, a role that has been supported in principle by HIPP subject to a greater understanding of the LEP's funding and resource position, as well as a demonstration of the value that it is able to add.
- 1.3 Both the LEP and HIPP sought greater dialogue, and that was achieved through the LEP's leadership of (and HIPP's involvement in) the review of bids for the Growing Places Fund (GPF), a review that is still ongoing and should ultimately be successfully concluded, but which has thrown up some very basic concerns in Hertfordshire's ability to respond to the new funding opportunities.
- 1.4 A presentation to the LEP board in December 2011 on strategic infrastructure planning in Hertfordshire exposed other worries. That was that despite the fact that the Hertfordshire agencies have a fair understanding of future infrastructure requirements, and possess for the most part a 'can do' attitude towards delivering it, they lack an overall strategy for setting down infrastructure priorities and have no leading player or partnership able to make things happen.
- 1.5 The consequence of this were calls to make the necessary changes to combat these concerns. As a starting point, and as an initial action that would be a catalyst for future actions, a revisit of one Hertfordshire's recent key achievements in infrastructure planning - the 2009 Hertfordshire Infrastructure & Investment Strategy – was proposed.

THE REVIEW OF HIIS

- 1.6 In subsequent chapters we go into some detail of why HIIS needs to be revisited, and what that review has focused on. As we make clear, it is only a partial review, accepting that much of the initial conclusions of HIIS remain valid, but that there are specific areas that need to be addressed in the light of changed circumstances.
- 1.7 This review of HIIS has been a focused piece of work. It has proved necessary to be more than a simple spreadsheet of potential infrastructure projects given the complexity of the issues; the rapidly changing environment in which infrastructure planning operates; the absence of a consistent approach to infrastructure planning at the local level; the absence - to date - of a consensus on investment priorities; and the limited ability currently to deliver key projects.

- 1.8 It is appropriate to refer to a 'rapidly changing environment' because in the time since HHS was originally completed many things have changed – a new coalition government with its own particular priorities and way of doing things, a reshaped planning system and a different approach to central government support for the funding of new infrastructure - one that in part at least rewards communities like Hertfordshire that are able and willing to take on new growth.
- 1.9 There is not yet a widely shared view of precisely what infrastructure is needed nor a collective sense of what we mean by "strategic infrastructure" and what - if we pulled priorities together in the form of a Strategic Infrastructure Plan - this might comprise. That is not to say that it won't be possible to establish a widely accepted view on the above: it's just that a series of logical steps will need to be followed to reach such a position.

WHAT'S CURRENTLY MISSING IN INFRASTRUCTURE PLANNING

- 1.10 The occasionally expressed view that 'we all know precisely what infrastructure Hertfordshire needs' is not one borne out by experience, with a number of district councils in the throes of preparing their Infrastructure Delivery Plan reporting missing or patchy information. HHS was able to advance significantly our understanding of what is needed but uncovered areas of limited information which remain today. The time is right to press on with filling in the gaps.
- 1.11 This is not as straightforward as it seems. Infrastructure providers need some certainty over where development is expected to take place, and when. Not all authorities can provide them this information. Even when providers advance their ideas these may be challenged by the communities they serve, so a collective debate over future infrastructure requirements with a range of interests is a necessary one.
- 1.12 We currently have no real processes in place for planning and delivering strategic infrastructure and we need to establish one. Where infrastructure partnerships exist they occur on an ad hoc basis but - as the recent joint work to secure long term funding for the Croxley Rail Link prove - they can prove invaluable.
- 1.13 Experience of the Growing Places Fund bid process suggests that there is a big difference between preparing a list of infrastructure projects and having those infrastructure projects in a place where they are deliverable. Part of the work of the HHS refresh is to put Hertfordshire in a better position so that it does not just identify infrastructure projects, it can point the way to making sure that they happen.
- 1.14 Finally, taking a parochial view on infrastructure needs is not in anybody's interest. We can expect to continue to inhabit an infrastructure planning world where infrastructure need will outstrip the availability of finance to deliver it, where not all infrastructure providers will necessarily be sufficiently proactive in ensuring what they need to deliver actually gets delivered, and where the actions of any one body to secure new infrastructure will almost certainly be enhanced if others are engaged in fulfilling this quest. This is the rationale for the HHS review and any subsequent actions that arise from it.

THE STRUCTURE OF THIS REPORT

- 1.15 Chapter 2 of this report looks at what the original HIIS study was able to achieve: in short, this was a great deal. Chapter 3 charts the important changes that have happened since the publication of HIIS to make a review worthwhile, which leads on the Chapter 4, setting out those parts of HIIS have been looked at again.
- 1.16 Chapters 5 to 9 contain the main conclusions from the review of HIIS, with Chapter 5 providing an update of infrastructure needs and costs and Chapter 6 examining the spatial dimensions of growth and its impact on infrastructure need and delivery. Chapter 7 looks at the all important issue of the funding of infrastructure whilst in Chapter 8 we look at the important relationship between strategic and non strategic infrastructure and in particular, how planning for the former is given sufficient focus. In Chapter 9 we look at the management aspects of infrastructure planning.
- 1.17 In chapter 10 we look at key findings from the study before drawing a number of conclusions and, a programme of follow up work is set out to carry on the task of making Hertfordshire 'fit for purpose' in the world of infrastructure planning.
- 1.18 A final chapter (Chapter 11) provides a postscript to the report. As the HIIS refresh was being finalised, its content was discussed at the Herts Infrastructure Conference on October 22nd 2012, and then in the autumn, the Chancellor's 2012 Autumn Statement and the publication of amended CIL Guidance brought significant changes to the way in which infrastructure planning is expected to be carried out.
- 1.19 In many ways the collective implications from these three important events not only vindicate the need to look again at infrastructure planning in Hertfordshire, but are expected to provide the impetus to herald the big changes in the way in which this issue is addressed in future.

CHAPTER 2: ABOUT HIIS - WHAT IT ACHIEVED AND WHY REVIEW IT NOW?

- 2.1 Before moving on to the refresh of HIIS we need to remind ourselves why it was undertaken and what it has been able to achieve.

WHY HIIS WAS ORIGINALLY COMMISSIONED

- 2.2 HIIS was commissioned in April 2008 and completed in October 2009. It was commissioned as a consequence of Hertfordshire's local authorities realising that they did not have anything like a full picture of the county's future infrastructure needs. The East of England Plan had stressed the importance of delivering the infrastructure necessary to support growth requirements but had ducked the issue of dealing this in the Plan itself, leaving the constituent local authorities out on a limb.
- 2.3 More than this, local authorities had woken up to the fact that much greater emphasis was being placed on the delivery of new infrastructure, not just planning for its need. No longer was it likely to be acceptable for authorities to plan for new housing and jobs without a full consideration of what infrastructure this gives rise to, and equally importantly who would take responsibility for delivering it.
- 2.4 The preparation of an Infrastructure Delivery Plan was made a key requirement for planning authorities in 2008 and is now an essential element of each authority's development plan, as well as a prerequisite for the introduction of a Community Infrastructure Levy. In 2008 the Hertfordshire authorities recognised that much of the information they needed about identifying and providing new infrastructure was not in their possession. HIIS was conceived as a means of filling this knowledge void.

HIIS: THE HEADLINES

Table 2.1: The main headlines from HIIS

HIIS: the main conclusions

- Infrastructure needs based on future growth to 2031 will cost an estimated £2.6bn: with only an identifiable £485m seemingly available at the time to fund them, there is a funding gap of £2.18bn.
- Biggest infrastructure items are transport (£1.1bn) and education (£0.8bn)
- There is a historic infrastructure deficit (infrastructure that should have been provided but hasn't) of £2.4bn, meaning that total infrastructure funding shortfall for past and future requirements is £5bn
- To meet the net cost of all future infrastructure need a sum equating to an average of £23,000 would have to be levied on each new dwelling provided in the county
- However viability testing undertaken at the time suggested across Hertfordshire this would be a very difficult figure to achieve, with many areas struggling to achieve even half of that

WHAT HIIS WAS ABLE TO ACHIEVE

- 2.5 By the time HIIS was completed Hertfordshire's local authorities had a far greater understanding of infrastructure needs, as can be illustrated in table 2.2 overleaf.

Table 2.2: How HIIS has enabled Herts local authorities develop their understanding of the county's infrastructure needs

Key area explored by HIIS	How it has helped develop understanding
Historic Infrastructure needs (the infrastructure deficit)	Not originally part of the HIIS, but added after commissioning, the Infrastructure Deficit Study showed in stark terms that planning for infrastructure was not just about planning for growth, with its calculation that the current bill for 'missing' infrastructure was broadly the same size as the cost of providing infrastructure for the next 20 years
Defining future infrastructure needs	HIIS looked at future infrastructure needs through to 2031 in almost forensic detail, resulting in an in depth assessment of the cost of dealing with the consequences of growth. Given that the calculations were based on East of Plan figures, this element of the study could have been devalued by the knowledge that some authorities will be undercutting these figures, but given that most authorities expect be at or close to Plan numbers, this is not expected to be an issue
The geographic link between growth and infrastructure need	HIIS demonstrated that there was a direct link between the location of growth and the location of new infrastructure to serve it. This may be a slightly obvious point, but it did illustrate the difficulty of trying to plan for infrastructure need at a time when there were uncertainties about where growth would be located (certainly a big issue at the time of HIIS, and still an important consideration today)
The cost of infrastructure need	The cost of providing future infrastructure needs formed a key part of the study, as did the apportionment of these costs both across services, between districts and over time. The calculations helped with an understanding that although infrastructure costs can be partially offset by development contributions, there is often a mismatch between when infrastructure is needed and when receipts are forthcoming, and also between where new infrastructure is required and where receipts will be achieved
Managing infrastructure planning and delivery	HIIS spent time focusing on the need to manage the process of receiving developer contributions and seeking to gain access to public funding sources; and then matching this with the delivery of a programme of infrastructure projects which have undergone a proper scrutiny process, have been worked up in detail so no obstacles to delivery remain, and which have been prioritised to ensure that those of critical importance are being delivered in advance of the merely desirable
The relationship between strategic and local infrastructure need	HIIS spent a great deal of time looking at the differentiation between strategic and local infrastructure and the different ways of securing its respective provision. Although the definitions used to define strategic and local infrastructure look wrong now, HIIS remains an important reference point for the ongoing debate about how local planning authorities (who by and large have a direct involvement only in delivering local infrastructure) can ensure the requisite amount of strategic infrastructure (which they typically do not have direct responsibility for) will be delivered in tandem
The importance of developer receipts (s106/CIL)	HIIS correctly anticipated the introduction of CIL and the role it is expected to play in helping the funding of new infrastructure. Whilst it is likely to prove in time that it was overoptimistic in expectations about what CIL will in fact be able to fund, it did flag up in no uncertain terms the likely gap between infrastructure need and contributions from new development towards the cost of meeting such need, and this has helped inform the ongoing debate about this issue
Engaging with infrastructure providers	Before HIIS, engagement with infrastructure providers had been patchy and generally lacking in direction. Infrastructure providers were engaged throughout the process of bringing HIIS forward, and that engagement process has largely been maintained, so that the overall awareness of the issues associated with delivering new infrastructure generally remains high
Issues of viability	HIIS engaged in what was in hindsight a less than wholly successful exercise in seeking to bottom out the key issues of viability – the ability of new development to pay for the cost of infrastructure it gives rise to. What it did very much flag up is the fact that in parts of the county where development values are relatively low, viability will be a very difficult issue and that any expectation of a homogenous approach across Hertfordshire is likely to be misplaced

- 2.6 The evidence suggests that since completion HIIS has offered the following benefits:
- in infrastructure planning work being undertaken by the Hertfordshire district councils (although it is inconsistent and largely un-coordinated)
 - as a benchmark in the development of longer term service plans by Hertfordshire's infrastructure providers
 - to inform the overall picture of infrastructure planning in the county
 - as the basis for an ongoing debate on key infrastructure issues
 - in the process of joint working, with the establishment of a HIIS Reference Group (now renamed the HIIS Reference Group) and the collaboration of 8 Hertfordshire authorities in a joint CIL viability study

CHAPTER 3: THE CHANGING WORLD OF INFRASTRUCTURE PLANNING

- 3.1 Given the circumstances described in Chapter 3, why is there the need to review HIIS given that it was completed less than 3 years ago? The reason is the main changes that have happened since then, which we look at in some detail in this chapter.

Table 3.1: what's happened since his was published that gives rise to its review

The changes that give rise to a review of HIIS

- the economy that continues to flatline, with no obvious signs of recovery
- the election of the coalition government with its new agendas
- a new, streamlined planning system and the demolition of the regional architecture
- the rise of LEPs
- changes in the roles of infrastructure providers
- new public funding regimes better suited to Hertfordshire's circumstances
- new funding instruments
- the promotion of localism and devolution of responsibilities to the local level

- 3.2 We need to look at these in turn, but it's worth saying from the outset that the review should not be seen in the context of devaluing the achievements of HIIS – indeed it should be recognised that without HIIS having been prepared, the challenges that are now being faced in moving forward infrastructure planning in Hertfordshire would be infinitely greater.
- 3.3 As set out below, there are a number of reasons why elements of HIIS are important to revisit. Since 2009 there have been significant changes in a number of key areas of public policy - as well as the wider world - which have implications for the original conclusions from HIIS.

THE ONGOING IMPACT OF THE RECESSION

- 3.4 The effects of the recession have been more severe and prolonged than anticipated at the time HIIS was completed. This has a number of implications for infrastructure planning, perhaps the most important of which is the need for a greater focus on infrastructure that will help serve economic recovery.
- 3.5 It's important to recognise the benefits from new infrastructure are twofold - the investment stimulates increased economic activity and the actual construction of new infrastructure is an important economic activity in its own right. A 2012 report from the UK Contractor's Group produced by the Centre for Economics and Business Research and entitled "Making the Economic Case for Construction" has confirmed that investment in construction is one of the best ways of stimulating local economies.
- 3.6 Not only is there a multiplier effect – with every £1 in investment producing £2.84 in economic activity – but also, the main benefit of the investment stays in the local economy. Over 90p in every pound is retained locally.

THE NEW PLANNING SYSTEM

- 3.7 The new National Planning Policy Framework was published on 27th March 2012. Given that it took immediate effect on the day of publication, it is having a growing impact on the way land use planning is conducted, particularly with the increased emphasis on deriving local solutions and in introducing the presumption in favour of sustainable development.
- 3.8 Inevitably the implications of this are trickling down to change the way in which infrastructure planning is approached in Hertfordshire: Table 3.2 summarises the main references to infrastructure planning in the NPPF:

Table 3.2: Summary of references to infrastructure planning in the NPPF

Key References to infrastructure planning in the published NPPF (numbers refer to NPPF paragraphs)

156. Plan making should include strategic policies to deliver both strategic and local infrastructure.

157. Local Plans should plan for the infrastructure required in this area to meet NPPF objectives, preferably over a 15 year period: such requirements should be kept up to date and based on the co-operation of others including neighbouring authorities, and public, private and voluntary sector organisations.

162. Local planning authorities should work with others to assess the quality and capacity of key infrastructure (e.g. transport, water supply energy, utilities, waste, health education) and take account of the need for strategic infrastructure.

173. Developments should not be unduly burdened with obligations, affordable housing requirements, infrastructure contributions etc to render them unviable.

175. Where practicable CIL charges should be worked up and tested alongside the Local Plan: CIL should incentivise development, in particular by placing control over a meaningful proportion of the funds raised with the neighbourhoods where development takes place.

177. There should be a reasonable prospect of infrastructure being delivered in a timely fashion, and for this reason infrastructure and development policies should be drawn up at the same time.

178, 179. As part of an approach that should see local planning authorities working collaboratively across boundaries, they should consider producing joint planning policies on strategic matters and informal strategies such as joint infrastructure and investment plans.

188. Local planning authorities should work collaboratively on strategic planning priorities to enable sustainable development in consultation with Local Enterprise Partnerships and Local Nature Partnerships.

189. Local authorities are expected to demonstrate evidence of cross boundary working, and cooperation should be a continuous process resulting in plans that provide for the land and infrastructure necessary to support current and future levels of development.

- 3.9 The Localism Act also introduced the duty-to-cooperate for which local authorities have a duty to co-operate in relation to strategic infrastructure that has or would have a significant impact on at least two adjoining areas.

REMOVAL OF THE REGIONAL ARCHITECTURE

- 3.10 The conclusions from HIIS were predicated on the continuance of the RDAs and the need to meet as a minimum the requirements of the East of England Plan. Given that in future neither of these will have any direct relevance, some of the conclusions from HIIS need to be revisited to reflect the fact that a top down, regionally derived 'numbers game' approach to delivering new infrastructure is no longer on the agenda.
- 3.11 The former regional architecture did however ensure that infrastructure was considered within a regional and national context. In the absence of Regional practices, there is a need to ensure adequate consideration is given to the 'bigger picture' in relation to infrastructure.

NEW RESPONSIBILITIES FOR INFRASTRUCTURE PROVIDERS

- 3.12 Since 2009 there have been a number of changes in the roles of infrastructure providers which are (or will in future) have significant consequences for infrastructure planning and delivery. Most notably the changes in education (the emergence of free schools and an expanded academy programme) and health (the changes brought about through the 2012 Health and Social Care Act, including the creation of Clinical Commissioning Groups) are likely to have an influence on not only the investment required, but also the investment priorities.
- 3.13 The creation of Local Transport Bodies from 2015 is also likely to be significant, so the three of the biggest spending areas (transport, education and health) will see shifts in emphasis over the next few years.

THE NEED TO DERIVE MORE LOCALISED SOLUTIONS

- 3.14 It follows from the previous points that the conclusions from HIIS need to be much more reflective of the need to respond to the agenda set out in the Localism Act.

A MORE HOLISTIC APPROACH TO THE FUNDING OF NEW INFRASTRUCTURE

- 3.15 Whereas HIIS sought to establish anticipated developer contributions (CIL and s106 obligations) as the principal funders of infrastructure provision, with other funding mechanisms seeking to plug the gap, we now need to look at all potential infrastructure funding sources – both private and public – in the round, and not be too overly reliant on one particular source. This is particularly the case when, as considered in Chapter 7, it is calculated that CIL is unlikely to contribute more than 20% towards the cost of growth related infrastructure.

AN OPPORTUNITY TO CONSIDER AND INTEGRATE THE NEW FUNDING REGIMES

- 3.16 Since 2009 there have been significant changes in the nature of funding programmes and the impact they can have on infrastructure funding: new or intended funding sources are set out in Chapter 7.

- 3.17 There is more than a hint that the government will continue to use fiscal stimuli in the form of local infrastructure investment to promote growth, as evidenced below:

Table 3.3 Growth enabling infrastructure projects in Hertfordshire - a call for proposals

Growth enabling infrastructure projects in Hertfordshire
<p>The County Council, in partnership with the Hertfordshire LEP has to provided information to BIS listing potential Hertfordshire projects which will unlock growth across the county. An initial response in summer 2011 had persuaded the Chancellor that the promotion of infrastructure investment was a key element of promoting growth and was heavily influential in the thrust of his Autumn Statement</p>
<p>The BIS calls for proposals are for projects possibly of a greater scale than likely to be promoted under the Growing Places Fund, and have the ability to achieve the following:</p>
<ul style="list-style-type: none">• growth enhancement in the construction phase and beyond• able to begin within 18 months• of sufficient scale to have an impact of growth in a LEP area
<p>The expectation must be of 'more of the same' in the way of such funding initiatives in the future: also that 'success will breed success'</p>

RECOGNISING THAT SOME OF THE NEW FUNDING OPPORTUNITIES ARE ABOUT REWARDING ACHIEVEMENT

- 3.18 There has been something of a sea change in the way in which new funding mechanisms are being established. Until very recently the general approach could be seen as 'compensating failure': providing funds to locations that could not (usually for market reasons) generate the funds needed to deliver necessary infrastructure.
- 3.19 The new funding mechanisms seek to redress the balance with some funding mechanisms (New Homes Bonus, GPF) that are essentially about 'rewarding growth': providing funding for individual local authorities who demonstrate a capacity and willingness to take on growth. In such circumstances Hertfordshire stands to fare better in its quest for infrastructure funding, and HIIS needs to reflect this.
- 3.20 The next stage in this process will be about 'rewarding achievement': further benefits for authorities that are successful in committing these new forms of expenditure. Only time will tell whether Hertfordshire is successful in achieving this, although the solution is in the hands of the agencies concerned and this refresh of HIIS (and any subsequent programme of work) is all about giving the county the best possible platform on which to perform.

NEW ROLES FOR ORGANISATIONS PLANNING AND DELIVERING INFRASTRUCTURE NEED TO BE DEFINED

- 3.21 HIIS envisaged the creation of a 'CILmeister' (a central secretariat with responsibilities of managing CIL) but this now looks entirely out of step with the new agendas. Roles must reflect the anticipated devolved nature of infrastructure planning whilst at the same time considering how agencies can come together to define and deliver the important strategic projects.

- 3.22 Specifically it needs to consider the role of the LEP (not a known concept at the time of HIIS publication) in this area.

Table 3.4: The Hertfordshire LEP and the potential role of LEPs in infrastructure planning

The Herts LEP - a potential role in infrastructure planning

The Herts LEP is one of 38 that has been established across the county with a role in developing a clear vision and providing leadership in promoting economic recovery in defined localities, supporting the private sector in the task of promoting jobs and growth.

LEPs are being encouraged to set their own agendas and develop their own thinking on the powers and responsibilities they needed to undertake the role they define for themselves. In March 2011 HIPP agreed it should indicate its support in principle for the LEP's involvement in infrastructure planning, and attempt to define key areas where it considered the LEP could potentially play a role.

The key areas for potential involvement were defined as:

- Responsibilities for defining strategic infrastructure requirements
- Co-ordinating the delivery of strategic infrastructure in Hertfordshire
- Managing Strategic CIL monies
- Representing business needs in defining strategic investment
- Developing Sub-regional investment priorities
- Leading funding programmes to deliver new infrastructure

[HIPP did not consider that the LEP would be likely to have a role in taking direct responsibility for delivering strategic infrastructure or any housing, environmental/green infrastructure and transport responsibilities; in taking over any planning responsibilities; or in planning and delivering any local infrastructure]

The LEP's eventual involvement in the key areas identified has yet to be determined, but clearly remains an important consideration in infrastructure planning

HIIS WASN'T CERTAIN WHERE NEW GROWTH WAS GOING TO BE LOCATED

- 3.23 Although it initially sought to do so HIIS was, by its own admission, unable to shed any significant light on the specific infrastructure needs associated with new growth locations. There needs to be further attempts to do this (although, as set out in Chapter 6, it also needs to be acknowledged that in some instances, authorities may still not be clear on the precise spatial form of future growth for some time to come). There is the need to consider how Hertfordshire can improve its bidding capacity for infrastructure funds.
- 3.24 With its principal focus on the ability of CIL to be the central funding source for the delivery of new infrastructure, HIIS did not really give much thought as to how bidding strategies aimed at maximising other funding sources could be developed. This is clearly an area that needs to be addressed.

LESSONS FROM THE GROWING PLACES FUND BID REVIEW PROCESS

- 3.25 The Growing Places Fund bid review process for the initial programme launched in November 2011 has involved a clear set of actions which are not delved into here: what is important are the lessons that can be learned for the review of HIIS and other associated work that might be proposed in future on infrastructure planning.
- 3.26 It should be stressed from the outset that the 'first round' GPF programme (at nearly £11m) is relatively small, and therefore the kind of infrastructure projects that are being contemplated are not the major 'showstoppers' perhaps of greater long term concern. That said, the issues that have been encountered with GPF are likely to apply to larger scale projects, so it is perhaps important to take note of them.
- 3.27 Table 3.5 below sets out the areas of concern:

TABLE 3.5: THE GPF REVIEW PROCESS - AREAS OF CONCERN IDENTIFIED FOR INFRASTRUCTURE PLANNING

Key area of concern	Comments
Relative lack of depth of supportable projects from the list of bids submitted	Whilst it should be stressed that the projects that are being supported are of high quality and therefore entirely appropriate in terms of GPF criteria, only 5 of the 15 submissions were considered supportable, largely for the reasons set out below. Without the existence of these 5 schemes, Hertfordshire would have struggled to identify suitable projects to take up its allocation.
Limited number of projects 'ready to go'	Even of the bids that were supported, only one had a development partner in place and only one had established a repayment mechanisms for the fund; no private sector monies had yet been secured nor had any State Aid issues been considered. Additionally all 5 projects required planning consent.
Absence of a 'chest of projects'	What this points to is a need to create a 'chest of viable projects' that can quickly take advantage of new funding opportunities. This is likely to be as true of major strategic proposals as it is of the smaller 'GPF scale' projects.
The ability to recycle initial funding is critical	What GPF has told us is that projects that are able to recycle the initial outlay i.e. repay the pump priming investment to allow the recycled capital to be ploughed back into further investment) are likely to set the 'gold standard' in terms of eligibility, provided other qualifying criteria are also met.
Projects must deliver tangible benefits in terms of homes, jobs and other important outputs, either directly or indirectly	Whilst certain projects will fulfil criteria that might be difficult to quantify, where possible there needs to be consideration between the project's cost and what it achieves in terms of tangible outputs. Too few of the GPF submissions gave the appropriate amount of thought to this.
Project management, governance and accountability arrangements need to feature strongly from the outset	These are elements that should not be an afterthought. With some GPF submissions there were uncertainties about management and delivery responsibilities that undermined their credibility.
A system for establishing relative priorities between projects needs to be created	Those involved in assessing the GPF programme submissions will have been aware that they were doing so 'on the hoof' – working without the benefit of a set of predetermined priority projects. Whilst this was not an immediate problem, it would be far better overall priorities for investment were in place for future funding rounds, whatever form they should take.

CHAPTER 4: THE SCOPE OF THE UPDATE OF HIIS

- 4.1 Taking the key points from Chapters 2 and 3 above, the review of HIIS set out over subsequent chapters are set out in Table 4.1 below.

Table 4.1: Areas of HIIS that have been reviewed

HIIS key area of work	Reviewed ?	Reason for decision on whether or not to review
1. Historic Infrastructure needs (the infrastructure deficit)	No	HIIS gave us detailed information on the historic deficit and there is no real need to revisit it
2. Defining future infrastructure needs	Partial only	HIIS provided a mass of information, most of which is either current or being developed further in any case. Any review should only focus on how this might help in developing a schedule of strategic infrastructure requirements, anything prompted by the new agendas, and an examination of the link between growth and infrastructure need
3. The link between growth and infrastructure need	Yes	This is a key area where HIIS failed to make much of an impression. Whilst information on where growth is located remains patchy, this is an area that needs further exploration
4. The cost of infrastructure need	Partial only	As noted in 2, HIIS remains sound on a number of issues and there is only a limited need to revisit this
5. Managing infrastructure planning and delivery	Yes	This is a critical area where the debate has moved on considerably since HIIS was published: it should be the central element of any review
6. The relationship between strategic and local infrastructure need	Yes	Comments as for 5: this is an area where it should now be possible to throw much more light on the subject than in 2009
7. The importance of developer receipts (s106/CIL)	No	District Councils are already looking at this as part of their CIL work and in many ways the debate has moved on in different directions
8. Engaging with infrastructure providers	Partial only	There is already a good level of engagement of infrastructure providers. However as part of this review and the work on strategic infrastructure provision there was some scope for re-engagement both in the lead up to and within the infrastructure planning workshop
9. Viability issues	No	Viability is being explored at a district level, as part of CIL work. By late spring all of Hertfordshire's authorities will have a viability model they can utilise for any similar work

CHAPTER 5: UPDATING HERTFORDSHIRE'S INFRASTRUCTURE NEEDS

- 5.1 HIIS was pioneering in its approach to infrastructure planning in Hertfordshire, bringing together representatives from all infrastructure and service providers to develop a collective picture of the infrastructure needed to support future growth within the county.
- 5.2 The study provided a strategic, high level assessment, but faced with a number of limitations recognised the requirement for further work to be undertaken by both local authorities and infrastructure providers so that future infrastructure need could be more accurately assessed and translated into more local requirements.
- 5.3 Since HIIS was undertaken (and as already noted) there have been a number of structural and financial reforms which are having a significant impact on the way in which infrastructure and service provision is identified, funded and delivered. These changes require an approach to infrastructure planning that ensures local needs are continued to be met whilst those requirements that are beyond the scope of individual local authorities and service providers are also delivered.
- 5.4 This chapter carries out a high level review of the infrastructure need that was identified in the 2009 HIIS study to assess progress with infrastructure planning (at both the local authority and service provider level) and to identify any changes in infrastructure need.
- 5.5 It is not the purpose of this review to carry out a detailed re-evaluation of infrastructure needs and costs as the changes in expected growth (outlined in Chapter 6) are likely to have a significant impact on infrastructure need. Exploring the wider links between future growth and need should form part of further work when developing Infrastructure Delivery Plans across the county.
- 5.6 Instead this refresh looks to highlight the key changes that are likely to impact upon the assumptions made in HIIS to identify and prioritise actions that will be required if effective infrastructure delivery in the county is to be achieved.

INFRASTRUCTURE NEED IDENTIFIED IN THE HIIS

- 5.7 As noted earlier HIIS identified a need for approximately £5bn worth of infrastructure investment in the county to 2031 to support economic growth, housing development and rectify existing infrastructure deficits. Approximately £2.6 billion was in relation to the projected future growth within the county whilst a further £2.4 billion related to a historic underprovision.
- 5.8 Those items that provide for infrastructure needs that crossed a number of local authority boundaries (which the HIIS identified as strategic infrastructure) accounted for the highest proportion of both growth related and historic infrastructure deficit, with education and transport making up the greatest need in terms of cost. There was also a need for significant investment in local infrastructure but this was considered relatively small in comparison.

- 5.9 Although providing an effective overview of infrastructure requirements up to 2031, HIIS encountered a number of barriers to identifying future infrastructure needs, most notably the divergent planning timescales of individual service providers. As a consequence it was noted that the actual investment required would be higher than stated.

WHAT HAS HAPPENED SINCE HIIS?

- 5.10 Since HIIS was undertaken there has been significant changes in relation to the progress of infrastructure planning at the local level, and a greater understanding of the scale of growth set to come forward to 2031. As considered below, a number of infrastructure providers are clearer about long term needs than they were at the time of HIIS.

ASSESSMENT OF INFRASTRUCTURE NEED AT LOCAL LEVEL

- 5.11 To support development plans, a number of evidential studies and service planning exercises have been undertaken at the local level by local authorities and service providers to help identify local infrastructure requirements.
- 5.12 These studies have built upon the high level assessment undertaken through HIIS and have helped identify specific locational requirements, phasing, funding and appropriate delivery mechanisms.
- 5.13 In some cases these studies have identified further infrastructure requirements which were not considered as part of the original HIIS. For example, the Cheshunt and Waltham Cross A10 Study has identified additional transport requirements in light of proposed growth through the Local Development Framework. These additional infrastructure requirements will be considered as part of this refresh.
- 5.14 To help deliver and prioritise infrastructure requirements, local authorities have developed (or are in the process of developing) local Infrastructure Delivery Plans and Local Investment Plans (LIPs) which will guide investment within their area. However, there is no consistent approach to infrastructure planning for the county, and so the level of detail adopted shows considerable variance.

CHANGES IN RESPONSIBILITY FOR INFRASTRUCTURE PLANNING, FUNDING AND DELIVERY

- 5.15 As explored in Chapter 3, there have been a number of significant structural and financial reforms since the HIIS was undertaken which will impact upon infrastructure funding and delivery. The former regional governance arrangements that ensured infrastructure requirements were considered within a regional and national context are being disbanded, whilst the responsibility for identifying and delivering infrastructure is being increasingly devolved to the local level.
- 5.16 The Treasury has published a National Infrastructure Plan for the UK, setting out challenges and priorities for infrastructure delivery that will support economic growth within the UK. The Plan does identify some major projects across a number of infrastructure areas, but is more focused on establishing the policy approach and support mechanisms that will be employed at the national level to inform and implement infrastructure delivery locally.

- 5.17 The implementation of infrastructure schemes is being devolved at the local level through the introduction of localised investment and delivery bodies, such as the Local Enterprise Partnerships and Local Transport Bodies. This will increase the responsibility for local authorities and other local service providers to identify their own infrastructure requirements to support growth and wider economic objectives within their localities.
- 5.18 Following the Comprehensive Spending Review (CSR), public funding has been significantly constrained at both the national and local level. This has required a number of service and infrastructure providers to re-evaluate how they fund and deliver services. For some service providers this has involved a number of structural changes which has impacted on the way in which services are delivered. Further changes to the way in which infrastructure projects are to be funded are explored later in this review.

