



Dacorum Infrastructure Delivery Plan Update

January 2014

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Chapter 1: Introduction

- 1.1. This report provides an assessment of the infrastructure required to support the existing and planned levels of housing and employment development within the Borough up to 2031 as set out within the Core Strategy. It complements and updates the Dacorum Strategic Infrastructure Study (DSIS) (February 2011) and supersedes the IDP supplied as evidence at the examination of the Core Strategy
- 1.2. The assessment has mainly been informed by discussions with infrastructure providers and reflects their published plans and strategies at this moment in time; however, it is supplemented by the standards of provision established in the DSIS where necessary. It provides information about the amount and type of infrastructure required, and the location and timescales for provision. It also attempts to provide an indication of the cost of provision (or an estimation of cost based on standard charges established in the DSIS), how it will be funded and who will be responsible for delivery.
- 1.3. The DSIS sets out information regarding providers' plans and programmes and also outlines established standards of provision for different types of infrastructure. This information is still largely valid and may be referred to in this IDP report
- 1.4. The IDP is accompanied by an Infrastructure Delivery Schedule (Appendix A) which, sets out the schemes that are currently proposed to take place during the Core Strategy plan period to 2031.
- 1.5. The IDP is not a policy document and information contained within it does not override or supersede the Core Strategy, policies and commitments contained within the Local Planning Framework (LPF) documents. It provides a key piece of evidence and will further provide a robust basis on which the Council will seek to seek to influence public, private and agency funding and priorities.
- 1.6. The IDP represents infrastructure requirements at a point in time; the information within it will be updated on a regular basis to ensure it reflects an up to date position. It is intended that the Infrastructure Delivery Schedule will be updated annually alongside the Annual Monitoring Report (AMR) as set out in chapter 13.

Hertfordshire Infrastructure and Investments Strategy (HIIS)

- 1.7. The Hertfordshire Infrastructure and Investments Strategy (HIIS) has been updated since its publication in November 2009 and since the publications of both the Dacorum Strategic Infrastructure Study (DSIS) (February 2011) and Infrastructure Delivery Plan Update (IDP) (June 2012). The review of the 2009 HIIS was jointly commissioned by the Hertfordshire Planning Partnership (HIPP) and the Hertfordshire Local Enterprise Partnership (Herts LEP) and examines the conclusions of the original HIIS in light of the changes which had occurred in infrastructure planning since its publication.
- 1.8. The HIIS study examined the strategic infrastructure requirements that would be required to accommodate the levels of growth envisaged in the now revoked East of England Plan. It concluded that the infrastructure costs for Dacorum were £354.2m.

The majority of these costs were described as strategic infrastructure works¹ and concentrated within the key settlement of Hemel Hempstead. The study identified junction improvement works along the A4147 corridor linking Hemel Hempstead and St. Albans and the Breakspear Way junction, Hemel Hempstead as specific priority interventions needed in Dacorum.

- 1.9. The HIIS Refresh only took a partial look at future infrastructure needs within the county concentrating on how such information may help in develop schedule of strategic infrastructure requirements. The HIIS Refresh examined the categorisation of strategic and local infrastructure and considering the relationship between them. This concluded that the definition of strategic infrastructure within the HIIS was inappropriate and that it should reflect the relative impact of the particular item of infrastructure. These projects would be more limited than those delivered by strategic agencies operating within and beyond the county boundaries. The HIIS Refresh does not finalise a list of projects which should be defined as strategic works, but highlights the importance of physical infrastructure that is needed to support the growth of strategic employment area such as the Maylands Industrial Estate which would include proposals for the North East Hemel Hempstead Relief Road.

Hertfordshire Local Enterprise Partnership (LEP)

- 1.10. The LEP brings together a number of organisations with the aim of promoting economic growth whilst enhancing and protecting the valuable natural assets within Hertfordshire. The LEP is developing its Growth Plan for Hertfordshire which sets out three priorities namely; Nurturing science based Enterprise and Innovation, Harnessing Hertfordshire's relationship with London and Re-Invigorating vibrant towns for the 21st Century.
- 1.11. The Growth Plan highlights the opportunities for national headquarters and regional offices in Hemel Hempstead and the importance of the North East Hemel Hempstead Relief Road to encouraging businesses to locate within the Maylands employment area. It also highlights the need to regenerate the urban fabric of Hemel Hempstead town centre and is supportive of the town centre masterplanning work already undertaken by the Council to support this objective.

Dacorum Strategic Infrastructure Study (DSIS)

- 1.12. The DSIS was undertaken by consultants URS for Dacorum Borough Council during 2010, and was published in February 2011. A full description of the methodology used and assumptions made can be found in the DSIS Executive Summary report (available on the Council's website).
- 1.13. The DSIS considered two different levels of residential development because Dacorum were left in a position of uncertainty after the housing target was quashed

¹ The HIIS considered strategic infrastructure items to be those provided by infrastructure providers across a number of Districts – individual items may be local but the overall provision of the service was considered at a strategic level.

following a successful High Court challenge to the East of England Plan. The lower level of development was that considered to be achievable within the urban areas in the borough. The higher level of development built upon this with four green belt sites on the edge of Hemel Hempstead and was approximately equal to the target in the East of England Plan. Hertfordshire County Council (HCC) provided population projections for both of the housing development scenarios which were used to inform the infrastructure assessments in the DSIS.

- 1.14. The DSIS considered a single level of development for offices, industry and warehousing based on the housing target in the East of England Plan. Two development scenarios were considered for retail and leisure development to reflect the two levels of housing development.
- 1.15. Much of the information within the DSIS is still valid, and it is not the intention of the IDP to supersede the DSIS, rather to add to and update its conclusions. The details of how providers plan for the future, the standards used for provision and cost, and many of its conclusions still remain and have been used to inform the IDP.

Infrastructure Delivery Plan (IDP)

Methodology and assumptions

- 1.16. To produce this version of the IDP infrastructure providers were given information from the housing programme within the Core Strategy and were asked to use the assumptions used in the evidence base to the Core Strategy examination to draw conclusions on the need for new items of infrastructure. A more specific breakdown of the location of new dwellings was also provided in some cases in the form of the housing trajectory. Those infrastructure providers using the housing trajectory were advised of its limitations.
- 1.17. They were also asked to update any changes in their circumstances since the work on the DSIS was undertaken including any significant implications for infrastructure planning arising from changes in legislation.
- 1.18. The Council has set its own housing programme and target through the examination and adoption of the Core Strategy. The housing target is the level of housing which the Council expects to achieve and exceed. It is expressed as an average of 430 dwellings per year in policy CS17 of the Core Strategy. This equates to 10,750 dwellings over the plan period. The housing programme is the Council's prospective distribution of housing which is guided by the settlement hierarchy and provides a useful indication of where housing will occur.
- 1.19. The level of housing within the programme is higher than the housing target as there are slight differences in the elements of housing supply included in each as shown in table 1.1. Further information about table 1.1 can be found in the Core Strategy, chapter 14.

Table 1.1: The make-up of the housing target and the housing supply (2006-2031)

Element of Supply	Included in the housing target	Included in the housing programme
Completions	✓	✓
Commitments		
(a) Defined urban sites	✓	✓
(b) Defined locations in Hemel Hempstead	✓	✓
(c) Rural housing sites	✓	✓
(d) Gypsy and traveller pitches	✓	
(e) Windfall		
(i) For 10 years (from Core Strategy adoption)		✓
(ii) After the first 10 years	✓	✓
Local Allocations	✓	✓

1.20. The IDP uses the housing programme rather than the housing target as it more useful for infrastructure planning. The housing programme estimates 11,320 dwellings over the period 2006-2031, which is in between the two scenarios considered in the DSIS. The changes between the scenarios considered in the DSIS and the housing programme are shown in table 1.2.

Table 1.2: Changes in the level of residential development planned in Dacorum (dwellings)

	Hemel Hempstead	Berkhamsted	Tring	Bovingdon	Kings Langley	Markyate	Rest of Dacorum	Total
DSIS 2009 – 2031								
High	14,021	797	305	83	83	124	329	15,742
Low	7,221							8,942
IDP 2006 – 2031 (based on housing programme)								
2006 – 2031	8,800	1,180	480	130	110	200	420	11,320
Completed 2006 – 2010	875	382	61	19	22	21	59	1,439
Completed 2010 – 2012	1133	88	44	0	17	14	44	1,340
2013 – 2031	6,792	710	375	111	71	165	317	8541

1.21. The pattern of development planned in Dacorum is shown on Figure 3.1: the Key diagram overleaf, which is also shown in the Core Strategy.

Figure 3.1: Key Diagram

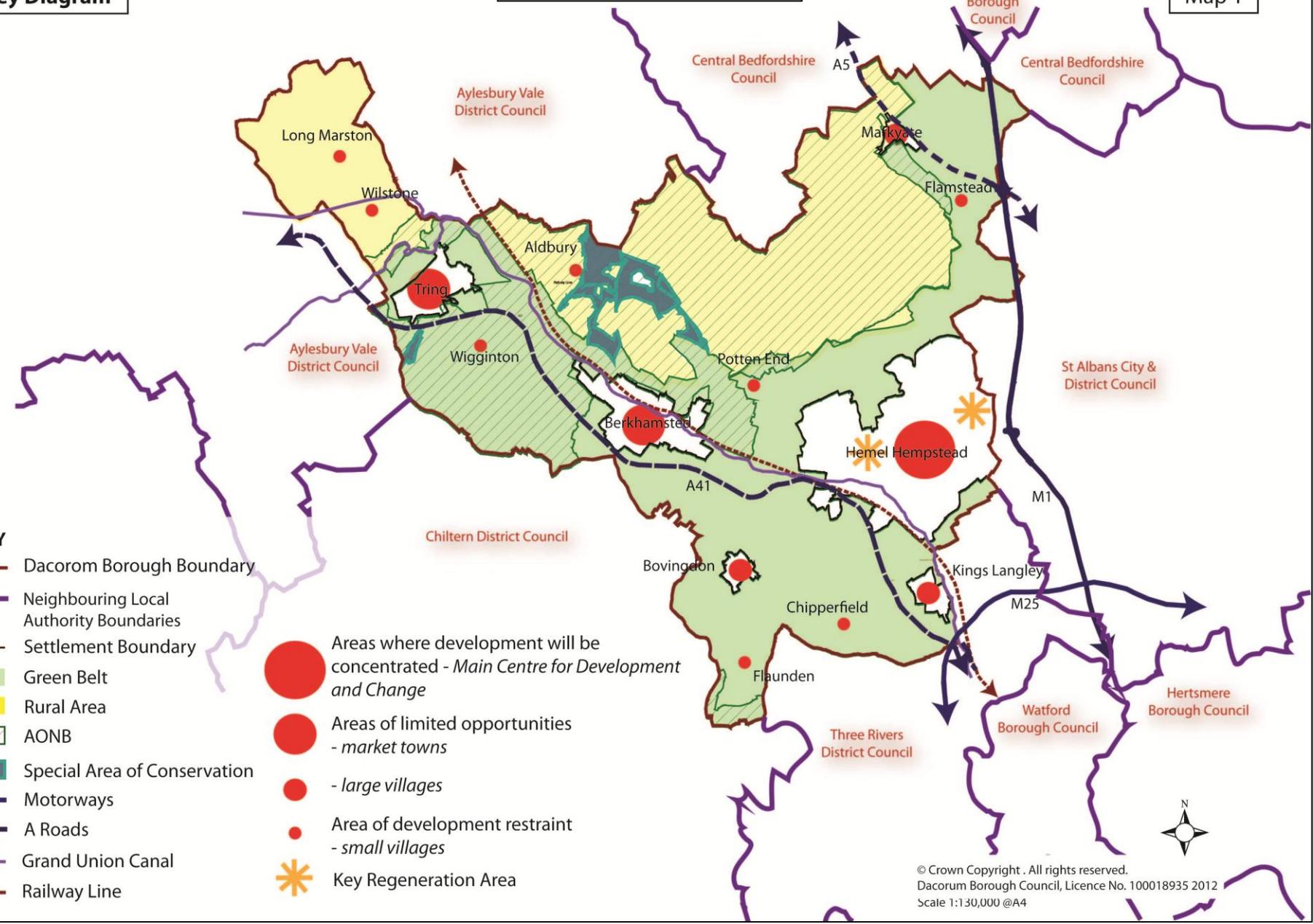
Map 1

Key Diagram

KEY

-  Dacorum Borough Boundary
-  Neighbouring Local Authority Boundaries
-  Settlement Boundary
-  Green Belt
-  Rural Area
-  AONB
-  Special Area of Conservation
-  Motorways
-  A Roads
-  Grand Union Canal
-  Railway Line

-  Areas where development will be concentrated - *Main Centre for Development and Change*
-  Areas of limited opportunities - *market towns*
-  - *large villages*
-  Area of development restraint - *small villages*
-  Key Regeneration Area



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 Scale 1:130,000 @A4

1.22. The levels of commercial development planned have also changed according to the new housing target.² Whilst the DSIS made assumptions about the distribution of offices, industry and warehousing floorspace, this has not been done for the IDP as the Employment Land Study (2011) suggests that this is not appropriate. The Core Strategy directs most of this type of new floorspace to the Maylands Business Park in Hemel Hempstead and this is what was assumed in the IDP where appropriate. The IDP does not consider a particular level of leisure development, as this is not set out in the Core Strategy. Furthermore, during the course of the DSIS it became apparent that the level of leisure development did not have a significant impact on infrastructure demand as it is too variable to model properly. The differences in the levels of non-residential development considered in the DSIS and the IDP are shown in table 1.3 below.

Table 1.3: Changes in the level of non-residential development planned in Dacorum (sqm)

	Hemel Hempstead	Berkhamsted	Tring	Rest of Dacorum	Total
DSIS 2009 – 2031					
Offices	164,574	9,143	9,143	n/a	182,860
Industry	- 49,579	- 2,754	- 2754	n/a	-55,088
Warehousing	69,557	3,864	3,864	n/a	77,286
Retail high	61,418	5,004	2,339	n/a	68,761
Retail Low	48,158	5,004	2,339	n/a	55,501
Leisure high	23,017	1,279	1,279	n/a	25,574
Leisure low	12,889	1,279	1,279	n/a	15,447
IDP 2006 – 2031					
Offices				n/a	131,000
Industry				n/a	0
Warehousing				n/a	0
Retail	53,500	7,000	3,250	n/a	63,750

1.23. The DSIS used population projections to model and inform infrastructure requirements however, this approach has not been taken for this IDP update as the Council does not currently have an agreed population model. This is explained further in the Council's note 'Population Projections and the Core Strategy'³. Instead providers were given information about the number of dwellings planned over the plan period and asked to use their own assumptions regarding population if necessary. Where providers were not happy with this arrangement, the Council suggested that the ONS population projections were used at a proportion equal to the proportion of dwellings in the CLG household projections planned.⁴

1.24. To help infrastructure providers identify the requirements arising from the planned level of development, the sites within the housing trajectory were categorised further by location, size of site and expected timescales for development.

² See the Dacorum Borough Council Employment Land Update 2011 (July 2011), Roger Tym & Partners and the Retail Study Update, Dacorum Borough Council (October 2011), GL Hearn.

³ Available at <http://web.dacorum.gov.uk/docs/default-source/planning-development/population-update-paper---september-2011.pdf?Status=Master&sfvrsn=0>

⁴ Advice note prepared for providers – can be provided upon request.

- 1.25. Meetings were held with most of the key infrastructure providers between February 2013 and May 2013 to update their requirements for infrastructure over the plan period. The meetings focused on infrastructure needs and how the infrastructure providers may utilise CIL or other mechanisms to deliver new items of infrastructure required to support the growth in the Borough. The Council has engaged in regular conversations with the County Council with regards to their needs for new infrastructure in accordance with paragraph 48 of the DCLG CIL Guidance 2012. A number of infrastructure providers updated their infrastructure needs by email.

Limitations of the Study

- 1.26. A number of infrastructure providers plan according to shorter timescales than that planned for through the Core Strategy, and others tend to react when proposals are at the planning application stage. This has limitations in terms of infrastructure planning for the Core Strategy Plan Period to 2031. There is more certainty about the infrastructure planned in the short to medium term, than that planned in the longer term.
- 1.27. Some providers were difficult to contact and provided limited feedback to the Borough Council regarding the content of the IDP. The Council continues to seek appropriate information from these sources.
- 1.28. Because of the uncertainties involved in infrastructure planning and continuing changes to circumstances of providers, and the economy more generally, the Council continues to liaise with all infrastructure providers regards the provision of infrastructure items.

Funding of Infrastructure

- 1.29. There are a number of sources of funding for infrastructure which must be considered and co-ordinated when planning the future provision of infrastructure. These include developer contributions through either on-site provision, Section 106 (S106) payments or the Community Infrastructure Levy (CIL), which are all delivered via the planning process.
- 1.30. Other potential sources of funding include that of the infrastructure providers themselves, which are set out in the relevant chapters, government grants and grants from other organisations such as the Big Lottery Fund. The grants are difficult to predict and therefore cannot be taken into account in the infrastructure planning process, however, they do provide a significant funding mechanism.
- 1.31. Responsibility for co-ordinating funding and delivery of infrastructure is set out in the Infrastructure Delivery Schedule.

Chapter 2: Transport

The DSIS Transport Report

- 2.1 The DSIS contains a report regarding the transport network and the impact upon it from the two development scenarios assessed. The report contains a baseline assessment of transport conditions in Dacorum which is still valid and is used for this IDP. The report also identifies a number of interventions which are planned by either Dacorum Borough Council or the main transport agencies⁵; most of these interventions are still valid, although this IDP report provides an update.
- 2.2 The DSIS transport report used an assessment framework to determine the future need associated with each development scenario. The impact of the growth was examined in terms of the gaps in the transport network and the interventions required to manage those gaps. This assessment has not been repeated for the level of development planned in the Core Strategy as it is considered that the outcomes in the assessment in the DSIS are a good enough proxy.
- 2.3 The report acknowledges the historic deficit in the transport network but does not seek to identify measures to address it; it is focussed on addressing the impact of growth.
- 2.4 Since the DSIS report was written, Planning Policy Guidance Note 13 has been replaced by the National Planning Policy Framework (NPPF). The NPPF emphasises the importance of sustainable modes of transport and the use of technology in the creation of sustainable development. It expects local authorities and transport providers to develop strategies for the provision of infrastructure to support sustainable development. It also expects all development that generates significant amounts of movement to be supported by a Travel Plan.

The transport baseline

- 2.5 The full assessment of the transport network baseline can be found in the DSIS Transport Report. In general, the transport network functions well, but some issues were identified; these are summarised below.
- 2.6 The road network is currently under stress at key locations such as the A41, A414 and A4146 within Hemel Hempstead, the A41 south of Berkhamsted, and the A5 west of Markyate. There is also stress on the Strategic Road Network, particularly the M25. The growth in patronage means that the rail network is at capacity and no significant improvements are planned in the foreseeable future. Consultation with the rail industry suggests that it is unlikely that the proposed High Speed 2 rail system will alleviate this as it will not reduce the number of passengers on regional trains throughout stations in Dacorum.
- 2.7 The bus network is generally well developed in Hemel Hempstead and adequate in other locations with the exception of Markyate where it is considered unreliable and

⁵ the Highways Agency, Hertfordshire Highways, Hertfordshire County Council and Network Rail

poorly integrated with larger local towns. A particular issue identified with bus services is that there are inadequate links between Hemel Hempstead rail station, Maylands and Hemel Hempstead town centre. The walking and cycling network broadly caters for current demand but there are localised issues, in part caused by an unattractive environment caused by congestion. Routes to stations are inadequate.

Published strategies

- 2.8 There are a number of plans and strategies for the transport network, which identify schemes required to improve the transport network to cope with anticipated levels of growth.
- 2.9 The third Hertfordshire Local Transport Plan 2011 – 2031 (LTP3) (2011) sets out the County Council's vision and strategy for the long term development of transport in Hertfordshire. It does not assume a particular level of growth because at the time of writing the full county-wide picture was not known. LTP3 aims to address existing transport issues and the extra demand upon the network arising from planned development by making better use of the existing road network. Two key elements of the plan are increased use of 'intelligent transport systems', which includes optimising traffic signals and providing real time information, and promotion of sustainable travel to reduce growth in car traffic.
- 2.10 LTP3 states that major new road schemes will normally only be built through external funding where new development generates significant new traffic flows. There is strong support for new development to be located and designed so that maximum use can be made of sustainable modes, including bus travel, to access services. It is also proposed that residents of new developments should be fully informed of sustainable transport options using new technologies. The Plan states that developers will be expected to help fund the provision of facilities and services for sustainable travel and contribute to the long term maintenance of special highway features.
- 2.11 Because of the approach described above, it is difficult to be clear about which schemes are required purely because of new development as opposed to existing problems with the transport network. However, it is clear, that the measures proposed are required to support housing and employment growth, and these will be complemented by measures required to mitigate the impact of specific development sites. The county highways authority's aim to achieve a modal shift will free-up capacity of the network and thus help mitigate the impact of new development; therefore the measures targeting the modal shift, including technological measures, are necessary to support growth.
- 2.12 LTP3 identifies specific schemes which the County Council and partners aim to deliver over the period 2011/12 – 2012/13 in the Two Year Programme. It also gives an indication of the major schemes and programmes that may be delivered over the period 2011 – 2031. The schemes in the Two Year Programme in Dacorum are excluded in the Infrastructure Delivery Schedule in Appendix A as they should have been implemented by now. None of the schemes identified in the

major category are in Dacorum. A number of 'other significant named projects' are identified, none of which are specific to Dacorum. There are however two county-wide projects: Intelligent Transport Systems (ITS); and Quality Network Partnerships (QNPs). The county has started to implement these projects within the Dacorum area. The Hemel Hempstead North East Relief Road known as the 'Maylands Growth Corridor' is identified as a further proposal, for which a timescale has not been set.

- 2.13 LTP3 points to urban transport plans for the identification of the majority of schemes. The Hemel Hempstead Urban Transport Plan (HHUTP) (2009) identifies short, medium and long-term strategies to shape travel patterns and provides a transport framework for the town. It only covers the urban area of Hemel Hempstead, and considers current issues with the transport network, the impact of planned development and measures that will influence travel patterns. Schemes identified in the HHUTP are included in the Infrastructure Delivery Schedule in the Annex to this report where it is still appropriate to do so. A number of projects have been removed from the schedule since the last update to the IDP and are assumed to have been implemented by the County Council or relevant transport infrastructure provider.
- 2.14 The HHUTP recognises that there is a need for transport modelling to assess the impact of planned development in the town. This modelling was subsequently undertaken and is discussed in paragraphs 2.18 to 2.22 below.
- 2.15 LTP3 has a number of 'daughter documents' which contribute to meeting LTP3's goals and challenges. The daughter documents published so far are the HHUTP, the Walking Strategy (2011), the Rail Strategy (2011), the Rights of Way Improvement Plan 2011/12 – 2015/16 (2011), the Road Safety Strategy (2011), the Bus Strategy (2011), the Intalink Strategy (2011) and the Intelligent Transport Systems Strategy (2011). The daughter documents contain measures which are critical to achieving the aims of LTP3; in particular the aim of reducing car use. The measures listed are extensive, and many do not have timescales or costs associated with them; however they are an important consideration for future infrastructure planning.
- 2.16 Dacorum Borough Council has an adopted Cycling Strategy (2009) which aims to improve cycling infrastructure in the borough and increase cycling rates. It contains policies and measures to achieve these aims, which are an important consideration for future infrastructure planning. The measures are not listed here because they do not have indicative timescales or costs associated with them; those considered as a priority by Hertfordshire County Council will be picked up by urban transport plans.
- 2.17 The Tring, Northchurch and Berkhamsted Urban Transport Plan (TNBUTP) (2013) identifies short, medium and long-term strategies to shape travel patterns and provides a transport framework for these settlements. This plan includes a number of measures to improve the efficiency of the local highway network and reduce congestion and provide necessary improvements to the highways network to support the growth identified for these towns in the Core Strategy. The identified

projects have been added to the Infrastructure Delivery Schedule at Appendix A to this report.

Transport Models and Assessment Framework from DSIS

- 2.18 Two transport models have been used to assess the impact of the proposed level of growth on the road network; one for the county highway authority and one for the Highways Agency.

