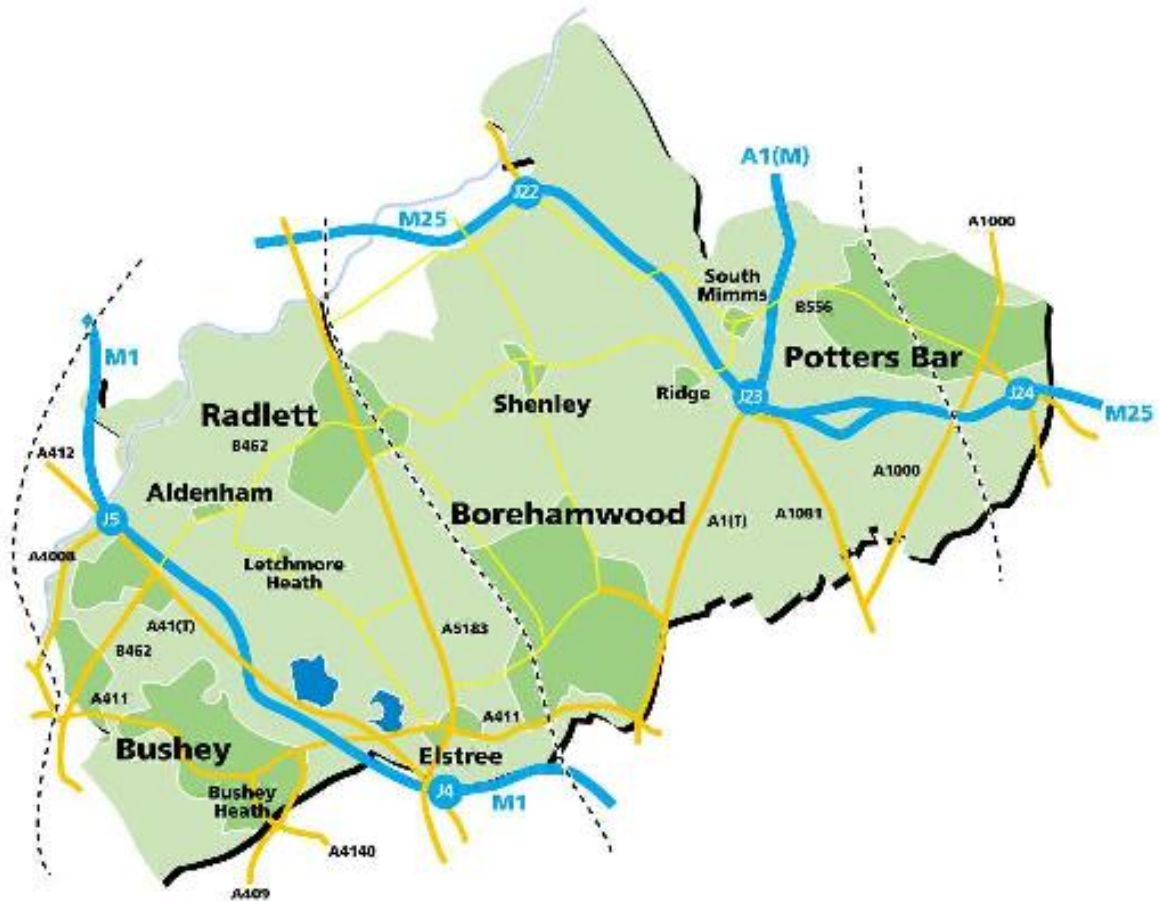


Hertsmere Borough Council Local Development Framework



Infrastructure Topic Paper January 2012

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1. Introduction

1.1 Planning Policy Statement 12: Local Spatial Planning advises that the Core Strategy should be supported by evidence of what physical, social and green infrastructure is needed to enable the amount of development proposed for the area. While there remains no specific requirement within PPS12 for Local Authorities to prepare an Infrastructure Development Plan (IDP) as part of the Core Strategy, they are required to take timely, effective and conclusive discussion with key infrastructure providers. The outcome of the infrastructure planning process should inform the Core Strategy and should be part of a robust evidence base. This evidence should cover who will provide the infrastructure and when it will be provided. The Core Strategy should draw on, and in parallel influence, any strategies and investment plans of the local authority and other organisations.

1.2 The infrastructure planning process should identify, as far as possible:

- Infrastructure needs and costs;
- Phasing of development;
- Funding sources; and
- Responsibilities for delivery.

What is Infrastructure?

1.3 The term 'infrastructure', in this instance, is used in its broadest sense to mean any service or facility that supports the city and its population. It includes, but is not restricted to the following:

Topic	Type of Infrastructure
Transport	Road, Rail, Bus, Travel Management, cycle / pedestrian facilities
Energy gas and electricity	Generation and provision
Water and drainage	Water supply, waste water, drainage, flood defences
Waste	Collection & disposal
ITC	Broadband
Open space / Green Infrastructure	Parks, Children's play areas, Sports pitches and courts, Country parks & Accessible Natural Greenspace, Green public realm, Allotments, Footpaths;

Education	Nursery and pre-school; primary, secondary; further education, higher education, adult education
Health	Hospitals; Health centres/GP surgeries; Public health and prevention
Community services	Libraries, Community centres, Youth , Social services/over-50s/support, police, fire & rescue, ambulance, cemeteries and crematoria, courts, prisons, hostels, places of worship, post offices, Children's centres; special needs and disability
Culture & Leisure	Museum/galleries, Theatres / Venues, Cinemas, Sports centres, Swimming pools, events, festivals and town centre programmes, Markets

1.4 While the term infrastructure is very broadly defined, this does not mean that this topic paper seeks to cover in detail all of the above items. That would make the process unmanageable. This report seeks to give a broad overview of the way certain infrastructure is planned and the agencies involved in its delivery. It also considers where possible the costs and likely funding mechanisms for some items of infrastructure, in particular those that are critical to delivering the Core Strategy.

Purpose of this document

1.5 It is not the purpose of this document to provide a full account of all future infrastructure requirements within the plan period, rather this document summarises and signposts infrastructure information that has been used to inform the production of the Hertsmere Core Strategy. The topic paper seeks to draw upon the conclusions of the substantial evidence base on infrastructure.

2. Infrastructure Requirements to Support the Core Strategy

- 2.1 During the production of the Core Strategy, the Council has engaged in discussions and consulted key infrastructure providers to ensure that, at this strategic level, plans are in place to underpin infrastructure delivery.
- 2.2 In relation to the Core Strategy, six key areas of infrastructure provision were considered to be most prevalent:
- Transport infrastructure;
 - Education provision;
 - Health provision;
 - Provision of utilities;
 - Green infrastructure and other community facilities; and,
 - Emergency service.

Housing Growth

- 2.3 Within this report housing growth is considered within the context of the Strategic Housing Land Availability Assessment (SHLAA) Update November 2011. This considers the spatial distribution of housing that is used to inform the draft revised Core Strategy.

Table 1. Summary of housing distribution

Settlement	Allocations and Commitments	SHLAA Sites	Broad Urban and Rural (PDL/ Settlement) Locations	Total 0-15 yr	Net Total 0-15 yr	Percentage
Borehamwood	371	1729	250	2350	2239	60%
Bushey	649	180	50	879	851	23%
Potters Bar	113	159	150	422	407	11%
Radlett and other suitable locations	82	43	125	250	243	6%
Gross Yield	1215	2111	575	3901		
Net Yield	1181	1984	575	3740		

Source: Hertsmere Strategic Housing Land Availability Assessment Update November 2011

2.4 The Housing Trajectory as illustrated in Figure 1 illustrates the estimated delivery of housing in Hertsmere to 2027.

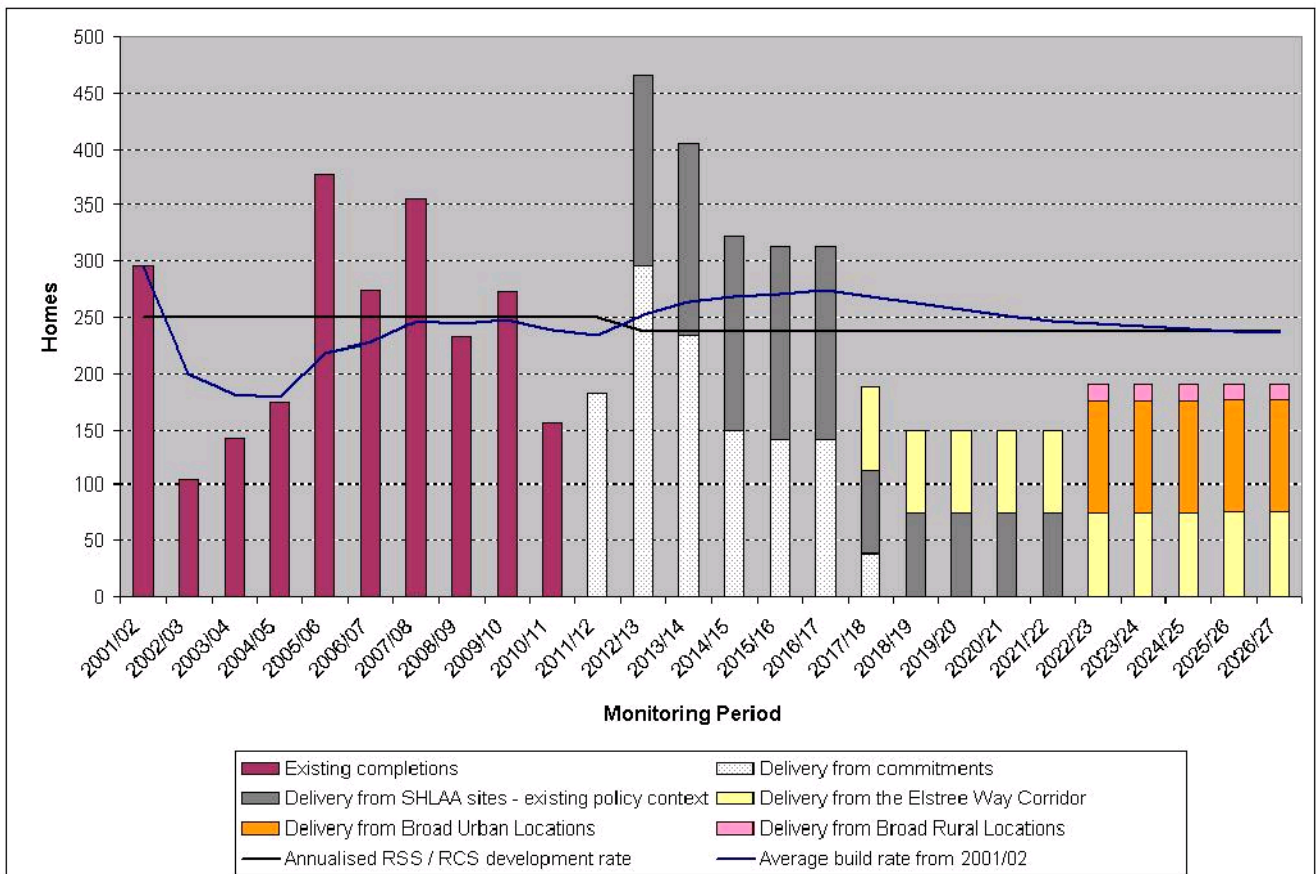


Figure 1. Hertsmere Housing Trajectory 2001-2027

2.5 It is recognised that whereas some infrastructure types such as essential utility infrastructure, schools etc are critical to ensuring that sufficient services are available to meet the needs of existing and future residents, there are other infrastructure categories that are more directly related to quality of life and biodiversity enhancement objectives. The Council recognises that whilst it may wish to secure the delivery of all infrastructure items, prioritisation may be required (particularly at the development control stage on applications for development) to reflect development viability, availability of public sector funding sources and service priorities at that time.

Monitoring Infrastructure Requirements

2.6 Hertsmere already undertakes regular monitoring through its LDF Annual Monitoring Report (AMR). It is considered that the most appropriate mechanism for ensuring that infrastructure requirements are regularly monitored will be to incorporate this into the AMR process. It will be important to ensure that there is liaison with the service providers as part of the monitoring process each year.

Collaborative working

- 2.7 Hertsmere Borough Council is committed to working with infrastructure providers and stakeholders to deliver key developments and projects. This report seeks to capture a snapshot of the infrastructure necessary to facilitate the planned growth in the Borough. During the preparation of the Core Strategy and following extensive consultation with infrastructure providers and key stakeholders, no significant infrastructure barriers have been identified to prevent the planned growth.

3. Transport Infrastructure

National Context

- 3.1 The publication of *Planning Policy Guidance 13* (PPG13) in 1994 (revised in 2001), followed by *A New Deal for Transport* in 1998 and the White Paper *Transport 10-Year Plan 2000* set the context and direction for transport policy in the UK. The policies enshrined within these documents demonstrated an acceptance that unrestrained growth in road traffic was neither desirable nor feasible based on concerns related to rising congestion levels, the effect of road traffic on the environment (both natural and built) and worries that an emphasis on road transport discriminated against vulnerable groups in society such as the poor, the elderly and the disabled.
- 3.2 In 2004 the White Paper entitled *The Future of Transport: a network for 2030*, was published and set out how the Government aimed to maximise the benefits of transport while minimising the negative impact on people and the environment. The Government was seeking a coherent transport network that can meet the challenges of a growing economy and the increasing demand for travel with:
- Walking and cycling offering a more serious alternative for local trips
 - Bus services that are reliable, flexible, convenient and tailored to local needs
 - The rail network providing a fast, reliable and efficient service, particularly for inter-urban journeys and commuting into large urban areas
 - The road network providing a more reliable and free-flowing service for both personal travel and freight, with people able to make informed choices about how and when they travel
 - Ports and airports providing improved international and domestic links.
- 3.3 *Circular 2/07: Planning and the Strategic Road Network* emphasises that the Strategic Road Network (SRN) cannot be expected to accommodate unconstrained traffic growth, and that development should be located at sustainable locations and incorporate demand management measures.