FUTURE GROWTH

- 5.19 The HIIIS was based upon assumptions set out in the East of England Plan then rolled forward to 2031. Following decisions to abolish of Regional Spatial Strategies and the return of decision making around future growth to the local level, the growth assumptions used to inform the HIIIS are no longer valid.
- 5.20 Changes to expected growth levels and the possible impact on infrastructure need is explored further in Chapter 6

DEFINING INFRASTRUCTURE NEED

STRATEGIC AND LOCAL INFRASTRUCTURE NEED

- 5.21 HIIIS examined a wide range of infrastructure needs across a range of services. Using broad definitions, infrastructure needs were termed either 'strategic' or 'local' depending on the geographical areas they served. This was to reflect the anticipated approach that HIIIS proposed of establishing separate 'strategic' and 'local' CIL charges.
- 5.22 This approach no longer accurately reflects the realities of infrastructure planning. Because of the broad definitions used in the HIIIS to determine local and strategic infrastructure needs, there was some difficulty in allocating certain infrastructure categories into one or the other. Furthermore, the changes in infrastructure planning, funding and delivery since the HIIIS was undertaken means that the simplified approach of "strategic v local" adopted in HIIIS is no longer valid in considering the wider implications of infrastructure delivery in a devolved landscape.
- 5.23 To overcome these potential barriers, this review redefines infrastructure need to allow a more focused discussion with infrastructure delivery partners, so appropriate and effective Infrastructure Delivery Plans can be developed. The relationship between strategic and local infrastructure is explored further in Chapter 8.

CAPITAL AND REVENUE FUNDING

- 5.24 It is usually accepted that planning contributions should be primarily focused on the physical investment needed to mitigate development impact. As identified in HIIIS, the reality is that investment can take the form of a one-off capital investment in a facility

or amenity, or recurring expenditure (revenue) in maintaining the operation of this facility in future.

- 5.25 The planning contributions system is biased towards supporting capital investment and although the CIL Regulations refer to a wide definition of infrastructure, it is still anticipated that the majority of investment will be directed towards physical facilities and amenities rather than revenue funded services.
- 5.26 There will be ongoing (although increasingly limited) mainstream funding available to support revenue services, although the opportunities for securing revenue funding through the CIL and retained S106 functions are expected to be limited.
- 5.27 Given the high level nature of this review, detailed costs are not explored but it does identify those areas where revenue contributions are likely to be the main source of funding for some infrastructure services to highlight the need for more innovative funding approaches where infrastructure cannot be secured through planning contributions and mainstream funding streams are likely to be constrained.

INFRASTRUCTURE NEED OVER THE REVIEW PERIOD

- 5.28 In response to the challenges identified above and explored elsewhere in this review, there have been changes in the way in which service providers plan for and deliver infrastructure within the county. It is not the purpose of this review to identify specific infrastructure requirements as these will be best identified through the preparation of relevant Infrastructure Delivery Plans.
- 5.29 Instead the review draws on new policies, strategies and evidence since 2009 to identify key changes and highlight progress made within each service area that will need to be taken into consideration by local authorities and other delivery partners when developing Infrastructure Delivery Plans. Where necessary, the review provides an update on specific infrastructure schemes in Hertfordshire where progress has been made since 2009.
- 5.30 Through discussions with service providers and using evidence published since the HIIS was undertaken, this review attempts to develop the infrastructure planning process in Hertfordshire by distinguishing between major, strategic, local and neighbourhood infrastructure need to help establish what types of infrastructure may be best suited to strategic and local Infrastructure Delivery Plans for the county.

HEALTH AND COMMUNITY SERVICES (FORMALLY ADULT CARE SERVICES)

- 5.31 Determining the level of investment required in Health and Community Services (formally Adult Care Services) to support future growth was a significant challenge during the HIIS and no specific infrastructure requirements were identified because of the absence of a long term approach to service planning by providers.
- 5.32 There has been a continued move towards more bespoke and personalised level of support for older people, adults with disabilities and/or mental ill health and carers, with new ways being developed to support older and disabled people to live independently within their communities. There has been a move away from local authority built accommodation and day centre facilities and a move towards commissioning provision from the private sector, or in partnership with Registered

Social Landlords. This has resulted in an increased reliance on revenue based funding rather than investment in capital projects.

- 5.33 Since the HIIS was undertaken, the County Council has developed a service plan for the Accommodation of Older People (2009). Work undertaken as part of this programme has identified the additional accommodation needs for older people up to 2021 and sets out Action Plans to bring forward a range of accommodation options as alternatives to residential care for each district. Delivery is focused at the local level and brought forward in partnership with local authorities, Primary Care Trusts and other delivery partners. Additional support services are commissioned from a range of voluntary and community arrangements.
- 5.34 Given the focus on supporting older and disabled people within their communities, future provision for Health and Community Services can be considered as a local infrastructure requirement and therefore will be best determined and secured locally.

EMERGENCY SERVICES

- 5.35 Provision and operation of emergency services infrastructure is dependent on a range of factors including population growth; type and design of new developments; supporting infrastructure and changes in service delivery. The HIIS identified the need for additional provision to support growth across all emergency service areas.
- 5.36 Since the HIIS was undertaken, there have been and are continuing to be a number of changes in the way in which emergency service provision is provided. For example, there is a growing emphasis on community policing through the Safer Neighbourhoods programme and a move towards shared policing.
- 5.37 Physical infrastructure investment requirements identified in the original HIIS was attributed mainly towards the large growth locations across the county. With the possible changes in the scale and distribution of growth and changes to service delivery, it is unlikely that the scale of investment envisaged in the HIIS (particularly around the former Key Centre for Development and change (KCDCs) will be required, although a continuing need for the incremental expansion of existing facilities to meet population increases will remain.
- 5.38 Given the shift towards more locally determined service requirements, additional provision for emergency services will be best determined and secured locally.

CHILDREN'S SERVICES

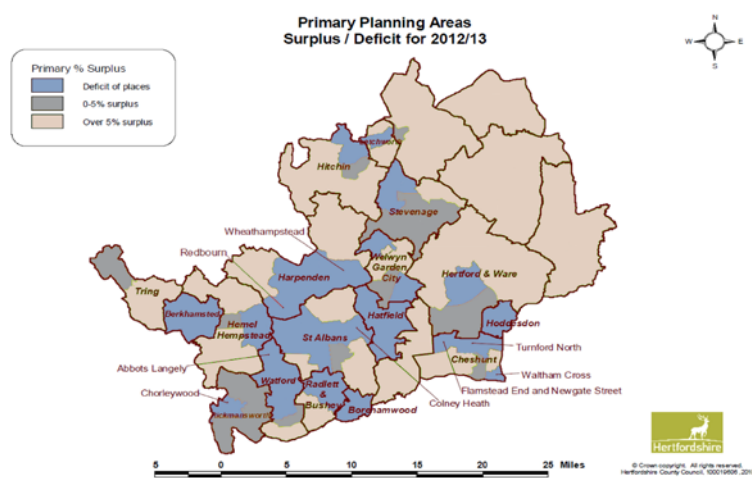
- 5.39 The Children Centre building programme identified in the HIIS is now complete and there are no further capital building programmes planned. There is now a focus on providing facilities by utilising flexible spaces within existing or new community centres and provided by the private, voluntary and independent (PVI) sector. It is expected that the majority of new provision will come forward in this way and therefore it is expected that there will be a greater reliance on revenue rather than capital funding to provide the service. Should sufficient provision not be made available through PVI provision, then there may be a need for additional purpose built provision. In particular, extra provision may be needed in areas where large scale development is planned.

- 5.40 From September 2013, the Government has committed to expanding the entitlement of free early years education for 20 per cent of the least advantaged two year olds. This is set to increase to 40% in 2014 and potentially further thereafter. An element of Government funding has been made available to help build capacity, fund places and trial new approaches. However, the design of the service is still being worked out and additional provision may need to be secured through alternative funding sources.
- 5.41 Given the emerging link between community centres and provision for children's services, the identification and delivery of related infrastructure can be considered as a local intervention and therefore best planned for and secured locally.

EDUCATION

- 5.42 Since HIIS, more detailed work has been undertaken by the County Council as Local Education Authority to define education needs and secure delivery. Given the varied timescale of LDF preparation across the county, further work is required to provide a complete picture of future requirements relating to new growth; however work is ongoing with local authorities to achieve this.
- 5.43 In addition to the growth related development being identified and secured through local infrastructure planning processes, there have been a number of wider capital investment programmes across the county to accommodate demographic changes and ensure that adequate education provision is made for existing communities.
- 5.44 Hertfordshire has mirrored the national trend of a substantial increase in demand for primary school places due to increasing birth rates. As a result there is expected to be variations in the surplus/deficit of primary school places across the county (see Table 5.1 below). It is expected that this trend will be short term (2013/14), however, this is subject to a relative degree of uncertainty and by implication there will be longer term effects in relation to the capacity of schools as pupils move through the education system and in particular into secondary education.

Table 5.1: Primary Planning Areas Surplus/Deficit at Reception for 2012/13



- 5.45 The County Council has recently undertaken a Primary Expansion Programme (PEP) to secure additional capacity arising from an increased demand for school places. A further Primary Expansion Programme (PEP2) and a Secondary Expansion Programme (SEP) are also planned. Growth is not expected to be consistent across Hertfordshire and changes in individual areas can be both significant and occur over a rapid period. Demographic changes will be kept under review on a regular basis by the County Council and provision made for additional school places as necessary.
- 5.46 Since HIIS there have been a number of changes to service delivery within the education sector, which will have an impact on how education provision is funded and delivered. The Building Schools for the Future (BSF) programme was scrapped by the coalition Government in 2010. Although limited funding remains for some 'sample projects' there is a greater reliance on capital investment projects and developer contributions to meet future education requirements. There has also been an increase in the number of academies and the emergence of Free Schools which has made the identification and allocation of funding more complex. The transfer of power to alternative education provision may increase pressure and competition on any monies raised through new development as well as making it more difficult to determine longer term requirements. In addition, in areas where larger scale development is proposed, there may be a need to secure land within or adjacent to new residential development to provide appropriate and adequate school sites.
- 5.47 Given the progress made with education planning at the local level, the majority of future education provision can be planned for and delivered through local Infrastructure Delivery Plans. However, in responding to demographic and growth changes, there are likely to be a number of countywide and sub-county capital investment programmes such as the recent PEP and forthcoming PEP2 and SEP that will have a more strategic influence on education provision across Hertfordshire, and therefore there may be some benefit in this being considered as a strategic infrastructure requirement.

FLOOD RISK MANAGEMENT

- 5.48 At the time HIIS was undertaken, there was no complete picture of what might be required to manage flood risk in the county and the infrastructure requirements that might arise were therefore not assessed. Strategic Flood Risk Assessments (SFRA) have since been produced to support the preparation of development plan documents and surface water flood risk is being assessed by the County Council as Lead Local Flood Authority (LLFA). These processes have resulted in a better understanding of flood risk across the county as well as the necessary infrastructure that will be required.
- 5.49 Growth across the county is unlikely to result in an increased need for flood defences as local planning processes are expected to guide vulnerable development away from areas where there is significant flood risk and ensure that appropriate mitigation is delivered where necessary.
- 5.50 However, future climatic impacts may result in an increased demand for both fluvial and surface water flood management assets within existing developed areas. These requirements are likely to vary in scale, ranging from localised flood management on

individual properties to larger scale interventions that protect wider towns and villages.

- 5.51 Currently, strategic flood management assets are delivered centrally through the Environment Agency, whilst flood management assets related to new development and financed and delivered on a site by site basis through developer contributions. Responding to an increased need for flood management assets, DEFRA are currently reviewing the funding for national and regional flood risk management. It is anticipated that the scope of capital funding will be extended; however, it is unlikely that this will fully fund all schemes. Subsequently, a partnership approach to funding is preferred with local contributions expected to be enabled and used to fill the funding gap. Any local funding will come forward through developer contributions, private finance and other local investment programmes.
- 5.52 Given the broad scope of flood defences within the county and the scale of assets required to adequately mitigate flood risk, infrastructure requirements are likely to range from neighbourhood interventions up to more strategic or a collective of small scale interventions that will impact on sub-county geographies. It is unlikely that there will be the need for major, strategic scale flood defences within the county, but there may be links with other major or strategic projects (such as Green Infrastructure) that serve multiple functions. To ensure a consistent and appropriate response to flood risk, infrastructure relating to flood management should be planned for and secured both locally and on a more strategic scale.

GREEN INFRASTRUCTURE

- 5.53 Since the HIIS, further work has been undertaken across the county to identify both strategic and local Green Infrastructure (GI) requirements. The Hertfordshire Strategic Green Infrastructure Plan (incorporating the Green Arc) and related local GI Plans have identified a number of strategic and local GI initiatives to enhance provision across the county. Growth is likely to place increased pressure on both the strategic and local GI networks and there will be a need to improve the existing network as well as increasing capacity through the delivery of new assets.
- 5.54 The funding and delivery of new and enhanced GI will need to take both a strategic and local approach and it is expected that the delivery of new assets will come forward through a partnership approach between the different delivery agencies, voluntary and community sectors co-ordinated through new Local Nature Partnerships. A number of the identified GI projects have cross authority (both district and county) implications, therefore an essential part of effective GI delivery is a strategic co-ordinated approach to ensure that projects are resourced appropriately in terms of capital works and ongoing revenue activity.
- 5.55 Given the range of GI provision across a number of geographical scales, requirements are likely to range from neighbourhood interventions up to more strategic interventions that impact on sub-county and county geographies. As multifunctional assets, there are also likely to be wider links between GI and other infrastructure requirements (such as flood alleviation and renewable energy generation) that will require further co-ordination across all geographical scales. GI should therefore be planned for and secured both locally and on a more strategic scale.

5.56 To encourage further work, Hertfordshire County Council has identified a lead officer for Green Infrastructure and the Herts Planning Group has established a countywide Landscape and Green Infrastructure Group. Together with the Local Nature Partnership these will keep track of and assist the implementation of strategic GI initiatives. The Herts LEP has also taken a specific interest in GI, and having supported a Local Nature Conference in February 2012, has indicated its potential willingness in taking a lead role in promoting GI investment. In terms of specifics, current strategic GI initiatives in Hertfordshire are:

- The Lee Catchment Nature Improvement Area bid
- The Colne Catchment Pilot (ColneCAN)
- 'Reconnect' (joining up rights of way severed by development and other activities)
- Making information on accessible woodlands available to handhelds
- The conservation of street trees (as a component of urban greening)
- Initiatives relating to the Woodland Arc project
- Developing better information to refresh the GI plans with regard to biodiversity.

WASTE MANAGEMENT

5.57 New household development potentially gives rise to a range of municipal waste infrastructure requirements including Household Waste and Recycling Centres (HWRC) and waste treatment/transfer facilities. In supporting the diversion of waste away from landfill, the vision for future waste management in Hertfordshire sets out to ensure that the county becomes net self-sufficient in relation to waste management with an aim for the equivalent of Hertfordshire's waste to be managed by facilities located within the county.

5.58 Through the Municipal Waste Spatial Strategy (2009), the Waste Disposal Authority (WDA) identified the infrastructure requirements to manage waste in the county to 2031, and the WDA have secured £115.3m in PFI credits to help deliver this. With regard to disposal of Municipal Solid Waste (MSW) the County Council took the view that it would adopt a 'centralised' approach through the provision of one treatment facility to deal with up to 400,000 tonnes of MSW with accompanying transfer stations where necessary. A need has also been identified for two additional composting facilities (one in the south west and one in the east of the county) to meet demand. Both the treatment and transfer facilities will meet a countywide or sub-county infrastructure need and should be considered as a strategic matter.

5.59 Alongside waste treatment facilities, there is a need for a network of HWRCs to accept and manage household waste. To support future growth, it is likely that these facilities will need to be extended, redeveloped or relocated to accommodate the increased waste throughput. The location of new or enhancement facilities is best identified through local Infrastructure Delivery Plans. However, should the Hertfordshire Waste Partnership decide that a more strategic approach to provision is

required, with each facility serving a wider area, the facilities will have a sub-regional influence and should be considered within a more strategic context.

- 5.60 Alongside MSW waste management facilities, there will need to be a network of waste management facilities to process commercial and industrial waste. These facilities are likely to come forward in response to market demand and delivered through private investment and are unlikely to form part of an infrastructure plan for Hertfordshire.

TRANSPORT

- 5.61 Transport is the most complex of infrastructure topic areas, and we outline below changes in transport infrastructure delivery since the publication of the original HIIS report, drawing on new policies, strategies and evidence produced since 2009, as well as providing an update on specific infrastructure schemes in Hertfordshire where significant progress has taken place since 2009.

SUMMARY OF CHANGES TO HERTFORDSHIRE'S TRANSPORT STRATEGIES AND PROGRAMMES SINCE 2009

LTP3 (HCC, APRIL 2011)

- 5.62 Hertfordshire's third Local Transport Plan (LTP3)¹ was published in April 2011. In line with national transport policy evolution, LTP3 marked a change in approach for the County Council's transport strategy, with less emphasis on building or making major changes to existing roads, and instead placing a much higher priority of making better use of the existing network through Intelligent Transport Systems and provision and promotion of sustainable transport.
- 5.63 The LTP3 Implementation Plan sets out agreed infrastructure priorities, in detail for the first two years of the LTP3 (2011/12 to 2012/13) and more generally for the 20 year period of the LTP3. It is intended that the Implementation Plan will be updated in April 2013. The key strategic transport priorities outlined in the current LTP3 Implementation Plan are outlined in Table 5.2 below:

Table 5.2: LTP3 Implementation Plan Stated Priorities (April 2011)

Major Schemes	Other Significant Schemes	Other Schemes(non HCC)
Croxley Rail Link* Watford Junction Interchange* Little Hadham Bypass	Abbey Line Light Rail Conversion Royston Rail Crossing Hatfield Interchange Project A602 Corridor Strategy – Ware to Stevenage Improvements Intelligent Transport Systems Quality Network Partnerships (QNPs)	M25 Widening A1(M) Tunnel Refurbishment and widening Hitchin Flyover ThamesLink
*Priority Scheme		

- 5.64 In addition to the Local Transport Plan itself, a number of LTP3 'Daughter Documents' have been updated since 2009. Daughter Documents incorporate a suite of mode-specific strategies and Urban Transport Plans.

¹ Hertfordshire's Local Transport Plan, 2011-2031, Hertfordshire County Council, April 2011

URBAN TRANSPORT PLANS

- 5.65 UTPs are spatial plans that set out how the policies and strategies of LTP3 will be delivered in specific urban areas providing a framework to focus transport improvements and investment within specific urban areas for the next 20 years. They provide a range of transport solutions for urban areas within Hertfordshire. Whilst many solutions aim to encourage sustainable transport through measures to encourage and improve conditions for walking, cycling and passenger transport, UTPs also identify more strategic infrastructure requirements. The HIIS would need to take these into account and build upon them where appropriate.
- 5.66 Since 2009, a number of Urban Transport Plans have been updated, reviewed or developed. The content of these will need to be taken into account in the refresh of the HIIS. The key UTP developments are shown below in Table 5.3:

Table 5.3 Renewed UTPs since 2009 and future programme

Towns	Date endorsed	Proposed renewal date
Eastern Herts inc Bishop's Stortford and Sawbridgeworth	April 2007	April 2011
Letchworth/Baldock	July 2007	April 2011
West Herts inc Tring and Berkhamsted	March 2007	April 2012
Elstree & Borehamwood	July 2007	April 2012
St Albans	April 2009	April 2014
Welwyn Garden City	January 2008	April 2014
Hatfield	January 2008	April 2014
London Colney	April 2009	April 2014
South West Herts	November 2008	April 2014
Hemel Hempstead	January 2009	April 2015
Stevenage	September 2010	April 2016
Harpenden	September 2011	April 2017
Royston	May 2010	April 2015
Cheshunt / Waltham Cross	September 2010	April 2016
Hitchin	March 2011	April 2016
Hertford and Ware	November 2010	April 2016
Potters Bar	September 2011	April 2017
Hoddesdon / Broxbourne	September 2011	April 2017

HCC INTER-URBAN ROUTE STRATEGY (2012)

- 5.67 The LTP mode specific daughter documents published since 2009 also identify strategic transport requirements.
- 5.68 The Hertfordshire Inter-Urban Route Strategy will identify the key challenges on Inter-Urban Routes in Hertfordshire and set out transport solutions to address these. It is the county council's intention for the IURS to form the basis of investment in the County's strategic transport corridors up to 2031 and beyond. However, in light of recent changes to the planning system and ongoing challenges associated with the funding of transport projects, it is the county council's intention to produce a strategy that covers the period up to 2017 as an interim measure until there is more certainty around future growth in the county.
- 5.69 The proposed approach will enable the county to proactively engage with infrastructure planning and capitalise upon both existing and emerging funding sources, whilst allowing a flexible approach that will ensure the county council and other stakeholders can respond effectively to future changes in need, funding and delivery.

SUMMARY OF CHANGES TO NATIONAL TRANSPORT STRATEGIES AND POLICIES SINCE 2009

- 5.70 A number of relevant developments in national transport policy and strategy have taken place since 2009. These are outlined below:

SIMPLIFICATION OF GOVERNMENT TRANSPORT FUNDING

- 5.71 As part of the 2010 Spending Review, the Department for Transport (DfT) announced a simplification of transport funding for local authorities, from 26 separate grant schemes to four. These four are:
- Block funding for highways maintenance (capital)
 - Block funding for small transport improvement schemes (capital and revenue)
 - A local sustainable transport fund (capital and revenue)
 - Major schemes (capital - see proposal for Local Transport Bodies below)
- 5.72 The two block allocations, namely 'Integrated Transport' and 'Maintenance' now comprise all other DfT capital and revenue streams that were available to local authorities in previous years.
- 5.73 The Local Sustainable Transport Fund (LSTF) is a £560m national pot covering 2011/12 to 2014/15. The LSTF is available for Local Authorities to bid for packages of sustainable transport measures to address the twin objectives of economic growth and carbon reduction.

ABOLITION OF REGIONAL FUNDING ALLOCATIONS AND PROPOSALS FOR 'LOCAL TRANSPORT BODIES (LTBs)'

- 5.74 The previous Government had introduced a Regional Funding Allocation mechanism for prioritising Government funding for Local Authority major transport schemes. Under this mechanism, the Department for Transport allocated funding to regions to

spend on major schemes, who in turn prioritised candidate schemes submitted by the region's constituent Local Authorities.

5.75 In January 2012, the DfT published a consultation on future arrangements for Major Scheme funding and prioritisation². The key proposals included:

- New 'Local Transport Bodies' responsible for establishing, managing and overseeing the delivery of a programme of local major scheme priorities (potentially including some Highways Agency schemes) beyond 2015. The aim is to give local communities, businesses, local authorities and LEPs control of decisions and budgets for their locality (currently central government must approve schemes over £5m)
- LTBs based on LEP geographic areas, and would receive a funding allocation from DfT to spend on local Major Schemes (based on a formula)
- The Government would like Local Transport Authorities and LEPs to take influential roles in the decision-making arrangements of LTBs. However, membership of the LTB would ultimately be decided locally.

5.76 From February 2013 the newly established LTBs will be submitting their assurance frameworks to the DfT to show that they can be accountable to take charge of spending on local major transport schemes. Subsequently they will submit lists of priority schemes with the intention of the implementation of projects (using funds expected to be in excess of £1bn) from April 2015.

THE HIGHWAY AGENCY'S PINCH POINT PROGRAMME (PPP)

5.77 The Highways Agency is currently developing an assessment framework to prioritise road improvement schemes for funding under the Pinch Point Programme. The government has made £220m available for this programme to tackle bottlenecks, improve road layouts, increase safety and provide driver information. Projects should have a value of no more than £10m. A number of schemes in Hertfordshire are being identified and will be the subject of discussions between relevant bodies.

NATIONAL COMMITMENT TO NEW INFRASTRUCTURE - NATIONAL INFRASTRUCTURE PLAN

5.78 The Treasury published the National Infrastructure Plan³ for the UK in November 2011, setting out challenges and priorities for national infrastructure delivery. The Plan outlines support for enhancing the capacity, resilience and resilience of roads, railways and airports. The key transport points for this refresh of HIIS to take into account are as follows:

- To target the worst pinch points where the networks are under particular stress and locations that are key in supporting growth

² Devolving Local Major Transport Schemes, Department for Transport, 2012

³ National Infrastructure Plan, HM Treasury, Nov 2011)

- To improve integration between different modes of transport, improving people's choice as to how they travel and facilitating movement of freight from road to rail and water where this is viable and appropriate;
- To support the move to a low carbon economy, reducing the environmental impacts of the transport system so that transport greenhouse gas emissions are falling
- To improve connectivity and capacity between main urban areas and between them and international gateways
- To deal with longer term capacity constraints, by delivering a series of projects to enhance network capability, including reducing journey times and improving interchanges.

NEW GOVERNMENT EMPHASIS - COALITION WHITE PAPER ON LOCAL TRANSPORT (DFT, JAN 2010)

- 5.79 The new Coalition Government's White Paper for local transport, entitled 'Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen', was published in January 2011.⁴
- 5.80 The White Paper sets out the Government's proposed approach to local transport delivery. The key points in the white paper are:
- An emphasis on local transport facilitating economic growth and reducing carbon emissions
 - The promotion of sustainable, small-scale and locally driven transport interventions
 - The reiteration of the statutory requirement for Local Authorities to submit local transport plans by April 2011
 - The passing of responsibility for classifying locals road from Central Government to Local Authorities

NEW RAIL FRANCHISE OPPORTUNITIES (2009-2012)

- 5.81 The DfT has announced a new programme of national rail franchise renewals, including a number of franchise renewals that will impact upon Hertfordshire. The renewal process represents an opportunity for local partners to shape the franchise specifications, and integrate local objectives and requirements into the service that the new train operating companies will provide. The current franchise renewals planned for Hertfordshire are outlined in table 5.4 overleaf:

⁴ Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen', Local Transport White Paper, Department for Transport, January 2011

Table 5.4: Rail Franchise Renewals for Hertfordshire

Route	Current franchise operator	Key Stations in Hertfordshire	Start date	Franchise renewal date
East Coast Main Line	East Coast Company Ltd	Stevenage	Sep 2009	December 2013
Thameslink and Great Northern	First Capital Connect	St Albans, Stevenage, Hatfield, Welwyn, Hitchin, Letchworth, Hertford North, Royston	Apr 2006	September 2013
West Midlands	London Midland (Govia)	Watford Junction, Hemel Hempstead	Nov 2007	Nov 2013 – if continuation criteria met, Sep 2015
Route	Current franchise operator	Key Stations in Hertfordshire	Start date	Franchise renewal date
South Central	Southern (Govia)	Watford Junction	Sep 2009	Jul 2015
Greater Anglia	National Express East Anglia	Broxbourne, Bishops Stortford, Hertford East	April 2004	Feb 2012 (short 29 month franchise) July 2014 (longer franchise)
East Midlands	East Midlands Trains (Stagecoach)	St Albans	Nov 2007	2015
West Coast Main Line	Virgin Trains	Watford Junction	Mar 1997 Restated in Dec 2006	A new franchise will begin in Apr 2012 and run until the planned opening of a high speed rail line in 2026

NETWORK RAIL ROUTE UTILISATION STRATEGIES (NETWORK RAIL)

- 5.82 The future requirements for rail, including the network in Hertfordshire, are set out in a series of Route Utilisation Strategies (RUS) produced by Network Rail. The RUS's of relevance to the HIIS refresh published since 2009 are outlined in the table overleaf:

Table 5.5: Recent Route Utilisation Strategies (RUS)

RUS	Key Challenges listed
London and South East (July 2011) ⁵	<ul style="list-style-type: none"> • ECML all day capacity • West Anglia Main line peak capacity • Lea Valley Line journey opportunities/connectivity to Stratford
West Coast Main Line (July 2011) ⁶	<ul style="list-style-type: none"> • Suburban and long-distance on-train crowding to and from London Euston • Peak on-train crowding on the Watford Junction to West London Line services (peak capacity gap on the Milton Keynes to East Croydon services between Watford Junction and Clapham Junction)
East Coast Main Line (Dec 2010) ⁷	<ul style="list-style-type: none"> • Peak crowding and forecast growth • Off-peak service levels
East Midlands (Feb 2010) ⁸	<ul style="list-style-type: none"> • Peak / all-day crowding and growth

NEW EVIDENCE SINCE 2009

- 5.83 This section provides an update on new evidence and evidence arising since 2009 to inform the HIIS refresh.

HERTFORDSHIRE EVIDENCE

HERTFORDSHIRE COUNTY TRAVEL SURVEY (2009)

- 5.84 The Hertfordshire public's views on transport priorities are evolving. County Travel Surveys undertaken every 3-4 years by the County Council report on resident's transport priorities. Whilst 'building new roads' was the top priority for residents in 1999 and 2002, the more recent surveys (2005 and 2009) demonstrate that 'maintaining existing roads' and 'improving bus and rail facilities' are now seen 'as a higher priority by Hertfordshire's residents'⁹.

HERTFORDSHIRE BUSINESS TRAVEL SURVEY (2011)

- 5.85 In addition to the public surveys, the Hertfordshire Business Survey¹⁰ was conducted in 2011. The key results for transport are reported in table 5.5 overleaf:

⁵ London and South East Route Utilisation Strategy, Network Rail,

⁶ West Coast Main Line Route Utilisation Strategy, Network Rail

⁷ East Coast Main Line Route Utilisation Strategy, Network Rail

⁸ East Midlands Route Utilisation Strategy, Network Rail

⁹ Results taken from: Hertfordshire Local Transport Plan, Volume 1, page 35

¹⁰ Hertfordshire Business Survey, Hertfordshire County Council, 2011

Table 5.6: Hertfordshire Business Survey 2011: Transport-related results

Factor	% businesses in Herts who thought it was 'important' factor influencing their local business performance
Transport Costs (fuel etc)	86
Level of congestion on roads	80
Access to motorway / main road	78
Access to rail services to London	60
Access to rail services to rest of UK	44
Access to air services	30

- 5.86 It is interesting to note that of those businesses regarding the level of congestion on the road as an important factor, 73% currently regard being in Hertfordshire as a negative for this factor. However, businesses who regard access to the main road network and rail links to London as important generally regarded Hertfordshire as positive with regard to this factor. The refresh of the HIIS will need to take these business requirements into account.

SUB-REGIONAL EVIDENCE

DELIVERING A SUSTAINABLE TRANSPORT SYSTEM (2010)

- 5.87 The 'Delivering a Sustainable Transport System' (DaSTS) programme of national and regional studies was undertaken in 2009/10. The DaSTS process sought to identify transport solutions to the five overarching challenges for national, regional and local transport, namely to:
- Reduce Carbon Emissions;
 - Support Economic Growth;
 - Promote Equality of Opportunity;
 - Contribute to better Safety, Security & Health and
 - Improve Quality of Life and a Healthy Natural Environment.
- 5.88 Hertfordshire County Council led on the commissioning of one of the region's DaSTS studies entitled Developing Transport Options for the London Arc and Thames Gateway 'Engines of Growth'¹¹. Covering the south of Hertfordshire and Essex, the study identified the following for local challenges:
- Reduce lost productive time and improve the reliability of journey times of trips to and from 'Key Centres for Development and Change'.
 - Without compromising carbon emission targets, improve access to labour markets - radial London routes, and east-west corridors in and between London Arc communities.

¹¹ Developing Transport Options for the London Arc and Thames Gateway 'Engines of Growth', Hertfordshire County Council on behalf of the East of England Region, 2010.

- Deliver the transport system required to support the sustainable provisions of housing and in particular the region's PSA targets.
- Enhance social inclusion and the regeneration of deprived or remote areas by enabling disadvantaged people to connect to key services, particularly education, training and employment through improving accessibility, availability, affordability and acceptability.

5.89 The study identified a range of options to address these challenges, and presented these in a Strategic Appraisal Summary Table. The HIIS refresh will need to incorporate this analysis into the development of its transport options.