Hemel Hempstead Urban Transport Model

- 2.19 The Hemel Hempstead Urban Transport Model was commissioned by the county highway authority to investigate the potential impact on the road network of development at Hemel Hempstead. Although it was commissioned to test the level of development planned by the East of England Plan, it is still relevant as it tests development within the town and greenfield growth options separately. The level of development tested within the town was very similar to the level proposed in the Core Strategy. The Local Allocations at Hemel Hempstead were tested in the Western Hemel Spatial option.⁶ The Council is in the process of updating the modelling in conjunction with Hertfordshire County Council. This update includes the latest dwelling figures for the town and revisited assumptions regarding phasing and trip generation rates although these have not significantly changed.
- 2.20 The modelling work assumed that within Hemel Hempstead 5,272 dwellings would be built by 2021, and a further 1,960 by 2031. With regard to the Local Allocations, it was assumed that development at Marchmont Farm will be built by 2021, and that development at West Hemel Hempstead will be phased so that half is built by 2021 and the rest by 2031. The level of employment development assumed was higher than is planned in the Core Strategy; it was assumed that 220,265 sqm of B1 development and 15,815 sqm of B8 development would be built by 2031. The Core Strategy assumes that approximately 131,000 sqm will be built between 2006 and 2031, and that there will be no net loss of B2/B8 floorspace over the period.
- 2.21 The broad conclusion of the model testing the impacts of development within Hemel Hempstead urban area was that the additional traffic demand can be accommodated on the road network with a number of infrastructure upgrades. The main threats identified to the operation of the road network are:
- Lack of capacity on the St Albans Road/Breakspear Way corridor;
 - Lack of capacity on the A4147/Redbourn Road corridor;
 - Significant congestion at junctions on the St Albans Road/Breakspear Way corridor to the M1;
 - Significant congestion at the Redbourn Road/St Agnells junction;
 - Congestion along the London Road corridor;
 - Congestion at the Plough roundabout

⁶ The reports referred to are the Hemel Hempstead Urban Transport Model Future Year Issues (June 2009) and the Hemel Hempstead Urban Transport Model LDF Option: Western Hemel (August 2010). Both of which are available on DBC's website.

The minimum upgrades required are:

- North East Relief Road;
- Improvements to A414/Maylands Avenue roundabout;
- Improvements to A414/Green Lane roundabout;
- Improvements to Redbourn Road/St Agnells Lane roundabout;
- Improvements to Shenley Road West/Redbourn Road junction;
- Modifications to Holtsmere End/Redbourn Road junction;
- Improvements to St Johns Road/Station Road junction;
- Optimisation of traffic signals across network to future year traffic levels.

2.22 The broad conclusions of the study into the impact of development at the Local Allocations at Hemel Hempstead were that the traffic impacts on the wider road network would be minimal in 2021, although there may be localised queuing in the area around the Boxted Road/Warner's End Road junction. By 2031, the development would have more of an impact of the wider road network, causing lower network speeds, with associated higher journey times and delays. The model identified that there may also be significant issues by 2031 as the junctions at Queensway/Warner's End Road/Leighton Buzzard Road and at Leighton Buzzard Road/Coombe Street might not have sufficient capacity. This was largely due to the scale of development at the West Hemel Hempstead site, but the problems can be resolved via minor junction redesigns and possibly signalisation.

The DIAMOND model – Strategic Road Network

2.23 The Highways Agency undertook modelling to assess the impact of housing and employment development across 6 Hertfordshire authorities (Dacorum, Hertsmere, St Albans, Three Rivers, Watford and Welwyn Hatfield) on the Strategic Road Network (SRN). The model assumes the level of growth planned in the Core Strategy (for Dacorum) and runs two scenarios; one with all the planned development built by 2031 and the other with no development built by 2031. This approach allows the cumulative impact of development in southwest Hertfordshire to be assessed against a reference baseline.

2.24 The SRN routes within southwest Hertfordshire and contained within the modelling were the M1, M25, A1, A1(M) and the A5. It is considered that the A5 will be de-trunked by 2031 following the completion of the A5-M1 Dunstable Northern Bypass. The traffic impacts are forecast to be more concentrated upon the non-strategic road network, as traffic will have dispersed by the time it gets to the SRN. Within the non-strategic road network the routes that are forecast to experience the highest increase in flows by 2031 (with development) include the A414 (St Albans Road and Two Waters Road) and the A4146 (Leighton Buzzard Road). The sections of the SRN which are forecast to experience increases in stress include the M1 between J9 and 10 and between 6A and 7 in the AM peak and the M1 between J7 and 8 in the PM peak. Further work in respect of junction analysis has found the M25 Junction 20 (A41) has a history of congestion. In the future (2031) during the AM peak the junction will continue to create significant queues on the A41 approach to the junction (southbound). In the PM peak the queues will continue to occur on the anticlockwise off slip causing an obstruction on the M25.

Increases in capacity will be necessary to facilitate further development in Hemel Hempstead (one of the major growth areas in Hertfordshire).

- 2.25 The impact on the road network is assessed according to average speed achieved and the number of Passenger Car Units (PCUs) kilometres and hours during peak hours. In Dacorum the average speed achieved is expected to decrease by 1-2 KM/hr in the peak hours as a result of development by 2031. The number of PCU kilometres and hours is expected to rise by 11-16% during the peak hours as a result of development by 2031.

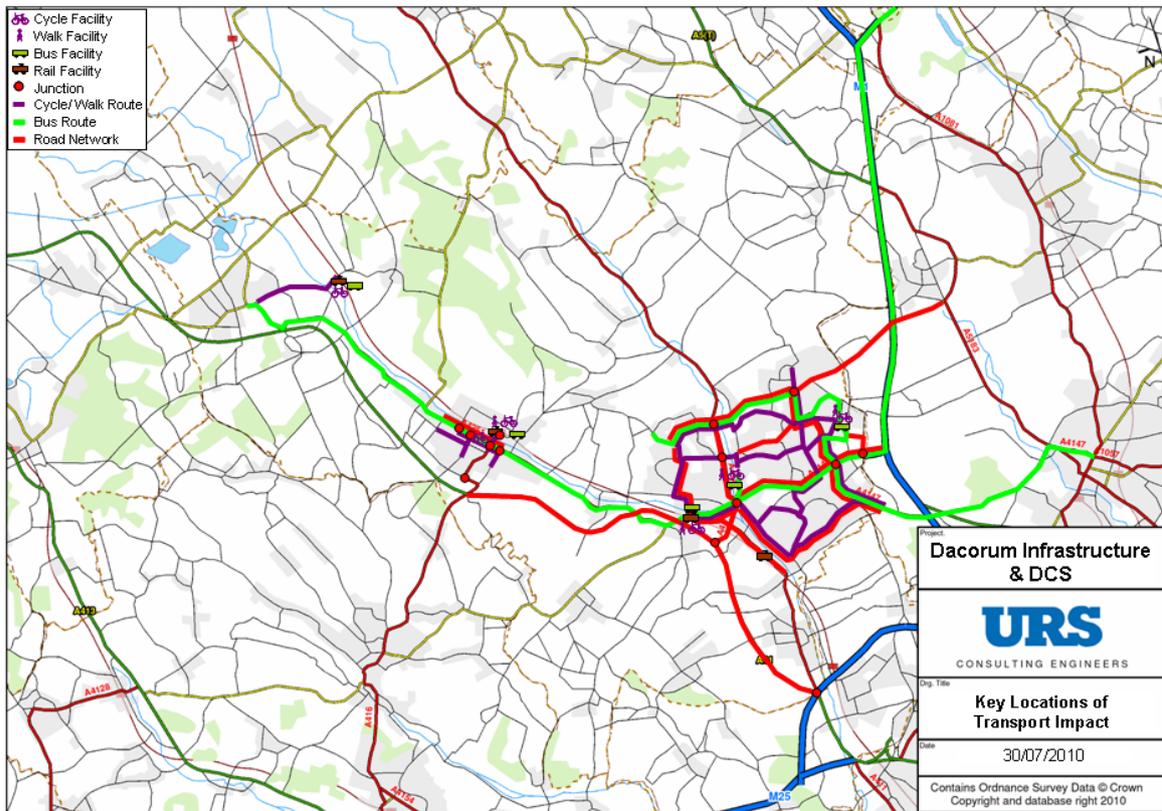
Assessment undertaken for DSIS

- 2.26 The outcome of the assessment undertaken for the DSIS is described in full in the DSIS Transport Report. The key impacts forecast to arise from the high growth scenario assessed in the DSIS are set out below:

- An additional 4,700 cycling and walking trips at peak times in Hemel Hempstead will put pressure on crossing facilities in the town centre and at Maylands.
- There will be a significant impact on bus services between Berkhamsted and Tring. Bus trips within Hemel Hempstead are predicted to rise by 1,300, with a significant proportion of these being for orbital and cross-town journeys. This will give rise to the need for a bus interchange in Hemel Hempstead town centre, better bus services to Maylands and to the train stations in the town.
- Up to an additional 1,400 rail trips will result from the high growth scenario – mainly at Hemel Hempstead and Apsley stations. This increased pressure on the rail line is likely to lead to over crowding as well as increased pressure on the road, bus and pedestrian networks. Improved facilities for walkers and cyclists at stations will be required.
- There is likely to be minimal impact on the road networks of Tring, Bovingdon, Kings Langley, Markyate and the rural parts of the borough. An additional 36 vehicles a minute are estimated at peak times in Berkhamsted, which will impact junctions near the station and along the High Street. The impact on the road network in Hemel Hempstead is likely to be significant under both scenarios. The main impact within the town will be on the 'central box' (A414/A4147/A4146), which opens up opportunities to encourage modal shift. Significant impacts are also forecast on routes to and from Maylands, the town centre and the train stations. The impact forecast from development at West Hemel Hempstead and Marchmont Farm (which formed part of the additional development for the high growth scenario) is mainly on orbital and cross-town routes as well as roads around the Local Allocations. The impact on the strategic road network (SRN) is forecast to be minimal, although there will be an impact on local roads leading to the SRN such as the A414.

- 2.27 The key impacts forecast in the DSIS are shown in figure 2.1

Figure 2.1: Key Locations of Cumulative Transport Impact to 2031



Transport plans for Hemel Hempstead town centre and Maylands

2.28 The Core Strategy identifies Hemel Hempstead town centre and the Maylands Business Park as areas where significant development and improvements are planned. The key transport elements included in the local objectives of the Hemel Hempstead Place Strategy include:

- Efficient public transport services between the town centre, the railway station and Maylands;
- A bus interchange in Hemel Hempstead town centre;
- A better footpath network in Hemel Hempstead town centre;
- New transport infrastructure, linked to parking management in East Hemel Hempstead;
- Completion of the North East Hemel Hempstead Relief Road now known as the 'Maylands Growth Corridor'; and
- A new access road from Breakspear Way to Boundary Way

2.29 Development in the town centre will be guided by the Town Centre Masterplan, Part of the evidence behind the Masterplan is an Access and Movement Strategy, which is being developed by consultants. Key transport measures identified as being required for the town centre to successfully achieve the development planned in the Core Strategy are:

- relocation of the bus station to the Marlowes and Bridge Street;
- relocation of the taxi ranking to Waterhouse Street;

- implementation of a one-way system in the Old Town;
- access improvements for cyclists and pedestrians between Hemel Hempstead station and the town;
- improved cyclist and pedestrian links along the River Gade through the town centre; and
- improvements to signage for pedestrians, cyclists and motorists throughout the town centre and between the town centre and key locations.

- 2.30 The Council is already implementing proposals for a one-way system in the Old Town and has identified the relocation of the bus station and new pedestrian and cycle links between the station and town centre as priority infrastructure improvements for 2014. The final detail of these schemes is being resolved and funding is being secured for the implementation of these projects.
- 2.31 A Masterplan already exists for development of the Maylands Business Park, which includes a movement strategy, and aims to establish Maylands as a 'well connected green business park'. The short – medium term elements of the movement strategy were taken forward via the HHUTP, the Maylands Area Travel Plan 2011 – 2016 (2011) and the Maylands 5 Year Improvement Plan.
- 2.32 The travel plan provides a programme of initiatives that will encourage those travelling to and from the Maylands Business Park to use more sustainable methods of travel. A town centre to Maylands bus link route was established in 2013 and it is aimed to secure long term funding for this transport route. The Council has recently adopted a Maylands Design Guide and has a fully costed public realm improvement strategy designed to improve the environment and make walking and cycling a more attractive means of transport.
- 2.33 The Council is expecting significant development to occur on land to the east of Hemel Hempstead which will incorporate around 1000 new homes, new jobs, a primary school, sports facilities and a new local centre in the Heart of Maylands. The development is expected to incorporate new transport infrastructure including the North East Hemel Hempstead Relief Road identified in the Hertfordshire Growth Plan and a new access road from Breakspear Way to Boundary Way. The Council is looking to unlock the Maylands Gateway site through the direct provision of access roads and utilities infrastructure as identified in the Infrastructure Delivery Schedule and is seeking LEP funding towards these projects.
- 2.34 The Council has already secured Growing Places Funding from the LEP for projects at Maylands Business Park such as access proposals for Spencer's Park and is looking to build on these successes as they bring forward proposals on the remaining development sites within the Maylands Employment Area and to the east of Hemel Hempstead.
- 2.35 Additional highways improvements and schemes may be required once detailed modelling work has been completed for the Local Allocations, which is being done in conjunction with the Site Allocations DPD.

Discussion with Highways Authorities

- 2.36 Several meetings have been held between officers from Dacorum Borough Council (DBC) and Hertfordshire County Council (HCC) to discuss the IDP and the associated Infrastructure Delivery Schedule. It has however been difficult to establish with the County which highways projects from the HHUTP have already been implemented or those projects which are now unlikely to be pursued. The County Council has also been asked about future use of CIL funding and S.106 for highways projects and how such matters should be addressed in the Council's draft Regulation 123 list.
- 2.37 It was agreed that the role of the IDP is to identify the infrastructure required to support the development planned through the Core Strategy, and to set out how it will be funded and delivered. It is important to ensure consistency between the IDP and the transport policy documents such as UTPs and LTP3. The information in the IDP will naturally be more accurate for schemes to be delivered in the near future, and it is important that it is updated regularly with input from officers from HCC. Liaison between the borough and county will continue on a regular basis to discuss infrastructure priorities and funding.
- 2.38 The overall impact of the development planned through the Core Strategy is picked up through the LTP3 daughter documents discussed above. Some specific impacts were discussed and officers from HCC confirmed the following:
- The impact of the level of development planned at Tring can be accommodated on the existing road network.
 - Regarding the Strategic Site and Local Allocation planned at Berkhamsted, there has been preliminary design work undertaken for 3 options for the Kingshill Way/ Shootersway junction and these informed the content of the TNBUTP. It is likely that the development of these sites will result in the need for the signalisation of junctions including Shootersway/Kingshill Way and Kings Road and Durrants Lane/High Street junctions.
 - Further discussion is needed with the landowners and their highway consultants regarding detailed access arrangements for the Local Allocation planned at West Hemel Hempstead. For the Local Allocation planned at Marchmont Farm the principle access will be via the Link Road. For the Local Allocation at Hemel Old Town, access will be off Fletcher Way. Some cost assumptions for these works have been included in the Strategic Sites Viability testing for CIL.
 - The two main road schemes under consideration for East Hemel Hempstead are an additional access road from the A414 to Maylands Avenue and completion of the North East Relief Road now known as the 'Maylands Growth Corridor'. The North East Relief Road is a proposal from the Dacorum Local Plan and was modelled in the Hemel Hempstead Urban Transport Model. This is recognised as an important piece of infrastructure within the Hertfordshire Growth Plan and is likely to be subject to funding from the LEP. HCC will revisit the need for the additional access road on to Maylands Avenue.

- 2.39 The main sources of funding for the provision of new transport infrastructure by the county highways authority are the County Council capital reserves, developer contributions, grants, contributions from third parties and central government funding. The County Council's capital reserves are likely to be lower in the future than they have been in the past. Central government funding is generally from the Local Transport Plan (LTP) fund, which is allocated based on the network size, with alterations for the condition of the asset and exceptional occurrences e.g. severe winter. Further central government funding is available for improvement schemes subject to a bidding process to the DfT for capital grants, and for individual projects via bidding for the Local Sustainable Transport Fund (LSTF). HCC submit regular bids for various schemes to the LSTF, much of which is for match funding for schemes where some developer contributions have already been secured.
- 2.40 The provision of new transport infrastructure by the county highways authority is heavily reliant on developer contributions, and the best approach in the future is likely to be a mixture of funding from CIL and S106, along with other sources outlined above. It will be important for officers from DBC and HCC to identify which schemes would be suitable for receiving CIL monies, and which would be more suited to S106 contributions. S106 agreements are only likely to be appropriate for direct access works to Strategic and Local Allocations or those listed within the Core Strategy.
- 2.41 A meeting was held between officers from DBC and the Highways Agency (HA) on 30th November 2011. The aforementioned DIAMOND modelling was discussed and it was confirmed by the HA that there will be no new (strategic) road building in Hertfordshire in the foreseeable future. Since the last review of the IDP planning permission has been granted for the development of land at Hicks Road (SS2) and this included provisions for the signalisation of key junctions between Markyate and A5. The northern bypass of Dunstable linking the A5 to the M1 is expected to be delivered from 2014/015 and this should reduce traffic congestion through Dunstable and along the A5 from Dunstable to junction 9 of the M1. The A5 is expected to be de-trunked as a result of these proposals.

Chapter 3: Education

The DSIS Report

- 3.1 The DSIS Social Infrastructure report contains a section on the provision of education and the impact of the two development scenarios assessed. The report considers early years, primary, secondary and further education (which include's sixth forms). It sets out the policy context and an assessment of existing provision for each, and this is followed by committed future provision and an assessment of future demand. The costs of provision associated with committed future provision and future demand are provided as an estimate. The scope of this report is slightly wider than the DSIS report as it considers early years, primary and secondary education (including Key Stage 3 and Key Stage 4 Education Support Centres), and sixth form and special needs education. It also considers further education.
- 3.2 Officers from Hertfordshire County Council (HCC) fed into the DSIS report and their forecasts were used where possible, although assumptions and standards were used to forecast the needs for early years and further education. The information in DSIS report is not repeated here, but is updated where circumstances have changed. This report takes a different approach to the DSIS in that it discusses the existing provision and future requirements for the different types of education provision individually and then discusses how they might be funded together to avoid repetition.
- 3.3 The information in this chapter is based on information in published strategies, other documents and discussions with providers. A meeting was held between officers from DBC and HCC on 09/02/12 where early years, primary, secondary and elements of further education was discussed. A meeting was held between officers from DBC and West Herts College (WHC) on 13/02/12 to discuss college further education requirements. Further updates have been provided during 2013 to reflect discussions with the County Council over Children, School and Family services.
- 3.4 As in the DSIS reports, requirements for primary and secondary education are expressed in forms of entry (f.e.). One f.e. is equivalent to 30 children per year group; for primary schools where there are seven year groups from reception to year 6 this totals 210 children. Secondary schools have five compulsory year groups from year 7 to 11, therefore 1 f.e. represents 150 children. Currently, on average, approximately 60% of students take up places in the sixth form, although this varies greatly in specific areas across the County. As a result of Government Policy, this proportion is expected to rise to an average of 80% as the number of places in education and training for 16 to 18 year olds rises to meet the rise in the participation age. Local Authorities have a duty to ensure that sufficient, suitable places are available to meet the reasonable needs of all young people, and to encourage them to participate.

Changes in education provision

New School Providers

- 3.5 The County Council has a legal duty to secure sufficient school and early years places, to ensure qualitative education standards are met, to co-ordinate admissions and to provide Special Education Needs and Youth Services. However their role as the direct provider of education facilities is changing with an increase in Academy and Free School provision.
- 3.6 The Academies Act 2010 sought to greatly expand the number of Academy schools nationwide and introduced the Free Schools programme with the objective of providing a greater choice and better quality of education provision. There continues to be a rapid growth in the number of Academy and Free schools with significant implications for the planning of education provision
- 3.7 HCC has the responsibility for commissioning the provision of school places from a wide range of providers, but is the admitting authority in only one case (community schools). All other schools, including faith schools (which are either Voluntary Aided or Voluntary Controlled), federated schools (two+ schools under a single governing body), trust schools (those supported by charitable trusts), academies and free schools and independent schools, are not managed by them. Where the need for a new school is identified, HCC must undertake a competitive process with the opportunity for the school to be a free school or academy first before they can provide a community school. Free schools, however do not have to be promoted on the basis of the need for school places and therefore have potential to distort basic needs planning.

Berkhamsted Education Provision

- 3.8 The County Council, in partnership with the governing bodies of Voluntary and Foundation Schools, is implementing proposals to move between a ‘three tier’ system of first, middle and upper schools within the Berkhamsted area to a ‘two tier’ system and reorganising the current schools into a mix of infant, junior, primary and secondary school as summarised below:

Table 3.1: Required changes to move to a ‘two tier’ education system

School	Current			Proposal		
	Size	Type	Age range	Size	Type	Age range
Swing Gate	1 f.e.	First	3-9	2 f.e.	Infant	3-7
Victoria C of E	1.4 f.e.	First	3-9	2 f.e.	Infant	3-7
Thomas Coram C of E	3.5 f.e.	Middle	9-13	4 f.e.	Junior	7-11

St Mary's VA C of E	1 f.e.	First	3-9	1 f.e.	Primary	3-11
Westfield	1 f.e.	First	3-9	1 f.e.	Primary	3-11
Greenway	2 f.e.	First	3-9	1 f.e.	Primary	3-11
Potten End VC C of E	1 f.e.	First	3-9	1 f.e.	Primary	3-11
Bridgewater	3.5 f.e.	Middle	9-13	2 f.e.	Primary	3-11
Ashlyns	7 f.e.	Upper	13-19	7 f.e.	Secondary	11-19

Source: HCC Education and Skills Cabinet Report – 10th July 2012

Primary Education

- 3.9 Primary education is the first stage of compulsory education and is typically from the ages of 4 (reception) to 11 (year 6), The information on the adequacy of existing infrastructure is refreshed annually in the Meeting the Rising Demand document where Childrens' Services forecast the demand for school places. The most recent version of Meeting the Rising Demand can be viewed at the following link:

<http://www.hertsdirect.org/services/edlearn/aboutstatesch/planning/>

<http://www.hertsdirect.org/docs/pdf/m/meetingprimary.pdf>

- 3.10 The attached report (item 4) to HCC Education and Skills Cabinet Panel on 19th September 2012 is also relevant and demonstrates the changing landscape in relation to the provision of school places within the town of Berkhamsted:

http://www.hertsdirect.org/your-council/civic_calendar/edskillcp/17446812/

- 3.11 The Core Strategy identifies two education zones at Berkhamsted and HCC are currently considering options for progressing development of the northern zone in the short term. This does not necessarily equate to a new school immediately; it may allow for expansion of Bridgewater middle school and the provision of a new primary school in the future. Development of this zone should relieve the existing capacity problems identified in primary education in Berkhamsted.

- 3.12 Since the IDP was updated in June 2012, the County Council has addressed the shortfall of primary school places in the east of the Hemel Hempstead through the expansion of Tudor Primary school and Hammond Primary school. The forecast indicates a further deficit of reception places in excess of 2.f.e. in the area from 2014/15. To assist in meeting the basic need for school places in this part of Hemel Hempstead, HCC supported a bid by the Hertfordshire Community Free School Company to open a new 2 f.e. free school from September 2014 on the site of the former Jupiter Drive School. The Department of Education has given initial approval to the bid and proposals are being developed to rebuild and expand Jupiter Drive school.

- 3.13 The County Council has a significant primary school expansion programme (PEP) for 2013/14 which will build upon the successes of 2012 and create an additional 14 forms of entry across the county. New classroom facilities are being considered at Galley Hill School and South Hill School as part of PEP3 for delivery for September 2014.

Future Requirements

- 3.14 The requirements for additional primary school places arising from the growth planned in the Core Strategy has been informed by the response to the Pre Submission Core Strategy from Hertfordshire Property (HCC), a document entitled 'Infrastructure Provision in Hertfordshire – Dacorum Borough Council' provided to DBC by HCC and discussions between officers during 2012/13. In short, HCC consider that the child yield from new developments in Dacorum will be somewhere in the range of 1 f.e. per 500 – 850 dwellings, depending on the mix, type and tenure of the dwellings.
- 3.15 Table 3.4 shows the estimated pupil yield arising from the housing planned in the Core Strategy and the resultant additional requirements for primary school provision and how they will be met by primary planning area. The costs of provision have been estimated using information in the 'Infrastructure Provision in Hertfordshire' document, which is repeated in tables 3.2 and 3.3.

Table 3.2: Cost of providing new primary schools

Number of f.e.	Pupils	Cost £million	Area (sqm)
1 f.e.	210	£4.89	1,434
2 f.e.	420	£7.64	2,278
3 f.e.	630	£10.8	3,270

Source: Infrastructure Provision in Hertfordshire – Dacorum Borough Council (HCC)

NB. Costs are average Hertfordshire build costs as of January 2011 and are subject to revision and review.