Regional Context

- 3.4 Transport policies and objectives in the Government framework have been cascaded and refined through the regional and sub-regional planning process to direct transport decisions across Hertfordshire. The *Regional Transport Strategy* (RTS) seeks to manage travel behaviour and transport demand effectively for all, and reduce the rate of road traffic growth to ensure the transport sector makes an appropriate contribution to reducing greenhouse gas emissions.

Hertfordshire Context

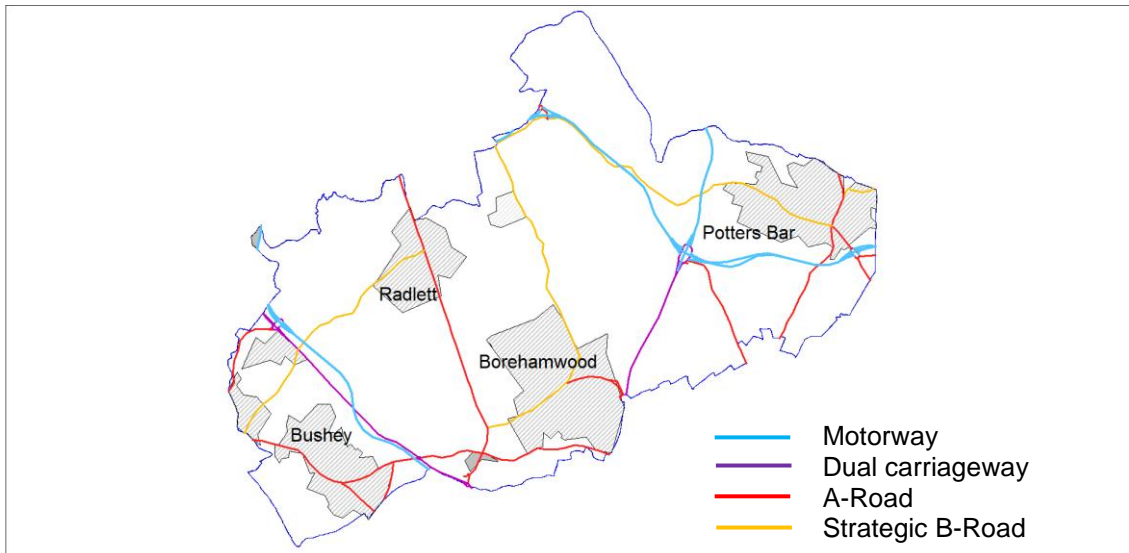
- 3.5 The East of England Plan 2008 (Regional Spatial Strategy) currently provides the statutory regional framework for development within Hertsmere.
- 3.6 Complementary transport policies are confirmed at county level by the Local Transport Plan and its supporting documents, such as the bus and rail strategies. Objectives in the Local Transport Plan (LTP3) for Hertfordshire has now been published, and covers the period 2011-2031. It sets out the transport strategy for Hertfordshire (over the next 20 years), the goals and challenges to be met, and outlines a programme of transport schemes and initiatives (interventions). The various interventions are to be delivered over the short, medium and longer term. The Plan covers all modes of transport - including walking, cycling, public transport, car based travel and freight - and takes account of the effect of transport on wider aspects including the economy, environment, climate change and social inclusion.
- 3.7 Hertfordshire County Council has led on a joint Infrastructure and Investment Strategy (HIIS) to define infrastructure requirements across Hertfordshire necessary to meet RSS growth targets. The study has assessed Hertfordshire's future infrastructure needs (including transport) and identified funding mechanisms to secure its provision. The report identifies transport as the largest infrastructure item in terms of needs and costs, and there are a number of existing deficits that also need addressing.

Hertsmere Context

- 3.8 There are also a number of Transport Studies and Urban Transport Plans which include or cover parts of Hertsmere, these include:
 - Elstree and Borehamwood Transport Plan
 - Potters Bar Urban Transport Plan
 - South West Herts Transport Strategy
 - South West Herts Transport modeling – draft
 - Borehamwood and Elstree Transport Study (modeling for the Elstree Way Corridor)
 - Hertfordshire Infrastructure and Investment Strategy – Transport Technical Report

Road Network

3.9 Hertsmere is well connected to London and the rest of the country. The M25 and M1 motorways and the A1 all run through the Borough, which is also serviced by main line rail services stopping at Potters Bar, Radlett and Borehamwood. However, some problems are caused by road links being better than access to public transport, particularly in terms of east to west transportation, which is reflected in high levels of car ownership and traffic congestion.



Blue motorway / Purple dual carriageway / Red A-Road / Yellow strategic B-Road

Figure 2 – Strategic Road Network

- 3.10 The Council has undertaken discussions with the Highways Agency, who have considered the relative impact of growth in the sub region is considered. There is broad capacity within the strategic network, especially given the increase of capacity as a result of the current and planned M25 widening.
- 3.11 The HIIS work also indicates that in 2011 there will be stress on the M1 and M25 without proposed growth, although the M25 is likely to improve as current works to widen the carriageway and provide additional capacity are completed through south-western Hertfordshire. Analysis for HIIS indicated that the AM peak showed the greatest level of stress on the road network and was therefore used as the critical time period to identify transport infrastructure need.
- 3.12 Widening of the M25 was one of the recommendations of the Orbit Multi Modal Study which reported in November 2002. The study was tasked with addressing the problems of the M25 motorway and the orbital transport corridor around London. The study involved widespread public consultation and looked at the current problems and potential solutions to them. The programme of works between Jct 16 to 23 (see appendix 3

for HA plan) partly fall within Hertsmere and the adjacent districts of St Albans, Three Rivers and Watford. Works between Jct 16 to 21a are complete, the final section of (through Hertsmere) is due for completion ahead of the 2012 Olympic Games.

- 3.13 The Elstree Way Corridor Feasibility study (carried out by Consultants Colin Buchanan) provides a viable master plan scenario for the redevelopment of the Elstree Way Corridor (EWC). The study proposes significant highway and public realm works, including improvements to Elstree Way for vehicular and pedestrian access and the removal the Elstree Way/Shenley Road roundabout. In conjunction with the feasibility study, transport and financial assessments were carried out. Cost estimates for the proposed works are anticipated to be £10m, this is to be funded via developer contributions and the via the realisation of development value from site disposals. A separate transport study has been undertaken and Hertsmere Borough Council is currently working with HCC for the works interpretation into the revised Borehamwood and Elstree Transport plan.
- 3.14 HHS has identified Hartspring Roundabout on the junction of the A41/B462 Hartspring Lane, within Hertsmere as a key corridor requiring improvement works to enable future growth by 2021. Hertsmere Borough Council will work with HCC to ensure the delivery of this project.
- 3.15 Although Stirling Corner, at the junction of the A1 / Barnet Road is located outside of the borough the Council has actively engaged with Transport for London to address safety and accessibility issues at this important junction.
- 3.16 The LTP3 includes a number of schemes within Hertsmere:
- Stirling Way Pedestrian Improvements (2011/12)
 - Brook Road Discretionary Scheme (2011/12)
 - Brook Road/Nr Fairway Ave S127 Signal Refurbishment (2012/13)
 - Centennial Park S106 - Elstree Crossroads (2011/12)

Rail Network

- 3.17 Hertsmere is served well by rail connections with the four major centres served by rail connections. Figure 3 below shows the rail network in relation to the settlements in Hertsmere.

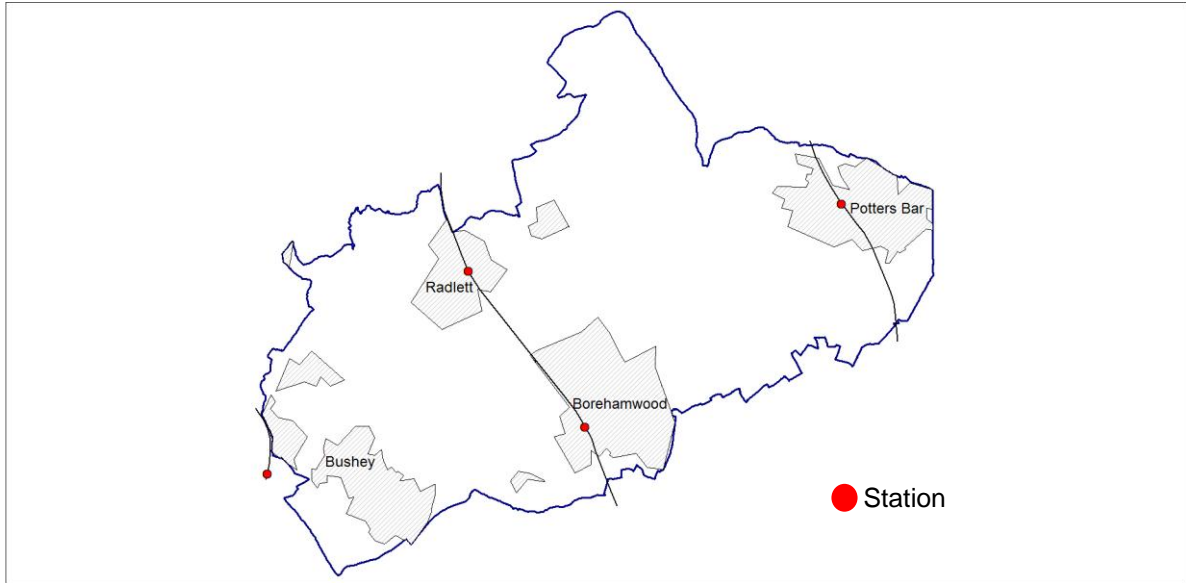


Figure 3 – Strategic Rail Network

3.18 As table 2 below shows Elstree & Borehamwood station is busiest station in term of annual passenger numbers within Hertsmere. Annual Passenger numbers for all stations in Hertsmere decreased in 2009/2010 compared with the previous year. This local decrease is in keeping with the UK average with saw an average decrease of around 0.8% compared to 2008/2009.

	Service Provider (s)	Annual Passengers - Year	
		08/09	09/10
Elstree & Borehamwood	First Capital Connect	3,274,532	3,025,188
Radlett	First Capital Connect	1,037,944	988,480
Potters Bar	First Capital Connect	1,649,420	1,569,258
Bushey*	London Overground	491,710	533,866

Source: http://www.rail-reg.gov.uk/upload/xls/station_usage_0910.xls

*Station located within neighbouring district of Watford

Table 2 - Station Service Providers and Passenger Figures

3.19 Elstree and Borehamwood and Radlett are on the Midland Mainline, served by the Thameslink line service currently operated by First Capital Connect. The typical off-peak service from the station is four trains per hour southbound to London, Wimbledon and Sutton, and four trains per hour northbound, of which two terminate at St Albans and two run to Luton. On Sundays this is further reduced to two trains per hour in both directions. Peak services run on to Bedford, with late night / early morning services running to Three Bridges and Brighton. Up to seven trains per hour operate at peak times.

- 3.20 Potters Bar is located on the Great Northern Line on the East Coast Main Line, services are operated by First Capital Connect. There are two trains per hour to London King's Cross, three trains per hour to London Moorgate, and also three trains per hour to Welwyn Garden City. In addition there is a service an hour to Cambridge, and one an hour to Peterborough. The level of service is reduced at weekends.
- 3.21 Bushey is on the London Overground "DC lines" between London Euston and Watford Junction and the London Midland services between London and Tring. The London Overground services, Monday to Sunday daytimes there is a train every 30 minutes to London Euston (southbound) and Watford Junction (northbound), this services is hourly at weekends. For London Midland services, Monday to Saturday daytimes the half-hourly service to London Euston and Tring stops at Bushey. The London bound service is more frequent during the morning rush hour.

HIIS

- 3.22 The main issue for rail in Hertfordshire is that despite having an extensive north-south rail network traversing the County, rail use is constrained by a lack of capacity. A lack of trains to satisfy demand especially for commuter trips into and out of London; platform capacity and accessibility including at London stations; insufficient car parking at some station car parks and limited train paths have contributed to this lack of capacity.

West Coast Main Line (Potters Bar)

- 3.23 The WCML experiences severe overcrowding in AM and PM peaks on many services. Highest inner suburban crowding levels with significant standing (typically south of Gordon Hill) occurs on AM peak Hertford Loop services. Generally quieter periods for remainder of day. First Capital Connect report that in general there is insufficient parking spaces at a number of stations within Hertfordshire, and is committed to increasing parking capacity across its network. At Potters Bar in 2007, car parking facilities were working at 90% car parking occupancy or higher.

Thameslink (Radlett and Elstree & Borehamwood Stations)

- 3.24 The Thameslink route is at or near capacity at peak times from London to Bedford. Most heavily loaded trains on London peak commuter services south of Bedford. Performance issues particularly pronounced at locations where route heavily congested. Track capacity is limited south of Bedford and the immediate plan is largely to make better use of existing train paths by running longer trains. For First Capital Connect this has required a move to 12-car trains and has resulted in platform extension work at Elstree and Borehamwood Station. The installation of a new foot bridge and lifts at Elstree and Borehamwood Station is also planned for 2012 under the DfT funded Access for All scheme. The

required planning application was submitted to the Council in January 2012.

- 3.25 Commuter growth will continue to be a key issue, especially into London. It is very difficult to create further peak paths to/ from London due to the constraint of four platforms at St Pancras International and number of paths available through the Thameslink core from Kentish Town to Blackfriars once Key Output 2 of the Thameslink Programme connects with the East Coast Mainline route.
- 3.26 Current signalling control arrangements on approach to junctions at Radlett, Harpenden and Leagrave has caused local problems, when trains need to cross between the fast and slow lines. Where these are not planned it can incur up to two minutes delay.
- 3.27 The £5.5 billion Thameslink programme will provide increased capacity and improve journey experience on the line serving Elstree and Borehamwood, Radlett, St Albans and Harpenden. Longer trains on this route will be introduced by 2012. The second phase, due for completion by December 2016 will link the Great Northern line into the Thameslink network, allowing direct services from places such as Stevenage via St Pancras / Blackfriars to the south of London.