EAST OF ENGLAND TRANSPORT ECONOMIC EVIDENCE STUDY (EEDA 2008/9)

5.90 The TEES report¹² was published in 2008, utilising the East of England Regional Transport Model to identify where transport constraints will impact on future economic growth in the region to 2021. The results within Hertfordshire demonstrated that transport congestion imposes costs of £202m / annum (using a 2003 base year) economic costs to the County and by 2021, this will increase to £437m / annum.

5.91 The report identified specific transport solutions which could be applied in the HIIS refresh and the potential economic benefits of doing these. The recommendations from the study include addressing the following priorities within Hertfordshire:

- Addressing capacity constraints on the West Anglia Main Line (including 4-tracking between Broxbourne and Coppermill junction)
- Addressing the London to Milton Keynes corridor, including the M1 and West Coast Main Line
- Demand-side measures to reduce overall demand for transport, particularly in urban areas

EAST OF ENGLAND TRANSPORT CARBON STUDY (EEDA 2009)

5.92 The TRACS report¹³ forecasted the projected increase in carbon emissions from the transport network across the East of England, including Hertfordshire, and analysed the impact of three increasingly stringent policy scenarios aimed at reducing these emissions and contributing to the legally binding carbon reduction target of 80% reduction by 2050 (based on 1990 levels, as set out in the Climate Change Act 2008)

5.93 TRACS identified that there would be a 23% increase in road transport's annual carbon emissions from a base year of 2006 to 2031. The study identified that future transport networks should provide the following measures to enable a reduction in transport carbon emissions:

- Shift in vehicle technology and fuels, and increased procurement of low carbon vehicles
- Strong investment in public transport, walking and cycling infrastructure
- Travel planning and smarter choices in interventions
- Strong pricing signals
- Changes to land use planning policies to reduce the need to travel

¹² Transport and the Economy in the East of England, East of England Development Agency, 2008

¹³ East of England Transport Carbon Study, East of England Development Agency, 2009

NATIONAL EVIDENCE

'DELIVERING SUSTAINABLE TRANSPORT SOLUTIONS FOR HOUSING GROWTH' REPORT (DfT, DECEMBER 2010)

5.94 The DfT has published evidence on best practice for delivering transport infrastructure to address housing growth, using case studies from around the country where lessons have been learnt.¹⁴ The HIIS should consider the principles and lessons learned contained within this report, which outlined the following key recommendations:

- There is a need to foster early engagement with transport operators (in the master plan and urban design process) working with them as partners to deliver shared goals and best value for residents and transport users.
- Monitoring indicators and evaluation strategies have a key role to play in providing quantitative evidence in support of new funding for future transport measures.
- Opportunities exist for authorities, particularly smaller authorities, to develop partnerships and frameworks to tackle cross boundary challenges, using powers to share and pool resources

NOTABLE PROGRESS ON INDIVIDUAL SCHEMES IN HERTFORDSHIRE SINCE 2009

5.95 This section provides a progress report on key infrastructure schemes in Hertfordshire since 2009 that are particularly relevant to the review of the HIIS. Notable county led schemes are set out in Table 5.7 below:

Table 5.7: Notable Transport Scheme Progress since 2009 - County Council led schemes

Scheme	Location	Developments since 2009
Croxley Rail Link	Watford	<ul style="list-style-type: none"> • Full business case / Best and Final Offer submitted to DfT • Funding agreed from DfT in December 2011 • Scheme to be delivered by 2016
Abbey Line Light Rail Conversion	Watford / St Albans	<ul style="list-style-type: none"> • HCC currently working with DfT to deliver scheme
Watford Junction Station	Watford	<ul style="list-style-type: none"> • Major scheme proposal currently not accepted by DfT. • However, the station has secured funding from National Station Improvement Plan.
BIGHERTS BIGIDEAS (LSTF bid package)	Watford / St Albans / Hemel Hempstead	<ul style="list-style-type: none"> • Local Sustainable Transport Fund announced by DfT in January 2010. • Hertfordshire's LSTF bid for Watford, Hemel Hempstead and St Albans has successfully secured £1.99m for 2011/12 and has submitted a further bid for £10.755m • Bid is for a package of sustainable transport measures including walking, cycling, passenger transport and intelligent transport systems

¹⁴ Delivering Sustainable Transport for Housing Growth: Case Studies from Local Communities, Department for Transport, December 2010

Scheme	Location	Developments since 2009
Emerging schemes (Growing Places Fund)		<ul style="list-style-type: none"> The Hertfordshire Local Enterprise Partnership was awarded nearly £11m through the Growing Places Fund, announced in November 2011 (alongside the National Infrastructure Plan) The funding will be utilised in locations in the County where revenue streams can be reclaimed through developments associated with the infrastructure that the fund will provide.
Cross-Herts Express Coach (Better Bus Areas bid)	Stansted to Watford	<ul style="list-style-type: none"> HCC submitted a £1m bid in February to DfT for a cross-Hertfordshire express bus route, connecting urban areas between Stansted Airport and Watford. DfT to announce successful bids later in 2012
Intelligent Transport Systems	All Hertfordshire	<ul style="list-style-type: none"> The new LTP3 outlines ITS as a key intervention to increase capacity on the existing road network The County Council has produced an ITS strategy to oversee the delivery of ITS in Hertfordshire. £22.6 million allocated for 8 works packages between 2010 - 2020
Hatfield Station Interchange	Hatfield	<ul style="list-style-type: none"> £6m awarded from 'Stations Commercial Facilities Fund' to provide a multi storey car park and additional retail space at Hatfield Railway Station. Will include a rail / bus interchange £3m awarded from DfT Access for All programme for a footbridge to complement scheme. Works to commence 2013/14
Quality Network Partnership	St Albans	<ul style="list-style-type: none"> Development of the UK's first Quality Network Partnership in St Albans following Local Transport Act 2008 Comprises local authorities, transport providers and the University of Hertfordshire, to deliver integrated sustainable transport in St Albans through a strategic partnership delivery arrangement.

5.96 Notable non county led schemes are set out in Table 5.8 below:

Table 5.8: Notable Transport Scheme Progress since 2009 - Non-County Council led schemes

Scheme	Location	Lead Body	Developments since 2009
A1 Hatfield Tunnel Refurbishment and widening	Hatfield	Highways Agency	<ul style="list-style-type: none"> Hatfield Tunnel widening A1(M) completed in May 2011
High Speed 2 (West Coast Main Line capacity release)	London to northern UK. HS2 route on Herts border. Capacity released for WCML (Watford Junction, Abbots Langley, Kings Langley, Hemel)	DfT / HS2 Ltd / Network Rail	<ul style="list-style-type: none"> Govt approved HS2 scheme December 2011 West Coast Main Line Capacity Study ongoing to analyse opportunities for released capacity on West Coast Main Line.

Scheme	Location	Lead Body	Developments since 2009
Thameslink	Existing First Capital Connect services	DfT	<ul style="list-style-type: none"> Franchise details announced
Hitchin Flyover	East Coast Main Line / Cambridge Line junction, Hitchin	Network Rail	<ul style="list-style-type: none"> The Flyover will increase capacity on the East Coast Main Line The scheme has secured a Transport and Works Order in March 2011 The scheme will become operational in 2014.
M25 J16-23 Widening	South Hertfordshire	Highways Agency	<ul style="list-style-type: none"> Junction 18 to J21a completed in September 2011 Junction 21a to J23 to be completed by Summer 2012.
M25 J23-27 Managed Motorways	South Hertfordshire	Highways Agency	<ul style="list-style-type: none"> Accelerated in Chancellor's Autumn statement (November 2011) Start of works 2013/14 or 2014/15
East-West Rail	A potential route across North Hertfordshire	East-West Rail Consortium / Network Rail	<ul style="list-style-type: none"> DfT approval of Section between Oxford and Bedford in 2011. Due to open in 2017. An options report for the Bedford to Cambridge link has been published by the East West Rail consortium
East of England Electric Vehicle Infrastructure	Hertfordshire (linking to East of England, Milton Keynes and London)	Evalu8 Ltd	<ul style="list-style-type: none"> Electric Vehicles Infrastructure Grant awarded to for East of England (£3m 2011-2013) To fund 700 charging posts, including 105 nominally in Hertfordshire.

HEALTHCARE

- 5.97 There have been significant changes to the arrangements for delivering new health infrastructure since 2009. In April 2010 the two separate Primary Care Trusts covering the county merged into a single PCT to create NHS Hertfordshire. At the present time (although as noted below, not for much longer) NHS Hertfordshire has responsibilities for assessing, monitoring and planning health services to meet the needs of the County's residents, and arrange with the health care providers to ensure the delivery of services.

- 5.98 Health care providers include General Practitioners (GPs), hospital trusts, dentists, community pharmacists and local services provided outside a hospital, such as community and mental health services.
- 5.99 The 2012 Health and Social Care Act will see the disbandment of most PCTs by March 2013. In their place will be new organisations to guide the delivery and development of health services, the Clinical Commissioning Groups (CCGs) who will take over the responsibility for commissioning existing and future NHS provision. CCGs will be led by local clinicians supported by administrators. They will be accountable to a National Health Commissioning Board (NHCB) who will manage their performance.
- 5.100 At the time of writing there are three shadow CCGs covering Hertfordshire; these are expected to reduce to two - Herts Valley CCG and the East and North Herts CCG (the latter will commission services in the North Hertfordshire area). An important exception to the commissioning remit of the CCG is the exclusion of primary care infrastructure (such as GP surgeries) and contracts for these will be commissioned by the NHCB to avoid any conflict of interest.
- 5.101 To set out the requirements for future health care need in the county NHS Hertfordshire has laid out its vision of the health services that will be commissioned over the next few years in their Five Year Strategic Plan¹⁵. The plan seeks to improve health, improve people's experiences of healthcare and ensure services of the highest quality. These plans will form the basis of the CCGs priorities but will be subject to review and change by them once they are established.
- 5.102 Health Commissioners are faced with two distinct challenges: to ensure that health services can accommodate growth within Hertfordshire, and to also ensure that such services are provided from suitable accommodation that is fit for purpose and appropriately located. Poor buildings and infrastructure can have a significant effect on a service user's experiences and the outcomes of care. The PCT has produced an Investment and Asset Management Strategy¹⁶ which seeks to achieve the delivery of services within a more efficient estate. The strategy also seeks to provide better links with commissioning services and the planning of assets.
- 5.103 The Five Year Strategic Plan and the Investment and Asset Management Strategy are both informed by the 2007 publication "Delivering Quality Health Care In Hertfordshire" (DQHH). In a shift towards a new approach to delivering healthcare with the DQHH (which runs to 2013) the NHS is seeking to modernise clinical practice leading to a shift of work previously undertaken in hospitals into the community. This would be either within people's homes or at local facilities within the district. This will require a new approach to the management of care and is likely to have an impact on the existing capacity provision of primary healthcare facilities, such as GP practices and other PCT assets.
- 5.104 The full effects of these changes need to work their way through into an expression of future infrastructure needs and there is currently an incomplete picture of the

¹⁵ East and North Hertfordshire and West Hertfordshire Primary Care Trusts Five Year Strategic Plan Refresh 2009/10 - 2013/14 (January 2010)

¹⁶ Commissioners Investment and Asset management Strategy, NHS Hertfordshire, April 2010

overall, long term need in Hertfordshire. There will be an ongoing requirement for the additional provision of both primary and secondary healthcare to meet the demands associated with additional growth and changing demographics (including the effects of ageing) across the county.

- 5.105 It is likely that meeting these needs will require a range of interventions from the local up to the strategic scale, depending on the area and the services required. It is anticipated that the majority of requirements and interventions will be identified through local infrastructure and service planning arrangements, although there will be some larger scale projects that should be considered on a more strategic basis. The Department of Health is keen to promote joint NHS - Local Authority partnering work and there is some interest in exploring whether Hertfordshire could provide a test bed of some of these ideas.
- 5.106 In the meantime a number of major projects are underway to transform the way in which healthcare is provided across Hertfordshire, including the consolidation of hospital services in east and north Hertfordshire to the Lister hospital site by 2015.
- 5.107 In conclusion, healthcare infrastructure provision is experiencing a time of great change - if not to say upheaval - in which a number of distinct but nevertheless interrelated strands are having a significant impact. Given these factors there is an imprecise picture of needs and therefore physical requirements and priorities, and this is likely to have an impact on how infrastructure planning in the county. As an illustration of the issues this gives rise to, Huntingdonshire District Council in nearby Cambridgeshire has decided to reduce its proposed Community Infrastructure Levy charge from £160/sq.m. to £40 sq.m. simply because of the ongoing uncertainties about the delivery of healthcare for the foreseeable future.

UTILITIES – WATER

- 5.108 Three water companies provide potable water supply for Hertfordshire and two 'dirty water' companies provide waste water services (figure 5.9 overleaf). Affinity Water (formerly Veolia Water Central) is the main water supplier for the county, with Thames Water and Anglian Water covering the remaining areas. Within each provider's area there are a number of resource zones which are the largest possible areas in which all resources (including external transfers) can be shared. Thames water is the main 'dirty water' service provider with Anglian Water serving a small area to the north of the county.
- 5.109 HIIS carried out a high level analysis of the necessary improvements in relation to both potable water supply and waste water treatment and was inconclusive as to the overall infrastructure requirements relating to water but recognised that there were likely to be constraints.
- 5.110 Since HIIS was undertaken, two Water Cycle Studies¹⁷ and regional modelling¹⁸ has been undertaken to assess future requirements and determine future investment in relation to potable and waste water. These studies have informed infrastructure planning at the local level and will continue to be used by water companies to

¹⁷ Rye Meads Water Cycle Study 2009 / South West Hertfordshire Water Cycle Study Scoping Report

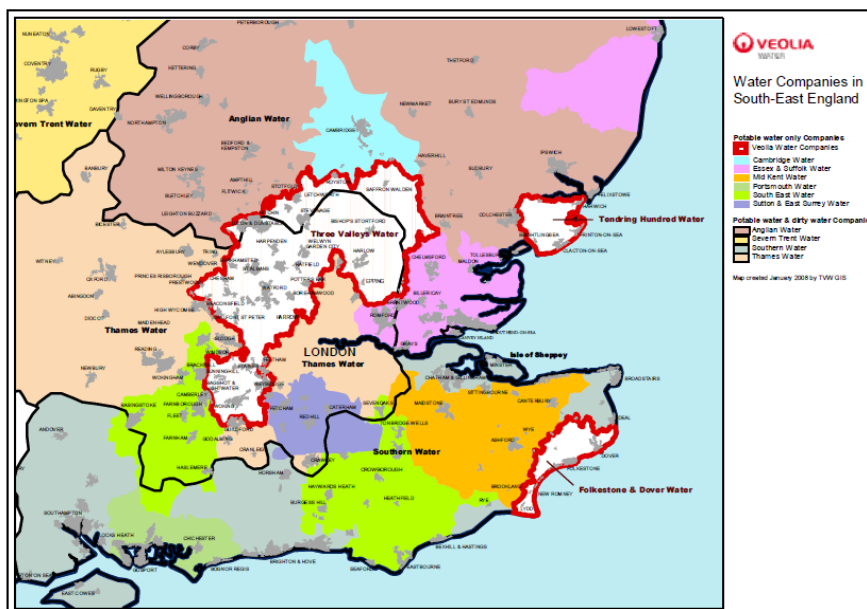
¹⁸ WRSE Modelling

determine investment priorities through their Water Resource Management Plans (WRMP) and Asset Management Programmes (AMPs).

5.111 Both the Water Cycle Studies and wider modelling has been based on growth levels that may no longer reflect growth ambitions at the local level. Therefore the timescales of intervention measures may no longer reflect the timescales relating to need, depending on what level of growth is taken forward in the future. For this reason, the South West Herts WCS has only been progressed to scoping report stage and work is currently ongoing to determine more site specific information. However, the existing studies still provide an indication of the future pressures that development and climatic changes will have on water infrastructure across the county.

5.112 Details of the water companies operating in the South East are set out in Table 5.9 below:

Table 5.9: Water companies operating in the South East



Potable Water Supply

5.113 Each water company has strategies in place (Water Resource Management Plans) that define how each company will meet customer demand over the next 25 years, accommodating the potential increase in demand from new development and to manage the existing supply of water whilst accounting for future changes due to climate change. Water Resource Management Plans are updated every 5 years and the next review is set to be completed by 2014. The existing infrastructure serving the county is likely to meet demand up to 2035¹⁹, but increasing pressures in the longer term is likely to require strategic interventions to manage water supply across resource zones.

5.114 Further modelling work is being undertaken across the south east of England (Water Resources in the South East Modelling Project) to determine cumulative pressures on water resources and to identify strategic options which can be considered for

¹⁹ Veolia Water Management Plan (2010)

inclusion within longer term water management plans. The modelling project is exploring opportunities for sharing existing and new water resources across resource zones, with options being considered for a potential regional water resource strategy. Depending on the outcome of the modelling work expected later in 2012, the outcomes may result in major infrastructure interventions of regional importance being identified in future water resource management plans.

5.115 Strategic interventions are likely to require significant levels of investment. It is anticipated that the majority of investment will be directed at the strategic scale, but there may have wider implications across the wider south east and therefore be considered as nationally or regionally significant infrastructure. Alongside strategic requirements, there is likely to be a need for more localised interventions associated with demand management and connectivity of new development.

5.116 Water companies rarely conduct any detailed modelling of the network use and potential improvements until formal planning applications for sites are submitted. Where infrastructure upgrades are required, they work with developers to design the infrastructure required and recover partial reimbursement of costs directly from them. It is therefore not possible to determine the exact future requirements although the costs will be carried by the development industry rather than local authorities.

WASTE WATER

5.117 There is a duty on the statutory undertakers for wastewater services to ensure that adequate sewer and treatment capacity is in place to accommodate future development. There are a number of wastewater treatment works (WwTW) that serve Hertfordshire and these range from strategic facilities such as Rye Meads WwTW and Maple Lodge WwTW, to more local facilities serving smaller areas. Most of the WwTW required to deal with Hertfordshire's waste water are located in the county but some facilities such as Deephams WwTW are located outside of the county. WwTWs are connected via strategic sewer networks which all new developments have a right to connect to once planning permission has been granted.

5.118 Both WCS highlight capacity issues with the sewer network and WwTW facilities within the county, although it is likely that they will be able to support growth in the short term. Given the strategic nature of the facilities, their ability to support future growth is dependent on growth aspirations in neighbouring or nearby authorities. Given the differing timeframe of plan preparation, the ability to determine the overall impact is difficult.

5.119 The ability to plan for the long term expansion of facilities is also restricted by discharge consents granted by the Environment Agency. More challenging consents required to meet European standards will make it increasingly difficult for existing facilities to expand and may require the construction of new facilities.

5.120 Indicative guidance from water companies suggests the following planning and construction timeframes for wastewater infrastructure;

- Network improvements – up to 3 years
- Major network and process capability at WwTW – up to 5 years
- Major upgrade of WwTW or construction of new WwTW – up to 10 years

- 5.121 Interventions are likely to require significant levels of investment. It is anticipated that the majority of investment will be directed at the strategic scale. Alongside strategic requirements, there is likely to be a need for more localised or site based interventions associated with the connectivity of new development.
- 5.122 Funding for water infrastructure will continue to come through Asset management Plan (AMP) periods which operate on a 5 year cycle. This makes it difficult for water companies to plan for infrastructure improvements beyond the AMP period as funding becomes increasingly uncertain. The Water Industry Act allows water companies to make an infrastructure charge for each new property connected to the water supply whilst sewer upgrades will also be generally be funded by new developments, and there are unlikely to be funding expectations from CIL. If strategic upgrades are required to serve more than one development, schemes are likely to be funded upfront by the water company and then recharged to new developments as they come online, although in some cases the service provider may look to the local authority to impose a "Grampian" condition to ensure that the costs are covered by the developer.
- 5.123 Given the short planning cycles of water companies and the long lead in times for water infrastructure, there is a need for ongoing liaison with water service providers to ensure that sufficient and necessary infrastructure is provided to support future growth at both the local and strategic scale. The majority of major investment in infrastructure will be delivered at a strategic scale, although there are also likely to be more localised interventions required, such as the introduction of demand management measures and localised infrastructure to deal with the impacts of new developments. These interventions will be best planned for and delivered locally.

UTILITIES – GAS

- 5.124 Gas is transmitted through a National Transmission System (NTS) before being supplied to towns and villages through Local Distribution Zones (LDZ). National Grid is responsible for the NTS and the LDZ for Hertfordshire although a small part of the county is covered by Southern Gas Networks. In Hertfordshire, there are three "off takes" from the NTS that supply the whole of the county.
- 5.125 National Grid has a duty to ensure an adequate and effective network for the transportation of gas which may involve the extension or improvements to the existing NTS. Although no specific upgrades have been identified within the county, future works may be required to respond to the wider demand for gas.
- 5.126 The planning and upgrading of the local distribution network is more reactive, with reinforcements being required to meet the overall demand. National Grid will not install infrastructure on a speculative basis to serve potential development areas as this practice is not supported by Ofgem and agreements will need to be reached with developers prior to investment in new infrastructure being made, although National Grid are not reliant on developer contributions. Indicative planning and construction timeframes of local distribution infrastructure are expected to take up to 2 years.
- 5.127 Discussions with National Grid as part of HIIS identified a need for new strategic connections to the Gas Network to support major growth locations. Depending on the future scale of growth, the level of investment is unlikely to exceed this but there will be a continuing need for local network reinforcement and upgrades in some

locations. Both National Grid and Southern Gas Networks plan through a 5 year Asset Management Programmes. This, along with the inability to make speculative investments makes it difficult for companies to plan for infrastructure improvements beyond the AMP period.

- 5.128 Infrastructure interventions to support local development are best assessed and developed locally, whereas improvements to the strategic distributor network are suited to more strategic infrastructure delivery plans, particularly where they will enable growth beyond site level within Hertfordshire.

UTILITIES – ELECTRICITY

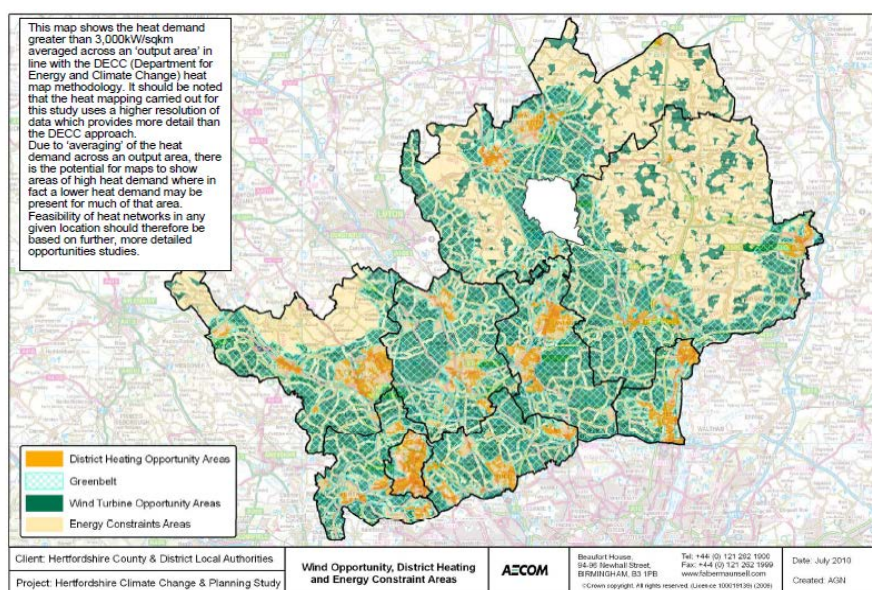
- 5.129 Electricity is transmitted through a national network of electricity lines operating at 275kV and 400kV power lines, before being connected to local networks owned by distribution companies. The National Grid own, operate and maintain the national networks whilst UK Power Networks is the appointed distribution company for Hertfordshire.
- 5.130 Electricity in Hertfordshire is supplied from the National Grid via the overhead ring main to primary sub-stations which in turn supplies towns and villages via smaller substations and network of underground cables.
- 5.131 National Grid must offer a connection to any proposed power station; wind farm; major industry or distribution operator wishing to generate electricity or requiring a high voltage electricity supply. This may mean that strategic interventions are required to reinforce or upgrade the existing network to ensure that supply and demand can be effectively managed. Major interventions similar to the north London Reinforcement Project may be required to support future development across the county, or the transmission of electricity supplies across the county from new or upgrades to existing power generators. These interventions are likely to be major or regionally significant interventions and therefore should be considered within strategic infrastructure delivery plans.
- 5.132 Electrical supply planning by the local distributor company is reactive, although demand is modelled on an annual basis on the extent of 'natural growth' in energy demand and gives an estimate of future loads within the network and identifies where future interventions may be required. Indicative planning and construction timeframes of local distribution infrastructure are expected to take up to 2 years.
- 5.133 Distributor companies are prohibited from using revenues from existing customers to pay for infrastructure and serve new development; therefore it is usual for developers to pay for necessary for new or upgraded infrastructure. Where this is onsite infrastructure used solely to supply their development, a developer will usually pay the whole cost, whereas if a development triggers the need for a piece of infrastructure which is required to serve a larger area than just the development, the developer will be expected to pay a fair proportion of the cost of provision and the rest funded by subsequent developments or the distributor company.
- 5.134 Discussions with EDF (previous distribution company for Hertfordshire) as part of HIIS identified network capacity issues around the proposed growth areas at St Albans, Stevenage, Watford and Welwyn Hatfield, with the remaining towns having sufficient network capacity to support growth up to 2031. There would however, be a

need for additional substation infrastructure where a request is made for large additional loads on the network. Infrastructure interventions required to support local development would be best assessed and developed locally but improvements to the strategic distributor network will be best planned more strategically, particularly where they will enable growth beyond site level.

RENEWABLE / LOW CARBON ENERGY

- 5.135 Although utilities were assessed as part of the original HIIS, Renewable and Low Carbon energy requirements were not considered. Both the Hertfordshire and local Economic Development Strategies identify a need for a transition towards a low carbon economy in Hertfordshire and the planning and delivery of Renewable and Low Carbon (RLC) technologies will be key to achieving this.
- 5.136 Since the HIIS, work has been undertaken by local authorities within the county to identify opportunities and the scope for the deployment of RLC technologies. The Hertfordshire Renewable and Low Carbon Energy Technical Study and East of England Renewable Energy Capacity Study have identified significant opportunities for RLC deployment within the county (see Table 5.10 below).

Table 5.10: Opportunities for RLC deployment in Hertfordshire



- 5.137 It can therefore be assumed that RLC technologies will come forward across all infrastructure categories, ranging from small scale interventions for individual households to more sub-strategic scale interventions such as district heating schemes and agglomerations of larger wind turbines.
- 5.138 There are a number of economic, environmental and social barriers to the deployment of RLC technologies. However, as technologies develop, these barriers are being overcome and local communities are being encouraged to take ownership of RLC projects to realise the full local benefits of RLC technologies.
- 5.139 There is no indication of the costs associated with the delivery of RLC technologies but the overall cost in exploiting all opportunities is likely to be significant. Significant progress has been made at the local level with regards to encouraging the deployment of RLC technologies within new development. This trend is likely to

continue with the introduction of increasingly challenging carbon reduction requirements set within national and local policy although changes to financial subsidy schemes such as the Feed in Tariff may have some impact on progress made in the shorter term.

- 5.140 There is no single provider or delivery agency attributed to RLC technologies. There are a number of different funding and delivery mechanisms but these are likely to be scheme specific and it is unlikely that a single approach can be applied universally across the county. It is likely that the majority of funding will continue to come forward through commercial or private investments although some larger and higher risk schemes may require a partnership approach.
- 5.141 Given the scale and scope for renewable technologies in Hertfordshire, it is likely that the majority of renewable energy deployment will continue to come forward at householder and community scale or in response to market demand. Therefore, the continued planning and delivery of RLC infrastructure is best suited locally where ownership lies with individuals, local communities and those with market interest. However, there are likely to be some schemes that will help achieve the wider aims of the Hertfordshire Economic Strategy, help Hertfordshire contribute towards the UK's legally binding renewable energy and carbon reduction targets and help drive forward investment within green sector industries within the county, which may be considered to have more of a strategic importance.

TELECOMMUNICATIONS

- 5.142 Telecommunications were not assessed as part of HIIS or through local Infrastructure Delivery Plans as they are not considered to be enabling infrastructure and therefore not a physical barrier to development. However, improving telecommunications (in particular broadband services) has been identified as a key priority within Local Investment Plans and Local Economic Development Strategies as they support wider economic (and to some extent wider environmental objectives), as well as opening up new opportunities for inward investment and ensuring that existing infrastructure meets future demand.
- 5.143 In supporting the coalition governments aims of the UK having the best Superfast Broadband Network in Europe by 2015, two projects are underway within the county to improve broadband access. 'Broadband for Business Parks' is aimed at securing superfast broadband investment within major inward investment areas where there is insufficient demand to support market intervention. The project is currently targeting improvements in broadband services within the employment areas at Maylands, Gunnels Wood and Centennial Park.
- 5.144 The County Council is also engaged in delivering the Local Broadband Plan for Hertfordshire that aims for 90% of existing residents to be able to access superfast broadband with the remaining 10% with access to speeds of at least 2mb. Through Broadband Delivery UK, the county council has secured £1.1m in funding, match funded by the county council and private sector partners to provide over £4m in broadband investment to support investment in network infrastructure where there is currently insufficient market demand to support private investment. Further support is available for areas to access superfast broadband where they are not currently covered by the Local Broadband Plan through the Remote Community Broadband

Fund. Potential to access this service will need to be delivered and supported by individual communities where access is required.

- 5.145 Despite the proactive approach to delivering telecommunication infrastructure, the majority of private sector investment is reactive, with few local infrastructure delivery plans engaging service providers in relation to supporting new growth. As demonstrated by the Local Broadband Plan, where there is insufficient market demand to command private sector investment, there may be a need in the future for a more collaborative and partnership approach to the planning and delivery of telecommunications infrastructure.
- 5.146 It is likely that individual interventions and new development connectivity will have a localised impact and therefore will be best planned for and secured locally. However, as demonstrated through the preparation of the Local Broadband Plan for Hertfordshire, a more strategic approach to the identification and planned delivery of network infrastructure is required if a consistent approach to delivery across the county is to be achieved.

OTHER COMMUNITY SERVICES

- 5.147 The HIIS examined the need for a number of local infrastructure items including, community facilities such as youth centres; libraries; museums; cemeteries; open space; sport facilities; allotments; civic space; waste collection and urban parks.
- 5.148 Local communities are best placed to determine the need for these facilities at the local or neighbourhood level as many serve neighbourhood areas or fulfil the aspirations of local communities. It has not been possible as part of this refresh to explore the delivery process for each item. Significant progress has been made through the preparation of Local Development Frameworks in identifying specific needs for local communities and it is expected that the majority of interventions are likely to be delivered by a single agency or under the localism agenda, by the local communities that the facilities will serve. These needs are therefore best planned for and delivered locally.
- 5.149 Opportunities may exist to integrate requirements with wider strategic requirements, therefore some may be delivered as part of wider strategic projects. These opportunities are most likely to exist in relation to open space, urban parks and sports facilities that may form part of and delivered as part of a wider strategic Green Infrastructure network and these opportunities should be considered on a scheme by scheme basis.

POTENTIAL BARRIERS TO IDENTIFYING AN EFFECTIVE IMPLEMENTATION OF INFRASTRUCTURE NEEDS

- 5.150 Despite the progress made with service planning and identifying local infrastructure requirements since the HIIS was undertaken, the identification of long term infrastructure need is not easy and a number of barriers remain in identifying, planning and implementing long term infrastructure requirements.
- 5.151 The infrastructure planning process remains complex and is impeded by regulatory and business planning approaches. The review of infrastructure need in has identified a number of areas that may prevent an effective approach to infrastructure

delivery which will need to be assessed and overcome, and these are set out in Table 5.11 overleaf:

Table 5.11: Barriers to an effective approach to infrastructure delivery

Barriers to an effective approach to infrastructure delivery in Hertfordshire

Divergence in Planning Horizons: a continued divergence in planning horizons and assumptions continue to prevent the coordination needed for effective investment to be channelled throughout the 15 year cycle of the Local Development Plan process. Despite the progress made by some service providers, it is still difficult to assess long term infrastructure requirements.

Devolution and Privatisation of Infrastructure Provision: the increased devolution and privatisation of infrastructure provision is likely to increase the complexity of the infrastructure planning process and increase competition in relation to the increasingly limited availability of mainstream funding. This will result in an increased need for a co-ordinated approach between service providers if infrastructure is to be effectively planned for and delivered in Hertfordshire.