Table 3.3: Cost of extending primary schools

Size extension	Pupils	Cost £million	Area (sqm)
0.5 f.e.	105	£2.82	828
1 f.e.	210	£4.16	1,219

Source: Infrastructure Provision in Hertfordshire – Dacorum Borough Council (HCC)

NB. Costs are average Hertfordshire build costs as of January 2011 and are subject to revision and review

Table 3.4: Requirements for additional Primary School Provision to 2031

Primary Planning Area	Estimated Pupil Yield arising from housing planned in the Core Strategy	Requirement for additional primary provision	How it will be provided	Estimated cost of additional primary provision
Hemel Hempstead North East	10.4 – 17.6. f.e.	2 f.e.	Plans for an additional 2 f.e provided either by a school expansion or through provision of a new school on a site owned by HCC	£8.32m (based on the estimated cost of expansion of two existing schools).
Hemel Hempstead East to serve development in Hemel Hempstead and St Albans.		2 f.e.	New 2 f.e. school (may be in DBC or SADC administrative area)	£7.64m plus land
Hemel Hempstead South East		2 f.e.	New 2 f.e. school	£7.64m plus land
Hemel Hempstead West and North West		2 f.e.	New 2 f.e. school as part of LA3 delivered via section 106/land and contributions. Not CIL able.	£7.64m plus land
Hemel Hempstead Town Centre		2 f.e.	New 2 f.e. school	£7.64m plus land
Hemel Hempstead Reserve Sites		4 f.e.	Sites for 2 new schools	Subject to review
Berkhamsted	1.4 – 2.4 f.e.	Up to 4 f.e.	Dependant on the phasing of housing and the impact of the move to two tier education. However the 1180 dwellings only justifies the range of education yield 1.4 to 2.4 fe	£7.64m plus land if required –
Tring	0.6 - 0.9 f.e.	N//A	Through existing latent capacity	There may be costs associated with refurbishment/and or expansion if required
Kings Langley	0.1 - 0.2 f.e.	N//A	Through existing latent capacity (N.B the proposed school at SE Hemel Hempstead will help free up	There may be costs associated with refurbishment/and or expansion if required

			capacity)	
Bovingdon	0.2 - 0.3 f.e.	N//A	Through existing latent capacity	There may be costs associated with refurbishment/and or expansion if required
Markyate	0.2 - 0.4 f.e.	N//A	Through existing latent capacity. Refurbishment and/or expansion may be required	N/A – the cost of expansion have been secured through extant planning permissions for large sites within the settlement.
Countryside	0.5 - 0.8 f.e.	N//A	Through existing latent capacity	There may be costs associated with refurbishment/and or expansion if required
Total	13.4 – 22.6 f.e.	14 f.e. (+4 f.e. in reserve)		£46.52m plus land

School and site requirements

3.16 HCC policy is to provide 2 f.e. primary schools, plus nursery, where possible, however, there are variations in provision – for example in rural areas where smaller schools are appropriate, or in areas where there is a three tier system. Ancillary uses including pre-schools, children’s centres and extended services facilities often co-locate on school sites offering wider provision to the local community.

3.17 The preferred standards for the primary school sites are:

2.5 hectares

Sustainably located

Flat

Accessible to pedestrians and vehicles

Free from site constraints

It should be noted that free schools do not need to meet the same spatial standards.

3.18 DBC understands that it is the intention of Three Rivers to allocate a significant level of development within the settlement of Abbots Langley. This level of development combined with future growth at Kings Langley is likely to generate a requirement for an additional primary school in this area. The County Council is engaged in searching for a site within the area and DBC may be able to facilitate in the delivery of this project.

Early Years Education

3.19 The County Council has a duty to secure sufficient Free Early Education and Childcare places for residents of the Borough.

3.20 This duty extends to providing free Early Year (nursery) places (up to 15 hours per week in term time) for children from the term after which they are 3 until they reach school age, the provision of nursery places for eligible 2 year olds and to providing sufficient childcare places for working parents whilst children are between the ages of 0-14 years (19 for children with S.E.N.D)

3.21 The 15 hours of free early year’s education can be provided in a state maintained school or in a private, voluntary or independent (PVI) provision such as a pre-school and day nursery. Children aged 3 and 4 will often receive their free early years education in maintained nursery’s based at primary schools within the area. Pre-school/Playgroups provide education for children between the ages of 2 and school age and these settings are able to offer free early education to eligible 2 year olds as well as all 3 and 4 year olds. Day nurseries offer childcare and early years education for children from 0 to 5 and will normally offer free early education for eligible children.

3.22 The government plans to introduce a new targeted entitlement for two year olds to access free early education. Each eligible family will be entitled to 570 hours of free

early education from the term after the child's second birthday, which is equivalent to 15 hours a week over 38 weeks of the year. There is a phased approach to introducing this entitlement, starting in September 2013 when around 130,000 two year olds in England will be entitled to access free early education places. From 2014 this will be extended to around 260,000 two year olds. This equates to 20 per cent, and then 40 per cent, of all two year olds nationally.

- 3.23 This offer is targeted primarily at economically disadvantaged families, and by September 2013, families will be eligible if they meet the current criterion for free school meals. Children looked after are also eligible. The Department for Education will announce eligibility criterion for the second phase of the entitlement (from September 2014), and this is likely to include children with special educational needs or disabilities.
- 3.24 Childcare can take place in pre-schools, day nurseries and out of school provision such as holiday clubs and after school clubs depending on the age of the child and therefore can take place in school buildings or community use buildings.
- 3.25 The County Council is required to set out where childcare places are needed on an annual basis and does so through the publication of a Childcare Sufficiency Assessment. A copy of the latest assessment can be located by following this link:

<http://www.hertsdirect.org/docs/pdf/c/csar0313.pdf>

Children Centres

- 3.26 Children's centres offer access to a range of early childhood services aimed at supporting parents-to be, young children aged under five and their families. These include;
- Early education and childcare plus information and activities for families (stay and play sessions, toddler groups, pre-schools, day nurseries)
 - Outreach and family support
 - Evidence-based parenting programmes
 - Access to adult learning and employment support
 - Child and family health services
- 3.27 Children's centres aim to meet the needs of their local families so services offered by centres will vary according to the population served by the centre.
- 3.28 Since the IDP Update was written, DBC has received revised information from HCC about the adequacy of the existing provision of Children Centres to provide early education and childcare needs. Dacorum is divided into 10 Children Centre Areas. These are categorised using a RAG (Red, Amber, Green) system to denote capacity issues as follows:

Red = Insufficient places available (A gap exists which will mean a significant number of families will have difficulty accessing provision in that area)

Amber = Near sufficient places available (A gap exists which means that some families may have difficulty in accessing provision)

Green = Sufficient places available (Provision largely matches the needs of families)

This information is shown in table 3.5 and an estimated cost of meeting the additional demand for Children Centre places is provided where applicable.

Table 3.5 – Sufficiency of Childrens Centre Area’s

Area	Local Children’s Centre	Rating	Comment	Early Years Minimum Space Required	Estimated Cost ⁷	Children Centre Space required
D1 Tring	Orchard Children’s Centre		There are sufficient places for 2,3 and 4 year olds in this area			6 hours a week in shared community space
D2 – Berkhamstead North	Little Feet Children’s Centre		There are sufficient places for 2,3 and 4 year olds in this area			6 hours a week in shared community space
D3 – Berkhamstead South	Little Hands Children’s Centre		There are currently sufficient places for 2 year olds in the area but a deficit for 3 and 4 year olds. A 30 place, 2 sessional setting would close this gap.	Internal space 170sqm plus adjacent external space of 80sqm	£500,000	6 hours a week in shared community space
D4 – Warners End and Chaulden	Galley Hill Children’s Centre		There is a deficit for all age groups. In order to meet all need there is a requirement for 3 x 30 place, 2 sessional settings.	3 settings each of Internal space 170sqm plus adjacent external space 80sqm	£500,000 per setting	6 hours a week in shared community space
D5 – Hemel Hempstead central	Heath Lane Children’s Centre		There are sufficient places for 2,3 and 4 year olds in this area			6 hours a week in shared community space
D6 – Grovehill and Woodhall	Worldshapers Children’s Centre		There is a deficit for all age groups. In order to meet all need there is a requirement for a 24 place, 2	Internal space minimum of 134sq m plus adjacent external space of	£388,000	Ideally dedicated Centre plus 6 hours a week in shared community space

⁷ The cost of providing early years education varies considerably depending on how it is provided. For example there are different costs associated with decorating a previously underused room, providing an extension to an existing building or building a new facility.

			sessional setting.	60sq m		
D7 – Adeyfield, Highfield & St Pauls	Windmill Children's Centre		There are sufficient places for 2,3 and 4 year olds in this area			6 hours a week in shared community space
D8 – Bennets End and Leverstock Green	Green Lane Children's centre		There are sufficient places for 2,3 and 4 year olds in this area			6 hours a week in shared community space
D9 – Bovingdon and Chipperfield	The Lanes Children's Centre		There are sufficient places for 2,3 and 4 year olds in this area			6 hours a week in shared community space
D10 – Kings Langley, Bedmond and Nash Mills	Three villages Children's Centre		There is a small deficit for 3 and 4 year olds in this area which would be resolved if existing settings were to expand.			6 hours a week in shared community space

- 3.29 The most significant gap in the provision of places within Children Centres in Dacorum is in area D4 – Warners End and Chaulden and this is likely to be exacerbated by the proposed residential development at site LA3.
- 3.30 The County Council have also expressed a desire for a dedicated centre to be provided for D6 – Grovehill and Woodhall Farm in order to respond to growing population needs and the needs for additional services in the locality e.g. toddler groups, baby clinics, stay and play sessions etc. The provision of a dedicated centre in D6 – Grovehill and Woodhall Farm could be incorporated within a new build pre-school / nursery, by the addition of a shared use community room, or other appropriate new build scheme incorporating both medium sized spaces (eg meeting room for 12 people) and large sized spaces (e.g. halls that would take a toddler group for 25 parents and their children)

Secondary Education

- 3.31 Secondary education is the second phase of compulsory education and is provided in secondary schools for pupils aged 11 – 16 (years 7 to 11). Many secondary schools in Dacorum also offer a 6th form for pupils in years 12 and 13, however this is not compulsory and is considered under further education. The comments attached at section 3.4 relating to Government Policy increasing sixth form stay on rates should be noted.

Future Requirements

- 3.32 The requirements for additional secondary school places arising from the growth planned in the Core Strategy has been informed by the response to the Pre Submission Core Strategy from Hertfordshire Property (HCC), a document provided to DBC by HCC entitled 'Infrastructure Provision in Hertfordshire – Dacorum Borough Council' and discussions between officers during 2012/13. In short, HCC consider that the secondary school aged child yield from new developments in Dacorum will be approximately 1 f.e. per 500 to 850 dwellings.
- 3.33 The information regarding the adequacy of existing infrastructure is refreshed annually in the Meeting the Rising Demand document where Childrens' Services forecast the demand for school places. The most recent version of Meeting the Rising Demand can be viewed at the following link:

<http://www.hertsdirect.org/services/edlearn/aboutstatesch/planning/>

<http://www.hertsdirect.org/docs/pdf/m/meetdemandsecondary.pdf>

Table 3.6 shows the requirements for additional secondary school provision arising from the growth planned in the Core Strategy and how they will be met.

Table 3.6: Requirements for additional Secondary School Provision to 2031

Area	Estimated Pupil Yield arising from housing planned in the Core Strategy	How it will be met
Hemel Hempstead	10.3 f.e.	Through capacity within existing secondary schools. However, contributions may be required to expand existing schools if necessary.
Berkhamsted	1.4 f.e.	
Tring	0.6 f.e.	Through capacity within existing secondary schools. However, Tring secondary school may require extending – if so detached playing fields will be required and contributions will be sought accordingly.
Kings Langley	0.1 f.e.	Through capacity within existing secondary schools. However, contributions may be required to expand existing schools if necessary.
Bovingdon	0.2 f.e.	
Markyate	0.2 f.e.	Given that many pupils from Markyate travel to Harpenden secondary schools, contributions may be required to extend schools there.
Countryside	0.5 f.e.	Through capacity within existing secondary schools. However, contributions may be required to expand existing schools if necessary.
Total	13.1 f.e.	Largely through capacity within existing secondary schools, although some extensions may be required.

3.34 For information purposes the cost of building new secondary schools is provided in table 3.7. The information is taken from the Infrastructure Provision in Hertfordshire document provided for the examination of the Core Strategy and relates only to build costs for secondary education facilities.

Table 3.7: Cost of providing new secondary schools

Number of f.e.	Pupils (inc 50% 6 th forms SOR)	Cost £million	Area (sqm)
6 f.e.	1,008	£18.5	8,603

Source: Infrastructure Provision in Hertfordshire – Dacorum Borough Council (HCC)

NB. Costs are average Hertfordshire build costs as of Q1, 2006 (BCIS) and are subject to revision and review.

3.35 The County Council have recently estimated the cost of expanding a secondary school by 1 f.e would be some £3 million (School Expansions – HCC Enterprise, Education and Skills Cabinet – 20th September 2013)

School and site requirements

3.36 HCC policy is to provide secondary schools of between 6 and 10 f.e. where possible, however, there are variations in provision – for example in areas where there is a three tier system. Ancillary uses including extended schools and dual use sports facilities often co-locate on school sites offering wider provision to the local community.

3.37 The preferred standards for the secondary school sites for 6 – 8 f.e. schools are:

- 13 – 15 hectares
- Sustainably located
- Flat
- Accessible to pedestrians, vehicles and public transport
- Free from site constraints

It should be noted that free schools do not need to meet the same spatial standards, however HCC consider the above to be appropriate as non-statutory guidelines for free schools.

Further Education

3.38 Further education caters for students generally aged 16 – 18. A range of options are open to students in further education including GCSEs, A-levels, Diplomas, Apprenticeships and work experience schemes. Specifically, further education offers students the opportunity of pursuing a vocational alternative to traditional school sixth forms, with the focus on developing professional skills for careers and work.

3.39 As noted in the DSIS, the Education and Skills Act (2008) raised the participation age to require young people to continue in education or training until the end of the academic year in which they turn 17 from 2013 and until their 18th birthday from 2015. Raising the participation age does not mean young people must stay in school; they will be able to choose one of the following options:

- full-time education, such as school, college or home education
- work-based learning, such as an Apprenticeship
- part-time education or training if they are employed, self-employed or volunteering for more than 20 hours a week.

This is likely to have implications for demands upon secondary schools and colleges, but the extent of this is difficult to model.

3.40 There have been changes to the funding of non-school further education. Officers from WHC confirmed that the central government funding previously for adult (aged

19+) education has been reduced, and redirected towards apprenticeships. The role of the Young Person's learning Agency (YPLA) transferred to the Education Funding Agency (EFA) in April 2012. The EFA has responsibility for the direct funding of academies and Free Schools and all 16–19 provision including that in further education colleges, sixth form colleges and independent provision. The EFA will also distribute school funding resources to local authorities for them to pass on, to those schools that are not yet academies.

3.41 Academic pathways are predominantly catered for by 6th forms in secondary schools which provide for A-levels and some diplomas. Vocational pathways are predominantly catered for by further education colleges, specialist learning providers and employers.

Apprenticeships

3.42 Apprenticeships are work-based training programmes for new and existing employees designed around the needs of employers, which lead to nationally recognised qualifications. Apprenticeships are designed by Sector Skills Councils and business representatives from industry. Over 100,000 employers in over 160,000 workplaces offer frameworks across a wide range of industry sectors.

3.43 As Apprenticeships are work-based training programmes, most of the training is 'on the job' and the rest can be provided by a local college or by a specialist learning provider. Apprenticeship funding is available from the National Apprenticeship Service (NAS). If the apprentice is aged 16–18 years old NAS will provide all of the cost of the training; if they are 19-24 years old, NAS will provide up to 50 per cent; and if they are 25 years old NAS may provide some funding depending on the sector. Funding is usually paid directly to the training provider; in most cases this will be a learning provider, although some large employers with a direct contract with the National Apprenticeship Service may receive the funding themselves.

3.44 Employers are responsible for providing the 'on the job' element of the training and for paying the wages of apprentices. Employment must be for at least 30 hours per week, except in the minority of circumstances where the learner cannot complete the full 30 hours. In these cases employment must be for more than 16 hours per week.

Future Requirements

In-school further education provision

3.45 As set out in the secondary education section, no new secondary schools are planned in Dacorum over the plan period and therefore no significant expansion of 6th form provision is planned. However, this may change once the increase in participation age has come into effect. It is worth noting that current secondary school forecasts show that from 2018 there will be more secondary school aged children than places.

3.46 The 6th form facilities at Kings Langley secondary school are of a poor quality and HCC have supported an intention to develop a new 6th form block at the school via

representations to the pre-submission Core Strategy. At the current time the proposals are dependent on external funding. The new block would expand the existing capacity of the 6th form and provide students with a greatly improved environment in which to study.

Non-school further education provision

West Herts College

- 3.47 West Herts College (WHC) offers a wide range of courses over three campuses in Hemel Hempstead, Kings Langley and Watford. The Hemel Hempstead campus of West Herts College (WHC) is the only further education college in Dacorum and offers a range of courses in construction, retail and computing, travel and tourism and foundation studies alongside part time adult leisure courses. Since the DSIS report, WHC have submitted a planning application for a new consolidated college facility upon their existing site. This is driven by the college's desire to accommodate changes in further educational requirements, including changes to the college curriculum and space requirements for growth in construction related courses and as a result of increased enrolments for 16-18 year olds. The new college building will keep the same town-centre location in Hemel Hempstead but offer far greater scope for larger, more flexible learning spaces. Each subject area will have its own dedicated space and impressive facilities, with even the most straightforward classrooms fully equipped with the latest learning technology.
- 3.48 The new provision is designed to appeal to NEETs (young people not in education, employment or training) of which Hemel Hempstead has a relatively high proportion. In general, people who are NEET prefer practical learning and vocational courses and the college is successful in running apprenticeship courses with a particular focus on construction activities. The college is looking to offer a greater range of courses and appeal to more female students. The new college building within Hemel Hempstead town centre would have a gross internal floor area amount to some 9,383 square metres and is due for delivery in 2015. WHC aim to modernise its offer to rectify this, as sustainability is becoming increasingly important in the construction industry.
- 3.49 The Dacorum Education Support Centre has been relocated from the campus at West Herts College to Barncroft School to facilitate this proposal.

Dacorum Borough Council's Role

- 3.50 DBC are refreshing the skills strategy to reflect the Governments vision for reform of the further education and skills system to improve the skills of the workforce, the performance of the economy and engagement in learning.
- 3.51 DBC promotes the interaction of further education providers and employers through the Employment Skills and Partnership Board, as discussed in the Job Brokerage section of chapter 9. DBC encourage employers to take on apprentices, and liaises with employers and providers to ensure that the type of training on offer matches the skills gap in the local economy. Further education organisations who sit on the board include Adeyfield School and Youth Connexions Hertfordshire.

Funding

HCC Educational Facilities

- 3.52 The main source of funding for additional school places remains the capital funding that HCC receives from central government known as Basic Needs funding. This is topped up through the use of S.106 funds and capital receipts that may be obtained from the disposal of HCC land. The level of Basic Needs funding is calculated according to annual demand for places and can vary substantially between years. It is envisaged that S106 funding, and in turn CIL, will be vital to supplement the Basic Need funding in meeting the costs of additional school places arising from new housing development.
- 3.53 Officers from HCC have confirmed that where the requirement for a new school or expansion of an existing school is triggered by a single development (500 dwellings+), it is normal practice for the developer to bear the cost of the building and the land. It would be the County Council's preference to secure such sites and buildings through the continued use of S.106 agreements even with an operation CIL charging schedule. However, where the requirement for a new school or expansion is triggered by cumulative levels of development, the provision of the land is more complex. Sometimes appropriately located HCC owned land can be used, but it is more common for HCC to acquire the land – in some cases via compulsory purchase orders. The alternative use of the land heavily influences its value, so land that might alternatively be used for housing will be a lot more valuable than land whose alternative use is agriculture. This bears out the importance of making appropriate education allocations through the Core Strategy and Site Allocations DPD. In such cases, the County Council are likely to require access to CIL funds.
- 3.54 There are other external funding sources that HCC can apply for, such as the Priority Schools Building Programme, but there is no certainty of these as a source of future income.
- 3.55 Because of the unstable nature of demand for early year's education, and the flexibility in forms of provision, it is difficult to say with certainty these will be funded. Developer contributions, in the form of Section 106 and CIL, will be sought towards early years provision in areas where there are deficiencies, or forecast deficiencies.

West Herts College

- 3.56 The cost of the redevelopment of the Hemel Hempstead campus is being met by the College and its development partners.

Apprenticeships

- 3.57 Apprenticeship funding is available from the National Apprenticeship Service (NAS). Since the IDP was last updated in June 2012, DBC has supported three apprenticeships in the voluntary sector at a cost of approximately £50K. In addition, ten apprentices have been employed at the Borough Council at a cost of £130K. These apprenticeships are due to finish in August 2013. However, some of these

apprentices have secured continued employment with the Council. The Council is committed using further resources to increase the number of apprenticeships available and for use on initiatives promoted by the Employment and Skills Partnership Board. The Council is currently considering whether it would be appropriate to assist in securing apprenticeship schemes through the use of S.106 agreements or CIL funds.

Chapter 4: Healthcare

The DSIS Report

- 4.1 The DSIS Social Infrastructure report contains a section on the provision of primary and secondary healthcare and the impact of the two development scenarios assessed. The report sets out the policy context and organisational structures, it then considers the provision requirement standards and gives an assessment of existing provision. This is followed by committed future provision, an assessment of future demand and an estimate of the costs of future provision.

Primary Healthcare

- 4.2 Primary healthcare includes General Practice (GP), community nurses, dentists and opticians.

Introduction

- 4.3 As of 1st April 2013, NHS Hertfordshire ceased to exist and two successor organisations, Herts Valley Clinical Care Commissioning Group (HVCCG) and East & North Clinical Commissioning Group became the responsible organisations for arranging healthcare across Hertfordshire. HVCCG is responsible for commissioning existing and future healthcare provision for patients in Dacorum, Hertsmere, St Albans and Harpenden, Watford and Three Rivers. .
- 4.4 CCGs will be led by local clinicians (Doctors and Nurses) supported by administrators. They will be accountable to and performance managed by NHS England who have regional and local offices. .
- 4.5 Although HVCCG is the responsible organisation for commissioning services in the Dacorum area, an important exception to the commissioning remit of the CCG is that of primary care contracts. These will be commissioned by NHS England to avoid any conflicts of interest.
- 4.6 Since working in shadow format, HVCCG has engaged with local stakeholders and identified key areas which will be prioritised over the coming 12 months. The long term vision is currently being developed and will be published in due course.
- 4.7 Embedded in HVCCG Strategy is the aim of reducing healthcare inequalities across the borough. To support this it is important facilities are in accessible places.

Policy Context

- 4.8 The Core Strategy highlights that the provision of healthcare is a key priority and includes the aim of reducing healthcare inequalities across the borough by making sure that the facilities are in the most accessible places.
- 4.9 Health need and deprivation is not uniform across the Dacorum area. The Index of Multiple Deprivation (IMD) 2007 demonstrates that the highest rates of deprivation are in Hemel Hempstead including Highfield & St. Paul's, Grovehill and Woodhall

wards.⁸ Areas with high deprivation indicators will have a greater need for healthcare provision.

Organisational Structure

- 4.10 HVCCG will support local GP commissioners to maintain a local focus with services provided within the locality. This will ensure that local clinicians will direct patient contact will be making commissioning decisions about what is needed in Dacorum..
- 4.11 Part of the NHS reform has resulted in Public Health Consultants transfer into local authorities enabling more joined up prioritisation of resources to areas of greatest health need.
- 4.12 *Delivering Quality Healthcare for Hertfordshire (DQHH)*⁹ was a ‘whole systems’ approach to future service delivery and is at the heart of the established *Strategic Plan*. Building on this approach HVCCG is currently formulating a revised strategy for future service delivery as part of their strategic vision.
- 4.13 Whilst in shadow format, HVCCG worked with Hertfordshire PCT to move appropriate aspects of healthcare provision closer to patients homes. This may mean provision of care facilities in local facilities or within the patient’s home as appropriate. However, this has not yet resulted in the planned reduction of acute activity. This may require additional capacity in primary care or community based services.

Primary Care Provision Requirement Standards

- 4.14 Primary care includes a range of clinicians (Doctors, Nurses, Dentists and pharmacists. Access to hospital and community services is controlled by GPs. Having sufficient GPs operating from adequately sized and located premises is therefore a key factor in a population’s access to health. GP Premises are funded through a separate stream rather than included within the service charge as in other primary care contracts.
- 4.15 For a traditional five/six day per week GP practice an ideal benchmark is about 1 Whole Time Equivalent (WTE) GP per 1,800 patients on the list¹⁰. GPs are ‘Independent Contractors’ that is to say not employed by the NHS, they have a contract for service but the recruitment and retention of staff is a matter for the practice to manage. Service Commissioners are not able to place any requirement on a practice as to the ratio of patients to staff; however they can enforce service delivery standards if service quality or access times fall below acceptable levels.

⁸ DacCom commissioning plan 2009/10

⁹ Delivering Quality Healthcare, NHS Hertfordshire. 2007

¹⁰ 1 GP per 1,800 patients is deemed an accepted target for PCTs across the country highlighted in both the Estates Plan, Guildhouse Ltd UK, September 2009 and The Hertfordshire Infrastructure and Investment Strategy, Atkins, 2009.

- 4.16 Different types of GP contracts exist which provide the flexibility for primary care provision. With open access to unregistered patients and longer opening hours (such as the West Herts Medical Centre on the Hemel hospital site) these may see a gradual move away from ‘traditional’ lists and the 1,800 benchmark.
- 4.17 The majority of GPs in Hertfordshire do not operate out of NHS owned premises. Surgeries are often in the private ownership of the GPs or leased by them, the NHS reimburses them for those areas deemed required for the service commissioned. In addition to buildings certain other elements of infrastructure provision (Information management Technology and business Rates for example) are also reimbursed. This reimbursement is determined by Commissioners and is a far more appropriate measure of capacity than staffing as without a consultation room to work from a practice cannot recruit a GP or nurse to meet increased demand.
- 4.18 In 2012, NHS Hertfordshire and the local Commissioning groups worked with Guildhouse UK Ltd to develop a capacity planning tool for existing practices. This uses a proxy measure of patients on the list per metre squared of reimbursed floor space. By comparing the figure to the average utilisation for Hertfordshire a relative estimate of capacity (registrations before the average is met) or constraint (registrations above the average) can be provided.
- 4.19 Whilst the current average is an appropriate measure for assessing the capacity of existing practices, where a new practice (or branch surgery) is required to serve a significant development it is not. New clinical premises are required to be fully compliant with the latest guidance and will be significantly less well utilised than existing premises. For example the current (2012) figure of existing Hertfordshire Surgeries is 22 patients per metre squared, for premises commissioned in the last two years it is only 13.