Croxley Rail Link

- 3.28 The Croxley Rail Link is a proposal which includes the construction of a viaduct to connect the existing Metropolitan line to the currently disused Croxley Green Branch Line, with the provision of two new stations. The overall aim of the project is to improve connectivity within Watford and between Watford, London and the rest of the UK, thereby supporting economic development and helping to reduce congestion on the road network. The scheme will serve parts of the Bushey area close to Watford and will provide an alternative route of transport for residents to connect to, especially for access to Watford Hospital. The Croxley Rail Link has received funding and it anticipated to start in 2014/15, with a total project cost of circa £116.3m.
- 3.29 Hertfordshire County Council is currently developing the designs for the scheme with a view to progressing down the appropriate planning permission channel, known as a Transport and Works Act Order, to gain the necessary powers to construct the scheme. The Transport and Works Act Order for the scheme was submitted to the Secretary of State in early January 2012.

Buses Network

- 3.30 The role of the bus is largely complementary to other parts of the transport system. It is an inherently local rather than long distance trip provider, though some routes may have a county-wide dimension. It serves a volume market, but needs of individuals and interfaces with individual transport mechanisms such as taxis and community transport are important.

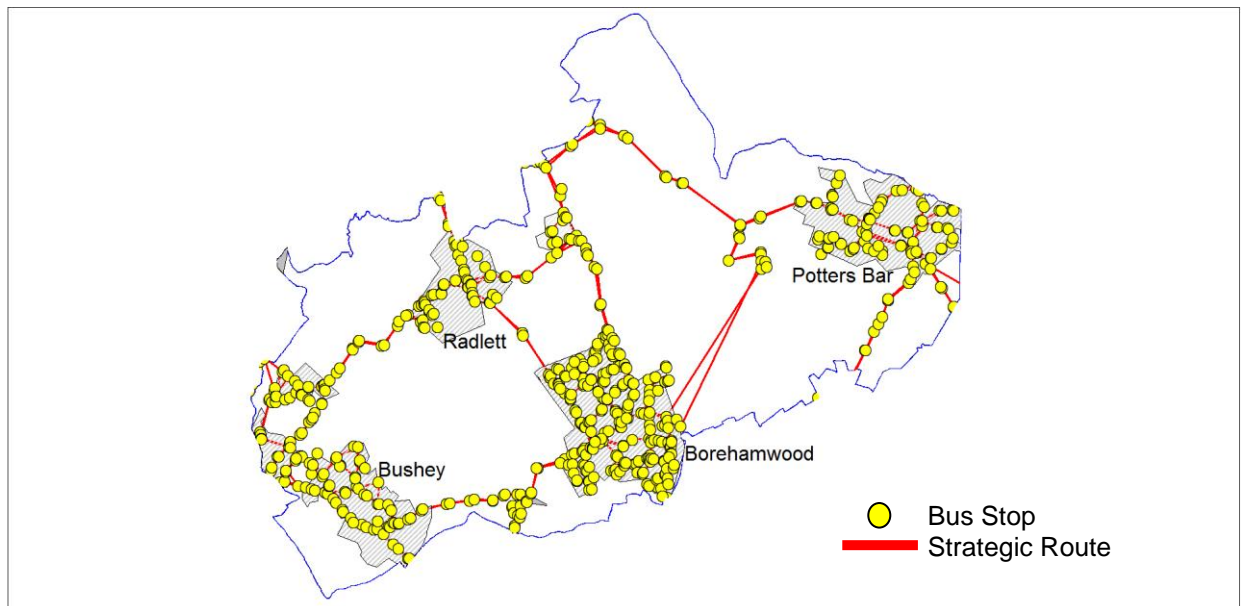


Figure 4 – Strategic Bus Routes

3.31 Bus operators providing regular services across Hertsmere and beyond include Sullivan Buses, Arriva, Arriva London and Uno. The management of public transport services in Hertfordshire (on behalf of Hertfordshire County Council) is led by Intalink, which is part funded by Hertsmere Borough Council. Intalink design, create and promote cross-operator multi-journey tickets and occasionally run competitions. They manage Quality Bus Partnerships maintaining good standards along routes that need it. Along with this, they provide printed timetables, maps, phone apps and leaflets promoting the above services.

3.32 The 2007-2011 Intalink Strategy identifies a series of infrastructure interventions, including a programme to upgrade and improve designs of bus stop infrastructure, including:

- Refurbishment or replacement of bus stop flags to include new design
- Improved display of the new 'traveline' telephone number
- The installation and display of SMS text numbering, to facilitate the delivery of the 'next bus due' details direct to a mobile phone
- Completion and installation of the individual bus stop renaming programme
- Investigation of alternative disability information display at the bus stop
- Improvements for disabled persons, wheelchair users and others, through 'kassel kerb' facilities wherever possible, allowing ease of access from the kerbside to the bus (in progress)

3.33 HHS identified the following as the main problems in relation to bus network improvements across Hertfordshire:

- Competition from high car ownership and use;
- No dominant centre on which demand for services is focused;

- The impact of London attracting operators and workers in the industry;
- Decline in bus use of 2% per annum since the mid-1990s;
- Bus costs rising by 7-8%, fares rising by 5% per annum;
- An ageing fleet of vehicles; and
- Accessibility for disabled users placing financial costs on operators and HCC.

3.34 The Bus Network Review (a daughter document to HCC's Bus Strategy) provides strategies for 100 bus corridors in Hertfordshire. The 20 bus corridors considered the best candidates for improvements and of these, two routes are within Hertsmere the W7/9 (Watford – Bushey – Borehamwood) and 84 (St Albans – Potters Bar – Barnet). The improvements outlined in the strategies are not limited to hard infrastructure but include better vehicles and marketing. Of note is that many of these corridors are inter-urban, reflecting the reality that existing passenger capacity deficits are mainly experienced on inter-urban routes it is of course important to recognise that, to a greater or lesser extent, interurban services will also cater for intra-urban travel.

3.35 The Inter Urban Route Strategy (a daughter document to HCC LTP) provides a strategy for a series of key corridors linking the urban centers within the County and across the borders to neighbouring authorities. The key objectives of this ongoing Strategy are to determine the function of each route, its characteristics, capacity, delays and adequacy / potential to accommodate growth; and, to consider and prioritise interventions within routes and across routes. The Council is currently working with HCC and districts across the County on the Strategy which is expected to be completed later in 2012.

4. Education provision

4.1 Hertfordshire County Council has a statutory duty to ensure there are sufficient school places for children and young people resident in the Borough within the state / state funded sector. The methodology used to analyse the current position regarding primary school places in Hertsmere is as follows:

- Assess school capacity/Planned Admission Number (PAN) as at October 2010
- Use CSF forecasts to 2016/17 of children aged 0-5 using GP data*; known housing developments; and mobility trends over the past three years. (*The final two years of the forecast are based on trends from previous data as no GP data is available for children not yet born.)
- Look at the possible effect on places within a reasonable distance of a school if any housing development were to be included in the LDF.

4.2 It should be noted that the Audit Commission recommends no more than 10% surplus places are required to allow a margin for a degree of parental preference. A 5% margin on the raw forecast has been allowed for in the following information.

4.3 The following infrastructure analysis focuses upon state and state funded education facilities. It should, however be noted that independent education facilities play an important role within Hertsmere with a significant number of private education facilities across the Borough, many of which have provided representations on the Core Strategy.

Primary Schools

4.4 In the following information 1FE equals 30 places per year group and 2FE equals 60 places per year group.

Borehamwood and Elstree

4.5 There are 10 primary schools in the planning area, excluding the Hertsmere Jewish School. These are Cowley Hill Primary (2FE), Kenilworth Primary (1FE), Meryfield Community Primary (2FE), Monksmead (1FE), Parkside Community Primary (1FE), Saffron Green Primary (1FE), St Teresa's Catholic Primary (1FE), Summerswood Primary (2FE), Woodlands Primary (1FE) and St Nicholas Elstree C of E VA Primary School (1FE).

Borehamwood & Elstree Primary Schools	PA N	2011/12 F/cast	2012/13 F/cast	2013/14 F/cast	2014/15 F/cast	2015/16 F/cast	2016/17 F/cast
Total	390	387	381	394	393	391	391

- 4.6 Approximately 1800 dwellings are proposed in Borehamwood to 2026, which may mean that 3FE of extra capacity will be needed. It may be possible for this extra capacity to be provided at a number of schools in Borehamwood, although Cowley Hill has already been expanded and it is proposed to expand Summerswood to 2FE. Depending on the proposed type and location of these dwellings, a reserve 2FE primary school site may be needed should a large number of dwellings be located in one area.
- 4.7 In addition, a large number of children (up to 200 per year) obtain education out of the town. If they are unable to continue to do so, or otherwise change behaviour, there could be an additional need for places above the current forecast.
- 4.8 There is significant local demand for additional Jewish provision to serve the Borehamwood area. There are currently two Jewish Primary Schools in the Borough. However, not all pupils applying for this provision are currently able to access a place at either of these schools. Some of these families choose Jewish provision outside of Hertfordshire instead of accepting a place in a community school. Pupils accessing places in neighbouring authorities are not included in the forecast figures. Therefore, it may be that further Jewish provision would meet an additional need in the community, but it is likely there would still be a lack of 'non-faith' provision. A planning application has been approved for a new 2 FE primary school provision at Yavneh College, Borehamwood.
- 4.9 In Elstree any additional dwellings to 2026 may have an impact on St Nicholas Elstree C of E VA Primary School depending on the location and type of dwellings proposed.

Shenley

- 4.10 There are two primary schools in the planning area, Clore Shalom (1FE) and Shenley Primary (1½FE).

Shenley Primary Schools	PA N	2011/12 F/cast	2012/13 F/cast	2013/14 F/cast	2014/15 F/cast	2015/16 F/cast	2016/17 F/cast
Total	75	66	73	62	51	59	59

- 4.11 Shenley has a detached playing field on land owned by Hertsmere. Children attend Shenley Primary school from Borehamwood and London Colney. Accommodating children from any proposed new housing in Shenley could have an impact upon the current pattern of allocation of school places to children from outside the village. However, a reserve site previously set aside for additional school provision in Shenley is no longer needed by HCC and it was recently handed to the Shenley Parish Trust. Any development of the nearby

Harperbury site in St Albans District will need to be closely monitored given its potential impact on school places in Shenley and Radlett.

Bushey

- 4.12 There are eight primary schools in the planning area, excluding Bushey Manor Junior, which lies within Watford planning area. Ashfield Junior (2FE), Bournehall Primary (1FE), Bushey Heath Primary (1FE), Hartsbourne Primary (1FE), Highwood Primary (2FE), Little Reddings Primary (PAN 51), Merry Hill Infant School and Nursery (1FE) and Sacred Heart Catholic Primary School and Nursery (PAN 40).

Bushey Primary Schools	PAN	2011/12 F/cast	2012/13 F/cast	2013/14 F/cast	2014/15 F/cast	2015/16 F/cast	2016/17 F/cast
Total	301	307	299	301	250	275	275

- 4.13 Little Reddings has increased its PAN to 60 on a temporary basis for 2010/11 and 2011/12. Additional dwellings in Bushey to 2026 may have an impact on primary school places in Bushey depending on the type and location.

- 4.14 Hertfordshire County Council have considered the former West Herts College Annexe site at William Street as a potential location for a 2FE school for the Central Watford area.

Radlett

- 4.15 There are three schools in the town of Radlett; these are St Johns Infant (2FE), Fair Field Junior (2FE), and Newberries (1FE). The planning area also includes Hertsmere Jewish Primary School (2FE), but this school is located between Radlett and Borehamwood, and a large proportion of the pupils live in Borehamwood. The forecast reflects the numbers coming in to the planning area.

Radlett Primary Schools	PAN	2011/12 F/cast	2012/13 F/cast	2013/14 F/cast	2014/15 F/cast	2015/16 F/cast	2016/17 F/cast
Total	150	169	156	144	141	145	145

- 4.16 There are sufficient places to accommodate children from Radlett in the schools according to the current forecast. The proposed additional 32 dwellings to 2026 may not have a significant impact

- 4.17 Even though there is not significant housing planned in this area, it is still prudent to identify where additional places could be made available in the future. There may be potential to increase Newberries from 1 to 2

FE, if required, to meet any increased future demand. To enable this to happen, land adjacent to the school would need to be allocated to provide adequate playing fields.

Potters Bar

- 4.18 There are seven primary schools in the planning area. These are Cranborne Primary (2FE), Ladbrooke JMI (1FE), Little Heath Primary (actually located within Welwyn Hatfield District) (1FE), Oakmere Primary (2FE), Pope Paul Catholic Primary (1FE), St Giles' C of E Primary South Mimms (½FE) and The Wroxham (1FE).

Potters Bar Primary Schools	PAN	2011/12 F/cast	2012/13 F/cast	2013/14 F/cast	2014/15 F/cast	2015/16 F/cast	2016/17 F/cast
Total	255	199	246	189	206	207	208

- 4.19 There is existing capacity within the primary schools in Potters Bar and Sunnybank Primary was closed by HCC in 2007. It is noted that 204 dwellings are proposed to 2026. The Wroxham could expand by 1FE if additional capacity is needed, since it is located on a 2FE site, which could be extended.

Secondary Schools

- 4.20 The following information is an analysis of the current position regarding secondary school places using CSF planning areas. Secondary school sites are 6 to 10 FE in size, with stay on rates for sixth form of over 50%.

Borehamwood

- 4.21 There are two secondary schools in the planning area - Hertswood (9 FE) and Yavneh College (5FE).

Borehamwood Secondary Schools	PAN	2011/2012 F/cast	2012/2013 F/cast	2013/2014 F/cast	2014/2015 F/cast	2015/2016 F/cast	2016/2017 F/cast
Total	430	378	394	363	392	414	406

2017/2018 F/cast	2018/2019 F/cast	2019/2020 F/cast	2020/2021 F/cast	2021/2022 F/cast	2022/2023 F/cast	2023/2024 F/cast
427	442	441	441	436	440	441

- 4.22 Hertswood has the building capacity to accommodate more pupils than the current published admission number. There is also capacity to

expand provision (if required), taking into account the space available across the two school sites. The forecast indicates that there may be some need for additional capacity, but that this demand could likely be met through existing provision.