Increasing shift from capital to revenue funding: within some infrastructure sectors, changes in the way in which infrastructure is delivered has resulted in a move away from a reliance on capital funding towards models of delivery that are increasingly reliant on revenue funding. This approach may impact on what infrastructure can be supported through developer contributions and therefore likely to require new innovative approaches to delivery.

Reactive approach by some service providers: despite the progress made with infrastructure planning, there are some service area providers (such as telecommunications) who remain largely excluded from the infrastructure planning process and therefore pursue a more reactive, rather than proactive approach to infrastructure delivery. Other providers (such as electricity and water) are restrained by regulatory processes and business planning processes which have resulted in a reactive approach to provision.

Strategic Influence: although the majority of infrastructure need is likely to continue to be planned for and delivered locally, there are a number of service areas which will have some strategic influence and likely to exceed the capability of local delivery agencies. Consideration needs to be given as to how these requirements can be planned for on a co-ordinated basis.

CONCLUSIONS

- 5.152 Significant progress has been made in relation to infrastructure planning since the HIIS was undertaken. Effort has been focused towards the local level through the preparation of Infrastructure Delivery Plans. However, there has been the absence of a co-ordinated approach to infrastructure planning which has resulted in an inconsistent picture of infrastructure need across the county other than the high level assessment in the HIIS. Given the changes in the way in which some infrastructure services are now provided, new funding regimes and identification of new requirements, much of the information in the HIIS relating to infrastructure need is out of date.
- 5.153 With strategic planning responsibilities being returned to the local level, there remains a need for service providers to appreciate the 'bigger picture' of growth to understand the implications for their service areas. Although infrastructure planning

at the local level has advanced significantly, there are a number of service areas where future infrastructure provision will still need to be planned for and delivered in a co-ordinated manner on a countywide or sub-county basis. The need for a co-ordinated approach was apparent with the identification of a number of infrastructure areas that, although delivered locally, require a more strategic approach to their planning and implementation.

- 5.154 The most significant barrier to infrastructure planning remains a divergence in timescales between different infrastructure providers and local planning processes. Although some progress has been made by service providers in determining future infrastructure needs, these continue to be over a relatively short term basis compared to local planning processes. Improved engagement between local authorities and service providers has developed an understanding amongst service providers of the need for long term service planning, but this relationship needs to be furthered.
- 5.155 Due to the long term planning of growth and changes to the way in which infrastructure is provided, both the planning of and delivery of infrastructure over planning periods can be affected by unexpected changes. It is therefore important that infrastructure planning processes are reviewed on a regular basis and a flexible, phased approach to delivery pursued, to ensure that future growth comes forward in line with future growth requirements.
5. 156 Developing a response to this across the county will enable service providers to identify and prioritise future infrastructure requirements. This will allow a co-ordinated approach towards strategic projects which will bridge the gap between the development plan preparation timeframes and ensure that informed decisions are made on those infrastructure items that help meet the wider economic, environmental and social objectives in Hertfordshire.

CHAPTER 6: RELATIONSHIP BETWEEN THE SPATIAL ASPECTS OF GROWTH AND INFRASTRUCTURE NEED

SUMMARY OF KEY FINDINGS

Table 6.1: Summary of key findings on the spatial aspects of growth and infrastructure need

Key findings on the relationship between growth and infrastructure need

- It is expected that there will be approximately 22,000 fewer dwellings coming forward post RSS than were assumed in the original HIIS. However, when considered alongside the existing infrastructure deficit in the county, the need for significant investment in infrastructure identified in the HIIS will remain
- Significant reductions in the scale of growth are expected within the former Key Centres for Development and Change. Significant releases of greenfield land for major development is not expected before 2021
- A number of medium size residential sites (up to 500 dwellings) as well as strategic employment sites have been identified as being brought forward before 2016. These may have infrastructure requirements that are beyond the scope of anticipated of CIL resources
- Changes in growth may have a particular impact for the delivery of strategic infrastructure. As a result there will be an increased reliance on a mix of both s106 contributions and CIL revenues, which will require a co-ordinated and partnership approach to delivery
- There is still some uncertainty as to the scale and location of future growth. This will only be resolved when local authorities are able to determine the location of growth post 2016 and this will require effective engagement with infrastructure providers for this to be achieved

WHY DO THE GROWTH ASSUMPTIONS NEED UPDATING?

- 6.1 For the purpose of infrastructure planning, it is necessary to have an understanding of the scale and distribution of future growth. This enables the development industry, local authorities, service providers and other interested parties to understand where and when the need for infrastructure investment is likely to arise.
- 6.2 Using the housing targets set out in the East of England Plan, the HIIS attempted to establish the links between future growth and infrastructure need. Given that a number of local authorities were then still in the early stages of preparing their development plans, the HIIS developed a number of assumptions as to where future growth would be located. These assumptions were based on the best information available at the time but have now been superseded by the progression of development plans and the recent changes to the planning system and therefore no longer accurately reflect the scale or spatial distribution of growth within the county.
- 6.3 In particular, it is important to review the position of Key Centres of Development and Change (KCDCs) identified in the RSS as a significant proportion of infrastructure investment identified in HIIS was related to these locations - though it is also necessary to revisit the wider distribution of growth across the county.

- 6.4 To support the aims of this review, help inform decision making around future infrastructure investment and to support the LEP and local authorities in identifying, prioritising and securing investment in the county's infrastructure, this chapter attempts to update both the scale and spatial distribution of growth to 2031. Providing a strategic picture of growth in Hertfordshire post RSS²⁰, it is particularly pertinent for this review to try and identify where growth is likely to come forward in the short to medium term. However, to maintain consistency with the HIIS work and to provide a long term understanding of possible infrastructure pressures in the county, the review considers growth up to 2031.
- 6.5 Given work on development plans will continue and that the full impact of changes to the planning system have yet to be fully realised, there is still considerable uncertainty as to the scale and distribution of growth – particularly in the longer term. However, it is unlikely that Hertfordshire's development plans will ever be fully aligned, and given the long lead in times for infrastructure planning and delivery identified in Chapter 5, it would be imprudent to delay infrastructure planning in Hertfordshire to await any sort of resolution of these issues. Instead, infrastructure planning should form part of an iterative process and be updated as and when local plan processes require.
- 6.6 Furthermore, this review does not consider what impact changes to the levels of growth will have on future population projections within Hertfordshire, although through engagement with infrastructure and service providers, the review has already identified new population challenges (e.g. education) that need to be considered when preparing infrastructure plans for the county. The potential impacts that the changes in growth levels identified in this review may have on future population projections and infrastructure need should be given further consideration through the preparation of local and strategic Infrastructure Delivery Plans.

RESIDENTIAL GROWTH ASSUMPTIONS (2001 – 2031)

SCALE OF RESIDENTIAL GROWTH TO 2031

- 6.7 The growth assumptions used to inform the HIIS were based on the targets set out in Policy H1 of the RSS (2001 – 2021) and then rolled forward to give an indication of growth levels up to 2031. The HIIS identified 124,050 additional dwellings to be built in Hertfordshire between 2001 and 2031 (Table 6.2 overleaf). This figure was based on a significant amount of growth being allocated to the Key Centres of Development and Change (KCDC) identified in the RSS but excluded growth north of Harlow and in Luton and South Bedfordshire. However, for the purposes of calculating infrastructure growth within HIIS it was agreed that an additional 5,500 dwellings should be identified as coming forward within North Herts (3,150 up to 2021 and a further 2,350 dwellings up to 2031) for expansion at Luton, as well as 10,300 dwellings brought forward within East Herts for growth north of Harlow.
- 6.8 Now that the RSS has been revoked (and taking into account the requirements of the NPPF) it is expected that a number of authorities across the county will review

²⁰ The assumed growth figures in this paper are based on the best available information and represent the current position of Local Development Frameworks. All bar one housing figure has yet to be the subject of independent examination and these are therefore subject to change.

their growth aspirations and there is already evidence of this occurring within the county. Therefore at this stage there is still considerable uncertainty as to the overall level of growth up to 2031 as most authorities are yet to establish housing targets for their area

Table 6.2: Estimates of future growth 2001 - 2031 used in the 2009 HIIS study

District	RSS requirement (2001 – 2021)	RSS roll forward (2021 – 2031)*	Total growth 2001 – 2031	Growth requirement over HIIS period 2008/9 – 2030/31	Additional growth from neighbouring authorities over HIIS period
Broxbourne	5,600	2,800	8,400	5,909	-
Dacorum	12,000	4,350*	16,350	13,528	-
East Herts	12,000	6,600	18,600	15,126	10,300 ¹
Hertsmere	5,000	2,600	7,600	5,838	-
North Herts	6,200	3,100	9,300	20,800	5,500 ²
St Albans	7,200	3,600	10,800	10,903	-
Stevenage	16,000	8,000*	24,000	8,236	-
Three Rivers	4,000	2,000	6,000	4,395	-
Watford	5,200	2,500	7,700	5,853	-
Welwyn Hatfield	10,000	5,500*	15,500	10,838	-
Hertfordshire Total	83,000	41,050	124,050	101,426	15,800

Note: 1 Harlow expansion in Hertfordshire 2 Luton expansion in Hertfordshire

6.9 Unlike the HIIS work, for the HIIS refresh there is no longer a regional target to set as an estimate as to what the overall housing target for the county is likely to be. Therefore, in the absence of the RSS, divergent Plan periods and the need to generate a comparable growth level for the HIIS review, the assumptions used to arrive at the 2031 growth level for the review have been based upon:

- targets set out in adopted or emerging Core Strategies
- completions data (2001 – 2011)
- trajectory data where the start date of the Core Strategy Plan period is 2012 or later.

Information on how each of the assumptions were applied as part of this review is set out in Appendix A.

6.10 In the absence of the requirement for local authorities in Hertfordshire to accommodate a specific level of growth from neighbouring authorities, it has been assumed at this stage that no additional provision will be made for such growth within the county. However, a new duty to co-operate has been introduced as part of the Localism Act which may require the county's authorities to consider wider growth requirements which may transcend local authority boundaries. As such, 'to build' figures used to inform this refresh should be kept under review and updated where necessary through the preparation of Infrastructure Delivery Plans. Table 6.3 below sets out the revised growth assumptions for Hertfordshire (2001 – 2031).

Table 6.3: Growth assumptions in HHS Review (2001 – 2031)

District	Total Dwellings (2001-2031)	Growth requirement over HHS Review period 2011/12 – 2030/31	Additional growth from neighbouring authorities over HHS Review period
Broxbourne	8,079	4,800	-
Dacorum	13,171	9,268	-
East Herts	18,600	13,904	-
Hertsmere	7,064	4,680	-
North Herts	12,360	7,000	-
St Albans	8,552	5,000	-
Stevenage	8,634	6,120	-
Three Rivers	5,400	3,319	-
Watford	7,906	4,487	-
Welwyn Hatfield	12,741	8,000	-
Hertfordshire Total	102,507	66,578	0

6.11 Having reviewed the current growth aspirations of local authorities, it can be assumed that changes to planned growth will result in approximately 22,000 fewer dwellings coming forward over the period 2001 – 2031 than were originally planned for at the time of the HHS: so 102,507 dwellings compared to the 124,050 assumed for HHS, an 18% reduction (see Table 6.4 overleaf).

Table 6.4: differences in housing growth figures between HIIS (2009) and HIIS Review (2012)

District	Total Dwellings identified in HIIS (2001-2031)	Total Dwellings identified in HIIS Review (2001-2031)	Difference between HIIS and HIIS review
Broxbourne	8,400	8,079	-321
Dacorum	16,350	13,171	- 3,179
East Herts	18,600	18,600	0
Hertsmere	7,600	7,064	- 536
North Herts	9,300	12,360	3,060
St Albans	10,800	8,552	- 2,248
Stevenage	24,000	8,634	- 15,366
Three Rivers	6,000	5,400	- 600
Watford	7,700	7,906	206
Welwyn Hatfield	15,500	12,741	- 2,759
Hertfordshire Total	124,250	102,507	21,743

6.12 This means that the 'to build' figure for the HIIS Review is 66,578 dwellings (2011 – 2031) compared to a 'to build' figure of 101,426 in the original HIIS. This is 34,668 dwellings, a 34% reduction. Given the different timeframes of the HIIS and HIIS review, these figures are not directly comparable although even when taking into account completions in the county since 2009 to take account of the different timeframes (2008/9 against 2011/12), this still represents a significant difference in the number of dwellings to be built to 2031. Table 6.5 below demonstrates this.

Table 6.5: differences between HIIS (2009) 'to build' figures and HIIS Review (2012) 'to build' figures

District	HIIS 'to build' figure 2009 - 2031	HIIS Review 'to build' 2011/12 – 2030/31
Broxbourne	5,909	4,800
Dacorum	13,528	9,268
East Herts	15,126	13,904
Hertsmere	5,838	4,680

District	HIIS 'to build' figure 2009 - 2031	HIIS Review 'to build' 2011/12 – 2030/31
North Herts	20,800	7,000
St Albans	10,903	5,000
Stevenage	8,236	6,120
Three Rivers	4,395	3,319
Watford	5,853	4,487
Welwyn Hatfield	10,838	8,000
Hertfordshire Total	101,426	66,578

PHASING

- 6.13 HIIS identified two main timeframes for growth, 'up to 2021' and '2021 – 2031'. Although this was beneficial in identifying the timescales of different infrastructure delivery, a need to identify the short, medium and long term growth aspirations has been promoted in order to support the short term planning cycles of infrastructure providers (Chapter 5); the emerging approach to infrastructure funding (Chapter 7) and prioritisation of future investment through the preparation of Infrastructure Delivery Plans (see Chapter 10).
- 6.14 The review has used projected completions data set out in local authorities' housing trajectories to determine the level of growth expected to be delivered within Hertfordshire in the short term (2011 - 2016) and the medium / long term (2017 – 2031) (Table 6.6 overleaf). It has not been possible at this time to break down the longer term trajectory of growth between the medium (2017 – 2022) and long term periods (2023 – 2031) because of work still ongoing to determine the level of future growth within some areas.
- 6.15 Not all of the local authority trajectories include 'small sites' of less than 5 dwellings and not all local authorities are currently able to demonstrate a 5 year land supply, therefore the number of dwellings coming forward in the first 5 years may be higher than indicated in Table 6.6, although it is not anticipated growth will impact significantly on the level of infrastructure investment required.
- 6.16 Up to 2016, the majority of development is expected to come forward on small or medium sites (up to 100 dwellings), although there are some larger sites (100 - 500 dwellings) expected to come forward towards the end of the first five year period which may impact more significantly upon local infrastructure and likely to require more significant 'up-front' investment.
- 6.17 It is not expected that there will be any large scale releases for development on the edges of existing settlements before 2021. Any large scale releases are likely to have the greatest impact in terms of infrastructure; however, given the scale of

development, it is considered that the majority of the necessary infrastructure investments would be able to be funded by the development itself as the retained mechanisms for the use of s106 agreements post 2014 should allow this to happen. This is provided that CIL rates that are imposed allow sufficient headroom for both this infrastructure to be delivered and for the delivery of sufficient levels of affordable housing.

- 6.18 However, given the restrictions that will be placed upon the use of S106 agreements after 2014, there is also likely to be a reliance on pooled contributions to mitigate the wider cumulative impacts. A more complete picture of the potential locational impacts and infrastructure needs will emerge through the preparation of Infrastructure Delivery Plans.

Table 6.6: Projected phasing of dwelling completions 2011/16 by district

District	Projected Completions 2011 – 2016					Projected Completions 2011 - 2016	Includes strategic / large scale development sites?	Residual 'to build' figure 2017 – 2031
	2011/12	2012/13	2013/14	2014/15	2015/16			
Broxbourne	58	190	255	257	319	1,079	AoS to be determined through Site Allocations	3,721
Dacorum	408	412	575	799	729	2,923	Includes start of development at Maylands and HH Town Centre 2015/16	6,345
East Herts	378	401	507	691	705	2,682	Includes start of Bishop's Stortford ASR	11,222
Hertsmere	182	466	405	322	313	1,688	Includes start of development at Elstree Way Corridor	2,992
North Herts	333	333	333	333	333	1,665	Includes 200 Dwellings to north Royston	5,335
St Albans	383	427	563	370	329	2,072	Includes early development at Harper Hospital / Civic Centre / Spencer Park	2,928
Stevenage	213	222	245	573	577	1,854	Includes development at Bragbury End (300/400) and SNAP7 (340/1000)	4,266

District	Projected Completions 2011 – 2016					Projected Completions 2011 - 2016	Includes strategic / large scale development sites?	Residual 'to build' figure 2017 – 2031
	2011/12	2012/13	2013/14	2014/15	2015/16			
Three Rivers	213	167	258	204	184	1,026		2,293
Watford	321	497	427	379	70	1,694		2,793
Welwyn Hatfield	273	205	600	642	464	2,184		5,816
Herts Total	2,762	3,320	4,168	4,570	4,023	18,867		47,782

DISTRIBUTION

- 6.19 Given the requirement for local authorities to demonstrate a 5 year supply of deliverable sites, there is a reasonable degree of certainty where development is likely to come forward in the first 5 years. There is still uncertainty as to where growth may be located in the longer term and further engagement with local authorities is required to provide a consistent and complete picture for the county.
- 6.20 In line with the anticipated changes to the scale of growth proposed in the county since the HIIS was published there has been a concurrent change in the distribution of growth, with many areas no longer likely to accommodate the level of growth originally envisaged.
- 6.21 Given however that a number of districts are still preparing their development plans, and that the potential impacts of the duty to cooperate and requirements of the National Planning Policy Framework are yet to be fully understood, there remains considerable uncertainty as to the location of growth in the long term. Any indicative spatial distributions used to inform infrastructure planning should be kept under review and updated as and when they are superseded by local planning processes or other considerations.

KEY CENTRES FOR DEVELOPMENT AND CHANGE (KCDCS)/MASTERPLANNED AREAS

- 6.22 The RSS required a number of local authorities to accommodate significant growth within the KCDCs, and as a consequence HIIS identified a number of largely theoretical masterplanned areas to identify and assess the likely infrastructure needs up to 2031. In the light of the changes to the planning system, the scale of growth envisaged within the masterplanned areas as part of HIIS no longer accurately reflects ambitions of local authorities.

- 6.23 Overall there are significant changes proposed in the levels of growth within the masterplanned areas. A review of the former growth areas (Appendix B) has identified up to 44,137 fewer dwellings delivered within the masterplanned areas than was assumed in HIIS. At present there are no growth proposals at Stevenage (other than that which is permitted or to be delivered within the town itself) or associated with Luton or Harlow North (to the extent it would require accommodation of any growth at these locations within Hertfordshire). Neither are there significant changes in the level of growth anticipated at Hemel Hempstead, Welwyn Garden City or Hatfield. Watford is the only masterplanned area remaining unaffected: the RSS assumed that all KCDC growth at this location would be accommodated within the town itself, and this remains the case.
- 6.24 However, as local development planning progresses, it is clear that some growth may continue to be directed towards the masterplanned areas, although this is unlikely to be anywhere near the scale envisaged within HIIS. For example, the interim target being used by Welwyn Hatfield suggests that 2,875 dwellings will need to be accommodated on Green Belt land²¹, whilst the consultation on housing options for North Herts²² recognises that in accommodating the preferred option, some growth around Stevenage may be preferable to sites around other towns and villages in the district.
- 6.25 When considering the relationship between the scale of growth and the distribution of growth coming forward to 2031, it can be assumed that much of the difference is likely to be as a result of a reduction in housing numbers within the former KCDCs and in particular the masterplanned areas. This is likely to have significant impacts on the level of required infrastructure investment as a number of the high value infrastructure items identified in HIIS (such as the A414 – M11 link road) were linked to the scale of development anticipated within these areas.

ASSIGNMENT OF GROWTH OUTSIDE OF KCDCS / MASTERPLANNED AREAS

- 6.26 Outside of the masterplanned areas, the HIIS assigned the balance of growth (minus completions and commitments) to the remaining settlements in the county. The HIIS made a number of broad assumptions about the location of the remaining growth and allocated it to the major settlements within each district.
- 6.27 In light of the proposed changes to planned growth levels, the reduced importance of KCDC/masterplanned areas in delivering growth, and the post HIIS identification of sites, broad locations and Areas of Search for development at the local level, the apportionments used within the HIIS are no longer suitable to inform the infrastructure process and need to be updated.
- 6.28 Given the ongoing uncertainties around long term growth aspirations, it has not been possible to allocate growth beyond the first five years. As part of the recommendations within this report of the development of Infrastructure Delivery Plans by Hertfordshire's local authorities, there is a need to review the settlement allocations to reflect the changes post RSS and to incorporate towns (such as Welwyn, Hatfield and Stevenage) that were previously wholly accounted for within the KCDC masterplanned areas.

²¹ Welwyn Hatfield: How many new homes? (June 2011)

²² Consultation Paper (February 2012)

EMPLOYMENT ASSUMPTIONS (2001 – 2031)

6.29 To determine the level of employment growth coming forward within Hertfordshire to 2031, the HIIS used the Oxford Econometrics Joint Modelling and for the RES and RSS²³ (Table 6.7 below).

Table 6.7: Employment Growth 2001 – 2031: HIIS assumptions

District	Net employment Change		
	2001 – 2006	2006 – 2031	2001 – 2031
Broxbourne	2,854	2,417	5,271
Dacorum	-5,475	18,148	12,673
East Herts	5,300	4,073	9,373
Hertsmere	-5,647	11,405	5,758
North Herts	-4,400	11,143	6,743
St Albans	1,283	-179	1,104
Stevenage	-100	13,802	13,702
Three Rivers	4,406	2,662	7,068
Watford	-6,935	8,222	1,287
Welwyn Hatfield	5,927	17,741	23,668
Hertfordshire Total	-2,787	89,434	86,647

6.30 Since the HIIS was undertaken, there have been a number of re-runs of the EEFM, with the last run taking place in Autumn 2010. The EEFM (Autumn 2010) has been used to inform a number of employment studies, the most recent being the Hertfordshire Strategic Employment Sites Study²⁴. Although taking place some time ago, it is still considered that this provides the most consistent and best basis for determining future employment growth in the county.

6.31 The EEFM (Autumn 2010), identifies a net increase of 79,300 jobs²⁵ over the HIIS review period. It is recognised that there is some concern about using a trend based model such as the EEFM to determine future employment growth as they are based on past policy and infrastructure environments and do not necessarily relate to the economic growth aspirations of local authorities. However, these projections have been used to inform employment studies and the preparation of local development documents and are broadly consistent with local policy aspirations. It therefore considered that they remain valid in determining an overall employment figure for the county.

²³ Oxford Econometrics, Arup: East of England: Joint modelling for the RES and RSS, Final report, revised August 2008

²⁴ Hertfordshire Strategic Employment Sites Study (Regeneris, 2011)

²⁵ Doesn't include self employed

6.32 To overcome the concerns with the projections, the Strategic Sites Study allocated employment growth within three travel to work areas across the county (Table 6.*). It is expected that employment growth over the HIIS review period will be between 79,300 and 86,900. The study concludes that the EEFM forecasts of 79,300 is the most likely achievable target, although consideration will need to be given to local policy aspirations for the purpose of preparing Infrastructure Delivery Plans.

Table 6.8: Overview of projected employment growth by travel to work area (based on information from Hertfordshire Strategic Employment Sites Study (2011))

Travel to work area	Net Change in Employment (000's)					
	EEFM Autumn 2010 (2011 – 2031)*					Moderated Targets
	2011-2016	2016-2021	2021-2026	2026-2031	2011-2031	
West Hertfordshire	25.3	12.1	4.3	4.5	46.4	31.1
Central Hertfordshire	12.3	6.3	3.1	3.5	25	31.5
East Hertfordshire	7.3	2.2	-0.8	-0.8	7.9	24.3
Hertfordshire Total	44.9	20.6	6.6	7.2	79.3	86.9
*does not include people who are self employed						

6.33 HIIS was unable to provide any certainty as to the likely distribution of employment growth. Since then the Strategic Employment Sites Study has identified 12 key strategic locations or clusters that present the greatest opportunity for supporting economic growth within Hertfordshire (Table 6.9 overleaf). Although these sites will need to be translated into local development documents, there is now a greater degree of certainty about where large scale employment related development is likely to come forward to 2031 than was the case at the time of HIIS.

6.34 Discussions with local authorities have indicated that it is expected that at least 24,580 jobs will come forward within the identified strategic employment locations by 2031. This is likely to be an underestimate as the full potential of all of the strategic employment sites has yet to be determined. Outside of the strategic sites, any development is likely to be modest and located within existing employment areas.

Table 6.9: Strategic Employment Areas in Hertfordshire

Strategic Location	District	Indicative Job Numbers	Indicative start date
Mixed Use Sites			
Gunnels Wood	Stevenage	3,500	2001 - 2026
Maylands	Dacorum	9,000	2006
Higher Value Use			
Hatfield Business Park	Welwyn Hatfield	?	?
Watford Junction	Watford	2000	2016-2018
Watford / Croxley Business Park	Watford	2000	2015
Premier Business Park			
Park Plaza	Broxbourne	<p>Core Strategy anticipated:</p> <p>800 at Park Plaza North</p> <p>500 at News International site</p> <p>Up to 1,500 at Maxwells Farm West</p> <p>Up to 4,000 at Park Plaza West</p>	<p>Site Allocations work taking place over 2012/2013, so development could begin in mid 2010s, subject to resolution of infrastructure issues</p>
Strategic Clusters			
GSK	Various	?	?
Leavesden	Three Rivers	180	In Process
Elstree Studios	Hertsmere	300dpa	2012/2013 (subject to funding)
BRE	St Albans	?	?
Watford Health Campus	Watford	1900 (800 to be retained)	2014
J7 A1(M)	North Herts	Unknown at present	Unlikely to start before 2016

- 6.35 In terms of phasing, the EEFM forecasts demonstrate that the majority of employment growth will come forward within the first ten years with smaller growth expected between 2021 – 2031. Given the scale of projected employment growth, the likely level of investment and the need for expansive short term development to support the forecasted growth in employment within the next ten years, there is a need to develop a better understanding of the delivery timeframes for the strategic employment sites so that the potential barriers to growth can be more readily understood.

POTENTIAL IMPACTS OF GROWTH ON INFRASTRUCTURE DELIVERY

- 6.36 It has been beyond the scope of this review to explore detailed infrastructure requirements relating to the anticipated employment and residential growth in the county up to 2031. Therefore, the identification of specific infrastructure items will need to be explored with infrastructure providers through the preparation of Infrastructure Delivery Plans.
- 6.37 Notwithstanding this, it is likely that given the overall reduction in growth, the amount of infrastructure investment required to support future growth will be less than that originally envisaged. However, when considered alongside the existing infrastructure deficit in the county, the need for significant investment in infrastructure and the associated implications for delivery partners and funding identified in the HIIS will remain.
- 6.38 As a general rule, it is considered that developments of 1,500 residential dwellings or more are required to sustain general service provision across most infrastructure sectors and to require investment in standalone transport infrastructure (although this does depend on the context of individual sites). Given the significant reduction anticipated in growth around the former KCDCs, it is expected that there will be a reduction in the reliance on standalone infrastructure and there may no longer be a need for the delivery of some larger scale transport infrastructure such as the Stevenage northern relief road and A414 – M11 link road identified in the HIIS, as the delivery of these schemes was largely predicated on the specific high levels of growth that were anticipated at these locations..
- 6.39 However, this does not take into account the cumulative impact of new development on the local area or the relationship between new development and existing settlements. In most circumstances, there will be a need for the expansion of nearby infrastructure to support new communities. Conversely, new infrastructure delivered alongside new development may be able to support the needs of existing communities.
- 6.40 Although the level of infrastructure investment associated with the areas outside of the KCDCs in HIIS was relatively small in comparative terms, the absence of large scale growth areas may lead to increased development within some urban areas and it is possible that the increased cumulative impact of development within existing urban areas may have a significant impact upon locally specific infrastructure and service delivery. Any reduction in large scale development is likely to increase the cumulative pressure on existing services and there is likely to be a greater reliance on the pooling of s106 contributions or CIL payments to facilitate the delivery of

essential infrastructure improvements. This will increase the reliance on a co-ordinated and partnership approach to the delivery of such infrastructure.

- 6.41 The reduction in growth may have a particular relevance to strategic infrastructure delivery in the medium term, given its cross-boundary nature and that the HIIS identified 2016 – 2020 as a “critical time” for the county in terms of strategic infrastructure investment and delivery. Given the anticipated level of residential development (2016 – 2031) and employment related development (2016 – 2021), identified in this report, this position is unlikely to change.
- 6.42 Furthermore, the reduction in growth within the KCDC could have an impact on the funding of strategic infrastructure as a number of strategic infrastructure projects in HIIS were attributed to key growth locations and funded through developer contributions, but were also critical in helping to alleviate pressure on existing infrastructure networks. Consequently, there may now be an increased reliance on alternative sources of infrastructure funding and/or a heavy reliance on CIL contributions to deliver improvements.
- 6.43 Employment related growth over the HIIS review period is broadly consistent with that identified in the HIIS. In and around the strategic employment areas, there are likely to be significant infrastructure requirements that can be directly associated with the development of large scale employment areas. Some of these (such as a new northern Hemel relief road and Watford Health Campus access road) have already been identified through local infrastructure planning processes.
- 6.44 It is expected that in the short term that the majority of growth will come forward on smaller development sites with large scale greenfield releases not expected until after 2021. However, there are a number of larger residential sites (up to 500 dwellings) and strategic employment sites identified within local authority trajectories as coming forward within the first 5 years.
- 6.45 These sites are likely to require more significant investment in infrastructure both onsite and within surrounding areas both prior to and during construction. Given the current financial pressures on property and development markets, the impact of the introduction of CIL in Hertfordshire over the next two years and the associated uncertainties over whether developer contributions to new infrastructure will affect scheme viability, some of this infrastructure may not be able to be wholly funded by the development itself.

DEVELOPING A CONSISTENT PICTURE OF GROWTH IN HERTFORDSHIRE (2011 – 2031) FOR INFRASTRUCTURE PLANNING PURPOSES

- 6.46 Although providing a strategic overview of the likely changes in growth in the county to 2031 this review does not have the scope to inform effective and meaningful discussions with infrastructure providers. A detailed, long term and consistent picture of growth for the county needs to be determined and an ongoing and constructive dialogue between local authorities and providers should be sought.
- 6.47 Given that the need to understand the future allocation of growth is a fundamental prerequisite to infrastructure planning and will form the basis of discussions with infrastructure providers, reviewing how growth should be apportioned beyond 2016 should be a priority.

- 6.48 To help support infrastructure planning processes within the county, and improve the relationship with the planning timescale of infrastructure providers any further review should focus on the short (0 - 5 years), medium (6 -11 years) and longer term development timeframes. It is understood that as there is likely to be less certainty surrounding the specific location of growth in the longer term, more effort should be given to identifying specific locations for growth within the short – medium term coupled with the aim of identifying the broader direction of growth in the longer term.

CHAPTER 7: THE FUNDING OF HERTFORDSHIRE'S INFRASTRUCTURE

- 7.1 Earlier, in Chapter 5, we reappraised Hertfordshire's infrastructure needs and costs, and in Chapter 6 we looked at anticipated growth figures and the spatial implications of growth on infrastructure requirements. This brings us to a point where we have the best evidence to hand on Hertfordshire's future infrastructure need.
- 7.2 We now need to consider how these needs might be paid for, which is what we do in this chapter, before considering how to focus on the delivery of key strategic projects, and how generally to manage the infrastructure planning process in Chapters 8 and 9 respectively.

WILL CIL BE THE ANSWER TO THE COUNTY'S INFRASTRUCTURE INVESTMENT NEEDS?