Existing and Committed Provision

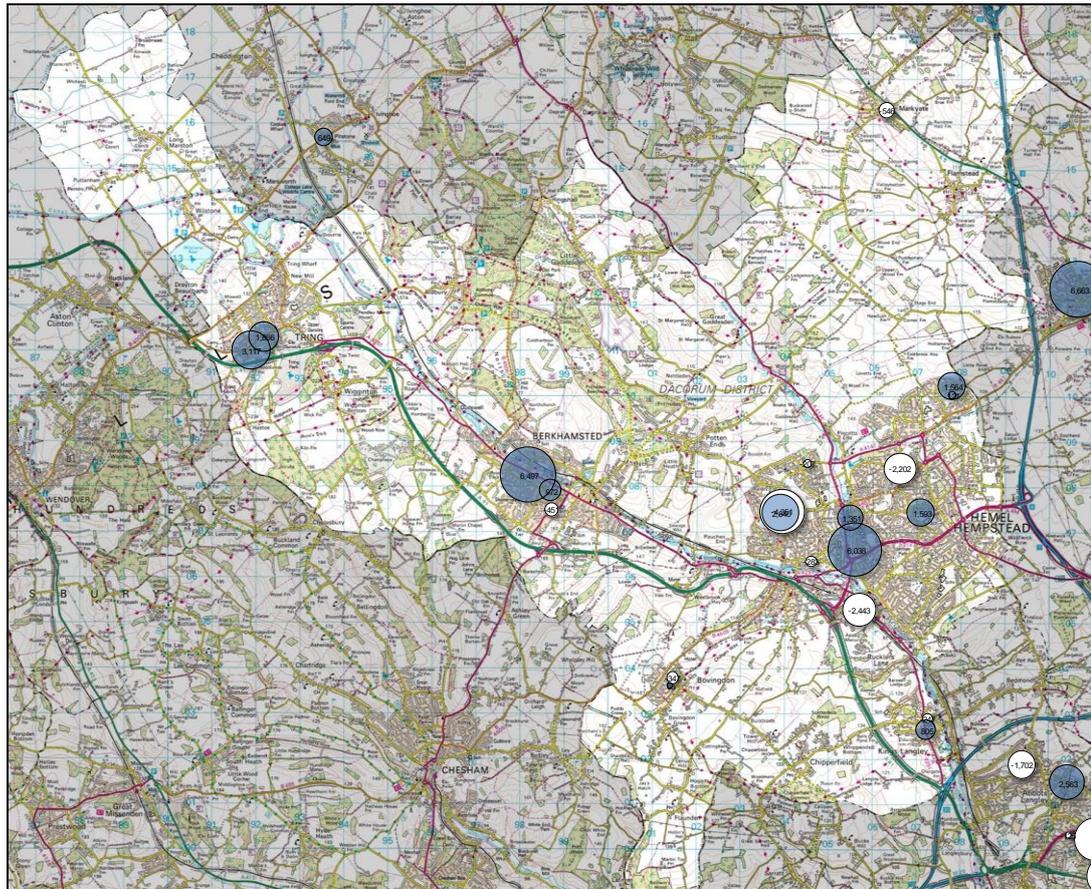
Existing Provision

- 4.20 There are 70 GP sites across the area covered by HVCCG, which are strategically located to serve residential communities.¹¹
- 4.21 There are 20 GP practices in Dacorum.¹² GP main and branch surgeries are indicated on Figure 4.1, indicating whether they have capacity to expand (in blue) and by how many registrations. Where a practice is already above the average levels of utilisation these are indicated by a white circle with a negative figure indicating how far above average utilisation they are in registrations.

¹¹ East and North and West Hertfordshire PCT Five Year Strategic Plan, refreshed 2010

¹² Commissioners Investment and Asset Management Strategy, 2010. NHS Hertfordshire.

Figure 4.1: GP sites and relative capacity or constraint in Dacorum (Oct. 2011)



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Source: Guildhouse UK Ltd. 2012

4.22 With regard to figure 4.1:

- The main settlements are well served by practices with additional capacity to expand. Some areas have practices with capacity alongside those with constraint. Larger development proposals will need to consider the 'net' capacity of the area.
- Proposals outside of the main settlements may be more difficult to service from existing provision. Health Commissioners are discouraged from supporting single handed practices (following the Shipman Enquiry) and a two GP surgery will require at least 2,600 patients to run cost effectively. This would suggest a development of over 1,000 dwellings. The alternative will be for patients to have to travel some distance to register with a practice. Existing practices may be persuaded to provide a service in a temporary, suitably adapted or purpose built premises where costs can be offset or discounted whilst the service demand builds up.
- The ability to register patients is not only dependent on premises capacity, Clinical Staff will need to be recruited and in some cases the quality of existing premises may fall below required standards.
- Practices based within one locality may operate branches outside of the area.

- Practices in neighbouring localities may have either capacity or constraint which may impact on development proposals. This can be illustrated by the Redbourn Medical Centre which lies just over the boundary in St Albans and has significant capacity.

4.24 HVCCG commissions health services for a registered population of around 160,000 people in Dacorum.¹³ It should be noted that the number of people registered with GPs in the borough is higher than the borough's population, indicating that people from outside the borough are registered in Dacorum.

4.25 Within Dacorum the 112 GP staff comprised of 80 principal GPs and 31 salaried GPs. The NHCB publishes information rating local GP surgery services across a range of measures using a 'Balance Scorecard'¹⁴. Dacorum's practices achieve good levels of access and generally high quality performance.

Adequacy of Existing Provision

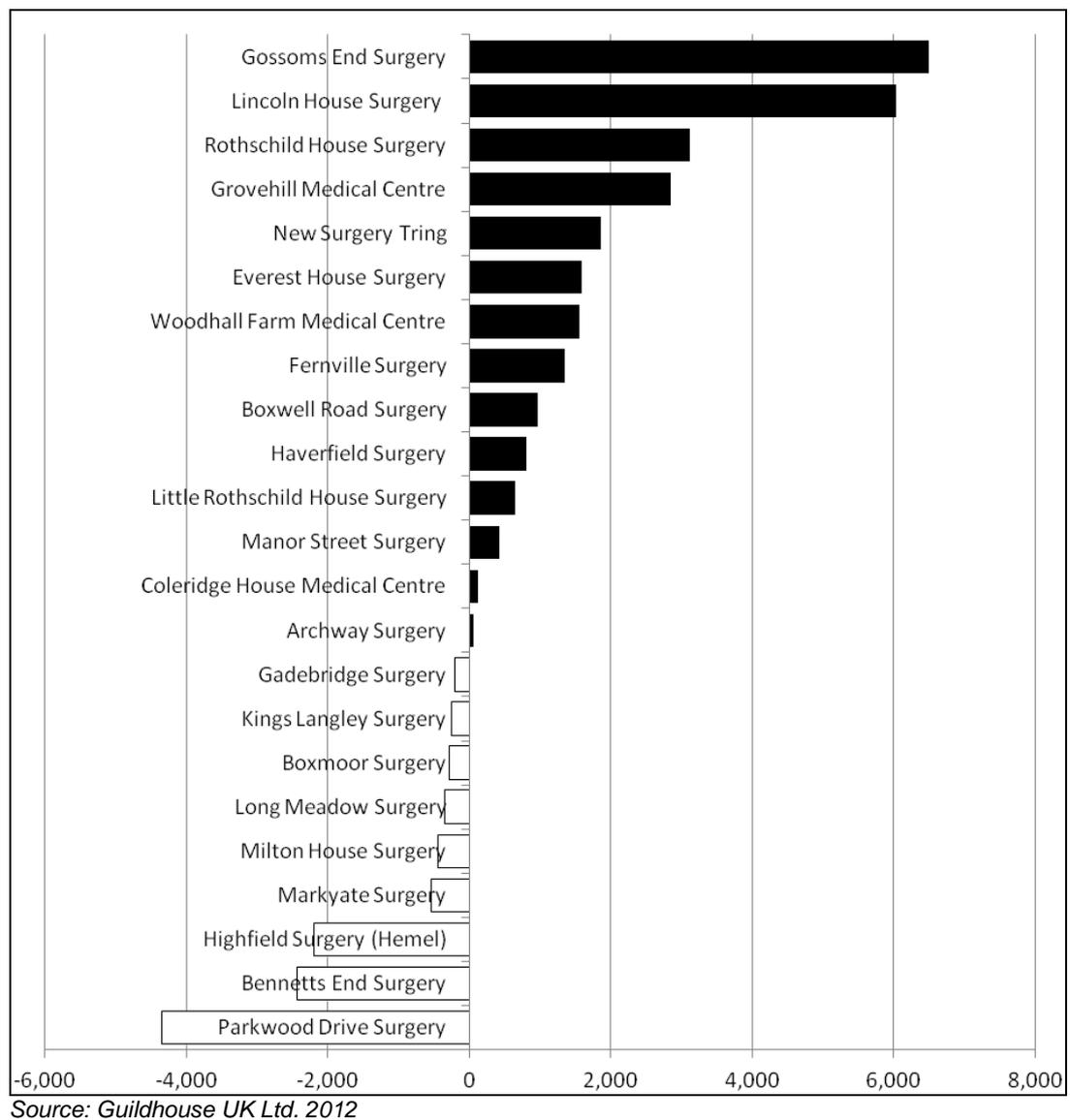
4.26 The estimated capacity of each of the existing main and branch surgeries (Oct 2011) is shown in figure 9-2 below. Those to the top of the graph have increasing levels of additional capacity before reaching average utilisation. Those to the bottom are increasingly constrained when compared to the average.

4.27 The condition of the premises and their ability to recruit and retain staff will be a factor in achieving additional registrations. In order to expand or improve existing premises practices will need to make a successful business case to the service Commissioners. Prioritising the limited funds available may include a range of additional performance measures not simply physical capacity.

¹³ NHS Hertfordshire, October 2011.

¹⁴ NHS Hertfordshire (2010) <http://www.hertfordshire.nhs.uk/resource-centre/nhs-hertfordshire-publications/234-gp-balanced-scorecard.html>

Figure 4.2: Registration Capacity at Average Utilisation (Practice Name)



4.28 Summarising the information in Figure 4.2 by settlement;

The current provision of primary care premises facilities is under review. There are several new premise projects being considered. These projects are being taken forward in consultation with HVCC, NHCB and Dacorum Borough Council. The extra provision is being considered in areas where proposed new residential housing will have an impact on existing facilities.

- Hemel Hempstead:** In Hemel Hempstead, two projects (Parkwood Drive Surgery and Highfield Surgery) are currently being considered to promote additional facilities and primary care capacity. There are no plans to expand Fernville Surgery and a strategy will be need to be developed to address capacity issues related to growth within the immediate vicinity of this surgery. Bennetts End Surgery has some additional capacity within the existing building

not currently approved for GMS provision and would be capable of accommodating some growth with modest interventions..

- **Bovingdon and Markyate:** These areas are currently unlikely to support growth in the area without investment.
- **Berkhamsted:** Some Berkhamsted Practices could support growth however caution should be exercised as much of this capacity relates to the generous proportions of the Gossom End (Hertfordshire Community Trust owned) Premises.
- **Tring:** GP practices should be able to support growth up to a combined total of 3,500 new registrations.
- **Kings Langley:** Moderate growth might be supported but consideration should be given to cross border pressure from Three Rivers (Abbots Langley).

4.29 NHS' estates in Hertfordshire are older than the regional averages for the East of England and national figures. However, the majority of the PCT estate properties in Dacorum are of average condition and appear to be well utilised.

Committed/Planned Investment

4.30 There have been a number of investments in the Dacorum area over the last few years that are reflected in the figures above. These include the development of the West Herts Medical Centre as part of the national Equitable Access Initiative (2009) and the relocation of the Lincoln House Surgery (August 2011). Planning permission has also recently (June 2013) been secured for the relocation and improvement of Highfield Medical Centre from its current location in Jupiter Drive, Hemel Hempstead to a location near the Highfield local centre (4/00803/13/FUL). This should be implemented within 12 to 18 months.

4.31 The Core Strategy refers to the new Urgent Care Centre and GP-led health centre on the hospital site in Hemel Hempstead. It states that further redevelopment plans for the site will lead to the delivery of a new local general hospital.

Assessment of Future Demand

4.32 Developments are being considered in areas where it is likely that proposed new developments will impact on primary care provision. .

4.33 There is capacity for increased provision within the existing primary care premises, however there are some areas within Dacorum that will sustain growth more effectively than others most notably Hemel Hempstead..

Costs of Provision

4.34 New build health facilities are currently being constructed at about £2000 per m2 (excluding fees) converted into a lease cost this equates to around £200 per m2.

PA¹⁵. An alternative assessment of cost, as set out in the DSIS is based on cost per GP. URS estimated this to be £300,000 per GP or £0.9 million for a three GP practice. This assumes that GPs are congregated in a clinic of three GPs in a single clinic. These costs include fixed furniture, fittings and equipment, fees (at a rate of 13%) and are based on a new build. However, they exclude the cost of land purchase, any loose furniture fixtures and equipment and any temporary accommodation requirements during the (re)build. Once future GP requirements are known, this cost estimate can be used to assess their likely cost.

- 4.35 It is important to stress that this cost will be indicative only. Costs may vary substantially depending on the size and specific requirements of each GP surgery and the procurement route taken. Furthermore, precise costs for the future provision of primary health services is complicated by the fact that the range of services, associated number of consulting rooms and size of each healthcare centre that might be developed over the planning period is highly dependent on a range of factors and considerations. Instead, the estimate should be viewed as a core cost for the provision of a GP practice, to which additional costs would need to be added should a centre include additional health services.

Summary

- 4.36 The population of Dacorum is at present generally well-served in terms of capacity of primary care services; though there are some local areas of deficiency where surgeries are over-crowded and patient lists exceed the 1,800 patient per WTE GP standard, most markedly in Hemel Hempstead.
- 4.37 The application of a standard per-GP cost will be used to estimate the indicative cost associated with additional demand. In addition to identified capital costs there may be service costs which mean that it is not viable for providers to build new facilities until a significant proportion of the new development is completed and large numbers of patients are seeking to register.

Secondary Healthcare

Introduction

- 4.38 Secondary healthcare is treatment by specialists to whom a patient has been referred by primary care providers. It covers general acute care (typically provided in a hospital), intermediate care (short-term support to prevent an admission to hospital) and mental healthcare (provided in a range of settings).
- 4.39 Secondary healthcare is provided by NHS trusts, including foundation trusts (which have more financial and operational freedom than other NHS trusts), children's trusts and mental health trusts.
- 4.40 Hospitals and other secondary care facilities are not restricted to local authority boundaries or catchment areas, so patients outside of the area are treated. They

¹⁵ Guildhouse UK Ltd 2012 based on recent Hertfordshire schemes

have much wider catchment and planning area than primary healthcare, which is provided at a local level.

Organisational Structure and Existing Provision

- 4.41 Residents can access acute services at hospitals both within and outside Hertfordshire. Nearly 98% of Hertfordshire residents live within 30 minutes of an acute hospital by car, based on modelled travel times.¹⁶
- 4.42 The key facilities and agencies relevant to the strategic planning and provision of secondary healthcare in Dacorum are discussed below.

Clinical Commissioning Groups and NHS England

- 4.43 As of the 1st April 2013 HVCCG is the responsible organisation for commissioning most healthcare (hospitals, mental health, ambulance and GP out of hours etc) for patients in West Hertfordshire.
- 4.44 NHS England will be set up and be responsible for directly commissioning all specialist services, primary care, offender healthcare and some services for members of the armed forces. It will have 27 area teams but will be one single organisation operating to a common model and under one board.
- 4.45 Commissioning of public health services will be undertaken by Public Health England (PHE) and local authorities, although NHS England will commission, on behalf of PHE, many of the public health services delivered by the NHS.
- 4.46 HVCCG has identified five work streams; Un-planned care, Planned and Primary Care, Children and Young People, Mental Health and Elderly and Complex care. Each one is responsible for delivering on care within its remit and works across the different healthcare settings including acute centres, urgent care centres, elective care, local general hospitals, intermediate care and primary care to ensure integrated services for patients. The work streams aim to deliver transformational change, including improved patient safety through the centralisation of specialist care; improved patient experience through better access to urgent care services; more care closer to home; and improved access to planned care.

West Hertfordshire Hospitals NHS Trust

- 4.47 West Hertfordshire Hospitals NHS Trust (the Acute Trust) was formed on 1 April 2000 following the merger of St Albans and Hemel Hempstead NHS Trust and Mount Vernon and Watford NHS Trust. The Trust manages Hemel Hempstead Hospital, as well as St Albans City Hospital and Watford General Hospital, providing general healthcare and some specialist services, and has close links with specialist hospitals. The Trust works with PCTs, local GPs, Clinical Commissioning Groups, other NHS Trusts, and the local social services.
- 4.48 Hemel Hempstead Local General Hospital is the only hospital in Dacorum and occupies a significant area of land within the town centre. A new 24/7 Urgent Care

¹⁶ Source: Three Rivers District Council Infrastructure Delivery Plan, May 2010

Centre opened at the hospital in October 2008, which treats patients with minor illness and injuries. A wide range of outpatient services, intermediate care beds, tests and investigations are also provided at the hospital. Currently HVCCG is working with stakeholders to develop a strategy for its future. This will include clinical commissioning of services across West Herts Hospital Trust.

4.49 The vision for Hemel Hempstead was that the new Local General Hospital would provide some or all of the following in new or refurbished accommodation:

- A full range of outpatient services with Consultants, Specialist Nurses and Therapists
- Facilities for minor operations
- Diagnostic facilities (X-ray, ultrasound, mobile MRI unit hook up facility, point of care testing, blood tests)
- Therapies (physio, speech & language, dietetics, podiatry and occupational therapies).

HVCCG is working with West Herts Hospital Trust to ensure that service provision at HHLGH will cater for the needs of the population of Dacorum, providing appropriate services within the community

The Hertfordshire Partnership NHS Foundation Trust

4.50 The Hertfordshire Partnership NHS Foundation Trust provides the majority of health and social care for people with mental ill health and learning disabilities. The Trust works in close partnership with Herts County Council and other NHS organisations to promote and support mental health in the community. The Trust provides¹⁷:

- Acute and Rehabilitation Services including inpatient services and crisis teams. There are no inpatient care sites in Dacorum. There are mental healthcare beds in Albany Lodge, St Albans, where beds may be accessed by Dacorum. Acute Services provide adult inpatient services for a Crisis and Assessment Service Treatment Team (CATT) and A&E Liaison. A&E Liaison teams operate at A&E in the District General Hospitals, specifically Watford, Lister, and the QEII at Welwyn Garden City.
- Community Services include local teams for mental health and learning disabilities and prison 'in reach' services. In Dacorum there is a Prison In-Reach team based in Bovingdon. The Trust has introduced Enhanced Primary Mental Health Teams which work closely with GP's and primary care staff to provide improved access and earlier mental health interventions. They are also responding to the local demand for improved access to psychological therapies, developing these services and recruiting more staff trained to provide these types of treatments.

¹⁷ Source: <http://www.hertspartsft.nhs.uk/>

- Secure and Rehabilitation Services such as medium secure learning disability services, which includes in-patient and specialist residential services.
- Specialist Services such as substance and alcohol abuse, mother and baby care, dementia, eating disorders, specialist learning disability services. Child and Adolescent Mental Health Services (CAMHS)
- The Community Drugs and Alcohol service (CDAT) has recently been awarded to a third sector provider.

Committed Provision

- 4.51 The main investment project relating to secondary healthcare in Dacorum is the redevelopment of Hemel Hempstead Local General Hospital. The budget of the scheme has not been confirmed and HVCCG are currently assessing health care needs. It is however estimated that the costs for a new or reconfigured hospital building would be between £25 million to £30 million.
- 4.52 Also, in the future there may be adult mental acute beds located in the borough; however this provision is not committed and the location of the proposed beds is undecided.¹⁸

Assessing Future Demand

- 4.53 Planning of secondary healthcare services is complex and the DQHH strategy lays out the range of provision required to meet projected growth in Hertfordshire until 2025. Its assumptions require a significant reduction in acute admissions supported by more active management of patients in the community. Key to this objective in the Dacorum area will be the development of the Local General Hospital and the strengthening of extended services in primary and community care. The Council will work with Health Commissioners to ensure the requirements to serve Dacorum's population to 2031 are adequately met.
- 4.54 HVCCG will be working with HPFT to transform the way in which services will be provided to the patients in Dacorum. A community based model is likely to be adopted over the coming year, ensuring that services provided are being offered in the most appropriate healthcare setting. .
- 4.55 It is likely that increases in Dacorum's population to 2031 will place additional pressure on all secondary healthcare services in the borough and surrounding areas. The changing age profile of the borough's population is also likely to have an impact on secondary healthcare needs, as certain age groups are likely to utilise healthcare services more than others.
- 4.56 Given the pattern of Dacorum's planned housing growth, it is likely that the greatest future need will be in Hemel Hempstead. In this respect, the location of new Local General Hospital will fit the location of new demand.

¹⁸ Source: Pers. Comm. Hertfordshire Partnership NHS Foundation Trust

4.57 Models of healthcare are changing. There is potential to improve services and also to generate efficiencies and reduce costs by integrating primary and secondary healthcare provision. Relevant measures include the shifting of acute services to local community hospitals and reducing demand for services in institutional settings by improving prevention and care in the community.

Costs of Provision

4.58 The DQHH Strategy provides fully costed proposals to ensure the changes in the model of acute healthcare are affordable within expected budgets. There are elements of the proposals including the proposed Local General Hospital in Hemel Hempstead that will require service providers to successfully submit business cases for funding. In the period up to 2025 it is anticipated there will be a reduction in acute infrastructure.

Summary

4.59 A number of agencies are involved in the provision of secondary healthcare facilities to Dacorum residents, including the Hertfordshire Partnership NHS Foundation Trust and West Hertfordshire Hospitals NHS Trust.

4.60 HVCCG's strategic vision will consider the demand for and supply of healthcare infrastructure, and will plan services accordingly. The redevelopment of Hemel Hempstead hospital will be planned with due consideration to the future healthcare requirements of residents in the borough.

4.61 The lack of information, at this stage, makes a comprehensive assessment of future secondary healthcare requirements difficult. However, population increase related to planned housing development can be assumed to increase pressure on services. This is especially so given the likely increase in the proportion of the population over 65, and will be most acutely felt at Hemel Hempstead where growth is concentrated.

4.62 The transfer of the Public Health function from PCTs to local authorities on the 1st April 2013 should greatly improve the ability to integrate health and land use planning. It is recommended that DBC persist in engaging with secondary healthcare providers in order to emphasise the importance of medium to long term strategic planning, and to ensure that secondary healthcare requirements are built into the wider strategic planning and planning obligations process.

Chapter 5: Open Space

The DSIS Report

- 5.1 The DSIS Social Infrastructure report contains a section on the provision of open space and the impact of the two development scenarios assessed. The report sets out the overall policy context and an overview of existing provision of open space. This is followed by a more detailed assessment of existing provision, planned provision, future demand arising from growth and estimated costs of provision for the following types of open space: leisure space (including child play space), natural green space and allotments. This IDP report considers the same typologies of open space as the DSIS report
- 5.2 The policy context and baseline assessments of open space provision in the DSIS report is still valid and as such the information is not repeated in this chapter, but is updated where appropriate. The report also identifies a number of interventions which are planned by Dacorum Borough Council or other open space providers. This IDP report provides an update and updates the Infrastructure Delivery Schedule to that previously prepared in 2012.
- 5.3 The DSIS report used recognised standards to determine the future demand for each typology of open space associated with each development scenario. The impact of the growth was examined in terms of the existing deficiencies, the additional demand arising from planned development and the planned provision of either additional open space or improvements to existing, which may increase capacity. This assessment has not been repeated for the level of development planned in the Core Strategy as it is considered that the outcomes in the assessment in the DSIS remain an appropriate proxy.
- 5.4 The report has been updated to account for projects identified in 2013 by the Council's Green Infrastructure Delivery Project group and to reflect those implemented by the group over this period.

Policy Context

- 5.5 Since the DSIS report was written Planning Policy Guidance Note 17: Planning for Open Space, Sport and Recreation has been replaced by the National Planning Policy Framework (NPPF). The NPPF advises against building on open space and allows communities to designate, through local or neighbourhood plans, green areas of particular importance as Local Green Space to safeguard them from development. It states that planning policies should be based on assessments of the quantitative and qualitative needs for open space and opportunities for new provision. The NPPF expects local planning authorities to plan positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure.
- 5.6 At a more local level, since the DSIS was written Green Infrastructure Plans have been published for Hertfordshire and Dacorum; the Hertfordshire Strategic Green Infrastructure Plan (HSGIP), and the Dacorum Borough Green Infrastructure Plan

(DBGIP). The key points from the plans are summarised below and links to the full documents are provided.