- 4.23 Oaklands Further Education College has a training facility in Borehamwood. The college relocated their activities from their previous facility on Elstree Way to the Kinetic Business Centre in September 2010. The relocation resulted in the former college site on Elstree Way being developed for housing, a site which forms part of the Elstree Way Corridor.

Bushey

- 4.24 There are three secondary schools in the planning area – Bushey Academy (6FE), Bushey Meads (PAN170) and Queens (PAN 262).

Bushey Secondary Schools	PAN	2011/2012 F/cast	2012/2013 F/cast	2013/2014 F/cast	2014/2015 F/cast	2015/2016 F/cast	2016/2017 F/cast
Total	642	541	542	528	563	582	582

2017/2018 F/cast	2018/2019 F/cast	2019/2020 F/cast	2020/2021 F/cast	2021/2022 F/cast	2022/2023 F/cast	2023/2024 F/cast
611	620	623	631	611	619	616

- 4.25 Bushey Academy will become 7FE once the new buildings are completed. There should be capacity in the existing schools to meet any needs arising from proposed dwellings. However, the Local Authority is forecasting a significant deficit of places in Watford from 2015/16. Currently schools in Bushey educate a significant number of pupils living in Watford. As such, there may be a need to consider the expansion of secondary schools in Bushey to help meet this increase in demand.

Potters Bar

- 4.26 There are three secondary schools in the planning area – Chancellors (6FE), Mount Grace (PAN 174) and Dame Alice Owens (PAN 200).

Potters Bar Secondary Schools	PAN	2011/2012 F/cast	2012/2013 F/cast	2013/2014 F/cast	2014/2015 F/cast	2015/2016 F/cast	2016/2017 F/cast
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Total	554	519	532	516	553	546	556
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2017/ 2018 F/cast	2018/ 2019 F/cast	2019/ 2020 F/cast	2020/ 2021 F/cast	2021/ 2022 F/cast	2022/ 2023 F/cast	2023/ 2024 F/cast
576	544	591	529	546	548	549

4.27 Schools in Potters Bar attract pupils from a wide area, including out of county pupils from north London. There is a forecast deficit 2016/17, 2017/18 and 2019/20, but this is not currently forecast to be sustained.

4.28 There is currently no state secondary school provision in Radlett.

Conclusion

4.29 This report has captured a snapshot of the Hertsmere education infrastructure. To deliver the growth of Hertsmere over the next 15 years a 2FE Primary School site is required in Borehamwood. Discussions between the Council and HCC are to continue and potential sites explored as part of the Site Allocation DPD. Current guidance from HCC is that primary schools should ideally meet the following criteria:

- 2.5 Hectares site size
- Sustainably located
- Flat site
- Accessible to pedestrians (less than 2 miles along safe routes) and vehicles
- Free from site constraints

4.30 Further requirements will need to be closely monitored including any impact arising from neighbouring development (particularly in Watford, Three Rivers and St Albans) and changing demographic projections. The Council will also work closely with HCC and Oaklands College to ensure that the College's plans for continued presence in Borehamwood address the needs of the local community.

5. Health provision

5.1 As of 1st April 2010, East & North Hertfordshire Primary Care Trust (PCT) and West Hertfordshire PCT merged to create one PCT for Hertfordshire: NHS Hertfordshire. It is responsible for arranging healthcare for everyone who lives in the County. Its healthcare providers include GPs, hospital trusts, dentists, community pharmacists, community health services, and mental health trusts. Four months prior to merging the two Hertfordshire PCTs laid out their joint vision of what services will be commissioned over the next few years in their Five Year Strategic Plan. This Plan seeks to improve health, people's experiences of healthcare, and ensure services are of the highest quality. The Plan was published in 2009 and updated early in 2010.

Policy Context:

- 5.2 The Revised Core Strategy for Hertsmere highlights that the provision of healthcare is a key priority. The Strategy includes the aim of reducing healthcare inequalities across the Borough by making sure that the facilities are in the most accessible places.
- 5.3 Health need and deprivation is not uniform across Hertsmere. The Index of Multiple Deprivation (IMD) 2007 demonstrates that the highest rates of deprivation are in Borehamwood Cowley Hill ward. Areas with high deprivation indicators will have a greater need for healthcare provision:

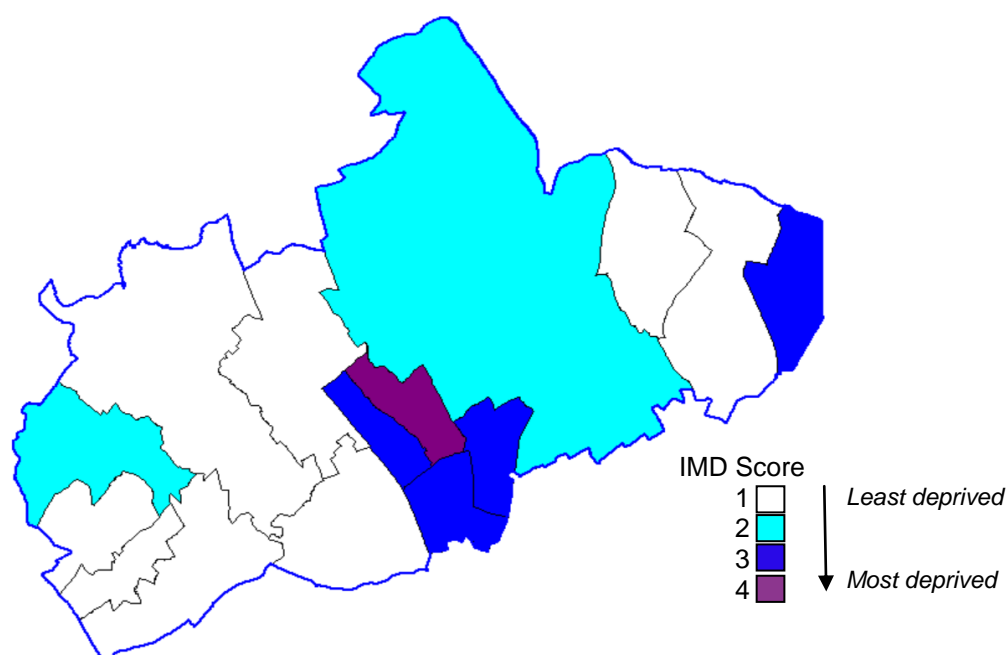


Figure 5 – Index of Multiple Deprivation in Hertsmere

Organisational structure:

- 5.4 GPs in Hertfordshire have organised themselves into 12 local commissioning groups. These provide a local focus for setting commissioning priorities and advise the PCT on more strategic

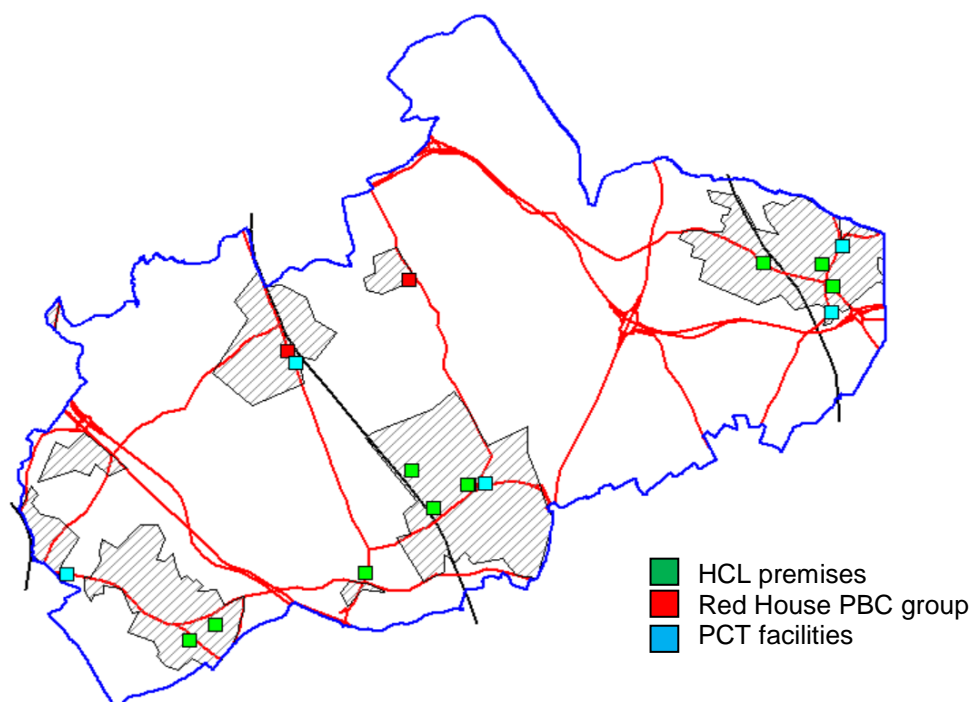
commissioning matters. Hertsmere Commissioning Limited (HCL) is the practice-based commissioning (PBC) body for Hertsmere. The PBC gives GP practices the opportunity to use funds to purchase or remodel services (including hospital care) for the benefit of patients. This is usually undertaken by several practices coming together to form local consortiums. The PBC is intended to make care more responsive to patient needs and to encourage investment in community-based alternatives to hospital care.

Provision requirement standards:

- 5.5 A commonly cited provision for measuring adequacy of provision and demand for new GP services is 1 Whole Time Equivalent (WTE) GP per 1,800 residents. HCC has assessed current capacity by using a proxy measure to consider both workforce and premises capacity for HCL surgeries. The number of patients per square meter is calculated by dividing the patient list by the floor space figures. This provides a proxy for how crowded a practice is.
- 5.6 Nationally, the average number of patients per WTE GP has been falling, in part due to investment in new GP premises and staff. It has fallen from 1,815 per WTE GP in 1997 to 1,606 in 2007. However, list sizes of 2,000 are no uncommon across the country and above this level it is considered that rapid access to GPs may suffer and proactive management of patients is more difficult.
- 5.7 This section will cover both primary healthcare infrastructure in the form of GP provision; and secondary healthcare infrastructure in the form of acute, mental and intermediate services.

Doctors

- 5.8 There are about 170 GP practices across Hertfordshire according to the *Five Year Strategic Plan*, which should be strategically located to serve the most deprived communities. Three main groups manage GP surgeries in Hertsmere: Hertsmere PBC group (HCL); PCT owned; and Red House PBC. There are ten HCL premises in Hertsmere (green), two Red House PBCs (red), and 5 other PCT owned health facilities (blue).



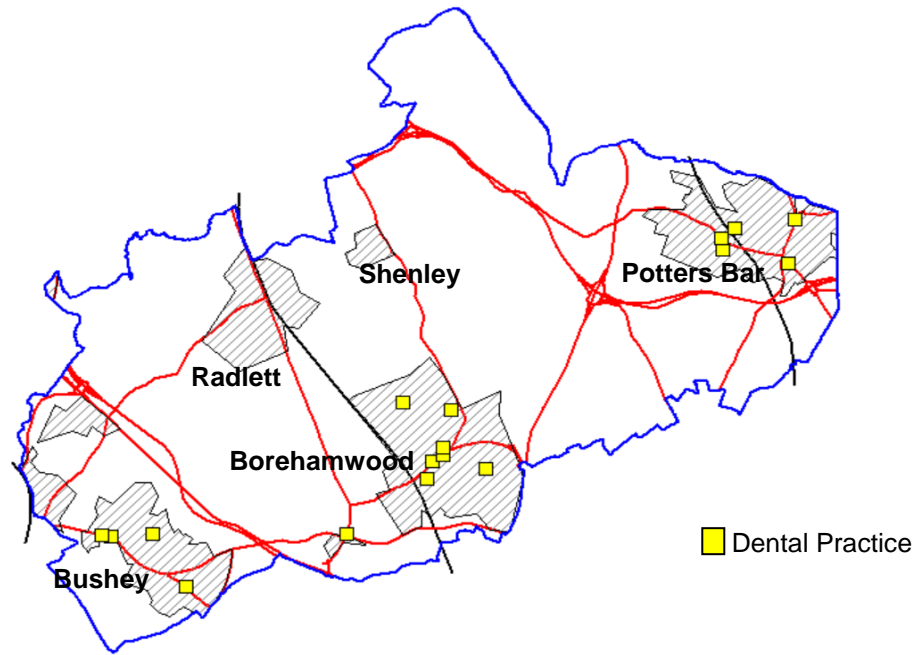
Map 6 – GP Surgeries in Hertsmere

- 5.9 The number of patients per square metre of floor space on average is 23, but ranged from 18 patients in the Theobald Centre (Borehamwood) to 39 patients at Annadale House (Potters Bar). Hertsmere has a relatively high number of patients per square meter compared to the average of 21 patients across the rest of Hertfordshire.
- 5.10 It is also noted that the number of patients per whole time equivalent (WTE) GP can be used to represent demand, where the accepted target is about 1,800 patients. The average number of patients per WTE GP nationally was 1,815 in 1997 and has fallen to 1,606 in 2007. It is recognised that some of the practices in Hertsmere have list sizes of 2,000 patients per GP, and with a situation where there is no scope for the practice to accommodate additional GPs. In these instances it may preclude the practice from contributing further to the growth in the area.
- 5.11 It is necessary that additional provision is sufficient and appropriate to meet the need and any forecast demographic changes. There are several notable practices where a floor space constraint exists. The ‘constrained’ sites are measured relatively to other surgeries in Hertsmere.
- 5.12 Despite these surgeries in the Borough that have limited floor space and therefore growth capacity, access to services can also be measured by the number of appointments given within 48 hours.
- 5.13 The smallest of the three surgeries in Borehamwood (Theobald Centre) is constrained due to the available floor space. The annex adjacent to the site, which supplies additional NHS services, is also constrained by floor space. There are two other surgeries in Borehamwood which have a much larger capacity and would not be described as constrained.