- 7.3 When CIL was first mooted there was some speculation over whether it would provide the answer to the funding of infrastructure needs (although in fairness those within government circles promoting it have never claimed that it could fulfil such a role). The 2009 HIIS study calculated that a sum of £23,000 per dwelling would be needed in terms of a CIL charge to deal with the net cost of providing new infrastructure (once known sources of funding had been taken into consideration).
- 7.4 This would mean that on average CIL would need to raise around £110m a year to allow all anticipated growth infrastructure costs to be met.
- 7.5 However we need to revisit these figures to take account of the anticipated reduction in dwelling numbers. We have assumed for the purposes of this exercise that the anticipated 20% reduction in dwelling numbers now anticipated (from the original RSS figures used in the 2009 HIIS study) will result in a 20% reduction overall in infrastructure needs, although this is far from certain to be the case in reality.
- 7.6 Therefore we assume that on the basis of the reduced housing numbers and associated infrastructure requirements, that the figure we would need to raise to pay for all growth related infrastructure in the county would be in the order of £88m a year.
- 7.7 It is not possible to say how much CIL will be raised across Hertfordshire as it has not yet been introduced within any of the 10 Hertfordshire authorities, with them all being currently in the throes of viability work which will help establish likely revenues. It seems likely that the majority if not all Hertfordshire authorities will charge CIL, but possibly in the main on residential uses. (Because the majority of development is in any event for residential uses, CIL from non residential uses is not likely to be significant even if it were possible to charge significant rates.)
- 7.8 It is possible to take an educated guess at likely CIL revenues when it is fully operational within Hertfordshire. We do this in the following Table 7.2 overleaf.

Table 7.2: a rough and ready calculation of likely CIL revenues per annum across Hertfordshire

A 'very rough' calculation of likely CIL income for Hertfordshire

The first charging schedules are proposing a CIL rate averaging around £120/m² for residential development. If an average size property is taken as 80m², this means an average charge per property of **£9,600**.

We then need to make a series of discounts on this figure:

Firstly no CIL is payable on most affordable housing. Across Hertfordshire one can assume an overall average of 35% affordable housing provision. The £9,600 figure needs to be reduced by 35% = **£6240**

Furthermore CIL is charged only on the net increase in floorspace. Percentage deductions for this will vary wildly across the county depending on individual circumstances, but for the purposes of an overall calculation, an average 20% reduction is proposed. This would reduce the 'per dwelling' figure to around **£5,000**

Then there's a cost to administer CIL - possibly up to 5% of revenues collected. For this exercise we have cancelled out this cost by matching it with the likely CIL revenues to be raised from non residential uses, which are likely to be relatively small - not all authorities will charge for non residential CIL and the amount of non residential development will be a relatively small proportion of overall development. So it seems reasonable to assume that the CIL income collected from non residential development will be cancelled out by the cost of administering CIL

The calculation from Chapter 6 is for an annual average development rate of 3,200 dwellings, so when one applies an average CIL collection rate of £5,000 per dwelling, **then CIL will be expected to raise around £16m a year, approximately 18% of the total value of all infrastructure that the HIIS considered was needed.** So on that basis, **CIL will fund just under a fifth of all future infrastructure required.**

7.9 It's possible to make a number of observations on the above table.

- firstly it must be accepted as a very rough and ready calculation, designed purely to give an indication of the overall 'worth' of CIL. Curiously however it's very close to the contribution of total infrastructure cost made by the most well known standard development charge, the Milton Keynes Tariff, which contributes approximately 19% towards total infrastructure costs
- the overall figure is likely to mask likely variations in CIL rates across the county, with certain areas where viability is less strong (and thus where CIL rates will be low or even nil) contrasting with others where CIL rates will undoubtedly be higher. As actual infrastructure needs (and their costs) may be broadly similar across the county so the percentage CIL contribution to infrastructure provision may be markedly reduced in lower value areas - leading to a mismatch across the county.
- of the figure identified above, a 'meaningful' proportion' (a figure that the government will define in terms of minima and maxima) will be passed to locally elected councils (town/parish councils) or be required to be directed towards neighbourhood infrastructure where no parishes exist. In January

2013 it was announced that that between 15 and 25% of CIL revenues were required to be spent on neighbourhood infrastructure, depending on whether or not a neighbourhood plan had been adopted

- 7.10 The HIIS study recognised that viability considerations would mean that CIL would fall short of funding all infrastructure, but the reality is probably is that the relative contribution is much smaller than ever could have been anticipated. If CIL is viewed as the total funding solution to a wide range of infrastructure projects then it will be many times oversubscribed.

THE BALDOCK INFRASTRUCTURE STUDY

- 7.11 The point about the limited ability of CIL to meet the cost of Hertfordshire's infrastructure needs is underscored by a recent study of Baldock's infrastructure needs, undertaken for the CIL Reference Group.
- 7.12 An earlier meeting of the Reference Group had discussed some of the issues regarding the direction of future CIL monies towards the cost of providing new infrastructure - how far it would be likely to go, and the sort of issues that might be anticipated arising as a consequence. The meeting considered that a theoretical example of CIL in operation based on either a notional or actual district (or part of district) would be extremely helpful.
- 7.13 After discussions - and in recognition of the work North Herts have put in on CIL viability, infrastructure need and the spatial characteristics of development - it was agreed to use the town of Baldock (which has reasonably well defined future growth characteristics) as a test bed in which anticipated future infrastructure need (and costs) was matched against likely revenues, and look at the issues this gives rise to.

Table 7.3: why choose Baldock?

Why choose Baldock?
<p>Baldock is only a modest part of North Herts and the numbers concerned are relatively small (under 20% of the anticipated dwelling numbers for North Herts over the next 20 years, and less than 2% of county totals over that period). However it represents a reasonable snapshot of the sort of issues that will be encountered across Hertfordshire once development plans have been sufficiently advanced, CIL viability issues considered and CIL actually introduced. The issues we encounter here therefore have relevance for the whole of the county</p>
<p>Furthermore Baldock's anticipated dwelling numbers/location of development are relatively easy to define, and as a freestanding town its infrastructure needs are more straightforward to determine. North Herts are also nearing the end of their CIL viability work and are in a position to consider likely CIL rates (no other district is currently at this point yet).</p>
<p>An additional point is that although the town of Baldock is unparished, the adjoining areas (where most of the growth is expected to take place) are parished. We'll return to the significance of this in a short while.</p>
<p>Baldock is also interesting in that nearly all of the development it proposes is greenfield, as brownfield capacity is very limited - a position a number of authorities are expecting to reach in the next few years, as brownfield opportunities diminish over time.</p>

- 7.14 For the purposes of this review North Herts officers have undertaken an assessment of Baldock in the form of a mini local plan review, and covering:

- anticipated dwelling numbers and employment floorspace
- the anticipated location of growth (for housing and employment)
- an infrastructure delivery plan - needs and costs - based on the knowledge they have been able to gather to date in putting together the North Herts

INFRASTRUCTURE DELIVERY PLAN

- 7.15 The district council's assessment of infrastructure needs to 2031 and its associated costs was examined and updated by individual service providers to the best of their ability. It is interesting to note that there is positive information for a number of services (e.g. schools, the police, electricity supply, sports pitches, green infrastructure, transport mitigation measures) but also a number of gaps in the information available (e.g. gas supply) and some nil figures which may prove in time not to be correct (libraries, adult care, emergency services, waste recycling).
- 7.16 The conclusions from the Baldock study are set out in Table 7.4 below

Table 7.4: Baldock Infrastructure study - the key outcomes

Baldock Infrastructure Study - key outcomes
<ul style="list-style-type: none"> • The total cost of growth related infrastructure for Baldock over the next 20 years is estimated at £24.64m (equating to just over £18,500 per dwelling) • This figure is almost certainly an underestimate (there's no figure, for example, for the provision of any strategic infrastructure) • The amount of CIL anticipated to be collected over that period is £7.37m (or just over £5,800 per dwelling). This suggests that CIL will pay for around 31% of all known infrastructure • However not all the CIL money collected would necessarily be spent on town infrastructure. Firstly there's the cost of administering CIL - this could be as high as 5% of all revenues as it will be complex to administer • Secondly it may be reasonable for Baldock to make a contribution towards strategic and sub strategic infrastructure - that infrastructure which needs to be provided beyond town boundaries to enable it to continue to function. A 20% CIL contribution might not be unreasonable • Lastly there will be a requirement to direct a 'meaningful proportion' of CIL income towards parishes. (Baldock town is unparished, but most of its new development takes place outside town boundaries in parished areas). The contribution made available to these parishes will be 25% of the CIL collected in those areas • This might mean that as much of 35% of CIL revenues would be directed towards purposes other than town infrastructure • The true figure for the contribution of CIL towards town infrastructure over the next 20 years could be just over £5m or £3,800 per dwelling or just over 20% of the town's infrastructure needs

- 7.17 There are perhaps a number of conclusions that can be drawn from this.
- firstly, there has to be a concern that whilst some service providers are able to articulate their future needs, there are a number who are unable to (this is consistent with the findings of Chapter 5)

- the second point is that CIL will not, as has long been suspected, be the answer to the issue of how growth related infrastructure is funded: in reality it will probably contribute in the order of 20%

7.18 To give an idea of how far CIL will go in Baldock, it could cover only one of the following infrastructure packages:

- a 20% contribution to the cost of all known local infrastructure (a proportion which will be reduced if further needs are identified, as seems likely)
- the entire cost of providing an expansion of the secondary school, and 4 additional sports pitches and nothing towards transportation requirements, primary schools, green infrastructure or anything else
- a new primary school and just over a third the cost of a necessary second one and nothing else
- Baldock Greenway orbital right of way, upgraded water supplies and local transport mitigation measures and nothing else
- just over two thirds of the cost of a new electricity substation and nothing else

7.19 Whilst CIL can be directed towards strategic infrastructure, the limitations on the relative scale of the contribution it can make will mean the idea of CIL fully funding specific items of major infrastructure a difficult one, as Table 7.5 below shows:

Table 7.5: what CIL would buy you in Hertfordshire as a whole if a proportion of the likely yearly income (£20m) was directed towards strategic infrastructure

What CIL would most likely buy you in Hertfordshire as a whole if a proportion of it was identified as funding 'strategic infrastructure' and directed towards <u>one</u> of the potential County strategic infrastructure projects below: how many years would it take to deliver it using just CIL?				
% total CIL directed towards strategic projects →		10%	20%	50%
Infrastructure Project ↓	Approx Cost (£m) ↓	How many years of strategic CIL money to pay for this infrastructure project?	How many years of strategic CIL money to pay for this infrastructure project?	How many years of strategic CIL money to pay for this infrastructure project?
Croxley Rail Link	116	64	32	13
A secondary school	25	14	7	2.7

7.20 CIL on its own is going to make a limited contribution to the provision of strategic infrastructure: CIL with other funding packages is another consideration altogether.

PUTTING TOGETHER INFRASTRUCTURE FUNDING PACKAGES

- 7.21 It is early days in considering CIL in a wider role of making a contribution to strategic infrastructure, although in the case of Crossrail, the London Mayor's CIL charge is expected to contribute £300m (or 2%) towards the cost of the £14.7bn scheme.
- 7.22 The example we will look at is the Greater Manchester Transport Fund, as managed by the Greater Manchester Combined Authority (GCMA), the strategic authority for the city established in April 2011.
- 7.23 The GCMA manages this £1.5bn prioritised programme of investment against a background of generally reduced access to public resources and difficult market conditions, but with either the opportunity or expectation of access to new funding initiatives such as the Regional Growth Fund, Tax Increment Financing and the Evergreen Fund (see Table 7.9 for more information).
- 7.24 The Fund takes an objective approach which looks at Gross Valued Added (GVA) that can be achieved from infrastructure investment; net reduction in carbon; and improved accessibility to jobs and services in the most deprived wards.
- 7.25 Contributions to the Fund have been derived as follows:

	£m
Former Regional Funding Allocation	448
DfT special contribution to road scheme	165
LTP top slice	147
Prudential borrowing, fare revenues and third party contributions	775
Total	1,538

- 7.26 What is most significant is the process that GCMA have established for determining the priority for Fund investment, as illustrated in Table 7.6 below.

Table 7.6: The Greater Manchester Transport Fund: the process for determining investment priorities

Determining the Greater Manchester Transport Fund investment priorities
<ul style="list-style-type: none"> • GCMA set out its investment profile based on an economic impact model and overall public objectives • These were then scrutinised by the Manchester Business Leadership Council who challenged the approach taken • As a consequence changes in the investment profile were made to provide more of a focus on town centres and strategic employment sites, where the greatest economic benefits and investor opportunities could be achieved • This led to certain parts of the city securing investment from the fund, and other not. 'Unsuccessful' areas were 'compensated' by having a higher proportion of other funding opportunities (e.g. housing regeneration, social/community and environmental funds) directed towards them

- 7.27 The Fund therefore provides a very good example of public and business collaboration on establishing infrastructure investment priorities. It allows the private sector to become closely involved in infrastructure planning, enabling it to bring new perspectives into this process.

- 7.28 In challenging the public sector objectives the Manchester Business Leadership Council (a private sector board within the city's governance processes) weren't saying that the infrastructure investment priorities proposed by public officials were the wrong ones - rather that a reshaped investment profile could achieve more in delivering both community and economic benefits.

A HERTFORDSHIRE CASE STUDY - HOW CROXLEY RAIL LINK IS BEING DELIVERED

- 7.29 For a local example of how delivery aspirations and funding opportunities have come together to deliver a project we can turn to the Croxley Rail Link proposal. Funding for this extension of the London Underground Metropolitan line from Croxley to Watford Junction was approved by the Government in December 2011.
- 7.30 The Government will fund £76m of the total £116m -118m costs, with the remaining balance being funded via local contributions.
- 7.31 The scheme provides an excellent example of how multiple strands of strategic planning are required to come together to deliver strategic infrastructure.
- 7.32 The Croxley Rail Link project has been an aspiration for over 15 years, originally promoted by London Underground Limited (LUL) until Spring 1997, and then Railtrack, before HCC assumed the lead role in 1999.
- 7.33 The scheme was identified in the South West Herts Transport Study, and since 1999, HCC has prioritised it through strategic plans, including successive Local Transport Plans. It is also included in the Mayor of London's Transport Strategy.
- 7.34 The proposal was prioritised by the East of England government region through the former Regional Funding Allocation process, and a Major Scheme Business Case was subsequently submitted to the DfT in 2008.
- 7.35 In Autumn 2010 the new Coalition Government placed the scheme in its pre-qualification list. HCC submitted its Best and Final Funding Bid in September 2011 and the scheme was approved in December 2011.

WHAT WERE THE CRUCIAL FACTORS IN SECURING APPROVAL FOR THE SCHEME?

- 7.36 Table 7 overleaf shows how the scheme successfully received approval when a number of key factors were all aligned.

Table 7.7 key factors in the Croxley Rail Link's success

Key factors in Croxley's success

Extensive preparation: a full business case, including funding mechanisms, delivery arrangements and a governance structure has been fully worked up, and agreed by key partners, to clearly demonstrate scheme benefits and deliverability

Effective strategic partnerships: the key delivery partners (HCC, London Underground and Network Rail) all identified the scheme as a strategic priority and subsequently worked together to develop the scheme, in addition to strategic support from other partners including District Councils

Strong local support: local stakeholders have been engaged from the start, including district councils and local politicians. This ensured the scheme was enshrined in local strategic plans and identified as a locally shared vision

Maximising appropriate funding opportunities: the scheme had been designed and developed to secure funding when the appropriate opportunity arose

WHAT WERE THE KEY PARTNERSHIPS AND PROCESSES?

7.37 The scheme will be delivered through a hybrid approach, whereby:

- HCC will procure the civil engineering elements of the scheme (including permanent way and power) by tendering an Early Contractor Involvement, Design & Build Contract; and
- LUL will fit out the specialist railway related elements (communications and signalling), procuring them through a combination of its framework contracts and the Public Private Partnership (PPP) legacy arrangement.

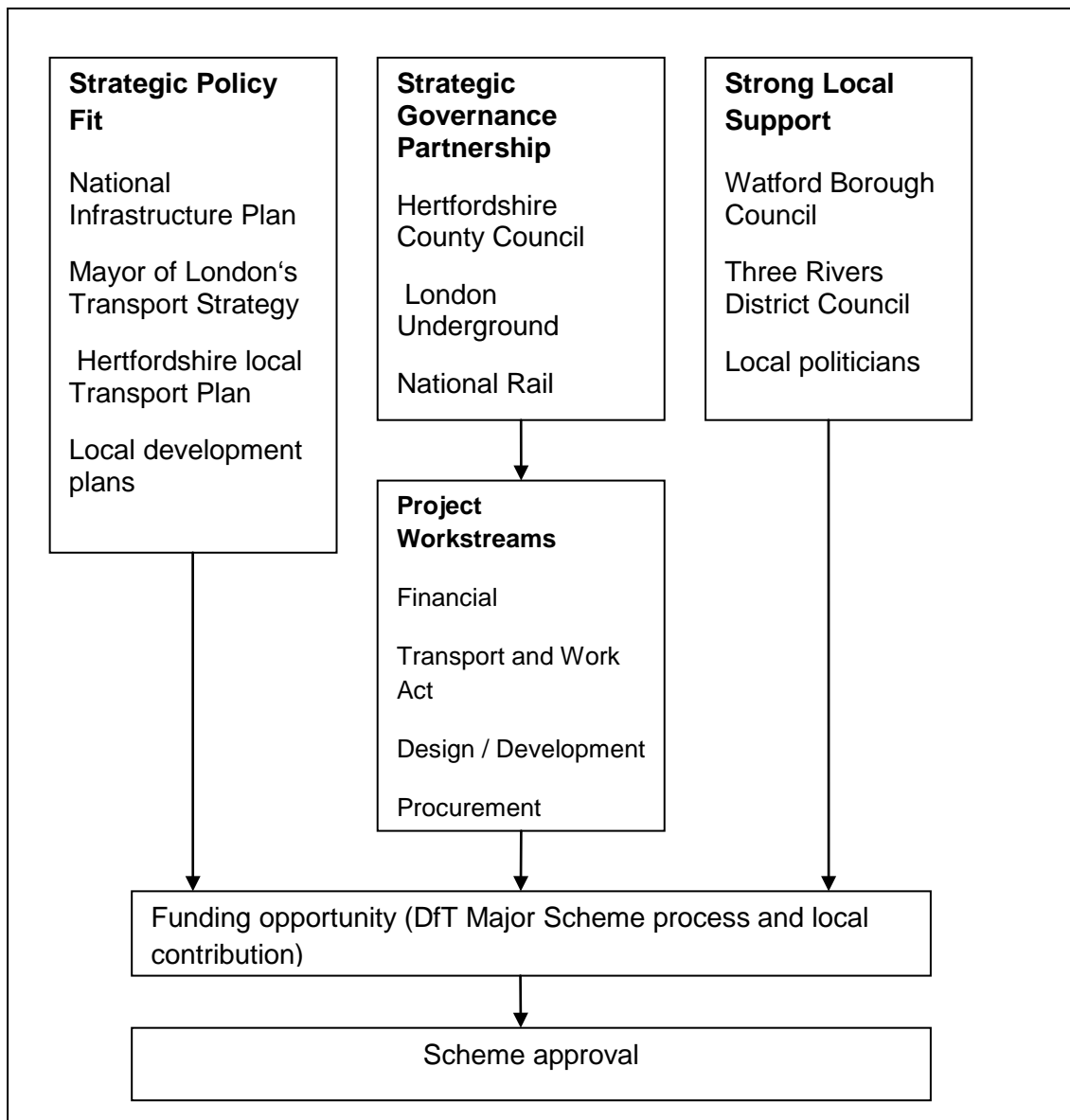
7.38 The Governance partnership was crucial to enable the scheme to secure approval. Key elements were:

- Strategic Board: comprising senior representatives from the County Council (as the scheme promoter), London Underground (as the new asset owner) and Network Rail (as the existing asset owner), the board enabled the key partners to agree a heads of terms and develop the proposal.
- Project Board :comprising the three partners above, as well as Three Rivers and Watford district councils, the project board was required to oversee the day to day development of the business case through a number of workstreams, including finance, Transport and Works Act order development and scheme design, as well as securing local support.

SIMPLIFIED PROCESS DIAGRAM FOR CROXLEY RAIL LINK

7.39 A simplified process diagram for delivering Croxley is set out below:

Table 7.8 a simplified process diagram for Croxley



INNOVATIVE SOURCES OF FUNDING OF NEW INFRASTRUCTURE

7.40 In the final part of this chapter we take an overview of the new and innovative funding sources potentially available to infrastructure promoters in Hertfordshire. Of course, traditional sources of funding of infrastructure will continue, for instance through capital programmes, long established government funding programmes like the Local Transport Plan, and private sector leverage investment. Private utility companies all have long term investment programmes.

7.41 Equally however (and probably as never before) there are sources of funding that are new and/or relatively untried and which could make a significant difference to the level of infrastructure investment that can potentially be achieved.

7.42 Table 7.9 below sets out a summary of a number of new funding initiatives that could make a difference to infrastructure planning and delivery in the future:

Table 7.9: new funding tools to assist the delivery of infrastructure in the future

Potential new sources of funding to deliver new infrastructure

- **Community Infrastructure Levy (CIL):** referred to extensively in this report. Regulations introduced April 2010, first charges made November 2011. Our estimate is that CIL could fund around 20% of an authority's infrastructure needs
- **Joint European Support for Sustainable Investment in City Areas (JESSICA):** an EU/European Investment Bank initiative to promote investment in urban development projects, allowing the use of EU Structural Funds to make repayable investments in projects forming part of an integrated plan for sustainable urban development. A pioneering example is the North West Evergreen Fund, established to undertake such investment in Greater Manchester, Lancashire, Cheshire and Cumbria
- **Green Investment Bank:** a proposal initiated by the Coalition Government in 2010 with the task of attracting private funds for financing investment in low carbon business and government infrastructure. Expected to be fully operational by 2015/16
- **Local Sustainable Transport Fund:** the Department for Transport announced in January 2011 the release of £560m to be spent up to 2014/15 on projects to enable economic growth (in particular job creation) an carbon reduction through sustainable travel modes
- **Growing Places Fund:** a £500m fund announced in November 2011 to act as an enabling fund to generate economic activity by addressing immediate infrastructure and site constraints and promote the delivery of jobs and housing
- **Business Rate Retention:** The Local Government Finance Bill proposes that local councils be allowed to retain a proportion of their business rates and direct it towards local spending. The amount to be retained, and how it can be spent, will be announced shortly
- **Tax Increment Financing:** also in the Local Government Finance Bill is a proposal to allow local authorities to borrow against future income from business rates enhanced as a result of the investment
- **New Homes Bonus:** a fund whereby the government provides additional funding to local authorities by match funding the additional council tax raised by new properties and empty homes brought back into use, with an additional amount for affordable homes, for the following 6 years. Allocations for 2012/13 of £431m were announced recently
- **Local Transport Bodies:** not a funding mechanism in itself but a recently announced proposal to give local communities and businesses control of the decisions and budgets relating to large transport schemes in their area from 2015

CHAPTER 8: THE RELATIONSHIP BETWEEN STRATEGIC AND LOCAL INFRASTRUCTURE NEED

- 8.1 In this chapter we look at what we mean by strategic and local infrastructure and the relationship between the two. As will become clearer there are some critical issues associated with the two distinct categorisations, and particular reasons why we intend to focus on strategic infrastructure in this upgrade of HHS, rather than local infrastructure.
- 8.2 We will be exploring a number of key areas, as set out below:

Table 8.1: areas covered in chapter 8

<p>Areas examined in Chapter 8</p> <ul style="list-style-type: none">• How HHS identified strategic infrastructure and why that definition is no longer appropriate• The categorisation of infrastructure and the significance of doing so• Why we are focusing on strategic infrastructure only in this review of HHS - its relative significance when compared to local infrastructure• What might be defined as strategic infrastructure• Approaches to defining and delivering strategic infrastructure elsewhere• The delivery of strategic infrastructure - towards a Strategic Infrastructure Plan for Hertfordshire• Drawing some conclusions

THE APPROACH HHS TOOK TOWARDS THE DEFINITION OF STRATEGIC INFRASTRUCTURE

- 8.3 HHS took what is now on reflection a one dimensional approach to identifying strategic infrastructure, defining it on the basis of whether the provider could be considered a strategic agency rather than on the relative impact of the particular item of infrastructure. Under such a classification over 80% of the infrastructure that HHS identified was labelled 'strategic'.
- 8.4 This meant that of the estimated £2.663bn gross cost of providing growth related infrastructure identified in the HHS report to 2031, the split was £2.24bn for 'Strategic Infrastructure' and £423m for 'Local Infrastructure' (an 85:15 strategic/local split).
- 8.5 This distinction has increasingly been seen as largely arbitrary and, as considered later in this chapter, we are of the view that only a relatively small number of infrastructure projects should be viewed as strategic (and sub strategic). The majority of new infrastructure investment (schools, police facilities, adult care and children's services, local greenspace and community facilities as well as most healthcare and a considerable proportion of transportation investment) are most appropriately described as local investment serving in the main local communities.
- 8.6 As a consequence, and as we will see elsewhere in this chapter, when we talk about strategic, we need to be talking about a limited number of big (or wide ranging) projects which will make a significant and widespread difference when implemented.

THE CATEGORISATION OF INFRASTRUCTURE - HOW TO DO IT, AND WHY IS IT EVEN NECESSARY?

- 8.7 With these factors in mind, we need to move on to consider how best to categorise infrastructure that needs to be provided in the county in the next 20 years. But before we do so the question has to be asked - is there any point in doing so?

WHY SEEK TO CATEGORISE INFRASTRUCTURE?

- 8.8 The question that first has to be asked is: why bother trying to categorise infrastructure at all? Surely Hertfordshire has managed without any categorisation of infrastructure, and without any form of formal infrastructure plan? Can't the whole business of infrastructure planning be left to individual agencies, who could join together on an 'as and when' basis every time they needed to?
- 8.9 There is indeed an argument that says that as the county has managed without the formal partnership arrangements seen elsewhere, it might perhaps continue to do so in future. But if we believe that Hertfordshire has to adapt to the changing world of infrastructure planning, there are perhaps some compelling arguments to suggest that these changes require a different approach. Alternative approaches are being spearheaded by neighbouring authorities and there is a risk of Hertfordshire being left behind.

Table 8.2: Why categorise infrastructure provision in Hertfordshire?

Potential benefits in categorising infrastructure in Hertfordshire

- localism suggests that decisions on infrastructure planning should be made as far down the hierarchy as possible: we need to isolate those items of infrastructure that can't reasonably be delivered on a neighbourhood or district level and focus as partners on just the remainder
- where partnerships are needed to deliver strategic level infrastructure then there are considerable dangers in relying on ad hoc arrangements to work
- indeed, for strategic level infrastructure to be funded there will almost certainly be the need to demonstrate that there are formal partnership delivery arrangements in place
- increasingly there is the expectation that strategic level infrastructure will be funded through multiple funding sources
- others elsewhere have found the formal route to planning and delivering infrastructure is the best way forward - isn't Hertfordshire likely to be the same?

- 8.10 If the points made in Table 8.2 are judged to be reasonable ones, the next step is to seek to introduce some form of categorisation that isolates the neighbourhood and district level projects and focuses on those that have a wider influence. Once neighbourhood/district level projects are isolated then we could be left with a single categorisation of 'strategic' projects. However Table 8.3 overleaf considers that more subtlety is needed: as a consequence it divides strategic infrastructure into two categories, and then further subdivides one of those categories.

Table 8.3 Categorisation of Hertfordshire's future infrastructure requirements

The table below seeks to categorise all infrastructure to be provided in the county into one of four categories) one of which is split into two sub categories), based on its scale, impact and delivery responsibilities. The purpose for doing that is to separate out that infrastructure at either ends of the scale which either national providers or local providers will take direct responsibility for, leaving a middle band of locally significant but nonetheless ultimately strategic projects that require a range of agencies to come together to plan, manage the funding for and ultimately deliver.

Category	Sub category	Description	Included in strategic infrastructure plan?	Examples of the type of project could be...
Major national and regional infrastructure	None	<p>These are the major national and regional items of infrastructure that the government has identified in the National Infrastructure Plan and involves delivery responsibility beyond the key Hertfordshire agencies.</p> <p>They will typically be long term projects costing upwards of £1bn and often have a long lead in and delivery timescale.</p> <p>As such the infrastructure planning partners in Hertfordshire may be promoting such requirements and lobbying for early implementation but are otherwise likely to play a major role.</p>	<p>There would be references in any Strategic Infrastructure (SI) Plan to the need to provide such infrastructure, what impact it would have on the Plan and how Hertfordshire could lobby for its provision, but it would not form part of the Plan itself as the intention of the Plan is to concern those infrastructure projects over which Hertfordshire has a direct influence.</p>	<p>HS2, M25 widening, major airport expansion/new airports, Electricity Market Reform</p>
Strategic infrastructure	Strategic (countywide scale) infrastructure	<p>These are projects which Hertfordshire's infrastructure planning partners can have a lead role in promoting and possibly implementing. They will tend to be the larger scale projects (£20m and upwards) although they will include projects that are potentially smaller in scale but have countywide influence (e.g. strategic green infrastructure, super high speed broadband). They will also have 'more than a local influence' in terms of the benefits of implementing them.</p> <p>Ultimately they are the projects that the county's infrastructure planning partners consider worth prioritising to ensure concerted action by a range of agencies and possibly funding streams.</p>	<p>Yes very much so, the main purpose of the Hertfordshire Strategic Infrastructure Plan - should one be produced, - would be to highlight these projects, set out the economic, social and environmental benefits of achieving them and establish the partnerships, funding mechanisms and delivery responsibilities for securing their implementation.</p> <p>Possibly the SI Plan will contain a very small number of critical projects to focus attention on areas where real success is a strong possibility, rather than a long list of projects of which very few are expected to be implemented for the foreseeable future.</p>	<p>Croxley Link, A120 Little Hadham by-pass, countywide renewables investment</p>
	Strategic (sub county) infrastructure	<p>These are the projects of strong local significance but which will collectively have a major impact (for example through stimulating local recovery, keeping Hertfordshire moving, making a major contribution to the county's overall quality of life) which are of sufficiently complexity and potentially need of some intervention to make them happen. They will typically be of the scale of £1 m - £20m but their local scale suggests that it will be a question of local partners including businesses working together to drive through local solutions.</p>	<p>Sub county strategic projects would perhaps not be a part of the SI plan, although some reference could be made to them. Instead selected projects could be identified to be worked up in detail for incorporation in an 'Infrastructure Projects Chest' of projects ready to take advantage of funding opportunities as and when they arise.</p>	<p>'GPF scale' projects</p>
Local infrastructure	None	<p>Projects delivered locally which would typically be delivered by a single agency and have general local impact , where the delivery issues tend to be limited to that agency and the community the investment serves.</p>	<p>These are essentially local matters and there seems little merit in including them in any SI Plan.</p>	<p>Schools, local transport schemes, libraries, allotments, sports pitches</p>
Neighbourhood infrastructure	None	<p>Projects derived by locally elected councils using the 'meaningful proportion' of CIL receipts passed to them plus the equivalent sums directed towards neighbourhood funding in non parished areas.</p>	<p>To be determined - locally elected councils will establish their own investment priorities free from the control of others provided spending meets the requirements of the CIL Regulations</p>	<p>To be determined by those councils (who could direct funding towards any type of project)</p>

- 8.11 The table considers that there are two types of strategic infrastructure: those projects Hertfordshire can take sole responsibility for, and those it can't. The latter will tend to be national or regional scale projects that government, through its established agencies, takes direct responsibility for. The Hertfordshire agencies may be involved in promoting these projects, and possibly even making a direct or indirect financial contribution to, but not delivering.
- 8.12 That leaves us with a 'strategic' definition which excludes national/regional scale infrastructure on the one hand, and neighbourhood and local on the other. We'll return in a moment to what projects might occupy this category. But first we need to look at a subdivision of the 'strategic' category which may have relevance in preparing a strategic infrastructure plan.
- 8.13 The categories proposed are 'strategic' and 'sub strategic'. The former are larger and/or more geographically extensive projects where concerted action by a range of partners (including alliances of two or more districts) needs to drive infrastructure projects forward. These need to be identified largely for the purpose of stating that it is this type of project that should feature in a Strategic Infrastructure Plan.
- 8.14 Sub strategic projects will tend on the other hand to be more local in context (possibly involving only one district) but which can be considered 'strategic' in scale because it will involve one or more district councils working with a number of partners and, equally importantly, looking to achieve wider support to secure funding.
- 8.15 The obvious candidates for this sort of categorisation are the 'Growing Places Fund' type of project, of the sort that were submitted in pursuit of funding support from this programme last autumn. Arguably it is much less appropriate to include these in a Strategic Infrastructure Plan - because it is likely to dilute its focus.
- 8.16 There is however merit in identifying these projects as priority interventions and we propose later in the report that these be included in an 'Infrastructure Projects Chest' for Hertfordshire, projects which are brought forward with all significant development issues resolved and consents in place ready to take advantage of future emerging funding opportunities.