- 5.7 The HSGIP and the DBGIP provide overviews of existing strategic green infrastructure assets in Hertfordshire and Dacorum respectively, they assess the ability of green infrastructure to perform multiple functions and consider opportunities for enhancement and creation of green infrastructure. They then outline a series of potential projects to deliver multiple functions and benefits, and provide advice on taking green infrastructure proposals forward. The projects which fall within Dacorum are included in the Infrastructure Delivery Schedule in Appendix X. The full HSGIP report can be accessed on the County Council's website: <http://www.hertsdirect.org/services/envplan/greenissues/gi/qinf/>. The full DBGIP report can be accessed on Dacorum's website: http://www.dacorum.gov.uk/default.aspx?page=1884#Green_Inf
- 5.8 The projects set out in the HSGIP and DBGIP are aimed at enhancing the existing green space network and delivering multiple benefits. Because of this approach, none of the schemes are required purely because of new development. However, it is clear, that the measures proposed are required to support new housing growth, and these will be complemented by measures required to mitigate the impact of specific development sites. Other open space schemes may also be planned and delivered during the plan period, and these will be included within the update to the Infrastructure Delivery Schedule as appropriate.
- 5.9 The Green Space Strategy, which was in draft form at the time the DSIS was written, has since been adopted by the Council (2011). The Green Space Strategy is a vision and plan to deliver improved public spaces within the Borough over the period 2011-2016. It is intended to be used as a management tool to guide DBC's work programme and to direct funding and resources. The strategy is underpinned by an assessment of the needs of local communities, the availability of resources and the quality, quantity and accessibility of green spaces. This information was used to establish priorities for the Borough and to develop local standards for provision, design and management of new green spaces. The strategy includes general and specific recommendations and an action plan setting out how the recommendations in the strategy will be delivered.
- 5.10 The Strategy identifies 6 policies which set the framework of the overall approach to the management and development of green space. Each policy is supported by identified actions to guide the work programme over the next five years. Policy 6 is '*to use development opportunities to improve the quality and provision of open space*'. The strategy states that new developments should provide sufficient open space for their community, and be landscaped to provide a quality setting and to enhance the surrounding area. New developments should contribute to the strategic development of the Borough's green space resource forming a well designed network of interconnected sites. Provision will ideally be on-site from developments of a sufficient size, but contributions towards off-site facilities will also provide a significant contribution towards the borough's green space from developments off all sizes where on-site provision is not practicable.

- 5.11 The policies and actions in the action plan of the Green Space Strategy are supported in this IDP report, but are not listed individually as they pertain to specific schemes and general approaches. This report has updated some of the costs therein given a previous lack of information regarding timescales and costs. The Council are considering a review of the Green Space Strategy and any updates will be picked up in the annual update to this IDP.

Changes for providers

- 5.12 Since the DSIS was written the providers of some forms of open space have faced significant falls in their funding. The Children's Services team at DBC, who operate the adventure playgrounds in Hemel Hempstead have had cuts to both the amount of central government and local government funding that it receives. This has put pressure on external funding sources and it is much more difficult to get external funding for any particular scheme. This has led to a reduction in the services run from the adventure playgrounds, for example youth clubs are now run once a week from each playground, rather than twice a week at each playground.
- 5.13 The external funding that was previously available to DBC for play area improvements have ceased; the sources of this external funding included the Big Lottery Fund and the Playbuilder Fund. Funding sources for allotment provision have also decreased.
- 5.14 The Council has attempted to replace the sources of funding through the more effective utilisation of S.106 monies including those secured for youth projects by the County Council, however in the longer term it is likely that such improvements to open spaces will require the use of CIL funding. The Council has also been successful in 2013 in securing Heritage Lottery funding for the improvement of open spaces within the town centre such as the Water Gardens and are exploring the potential to prepare bids for funding for open space improvements to Gadebridge Park.

Schemes that have been delivered

- 5.15 The Council has undergone a scheme of play space improvement works since the last update to the IDP was undertaken in June 2012. A number of the schemes identified as planned in the DSIS report have subsequently been delivered. The schemes which have been delivered include:
- Play improvement programme – improvements to existing facilities at Woodhall Farm, High Street Green, Durrants Hills, Butts Meadow, Lagley Meadow and Mortimer Hill
 - New allotment site at Grovehill
 - Reinstatement of allotment plots at Bennetts End
 - Apsley Fitness Trail
 - Margaret Lloyd Park Pond Refurbishment
 - Refurbishment of Northchurch Recreation Ground

New Schemes

- 5.16 Although the Council has improved a number of play areas within the Borough, there are still a number of play schemes that need to be implemented to improve the quality and quantity of play space within the Borough. A rolling programme of play space maintenance and improvement has been developed. It is expected that new play areas will be introduced alongside the implementation of strategic and local allocations identified in the Core Strategy whilst the Town Council have identified a need for play facilities on the Chiltern Park Estate in Berkhamsted.
- 5.17 The Council is currently developing three significant green infrastructure schemes within the town centre; at the Water Gardens, Apsley & Two Waters and Gadebridge Park. The objective is to provide an attractive green corridor and recreational space through the town centre and enhancing the use of these open spaces by offering improved facilities as part of the wider regeneration programme for the town centre.

Chapter 6: Emergency Services

The DSIS Report

- 6.1 The DSIS Social Infrastructure Report contains a section on the Emergency Services, with chapters on Fire and Rescue services, Police services and Ambulance services. The three services were contacted to input to this update, however, no response was received from the Fire and Rescue Service or the Ambulance Service. It has been assumed that the information in the DSIS report regarding these services remains valid; conclusions for both are repeated at the end of this chapter. The information in the DSIS report regarding police services is updated below following a meeting between officers from DBC and officers from Hertfordshire Constabulary on 10th January 2012 and further advice has been sought by email between January and April 2013.
- 6.2 There have been significant changes to police services nationally and locally since the DSIS report was written and therefore this chapter provides a complete update to the information within the DSIS report.

Changes to the Police Service

- 6.3 Since the coalition government came to power (May 2010) police services across the country have seen a cut to their funding. Hertfordshire Constabulary's funding has been cut by 17% over the period 2011/12 to 2014/15; which equates to a reduction of £36m over that period.
- 6.4 A future change to police services across the country is the plan to replace Police Authorities with elected Police and Crime Commissioners as set out in the Government's Police Reform and Social Responsibility Act. There will be one commissioner for Hertfordshire, following elections in November 2012. This represents a big change to the way police are run; the commissioner will have responsibility for setting the strategic policing priorities and for setting the budget. The commissioner will also appoint the Chief Constable, who will then be accountable to the commissioner.
- 6.5 This forthcoming change for the police service leaves the constabulary in a position of slight uncertainty about its future direction and requirements.

The baseline provision

- 6.6 As noted in the DSIS there are three police stations in Dacorum, which are located in the borough's three towns: Hemel Hempstead, Berkhamsted and Tring. However, recent changes to the police stations have taken place; the station in Hemel Hempstead has lost its custodial facilities and the station in Berkhamsted has moved into the Civic centre building. The custodial facilities previously provided at Hemel Hempstead police station are now provided at Watford.

Planned provision

- 6.7 The Estates and Facilities Plan review confirms that there are no closures of police stations planned in Dacorum. The only change in provision currently being considered is the relocation of the police station in Hemel Hempstead town centre to the new Public Service Quarter (PSQ) building planned as part of the town centre redevelopment. Hertfordshire Constabulary have confirmed that they would like to locate their Safe Neighbourhood team within the new PSQ building from 2016.

Future Demand arising from planned growth

- 6.8 Herts Constabulary use an Association of Chief Police Officers (ACPO) approved toolkit to assess the impact of additional housing and employment development on their service. The toolkit is used to estimate the number of police staff, floorspace and costs required due to the development planned in the Core Strategy.
- 6.9 The toolkit applies the existing incident rates, staff and floorspace requirements per 1,000 population, to the level of development planned in order to assess the impact. The toolkit used Herts Constabulary's methodology for converting planned residential development into projected population. The results of the toolkit are set out in table 6.1.

Table 6.1: Demand placed upon police services arising from planned development

Staff requirements		Floorspace requirements	
Number of staff	Capital set up Cost	Floorspace required	Cost of provision
25.9	£237,107	151 sqm	£472,357
Total cost of requirements: £709,464			

Source: Hertfordshire Constabulary: Assessment of the impact of growth – Dacorum Local Authority

- 6.10 Officers from Herts Constabulary explained that the toolkit projects cumulative requirements over a long period of time (i.e. the plan period) and it is not appropriate to include timescales for the projected requirements.
- 6.11 Given the uncertainties about the future direction of police services and phasing of new infrastructure explained above it is not practicable to relate the outputs of table 6.1 into physical infrastructure. However, it does provide an indication of the scale of the likely impact on the police service in Dacorum arising from the level of development planned in the Core Strategy.

Funding

- 6.12 The main sources of funding for Hertfordshire Constabulary are central government funding and council tax receipts; all the funding they receive is revenue funding, a proportion of which is allocated for capital expenditure. The only capital held by the force is in the form of property, vehicles, and ICT.

- 6.13 Hertfordshire Constabulary aim to minimise capital costs by sharing facilities, for example through the PSQ in Hemel Hempstead town centre and their recent move to the civic centre in Berkhamsted.
- 6.14 Hertfordshire Constabulary are not currently reliant on S.106 monies. However, in the future the grant funding received by Herts Constabulary will decrease significantly. As result, Herts Constabulary will rely on other sources of funding including CIL monies to provide the infrastructure required to support operational needs. Any CIL funding they do receive is likely to be used for capital expenditure, and it is now anticipated that this is more likely to be for adaptation of existing buildings than the building of new ones.

Conclusions regarding additional demand for Fire and Rescue services

- 6.15 The key conclusions from the DSIS report regarding the above service remain relevant and are as follows :
- Hertfordshire Fire and Rescue Service (HFRS) have commented that the scale of growth is not as important as the location of the growth with regard to fire cover, due to response times.
 - According to discussions with the HFRS, the existing stations should be able to cope with the additional level of demand arising from growth under both scenarios
 - Some of the building stock used by HFRS with Dacorum is dated and in need of replacement or refurbishment. Whilst there are no proposals to change the locations of current stations, however there may be some reorganisation of estate providing there be opportunities to improve the building stock.

Conclusions regarding additional demand for Ambulance services

- 6.16 The key conclusions from the DSIS report regarding the above are:
- Demand for ambulance services can be linked to population growth but the relationship is complex. While the PCT has a forecasting tool it uses to plan ambulance services, details of their methodology were not available.
 - No information was available on future plans for provision.

Chapter 7: Waste

The DSIS Report

- 7.1 The DSIS Utilities and Physical Infrastructure report contains a section on the provision of waste services and the likely additional waste generated as a result of the two development scenarios assessed. The report considers the collection and disposal of Local Authority Collected Waste (LACW) and sets out the policy context and an assessment of existing waste management infrastructure. This is followed by a summary of planned future provision of infrastructure in the context of the requirements arising from the two development scenarios. The costs of provision associated with committed future provision and future demand are provided as an estimate.
- 7.2 Officers from Hertfordshire County Council (HCC) and Dacorum Borough Council (DBC) fed into the DSIS report and their future plans for provision were used rather than quantitative standards. The information in DSIS report is not repeated here, but is updated where circumstances have changed.
- 7.3 The information in this chapter is based on information in published strategies and discussions with providers. A meeting was held between officers from DBC and HCC on 05/12/11, and between officers from DBC on 21/12/11 where waste disposal and collection was discussed respectively. The projects have been updated during 2013 through regular discussions with the County Council and waste service providers.

Changes to policy drivers

- 7.4 Although the Hertfordshire Waste Local Plan is still in place, the Waste Core Strategy and Development Management Policies Document (WCS) underwent public examination in November 2011. The inspector's report was delayed to allow for further representations to be made in light of the National Planning Policy Framework (NPPF) before being adopted in November 2012. The WCS sets out the spatial vision and strategic objectives for waste planning in Hertfordshire and associated policies. It also sets out development management policies to inform decisions for waste planning applications.
- 7.5 The Strategic Objectives in the Dacorum Core Strategy include the aim of reducing waste, and policy CS29 requires new development to provide on-site recycling facilities for waste.
- 7.6 It should be noted that although most Planning Policy Statements (PPS) have been superseded by the NPPF, PPS10 Sustainable Waste Management remains in place.

Waste Management Infrastructure

- 7.7 There have been no changes to the existing provision of waste management and facilities to those set out in the DSIS report, and the assessment of their adequacy is considered to remain valid.

7.8 In terms of future planned/committed infrastructure, the following are required to meet needs of the future population:

- There is now a planning application under consideration for the additional waste management facility identified as required in the DSIS. The application has been subject to a Public Inquiry and the result is expected by May 2014. The proposal is for a Recycling and Energy Recovery Facility (RERF) to manage the majority of the LACW from across Hertfordshire. The proposed development will have a capacity of 380,000 tonnes annually and be located at New Barnfield, Hatfield.
- Organic Waste Treatment Facility (OWTF) to serve Dacorum (post 2018), Watford and Three Rivers (as acknowledged in the DSIS and the WCS). Ideally, this should be for a new facility to treat 40-50,000 tonnes of organic waste per annum and be operational by 2014.¹⁹ From a waste collection point of view, it would be optimal for the new facility to be within 'tipping range' so that collection vehicles can take waste straight to the facility rather than to a depot first. A search area is identified in the WCS and HCC aim to start procurement procedures for an OWTF. It will be up to the market to decide what type of facility is most appropriate.
- An expanded HWRC to replace the facility at Eastman Way is desirable, however, there are a number of issues both with expanding the existing site and with relocating. HCC have yet to decide how best to resolve capacity issues.
- Additional waste collection vehicles and staff will be required to cope with extra demand placed on the service by new development. In general, 6,000 dwellings leads to the need for an additional round (2 additional vehicles and the associated number of staff), which can be absorbed incrementally up to a point, but at some point will require new equipment. Because new development is likely to come forward incrementally and throughout Hemel Hempstead and other settlements, it will be difficult to attribute a particular proportion of future demand to planned new development. The level of development proposed through the Core Strategy (11,320 dwellings) will give rise to the requirement for two additional collection rounds over the plan period (2006-2031). A review of the rounds will be undertaken in 2014 to ensure that the most efficient routes and number of rounds are used by the service.
- Additional space and re-organisation at Cupid Green Depot is desirable, but a whole scale move is not required. Over recent years the proportion of waste that is recycled has increased which has led to more vehicular activity at the site (more transferring and sorting) and at certain time the site is congested with vehicles. If the HWRC could be relocated in conjunction with an expanded Cupid Green Depot, this could potentially solve the current issues with both facilities.

¹⁹ Although it is desirable for this facility to be operational by 2014 as that is when the current arrangements for Watford and Three Rivers compostable waste management expire. Dacorum's current compostable waste management arrangements expire in 2018.

- It is likely that both DBC and HCC will aim to increase recycling rates in the future, and this will lead to a need for more vehicles and transfer facilities. It is currently uncertain how far and how quickly increases will be pursued over the plan period (i.e. to 2031) so it is difficult to predict what level of increased demand will result.

Costs and Funding

- 7.9 The day to day costs of waste disposal and collection are funded through HCC's revenue budget and their Waste Infrastructure Capital Grant (WICG) and DBC's Core Budget respectively. Funding sources for new facilities varies. For waste collection, bins and recycling boxes (for households) are funded by DBC's capital budgets, as are new vehicles and investments to improve operations at Cupid Green Depot. For waste disposal, new facilities tend to be funded by those who want to develop them, and this has historically been partly funded by the redevelopment of the previous facility's site. The forthcoming RERF will be funded by the contractor under PFI (Private Finance Initiative), and the OWTF will be funded by a private operator, although the exact mechanism is not yet known.
- 7.10 The costs of the requirements set out in paragraph 7.8 has been estimated by officers at DBC and HCC as:
- The proposed RERF at New Barnfield, Hatfield is estimated at £200M
 - The cost of the OWTF is unknown, and will depend on the type, size and location of the facility. A satisfactory site would be around a hectare in size with a minimum width of 80m.
 - The cost of providing an expanded HWRC, whether on the existing site or a new site, will be determined by many factors. A modern HWRC would need a rectangular concreted area of 70-90m x 50-70m with good road access. The cost of developing a 'flat' site (i.e. no clearance or demolition required) would be in the order of £2M.
 - An additional collection round requires a refuse freighter (approx £130k), a recycling kerbsider vehicle (approx £110k) and containers (circa £50 per household). Assuming 6,000 households, this totals £540,000. On top of this there are revenue costs such as fuel, labour etc.
 - The cost of expanding and/or re-organising Cupid Green Depot is unknown as the extent of expansion/re-organisation is unknown.

Chapter 8: Sports Facilities

The DSIS Report

- 8.1 The DSIS Social Infrastructure report contains a section on the provision of sports facilities and the impact of the two development scenarios assessed. The report considers sports halls, swimming pools, health and fitness stations and synthetic turf pitches. These are the types of facilities for which the Sports Facility Calculator, provided by Sport England, has quantitative standards of provision. The report sets out the overall policy context, and for each type of sports facility it provides an assessment of existing provision and future demand. This is followed by a summary of the future infrastructure requirements arising from the two development scenarios and an estimate of the costs of provision.
- 8.2 Officers from Dacorum Borough Council (DBC) and Sportspace fed into the DSIS report and their future plans for provision were considered in light of future requirements according to quantitative standards. The information in DSIS report is not repeated here, but is updated where circumstances have changed. This quantitative assessment has not been repeated for the level of development planned in the Core Strategy as it is considered that the outcomes in the DSIS remain an appropriate proxy.
- 8.3 A meeting was held between officers from DBC and representatives of both Sport England and Sportspace on 14th March 2013. The planned future provision of sports facilities needed to address the needs arising from the Core Strategy were discussed as was the need and methods of providing funding for new sports infrastructure.

Changes to policy context

- 8.4 Since the DSIS was written Planning Policy Guidance Note 17: Planning for Open Space, Sport and Recreation has been replaced by the National Planning Policy Framework (NPPF). The NPPF expects local authorities to plan positively for the provision of community facilities, including sports venues, and to guard against the unnecessary loss of valued facilities. It states that planning policies should be based on assessments of the quantitative and qualitative needs for sports facilities and opportunities for new provision.
- 8.5 The Council adopted a Sports Policy Statement in April 2012. This statement outlined our commitment to sport. The statement recognises the important role that sport and sport clubs plays in the borough, and aims create conditions to allow the delivery of sporting infrastructure to promote participation and to provide sporting opportunities for all sectors of the community.
- 8.6 The Facilities Improvement Strategy (FIS) referred to in the DSIS has now been completed and adopted by the Council, although the title has changed to Sports Facilities Audit (2011). The conclusions remain largely the same as those expressed in the DSIS.

- 8.7 The Council commissioned a new Sports and Recreation – Outdoor Facilities and Playing Pitches study to replace that published in 2006. The provisional conclusions are that there is a good supply of outdoor pitches for most sporting activities however these pitches are often associated with educational premises and are not subject to sufficient community use. There is pressure to convert a number of football pitches to smaller pitches to reflect the Football Associations model and push for junior size pitches. There are some reported shortages around both cricket and hockey pitches and tennis courts²⁰. The full results of this study will be incorporated into an update to the IDP when they are available.

Schemes that have been delivered

- 8.8 A number of the schemes identified as planned in the DSIS report have subsequently been delivered. The schemes which have been delivered are:
- The XC extreme sports facility at Jarman Park
 - Full size synthetic turf pitch at Ashlyns School, Berkhamsted
 - 5-a-side synthetic turf pitch at Hemel Hempstead Football Club

Infrastructure requirements not identified in the DSIS

- 8.9 Officers from Sportspace confirmed that the most pressing requirements are the redevelopments of Tring and Berkhamsted Sports Centres.
- 8.10 Tring Sports Centre is located on the site of Tring School and is used by the school for their educational needs. It is however in a poor state of repair and is expensive to maintain in its current condition. The existing facilities are suitable for use by the school but are not suitable for use by the whole town due to their condition, although the type and quantity of facilities are about right for the needs of the town. Sportspace estimate that without refurbishment, they would have to consider closing the facility in around 2 years and are therefore at an advanced stage in preparing new proposals for the development of sports facilities on the site. Ideally, Sportspace would like to demolish the building(s) and replace with a new facility on the same site. The cost of a new building is estimated by Sportspace to cost approximately £3-5 million and would be funded by Sportspace although Sport England would suggest that this cost could be as high as £7.3 million²¹
- 8.11 Berkhamsted Sports Centre is also in a poor state of repair and is in need of significant refurbishment. Sportspace do not have sufficient funding to refurbish the sport centre to current standards and are considering funding the development of a new facility via redevelopment of the existing site. Ashlyns School, Berkhamsted, have expressed their desire to build a new sports centre on their site for school and community use and have approached Sportspace to discuss the potential

²⁰ The conclusions of the Outdoor Sports Facility Study are expected to be published in October 2013.

²¹ Sport England publication 'Affordable Sports Centres (July 2013)'

development of a shared facility. This is at a very early stage of discussion, and it is not yet clear whether it would work with the future needs of the school, or whether it is feasible financially, or in planning terms.

- 8.12 Sportspace also operate Little Hay Golf Course, and they have aspirations to deliver improvements to the course and functions facilities at the Golf Course. These improvements are not necessary to address any increase demand for sporting activity generated by growth but may support the long term use and viability of the course.

Funding

- 8.13 Community sports facilities throughout the borough are provided by Sportspace, a Sports Trust and registered charity which works closely with the Council. Sportspace has a number of contributory funding sources, although it is rare for any one source to entirely fund a project. Funding sources include various lottery funding pots, DBC, HCC and developer contributions.
- 8.14 The Council has sought contributions towards the provision of new sports pitches since the adoption of the Planning Obligations Supplementary Planning Document in 2010. However, this potential source of funding will diminish with the adoption of the Community Infrastructure Levy (CIL) and the providers of sporting infrastructure will either need to compete with a range of infrastructure providers for CIL funding or find alternative sources of funding. Sportspace have indicated that at this stage they will not need to utilise funds secured by CIL to carry out planned improvements to sporting infrastructure.

Chapter 9: Other Community Facilities

The DSIS Report

- 9.1 The DSIS Social Infrastructure report contains a section on the provision of 'other social infrastructure' which considers provision of community buildings, libraries, job brokerage services and cemeteries. For each type of infrastructure, the report sets out the policy context and an assessment of existing provision for each, followed by committed future provision and an assessment of future demand. The costs of provision associated with committed future provision and future demand are provided as an estimate where appropriate.
- 9.2 The impact of the two development scenarios on provision requirements were assessed for community buildings and libraries. The future requirement for job brokerage was not assessed quantitatively due to the complex relationship between the level of housing and the demand for services. The impact of the two development scenarios on the future requirement for cemetery space was not differentiated due to the way cemetery need is identified and planned for.
- 9.3 Officers from Herts County Council (HCC), DBC and Job Centre Plus fed into the DSIS report and their forecasts were used where possible, although they were supplemented by assumptions and standards where useful. The information in DSIS report is not repeated here, but is updated where circumstances have changed.
- 9.4 This report provides an update of the assessment in the DSIS for libraries, job brokerage and cemeteries, and also provides an assessment of adult care services, which was not considered in the DSIS report.
- 9.5 The assessment of community buildings in the DSIS concluded that there is currently a surplus of community space in the borough. As nothing has changed in terms of community space provision and as there have been no specific proposals developed by the Council for additional community space since the DSIS was written, this information has not been repeated for this update.
- 9.6 The information in this chapter is based on information in published strategies, other documents and discussions with providers. Meetings were held between officers from DBC and HCC on 23/01/12 where libraries were discussed and between officers from DBC regarding cemeteries on 01/12/11. A teleconference was held between officers from DBC, job centre plus and DWP (Department for Work and Pensions) regarding job brokerage on 03/02/12. Updates have been provided by key infrastructure providers during 2013, mainly by email and the primary purpose has been to update the Infrastructure Delivery Schedule at the Annex to this report.

Community Buildings

- 9.7 Although the information within the DSIS remains valid, there is a clear desire amongst community groups within the town of Berkhamsted to increase the provision of community space and buildings within the town. This is strongly developed in a report by the local community group, B-HIVE, on their town

consultation on the future of community assets within the town of Berkhamsted and more generally the town centre of the town. Their report focused on the Civic Centre, Library and Police Station sites within the town and the opportunities for the redevelopment of this site. The provision of additional community buildings between now and 2031 is likely to be limited to those secured alongside larger development proposals within the Borough and as set out in the Core Strategy.