- 5.14 Two out of three surgeries in Potters Bar are constrained by limited access, due to available floor space. These two surgeries at Annadale House and High view both have a well above average number of patients per square metre. The two buildings were both converted from residential dwellings.
- 5.15 One of the surgeries in Bushey Heath is constrained by its floor space and accessibility rates. However it is noted that there is another smaller surgery close by that was built in 2001 that has capacity in both the respects that the Windmill Street surgery lacks.
- 5.16 There are two Red House GP practices in Hertsmere, in Radlett and Shenley. Both these practices have above average number of patients per square metre, but do maintain a good access level of 88% of patients getting an appointment within 48 hours.
- 5.17 In conclusion this analysis suggests that there is a balanced provision of primary care across the Borough. It is noted there is significant capacity in the Borehamwood area within existing HCL premises which has a comfortable surplus. This is considered to mask the moderate shortfall in the Potters Bar and Radlett areas, of up to 800 each.

Dentists

- 5.18 Independent Dental Practices provide the majority of NHS dental care under contractual agreements. General Dental practitioners are not NHS employees, but like GPs are 'independent contractors'. The West Hertfordshire PCT area has seen a decline in the number of patients treated in a practice with a new NHS contract. HCC and West Herts PCT recognises that the fall in the number of patients using such facilities is more severe in other part of the east of England, meaning that there continues to be a demand for NHS dental practices in the Hertsmere area.
- 5.19 The map below shows the distribution of dental practices: there are 8 in the Elstree and Borehamwood; 5 in Potters Bar; and 4 in Bushey. There are many others in neighbouring authorities such as Barnet, Watford and St Albans all within good accessibility of towns in Hertsmere. It should also be noted that the dental practices identified in the map do not include private practices.
- 5.20 West Hertfordshire PCT has more dentists per head of population than both regional and national averages. This helps support the population in the area, and lessens the demand for patients to go elsewhere for dental care.



Map 7 – NHS Dental Practices in Hertsmere

Hospitals

- 5.21 Residents can access acute services at hospitals within and outside Hertfordshire. Nearly 98% of Hertfordshire residents live within 30 minutes of an acute hospital by car, based on modelled travel times¹. There is one NHS hospital in Hertsmere, and it is noted that the PCT runs other premises within each main settlement in the Borough.
- 5.22 Potters Bar Community Hospital on Barnet Road, Potters Bar, has 29 beds, hold various outpatient clinics, rehabilitation, and palliative, respite and community care. This hospital has a care quality commission rating of 'fair'.
- 5.23 The DQHH plan has a required level of patient activity reduction. By 2013/14 it is required that the number of elective and day cases, and new outpatients seen at hospitals will reduce by 5,000 (12.5%), and 4,000 (22%) compared to the level in 2008/9 respectively.
- 5.24 The key facilities and agencies relevant to the strategic planning and provision of secondary healthcare in Hertsmere are discussed below:
- NHS Hertfordshire – The Five Year Strategic Plan for this PCT sets out plans for the goals for key strategic areas, including acute centres, urgent care centres, elective care, local general hospitals, intermediate care and shifts to primary care. The plan Delivering Quality Healthcare for Hertfordshire (DQHH) aims to deliver a change, involving the centralisation of various specialist care services; improved patient

¹ Source: Three Rivers District Council Infrastructure Delivery Plan (2010)

experience through better access to services; more care closer to patients home; and improved access to planned care.

- West Hertfordshire Hospitals Trust – The Trust was formed in 2000 following the merger of two separate Trusts, including the Mount Vernon and Watford NHS Trust. Watford is one of the closest hospitals to Hertsmere, primarily serving Bushey.
- The Hertfordshire Partnership NHS Foundation Trust – This Trust provides care for people with mental ill health and learning disabilities. The Trust works in close partnership with HCC and other NHS organisations to promote and support mental health in the community. The Trust provides: acute and rehabilitation services; community services; secure and rehabilitation services; and specialist services.

5.25 Secondary care refers to support provided by a hospital, and is for patients who need urgent or specialist care for a limited period of time. Patients would then normally move back into intermediate care. This type of care also falls in the DQHH plan for the whole of Hertfordshire, which is a complex, rebalance of all services. It is anticipated that there would be a shift in the working patterns of practices to continue to serve the community most efficiently, together with an improvement and modernisation of clinical practice.

5.26 One of the closest of these secondary care facilities is located in Watford, and is an upgrade of the site has been the matter of discussion for some time.

5.27 There are several West Hertfordshire PCT premises near to Hertsmere that all provide intermediate inpatient care services, and were all rated as 'fair' on care quality. It is noted that the care home at Windmill House in Everett Close, Bushey closed in 2011, although to date continues to be owned by the PCT. These facilities were transferred to other PCT owned premises, such as those in Watford.

5.28 The following facilities are the closest to settlements in Hertsmere:

- Langley House, St Albans Road, Watford
- St Albans Community Hospital, Waverley Road, St Albans
- Hemel Hempstead Hospital, Hilfield Road, Hemel Hempstead
- Gossom's End Elderly Care Unit, Victory Road, Berkhemstead

5.29 NHS Barnet and Chase Farm Hospitals NHS Trust (within NHS London) are adjacent to NHS Hertfordshire. There are two hospitals near to the boundary between the two hospital Trusts, including Chase Farm in Enfield, and Barnet Hospital in High Barnet.

5.30 Planning for healthcare services is complex and in the absence of a detailed plan or relevant data from the relevant agencies who

themselves are operating in a period of considerable change with the on-going NHS reforms, it has not been possible to qualify potential future requirements to serve Hertsmere's population. It is likely that increased in Hertsmere population to 2027 will place additional pressure on healthcare services. This is a nationwide problem, and not just applicable to Hertsmere. The current population of 100,300 is expected to grow to 116,500 in 2028. Within this the proportion of pensioners is expected to rise significantly².

- 5.31 Regarding mental healthcare needs, Hertfordshire Partnership NHS Foundation Trust has anticipated that where there is an excess demand for mental healthcare beds, it would be possible to purchase private beds. This is rarely required however, and a flexible approach is taken in this area of healthcare provision.
- 5.32 The Hertfordshire Infrastructure and Investment Strategy recognises underlying issues with identifying the needs, costs and funding of healthcare providers, including:
- A lack of identification and definition of long term service needs – each PCT works to a Five Year Strategic Plan. The NHS Hertfordshire plan ends in 2013;
 - The difficulty in defining how much is required to meet the aims of the service plan. The HHS flags £72 million as the cost to support growth in the future. NHS funding operates on a relatively short three year cycle; and
 - The complexity of the health system, depending on mainstream funding and organisational structure.
- 5.33 It is also unclear in PBC (Practice Based Commissioning) service plans where the responsibility for the provision of premises and equipment lies. There is a desire from NHS Hertfordshire and HCL to facilitate the shift of infrastructure delivery away from the hospital sector and into primary care settings. This approach would also match the existing spatial distribution and scale of healthcare provision that Hertsmere currently enjoys.
- 5.34 It is necessary that the PBC and PCT commissioners engage fully with the West Hertfordshire Trust in exploring the opportunities DQHH will bring. HCC has identified that a need of 33,000 secondary care appointments per annum should be provided for. Breaking that figure down might relate to a total of three full time doctors.
- 5.35 HCC recognises the need to review the current capacity and the possibility of future demand from 2009 to 2012. The following table represents the bed case supply of floor space provision compared to the worst case demand, based on the Regional targets of housing provision by town:

² Source: 2008 – based Sub-national projections for Hertfordshire and Districts May 2010

Area	Worst case demand (patients)	Best case supply (patients)
Borehamwood	1,800 (40%)	8,000
Bushey	1,500 (35%)	350
Potters Bar	700 (16%)	800
Radlett	400 (9%)	0

5.36 This table does not take into account:

- the current condition of the premises,
- their ability to fully utilise all floor space (such as access to upper floors), or
- the ability of patients to travel to register to other practices with capacity.

5.37 It also does not take account of the Revised Core Strategy (November 2011), where a proportion of development is to be focused towards various towns in the Borough up to 2027. It is proposed that 3,550 dwellings will be delivered, which would be comprised as follows:

- Borehamwood – up to 60%
- Bushey – up to 25%
- Potters Bar – at least 10%
- Radlett (and other suitable locations) – at least 5%

5.38 There is sufficient supply in Borehamwood to meet the needs of the future population. There would be a problem in Bushey and Radlett, where the worst case demand exceeds the best case supply of existing floor space in each respective town. However, the forecast housing growth for each town varies compared to the 'worst case demand' calculated by HCC. The Core Strategy proposes that up to 60% of housing development would be built in Borehamwood up to 2027, but the Estates Plan accounts for just 40% population growth to be in Borehamwood. However, the best case supply of healthcare exceeds the 40% 'worst case demand' for Borehamwood. This means that there would be scope for the town to accommodate this housing development increase and the number of additional patients. This would alleviate some of the pressure on demand in other towns in the Borough.

Conclusions

5.39 This report has captured a snapshot of the Hertsmere local health infrastructure. It has reviewed the current capacity in primary care and compared to the planning growth in the Borough.

5.40 The overall picture is of balanced provision, with significant capacity in the Borehamwood area to accommodate surplus after meeting proposed growth. This is considered to mask the moderate shortfall in Potters Bar

and Radlett, and significant gap in Bushey projected up to 2021. The Borough is evenly spread with general and dental practices, and there is good access to hospital provision at Potters Bar and in neighbouring local authorities in West Hertfordshire. It is also noted that the PCTs DQHH plan is to deliver hospital services in a series of smaller facilities in the future, rather than larger sites that deal with the full range of services.

- 5.41 HCC recognises the nature of proposed development over the coming years. It is important to ensure that secondary healthcare requirement is built to the wider strategic planning and planning obligations process. It is also essential that healthcare providers engage in medium to long term strategic planning. Local and PCT commissioners should also in part focus on agreeing a levy for new development.

6. Provision of utilities

Water

- 6.1 Drinking, or potable, water for Hertsmere is supplied via a system of pipes owned and operated by Veolia Water.
- 6.2 To reflect national policies, Veolia Water submit a water management plan to OfWAT, the Regulator, and the Environment Agency, to ensure that economic and environmental aspects are fully considered. Once the process has been reviewed and commented upon, DEFRA ultimately approves the final document. This document serves to determine the capital expenditure that Veolia Water is committed to (for example, to replace existing assets or promote new water resources) as well as agreeing a formula to recover costs from end users.
- 6.3 Water infrastructure is planned and funded over five-yearly investment programmes. Currently Veolia Water is undertaking Asset Management Plan (AMPI) 5 which is due to end in 2015. AMPI 5 runs from 2010 to 2015, followed by AMPI 6 in 2015-2020 and AMPI 7 in 2020-2025, etc. By implication the scope of this report extends to AMPI 9, concluding in 2035. Detailed data is not available on planned investment on water infrastructure in Hertsmere.
- 6.4 Veolia Water Management Plan, aims: From the published *Water Management Resources Plan* (2010), and based upon their current forecasts, Veolia Water predict as a whole that the Central Water Resources Zone (WRZ) will have suitable strategic capacity until 2035. This is based upon an assumption that the housing stock will increase by some 25%, the population by some 13% and a climate change impact of some 2.5%.
 - **Utilisation** : To make best use of our existing resources through improving and enhancing their performance and by protecting them from pollution as well as continuing to reduce leakage.
 - **Metering** : To meter systematically after 2014 to reduce installation costs either when homes have a change of ownership or where water stress is highest or in conjunction with our mains renewal programme, so as to minimise disruption to customers and local communities.
 - **Leakage** : After 2014 to continue to reduce leakage by a total of 20 MI/d over the period to 2030.
 - **Water Efficiency** : To offer water efficiency advice and water-saving services to our customers.
 - **Energy and Sustainability** : To meter to achieve about 90% meter penetration by 2030 to minimise environmental impacts and greenhouse gas emissions.

- **Tariffs** : Investigate new methods of charging for the future to encourage more efficient use of water, particularly at times of greatest stress.
 - **Resource Development** : To maintain a comprehensive programme of studies - working with other water companies - to ensure we can bring forward investment in new resources, should metering and other measures not reduce overall demand sufficiently, should the effects of climate change be more rapid than expected, or to be able to respond to reductions in our resources.
- 6.5 Veolia Water are obliged to afford suitable water capacity utilising capital expenditure recovery mechanisms permitted via their operational licence issued by OfWAT. This expenditure recovery is partly through customer bills and set by agreed capital expenditure programmes, however there are direct contributions likely from developers that are recovered separate to S106 within the normal planning process.
- 6.6 It is recommended that as plans develop, Hertsmere should continue to engage with all stakeholders, including Veolia Water and Thames Water, to ensure that dialogue on water provision is maintained.

Sewerage

- 6.7 The elements of infrastructure covered in this section include physical assets associated with conveying and treating surface and foul water from the Hertsmere area and discharging the treated effluent to watercourses.
- 6.8 Sewerage infrastructure in Hertsmere is a separate surface and foul water system owned and operated by Thames Water. Thames Water plans for sewerage infrastructure provision across the region as a whole and its published forward strategy covers its entire area of administration. Therefore much of this section of the report presents information for the entire Thames Water region.

Policy Context

- 6.9 The key policy drivers behind sewerage infrastructure provision include providing for sanitation, prevention of sewer flooding, environmental improvements such as raising effluent quality standards from treatment works to protect rivers; providing new infrastructure to meet the demands of population growth and new office, retail and leisure development; and dealing with increased rainfall intensities due to climate change.
- 6.10 The East of England Plan (May 2008), Policy WAT2, requires the Environment Agency and water companies to work with OFWAT, EERA, local authorities, delivery agencies and others to ensure timely provision of the appropriate additional infrastructure for waste water treatment to cater for the levels of development provided through the

plan, whilst meeting surface and groundwater quality standards. It advocates a co-ordinated approach to plan making through a programme of water cycle and river cycle studies to address waste water treatment relating to development proposed in this RSS.