WHY THE SPECIFIC FOCUS ON STRATEGIC INFRASTRUCTURE?

- 8.17 Is it right to focus just on strategic infrastructure in looking at actions to promote infrastructure planning and delivery? We suggest that it is, for the following reasons set out in Table 8.4 below:

Table 8.4: why the need to focus on actions to promote strategic infrastructure investment ?

<p>It's important to focus on actions strategic infrastructure investment because:</p> <ul style="list-style-type: none"> • without intervention this is an area of investment that will tend to lack sufficient focus - it will be all too easy for some agencies to see this as 'somebody else's responsibility' • Complex investment will involve complex solutions where a range of agencies will have a part to play - this all needs to be co-ordinated • It's this type of investment that within the county as a whole the greatest impact will be seen in terms of promoting economic recovery, keeping Hertfordshire moving and improving overall quality of life
--

DOES THAT MEAN THAT THE PROVISION OF LOCAL INFRASTRUCTURE IS OF LESSER IMPORTANCE?

- 8.18 It should not follow from this that we view the provision of local/neighbourhood infrastructure is of lesser importance: far from it. However we think it is important to limit the scope of both this refresh of HIIS, and the potential programme of actions arising from it; and we believe that it is the delivery of strategic infrastructure that demands the most attention.
- 8.19 Nevertheless, all infrastructure planning requires an ordered, focused approach to ensure investment opportunities are maximised: this is something we turn to in Chapter 9, when we look at the management of infrastructure planning and delivery.
- 8.20 We will return to this in our Recommendations Chapter (Chapter 10) but this is just to say at this point that we believe that there a number of actions that, for instance, Herts Planning Group and CIL Reference Group might be asked to pursue, and our recommendations are set out in full in that chapter. For the rest of Chapter 8, we will focus on strategic infrastructure.

DEFINING STRATEGIC INFRASTRUCTURE

- 8.21 This review of HIIS will stop short of a finalised list of what projects should be defined as strategic infrastructure: this is a more complex process than we have time for in the review and it will involve key players coming together and agreeing priorities collectively: depending on perspective, what one body sees as a priority might not accord with the views of another.
- 8.22 Similar variations are likely to be found amongst infrastructure providers, who are not necessarily likely to share the views of Hertfordshire's districts: there is for instance a longstanding issue of trying to get the water companies to consider the importance of building in future capacity on water supply and capacity (rather than those companies allowing capacity issues to develop before addressing the issue).
- 8.23 It is possible to look at a definition based purely on cost. Table 8.6 below summarises the 'Top 10' infrastructure projects by cost identified in the HIIS study in 2009. (It should be noted that some of these projects are being implemented whilst others (the Police Bases) are no longer being pursued: what we are illustrating here is the impact of making cost the principal definer of strategic projects)

Table 8.6: The 'Top 10' infrastructure funding projects by cost identified in the HIIS study (2009)

Infrastructure item(s)	Category	Approx cost (£m)
New waste disposal/treatment	Municipal Waste	200
A1 (M) improvements (jcts 6 - 8)	Transport	164
Bus East - West Corridor	Transport	150
Demand Management Smarter Choices	Transport	115
M1 improvements (jcts 6 - 10)	Transport	90
M25 improvements (jcts 17 - 19)	Transport	39
HCC cycling strategy	Transport	36

Infrastructure item(s)	Category	Approx cost (£m)
2 police intervention bases	Police	35
East Herts - multi district transport schemes	Transport	26
A602 Ware - Stevenage improvements	Transport	20
Total		875

8.24 The Table shows that 8 of the 10 costliest items of infrastructure are transport related, and it might be reasonable to expect that they will dominate any schedule of strategic projects. We do think however that infrastructure provision is about more than just transport schemes, however, and we set out below why this might be the case.

DEFINING STRATEGIC INFRASTRUCTURE

8.25 It's possible to illustrate the spread of infrastructure provision along the lines of its respective complexity and geographic spread. Table 8.7 seeks to do just that:

Table 8.7: Strategic/Local Infrastructure categorised

	Restricted ←	Impact	→ Extensive
Complex, expensive	Secondary school	Major Transportation project covering several districts	Major transportation projects covering whole county, major utilities upgrade, new sewage treatment works, countywide renewable energy investment
Cost/Complexity	Primary schools, adult care and children's services, Local area transportation investment, local renewable energy investment	Police Intervention Bases	Major, less costly transportation projects covering whole of county, highspeed broadband
Simple, inexpensive	Allotments, parks, open spaces, recycling facilities	Green infrastructure project covering (say) 3-6 districts	Strategic(countywide) green infrastructure

(In this table 'complexity' would cover issues like numbers of partners, land assembly issues, whether additional sources of funding could be needed). Note: not all infrastructure needs are identified here

8.26 A schedule of strategic projects that was less concerned about cost but more about spread of impact would tend to focus on those projects on the right hand side of the table.

8.27 We consider that there's a strong argument to define strategic infrastructure on additional grounds to that of cost. Other key factors could include:

- overall impact of the project on the county's economic recovery
- overall impact too on the county's environmental and social wellbeing
- geographic spread of the project - for instance relatively inexpensive investment that would bring in benefits across substantial parts or possibly even the entire county (e.g. strategic green infrastructure)
- is a development 'showstopper' – if not provided in the short to medium term would compromise delivery of one or more district's housing growth targets and therefore prevent core strategy development visions being met
- is not a 'showstopper' but is nonetheless critical in the long term to meet housing growth targets and employment aspirations
- fulfils countywide objectives associated with key national policy objectives e.g. around economic growth and climate change mitigation/transition to a low carbon economy

HOW IS STRATEGIC INFRASTRUCTURE DEFINED ELSEWHERE?

8.28 At this stage its perhaps worth stepping back and considering what happens elsewhere in the country when it comes to defining strategic infrastructure. For this we will look at a number of partnerships and a number of individual authorities as well.

THE CAMBRIDGESHIRE INTEGRATED DEVELOPMENT PROGRAMME (2009)

8.29 The Cambridgeshire IDP identified a total of 20 general strategic projects (total value £500m) and a separate 11 projects to promote economic regeneration (no specific costs identified):

Table 8.8: Cambridgeshire Integrated Development programme strategic investment priorities

General strategic infrastructure projects	Economic strategic infrastructure projects
<ul style="list-style-type: none"> • Countywide cycling and pedestrian links • Cambridgeshire guided busway • Water cycle strategies • Green infrastructure strategy • Low Carbon development initiative • Waste recycling centres • District General hospital improvements • Large scale arts facility • Community Stadium • Cambridge Station transport interchange • Cambridge southern fringe access improvements • M11 junction upgrades • A14 junction improvements (x2 locations) • Busway extension • Chesterton railway station • Cambridge northern fringe transport interchange • Northstowe (new town) A14 link roads • Strategic market towns bus improvements • College of West Anglia relocation 	<ul style="list-style-type: none"> • Low Carbon Innovation and enterprise centre • 2nd phase of 'creative exchange centre' • High value manufacturing campus • Land for employment, Wisbech • Business Park (x2 + 1 extension) • Data Centre campus • Marine sector enterprise hub • Enterprise Centre • Engineering Skills Centre

8.30 These projects are further structured as geographic or thematic packages that are seen as linked interventions that will make a substantive contribution to delivering growth aspirations. The three thematic themes are Strategic Transport; Climate Change and Mitigation; and Strategic market towns. A further 5 national projects (strategic rail and road investment) are further identified as requiring action by the appropriate national agencies.

ESSEX INTEGRATED COUNTY STRATEGY (2010)

8.31 The Essex ICS draws investment priorities from three key themes (Supporting the growth of low carbon energy; promoting opportunities for economic growth in 6 key towns; and transformational development and change in Thames Gateway South Essex). From this 8 priority themes are developed, between them covering economic recovery, sustainable development and regeneration.

8.32 This leads to the identification of 16 priority investments, as follows:

Table 8.9: Essex Integrated County Strategy investment priorities

Essex Integrated County Strategy Priority Investments
<ul style="list-style-type: none"> • Chelmsford Town Centre major redevelopment • Regeneration of Harlow Town Centre • Regeneration of Colchester Town Centre • Town Centre regeneration in Basildon, Lakeside Basin and Southend • Harlow neighbourhood improvement • Regeneration in Colchester • Neighbourhood regeneration in Basildon • Balanced pattern of sustainable growth • Promoting developments at key employment sites • Supporting the delivery of the London Gateway • Supporting the development of the Haven Gateway • Improving economic base of the county's key towns • Maximising work opportunities from the low carbon and digital economy • Enhancing connectivity to jobs and services to support the economy of key towns • Delivering reliable and predictable journey times between key towns • Support the development of wind, port and related activities focused on Harwich and Essex University

8.33 It is noticeable that the Essex ICS priority projects are much more generic and therefore less focused on the delivery of specific projects than the Cambridgeshire IDP.

CHELMSFORD INTEGRATED DEVELOPMENT PROGRAMME (2009)

- 8.34 Chelmsford BC provides a pertinent example of an IDP for a single lower tier authority with a significant strategic focus to it. Three investment packages are identified from which investment priorities are derived, two spatial and one thematic:

Table 8.10: Chelmsford Infrastructure Investment 'packages'

Chelmsford Infrastructure investment 'packages'	
Package	Proposed investment
Spatial package 1: Chelmsford Town Centre	<ul style="list-style-type: none"> • Flood Alleviation • Enhancements to Rail Station • Viaduct replacement • Public realm/green infrastructure • New access road • Bus Priority measures • Park& Ride • Major junction improvements
Spatial Package 2: North Chelmsford	<ul style="list-style-type: none"> • New primary healthcare provision • Education provision (early years , primary and secondary) • New rail station • Chelmsford Area Rapid Transit (ChART) • Park & Ride • North Eastern Chelmsford by-pass
Thematic Package 1: Economy Innovation and Skills	<ul style="list-style-type: none"> • Enhanced further/higher education facilities • Vocational education and training • Strategic Business Park(s) • Chelmsford Innovation Centre

- 8.35 The Borough Council acknowledge that all the proposed investments will require them to work in partnership with others to secure delivery.

DACORUM BOROUGH COUNCIL'S STRATEGIC INFRASTRUCTURE STUDY (DSIS)

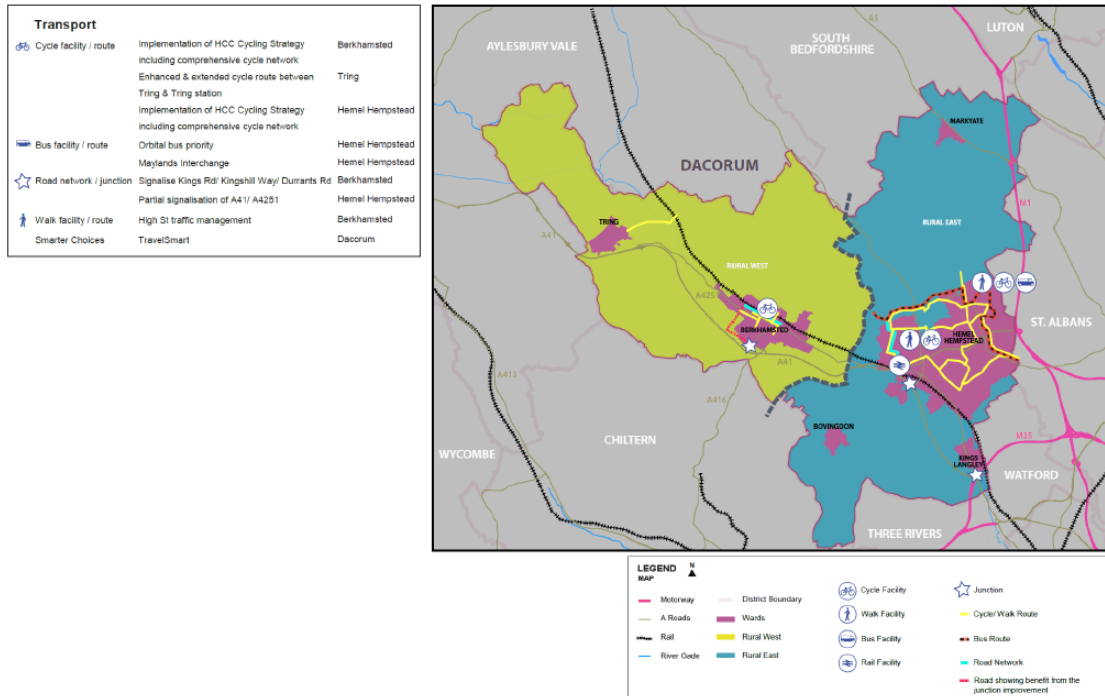
- 8.36 The DSIS builds on the original HIIS work and looks at the infrastructure required to support growth in the Borough to 2031. Infrastructure need is allocated between three infrastructure categories (Social; Transport; Utilities) and across different geographical areas within the Borough.
- 8.38 Where possible, infrastructure requirements were identified from existing service plans of infrastructure providers, but where information was unavailable the Dacorum Infrastructure Model was used.
- 8.39 The outcomes of the study have informed the preparation of an IDP, which sets out;
- when and where the infrastructure is required
 - who is responsible for the delivery and funding
 - where the infrastructure is accounted for in the range of existing plans and investment strategies of the respective responsible agencies

- potential costs

8.40 The IDP also prioritises each infrastructure item relating to how critical the infrastructure item is considered in ensuring development in the Borough in the context of the entire DSIS.

Table 8.11: Summary of Strategic Transport Requirements in Dacorum BC

Figure A1: Summary of Strategic Transport Infrastructure Requirements



OTHER STRATEGIC INFRASTRUCTURE PLANS

8.37 Two further strategic investment plans are worth mentioning in passing

Table 8.12: How other infrastructure planning partnerships seek to define strategic infrastructure projects

Infrastructure planning study	How strategic infrastructure is identified
Greater Manchester IDP (Draft – 2010)	Identifies strategic sites/locations and regeneration areas (strategic housing and employment sites, the city centre and the airport). Key link is to the Greater Manchester Transport Fund priorities (£1.5bn)
Greater Norwich Infrastructure Needs and Funding Study (2009)	Prioritises infrastructure into either critical, essential and desirable categories, with strategic infrastructure in the former category: only utilities and the major transport investment projects are so identified

TOWARDS A STRATEGIC INFRASTRUCTURE PLAN FOR HERTFORDSHIRE

8.38 Moving from examples of strategic infrastructure planning elsewhere, we need to consider what form a strategic infrastructure plan for Hertfordshire might take. There would seem to be a number of principles that would need to underpin such a Plan, and we set these out below in Table 8.12.

Table 8.12 : Potential key elements of a strategic infrastructure plan for Hertfordshire

Key Element		Commentary
1	Vision	A vision of where Hertfordshire is heading in the future, from which all other elements of the Strategic Infrastructure Plan will emanate
2	Key themes	The themes which will respond to the vision
3	Priority interventions	Where intervention can best make the difference to respond to these themes. Could be topic or geographically based, or possibly both
4	Projects	The specific projects that demand concerted action to secure delivery
5	Agencies and partnerships	The key players involved in delivering projects and the partnership(s) they need to form to secure them
6	Potential funding packages	How funding can come together to deliver the identified infrastructure projects
7	Implementation programme	A potential programme to deliver the infrastructure investment
8	Outputs	What the Strategic Infrastructure Plan aims to achieve

A 'VERY TENTATIVE' STRATEGIC INFRASTRUCTURE PLAN?

8.39 Based on some of the investigations contained in this refresh of HIIS, the contents of a Strategic Infrastructure Plan might come together around a number of key themes, which might include:

- a transport theme ('Keeping Hertfordshire Moving');
- economic regeneration ('Promoting Hertfordshire's Recovery');
- around sustainability ('Driving the Low Carbon Agenda')
- focusing on growth ('Responding to the Needs of Growth')
- environmental quality ('Greening Hertfordshire')

8.40 These themes could in turn lead to priority interventions on either a topic basis (e.g. town centres, movement between towns, making the countryside more accessible to communities etc)

8.41 Following on from this, a number of key infrastructure projects could then be identified within the plan. Table 8.13 overleaf could provide the basis for a possible plan, although it must be stressed that this is for illustrative and discussion purposes only.

Table 8.13: A 'very tentative' Strategic Infrastructure Plan for Hertfordshire

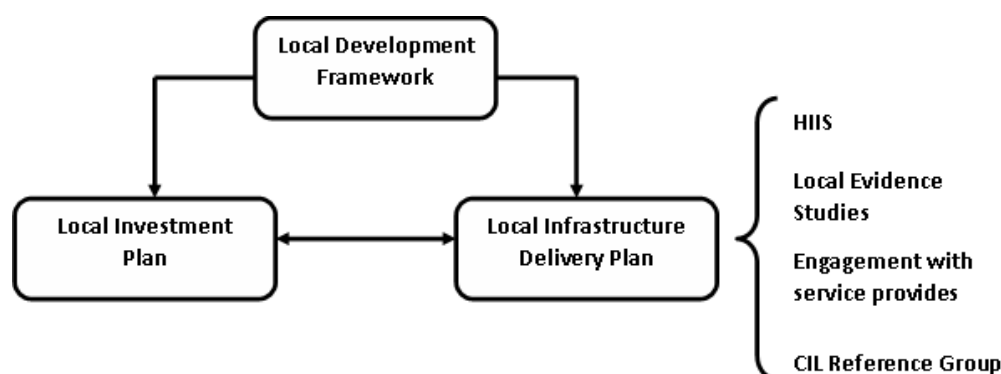
Infrastructure Type	Key area of investment	Specific projects?
Transport	Strategic Highways	Outputs from the Inter Urban Route Strategy Croxley Link Abbey Line
	Strategic Rail	Stevenage Station
Utilities	Water Cycle	Contributions to upgrade of various STWs (Rye Meads, Deephams, Maple Lodge) +?
	Electricity Supply	Capacity upgrades
Health	Hospitals	Watford General upgrade Lister Hospital upgrade
Economic Development	Physical Infrastructure	Improved transportation infrastructure to major employment sites e.g. Gunnels Wood Road, Knebworth Innovation Park, Leavesden?
	IT	Ultra High Speed Broadband?
Climate Change/Low Carbon Transition	Major renewables projects	Maylands DH and/or Watford Health Campus
Strategic Green Infrastructure	Investment of key elements of Strategic Green Infrastructure study	The 'Reconnect' project

CHAPTER 9: THE MANAGEMENT OF INFRASTRUCTURE PLANNING AND DELIVERY

CURRENT INFRASTRUCTURE PLANNING IN HERTFORDSHIRE

- 9.1 As already set out earlier in this report, HIIS has been an important catalyst for infrastructure planning in Hertfordshire and has helped local authorities to respond to the challenges of identifying the necessary investment in infrastructure requirements to support the level of growth envisaged in local development documents.
- 9.2 Since the HIIS study was completed, we have seen infrastructure planning in Hertfordshire continues to develop, with many local authorities continuing to engage on a constructive basis with infrastructure providers as local development plans have progressed. Figure 9.1 sets out the current approach to infrastructure planning in the county.

Table 9.1: Current arrangements for infrastructure planning in Hertfordshire



- 9.3 However the current approach is limited by the divergence in the preparation timescales of development plans, and in some cases local authorities have found it difficult to get some infrastructure providers to engage with them on a meaningful basis. Additionally infrastructure planning appears to lack a consistent approach with some authorities exploring issues in considerable detail and others merely listing the information available to them without seeking to relate this to their core strategy development vision. This will pose considerable challenges to the planning and delivery of strategic infrastructure as the 'bigger picture of growth' sought by strategic infrastructure providers is not yet in place; its continued absence will make it difficult for them to plan for the future with any certainty.
- 9.4 The CIL Reference Group (formally HIIS Reference Group) provides a forum for joined up discussions between each of the local authorities and service providers operating within the county. The Reference Group - like the HIIS study - has progressed the discussion around infrastructure delivery and has commissioned some joint working, but much will need to be done to translate outcomes for such work into local infrastructure planning processes..
- 9.5 Although some strategic influence has been incorporated into existing infrastructure planning practices, these have been relatively light touch and have perhaps lacked the structure and rigour required to support the delivery of infrastructure above the local level.

In turn, this has perhaps resulted in Hertfordshire not performing in relation to infrastructure delivery as some of its neighbouring authorities (explored in more detail below).

- 9.6 Should a piecemeal approach to infrastructure planning in the county continue, it is unlikely that the certainty required by strategic infrastructure providers will be established and subsequently the ability to effectively deliver the necessary infrastructure to support future growth and support economic recovery may be compromised.

HOW WELL DOES HERTFORDSHIRE CURRENTLY PERFORM IN TERMS OF INFRASTRUCTURE PLANNING AND DELIVERY?

- 9.7 There's no reliable data on how Hertfordshire is performing in relation to infrastructure planning. Although difficult to assess in quantitative terms there is some anecdotal evidence which suggests that the county doesn't perform as well as others.

Table 9.2: Why Hertfordshire is not performing as well in infrastructure planning as it could

5 reasons to believe why Hertfordshire is not performing well in infrastructure planning as it should	as
1. The county's infrastructure deficit (calculated by HHS in 2009 at £2.4bn) is evidence of historic underperformance	
2. At the time of writing less than half of the 10 Hertfordshire district councils have published Infrastructure Delivery Plans	
3. Hertfordshire is the only county in the Southeast of England that has never established a Local Delivery Vehicle (a partnership to plan and deliver new infrastructure).	
4. Experience from the Growing Places Fund (see elsewhere in this report) suggests that the Hertfordshire lacks a chest of readily deliverable infrastructure projects	
5. The impression from HHS of a number of infrastructure providers relatively unclear of their short, medium and long term infrastructure needs has been reinforced by this review.	

- 9.8 The lack of a co-ordinated strategic approach to the delivery of investment in new infrastructure can be contrasted with a number of neighbouring authorities, who have sought to delivery infrastructure in a holistic manner, prioritising investment towards key growth and regeneration areas.

ESSEX – INTEGRATED COUNTY STRATEGY

- 9.9 The Essex Integrated County Strategy (ICS), was prepared in 2010 in response to a number of structural, financial and policy changes that were facing the county – most of which are similar to those challenges identified in Hertfordshire and which are acting as drivers of this review. The need for the ICS was identified to enable an effective response to:

- The impact of the recession, reduced public sector finances and reduced private sector investment
- Proposed removal of RSS and loss of strategic planning policy
- The identified need for both a clearer vision for Greater Essex and the ability to be able to prioritise and direct future investment

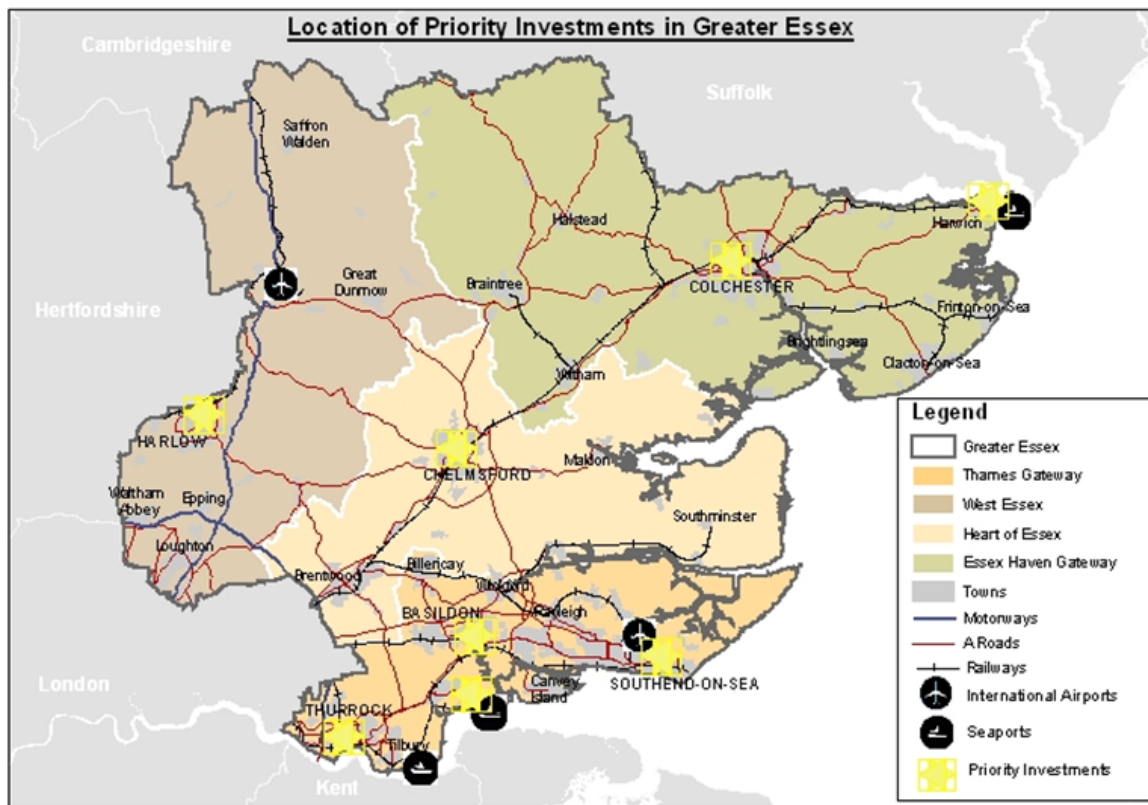
- 9.10 The project has been developed in partnership with all 15 local, unitary and county authorities in Greater Essex and has resulted in the publication of a non-statutory strategic document that set out the priorities for investment across the county. The ICS provides a

shared and agreed vision for Greater Essex that enables an effective approach to economic growth. Other roles of the ICS are to:

- Articulate the needs of the Greater Essex Partnership to Central Government
- Inform and influence the LEP
- Provide a strategic guide to help inform and prioritise investment decisions.

9.11 The ICS goes beyond solely infrastructure and uses a series of key agreed objectives, including ‘Sustainable Connectivity’; ‘Neighbourhood Regeneration’ ; ‘Sustainable Growth’ and ‘Key Economic Sectors’ to reduce an initial wish list of 400 individual projects to a set of 16 investment priorities in which future policy and funding would be directed (figure 9.3).

Table 9.3: Essex Priority Infrastructure Investments



9.12 The drivers behind the ICS go beyond solely infrastructure planning and therefore the outcomes are different to what a Strategic Infrastructure Plan for Hertfordshire would look to achieve. However, a number of the principles embedded within the Greater Essex ICS are equally applicable to an approach in Hertfordshire that would support the wider investment in infrastructure and enable a co-ordinated approach to growth.

CAMBRIDGESHIRE - CAMBRIDGESHIRE INTEGRATED DEVELOPMENT PROGRAMME (2009)

9.13 Progressed through Cambridgeshire Horizons (a now disbanded Local Delivery Vehicle purposely set up to co-ordinate the delivery of growth across the county), the Cambridgeshire Integrated Development Plan²⁶ (IDP) considers the goals for

²⁶ http://www.cambridgeshirehorizons.co.uk/documents/to%20be%20filed/final_cambs_idp_dec_09.pdf

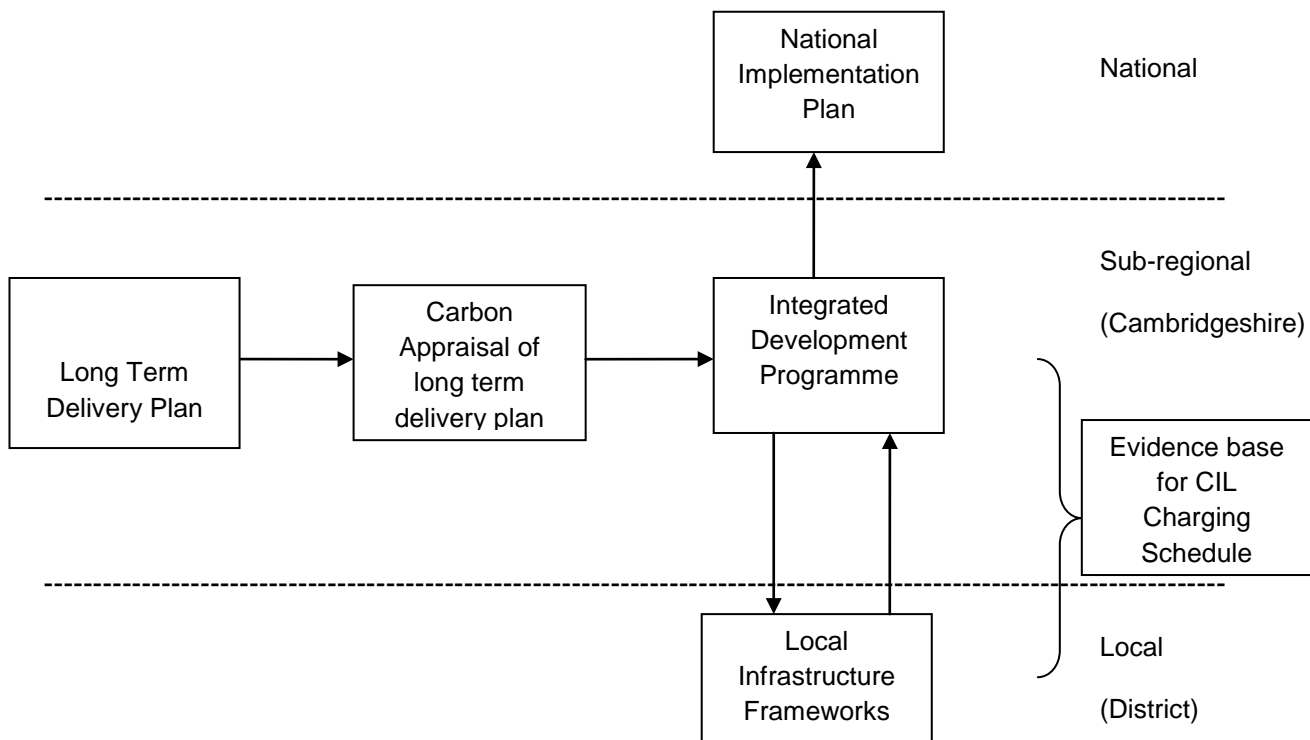
Cambridgeshire's growth agenda, including housing and employment, and identifies the individual strategic infrastructure projects needed to deliver them.

9.14 Cambridgeshire Horizons was established in recognition of the fact that no single existing agency or authority could be expected to implement the level of planned growth for the region set out in the RSS.

9.15 The preparation and production of the IDP had strong governance arrangements, with the programme board made up of Executive Members from all six of Cambridgeshire's local authorities, key service providers (such as the Primary Care Trust), the Chamber of Commerce and representatives from the development industry. The programme was also supported by various steering groups which included local authority officers and wider representatives from local infrastructure providers (including the Highways and Environment Agencies).

9.16 Table 9.4 below sets out the relationship between the IDP and other layers of infrastructure planning:

Table 9.4: How Cambridgeshire's Integrated Development Programme relates to other layers of infrastructure planning



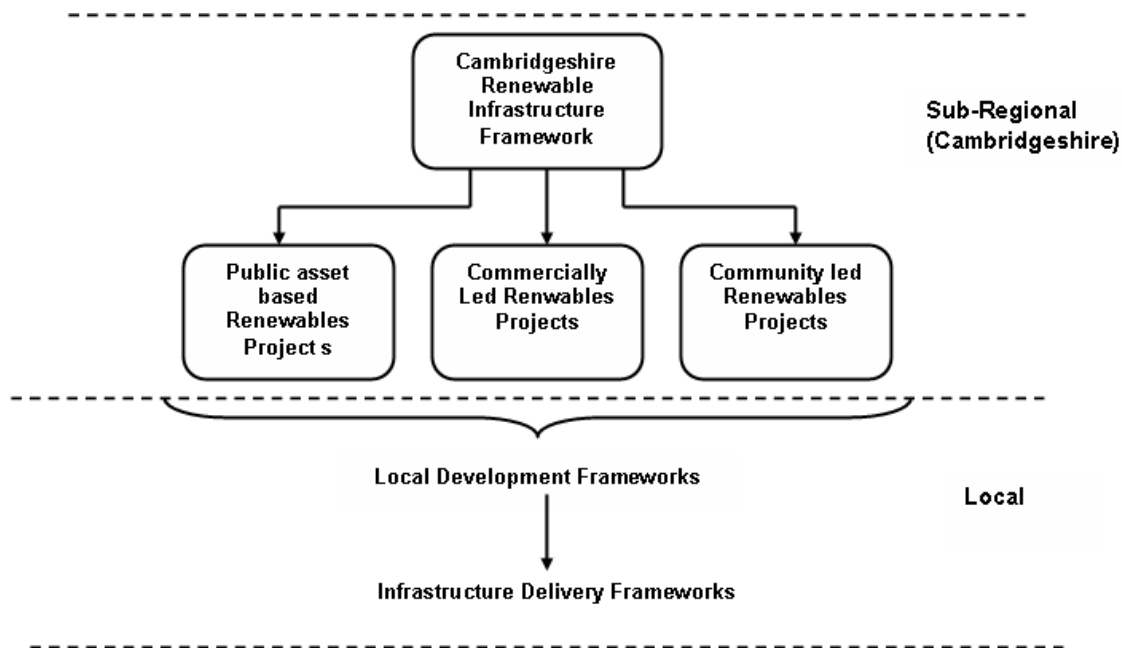
9.17 The IDP's principal purpose has been to identify infrastructure projects of sub-regional scale within Cambridgeshire. These projects are strategic in nature and have a greater than district-level impact. Local infrastructure needs - such as primary education and small-scale community facilities - were not considered in the IDP as they would be set out and planned for in the Local Infrastructure Plans produced by each local authority.