Libraries

- 9.8 Much of the information in the DSIS report regarding libraries remains valid. However, due to cuts to the funding of public services, libraries across Hertfordshire have been subjected to reduced opening hours, thus reducing the average hours per 1,000 population, which was already below the recommended standard.
- 9.9 The DSIS report used the recommended 30 sqm per 1,000 population standard of provision to assess the library floorspace required as a result of new development. Whilst this approach is useful, and still considered valid, officers from HCC libraries explained that although the increase in population arising from new development has a direct impact on the demand for library services, other factors also influence future requirements.
- 9.10 The suitability of the existing building to meet the needs of the population is a consideration; the size, location and state of repair are all important. Planned development in central locations also influences the library service's plans for future provision. One reason for this is that it is important for the library to remain central in any town or village, so if a planned town centre development would shift the focus of the town centre away from the current centre, the library service would need to consider moving its premises. Whilst the library service takes a proactive approach to planning future provision, it can also be reactive, and take advantage of planned developments. For example, the planned town centre regeneration in Hemel Hempstead provides an opportunity for a new library in the town centre.
- 9.11 Officers from HCC libraries, confirmed that a new library for Hemel Hempstead town centre is high on its priority list as the existing library is around half the size required for the population of the town. The planned regeneration of Hemel Hempstead town centre, and the provision of a Public Service Quarter (PSQ) provides an opportunity for a new library to serve the town. Both HCC and DBC share the aim of providing a new library as part of the PSQ in Hemel Hempstead town centre by the end of 2016.
- 9.12 Ideally, a new library for Hemel Hempstead would have approximately 2,000 sqm of floorspace. The amount of floorspace available to the library as part of the PSQ will be significantly lower, however, the ability to share community space and community IT facilities with other services in the PSQ means that the needs of the community can be met with a reduced floor area. The technical specifications for the PSQ have been developed and the Council is going through a procurement process for this building.
- 9.13 With regards to funding new library provision, HCC confirmed that they are heavily dependent on developer contributions as funding from the HCC capital programme

has reduced significantly, as has availability from external funding pots such as the Big Lottery Fund.

Job Brokerage

- 9.14 The section on job brokerage within the DSIS report was written with input largely from Job Centre Plus (JCP), and considered their requirements for future provision. Whilst JCP remain one of the key providers of job brokerage services in Dacorum, the Council now also play an active role in its provision. There has been no update from JCP on the content of the IDP since June 2012.
- 9.15 As mentioned above the DSIS does not attempt to identify the quantitative future requirement for job brokerage services arising from new development. It is not considered appropriate to do so as the demand for services is not straight forward to model and is influenced by a number of factors, including the level of new development.
- 9.16 The level and type of commercial development has a big influence on the need for job brokerage services. Job brokerage services are required to support successful growth of the local economy as a trained and suitably qualified workforce is attractive to employers. However, it is a symbiotic relationship as new employment development provides opportunities for training schemes such as apprenticeships as discussed below.

Job Centre Plus

- 9.17 Officers from JCP confirmed that currently there are no plans to alter the existing provision of services in Dacorum. However, it is important to note that the impact on JCP floorspace requirements of switching to the Universal Credit is unclear, and until it is known it is difficult to forecast future need for floorspace. A physical JCP presence in Hemel Hempstead town centre is considered important and certain to remain for the foreseeable future.
- 9.18 Another change for JCP is the incremental digitisation of many of their services, which allows advisors to spend more time with clients who can't access services remotely. It also means that their floorspace requirements may fall, although this is not certain at the moment.
- 9.19 JCP confirmed that their services are funded entirely by central government, through the Department for Work and Pensions (DWP), and that presently they do not rely on developer contributions.

Dacorum Borough Council's role

- 9.20 There is a degree of crossover between provision of further education and the job brokerage services provided by West Herts College and DBC. This section should be read in conjunction with the further education section of chapter 3.
- 9.21 One of the aims of the Core Strategy is to promote a vibrant and prosperous economy, and it is recognised that there are skills gaps that will need to be filled if the local economy is to reach its full potential. This is supported by Policy CS14:

Economic Development, which states that *'Initiatives that help the local workforce adjust to change and develop their skills will be supported.'*

- 9.22 DBC consider the promotion of learning and skills to be a key part of economic recovery and the maintenance of a strong economy. An Employment and Skills Partnership Board has been set up comprising employers, key stakeholders and DBC. The partnership brings together a range of organisations and aims to use labour market intelligence to respond better to the changing needs and expectations of individuals and employers. There will be co-ordination of business support, the local workforce and funding priorities to improve the skills and employment opportunities of people across Dacorum.
- 9.23 DBC are also developing a skills strategy to reflect the Governments vision for reform of the further education and skills system to improve the skills of the workforce, the performance of the economy and engagement in learning. Working in partnership with employers, training providers and key stakeholders the strategy will ensure that Dacorum's economy remains competitive in the global context and most notably in the development of a skilled workforce competitive on a global stage.
- 9.24 The approach described above supports the economic growth planned in Dacorum, and as such it may be considered appropriate to seek developer contributions towards the ESP Board's activities. As ESP Board and the skills strategy are at an early stage of development, a programme of activities with associated costs and phasing is not yet available and as such it is difficult to envisage whether such contributions would be secured under S.106 or CIL.

Cemeteries

- 9.25 The Council has undertaken long term planning beyond the Core Strategy period (2031) for the provision of additional cemetery space within Hemel Hempstead. Although the Council, as set out in the DSIS, requires only 12 acres of additional space to ensure an adequate burial space within the plan period, the opportunity has arisen for the Council to secure 30 acres of burial space ensuring sufficient capacity for approximately 50 years. Such longer term planning is preferred by the bereavement services manager at DBC who suggests that it is more appropriate to identify a larger site given the issues surrounding Rights of Burials and associated management issues.
- 9.26 The intention is to acquire land at Bunkers Farm from the HCA to provide cemetery facilities with complimentary land uses being undertaken in the short-medium term. The cost of preparing a new cemetery (including the cost of purchasing the site) is approximately £1.8m.
- 9.27 There is sufficient burial space in the rest of the borough for the foreseeable future with the exception of Tring, where it is projected to run out before 2040. The Local Allocation at Icknield Way (LA5) in the Core Strategy is directly adjacent to Tring Cemetery, and it would be prudent to reserve part of the site for future expansion of the cemetery as part of this development. The bereavement services manager has

suggested that a total of 4 acres are secured for the purposes of expanding the cemetery at Tring.

Health and Community Services (formerly Adult Care Services)

- 9.28 The NHS and Community Care Act 1990 place's a legal responsibility on Hertfordshire County Council Health and Community Services to assess the needs of individuals who require care and support in the community. The term Health and Community Services (HCS) covers the needs of older people, people with disabilities and people with mental health problems who require assistance, either to live independently, or to live in some form of residential care.
- 9.29 The Health and Community Services Plan 2012/2015 states that HCS aim to enable people requiring social care to live independently for as long as possible, with the emphasis on independence, wellbeing and choice for individuals and carers. They provide a range of community services to meet this aim. In some instances people cannot live independently and require some form of residential care. HCS provide residential care for those who cannot afford private care either through use of buildings they own, but are managed by Quantum Care and Runwood, or by 'purchasing' beds in privately run homes.
- 9.30 The Accommodation Solutions Team within HCS have provided DBC with a district profile which shows the projected population of adults who require support from HCS. It also shows projected service requirements to 2030, which are set out in table 9.1.

Table 9.1: Projected Adult Care Services requirements 2010 – 2030

Type of support		2010 – 2015	2015 – 2020	2020 – 2030	Growth over 20 years
Older people – residential (HCC funded)	Total	264	280	383	
	Additional	-101	16	103	18
Older people – nursing (HCC funded)	Total	151	182	250	
	Additional	42	31	68	141
Older people – flexicare (HCC funded)	Total	215	296	406	
	Additional	139	81	110	330
Learning disability – residential + nursing	Total	46	47	48	
	Additional	-43	1	1	-41
Learning disability – supported living	Total	162	165	167	
	Additional	56	3	2	61
Physical disability – residential + nursing	Total	29	30	31	
	Additional	20	1	1	22

*NB. 'Additional' refers to the increase in provision from current levels
Source: Mini Profile District Summaries Dacorum, HCC*

- 9.31 As shown in table 9.1, the demand for Adult Care Services in Dacorum is projected to increase over the next 20 years, particularly for 'older people'. How the demand will be distributed across the borough is still to be confirmed, but it is anticipated that the greatest level of demand will be in Hemel Hempstead.

9.32 The greatest increase in demand is for flexicare housing, which is semi-communal living where residents live in their own apartment. There are communal areas, such as lounges, so people can meet up with friends or join in with social activities if they want to. Some of the larger or newer flexicare housing schemes also include facilities that help to promote a wider sense of community, such as internet cafes, hairdressing, television/health suites and treatment rooms. Flexicare housing is permanently staffed, and can cater for people with different levels of care need; as such it reduces the need for places in residential care homes. It is anticipated that Dacorum will have additional flexicare provision in the near future, which will go some way to meeting the targets for 2015.

Day Care

9.35 The Health and Community Services team also run day services for older people, people with learning disabilities, mental health problems or sensory needs. This need can be met in existing community centres or in purpose built facilities. These premises would need to be accessible 52 weeks per year and comprise the following: 1 or 2 large multi-purpose rooms for 15-20 people and contain the following facilities:

- Kitchen
- Secure Storage
- Accessible bathroom and changing facilities (with overhead hoist)
- Mini-bus drop off spaces and car parking.

It is likely that significant developments within the town such as those at West Hemel Hempstead and Spencer's Park would provide the opportunities to secure additional day centres for older people for which there would be a significant demand arising from both existing and proposed housing levels.

Chapter 10: Sewerage and waste water

The DSIS Report

- 10.1 The DSIS Utilities and Physical Infrastructure report contains a section on the provision of sewerage infrastructure and the likely impact of the two development scenarios assessed. The report defines sewerage infrastructure as sewage treatment works, pumping stations, sewers, maintenance and control equipment, IT and buildings. The report sets out the policy context and an assessment of existing and committed sewerage infrastructure. This is followed by an estimate of future demand arising from the two growth scenarios and the potential sewerage infrastructure upgrades identified in the Water Cycle Study Scoping Study. The report outlines the planning process for Thames Water (the provider) and potential costs for the required improvements/upgrades to sewerage infrastructure.
- 10.2 As identified in the DSIS report, Thames Water provide infrastructure over an area much wider than just Dacorum. Their future plans for infrastructure provision are based on growth from other local authorities including Watford, Three Rivers, St Albans, Welwyn & Hatfield & Hertsmere, which makes it difficult to draw clear conclusions about the impact of the development planned in Dacorum alone.
- 10.3 Much of the information in the DSIS report is updated here in accordance with the advice received by email from Thames Water on the 28th March 2013. This chapter is set out in the same order as the relevant section of the DSIS in order to make clear which parts of the DSIS report are still considered valid, and which have been superseded by new information.

Policy Drivers and Context

- 10.4 Since the DSIS was written the UK Water and Flood Management Act (2010) has been adopted by the Government. The act deals largely with surface water drainage and makes the County Council the relevant flood authority. Developers will be required to submit sustainable drainage plans alongside planning applications, and these must be approved by the County Council before the developer can commence development. The developer's automatic right to connect surface water to the public sewer network has ceased, and it will now be dependent on the drainage system being approved by the County Council as the flood authority. The act is expected to be implemented by Spring 2014.

Existing and Committed Infrastructure Provision

- 10.5 The summaries of information from the East of England Plan, the East of England Capacity Delivery Strategy Study and the Water Cycle Study Scoping Study are still considered valid. With regards to the required upgrades identified through the Water Cycle Study Scoping Study (para 5.16 in the DSIS Utilities and Physical Infrastructure report) the upgrades to the Waste Water Treatment Works (WWTW) at Berkhamsted and Tring have now taken place. There are still some uncertainties regarding Maple Lodge WWTW that may have to be investigated further once development in neighbouring council becomes clearer. With regards to the conclusions for the other settlements identified at para 5.16 in the DSIS report,

Thames Water confirmed that the information remains correct for the level of growth proposed in the Core Strategy.

Estimating Future Demand

- 10.6 It is not considered particularly useful to project the estimated sewage flow rates for the level of development planned through the Core Strategy. This is because of the uncertainty and changes to the planned levels of development in the region over which sewerage infrastructure is provided and planned and the need to factor in this wider context.
- 10.7 Thames Water are required to draw up Asset Management Plans (AMPs) in 5 year cycles. These plans set out future infrastructure provision and the associated funding mechanisms and priorities. The plan is based largely on information provided by local planning authorities and is agreed by OFWAT²². Their current business plan (AMP 5: 2010 - 2015) is based on the level of development set out in the regional strategies. This was scaled back following the revocation of the regional strategy. Thames Water has recently asked local planning authorities to provide further updated planned development levels for use in the next plan period (AMP6: 2015 - 2020).
- 10.8 For the sub-region, Thames Water have recommended that more detailed modelling work for the Water Cycle Study group area be undertaken to show the growth aspirations for the area. The residential development levels and on site assumptions underpinning Core Strategies from each authority will feed into the modelling work, which will cover the period to 2031, i.e. a longer period than the AMP periods that the business plans cover.
- 10.9 DBC will continue to liaise closely with neighbouring Local Authorities and Thames Water, especially with regard to potential future high level modelling which would give an indication of the impact of proposed growth levels on local pipe-work and sewerage treatment works.

Issues/Future Trends

- 10.10 This section of the DSIS report is still considered to be useful and valid.

Demand for Sewerage Infrastructure arising from Growth

- 10.11 See paragraphs 10.6 – 10.9 above.

Resulting Sewerage Infrastructure Requirements

- 10.12 Thames Water have confirmed that the infrastructure upgrades required as a result of the development planned in the Core Strategy is as follows:

- Either Maple Lodge or Blackbirds waste water treatment works (WWTW) will require upgrading within the period to 2031. The decision on which will be

²² OFWAT is the economic regulator of the water and sewerage industry in England and Wales

made once the modelling work referred to in para 10.8 has been completed. . This upgrade will serve development in Hemel Hempstead and Kings Langley as well as neighbouring boroughs.

- Berkhamsted's WWTW has recently been upgraded and has sufficient capacity to cope with the levels of new development proposed in the Core Strategy. Network upgrades are likely to be required and may require developer funding.
- Tring is served by its own WWTW. The treatment works itself can accommodate the proposed levels of new development. Network upgrades are likely to be required and may require developer funding.
- Bovingdon is served by the Chesham WWTW. The treatment works itself can accommodate the proposed levels of new development. Network upgrades are likely to be required and may require developer funding.
- The capacity of Markyate WWTW is to be upgraded and the planned improvements would accommodate the planned levels of growth in this settlement. Network upgrades are likely to be required and may require developer funding.

10.13 Overall Thames Water confirmed that whilst the level of development programmed in the Core Strategy will create the need for some infrastructure upgrades, they are happy that such upgrades can be provided at the appropriate time.

Costs and Funding

10.14 The information in this section of the DSIS report is still considered valid. Although only an estimate, the information in table 5.6 provides a useful indication of the likely scale of the costs involved in providing the improvements/upgrades to sewerage infrastructure. The estimate is based on a proportion of total investment for the whole Thames Water region equal to the proportion of the population of the region attributable to Dacorum. The estimate is broken down by the type of work planned, and the total costs for new and renovated sewers and new and refurbished WWTWs attributable to Dacorum for the period 2010-2020 is £80.5m.

10.15 Thames Water expanded upon the information in paragraph 5.41 of the DSIS regarding a situation where a developer wishes to build a development before Thames Water can fund the required upgrades to the sewerage infrastructure. In this instance, Thames Water are reliant on the planning system to impose a Grampian conditions to ensure these costs are met by the developer and necessary upgrades are delivered ahead of development being occupied.

10.16 Officers from Thames Water confirmed that infrastructure upgrades and improvements are usually funded via revenue from customer bills, and are agreed with OFWAT via the Asset Management Plans (AMPs). Whilst developer contributions are generally not sought towards WWTW infrastructure upgrades, developers will be responsible for ensuring adequate on and off site network provision and in some instances developers will need to fund impact studies if capacity problems are suspected or known.

Chapter 11: Energy (Electricity and Gas)

The DSIS Report

- 11.1 The DSIS Utilities and Physical Infrastructure report contains a section on the provision of energy network infrastructure in Dacorum and the likely impact of the two development scenarios assessed. The report provides an overview of the way the electricity and gas networks operate, the operating companies and the extent of the network coverage. The adequacy of the existing and committed infrastructure is then assessed and future demand is estimated for the two growth scenarios. The resultant energy infrastructure requirements are set out with an assessment of costs and funding.
- 11.2 As identified in the DSIS report, energy infrastructure is planned at a much wider area than just Dacorum. The providers' future plans for infrastructure provision are based on growth from whole region over which they plan, which makes it difficult to draw clear conclusions about the impact of the development planned in Dacorum
- 11.3 Much of the information in the DSIS report remains valid, and as such is not repeated in this IDP report. This chapter is set out in the same order as the relevant section of the DSIS in order to make clear which parts of the DSIS report have been superseded by new information.
- 11.4 The IDP incorporates information gathered from Officers at Southern Gas Networks (SGN) and UK Power Networks (UKPN). As noted in the DSIS report, only a small part of SGN's network falls within Dacorum, which is an area just outside Tring. The level of development planned at Tring is very similar to that considered in the DSIS

Policy Drivers

- 11.5 Since the DSIS was written UK Power Networks (UKPN) has taken over the operation of the network previously operated by EDF Energy. They provide electricity over the same geographical area as EDF Energy, and Dacorum falls within the Eastern Power Network (EPN).
- 11.6 UK Power Networks published their final business plan for their next regulatory period entitled RIIO-ED1 on 1 July 2013. The business plan covers the period 2015-2023 and covers the network planning process, the outputs they proposed to deliver for their customers and their estimates of costs and revenues.
- 11.7 The business plan utilises information from a variety of sources including comments made in stakeholder forums held between October 2012 and February 2013, the responses on their website, and the views collected from the customer willingness-to-pay surveys.
- 11.8 A full suite of documents that comprise UK Power Networks business plans on their website: <http://www.ukpowernetworks.co.uk/internet/en/about-us/business-plan/>
- 11.9 The report does not appear to generate any new requirements for infrastructure within the Borough.

Existing and Committed Infrastructure

- 11.10 The information in the sections 'Dacorum's Energy Network' and 'Existing Energy Provision via the Network' within the DSIS report remains correct.
- 11.11 With regards to the information in the 'Planned Investment' section there are some minor updates as set out below.
- 11.12 Officers from National Grid have confirmed that local reinforcements to the network are likely to be required to serve new development, but that from a strategic point of view, the impact of the planned development can be absorbed by the gas network. They also confirmed that they are in the process of upgrading the medium pressure system in Berkhamsted to its maximum capacity however, it is likely to take a number of years to complete.
- 11.13 Details about planned investment in the electricity network were not available, but officers from UKPN confirmed that planning for future provision is complex and informed by many factors. Local development plans are one factor, but electricity usage trends and economic trends are also key factors. UKPN's planning is a mixture of proactive and reactive.
- 11.14 The information in the 'Adequacy of Existing and Committed Infrastructure' section remains unchanged.

Estimating Future Demand

- 11.15 The information in the section 'Provision Standards and Assessment of Network Capacity' is considered to be valid.
- 11.16 The gas and electricity provision standards set out in the DSIS report (Table 3.1) were confirmed by the providers as correct. The information pertaining to these, including the caveats, in the section 'Provision Standards and Assessment of Network Capacity' remains valid. The issues identified for predicting future energy usage trends set out in the DSIS report, relating to the Code for Sustainable Homes and Decentralised Energy Generation remain valid and useful.

Energy Demand arising from Growth

- 11.17 This section of the DSIS report relates specifically to the development scenarios assessed, and therefore is no longer considered valid.
- 11.18 Both National Grid and UKPN confirmed that they plan over much wider areas than just Dacorum and therefore do not provide official forecasts of the additional demand arising as a result of growth planned in the Core Strategy. Furthermore, they do not assess the requirements of individual sites until they are approached by a developer who is willing to pay for the assessment. Such assessments for gas provision requirements are not necessarily carried out by National Grid as other specialist companies can often provide the assessment more cheaply.
- 11.19 UKPN provided an assessment of the electricity demand arising from the planned development, and an estimate of how this demand would be apportioned between

existing substations. They used this information to determine the upgrades that would be required to primary and grid substations accommodate the planned development. Table 11.1 shows the estimated demand and how it will be apportioned. The required upgrades are set out in the next section.

Table 11.1: Implications of planned growth for the electricity network to 2031

Substation	Additional load due to planned residential growth (kVA)¹	Additional load due to planned Commercial growth (kVA)¹	Total
Hemel North	1,480		1,480
Hemel East	120	3,460	3,580
Warners End	3,510	2,140	5,650
St Pauls	530	2,140	2,670
Frogmore	2,030	2,140	4,170
Industrial	1,480	7,030	8,510
Tring	530		530
Berkhamsted	780		780
Kings Langley	80		80
Caddington	230		230
Lye Green Primary	140		140
Other (general)	200		200
Total	11,110	16,910	28,020

¹: Kilovolt-amperes

11.20 Similar projections of demand were not available from National Grid. The provision standards set out in the DSIS have been applied to the planned development levels in order to assess the likely additional requirement on the gas network.

Tables 11.2: Estimated increase in gas flows arising from planned development 2006 – 2031

Development Type and level planned 2006 - 31	Provision Standard (m³ per hour)	Additional requirement (m³ per hour)
Residential, 11,320 dwellings	0.81 per dwelling	9,170
Office, 131,000 sqm	0.001 per sqm	131
Retail, 63,750 sqm	0.01 per sqm	637.5
Total	n/a	9,938.5

Resulting Energy Infrastructure Requirements

11.21 The upgrades to the primary and grid substations required as a result of the additional electricity load on the network associated with table 11.1 are set out below.

11.22 The primary substation upgrades required, and the estimated costs are:

- Hemel East: Installation of 1 x new 33kV circuit from Piccotts End Grid and installation of a new 12/24 transformer. £3.5m
- Warners End: Installation of 2 x new 33kV circuits from Piccotts End Grid, replacement of 2 transformers and replacement of the 11kV switchboard. £4.8m
- Frogmore: Load transfers to Hemel East and Warners End (once reinforced). £383K
- Berkhamsted: Installation of 2 x new 33kV circuits from Lye Green Grid and replacement of 11kV switchboard. £4m

11.23 The grid substation upgrades required, and the estimated costs are:

- Ilmer Grid: Installation of 2 x new 90mVA transformers and replacement of the 33kVA switchboard. £5.6m
- Aylesbury East Grid: Following reinforcement of Ilmer Grid, transfer North Drive Primary and Wendover Primary onto Ilmer.

11.24 In addition to the above, UKPN confirmed that an additional primary substation may be required at Hemel Hempstead as identified in the DSIS report. Whilst UKPN are required to connect new developments to the electrical grid they are not necessarily responsible for paying for the provision of the infrastructure necessary to do so. Where a development triggers the need for a piece of infrastructure which is required to serve a much larger area than just the development, the developer would be expected to pay a fair proportion of the cost of provision.

11.25 As set out in paragraph 11.9, National Grid confirmed that the additional demands on the gas network arising from planned development can largely be accommodated by the existing network. Local upgrades to the low and medium pressure networks are likely to be required. National grid explained that where an individual development triggers the need for additional off-site infrastructure they (National grid) will usually conduct an economic assessment of whether to provide it based on cost of provision and likely future income generation. It is the norm for this assessment to show that off-site infrastructure is worthwhile and as such National Grid usually pays for the installation of this infrastructure.

Costs and funding

11.26 The costs associated with the necessary upgrades to the electricity substations are set out in paragraphs 11.19 - 11.20. Additional costs of electricity infrastructure, as set out in the DSIS report are estimated as follows:

- New primary substation: £2m plus land
- 33kV cabling: £500,000 per km
- 132kV cabling: £2m per km

11.27 Similar information about the cost of providing upgrades to the gas network was not available.

11.28 The rest of the information in this chapter of the DSIS report is still considered to be valid.

Chapter 12: Potable Water

- 12.1 Affinity Water is the main supplier of potable water in Dacorum. This was previously supplied by Veolia Water. When contacted about updating the information in the DSIS report for the IDP, Veolia Water previously confirmed that the changes to the planned level of development from the scenarios assessed in the DSIS would not alter the information regarding potable water in the DSIS report. We have been unable to confirm this remains the case with Affinity Water now that they have assumed responsibility for water supply.
- 12.2 The 'Water' chapter in the DSIS Utilities and Physical Infrastructure Assessment report remains entirely valid.
- 12.3 As with other utilities infrastructure, the strategic planning undertaken by the providers is done for a much larger area than just Dacorum. This means that additional infrastructure requirements arising from the development planned in Dacorum are difficult to identify.
- 12.4 The DSIS report did not identify any specific requirements for potable water infrastructure that would be required as a result of planned development but did note that local network reinforcement would be likely to be required.