- 6.11 At national and EU level, major policy drivers will be the Urban Waste Water Treatment Directive and the Water Framework Directive improving water quality standards.
- 6.12 The UK Water and Flood Management Bill, published in draft form in April 2009, is designed to improve flood risk management in response to the summer 2007 floods. Under the proposed Bill, the council would gain new roles and responsibilities including local flood risk mapping and identifying ownership to resolve flooding problems as they arise, and would have new responsibilities for drainage. Developers' automatic right to connect to the sewer system under *The Water Industry Act 1991* would be amended and connection would become conditional on meeting new standards including SUDS (Sustainable Drainage System) implementation.
- 6.13 The East of England Plan highlights that in parts of the region, existing waste water treatment infrastructure (sewage treatment works and the associated pipe network) operate at the limits of their current discharge consents, and that the scale of investment required suggests that sewerage infrastructure will be a critical delivery issue for the region. Consultation responses to the draft East of England Plan's Policy WAT2 accounted for 31% of all responses, highlighting the significance of waste water treatment issues.
- 6.14 The East of England Capacity Delivery Strategy Study (December 2006) identifies that the Maple Lodge waste water treatment works (WWTW), which is located in Rickmansworth and serves Hemel Hempstead, requires significant upgrades to meet growth in demand. Together with Rye Meads WWTW in Ware it will treat 12% of the sewage resulting from growth in the East of England region. The report recommends that a strategic review is undertaken to investigate the potential issues around funding availability, which is dictated by OfWAT. The study included a high level gap analysis undertaken by Thames Water examining the Maple Lodge WWTW which concluded that its catchment population would increase by 53,000, or 11%.
- 6.15 The same report states that Maple Lodge WWTW has insufficient stormwater storage capacity at present within the main works but is supplemented by the smaller Blackbirds facility resulting in adequate existing capacity overall. Final settlement tanks at Maple Lodge are undersized and will require expansion to accommodate future growth. Based on a linear rate of growth the existing discharge consent will be exceeded in 2016 based on the existing regulatory regime. However the Environment Agency is known to be considering tightening the regime which will increase the scale of investment required. Thames Water is undertaking further analysis to determine the investment

required.

- 6.16 According to the Water Cycle Study Scoping Study published by Hyder (April 2010) (For Dacorum, Three Rivers, Watford, Welwyn Hatfield, St Albans), the large scale growth within the Maple Lodge catchment will severely impact the existing trunk sewers as they approach Maple Lodge WWTW. Thames Water will undertake network modelling to understand the implications for sewer flood risk. Significant improvements will be required to either Maple Lodge WWTW or Blackbirds WWTW, dependant on Thames Water's strategy. Further work will be required once current consent levels and development targets are confirmed to develop a waste water treatment strategy for the study area.
- 6.17 Within the Rye Meads Water Cycle Study calculations suggest that Rye Meads WwTW should be able to operate within its existing volumetric discharge consent limit past 2021. However, upgrades will be needed in this period to increase the existing treatment capacity of the works, to ensure the required chemical and biological standards of the discharged effluent are met. These upgrades, with appropriate measures, can be implemented without significantly impacting the adjacent Rye Meads nature reserve and the Lee Valley Special Protection Area. For TWU to receive the appropriate permissions and funds for these upgrades, in a timeframe that matches the proposed development, an iterative discussion between TWU, the Local Authorities, the EA and Ofwat is required.
- 6.18 Under the Water Industry Act, Thames Water have limited powers to prevent connection ahead of infrastructure upgrades, as developers have an automatic right to connect to the sewers system once their development has been granted planning permission. The council will need to consult Thames Water about the phasing and planning of future development within the Maple Lodge sewerage treatment works catchment to ensure any infrastructure upgrades/improvements necessary to serve development are investigated, planned and constructed ahead of occupation. Such upgrades will be necessary to ensure that new developments do not result in sewer flooding or impacts on water quality.
- 6.19 Sewerage infrastructure will be an important delivery issue for growth in the East of England region. While it is not possible within this report to definitively conclude an assessment of specific infrastructure requirements for Hertsmere between 2011 and 2027, the available evidence highlights that:
- Growth proposed in the Borough and adjoining areas will lead to a requirement for significant upgrades to either Maple Lodge WWTW or Blackbirds WWTW, or both.
 - Significant upgrades to meet growth demand given will also be required at Rye Meads WWTW in Ware.

6.20 In the Core Strategy consultation responses Thames Water has stated:

“We are working with local authorities to ensure that upgrades required at Maple Lodge and Blackbirds together with strategic upgrades to the sewerage network are delivered to support growth and would be keen to work with Hertsmere to understand the location, scale and phasing of growth to help inform strategic infrastructure investment.”

Energy

6.21 This section reviews the potential implications of residential and commercial development for energy networks, both electricity and gas, in Hertsmere.

6.22 Energy is afforded via a system of pipes or cables which are generally laid under the streets and designed to give regulated pressure requirements and security. In more rural areas, overhead electricity wires are generally used to deliver energy supply.

Electricity

6.23 UK Power Networks is the electricity network operator for Hertsmere and they supply energy via a system of underground cables to each connection required. This was previously undertaken by EDF, however the networks business was sold to the Cheung Kong Group (owners of UK Power Networks) in November 2010.

6.24 For gas, the network operator for the bulk of Hertsmere is National Grid (historically nationalised as British Gas and more recently Transco) with a system broadly similar to UK Power Networks but with pipes as opposed to cables. National Grid have a local management team that look after the gas ‘East Anglia LDZ’ or Local Distribution Zone. This zone includes major conurbations such as Barnet and Tottenham in North London, Peterborough, Cambridge, Norwich and Ipswich as well as more rural areas.

6.25 Both National Grid and EDF manage their respective strategic networks against the backdrop of a regulatory process that is controlled by OfGEM. This process includes monitoring the success of each operator and those throughout the UK, measuring performance via set criteria. The elements of this success most visible to the general public include quality of supply and security of supply.

6.26 National Grid has a system of mains throughout the Hertsmere area that deliver gas to each connection point. The system operates at medium and low pressure (intermediate and high pressure mains provide the strategic feed⁸). The medium pressure network distributes gas to pressure reducing stations (PRS) located at various points within the borough and it is at this juncture that gas is subsequently reduced to a lower pressure. This low pressure network is the system that affords most residential supplies and some commercial requirements. For certain installations where gas demand is high (factories / large office facilities), there is however an ability to secure a medium pressure

connection.

- 6.27 The gas capacity within the borough is projected by National Grid to provide sufficient energy without the need of upstream reinforcement, though all utility networks are dynamic and subject to change at relatively short notice.
- 6.28 UK Power Networks operate a similar system to that of gas in terms of distribution. In essence, electricity for Hertsmere is broadly provided by an 11kV (11,000 volts) network that extends throughout the borough and connects into local substations. The substations subsequently transform the voltage from 11kV to 400V / 230V which is the voltage that is typically utilised in residential circumstances. As with the gas, if there is a large energy user, the connection into the property could be 11kV and not the lower 'residential' value. Commercial applications, such as factories, large office facilities and supermarkets all fall within this category.
- 6.29 Following a recent overhead line upgrading across the borough, as part of a wider National Grid programme, neither National Grid nor UK Power Networks have any other plans for infrastructure upgrades in their current action plans.

The Code for Sustainable Homes

- 6.30 The Code for Sustainable Homes (CfSH) aspires to a decrease in energy consumption via the application of building materials and an encouragement to utilise energy efficient apparatus. As data is not yet available to indicate the impact on CfSH on energy consultation, assumptions will need to be made. For the purposes of the study, no allowance has been made for CfSH. Part of this reasoning is reflected in the balance of certain improvements that the CfSH will bring to that of the wider population who generally aspire to a more affluent lifestyle. See Figure 3-1 for further details.
- 6.31 That said, National Grid are anticipating a period of negative growth in demand (see below) of up to -1% for the Hertsmere area, due to high unit prices, the pressure to utilise more efficient appliances, the potential impact of the CfSH and a greater shift towards air conditioned buildings amongst other factors.

7. Green infrastructure and other community facilities

- 7.1 The provision of green infrastructure contribute towards enhancing the quality of life for residents and also to ensuring that accessibility to facilities and open space is improved.
- 7.2 Green infrastructure is defined as: “The physical environment within and between our cities, towns and villages. It is a network of multi-functional open spaces, including formal parks, gardens, woodlands, green corridors, waterways, street trees and open countryside. It comprises all environmental resources, and thus a green infrastructure approach also contributes towards sustainable resource management.”

GreenArc Strategic Green Infrastructure Plan

- 7.3 The 2011 GreenArc Strategic Green Infrastructure Plan provides an overview of existing strategic green infrastructure assets within the GreenArc; considers opportunities for enhancement and creation of green infrastructure; and, outlines a series of potential projects to deliver multiple. The Woodland Arc project identified within the GreenArc Strategic Green Infrastructure Plan is predominantly within the Borough of Hertsmere. The project seeks to enhance landscape links between Broxbourne Woods and Epping Forest/Hatfield Forest, and strengthen woodland links to the urban fringe, including targeted woodland creation. Funding and implementation is expected to be via joined up grant applications between strategic delivery partners at county and local level, and with landowners. The Community Infrastructure Levy will need to be explored as a means of funding.

Community Strategy

- 7.4 The Community Strategy aims to create opportunities to engage in healthy, active lifestyles. Whilst the major urban settlements do not have complete green corridor networks at current, the Council is in the process of developing a more integrated network through its Greenways Strategy.

Hertsmere Borough Council Green Infrastructure Plan

- 7.5 The Hertsmere Borough Council Green Infrastructure Plan is a high level plan which identifies further work which will be needed in future to deliver green infrastructure. Where further, more detailed green infrastructure planning work will be required, this is also referenced. The Green Infrastructure Plan for Hertsmere Borough:
- Provides an overview of existing green infrastructure assets within the Borough;
 - Sets out an assessment of the ability of green infrastructure to provide multiple environmental and social and in some cases economic functions;
 - Considers opportunities for enhancement and creation of green infrastructure;

- Outlines a series of potential projects to deliver multiple functions and benefits, and
 - Provides advice on taking green infrastructure proposals forward through spatial planning and practical delivery.
- 7.6 The Hertfordshire Green Infrastructure Plan has some crossover with the Council's established Greenways Strategy and identifies six projects within Hertsmere:
- Potters Bar Greenspace Links – Gobions and Northaw Great Wood
 - Elstree and Parkland Links
 - Catherine Bourne Greenway
 - Aldenham and Bushey connections
 - Links to the London Loop and London Greenspace Network
 - Green Hertfordshire' Interactive map project
- 7.7 Funding for the implementation of the projects is considered within the plan, a co-ordinated approach is required for each project with potential strategic partners and funding streams identified for each project. Developer funding and capital funding from HCC and HBC is also identified.
- 7.8 Hertsmere Bought Council will continue to work with its partners to deliver projects, and contribute to the Hertfordshire Strategic Green Infrastructure Group.

Watling Chase Greenways Strategy

- 7.9 The implementation of the Watling Chase Greenways Strategy (2003) has resulted in the creation of several Greenways routes, involving both new sections and enhancements to the existing rights of way network, as well as cycle routes adjacent to the public highway, over 18,000 metres of route to date. The Council currently holds £500k of S106 funds to facilitate the delivery of the Strategy and has been working with HCC on future arrangements for the delivery of the Greenways Strategy.
- 7.10 In implementing a network of routes in the Greenways Strategy, there has been a focus on improving links both within and between towns, as well as on improving access to the countryside. Almost the entire Borough lies within the boundary of Watling Chase Community Forest including large areas within the urban fringe between north London and the wider countryside. Continuing to promote opportunities to walk, cycle or ride in the countryside will help increase opportunities for recreation and improving access to the countryside, a key objective of the Community Forest and consistent with the Hertsmere Core Strategy. Funding for Greenways is incorporated into the Council's Planning Obligations SPD.

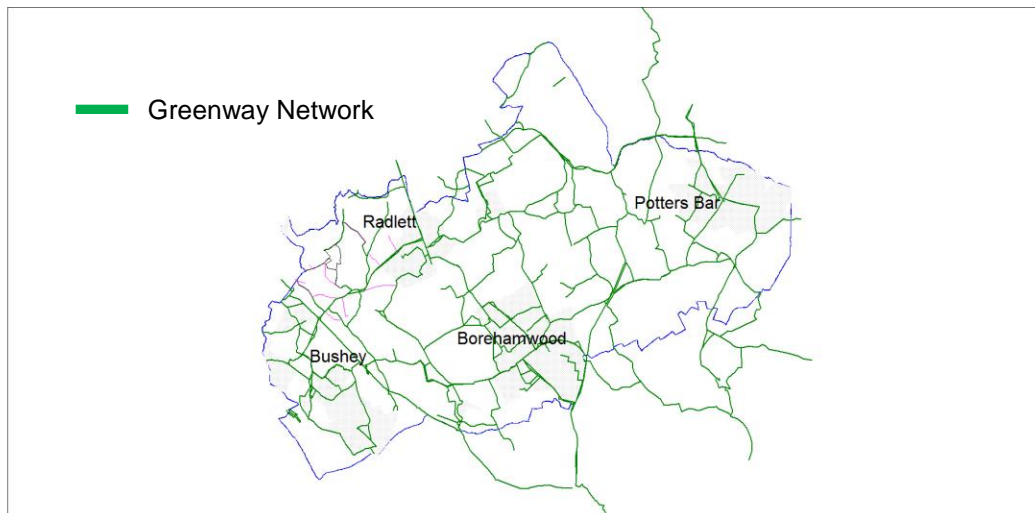


Figure 8 - Hertsmere Greenways Network

Open Space Study

- 7.11 The 2011 Open Space Study analyses the current provision of open space within Hertsmere. The study evaluates the quantity, and accessibility of open space and recreational land in Hertsmere and recommends appropriate strategy, policy, standards and specific provision required to meet the Borough's future needs. The Study shows that generally Hertsmere has a diverse distribution of different types of open space.
- 7.12 A review of leisure facilities carried out within the Open Space Strategy identifies that there is no need for additional health and fitness, swimming pools or indoor sport halls provision at the present time or by 2021. A new £30m contract for the running of the Council's leisure centres was recently awarded to Hertsmere Leisure, a registered charity and company managing facilities owned by four different councils.
- 7.13 There are 11 burial grounds and churchyards, with a total land area of 6.29 ha. The Open Space Study recognised that each individual cemetery has a finite capacity and therefore there is a demand for more space. While there are no sites currently allocated for additional burial facilities, the provision of new facilities is potentially an acceptable use within the Green Belt. The Council is considering potential expansion of its facility at Allum Lane in the future.
- 7.14 The government has stated that it believes that allotments make an important contribution to the quality of people's lives in our towns and cities, and in creating and maintaining healthy neighbourhoods and sustainable communities.
- 7.15 The Open Space Study identifies a shortfall of allotments in the following locations in North of Borehamwood, North Bushey, and Ridge and South

Mimms. It is recommended that potential for new sites should be investigated. Funding for allotments is built into the Council's Planning Obligations SPD.