9.18 Regional and national-scale projects were also identified within the IDP and referenced, as these were acknowledged as having impacts on growth in Cambridgeshire. However it was recognised that such projects would require central government funding and as such they

are beyond the delivery capabilities of both the local authorities and Cambridgeshire Horizons.

9.19 In some instances, Cambridgeshire Horizons looked beyond the IDP for those infrastructure types that required a more bespoke approach. One such example was the production of the Cambridgeshire Renewables Infrastructure Framework (CRIF). Recognising the importance of renewable and low carbon energy in supporting Cambridgeshire’s growth and economic agendas, the CRIF set out to purposely plan for and co-ordinate the delivery of renewable and low carbon technologies. The CRIF identifies three delivery pathways, providing a co-ordinated approach to the delivery of renewable and low carbon energy supply across the county. The CRIF is now considered as an exemplary model for the planning and delivery of renewable and low carbon energy.

Table 9.5: How the Cambridgeshire Renewable Infrastructure Framework provides a co-ordinated approach to low carbon and renewable energy infrastructure across Cambridgeshire



9.20 In the light of the abolition of the regional architecture and the anticipated revocation of RSS, Cambridgeshire Horizons was wound up in September 2011. Despite this the importance of a joined up and co-ordinated approach to strategic planning and in particular the co-ordination in the delivery of infrastructure continues to be recognised by the Cambridgeshire authorities.

9.21 At the Cambridgeshire sub-regional level a new Joint Strategic Planning Unit has been established with the agreement and support of all authorities across Cambridgeshire and Peterborough. In time it is expected that the joint approach will produce a non-statutory development strategy for the county that recognises influences and issues across administrative boundaries; continues to ensure that there is co-ordination of spatial planning strategies; and helps authorities discharge their duty to co-operate.

9.22 Unlike the Essex example, Cambridgeshire's approach is likely to be closely aligned with what a Strategic Infrastructure Plan in Hertfordshire would look to achieve, although the emerging Joint Strategic Plan may go wider than just infrastructure planning. Whatever the outcome, a number of the fundamental principles and the governance arrangements

demonstrated through both the IDP and emerging joint approach to strategic infrastructure planning could be usefully applied to any co-ordinated approach in Hertfordshire.

MANAGING LOCAL COMPLEXITIES OF INFRASTRUCTURE PLANNING AND DELIVERY

- 9.23 The examples in both Cambridgeshire and Essex demonstrate a solid approach to co-ordinating strategic infrastructure needs and addressing the issues of cross boundary investment and prioritisation. However, they do not necessarily reflect the complexities of infrastructure planning and delivery currently faced at the local level by individual local authorities. In light of the likely severe funding gap in infrastructure provision even after the CIL, there will be a need for local authorities to identify, prioritise and manage the needs and expectations of local and strategic infrastructure providers as well as manage effectively the multiple funding streams that will be required to secure new investment in infrastructure.
- 9.24 This approach introduces a new discipline in infrastructure planning which all local authorities will need to embrace if the effective and timely delivery of infrastructure in Hertfordshire is to be achieved. There are a number of salient features that will need to be integrated into the new discipline of infrastructure planning if effective delivery is to be achieved (see Table 9.6 below).

Table 9.6: What CIL demands in terms of new disciplines in infrastructure planning

What is it about CIL (and other changes in planning and delivering infrastructure delivery) that introduces a new discipline in infrastructure planning?

- Charging Authorities (in Hertfordshire the district councils) are given new responsibilities in infrastructure planning through their 'ownership' of CIL revenues - previously there was no one authority with such a role
- Charging Authorities will without doubt need to direct CIL revenues towards other bodies. They have to account how they spend CIL
- CIL breaks the link between a specific development and the funding of a particular item of infrastructure: with it there will be far more flexibility about investing in infrastructure than under the current s106 regime
- As CIL will not be the entire answer to how infrastructure is funded (only part of the answer) there will without be a need to manage a multitude of funding streams if a wide range of new infrastructure is to be delivered
- Charging authorities are specifically encouraged to be transparent about the projects in which they intend to direct CIL towards, by having the ability to publish a list of such projects under Regulation 123 of the CIL Regulations
- CIL (and the Infrastructure Delivery Plans that underpin it) imposes a requirement for local authorities to engage in discussions about wider, strategic infrastructure need

- 9.25 Through ongoing engagement with infrastructure providers (through the CIL Reference Group), some providers have raised concerns about how the new infrastructure planning discipline will allow them to continue to receive contributions to the new infrastructure and services they provide. Others have asked questions about how they can articulate their future infrastructure needs in a way which will allow them to secure contributions from developers against declining resources available to them from elsewhere – e.g. from traditional capital programmes. The following list is not extensive but summarises some of the concerns that have been raised by service providers.

Table 9.7: Concerns expressed about the operation of CIL at CIL Reference Group by service providers

Area of Concern / Focus	Commentary
Reduction in the direct receipt of developer contributions	It appears that the CIL will result in a reduction in the number of s.106 obligations to which a number of non-charging authorities are currently signatory. A smaller level of direct developer contributions towards services providers other than the charging authorities may result in the loss of control over being able to plan for and budget service developments and other capital projects.
Whether or not Charging Authorities will make available, levels of financial contribution currently secured through s.106	Non-charging authorities and other service providers will be reliant on the Charging Authority to direct CIL monies they collect towards the cost of providing such services (and at a level the authority could have expected if CIL had not been introduced and the current s106 arrangements had continued to hold sway). It is not clear if this will happen or whether it will result in a reduction in the availability of developer contributions, potentially placing some service areas at risk. There is also uncertainty about when CIL monies may be available and what conditions (if any) will be attached to its receipt.
The ongoing importance of developer contributions in helping deliver infrastructure needs	Although there have been (and will continue to be) other funding sources available for most service areas, the finance secured from developer contributions through s106 agreements plays a vital role in funding new infrastructure and in many cases helps secure match (or at least partial match) funding. A reduction in s106 monies may stretch capital projects beyond the capability of service providers or prevent them accessing external funding streams.
Will infrastructure providers (particularly strategic providers) be meaningfully engaged in the debate around infrastructure planning?	It is not currently known what arrangements will be in place that will allow infrastructure providers to be engaged in the planning process, in particular the debate about how CIL monies will be directed or even if they will be consulted on such decisions. There is particular concern around the need to be consulted on the Reg 123 list and whether non-charging authorities and infrastructure providers will have any say on what is included / prioritised within it. It appears that there is a need for a transparent allocation process that will allow service providers to see how / why CIL monies are allocated.
What level of priority will strategic infrastructure items receive in terms of CIL funding support?	Some of the strategic infrastructure items are the most critical in terms of their significance and in many cases there is a statutory duty to provide them. In the post CIL world, it is uncertain as to what priority these infrastructure items will be given by charging authorities and indeed whether more local requirements will be prioritised over more strategic needs.
How to deal with cross authority issues	Given that a number of services provided by non-charging authorities are not constrained by administrative boundaries (e.g. secondary schools and major transport schemes) the arrangements for cross authority CIL funding will be critical and will require early engagement between the service providers and charging authority.
Uncertainty about the continuing use of s106 obligations for 'large sites'	There is a potential for 'large sites' to be continued to be funded through s106 obligations to secure all onsite infrastructure provision. The mechanisms for making this work are still uncertain but if it were possible, the use of s106 in some circumstances will overcome whether sufficient levels of CIL will be available or onsite provision. There is however still uncertainty over how s106 contribution can be used to fund offsite provision, particularly in relation to 'Rule 5' set out in Reg 123 – which restricts the pooling of s106 contributions to a maximum of 5 developments.
Potential challenges if a variety of systems to collect and allocate CIL monies were introduced across Hertfordshire	There are potential resource and other management issues that could occur should each of the charging authorities in Hertfordshire adopt different systems for assessing CIL priorities, distributing CIL to providers and accounting for and monitoring expenditure.
How to accommodate different timescales of CIL being introduced across Hertfordshire	It appears likely that the introduction of CIL across Hertfordshire may take place over a number of months if not years and there needs to be suitable arrangements in place to accommodate the effects of this.

Continued engagement through the development planning and planning application process	There are concerns that in some instances, the current consultation processes between local planning authorities and service providers may cease once CIL is introduced. This would make it more difficult for service providers to monitor the impact of new development on service provision.
How existing arrangements will link with neighbourhood planning and the requirement for a 'meaningful proportion' of CIL to be directed towards neighbourhood scale infrastructure needs	As demonstrated in the funding chapter, the requirement for a meaningful proportion of CIL to be directed towards the community on which development effects is likely to have implications on the level of CIL that can be secured towards more strategic infrastructure provision and there may be a need to explore opportunities for constructive and ongoing dialogue between neighbourhoods, CIL charging authorities and non-charging authority infrastructure providers.

- 9.26 It would be wrong to take an unduly pessimistic view of CIL, and indeed there is clearly and quite rightly an expectation that its introduction will mean that in overall terms, overall contributions from developers towards the cost of new infrastructure will increase. There are also strong arguments to suggest that the more disciplined approach to infrastructure planning CIL will usher in is long overdue.
- 9.27 Equally, however, it is also the case that whatever appropriate arrangements are deemed necessary, these will not happen automatically – they will have to be created from scratch. To help with the process of defining appropriate arrangements in the county for planning and delivering infrastructure, it is important to examine what is being undertaken elsewhere to respond to the increasing complexities of infrastructure planning.

EXAMPLES OF LOCAL INFRASTRUCTURE PLANNING MANAGEMENT STRUCTURES

- 9.28 Below are four examples of what is happening elsewhere to effectively respond to the challenges and complexities of infrastructure planning in a world without regional strategies, one that needs to respond to new planning and delivery agendas, as the same time reflecting positively to the local agenda.

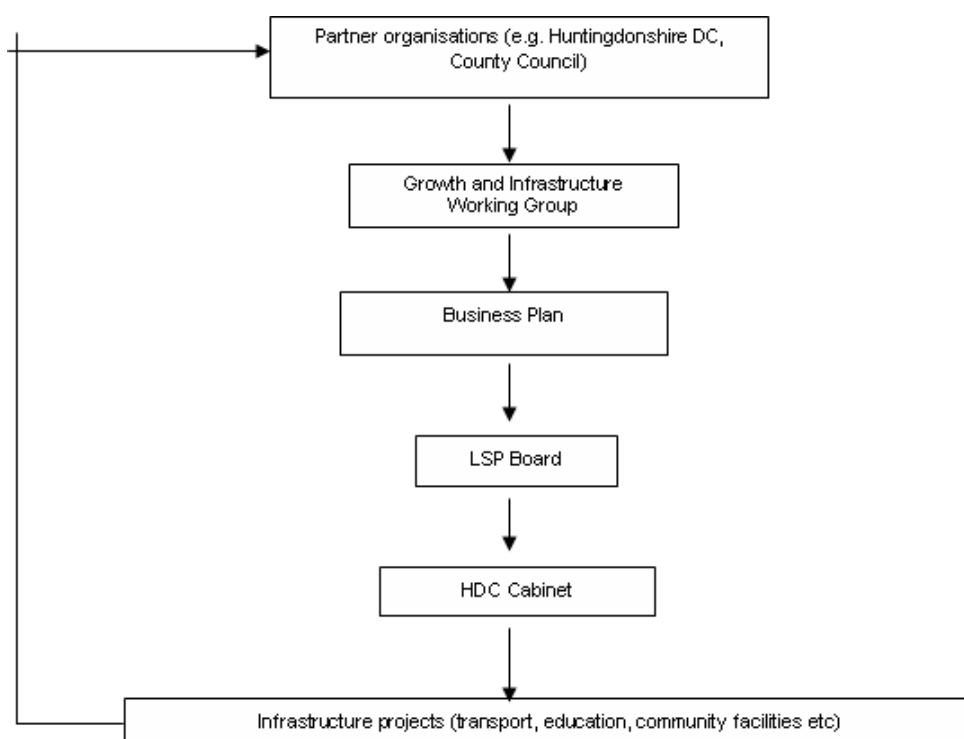
Table 9.7: Examples of infrastructure planning in action

<p>Huntingdonshire District Council - pioneers in CIL infrastructure management arrangements</p> <p>Milton Keynes Council (Unitary) Local Investment Plan - infrastructure planning as an annual cycle</p> <p>Shropshire Council (Unitary) - taking a holistic approach to infrastructure planning and delivery</p> <p>West Norfolk - authorities co-operating together on infrastructure planning</p>
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HUNTINGDONSHIRE COUNCIL - ATTEMPTING TO SET THE 'GOLD STANDARD' IN TERMS OF INFRASTRUCTURE PLANNING MANAGEMENT ARRANGEMENT

- 9.29 HDC is probably the most advanced of the CIL frontrunners in terms of defining and delivering infrastructure. It has put in place a comprehensive process for defining and managing the delivery of infrastructure, involving the creation of a countywide Integrated Development programme, its own Local Investment Framework, the Cambridgeshire LIP, and the involvement of the LSP through its Strategic Vision as well as the LEP.
- 9.30 It is also putting in place a CIL governance structure to set overall priorities and objectives and see through delivery in a way that could potentially commend itself to the Hertfordshire authorities. These are set out in the table below.

Table 9.8: Huntingdonshire's approach to CIL governance



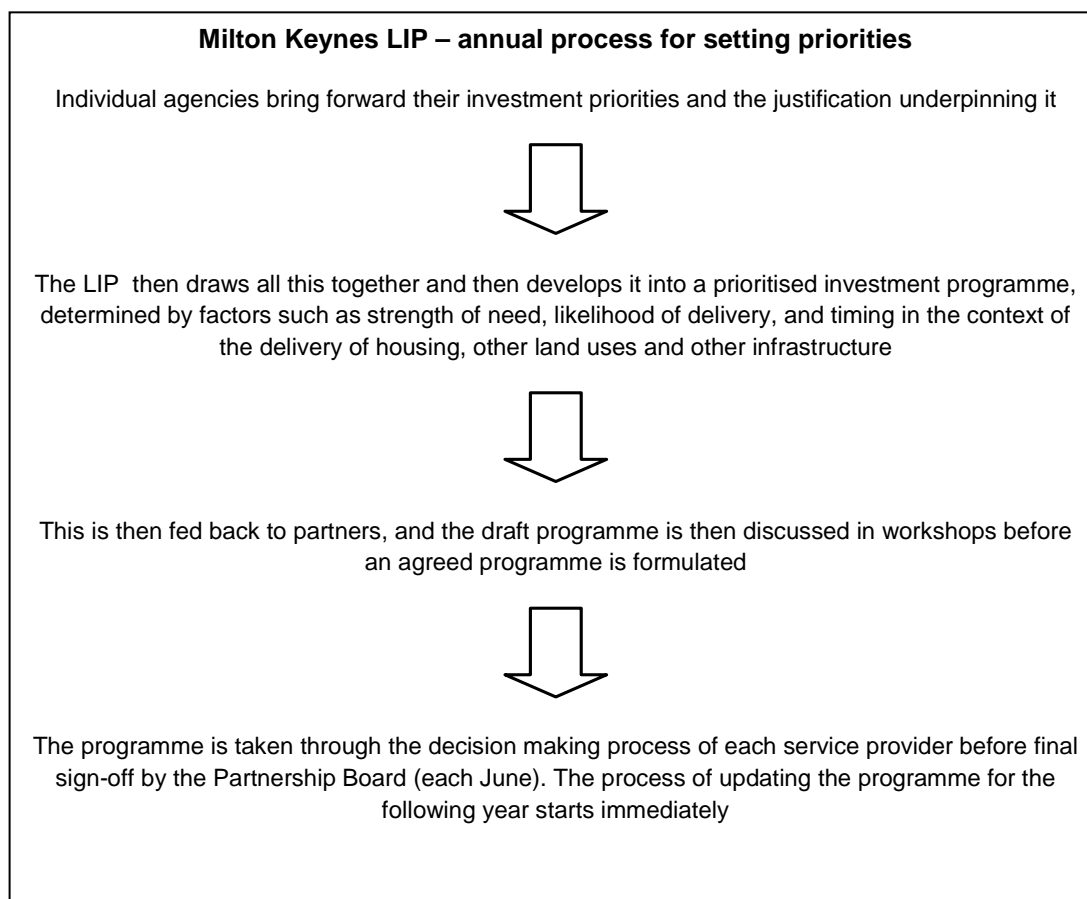
- 9.31 HDC's approach allows infrastructure providers to identify potential projects and then subject them to detailed scrutiny by a peer group (a Growth and Infrastructure Working Group) with the LSP also playing a key role in determining priorities before consideration by the HDC cabinet. In essence this allows external bodies to have an influence on infrastructure investment priorities but with the District Council being the ultimate arbiter.

MILTON KEYNES LOCAL INVESTMENT PLAN - ESTABLISHING A YEARLY CYCLE FOR INFRASTRUCTURE PLANNING

- 9.32 The Milton Keynes Partnership was disbanded in March 2011 with its functions transferred to the HCA Midland Region and planning responsibilities passing to Milton Keynes Council. The Local Investment Plan (LIP) remains the key driver for infrastructure planning. Unlike other LIPs (whose value has sometimes been questioned) the Milton Keynes LIP maintains a close connection between new homes and jobs and the infrastructure it gives rise to.

- 9.33 The yearly Local Investment Plan seeks to:
- Provide a context for investment decisions, reflecting local vision and aspirations
 - Establish overall objectives for the Plan's activities – these are around requirements for Growth, Affordability, Renewal and Sustainability
 - Set out investment priorities for the next two years, including delivery targets and work programmes
 - Define overall budgets and funding sources
- 9.34 The LIP is prepared in draft every June, then consulted on amongst partners and finally adopted 12 months later. It takes a 'Total Capital' approach, embracing both developer contributions (currently the Milton Keynes Tariff, soon to be replaced by CIL) and other funding streams.
- 9.35 The first LIP was published 6 years ago and the Partnership readily admits that it has developed considerably since the early years, particularly as infrastructure providers have cottoned on to the value of the process in terms of establishing their own investment priorities and providing a justification for the infrastructure they are seeking.
- 9.36 The importance of the LIP should not - in either the HCA's or Milton Keynes Council's view - be understated. It contains in essence all the activities needed to drive the infrastructure investment process forward, and its preparation provides an ideal forum for resolving all the issues around such investment. Certainly the key agencies appear to set enormous store by it.
- 9.37 The LIP categorises investment along the following lines: programmes that are fully funded, those part funded and those where funding has not been identified. By such means, gaps in funding are identified. Whilst somewhat inevitably part of the process of preparing the Plan involves managing expectations, it also helps to underpin strategies for securing additional funding.
- 9.38 It is important not to liken the activities associated with the preparation of the LIP to a bidding process: instead it should be viewed as a method of securing the orderly roll out of the necessary infrastructure, as the processes of engagement are largely collaborative.
- 9.39 The split between local and strategic investment is a critical matter, and considerable effort is put into ensuring that an appropriate balance is struck. There is concern to avoid any suggestion that in dealing with the strategic consequences of growth the LIP is not unconcerned about the potential for negative impact elsewhere.

Table 9.9: The annual LIP review process, Milton Keynes

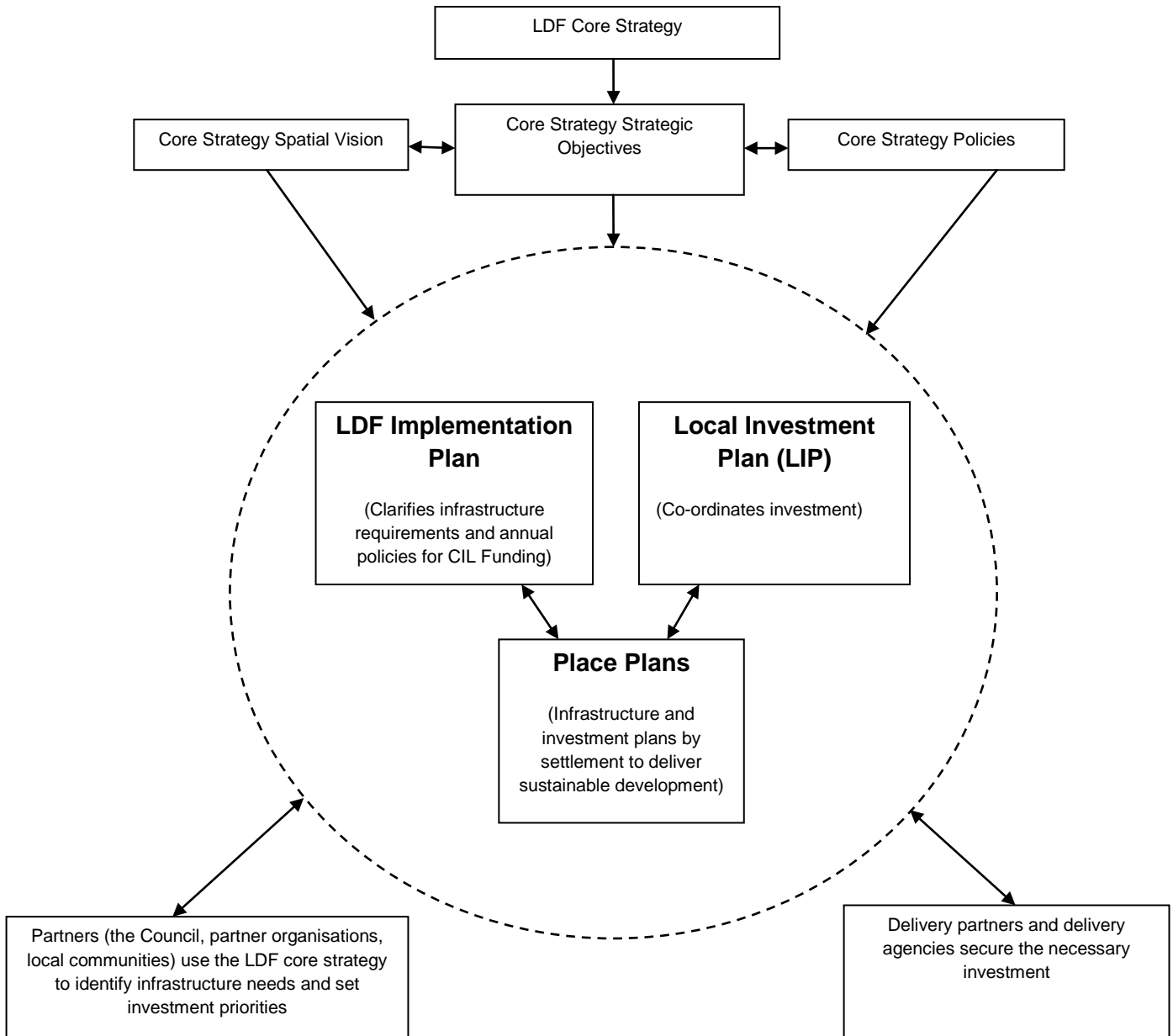


SHROPSHIRE COUNCIL - A COMPREHENSIVE APPROACH TO INFRASTRUCTURE PLANNING

- 9.40 Shropshire Council's approach to infrastructure planning is worthy of a detailed examination. The CIL Charging Schedule is integrated with a Developer Contributions SPD in which CIL and s106 contributions are considered in detail alongside one another, with the establishment of a Code of Practice for seeking development contributions and directing this towards infrastructure provision. The aim is to establish a transparent system of demonstrating that developers will not be double charged for both s106 and CIL contributions towards the same purpose.
- 9.41 But what clearly catches the eye is the Council's LDF Implementation Plan, in effect a comprehensive infrastructure investment manual decide to look at every significant investment requirement and define its link to the LDF, its overall priority and details of its cost, timing and funding status. These requirements are set out over 400 pages, with each item of infrastructure reviewed in detail.
- 9.42 There are two notable considerations relating to this schedule. The first is that the developer contribution to each item of infrastructure is analysed in minute detail: whether the developer directly funds infrastructure or whether a contribution is secured towards it via a s106 agreement or CIL contribution.

9.43 The second is that the need for infrastructure arises initially from the LDF core strategy overall vision and specific policy, but is developed in detail through one of 18 'Place Plans' that have been developed across the authority on a settlement by settlement basis with the overall aim of delivering sustainable places. How the process works in detail is set out below.

Table 9.10: Shropshire's holistic approach to infrastructure planning



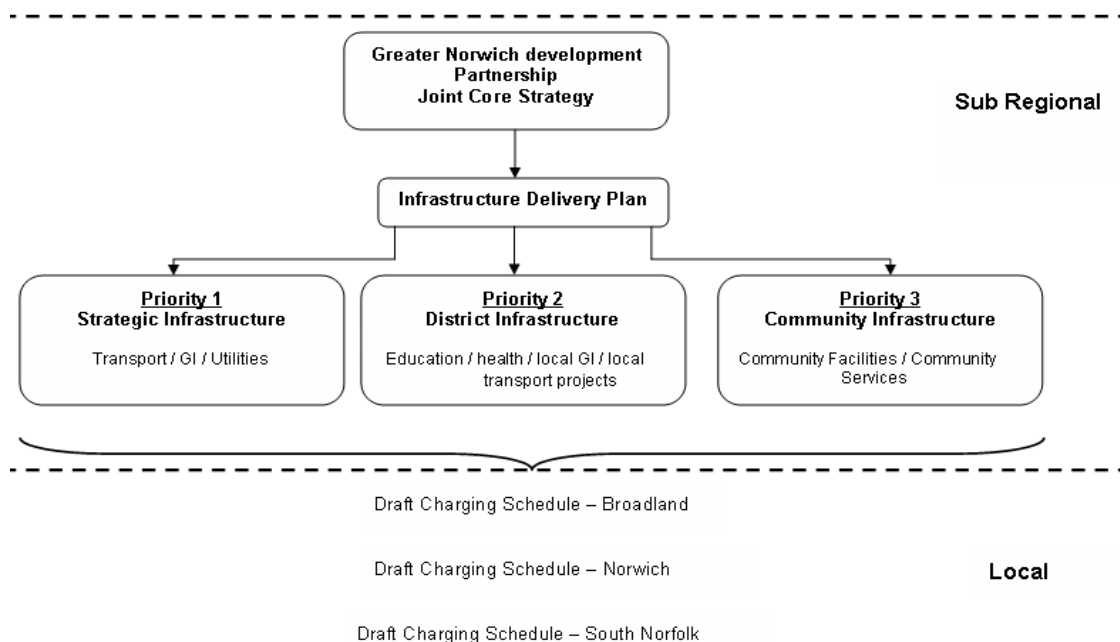
THE GREATER NORWICH DEVELOPMENT PARTNERSHIP - AUTHORITIES WORKING TOGETHER ON CIL

9.44 The Greater Norwich Development Partnership (GNDP) has been established in order to allow a group of local authorities to plan infrastructure together and to co-ordinate their CIL charging schedules. Covering Broadland District Council, Norwich City Council, South Norfolk Council and Norfolk County Council, three separate (but only slightly varying) charging schedules have been produced proposing charging rates for two separate zones

which have been set purely on viability grounds and are not based (and do not follow) administrative boundaries.

- 9.45. This approach supports the delivery of key strategic (and sub strategic infrastructure) that was identified through the preparation of a Joint Core Strategy for the three authorities. The joint Core Strategy contains a supporting IDP that sets out and prioritises the strategic local and community infrastructure requirements needed to support future growth.

Table 9.11: Greater Norwich Development Partnership: Infrastructure Delivery



- 9.45 Although the authorities are covered by a joint adopted core strategy the principle driver of this arrangement is partly to save money and to share evidence but also to help plan the delivery of a strategic pool of capital projects, something that we considered in Chapter 8.

SOME INITIAL CONCLUSIONS ON THE MANAGEMENT OF INFRASTRUCTURE PLANNING

- 9.46 The illustrated examples of where the planning and delivery of infrastructure at the local level has progressed significantly have reiterated the importance of a consistent and co-ordinated approach (which has been a recurring theme throughout this review) as the basis of successful infrastructure planning processes.
- 9.47 For the two unitary authorities, there has been constructive and iterative dialogue with infrastructure providers to ensure that strategic needs are recognised within a more local infrastructure delivery framework. However where more than one local authority is engaged (Huntingdonshire/Cambridgeshire and West Norfolk), local authorities have effectively incorporated existing outputs of strategic infrastructure planning work (such as Cambridgeshire IDP) whilst simultaneously introducing governance structures that are capable of responding to future changes to the infrastructure planning process.
- 9.48 The approaches explored above would help address those concerns that have been raised in relation to infrastructure planning in Hertfordshire as well as seeking to overcome a number of the potential barriers to long term infrastructure planning identified in chapter 5.

However, as explored earlier in this report, a number of changes to the way in which infrastructure is planned and delivered are still emerging and therefore any approach taken forward in Hertfordshire would need to be flexible enough to be able to respond effectively to any future changes to the way in which infrastructure is planned for and delivered.

- 9.49 Whatever approaches are adopted, it is possible to draw out six key overarching features that should be applied to any management arrangements for infrastructure planning in Hertfordshire, as set out in Table 9.12 below.

Table 9.12: the key essentials of any infrastructure planning management process

The management of the infrastructure planning process: the essentials	
Transparency	All with an interest in infrastructure planning - the providers, the beneficiaries - should have a clear idea of the processes involved and how investment decisions are arrived at
Fairness	Those who are looking to secure funding towards the infrastructure they have responsibility for should feel that they have a genuine chance of benefit from contributions if their case is strong enough
Accountability	Those bodies who have responsibility for managing infrastructure funding should fully account for the judgements that they make and demand the same from those they direct funding contributions towards
Inclusiveness	Infrastructure planning and should increasingly be seen not as the responsibility of one agency but the collective task of appropriate interests working constructively together, adding value as they do so
Innovation	Given that no one single source of funding will deliver all the infrastructure that is required, there will be the need to focus on innovative approaches which draws funding from a variety of sources
Co-ordination	Given the need to manage and prioritise investment across a range of scales and to incorporate needs across a wide range of infrastructure providers, there is a need for a co-ordinate approach between local authorities and service providers to effectively manage available funding streams and provide the certainty required of the private sector providers to invest.