Chapter 13: Conclusions

- 13.1. The assessment of infrastructure need provided by this IDP shows that the development planned in the Core Strategy can be supported by the necessary infrastructure. Whilst a significant amount of new infrastructure is required to support the planned development, all infrastructure providers have confirmed that it will not present any insurmountable problems, i.e. there are no 'showstoppers'.
- 13.2. The biggest challenges will be the improvements required to the local transport network to ensure it continues to operate successfully, the timely provision of new primary schools, health services and the delivery of the upgrades to the WWTW necessary to support development in the wider sub-region.
- 13.3. The recent changes to the way many providers are funded makes the delivery of necessary infrastructure in the future more difficult. Changes to the way development will contribute to the funding of such infrastructure presents further challenges, but also potential opportunities including the ability to acquire land for the delivery of infrastructure through CIL and the ability to engage with local communities over infrastructure priorities. The key to meeting such challenges, and to delivering the necessary infrastructure, will be for continued liaison between the borough council, the local community and infrastructure providers. The Council should be flexible and innovative in its approaches to infrastructure delivery.
- 13.4. This IDP is seen by the borough council as the first step towards a new approach to infrastructure delivery arising from the CIL regulations. Whilst early updates to previous IDP's contained information from the DSIS, subsequent updates are the results of the initial and on-going liaison between the borough council and infrastructure providers regarding long-term, strategic infrastructure provision. This process of continual review of the IDP is required to refine the Council's approach to securing and allocating funding towards the delivery of infrastructure..
- 13.5. The council intends to update the infrastructure requirements set out in the infrastructure delivery schedule (IDS) on an annual basis. The long term objective is to produce an Infrastructure Business Plan which sets out how infrastructure projects will be delivered and the resources needed to ensure delivery. This could include how CIL funds should be allocated. The annual update will include monitoring the delivery of infrastructure, and will focus particularly on updating the estimated costs of delivering the infrastructure. Any key changes will be reported through the Council's Annual Monitoring Report (AMR).
- 13.6. This IDP provides a useful assessment of the overall infrastructure required to support the development planned in the Core Strategy. Further work will however be required to assess the infrastructure requirements for individual developments. This work will be progressed alongside the Site Allocations DPD, and will include assessments for each site of the on and off-site infrastructure requirements. These, will in turn, inform decisions on the phasing of sites.
- 13.7. The CIL regulations 2010 (and subsequent amendments) have placed restrictions on the use of developer contributions paid through Section 106 (S106) and the Community Infrastructure Levy (CIL). S106 contributions towards a single piece or

type of infrastructure may be pooled from up to 5 legal agreements, and S106 contributions cannot be sought towards infrastructure intended to be funded via CIL monies. The Council is developing a clear strategy to the delivery of infrastructure and the interaction of CIL and S.106 and will set the approach through the Regulation 123 list and amended Planning Obligations SPD prior to the examination of the CIL Charging Schedule.

- 13.8. The Council is developing this strategy with infrastructure providers and other stakeholders to ensure the optimal use of the CIL and S106 in the delivery of infrastructure items. The Site Allocations DPD, the Town Centre Masterplan, the East Hemel Hempstead Area Action Plan and any new development briefs will be key to the successful development and implementation of the strategy.

Appendix A - Infrastructure Delivery Schedule

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
Transport Infrastructure							
Bus	HHUTP	Improved bus stop locations	Ongoing	Variable	LTP, developer contributions, other improvement initiatives	Relevant funding allocated annually.	HCC
	HHUTP	Review bus timetables, Hemel Hempstead (town network reviewed and implemented July 2013 using LSTF funds)	Spring 2014	TBC	LTP Capital, S106, other development and improvement initiatives	Relevant funding allocated annually.	Bus operators
	HHUTP	Review bus stop locations, Hemel Hempstead	Ongoing	TBC	LTP capital, S106, other development and improvement initiatives	No funding secured. Relevant funding allocated annually.	HCC
	LSTF bid	QNP support officers, county wide	2012 onwards	£240K	LSTF	Dependent on success of LSTF bid	Hertfordshire Highways
	LSTF bid	QNP smart ticketing, Hemel Hempstead	2012 onwards	£70K	LSTF	Part funding secured in 2011/12.	Hertfordshire Highways
	LSTF bid	QNP household marketing, Hemel Hempstead	2012-15	£149K	LSTF	Dependent on success of LSTF bid	Hertfordshire Highways
	HHUTP LSTF bid	QNP stop specific information, Hemel Hempstead	2013-14	£102K	LSTF	Dependent on success of LSTF bid	HCC/ Bus operators
	HHUTP	Integrated timetabling between bus and rail, Hemel Hempstead	Review of bus timetables is ongoing	TBC	LTP capital, developer contributions/ external funding	Review funded from LTP revenue sources – ongoing.	Bus and train operators

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Better bus maintenance (inc. cleaning), Hemel Hempstead	2014	TBC	Bus operators	Unknown	Bus operators
	HHUTP	Review fare structures/lower fares – work of Intalink – HCC partnership with operators that do ticket offers e.g. PlusBUS and Explorer tickets. Hemel Hempstead	Ongoing	£20K	Operators/ developer contributions	Ongoing revenue funding.	Bus operators
	HHUTP LSTF bid	QNP Bus & Infrastructure Upgrades, county wide	2015	£1.8m	LSTF/ Developer Contributions GAF/	£40K GAF money secured from St Albans. Dependent on success of LSTF bid for the rest.	Hertfordshire Highways
	Hemel Hempstead Town Centre Masterplan	Hemel Hempstead bus station relocation	2014-2015	TBC	Capital funding from DBC	Funding secured from Cabinet 30 th April 2013	DBC/HCC
	HHUTP	Bus priority on key routes, Hemel Hempstead (Maylands/Town Centre/Railway Stations)	2019	£1m	LTP, developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Central Corridor bus priority scheme, Hemel Hempstead	2019	£1m	HCC/ operators	No funding secured	Hertfordshire Highways/ operators
	HHUTP	Integrated ticketing between public transport services, Hemel Hempstead	2014	TBC	LSTF	Funding secured .	Bus and train operators
	HHUTP	Increased bus frequencies, Hemel Hempstead	2019	TBC	HCC/ operators/ S106/DfT grants	No funding secured	Bus operators

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
		Better bus maintenance (inc. cleaning), Hemel Hempstead	2014	TBC	Bus operators	Unknown	Bus operators
	HHUTP	Review fare structures/lower fares – work of Intalink – HCC partnership with operators that do ticket offers e.g. PlusBUS and Explorer tickets. Hemel Hempstead	Ongoing	£20K	Operators/ developer contributions	Ongoing revenue funding.	Bus operators
	HHUTP LSTF bid	QNP Bus & Infrastructure Upgrades, county wide	2015	£1.8m	LSTF/ Developer Contributions GAF/	£40K GAF money secured from St Albans. Dependent on success of LSTF bid for the rest.	Hertfordshire Highways
	Hemel Hempstead Town Centre Masterplan	Hemel Hempstead bus station relocation	2014-2015	TBC	Capital funding from DBC	Funding secured from Cabinet 30 th April 2013	DBC/HCC
	HHUTP	Bus priority on key routes, Hemel Hempstead (Maylands/Town Centre/Railway Stations)	2019	£1m	LTP, developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Central Corridor bus priority scheme, Hemel Hempstead	2019	£1m	HCC/ operators	No funding secured	Hertfordshire Highways/ operators
	HHUTP	Integrated ticketing between public transport services, Hemel Hempstead	2014	TBC	LSTF	Funding secured .	Bus and train operators
	HHUTP	Increased bus frequencies, Hemel Hempstead	2019	TBC	HCC/ operators/ S106/DfT grants	No funding secured	Bus operators

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Extension of bus services, e.g. orbital service, Hemel Hempstead	2019	TBC	LTP, developer contributions/ external funding	No funding secured	Bus operators
	HHUTP	Subsidy to bus operators, Hemel Hempstead	2019	TBC	LTP, developer contributions/ external funding	No funding secured	HCC
	HHUTP	Wider concessionary fare scheme, Hemel Hempstead	2019	TBC	LTP, developer contributions/ external funding	No funding secured.	HCC
	HHUTP	New road layouts e.g. Leverstock Green. Hemel Hempstead	2019	TBC	LTP, developer contributions/ external funding	No funding secured.	HCC
	HHUTP	New vehicles (e.g. low-floor buses)	2019	£100K per vehicle	Operators	No funding secured	Bus operators
	HHUTP	CCTV on buses and at station	2019	£500K	Bus operators and London Midland	No funding secured	Bus operators
Walking/ cycling	HHUTP	Pedestrian guardrail review (e.g. rail station, London/Station Road, Waterhouse St, Heath Lane)	Ongoing	£1-5K per site	LTP, developer contributions/ external funding	No specific funding allocated – to be progressed as part of area improvement schemes.	HCC
	HHUTP	Tactile paving at crossings (e.g. London/Station Rd, Bridge St roundabout, Combe St roundabout)	Ongoing	£1-2K per crossing			HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
Walking/ cycling	HHUTP	Pedestrian environment improvements (e.g. Waterhouse Street, Leighton Buzzard Road)	Ongoing	TBC	LTP, developer contributions/ external funding	No funding secured. To be delivered as part of Hemel Hempstead Town Centre Masterplan.	HCC
	HHUTP	Informal and formal crossings/refuges, various locations, Hemel Hempstead.	Ongoing	£2-5K (informal) TBC (formal)	LTP, developer contributions/ external funding	Some funding secured. To be delivered through localised initiatives.	HCC
	HHUTP	Cycle lanes/routes (e.g. London/Station Road, Plough roundabout/Leighton Buzzard Road, Fishery Lane)	Ongoing – Phased delivery from 2014	£1K per 20m + signage	LTP, LSTF, developer contributions/ external funding	Schemes likely to be delivered as part of wider improvement schemes.	HCC
	HHUTP	Canal path seating (station to town centre, Grand Union Canal to Apsley)	Short term	£2K per seat	British Waterways/ developer contributions	?	British Waterways
	Maylands Master Plan LSTF	Maylands Avenue Urban Realm Improvements, Hemel Hempstead	2014-2016	£1.25 million	LSTF/S106/DB C Capital	Partially funded by S.106/DBC Capital	DBC
	LTP3	Maylands to Town Centre walking and cycling scheme. Hemel Hempstead	2014	£479K	LSTF/ LTP/ Developer Contributions	£248K secured through S106.	HCC
	LSTF bid	Upgrade cycle parking at Hemel Hempstead, Watford and St Albans town centre.	2013/14	£112K (for 3 town centres)	LSTF	Partially funded	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Pavement widening (e.g. London/Station Road, Bennetts End Road). Hemel Hempstead	2014	£2.5-5K per 10m	LTP/ developer contributions/ external funding	No funding secured	HCC
	HHUTP	Pavement extension (e.g. Leighton Buzzard Road, Fishery Lane, London/Station Road, St. Albans Road). Hemel Hempstead	2014	£5K per 10m	LTP/ developer contributions/ external funding	No funding secured	HCC
	HHUTP	Junction re-design (e.g. Allandale). Hemel Hempstead	2014	£75-100K	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Change traffic priorities to favour pedestrians (e.g. Leighton Buzzard Road). Hemel Hempstead	2014	£15-20K per signals	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP LTP3	Improve access for pedestrians and cyclists into some areas (e.g. Apsley, Jarman Park). Hemel Hempstead	2014/2015	£50K per scheme	LTP/ developer contributions/ external funding	Part funding secured for Jarman Park crossing from S106.	HCC
	HHUTP	Provide pedestrian and cycling links to employments zones from residential areas. Hemel Hempstead	2014	£15-300K per scheme	LTP/ developer contributions/ external funding	Delivery expected to be as part of wider improvement schemes.	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Canal access route/ramp (e.g. London/Station Rd, Fishery Lane). Hemel Hempstead	2014	£20K per 10m	British Waterways	Unknown	British Waterways
	HHUTP	Cycle parking (e.g. at rail station, Maylands, local centres, sports and leisure centres). Hemel Hempstead	2014	£1-2K (one Sheffield stand); £5-10K (for cover)	LTP/ developer contributions/ external funding	Cycle parking improvements underway at stations. No funding secured for other locations.	HCC/ London Midland
	HHUTP	Shared cycle track (e.g. St Albans Road, Redbourn Road). Hemel Hempstead	2014	£10K per 10m	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Pavement/towpath widening (e.g. Queensway, Grand Union Canal). Hemel Hempstead	2014	£2.5-5K per 10m	HCC, British Waterways	Unknown	HCC/British Waterways
	HHUTP	Improve access to schools on foot/cycle (e.g. Longdean School). Hemel Hempstead	2014	£20K per school	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	CCTV at cycle stands (Marlowes). Hemel Hempstead	2014	£25K	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Lighting (e.g. Briery Way, Marlowes). Hemel Hempstead	2014	Up to £100K	LTP/ developer contributions/ external funding	No funding secured.	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Junction redesign (e.g. Briery Way to Ellingham Rd link, Leverstock Green Road). Hemel Hempstead	2014	£75-100K	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Improved cycle and pedestrian links between Hemel Hempstead station and town centre. Hemel Hempstead	2016	£500K	HCC/DBC, LTP/ developer contributions/ external funding	Funding no longer secured.	DBC/ Herts Highways
	HHUTP	Lighting (e.g. , Fishery Lane, Underpass to park, Briery Way, St Albans Hill). Hemel Hempstead	2019	Up to £70K	LTP/ developer contributions/ external funding	£30K secured for the delivery of improvements to the Plough roundabout.	HCC
	HHUTP	Pelican crossings (e.g. Longfield). Hemel Hempstead	2019	£50-70K (Pelican)	LTP/ developer contributions/ external funding	Likely to be delivered as part of wider improvements schemes	HCC
	HHUTP	Introduction of off-street cycle routes (e.g. Gade Valley). Hemel Hempstead	2019	£50K per 100m	LTP/ developer contributions/ external funding	Likely to be delivered as part of wider improvements schemes	HCC
	HHUTP	Green corridors for cyclists (e.g. The Wayside, Brickfield Ave, Longfield, Fourdrinier Way). Hemel Hempstead	2019	£50K per 100m	LTP/ developer contributions/ external funding	Some are part funded. Likely to be delivered as part of wider improvements schemes	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Improve Plough Roundabout to ensure cyclists' safety. Hemel Hempstead	2019	£500K	LTP/ developer contributions/ external funding	No funding secured.	HCC
	DBLP	Completion of cycle route between Two Waters, Apsley and Nash Mills. Hemel Hempstead	2021	TBC	Developer contributions	No funding secured.	HCC
	Dacorum Cycling Strategy	Maylands Avenue – shared pedestrian/cyclist paths. Part of Maylands Sustainable Transport Plan. Hemel Hempstead	2021	£40K for design. TBC for delivery	DBC/LTP/ developer contributions/ external funding	Funding secure for design work, delivery funding contingent on success of future bidding rounds.	HCC/Herts Highways
	HHUTP	Improvements to National Cycle Network Route 57 (Chesham to Nickey Line to Hemel Hempstead town centre). Hemel Hempstead	2021	£50K per 100m	LTP/ developer contributions/ external funding	No funding secured	Sustrans
	Urban Park Project	Durrants Hill Rd footpath improvements. Hemel Hempstead	2016	£3K	GAF/ Developer Contributions	Funding not secured	DBC
	HCC Cycling Strategy	Implementation of HCC Cycling Strategy. Hertfordshire wide. The UTPs are the delivery mechanism, and the modal share strategy (underway) will integrate sustainable modes of travel.	Variable	£36m for all of Herts	LTP/ developer contributions/ external funding	No funding secured.	HCC
	NTBUTP	Pedestrian Crossing facilities at Hilltop and Ashlyns Road	?	£65K	LTP/LSTF/SRTs	No funds secured	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	NTBUTP	Pedestrian Crossing facilities on Greenway, Berkhamsted	?	£8K	LTP/LSTF/SRt S	No funds secured	HCC
	NTBUTP	Pedestrian Crossing facilities (zebra) on Bridgewater Road, Berkhamsted <ul style="list-style-type: none"> - Zebra crossing - Formal crossing points 	?	£120K £50K £70K	LTP/LSTF/SRt S	No funds secured	HCC
	NTBUTP	Pedestrian Crossing (zebra) on Grove Road, Tring nr Bunyan Close	?	£50K	LTP/LSTF/SRt S)	No funds secured	HCC
	NTBUTP	Improvements to footpath 48 to introduce mixed use (Safer Route to Goldfield School)	?	£50K	LTP/SRtS	No funds secured	HCC
	NTBUTP	Crossing point at Miswell Lane (Safer Route to School scheme)		£49K	LTP/SRfS	No funds secured	HCC
	NTBUTP	Improvements to footpath 39, Tring <ul style="list-style-type: none"> - Remove clutter - Informal crossing point on London Road by Tesco Footpath along northern edge of London Road between path 39 and Dunsley Farm.	?	£65K £10K £15K £40K	LTP	No funding secured	HCC
	NTBUTP	Improvements to footpath 41, Tring <ul style="list-style-type: none"> - Zebra crossing between Shugars Green and Silk Mill - Zebra crossing on Silk Mill Way - Introduce Shared Use 		£180K £60K £60K £60K	LTP/LSTF	No funds secured	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	NTBUTP	Additional Cycle Parking in Berkhamsted and Tring <ul style="list-style-type: none"> - Key locations - Security - Replacement cycle racks – Berkhamsted - Signage to cycle parking 	?	£50K £10K £20K £15K £5K	LTP	No funding secured	HCC
	NTBUTP	Extend cycle facilities in Tring from London Road to connect to town centre <ul style="list-style-type: none"> - Segregated cycle track to Brook St - Provide alternative alignment via High Street - Improve link to High Street via market - Brook Street Zebra crossing - Shared facility during maintenance - 	?	£133K £25K £20K £25K £55K £8K	Developer Contributions/LTP	No funding secured	HCC
	NTBUTP	Cycle Route from Tring Station to Pitstone <ul style="list-style-type: none"> - Off road link to Pitstone via Northfield Road - Marshcroft Lane link from Pitstone to Tring Station - Marketing 	?	£355K £200K £150K £5K	Developer Contributions/LSTF	No funding secured.	HCC
	NTBUTP	Electric Bikes	?	Unknown	LSTF	No funds secured	HCC/DBC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	NTBUTP	Legibility initiatives in Berkhamsted and Tring <ul style="list-style-type: none"> - Signage in Berkhamsted - Signage in Tring - Signage to Berkhamsted Station - Signage to Tring Station - Chilterns Cycleway Inter-Urban Routes	?	£150K £20K £15K £30K £30K £25K £30K	Developer contributions/LTP	No funds secured.	HCC/DBC
	NTBUTP	Canal Towpath Improvements – Tring Cow Roast-Station Road	?	£40K	Developer Contributions	No funding secured	CARP
	NTBUTP	Canal Towpath Improvements – Berkhamsted <ul style="list-style-type: none"> - Town Centre - Park Street - Bridge 135 - St John Well's Lane - Bridge 134 - Billet Lane - Way Finding - Pedestrian Priority Signs 	?	£569K £40K £75K £40K £180K £180K £40K £10K £4K	Developer Contributions	No funds secured	CARP
	NTBUTP	Cycle Improvements at Berkhamsted and Tring Gateways <ul style="list-style-type: none"> - Warning signs - Reconfigure Northchurch and Kingshill - Remove inadequate facilities, - Provide cycle facilities - Warning Signs - 	?	£95K £6K £18K £60K £8K £3K	LTP	No funds secured	HCC/DBC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	- Stabilise rail timetabling. Hemel Hempstead, Berkhamsted, Tring, Kings Langley	2014	TBC	Train Operating Companies (TOCs)	Unknown	London Midland
	HHUTP	Feasibility study of enhancing the station as a gateway to the town. Hemel Hempstead	2014	£25K	TBC	No funding secured	DBC
	LTP2	- DDA access scheme at Hemel Hempstead station	2016	Unknown	TOCs	No funding secured	HCC/TOCs
Rail	HHUTP	RTPI at stations. Hemel Hempstead	2019	Unknown	TOCs	Unknown	TOCs
	HHUTP	Increased rail frequencies, Hemel Hempstead, Berkhamsted, Tring, Kings Langley	2019	TBC	TOCs	Unknown	London Midland
	HHUTP	CCTV at rail stations. Hemel Hempstead, Berkhamsted, Tring, Kings Langley	2019	£250K	TOCs	Unknown	London Midland
	HHUTP	Step-free access to platforms (rail stations). Hemel Hempstead	2019	TBC	DfT	Funding Secured	London Midland
	HHUTP	Increased track capacity on West Coast Mainline. Hemel Hempstead, Berkhamsted, Tring, Kings Langley	2029	TBC	DfT/TOCs	Unknown	Network Rail
	HHUTP	Longer trains. Hemel Hempstead, Berkhamsted, Tring, Kings Langley	2029	TBC	TOCs	Unknown	London Midland
	NTBUTP	Tring Station Improvements <ul style="list-style-type: none"> - Improvements to cycle provision - Cycle security Improve cycle conditions at Station Road bridge	?	£65K £30K-40K £15K-20K £5K	LTP/London Midland	Funding not secured	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	NTBUTP	Berkhamsted Station Improvements - Taxi and Vehicle Drop Off zone - Junction Signage at Brownlow Road Expand parking restrictions to White Hill	?	12K	LTP/London Midland	Funds not secured.	HCC
	NTBUTP	Railway Underbridge Improvements (Brownlow Road and New Road) - Signage - Lighting	?	£38K £30K £8K	LTP	Funds not secured	HCC
	HHUTP	- Freight Travel Plans. Hemel Hempstead	Short term	£20K	LTP	No funding secured	HCC
	HHUTP	- Route maps for hauliers. Hemel Hempstead	Short term	£10K	LTP, adjoining highway authorities, the HA	No funding secured	HCC, CBC and HA
Road	DBC	Improve junction access from Three Cherry Trees Lane into Spencer's Park and associated highway works to deliver Spencer's Park scheme	2014-16	£1.5m	Developer/ GPF	Alongside development	Developer
	DBC	Boundary Way/Buncefield Lane access for the Maylands Gateway Site	2014-16	£2m	HCA/ Developer	Funding not secured	HCA/ Developer
	DBC	Boundary Way/Green Lane access to the Maylands Gateway site and associated Utilities infrastructure	2014-16	£2m	DBC/LEP	Funding not secured	DBC/LEP
	HHUTP	Lower speed limits (e.g. Breakspear Way). Hemel Hempstead	2014	£30K per link	LTP/ developer contributions/ external funding	No funding secured	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Traffic calming (e.g. Chaulden, Bunkers Lane). Hemel Hempstead	2014	£10K per 10m	LTP/ developer contributions/ external funding	No funding secured	HCC
	HHUTP	Road safety training. Hemel Hempstead	2014	£30K	LTP capital	?	HCC
	HHUTP	Review of new traffic lights on Leighton Buzzard Road. Hemel Hempstead	2014	£20K	LTP/ developer contributions/ external funding	No funding secured	HCC
	Identified by consultants, confirmed by HH/TNBUTP	Signalise Kings Road/Kingshill Way/ Shootersway Berkhamsted	2016	£415K-500K	HCC/ developer contributions	No funding secured.	HCC
	TNBUTP	Improve operation of the junction of High Street and Kings Road, Berkhamsted	?	£8K to 12K	LTP/ developer contributions	No funding secured	HCC
	TNBUTP	Improve access and egress signage for A41 Bypass – change A41 egress signs and new sign at A41/A4251 junction	?	£25K	LTP /developer contributions	No funds secured	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	TNBUTP	Improvements to the New Road corridor between the High St and South Bank Road <ul style="list-style-type: none"> - HGV limitations - Cycle/Walkway link to canal (£2-4K) - and Cycle link between Springfield Road and New Road 	?	£185K £30K-35K £2K-4K £100K-150K	LTP/LSTF/ developer contributions	No funds secured	HCC
	TNBUTP	Traffic calming and extension of 20mph zone at High St, Berkhamsted	?	£660K	HCC/LTP/deve loper contributions	No funds secured	HCC/DBC
		Improvements to the Billet Lane corridor between Gossoms End and Bridgewater Road <ul style="list-style-type: none"> - Signal Upgrade to MOVA - New shared facility between canal and junction with Gossom End - ASL Signals - New Railing - Informal crossing on Billet Lane - Signalised pedestrian crossing on Billet Lane arm 	?	£75K £45K £6K £6K £2K £6K £10K			