- 7.16 There may be some need for new indoor tennis facilities in the Borough, however the level of demand stated in this report must be treated as indicative as there is no officially recognised supply and demand model for indoor tennis facilities. Where schools are being redeveloped potential for dual use arrangements should be maximised where possible. The current supply of Community Halls across the borough is deemed as being balanced, but by 2012 it is deemed that there may be an undersupply of 2 Community centres.
- 7.17 Library provision in Hertfordshire is undertaken by Hertfordshire County Council. In 2005 it embarked on consultation on a new vision and implementation plan entitled, 'Libraries for the 21st Century'. The libraries implementation plan identified that eleven libraries were priorities for replacement. Borehamwood Library was identified amongst the eleven libraries requiring replacement. HHS also identified the need to replace Borehamwood library citing its poor location and inadequate size for need for replacement.
- 7.18 A new community centre for Borehamwood, to be built next door to All Saints Church, in Shenley Road, will house a new library as well as a youth facility, museum, a multi-purpose community hall with spaces for training, meetings, internet and conference use. Full planning permission is in place, the funding for the centre has been provided by Hertfordshire County Council, a grant the East of England Development Agency, and from Elstree & Borehamwood Town Council. Construction of this facility recently started and is due for completion in Spring 2013. The relocation of the Library Service to the new centre is part of wider plans to redevelop the existing site on Elstree Way which forms part of the Elstree Way Corridor Area Action Plan.

Play Pitch Assessment and Strategy

- 7.19 The Play Pitch Assessment and Strategy includes a detailed assessment of the several codes of outdoor sport, and sought to identify where and when there were any shortfalls in the supply of pitches within sport codes to 2016. The assessment states that:
- Within the Aldenham area there is currently and in the future there is need for two cricket pitches, whereas other sports are adequately provided for. In the Shenley area currently there is a need for a single junior football pitch and two cricket but in reality one cricket pitch would be sufficient. By 2016 there will be a need to create two new football pitches whilst cricket demand will be met by one new facility currently needed.

- In Borehamwood there is an immediate need to provide 2 junior rugby pitches to meet demand now and in the future (assuming that the surfaces can be played consecutively). There is also need for a new cricket pitch facility by 2016. Whilst in Elstree current demand is for 2 football pitches, rising to three pitches in 2016. One mini-soccer pitch is required in this sub-area currently.
- Current needs within Bushey are for the provision of 2 junior football pitches and 1 cricket pitch (these could be combined on the same area if necessary i.e. 2 football pitches flanking a cricket table). Future demands in Bushey indicate a need for 2 senior football pitches, 4 junior pitches and a mini-soccer pitch. If the current shortfall in cricket were to be provided for, this would also cover the need for an additional cricket pitch in the future.
- Potters Bar currently has a shortfall of 2 mini-soccer pitches, one cricket pitch and a senior hockey pitch. Providing these now should meet future needs in 2016.

7.20 The provision of the shortfall is built into the council's Planning Obligations SPD.

7.21 Following representations from Sport England concerning the methodology of the Open Space Strategy and Play Pitch Strategy, the Council will review these in 2012/13. Potential changes arising from this will be published as an update or superseded in the forthcoming Hertsmere Parks and Play Strategy.

8. Emergency Services

Fire Services

- 8.1 Hertfordshire County Council (HCC) receives (on behalf of Hertfordshire Fire and Rescue Service) both Central Government grant and Council Tax. Grant funding is increasingly 'reduced' against inflation meaning that any shortfall must come from Council tax. The ability to raise Council Tax is fettered and subject to the capping regime and 'must be substantially below 5%'. There is access to PFI funds for larger schemes, usually those involving major service reconfiguration, though it is understood that a recent potential PFI bid did not come to fruition.
- 8.2 Unlike infrastructure such as schools, few new developments are large enough to warrant a new fire station or even an extension to an existing one and are, therefore, not delivered by the development process. As Hertfordshire Fire and Rescue Service (HFRS) is part of the County Council and the Council is caught by its floor authority status in terms of borrowing to pay for large capital items, it is unlikely there will be significant funding available to pay for growth unless there is any surplus capital made available in the Council's budget or central government grant available for growth areas can be used. The Consultants are not aware that at this time either exists.
- 8.3 HFRS is part of the Community Service Directorate of the County Council. The Fire Authority is the County Council. Portfolio responsibility for the fire service rests with the executive member for Community Safety. HFRS is driven by the HCC attendance standards of one fire engine within 10 minutes and the 2nd within 13 minutes and 3rd within 16 minutes.
- 8.4 The Consultants are aware that there is generally less coverage in the north and east of the County. In particular, the northern areas surrounding the A10 corridor have been identified as a particularly difficult area in which to meet attendance standards. In terms of future requirements relating to new housing and jobs growth, detailed requirements are not known at this stage, as more information on the location, size and timing of future development is required before detailed planning will be undertaken.
- 8.5 For the purposes of this paper the following information is available from HFRS, although this may be subject to change and should, therefore, be reviewed in due course:
- If Harlow North accommodates 25,000 dwellings then a new fire station to cover the area is highly likely to be required. Should development only total about 10,000 dwellings, there is still the potential need for a retained (part time) station;
 - Growth in the north of Stevenage may result in the need for a new station. Stevenage is currently the HFRS' busiest station, so there is limited capacity to deal with new housing growth as a result of workloads as well as attendance times. The identified need is for a new

station (either RT or WT) or a relocation of Baldock in conjunction with a new station.

Police Services

- 8.6 The Hertfordshire Police Authority (HPA) has stated that it will have a deficit in the provision of resources in all of the areas where significant growth is planned. Specifically this relates to North Harlow, East Luton and the KCDCs.
- 8.7 Based on current information, there would be an operational requirement for an Intervention Base (also referred to as a Type 2 facility) in each of the KCDCs. These facilities comprise a standard specification office building with a gross floor area of between 1,100m² and 1,400m², plus 40 car parking spaces. This gives a land requirement of 0.4ha (1 acre).
- 8.8 It should be noted that, whilst the HPA propose a requirement for a facility of this size in all KCDC locations, it is anticipated that once further information is available on the exact location of the proposed development, social mix and associated infrastructure to be incorporated into development, it is likely that the requirement may reduce from an Intervention Base to a Neighbourhood Police Station which has an approximate gross floor area of 170m². Clearly this would provide a corresponding reduction in the associated capital cost.
- 8.9 HPA states it is critical that new or enhanced police facilities are provided early on as local police need to be able to build relationships with expanded or new communities from the outset, and to react to the need for police services, demand for which will typically commence as soon as growth starts. However, as the Consultants have not been provided with detail of this in relation to specific infrastructure requirements, it is assumed that the infrastructure will be needed over the same build out period as the housing development.
- 8.10 Within Hertsmere, the Police are currently reviewing its assets. The Council is working with Hertfordshire Constabulary for the relocation of their activities from their current accommodations into new shared premises in Bushey, Potters Bar and Borehamwood. Funding for Police Services is built into the Council's Planning Obligations SPD.

Ambulance Service

- 8.11 The East of England Ambulance Service NHS Trust (EEAST) provides emergency and unscheduled care and patient transport services in Hertfordshire. There are no specific studies or strategies to identify infrastructure needs as a result of growth in Hertfordshire.
- 8.12 At this stage the Consultants have, therefore, taken a high level approach to estimating ambulance service infrastructure requirements in the absence of any firm information from EEAST. Existing staff to population ratios are used to estimate new staff requirements based on

population increases, with a corresponding new requirement for ambulance stations and vehicles.

- 8.13 For the purpose of this paper an ambulance staff to population ratio of 1:1,000, based on the experience elsewhere has been. Based on the population estimated in the new housing growth (200,786), this gives a high level estimation of new staff of approximately 200. Assuming a new station is required every 40-80 new staff (depending on size and location of the station), and a new vehicle (plus equipment) for every 10 new staff, this equates to 2-5 new stations and 20 new vehicles.
- 8.14 Research commissioned by EEAST has demonstrates that a replacement cost estimation for ambulance stations indicates a cost of £900 per sq m for 'standard' stations and £1,150 per sq m for 'good' stations (including Control Centres). It is understood that a new station for approximately 80 staff and 30 vehicles, costs in the order of £3.5 million.
- 8.15 It has been assumed that a station cost of £2 million on the assumption of an average station staff size of 40 and £135,000 per vehicle. Assuming that five stations are needed at £2M per station, this would cost £10M. Some 20 new vehicles at £135,000 per vehicle would cost £2.7M, therefore, the total cost would be £12.7M. A table showing the requirements, costs and funding assumptions is set out in Appendix B. It is recommended these are reviewed in more detail with EEAST in due course. Priorities
- 8.16 In terms of which of the growth locations is a priority, EEAST has given no further views than that set out above.

9. Funding Mechanisms

Planning Obligations

9.1 The statutory provisions for planning obligations are set out in Section 106 of the Town and Country Planning Act 1990. Circular 5/05 Planning Obligations provides guidance on the use of planning obligations. They may:

- Restrict development or use of the land;
- Require operations or activities to be carried out in, on over or under the land;
- Require payments to be made to a local authority, either in a single sum or periodically (“S106 Contributions”).

9.2 Planning obligations (or S106 agreements) are private agreements negotiated between local planning authorities and person with an interest in land. They are intended to make acceptable development which would otherwise be unacceptable in planning terms. An obligation, must only be sought where they meet all of the following tests:

- Relevant to planning;
- Necessary to make the proposed development acceptable in planning terms
- Directly related to the proposed development
- Fairly and reasonably related in scale and kind to the proposed development; and.
- Reasonable in all other aspects.

9.3 The County Council is responsible for ensuring the provision of a range of services and seeks contributions and/or facilities from development which would have an additional impact on service provision, including:

- Sustainable transport measures such as highways and rights of way improvements (including payments for the provision of roads, byways, footpaths, bridleways, cycle ways, bridges, bus infrastructure and/or traffic signals as may be required).
- Passenger Transport
- Education
- Libraries
- Youth & childcare
- Fire and rescue services
- Adult care services
- Other matters such as economic development, archaeology, waste facilities, green infrastructure, key worker housing.

9.4 Full details of HCC planning obligations are found within the HCC Planning Obligations Tool Kit. In addition, Hertsmere Borough Council also seek obligations for local and non HCC service, full details of the

Council's planning obligations can be found within the Planning Obligation SPD and accompanying calculator. Typical contributions sought by Hertsmere Borough Council include:

- Housing - Affordable Housing
- Employment and the Economy - Training and employment initiatives
- Open Land and the Environment - Air quality Page, Drainage and Water Engineering, Trees (including woodland), Watling Chase Community Forest (WCCF), Open space
- Building Sustainable Communities - Sport and recreation, Public Leisure Facilities, Allotments Cultural and/or community facilities, Cemeteries and Burial Grounds,
- Police and Crime prevention/reduction and Health
- Transport and Parking - Parking improvements in the vicinity of the site, Greenways network, and
- Community transport improvements
- Town Centres and Shopping - Town Centre and District Centre Improvements (including Public Realm and Public Art)