CHAPTER 10 : FINDINGS AND CONCLUSIONS

- 10.1 We will start this section by drawing a number of conclusions from the work on the HIIS refresh, then move on to undertake a 'health check' on infrastructure planning, before finally setting out a series of recommendations for further actions to promote infrastructure planning in Hertfordshire, all of which are relatively immediate actions to be undertaken over the next 12 months.
- 10.2 Let's start by drawing a number of conclusions from the preceding chapters. Looking at the areas that we have focused on, it's possible to draw a number of conclusions from what the review has covered:

Table 10.1: What we can conclude from the review of HIIS

Outcome from the HIIS review	Commentary
The decision to review parts of the 2009 HIIS study was the correct one	Whilst it's easy to fall into self justification the review shows quite how much has changed since October 2009 but equally, the amount of work that still needs to be done to increase the effectiveness of infrastructure planning and delivery in Hertfordshire. There's evidence of a willingness if not indeed a hunger amongst a variety of agencies to take the necessary work further
After a period of uncertainty we are slowly becoming clearer about levels of growth in the county	The decision to abandon housing targets with the abolition of regional strategies has not been conducive to infrastructure planning because uncertainty about growth levels has created a similar uncertainty about infrastructure need, with which it is inevitably interlinked. Future growth levels are becoming clearer but there's still much that needs to happen to translate growth into precise infrastructure investment
The likelihood of there being few major greenfield releases before 2021 changes somewhat the focus of infrastructure planning within the county	The original HIIS study was inevitably drawn into a focus on the challenges of greenfield development, particularly in the major growth locations known as the Key Centres for Development and Change. With much reduced expectations about the amount for greenfield development for the next 10 years, the focus will tend to be more dealing with the incremental impact of small scale growth and the well documented infrastructure deficit (essentially infrastructure needed before even the impact of growth is considered) in the short term at least
There's a wide divergence in the way infrastructure providers are able to articulate future needs	It's far from the case that all infrastructure providers are clued in to the extent that they can fully articulate need - indeed there's a wide spectrum. Whilst transport and education are notable examples with a tradition in forward planning of services, coupled with a generally ability in being able to articulate these needs, others are not so stitched in for a variety of reasons - a limited inability to translate strategy into projects (Green Infrastructure); issues of dealing with challenges in defining need in a rapidly changing procurement and delivery culture (health); and being largely reactive to circumstances, rather than proactive towards opportunities (some utilities)
There's a growing recognition that "no service, settlement or agency operates in a bubble" when it comes to infrastructure planning	The phrase "we're all in this together" is a very appropriate motto for all those involved in infrastructure planning and delivery - a setting aside of fixed ideas and preconceptions and a willingness to work constructively with others, and do the hard yards together in grinding out investment priorities - are key attributes in this process

Outcome from the HIIS review	Commentary
Local infrastructure provision won't exactly take care of itself, but delivering strategic infrastructure provides by far the biggest challenge	It would be the easiest thing in the world for Hertfordshire to focus on the simple low key infrastructure projects, and neglect the much tougher actions to deliver strategic infrastructure: but how much Hertfordshire would suffer in the long term as a result. Maximum effort needs to go into making strategic infrastructure happen
There are a host of good ideas for Hertfordshire to draw on in infrastructure planning and delivery	It's something of a truism in the view that those coming relatively late to a range of new approaches to doing things get to see what works best (and also what is most appropriate to them) and that's certainly seems to be the case with good practices in infrastructure planning and delivery. There are a number of positive examples for Hertfordshire to draw on
Community Infrastructure Levy (CIL) won't provide all the answers (but perhaps some of them)	Once fully operational across all of the 10 Hertfordshire districts, CIL will fund something in the order of 20% of the county's infrastructure needs. So whilst it's not the answer to the funding of infrastructure, it's an important contributor. And CIL introduces an important new dimension in infrastructure planning - the new responsibilities falling on district councils to plan for new infrastructure and ensure it is delivered in a timely and appropriate fashion
'Total Funding Packages' are likely to be significant in the future	The evidence (both in relation to individual schemes and funding programmes) is that a range of funding sources will come together to fund projects, rather than a single source as has often been the case in the past. Drawing finance together from diverse funding mechanisms will require infrastructure delivery agencies to be innovative and opportunistic, and to work closely together to create the ability to draw on a variety of contributions
Croxley Link shows that Hertfordshire can successfully fund and deliver major projects	Compared to other parts of the country it could not be said that Hertfordshire has a significant track record of leadership, strategic partnerships and innovative approaches to funding to deliver major items of infrastructure. Yet it can and does get it right, as the Croxley project is demonstrating, and it will be important to build on the experience gained from this project and use it to good effect elsewhere
There are a variety of new funding opportunities	It is self evident that traditional funding sources for infrastructure provision have suffered as a result of the austerity measures. It is equally the case however that a number of new funding opportunities are arising, as we have sketched out in the report. A number of these are not yet tried and tested and there may be a few red herrings, but notwithstanding this they cry out to be explored in further detail

A 'HEALTH CHECK' ON INFRASTRUCTURE PLANNING IN HERTFORDSHIRE

- 10.3 From the above it's possible to undertake a 'health check' on the current state of infrastructure planning in Hertfordshire - where it currently is and where it needs to be.

Table 10.2: an infrastructure planning healthcheck for Hertfordshire

Attribute	Rating	Comment
Willingness to engage with other parties	★ ★ ★ ☆ ☆	HIIS (and its review) shows some commitment but much more needed
Partnerships to deliver infrastructure	★ ★ ☆ ☆ ☆	Some evidence but collaborations like Croxley remain the exception rather than the rule

Attribute	Rating	Comment
Detailed evidence of infrastructure need	★ ★ ★ ☆ ☆	An uneven picture, with some providers doing better than others
Knowledge of where growth will be located	★ ★ ★ ☆ ☆	Essential information for the planning and delivery of infrastructure, but the picture is currently patchy
Projects ready to deliver	★ ★ ☆ ☆ ☆	The Growing Places Fund has exposed weaknesses in this area which need to be addressed

WHERE WE MIGHT GO FROM HERE

10.4 There are a series of actions that could address these issues and we list them below:

Table 10.3: a longer term programme of collaborative infrastructure planning work

Proposed action	Why do it?	What would be achieved?
Preparation of a Strategic Infrastructure Plan for Hertfordshire	Without doubt, as we have been able to demonstrate in this review, Hertfordshire suffers from the absence of a strategic infrastructure plan when promoting both public and private investment in new infrastructure. Now is the time to address this	A clear statement of the most important infrastructure investment priorities for the county – the schemes best placed to make the greatest contribution to Hertfordshire's economic, social and environmental well being, which should, it is hoped, have the benefit of support across key agencies due to the consensus that will have been built up in its preparation
Create an 'Infrastructure Projects Chest'	The Growing Places Fund programme has confirmed what many were probably already aware of – that the County does not have a stock of potential infrastructure projects ready for immediate implementation should the funding opportunities arise. Given the fact that now, as never before, funding programmes are increasingly likely to be based on 'achieving immediate and lasting impact' this is something that needs to be quickly addressed	Hertfordshire would be well placed to respond to the future opportunities that are expected to arise to fund infrastructure investment that can provide an immediate economic stimulus, as well as those that reward growth and previous achievements. The 'Infrastructure Projects Chest' would be appropriate for both strategic and sub strategic projects: however it will be important to consider the costs of getting such projects to a stage where they can readily be implemented, and how such preparatory work could be funded, and how better information can be provided on funding opportunities and how infrastructure providers/project promoters can improve their bidding strategies.
A full appraisal of new sources of funding for infrastructure	As noted in the review there are a whole raft of innovative funding opportunities for new infrastructure, many of which are yet to be tried and tested, and whose applicability to Hertfordshire's specific circumstances remain uncertain. These need to be explored in depth	A comprehensive review of the emerging new infrastructure funding opportunities for Hertfordshire, focusing not just the individual mechanisms themselves but also on how two or more potential funding streams could work in tandem to maximise the benefits for the county

10.5 Turning the proposed Infrastructure Projects Chest, the aim would be to ensure that all projects were developed to the stage whereby they had the following in place:

- the accountable delivery body defined
- a local champion identified
- contractual arrangements defined
- a full Green Book appraisal undertaken, with issues like optimism bias addressed
- private and public funding support in place and a funding gap identified
- repayment mechanisms established with appropriate payback timescales
- all consents/approvals/licences in place, and any State Aid issues addressed
- direct/indirect benefits identified, with issues like displacement considered

CHAPTER 11 : Postscript - new infrastructure related initiatives in autumn 2012

EVENTS AND ANNOUNCEMENTS WHICH MAY INFLUENCE INFRASTRUCTURE PLANNING IN HERTFORDSHIRE IN THE FUTURE

- 11.1 As 2012 drew to an end, three key events likely to have a significance bearing on infrastructure planning in Hertfordshire as we move into 2013. These are:
- holding the Hertfordshire Infrastructure Planning Conference on 22nd October 2012
 - the 2012 Autumn Statement, published in December 2012
 - the issuing of new CIL Guidance on 14th December 2012

THE HERTFORDSHIRE INFRASTRUCTURE PLANNING CONFERENCE 22ND OCTOBER 2012

- 11.2 One of the key early recommendations of the emerging HIIIS refresh was the benefits of holding an infrastructure planning conference to bring private and public interests together to explore issues, priorities, roles and responsibilities. The event which took place in the University of Hertfordshire's Fielder Centre attracted over 60 delegates from a wide range of backgrounds.
- 11.3 One of the workshops of the Conference focused on the need for strategic infrastructure planning in the county. Table 11.1 below summarises the conclusions from this session, which firmly placed the LEP in the role of promoter.

Table 11.1: Hertfordshire Infrastructure Planning Conference's view of the need for a Strategic Infrastructure Plan

Herts Infrastructure Planning Conference's view of the need for a Strategic Infrastructure Plan

- There is strong support for a Countywide Strategic Infrastructure Plan. This should be led by Hertfordshire LEP.
- In bringing the plan forward, the LEP should seek to act as a co-ordinator, lobbyist, and broker in terms of setting priorities and driving forward the Plan's preparation. It will need to rise above individual perspectives to reach an overall conclusion on the shape and direction of the Plan, one that is robust, logical and defensible, borne out of an overall vision and an agreed set of values established with the county's key interests.
- Although consensus building will be a key element of the Plan, one of the critical tasks will also be to reconcile competing interests. Very few of the county's strategic investment projects will be truly countywide in scope: they will tend to have either a national, regional or sub regional complexion (requiring the LEP to engage with interests beyond Hertfordshire); or sub county, which they may attract localised endorsement but possibly limited support if not indifference from others.
- In many cases, this is because those other parties consider themselves beyond the project's immediate sphere of influence, most probably because of geography. Equally these parties will have their own favoured projects, in turn meeting with a lack of interest elsewhere.

Herts Infrastructure Planning Conference's view of the need for a Strategic Infrastructure Plan (continued)

- The LEP will need to show fairness in its work to set overall Plan priorities and a maturity in seeking to demonstrate that investment priorities are governed by wider considerations - by what, in overall terms, best helps Hertfordshire.
- In addition to the 'traditional' areas of strategic infrastructure investment - in particular, transportation and education provision - the workshop is of the view that any Strategic Infrastructure Plan for Hertfordshire needs to consider investment in the following areas:
 - revitalising the county's town centres, recognising that their future functions may spread far beyond the current retail focus
 - supporting and maintaining emerging new small businesses, as these will be the cornerstone of our economic recovery
 - the rollout of ultra highspeed broadband and 4G, to maintain our competitive advantage
- Whilst investment in 'traditional' forms of infrastructure will continue to be important in the short to medium term at least, we need to be aware that investment in new forms of infrastructure to support the new paradigms for the digital age will in turn help to direct patterns of infrastructure investment away from existing longstanding priorities.
- Whatever our future focus, we need to get ahead of the game and have our investment priorities primed in readiness for implementation, with all necessary agreements and approvals in place. We need to reach a state where investment projects go in search of funding opportunities - not the other way round, as it largely the case at present.

THE 2012 AUTUMN STATEMENT, PUBLISHED DECEMBER 2012

- 11.4 Notwithstanding the main message of the Autumn Statement - that the UK economy is still some way from a return to sustainable economic growth and indeed is no closer than it was in the Chancellor's first budget in 2010 - there are a number of important statements around growth related investment which will have great significance for infrastructure planning in Hertfordshire: in particular the strengthening of role of the LEP (including beefing up both its internal finances and its spending power).
- 11.5 As a background to the contents of the Statement the government has used its publication as an opportunity to welcome many of the findings of the Lord Heseltine report²⁷ and will seek to implement as many of the recommendations as possible. The key Heseltine recommendations supported are set out overleaf in Table 11.2

²⁷ 'No Stone Unturned' in the pursuit of growth; October 2012
REFRESH OF HIIS JANUARY 2013

Table 11.2: Key Heseltine Report Statements supported in the 2012 Autumn Statement

The key Heseltine recommendations supported in the 2012 Autumn Statement

The promotion of the role of the LEPs in growth related infrastructure planning The government supports the view that local leaders and businesses are best placed to set the strategic direction for an area, citing evidence of the success of the first round of City Deals, where LEPs and local authorities have been working together to reinvigorate local economies. In all of this, LEP business plans are identified as being increasingly important.

LEPs to prepare new strategic plans for local growth. As part of their identified role LEPs will be asked by the government to lead the development of new strategic plans for local growth consistent with national priorities. In developing the plans, LEPs will be expected to consult with all relevant local partners, including the local Chambers of Commerce and other business bodies. A key task will be for the LEPs to secure public and private leverage funding.

Role of local authorities in delivery These growth plans (which will be multi-year) will build on any existing plans and include coordination with ongoing public programmes. It is expected that local authorities or other bodies - and not the LEPs - will deliver programmes and projects, ensuring that there are proper accountability structures in place.

Help for the LEPs in capacity building Accepting that the role that LEPs will have in developing this strategic function will take time and effort to establish, the government will provide a total £10 million per year for capacity building within LEPs, with each LEP being able to apply for up to an additional £250,000 p.a. funding to support the strategic plan's development and delivery - although it is stressed that LEPs should remain small, responsive, business-led organisations which should avoid bureaucracy.

Creation of a single growth related funding pot These strategic plans are important as the government intends to use them as a basis for devolving a greater proportion of growth related spending to localities on the basis of the priorities the strategic plans establish. They will be able to tap in to a newly created single growth related funding pot (a Heseltine recommendation) for local areas, although this will be from April 2015, not immediately. The fund will have a number of distinct elements - around housing, transport, skills and employability, as well as additional growth funding - and these will be set out following a spending review to take place in the early part of 2013.

LEPs will manage EU Common Strategic Framework funds The government also supports Lord Heseltine's view that local business leaders need to have the tools and levers to drive investment and growth in their area and that means truly devolving funding and powers from central government. Another Heseltine recommendation to be acted upon will be the streamlining of the management of the EU Common Strategic Framework funds in England, aligning priorities on the basis of the plans led by LEPs.

THE 2012 CIL GUIDANCE CHANGES

- 11.6 The final significant event of late 2012 was the publication of revised CIL Guidance on 14th December 2012.

11.7 Replacing Guidance issued shortly before CIL was launched in April 2010, the new Guidance represents something of a sea change in the way in which CIL will be operated in the future, as Table 11.3 below illustrates:

Table 11.2: Main changes brought about by the 2012 CIL Guidance

Subject area	New requirement
New (and critical) relationship between CIL and s106	CIL charging schedules will need to take into account of the revenues raised from s106 agreements both in the past and in the future (including regulatory requirements and the funding of affordable housing strategic sites), and Charging Authorities (CAs) must set their future policy requirements for s106 contributions at the same time as they introduce CIL, with the former being scaled back to site related infrastructure only
A more meaningful consideration of CIL investment priorities at examination	A draft list of projects or types of infrastructure that CIL is expected to be spent on (and those site related matters expected to be funded from s106) must be submitted for examination, the difference also now being that this should comprise 'actual' spending plans, not as previously largely a hypothetical one for the purposes of justifying the raising of CIL
Collaboration between Charging Authorities (CAs) and County Councils in two tier areas on spending priorities	CAs must collaborate with County Councils at rate setting time to agree priorities for spending CIL, having regard for County Council spending priorities and the need to fund strategic infrastructure
Greater transparency and engagement on any Regulation 123 list (the published schedule of projects on which CIL monies are expected to be spent)	The Regulation 123 list changes from something that is compiled, consulted upon and amended on terms dictated by the CA to an important area of engagement with other bodies - including developers - and whose content and future amendment become matters for detailed deliberation and justification
The handling of the 'issue of balance' changes	The issue of 'balance' - that between the need to raise CIL to pay for new infrastructure on the one hand, and the potential risk to the delivery of sites on the other - is no longer a question of judgment for individual Charging CAs but a matter for examination
Relationship between CIL and the NPPF established	CIL must now have regard to the requirements of the NPPF, and charging authorities will have to 'show and explain' how it will contribute positively towards the rolling out of the relevant Plan(s), and how it will support the delivery of growth, not only at the time of charge setting but throughout the economic cycle
A more fine grained consideration of the potential for CIL to put individual development sites at risk	It will, by inference, be a lot less acceptable and therefore much harder to justify putting individual development sites at risk as a result of introducing CIL - particularly those that the relevant Plan relies on
Viability work needs to have increased sensitivity	Viability work will need to be even more sensitively undertaken - background evidence must be provided on the historic role of s106 contributions towards new infrastructure, and there is now effectively a requirement for sampling of individual development sites (particularly strategic sites) where circumstances allow, with a proper consideration of the viability impact of site related s106 contributions likely to fall on such sites

Subject area	New requirement
Engaging with developers	Early engagement with developers on their infrastructure needs and how these are to be funded in return for developers providing evidence to support the charging authority
Dealing with current uncertainties around differential rates	An attempt is made to deal with the uncertainties that have arisen surrounding charging differential CIL rates by reference to different intended uses of development by making clear that the definition of 'use' is not tied to the Use Classes Order

11.8 The collective impact of the three new factors listed above is likely to prove significant as Hertfordshire moves forward with its infrastructure planning work in future, moving it very much centre stage and demanding greater efforts for all the key players in the process.

Appendix A – Assumptions on growth levels to 2031

In the absence of a RSS target to calculate housing targets for the county, and given the different timescales of emerging Core Strategies, it has been necessary to make a number of different assumptions for each local authority to determine future growth levels for the county to 2031 for the purpose of infrastructure planning. This Appendix sets out how the growth levels for each district (2001 – 2031) have been calculated for the purpose of the HIIS Review.

The information below sets out how each of the assumptions were applied in calculating an indicative growth figure for each district to 2031..

- Completions (2001 – 2011) - existing completions data was used to determine the number of dwellings built in Hertfordshire since 2001. Because the majority of targets set out in Core Strategy documents had a start date of 2006 or later, there was a need to determine the level of growth that had come forward within Hertfordshire as in the absence of RSS there was no longer a target that could be retrospectively applied to 2012. The completions data was then added to the HIIS review 'to build' figure for each local authority to provide an indicative dwelling figure 2001 – 2031.
- Indicative Plan period Targets – Each authority was assigned a target based on the most up to date information available. However, it must be recognised that unlike the RSS, all but one of the housing targets are still to be subjected to an independent examination and therefore may be subject to further changes.
- Projected Completions – where the indicative start date of Core Strategies were later than 2011, projected completions data was applied to fill the void between 31st March 2011 and the start of the Plan period. Again this was required because of the absence of an RSS target that could be retrospectively applied to each local authority.
- Roll forward targets to 2031 – A number of Core Strategies cover a 15 year period in line with guidance set out in PPS3 and the draft NPPF. The HIIS rolled forward growth to 2031 in line with guidance set out in Policy H1 of the RSS. In order to develop a comparable dwellings figure for the purpose of the HIIS review, the same approach was applied to those local authorities who have not got indicative targets to 2031.

The indicative dwelling figures for each local authority are set out below.

Broxbourne

- The submission version of the Broxbourne Core Strategy set out a housing target of 240dpa over the Plan period (2011-2026). This is the assumed target over the Plan period.
- To calculate the overall level of growth within the Borough to 2031, the Plan period target has been added to the number of completions (2001 – 2011) and the assumed housing target for 2026 – 2031 which has been derived by rolling forward the Plan period target 2026 – 2031.
- To calculate the number of dwellings to be built over the HIIS Review period, the 2011 – 2026 'to build' figure (2011 – 2026) has been added to the assumed 2026 – 2031 target.

Plan Period	Completions 2001 – 2011 (31 st March) (a)	Assumed target over Plan period (b)	To build 2011 – 2026 (dpa) (c)	Assumed target 2026 – 2031 (d)	Total Dwellings (a)+(c)+(d) 2001 – 2031	To build over HIIS review period 2011 – 2031 (c) + (d)
2011 - 2026	3,279	3,600 (240)	3,600 (240)	1,200 (240)	8,079	4,800

Dacorum

The pre-submission Core Strategy sets out a target for 10,750 (430dpa) and this has been assumed as the target over the Plan period. Policy CS17 sets the target of 430dpa, but table 8, which forecasts the distribution of growth, suggests an overall target of 11,320 due to the inclusion of windfalls and this is the figure used within the IDP update work as it was deemed more realistic. The IDP target is set out in [] below and has been used for the purpose of this report to coincide with the infrastructure planning approach taken by Dacorum Borough Council.

- To calculate the overall level of growth within the Borough 2001 – 2031, the assumed Plan period target has been added to the number of completions (2001 - 2006).
- To calculate the number of dwellings to be built over the HIIS review period, the number of completions (2006-2011) has been subtracted from the 'assumed target' for the Plan period.

Plan Period	Completions 2006 – 2011 (31 st March) (a)	Assumed target over Plan period (b)	Completions 2001 – 2006 (31 st March) (c)	Total Dwellings (b) + (c) 2001 – 2031	To build over HIIS review period 2011 – 2031
2006 - 2031	2,052	10,750 (430) [11,320 (453)]	1,851	12,601 [13,171]	8,698 (435) [9,268 (463)]

East Herts

- The East Herts Core Strategy is still at the Issues and Options Stage and a preferred growth level has not yet been determined. The Issues and Options document includes a target range of between 17,000 and 18,600 new dwelling, taking into account the adopted RSS to 2021 and the roll forward to 2031 set out in the RSS . Because of the uncertainty surrounding the housing figure, the 18,600 figure has been used as a 'worst case scenario' for the purpose of this review.
- To calculate the assumed target over the Plan period the number of completions (2001 – 2011) and the projected completions (2011 – 2013) taken from the 201/11 AMR were subtracted from the 2001 – 2031 target.
- To calculate the number of dwellings to be built over the HIIS review period, the projected completions (2011 – 2013) were added to the assumed Plan period target.

Plan Period	Completions 2001 – 2011 (31 st March) (a)	Projected completions 2011 – 2013 (b)	Assumed 'target' over Plan period (c)	Total Dwellings (a) + (b)+(c) 2001 – 2031	To build over HIIS review period (b) + (c) 2011 – 2031
2013 - 2031	4,696	779	13,125 (729)	18,600	13,904 (695)

Hertsmere

- The pre-submission Core Strategy for Hertsmere (2012 – 2027) includes a target of 3,550 (237) over the Plan period and this has been taken as the assumed target.
- To calculate the overall level of growth in the Borough 2001 – 2031, completions (2001 – 2011) were added to the Plan period target and the projected completions for 2011/2012 that were taken from the 2011/2010 AMR.
- To calculate the number of dwellings to be built over the HIIS review period, the projected completions were added to the assumed target over the Plan period.

Plan Period	Completions 2001 – 2011 (31 st March) (a)	Projected Completions 2011 – 2012 (b)	Assumed target over Plan period (c)	'To Build' 2011 – 2027 (b) + (c) (d)	Assumed target 2027 – 2031 (e)	Total Dwellings (a) + (d) + (e) 2001 – 2031	To build over HIIS review period (d) + (e) 2011 – 2031
2012 – 2027	2,384	182	3,550 (237)	3,732	948	7,064	4,680

North Herts

- The Plan period has been assumed as 2011 – 2031, and the indicative housing target 7,000 (350dpa) based on the 'Preferred Option' set out in the North Herts consultation on possible housing options within the district.
- To calculate the overall level of growth for North Herts 2001 – 2031, completions (2001 – 2011) were added to the assumed target.
- The number of dwellings to be built over the HIIS review is the same as the assumed target over the Plan period.

Plan Period	Completions 2001 – 2011 (31 st March) (a)	Assumed target over Plan period (b)	'To Build' 2011 – 2031 (c)	Total Dwellings (a) + (d) + (e) 2001 – 2031	To build over HIIS review period (d) + (e) 2011 – 2031
2011 – 2031*	5,360	7,000 (350)	7,000 (350)	12,360	7,000

*Plan period identified from Housing Options consultation

St Albans

- Both the Plan period and the assumed target over the Plan period has been taken from 'The Core Strategy: Consultation on the strategy for locating development in the district'. The assumed target is 4,250 (250dpa). This figure is significantly lower than the 360pa required in the RSS and has not yet been subjected to independent examination.
- To calculate the overall level of growth 2001 – 2031, completions (2001- 2011) were added to the assumed target over the Plan period and then added to the assumed target 2028 – 2031 which has been calculated by rolling forward the assumed target over the Plan period.
- To calculate the 'to build' figure over the HIIS review period the assumed Plan target was added to the assumed 2028 – 2031 target.

Plan Period	Completions 2001 – 2011 (31 st March) (a)	Assumed target over Plan period (c)	'To Build' 2011 – 2028 (d)	Assumed target 2028 – 2031 (e)	Total Dwellings (a) + (d) + (e) 2001 – 2031	To build over HIIS review period (d) + (e) 2011 – 2031
2011 – 2028	3,552	4,250 (250)	4,250	750	8,552	5,000

Stevenage

- Following the withdrawal of the Stevenage Core Strategy and the announced revocation of the RSS, there is no formal housing target or current Plan period for Stevenage. Therefore for the purpose of the HIIS review a Plan period of 2014 – 2031 has been used based on the expectations of the Borough and the assumed target has been calculated by annualising the RSS target (16,000), minus the growth allocated to North Herts (9,600) and rolling this forward to 2031. Therefore the assumed target over the Plan period is 320dpa or 5,440 (2014 – 2031).
- To calculate the overall level of growth in the Borough 2001 – 2031, completions (2001 – 2011) were added to the assumed Plan period target and the projected completions for 2011/12 – 2013/14 (591 dwellings). The projected completions were taken from the 2010/11 AMR.
- To calculate the number of dwellings to be built over the HIIS review period, the projected completions were added to the assumed target over the Plan period.

Plan Period	Completions 2001– 2011 (a)	Projected Completions 2011 – 2012 (b)	Assumed target over Plan period (c)	Total Dwellings (a) + (b) + (e) 2001 – 2031	To build over HIIS review period (b) + (c) 2011 – 2031
2014 – 2031	2,514	680	5,440 (320)	8,634	6,120

Three Rivers

- The assumed target has been taken from the adopted Core Strategy for Three Rivers. Although the Plan period covers 2011 – 2026, the housing target is expressed in terms of a 2001 – 2026 target, therefore a Plan period of 2001 – 2026 has been assumed for the purpose of the review. The assumed target for the Plan period is 4,500 (180 dpa).
- To calculate the overall level of growth in the District 2001, the assumed Plan period target was added to the assumed target 2026 – 2031 which was derived by rolling forward the annualised Plan period target (180). The 180 figure was used rather than the annualised 'to build figure' as it was greater and reflected the methodology used within the original HIIS report.
- To calculate the number of dwellings to be built over the HIIS Review period, the 'to build' figure (derived by subtracting completions from Plan period target) was added to the assumed 2026 – 2031 target.

Plan Period	Completions 2001 – 2011 (31 st March) (a)	Assumed target over Plan period (b)	'To Build' 2011 – 2026 (c)	Assumed target 2026 – 2031 (d)	Total Dwellings (b) + (d) 2001 – 2031	To build over HIIS review period (c) + (d) 2011 – 2031
2001 – 2026	2,081	4,500 (180)	2,419	900	5,400	3,319

Watford

- The pre-submission Core Strategy sets out a target for 6,500 (260dpa) and this has been assumed as the target over the Plan period (2006 – 2031).
- To calculate the overall level of growth within the Borough 2001 – 2031, the assumed Core Strategy target has been added to the number of completions (2001 - 2006) and assumed target 2026 – 2031 which was calculated by rolling forward the target over the Plan period.
- To calculate the number of dwellings to be built over the HIIS review period, the number of completions (2006-2011) has been subtracted from the 'assumed target' for the Plan period.

Plan Period	Completions 2001 – 2006 (31 st March) (a)	Assumed target over Plan period (b)	Completions 2006 – 2011 (31 st March) (c)	'To Build' 2011 – 2031 (d)	Total Dwellings (a) + (b) 2001 – 2031	To build over HIIS review period 2011 – 2031
2006 -2031	1,406	6,500 (260)	2,013	4,487	7,906	4,487

Welwyn Hatfield

- The assumed Plan period and Plan period target have been taken from the 'How many new homes?' consultation and is identified as the Council's interim target (2011 – 2031).
- To calculate the total growth for the Borough (2001 – 2031), completions (2001 – 2011) have been added to the assumed target of the Plan period. The number of dwellings to be built over the HIIS review is the same as the assumed target over the Plan period.

Plan Period	Completions 2001 – 2011 (31 st March) (a)	Assumed target over Plan period (b)	'To Build' 2011 – 2028 (c)	Assumed target 2028 – 2031 (d)	Total Dwellings (a) + (c) + (d) 2001 -2031	To build over HIIS review period 2011 – 2031
2011 – 2031	4,741	6,800 (400)	6,800 (400)	1,200	12,741	8,000

Appendix B – Review of growth within masterplanned Areas

KCDC / Masterplanned Area	Assigned Growth in HIIS	Assigned Growth over Review period	Total No. Dwellings assumed in HIIS 2008-2031	Total No. Dwellings to be accommodated over HIIS review period	Difference between HIIS and HIIS review
Stevenage / North Herts	<p>The selected option included land to the north and east of Stevenage and the existing masterplan for 5,000 dwellings to the west of Stevenage.</p> <p>Stevenage West: 5,000</p> <p>North / East (to 2021): 6,800</p> <p>North / East (2021 – 2031): 8,000</p> <p>Total: 19,800</p>	<p>Following the announcement on the revocation of the RSS joint work was suspended on delivering growth in the SNAP areas around Stevenage. Furthermore, there was a successful appeal against the planning permission West of Stevenage (3,600) for which is now being re-determined by the Secretary of State. ^The future of growth around Stevenage is still uncertain, however from the emerging growth agendas, it is likely that some growth may come forward around the edge of Stevenage within one of the existing masterplanned areas, although how much is still to be decided. However, the scale of growth at Stevenage will be significantly less than that included in the HIIS masterplanning exercise.</p>	19,800	^0	- 19,800
Luton / South Beds	<p>HISS assumed a total of 5,500 dwellings to come forward to 2031.</p> <p>to 2021: 3,150</p> <p>2021 – 2031: 2,350</p> <p>Total: 5,500</p>	<p>Since the HIIS the Joint Core Strategy for Luton and South Bedfordshire has been withdrawn and revised growth strategy is unknown. It is unlikely that the full 5,500 dwellings envisaged in the HIIS will come forward, however there is an outstanding planning permission for a mixed used scheme with 1,000 dwellings.</p>	5,500	1,000	-4,500

KCDC / Masterplanned Area	Assigned Growth in HIIS	Assigned Growth over Review period	Total No. Dwellings assumed in HIIS 2008-2031	Total No. Dwellings to be accommodated over HIIS review period	Difference between HIIS and HIIS review
Dacorum	Included land to the East of Hemel (in St Albans District) and land to the West of Hemel. East Hemel Site A: 3,085 (1,500 to 2021); (1,585 2031) *East Hemel Site B: 2,715 (1,500 to 2021); (1,215 2031) West Hemel: 1,200 (1,000 to 2021); (200 2031) *land in St Albans District	The pre-submission Core Strategy identifies 1,000 dwellings to be delivered in East of Hemel Hempstead. Of these 537 are assumed to come forward as part of the East Hemel Site A Masterplan Area The pre-submission Core Strategy identifies that a joint AAP will produced by Dacorum and St Albans which may result in additional growth in this area. The document also identifies a Local Allocation at West Hemel Hempstead for up to 900 dwellings. The level of growth is significantly less than envisaged in the HIIS.	7,000	1,500	-5,500
Welwyn Hatfield	Growth located to two broad areas; North of Hatfield: 2 000 (2011 to 2028) NE Welwyn Garden City: 700 (2011 to 2028)	The emerging core strategy proposals are likely to indicate two major locations of growth over the plan period (2011-2028). In one case this will be on Green Belt land and in the other on previously safeguarded land defined in the Welwyn Hatfield District Plan 2005. Only the Green Belt location was formerly masterplanned under the original HIIS. Two of the three areas which were masterplanned under HIIS are not now proposed to be taken forward within the plan period. It is possible, however, that other smaller areas currently within the Green Belt will be proposed for future housing development in order to meet the new emerging housing target.	7,737	2,700	-5,037
Watford	All housing growth included within the town	The growth dwellings for Watford have not been revised since the HIIS therefore the assumptions made are still relevant to infrastructure planning within the town.	1,200	1,200	0
Total			51,537	7,400	-44,137*

* As a snapshot in time, the difference between the HIIS and HIIS review does not necessarily reflect the true difference in the number of dwellings coming forward within the masterplanned areas. As local planning documents are progressed, it is likely that some growth will be reinstated within the towns (not necessarily masterplanned areas); the masterplanned areas or in other broad locations. However, it is extremely unlikely that the level of growth will reach that envisaged within the HIIS.