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	TNBUTP	Improvements to the junction of Durrants Lane and High Street <ul style="list-style-type: none"> - Traffic signals and Toucan - Replace Moor Road roundabout with priority junction - Bus Lay-bys on northern side of High St near Durrants Lane 	?	£468K £250K £200K £18K	LTP/LSTF/S.1 06	No funds secured	HCC
	TNBUTP	Speed Management – Aylesbury Road <ul style="list-style-type: none"> - Buffer zone - Off carriageway cycle 	?	£165K £15K £150K	LTP/LSTF	No funds secured	HCC
	TNBUTP	Speed Management – New Road, Northchurch <ul style="list-style-type: none"> - 20mph speed limit between High St and canal Rippleprint at entrance to 30mph zone	?	£44K £10K £34K	LTP	No funds secured	HCC
	TNBUTP	Speed Management – Kings Road	?	£10K	LTP	No funds secured	HCC
	TNBUTP	Speed Management – Station Road	?	£15K	LTP	No funds secured	HCC
	TNBUTP	Speed Management – London Rd into Tring	?	£15K	LTP	No funds secured	HCC
	TNBUTP	Speed Management – Brook Street <ul style="list-style-type: none"> - Vehicle activated Sign Roundels on Brook St - Ribbleprint at entrance into 30mph 	?	£44K £10K £34K	LTP/LSTF	No funds secured	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	TNBUTP	Speed Management – Icknield Way	?	£14K	LTP	No funds secured	HCC
	TNBUTP	Traffic Calming and extension of 20mph to Gravel Path, Berkhamsted - Gateway features - Speed Humps - Surfacing	?	£84K £13K £65K £6K	LTP/LSTF	No funds secured	HCC
	TNBUTP	Traffic Calming and extension of 20mph into Castle Street/Mill Street, Berkhamsted	?	£18K	LTP	No funds secured	HCC
	TNBUTP	Speed Management – Tring Station	?	£14K	LTP	No funds secured	HCC
	TNBUTP	Speed Management – Northchurch High St	?	£10K per island £10K per VASR	LTP	No funds secured	HCC
	TNBUTP	Traffic Calming to 20mph at schools	?	£15K per school	LTP	No funds secured	HCC
		Speed Cushions to Silk Mill Way		£45K	LTP	No funds secured	HCC
	HHUTP	Junction improvements and roundabouts (e.g. Maylands & A414, Plough roundabout, Box Ln/Felden Ln. Hemel Hempstead	2019	£500-750K per junction	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Re-design site entrances (e.g. Jarman Park)	2019	£500K	LTP/ developer contributions/ external funding	£90K secured towards pedestrian crossing to Jarmans.	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	AQMA at J8 of M1 and Plough roundabout. Hemel Hempstead	2019	£80K	Unknown	Unknown	HCC Highways Agency
	HHUTP	Redesign roads and junctions (e.g. Bourne End slip road, Two Waters flyover). Hemel Hempstead	2019	£250-500K	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	High Occupancy Vehicle (HOV)/HGV lanes (e.g. on M1, A414). Hemel Hempstead	2019	£250K	LTP/ developer contributions/ external funding	No funding secured.	Highways Agency
	HHUTP	Maintain highways (e.g. A414, Maylands Ave, Link Road). Hemel Hempstead	2019	£250K	LTP revenue funding	No funding secured.	HCC
	HHUTP	Redesign entrances and improve access for vehicles (e.g. Green Ln into Maylands, Redbourn Rd into Cupid Green, Woodhall Farm egress). Hemel Hempstead	2019	£500K per access	LTP/ developer contributions/ external funding	No funding secured apart from GPF funding for improved access to Spencers Park.	HCC
	HHUTP	Provide new roundabouts (e.g. Leverstock Green Road/Bedmond Road). Hemel Hempstead	2019	£500K each	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Make roads narrower (e.g. Leighton Buzzard Road). Hemel Hempstead	2019	£5K per 10m	LTP/ developer contributions/ external funding	No funding secured.	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Redesign roundabouts (e.g. A414). Hemel Hempstead	2019	£100-500K	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	HGV park in Maylands. Hemel Hempstead	2019	£200K	LTP/ developer contributions/ external funding	No funding secured.	Maylands Partnership
	HHUTP	Lorry Bans (e.g. in residential areas). Hemel Hempstead	2019	£100K	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Low Emission Zone (e.g. along A414). Hemel Hempstead	2019	£500K	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Designated Lorry Routes (e.g. into Maylands). Hemel Hempstead	2019	£500K	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Freight transhipment facilities (e.g. into Maylands). Hemel Hempstead	2019	£5m	LTP/ developer contributions/ external funding	No funding secured.	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Introduce home zones (e.g. Adeyfield). Hemel Hempstead	2019	£500K per street	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	New traffic signals (e.g. on A414 with Green Lane, with Maylands Ave)	2019	£40K per junction	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Designate "Red Routes" to ban stopping and parking (e.g. Queensway). Hemel Hempstead	2019	£300K	LTP/ developer contributions/ external funding	No funding secured.	HCC
	Identified by consultants, confirmed by HH	London Road/Station Road junction improvements. Hemel Hempstead	2021	£200,000	LTP/ developer contributions/ external funding	No funding secured.	Hertfordshire Highways
	DBLP Core Strategy LTP3 HHUTP	North East Hemel Hempstead Relief Road. Hemel Hempstead	2029	£3-5m per km	Developer contributions	No funding secured.	HCC
	HHUTP	New bridges (e.g. over canal). Hemel Hempstead	2029	£2-5m per km	LTP/ British Waterways/ developer contributions/ external funding	No funding secured.	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Congestion charging/road pricing. Hemel Hempstead	2029	TBC	LTP/ developer contributions/ external funding	No funding secured.	HCC
	HHUTP	Provide roundabouts (e.g. Shenley Rd/ Redbourn Rd). Hemel Hempstead	2029	£500K each	LTP/ developer contributions/ external funding	No funding secured.	HCC
Smarter Choices Interventions	HHUTP LSTF bid	Business and school travel planning (part of a wider scheme). Borough Wide	2011 onwards	£719K	LSTF/HCC	£221K secure from HCC.	Hertfordshire Highways
	HHUTP	Leisure and destination Travel Plans (e.g. Jarman Park, Station, Hospital). Hemel Hempstead	Short term	£30K per site	HCC or DfT capital	No funding secured	DBC/HCC
	LTP3/TNBUTP	Safer Routes to School, Berkhamsted	2011-12	£6K-£10K per school in TNBUTP	LTP/ developer contributions/ external funding	Funding to be secured from HCC budget	HCC
	HHUTP	Safer Routes to School, Hemel Hempstead	2014	£6K-£10K per school in TNBUTP £250K	LTP/ developer contributions/ external funding LTP/ LSTF developer contributions/ external funding	Unknown	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Car clubs. Hemel Hempstead	2014			LSTF funding.	HCC
	HHUTP	Travel awareness campaigns. Hemel Hempstead	2014	£200K	HCC of DfT capital	No funding secured.	HCC
	HHUTP	Prevent/discourage pupils/parents from driving to school. Hemel Hempstead	2014	£100K £150K per annum+	LTP/ developer contributions/ external funding LSTF/LEP	No funding secured.	HCC
	TNBUTP	Smarter Travel Plans - Travel Plans - Marketing Sustainable Transport Car Share and Car Club schemes	On-going	£120K start up costs		No funds secured	HCC
Innovation	HHUTP LSTF bid	Intelligent Transport Systems for cars, buses and at bus stops. Hemel Hempstead	2012-15	£871K	HCC/LSTF	£250K secure from HCC. £100K LSTF funding secure for 2010/11, but future dependent on success of future rounds.	HCC
	NTBUTP	Real Time Information for - town centre bus stops - Station - bus stops in Berkhamsted, Northchurch along route 500	?	£155K £80K £15K £60K tbc	LTP/LSTF and Private	No funds secured	HCC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Provide easier access for mobility impaired (e.g. dropped kerbs). Hemel Hempstead	Short term	£3K per dropped kerb	LTP/ developer contributions/ external funding	Some locations have received part funding. Delivery will be as part of wider improvement schemes.	HCC
Community Transport measures	HHUTP	Allow more taxis to collect at railway station. Hemel Hempstead	Ongoing	£10K	LTP/ developer contributions/ external funding	No specific budget allocated – to be delivered as part of improvements to station forecourt.	DBC
	HHUTP	Taxis for home to school/hospital. Hemel Hempstead	2014	TBC	LTP/ developer contributions/ external funding	No funding secured.	DBC
	HHUTP	Expand Dial-a-Ride. Hemel Hempstead	2014	TBC	LTP/ developer contributions/ external funding	No funding secured.	DBC
	HHUTP	Demand Responsive Transport to serve the hospital. Hemel Hempstead	2014	TBC	LTP/ developer contributions/ external funding	No funding secured.	DBC
	HHUTP Parking Development Manager, DBC	Expand CPZ schemes (e.g. around the two railway stations). Hemel Hempstead	2012-14	£120K per scheme	DBC	Funding allocated in phases and subject to feasibility and public consultation.	DBC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HHUTP	Remove Parking around schools. Hemel Hempstead	2012-14	£20K per school	HCC	Unknown	DBC
	TNBUTP	Review of double yellow lines on junctions and white lines	?	£8K	LTP/LSTF	No funds secured	HCC
	TNBUTP	Increase parking restrictions along Beggars Lane	2014	£6K	LTP/LSTF	No funds secured	HCC
Parking	TNBUTP	Bridgewater Road parking restrictions	?	£3K	LTP/LSTF	No funds secured	HCC
	TNBUTP	Improvements to parking in Northchurch Local Centre	?	£45K	LTP/LSTF	No funds secured	HCC
	TNBUTP	Review parking arrangements and implementation of yellow lines at Cow Lane, Tring	?	£6K	LTP/LSTF	No funds secured	HCC/DST
	TNBUTP	Review of Parking in Town Centre - replacement signs additional signs	?	£8K	LTP/LSTF	No funds secured	HCC
	TNBUTP	Variable Message signs for Town Centre (Berkhamsted)		£100K	LTP/S.106	No funds secured	HCC
	HHUTP	Provide Motorcycle parking (e.g. railway stations, Maylands, Marlowes)	2014	£50K	TBC	No funds secured	DBC
	HHUTP	Provide additional parking for disabled drivers	2014	£50K	TBC	No funds secured	DBC
	HHUTP	- Provide additional parking for disabled drivers	2014	£50K	TBC	No funds secured	DBC
	HHUTP	Provide Motorcycle parking (e.g. railway stations, Maylands, Marlowes)	2014	£50K	TBC	No funds secured	DBC

	Source	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
Education Infrastructure							
Early years education	HCC	Expansion of existing Children Centres D3 (Berkhamsted South) D4 (Warners End and Chaulden) and D6 (Grovehill and Woodhall Farm)	2014 onwards	£2.38m £500,000 £1.5m £388,000	HCC/ developer contributions/ external funding sources	Funds not secured	HCC
Primary education	HCC	Hemel Hempstead North East Primary Planning Area: Plans for an additional 2.f.e provided by expansion of existing schools or through the provision of a new school on a site owned by HCC	Post 2016	£8.32m	HCC/ developer contributions/ external funding sources	Funding not secured	HCC
	HCC	Hemel Hempstead East Primary Planning Area: one new 2 f.e. school	Dependent on the scale of housing in DBC and SADC	£7.64m + land	HCC/ developer contributions/ external funding sources	Funding not secured	HCC/academy/ free school
	HCC	Hemel Hempstead South East Primary Planning Area: one new 2 f.e. school	Post 2016	£7.64m + land	HCC/ developer contributions/ external funding sources	Funding not secured	HCC/academy/ free school

		Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	HCC	Hemel Hempstead West and North West Primary Planning Area: one new 2 f.e. school as part of LA3	Dependent upon the phasing of housing	£7.64m	Developer	Funding not secured	Developer/HCC/academy/ free school
	HCC	Hemel Hempstead Town Centre Primary Planning Area: one new 2 f.e. school	2012-14	£7.64m + land	HCC/ developer contributions/ external funding sources	Funding not secured	Developer/HCC/academy/ free school
	HCC	Berkhamsted Primary Planning Area: two new 2 f.e. schools	Dependent upon outcome of current consultation regarding change to 2 tier education	£15.28m	HCC/ developer contributions/ external funding sources	Funding not secured	Developer/HCC/academy/ free school
Secondary education		Possible expansion of Tring Secondary School and relocation of playing fields	Post 2014	Unknown	HCC/ developer contributions/ external funding sources	Funding not secured	HCC
Further education	WHC	Redevelopment of West Herts College Hemel Hempstead campus	2014/15	£18-22m	Uplift in value from redevelopment of site	Funding secured	not West Herts College
	HCC	Redevelopment of 6th form facilities, Kings Langley secondary school	Dependent upon timing of external funding	Unknown	External funding source – priority schools programme	Funding not secured	HCC

		Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	DBC	Additional apprenticeships in the voluntary sector	2012-14	£80K (over 2 years)	DBC core funding	Funding secured	DBC
Healthcare Infrastructure							
		Redevelopment of Hemel Hempstead General Hospital	From 2014	£15m-£20m)	DfH, CCG and uplift from redevelopment of the site.	Unknown	West Hertfordshire Hospitals NHS Trust/ NHS Hertfordshire
		16-18 mental health beds, Hemel Hempstead	On-going	Unknown	Herts Valley CCG	Funding not secured	Hertfordshire Partnership NHS Foundation Trust
		New Community/Day Centre associated with LA3	From 2021	£1.17million	S.106 – see Community space requirements.	Funding not secured	HCC – Adult Services
Open Space Infrastructure							
Play space	DBC	Programme of Play area Improvements	Ongoing	£30K-50K per play area	DBC capital budget and developer contributions.	Funding not secured.	DBC
	DBC	Improvements to and relocation of Marlowes play area. Hemel Hempstead.	2013/14	£30K	GAF	Funding secured.	DBC
	DBC	Improvements to the Kings Langley play area. Kings Langley	2013-14	£13,500	Developer Contributions	Funding secured.	DBC
	BTC	Provision of play facilities at the Moor, Berkhamsted	2015 onwards	£50K	Developer Contributions	Funding not secured	BTC/DBC
	DBC	Improvements to Bunkers Lane play area. Hemel Hempstead.	2012-15	£80K	Developer Contributions	£80K of funding secured through S106.	DBC

		Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	DBC	Improvements to George Street play area. Berkhamsted	Dependent on delivery of development and receipt of S106 money.	£50K	Developer Contributions	£10.4K of funding secured through S106 subject to expected revision to planning application.	DBC
	DBC	Improvements to Markyate play area. Markyate.	Dependent on delivery of development and receipt of S106 money.	£40K	Developer Contributions	£40K of funding secured through S106 subject to expected revision to planning application.	DBC
	DBC	Improvements to Grovehill/Woodhall Farm play area. Hemel Hempstead.	Dependent on delivery of development and receipt of S106 money.	Unknown	Developer Contributions	£28,371 of funding expected from Redbourn Road development.	DBC
	DBC	New play area at Cherry Trees Lane. – 1 or 2 Hemel Hempstead.	Alongside Development	n/a	Provision required as part of development	Developers	
	DBC	Two new play areas at Manor Estate. Hemel Hempstead.					
	DBC	New play area at Sappi development. Hemel Hempstead.					
	DBC	New play area at Green Lane. Hemel Hempstead.					
	DBC	New play area at Land West of Tring (Local Allocation). Tring.					
Play space	BTC	New play area at Chiltern Park Estate, Berkhamsted	TBC	40K-50K plus land		BTC/DBC	

		Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	DBC	New Play area(s) at Land to the West of Hemel Hempstead	Alongside Development	n/a	Provision required as part of the development		Developers
	DBC	New Play area at Spencer's Park					
Natural Green Space and Local Nature Reserves		Target 3 existing Natural Green Spaces for access and interpretation improvements: Woodhall Wood, High Wood and Howe Grove. Hemel Hempstead.	Ongoing	Unknown	TBC	Funding secured not	DBC
		Consider designating Local Nature Reserves at High Wood, Maylands Wood, Widmore Wood and Woodhall Wood. Hemel Hempstead.	Ongoing	Unknown	TBC	Funding secured not	DBC
		Designate Dundale as Local Nature Reserve and continue to support the Friends Group Tring.	2015/16	Unknown	TBC	Funding secured not	DBC
		Ashridge: improved green access – as described in DBGIP. Borough wide	TBC	£100K - £500K	TBC	Funding secured not	DBC/HCC
Other		Improvements to open space at Two Waters (Urban Park) comprising three projects: Hemel Hempstead.			GAF, DBC/ developer contributions/ British		DBC/ Box Moor Trust/ British Waterways/ Boxmoor and District Angling Society/ Dacorum Heritage Trust/ 1 st Apsley Scouts
		- Heath Park Gardens (environmental improvements and improvements to access) in conjunction with Box Moor Trust	2014/15	£140K for phase 1	Waterways/ Box Moor Trust/ external funding sources	£142K secured through S106	
		- Boxmoor improvements, which includes upgrades to the canal	2014-16	?			

	<p>towpath in conjunction with British Waterways</p> <ul style="list-style-type: none"> - Environmental and accessibility improvements to lakes and green space at Apsley 	2014-16	£500K+		£300K secured from GAF, external funding options for remainder being explored.	
	<p>Improvements at Gadebridge Park</p> <ul style="list-style-type: none"> - River Gade walk and cycleway - Splash Park - Events Space - Remodelling of the River Gade - Improvements to historic assets (White Bridge, Charter Tower, Walled Garden, Bury and Roman Villa) 	TBC	£4.5 million	Parks for People (Heritage Lottery Fund/Big Lottery Fund) and Your Heritage/Heritage Grants. DBC Capital Funding	Funding bid to be revised in accordance with HLF advice	DBC/Dacorum Heritage Trust
	<p>Refurbishment of Water Gardens Hemel Hempstead.</p>	2015	£3.6m	Heritage Lottery Fund (HLF) and DBC Capital.	£1,000,000 secured within the DBC Capital Programme with the possibility of an additional £150K from DBC funds.	DBC

	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	Expansion of Bunkers Park	2015/16	£700K + land	DBC/developer contributions	£338K secured through S.106.	DBC
	Tring Park Enhancements – as described in DBGIP Tring.	2013/14	£100K-£500K	Heritage Lottery Fund	£329,400 secured from the Heritage Lottery Fund,	Woodlands Trust and Natural History Museum
	Aldbury Nowers habitat restoration and enhancement – as described in DBGIP	TBC	£100K - £500K	Unknown	Unknown	?
	Grand Union Canal enhancement – as described in DBGIP and HSGIP Borough wide	TBC	£2m +	HCC/BTC and CARP	Unknown	?
	River Valleys project – Gade, Bulbourne and Ver – as described in DBGIP and in the HSGIP (as Thames Tributaries, River Valleys and corridors) Borough wide	TBC	£100K - £500K	Unknown	.No funds secured	?
	Rural villages and common links – as described in DBGIP Borough wide	TBC	Up to £100K	Unknown	Unknown	?
	Urban greening for Hemel Hempstead – as described in DBGIP and in HSGIP (as Urban GI Heritage) Hemel Hempstead.	TBC	At least £500K	Unknown	Unknown	?
	‘Green Hertfordshire’ interactive map project – as described in DBGIP and the HSGIP Borough wide	TBC	£50K - £100K	HCC	HCC has funded the plotting of Woodland info on the interactive map project.	HCC
	Projects to support the policies and	Variable	Variable	Variable	Variable	Variable

	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	actions in the Green Space Strategy					
Hertfordshire Constabulary: Assessment of the impact of growth – Dacorum Local Authority	29.5 Police staff	2006 - 2031	£237,107	Hertfordshire Constabulary/ CIL monies	Funding not yet secure	Hertfordshire Constabulary
	151 sqm of police floorspace		£472,357			
Hemel Hempstead Town centre Masterplan (cabinet report)	Re-provision of Hemel Hempstead police station in PSQ	2015	N/A – part of a wider scheme	Uplift in value of existing police station site through redevelopment	Funding not yet secure	DBC/ Hertfordshire Constabulary
	Energy from waste facility. New Barnfield, Hatfield – subject to planning permission. County-wide.	2016	£20m	Defra (via PFI), developer contributions and Veolia (operator).	Funding secured. Veolia will pay the construction costs of ≈ £200m. HCC will receive £115.3m of PFI credits towards the payment of 'gate fees'.	Veolia
	Organic Waste Treatment Facility (OWTF) to serve Dacorum, Watford and Three Rivers. Hemel-Watford corridor Borough-wide.	2014-18	?	Likely to be funded initially by the private sector and repaid by way of a 'gate fee'.	Funding not secure	HCC and private sector developer
	Two additional collection rounds (comprising 4 vehicles and associated staff). Borough-wide.	Dependent on outcome of research undertaken during 2013-14.	1.08m plus running costs	DBC core budget/ developer contributions	Funding not secure	DBC
Expanded HWRC Hemel Hempstead.		TBC	£2m plus clearance, flattening and land costs	DBC/HCC core budgets/realisation of land value from redevelopment	Funding not secure	HCC

	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
				of existing HWRC site.		
Expansion/re-organisation of Cupid Green Depot. Hemel Hempstead.		TBC	TBC	DBC core budget/ developer contributions	Funding not secure	DBC
Sports Facilities Infrastructure						
Sports Centre	Replacement of Tring Sports Centre Tring	Feasibility work to be undertaken 2013	£3-5m	Lottery Iconic Facility Funding, DBC, HCC, Tring School, Tring Town Council and Sportspace.	No funding secured.	Sportspace
	Refurbishment/redevelopment of Berkhamsted Sports Centre Berkhamsted.	Feasibility Work to be undertaken 2013	£5m	Lottery Iconic Facility Funding, DBC, HCC, value from redeveloping existing site and Sportspace.	No funding secured.	Sportspace
Libraries Infrastructure						
	Re-provision of Hemel Hempstead town centre library as part of PSQ development. Hemel Hempstead.	2015	TBC	HCC/ developer contributions/ external funding sources	Funding not secure	DBC/HCC
Community Space						
DSIS, BTC and BHIVE	Provision of a Community Hall in Berkhamsted	Unknown	£1.17m	Developer contributions	Funding not secured	BTC/DBC

	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
				and external funding		
	Community hall/space at Spencer's Park	Alongside development	£1.17m	Provision required as part of the development		Developers/ DBC
	Provision of a community space at land at West Hemel Hempstead (LA3)	Alongside development	£1.17m	Provision required as part of development		Developers/ DBC
Job Brokerage						
	Activities supported by ESP Board and Skills Strategy	2014/15	TBC	DBC/developer contributions/ external funding	Monies secured from DBC capital budget	DBC/ESP Board/ Employers/ Training providers
Cemeteries						
	New cemetery site, 30 acres Hemel Hempstead	2016/7	£1.8m plus land	DBC – see note on Bunkers Park	Funding not secure – possible £460K secure via CSSG.	DBC
	Reserve a minimum of 4 acres of land for the extension of cemetery Tring	2021-2031	N/A	DBC/developer contributions	N/A	DBC/Landowner
Adult Care Services						
Services for Older People	18 additional places in residential care homes Borough wide	Up to 2030	At current rate	HCC	Funding to be confirmed as demography develops	HCC/ Care Home providers
	Additional care workers/support workers to support independent living Borough wide	Up to 2030	At current rate	HCC	Funding to be confirmed as demography develops	HCC/ Healthcare providers

	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	266 additional flexicare places Borough wide	Up to 2030	At current rate	HCC	Funding to be confirmed as demography develops	HCC
Services for people with learning disabilities	Additional care workers to enable supported living Borough wide	Up to 2030	At current rate	HCC	Funding to be confirmed as demography develops	HCC/ Healthcare providers
Services for people with physical disabilities	Additional care to provide residential and nursing care	Up to 2030	At current rate	HCC	Funding to be confirmed as demography develops	HCC/ Healthcare providers
	Upgrades to Blackbirds or Maple Lodge WWTW. To serve development at Hemel Hempstead and Kings Langley	2015-2020	£17m ²³	Thames Water revenue from customer bills	Funding for works to 2015 secure. Funding not secure beyond 2015 – to be confirmed through subsequent AMPs and approved by OFWAT.	Thames Water
	Improvements to capacity of sewerage network serving Tring. Tring	To support new development	£47.6m ²⁴			
	Improvements to Bovingdon pumping station. Bovingdon	Ongoing				
	Increase capacity of Markyate WWTW via expansion of reed beds. Markyate	?				
	Localised improvements/upgrades to sewerage infrastructure and network. Borough wide	To support new development				
Electricity Infrastructure						

²³ Source: Table 5.6 in DSIS: Utilities and Physical Infrastructure Assessment. Based on the estimated cost of new and refurbished WWTWs during period 2015-20 attributable to Dacorum.

²⁴ Source: Table 5.6 in DSIS: Utilities and Physical Infrastructure Assessment. Based on the estimated cost of new and renovated sewers and new and refurbished pumping stations during period 2010-20 attributable to Dacorum.

	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
	Upgrades to Hemel East primary substation: Installation of 1 x new 33kV circuit from Piccotts End Grid and installation of a new 12/24 transformer. Hemel Hempstead.	2012	£3.5m	UKPN and developers	Unknown	UKPN
	Upgrades to Warners End primary substation: Installation of 2 x new 33kV circuits from Piccotts End Grid, replacement of 2 transformers and replacement of the 11kV switchboard. Hemel Hempstead.	2020	£4.8m	UKPN and developers	Unknown	UKPN
	Alterations to Frogmore primary substation: Load transfers to Hemel East and Warners End (once reinforced). Hemel Hempstead.	Following necessary reinforcements	£338K	UKPN and developers	Unknown	UKPN
	Upgrades to Berkhamsted primary substation: Installation of 2 x new 33kV circuits from Lye Green Grid and replacement of 11kV switchboard. Berkhamsted	Unknown	£4m	UKPN and developers	Unknown	UKPN
	Upgrades to Ilmer Grid substation: Installation of 2 x new 90mVA transformers and replacement of the 33kVA switchboard. Borough wide	Unknown	£5.6m	UKPN and developers	Unknown	UKPN
Gas Infrastructure						
	Local network reinforcement	As necessary to support development	n/a	National Grid/Southern Gas Network	Unknown	National Grid/Southern Gas Network
Potable water infrastructure						
	Local network reinforcement	As necessary to support	n/a	Veolia Water/Thames Water	Unknown	Veolia Water/Thames Water

	Infrastructure Project	Indicative Delivery Date	Estimated Cost	Funding Sources	Funding status	Lead Delivery Agency
		development				