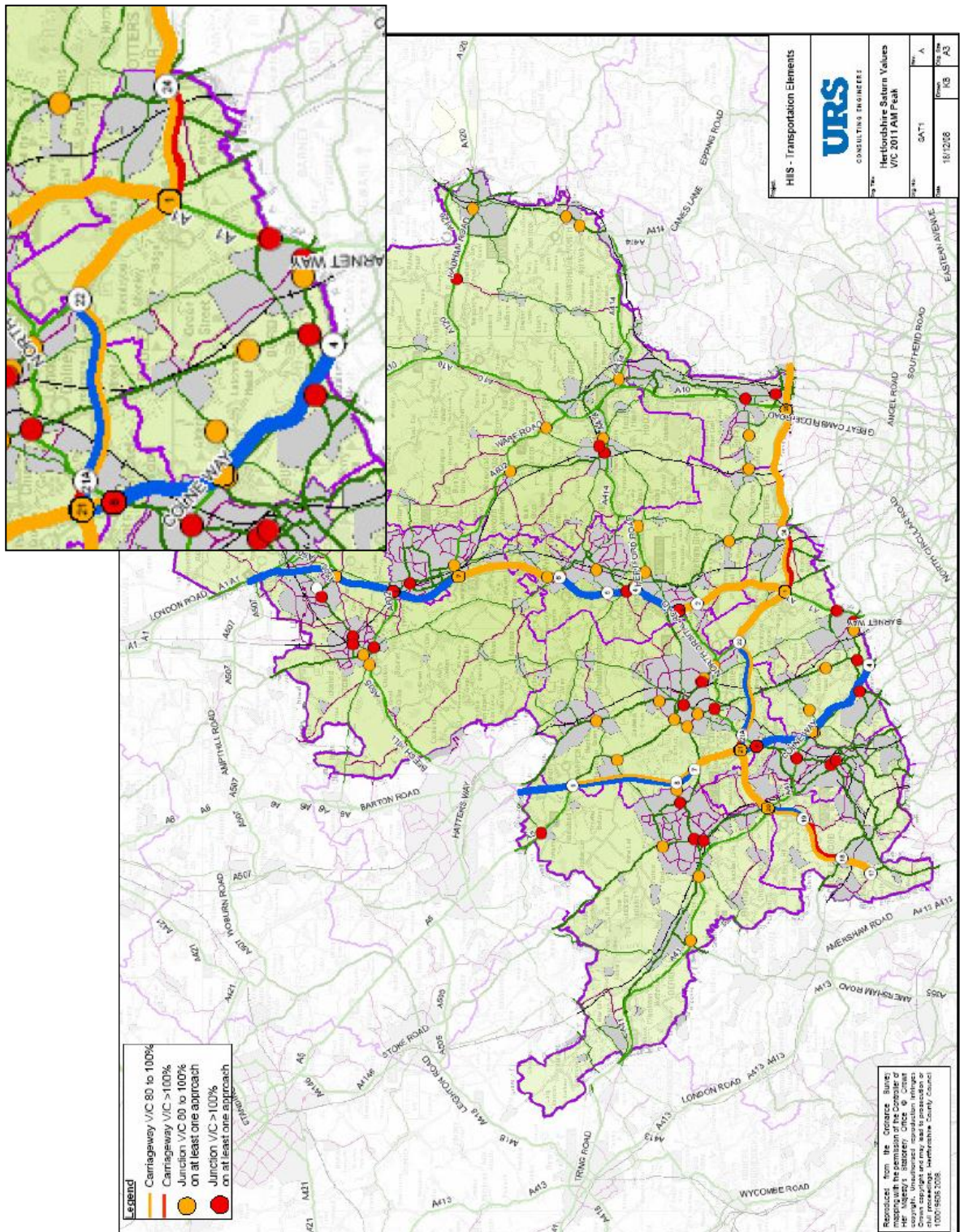
Community Infrastructure Levy (CIL)

- 9.5 The Community Infrastructure Levy (CIL) is a new planning charge that came into force on 6 April 2010. The levy allows local authorities in England and Wales to raise contributions from developers to help pay for infrastructure that is needed as a result of development. Local authorities who wish to charge the levy must produce a draft charging schedule setting out CIL rates for their area, which are to be expressed as pounds (£) per square metre (m²). The draft charging schedule has to be presented for public consultation at least twice before being approved by an independent examiner and finally adopted by the Council.
- 9.6 By April 2014, CIL will replace Section 106 agreements as the principal means by which developer contributions towards providing the necessary infrastructure to support new development, should be collected.
- 9.7 According to government regulations local authorities in England and Wales can raise and pool contributions from developers to help pay for infrastructure such as transport, decentralised energy, healthcare, schools leisure and public open spaces that is necessary to support new development.
- 9.8 CIL will be payable on most buildings that people normally use. It will be levied on the net additional floorspace created by any given development scheme. Any new building that replaces existing floorspace on the same site will be exempt from CIL, even if the new floorspace belongs to a different use than the old (for example, apartments replacing an office block). Hertsmere Borough Council is currently undertaking a CIL Viability Exercise jointly with other districts in Hertfordshire with a view to adopting a CIL Charging Schedule in 2013.

HIIS Refresh

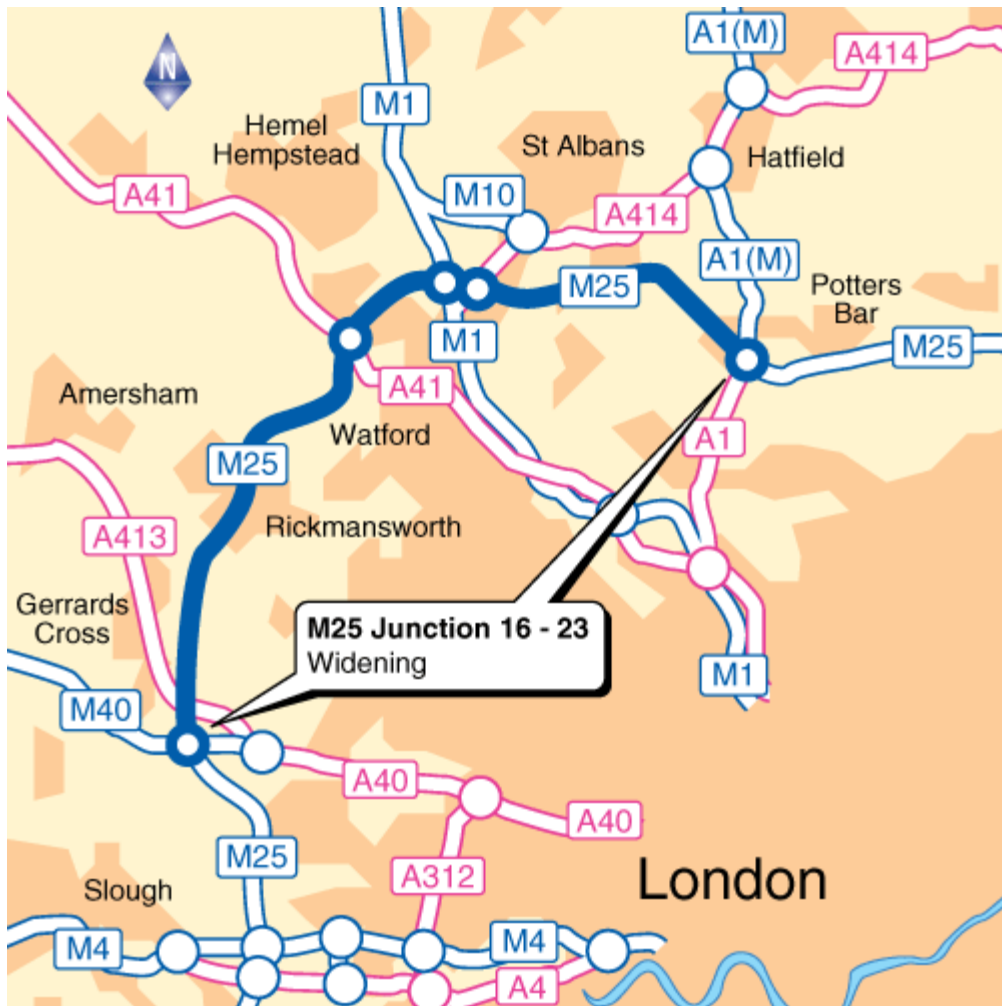
- 9.9 Following a request from by HIPP and the Herts LEP the Herts Planning Group is to prepare a programme which will see the updating of the Hertfordshire Infrastructure Investment Strategy (HIIS). It is envisaged that the HIIS review will not be a comprehensive 'root and branch' revisit (given a significant proportion of its original findings remain valid) but instead a selective reappraisal of the key elements to make it fit for purpose to respond to new agendas. It is anticipated that the refresh will be a precursor to the preparation of a Strategic Infrastructure Plan for the county. That will place Hertfordshire in a much stronger position to bid for a larger share of the infrastructure funding resources that are available, and it will also help define the LEP's role in the infrastructure planning process.
- 9.10 Since 2009 there have been significant changes in a number of key areas of public policy - as well as the wider world - which have implications for the original conclusions from HIIS. These are:
- The ongoing impact of the recession
 - The new planning system and reforms to the regional architecture
 - The need to derive more localised solutions
 - An opportunity to consider and integrate the new funding regimes
 - New roles for organisations planning and delivering infrastructure need to be defined
 - There is the need to consider how Hertfordshire can improve its bidding capacity for infrastructure funds

Appendix 2 – HHS Transportation Elements



V/C = Ratio of Volume to Capacity - Measure of network stress in the East of England Regional Model, a SATURN model. In this instance a V/C of 80-100% indicates a link or junction under stress. A V/C over 100% indicates network over capacity

Appendix 3 – M25 Widening – Jct 16 to 23



<http://www.highways.gov.uk/roads/projects/5749.aspx>

Infrastructure Schedule

This table is not a comprehensive list of all infrastructure projects within the plan period, but rather seeks to outline a number of forthcoming infrastructure projects in or immediately adjacent to Hertsmere:

	Infrastructure Project	Reason for Project	Indicative Delivery Phasing	Estimated Cost	Funding Arrangements	Lead Delivery Agency
Transport Infrastructure						
Croxley Rail Link	Metropolitan Line link to Watford Junction	Improved access to public transport, to facilities in Watford, reduce traffic congestion, improve transport links to London to provide future opportunities for services from Watford to Rickmansworth and beyond	2013-2020	£136.4m	Regional Funding Allocation	Transport for London Department of Transport
M25 Widening	Widening of M25. Junctions 16-23	To accommodate future travel demands Relieve congestion Improve safety of motorway	2009-2012	£79.2m	Private Finance Initiative Contract	Highways Agency Department of Transport
Traffic Management and Highway Improvements	Elstree Way Improvements	Improved access and connectivity for vehicles and pedestrians, remodelling of the roundabout outside Elstree Studios - works form part of the regeneration of the Elstree Way Corridor and the opening up of development opportunities / improving access	2013-2015	£10m	Developer contributions and from the realise of development value from site disposals	HBC, HCC and other key landowners along Elstree Way
	Hartspring roundabout on the junction of the A41/B462 Hartspring Lane	Improvements to the roundabout, to accommodate future travel demands along the A41, a key corridor	Not identified	Not identified	Not identified	Highways Agency HCC

	Infrastructure Project	Reason for Project	Indicative Delivery Phasing	Estimated Cost	Funding Arrangements	Lead Delivery Agency
	Stirling Corner A1 roundabout	Safety and access improvements to the junction	2012-2014	Not identified	Not identified	TFL London Borough of Barnet HCC
	Elstree High Street crossroads	Junction improvements to increase connectivity	2012	Not identified	Developer contributions (secured S106 from Centennial Park development)	HCC
	<i>Elstree and Borehamwood Urban Transport Plan (UTP)</i>	<i>See framework prepared by HCC for specific transport improvements within this area</i>	<i>2007-2012</i>	<i>Not identified</i>	<i>Not identified</i>	<i>HCC</i>
	<i>Potters Bar Urban Transport Plan (UTP) – consultation draft</i>	<i>See framework prepared by HCC for specific transport improvements within this area</i>	<i>2011 – 2031</i>	<i>Not identified</i>	<i>Not identified</i>	<i>HCC</i>
	<i>South West Herts Transport Plan</i>	<i>See framework prepared by HCC for specific transport improvements within this area</i>	<i>2008-2013</i>	<i>Not identified</i>	<i>Not identified</i>	<i>HCC</i>
Railway station improvements	Station improvements – new pedestrian bridge and lift at Elstree and Borehamwood railway station	Improve accessibility	2012	£150,000	DFT Access for all funding	Network Rail First Capital Connect

	Infrastructure Project	Reason for Project	Indicative Delivery Phasing	Estimated Cost	Funding Arrangements	Lead Delivery Agency
Railway improvements	Thameslink Programme	Increased capacity at railway station and on trains, improved	2012 (up to 2018)	£6 billion	TfL, DfT, FCC, Network Rail, Southern Railway, Southeastern	FCC, Network Rail
Greenways	Greenway Strategy delivery	Continued delivery of off and on road routes to Greenway standard	2012-2017	£500,000 (currently available)	Planning obligations	HBC
Education						
Primary education provision	Feasibility study of provision of a new Primary school in Borehamwood	To accommodate future demand	Not identified	Not identified	HCC Primary Capital Programme Contributions	Hertfordshire County Council
	Yavneh College Primary school	New 2FE school to meet current / future demand	2013	Not identified	HCC Yavneh College	Yavneh College
Community and Culture						
Library Facilities	Borehamwood Community Hall and Library	Relocation and enhancement of existing library provision to a new building in Borehamwood Town Centre	2012 -2013	£4.5m	HCC Parish Council East of England Development agency	Hertsmere Borough Council
Heritage Facilities	Borehamwood Museum	Relocation and enhancement of the existing museum to a new building in Borehamwood Town Centre	2012-2013	(part of above library facility)	HCC Parish Council EEDA	Hertsmere Borough Council

	Infrastructure Project	Reason for Project	Indicative Delivery Phasing	Estimated Cost	Funding Arrangements	Lead Delivery Agency
Cemeteries	Feasibility study of expanding facilities at Allum Lane	To accommodate future demand – as outlined in the Open Space Strategy	Not identified	£1.3 million identified as potential cost of delivery	Developer Contributions	Hertsmere Borough Council
Allotments	Feasibility study into locations for new Allotment sites	To accommodate future demand – as outlined in the Open Space Strategy	Not identified	Not identified	Developer Contributions	Hertsmere Borough Council
Green Infrastructure	SHiP 9: 'Reconnect'	Encourage the importance of networks for people to access ROW and biodiversity assets	2013-2015	£500,000 to £2million	Not identified	All Hertfordshire districts and Hertfordshire County Council
	SHiP 10: 'Interactive Map'	Digital information to access and promote GI via web and smartphone	2013-2015	£50,000 to £100,000	Not identified	All Hertfordshire districts and Hertfordshire County Council
	Potters Bar green space links – Gobions and Narthaw Great Wood	Creating enhanced countryside links from the urban environment at Potters Ba, including shared use links (walking, cycling and to the rural fringe, riding – a Potters Bar 'loop')	Not identified	£100,000 to £500,000	Not identified	Hertsmere, Welwyn Hatfield and Hertfordshire County Council

	Infrastructure Project	Reason for Project	Indicative Delivery Phasing	Estimated Cost	Funding Arrangements	Lead Delivery Agency
Utilities						
Sewerage	Upgrading of Maple Lodge and Blackbirds waste water treatment works	To increase treatment capacity to meet future demand and ensure required discharge standards are met	Not identified	Not identified	Not identified	Thames Water