Camden Infrastructure Study Update 2012

Final Report

Prepared for:

London Borough of Camden

Prepared by:

URS

July 2012

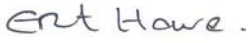
Camden Infrastructure Study Update 2012

July 2012

Issue No 03

Project Title:	Camden Infrastructure Study
Report Title:	Camden Infrastructure Study Update 2012
Project No:	
Report Ref:	
Status:	Final Report
Client Contact Name:	Jeremy Howell
Client Company Name:	London Borough of Camden
Issued By:	URS

Document Production / Approval Record

Issue No: 1	Name	Signature	Date	Position
Prepared by	Lucy Farrow		02/02/12	Consultant and Researcher
	Jon Howells		25/07/12	Project Manager and Researcher
Checked and Approved by	Esther Howe		25/07/12	Project Director

Document Revision Record

Issue No	Date	Details of Revisions
1	05/01/12	Consultation Draft
2	02/02/12	Final Report
3	25/07/12	Final Report (incorporating minor updates and revisions)

LIMITATION

URS Infrastructure and Environment UK Limited (URS) has prepared this Report for the sole use of London Borough of Camden in accordance with the Agreement under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us. This Report may not be relied upon by any other party without the prior and express written agreement of URS. Unless otherwise stated in this Report, the assessments made assume that the sites and facilities will continue to be used for their current purpose without significant change. The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from third parties has not been independently verified by URS, unless otherwise stated in the Report.

COPYRIGHT

© This Report is the copyright of URS Infrastructure and Environment UK Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

CONTENTS

CONTENTS

LIST OF FIGURES

LIST OF TABLES

GLOSSARY

BIS	Department for Business, Innovation and Skills
BRS	Business Rates Supplement
BSF	Building Schools for the Future
CIL	Community Infrastructure Levy
CSO	Combined Sewer Overflows
CIP	Community Investment Programme
CSR	Comprehensive Spending Review
CSF Directorate	Children, Schools and Families Directorate
CTS	Camden Transport Strategy
DCLG	Department of Communities and Local Government
FE	Forms of Entry
FTE	Full Time Equivalents
GP	General Practice
HE	Higher Education
HEPI	Higher Education Policy Institute
ICCS	Islington and Camden Cemeteries Service
KCBNA	Kings Cross Brunswick Neighbourhood Association Centre
GLA	Greater London Authority
LA	Local Authority
LB	London Borough
LDF	Local Development Framework
LEP	Local Enterprise Partnership
LFB	London Fire Brigade
LU	London Underground
MTS2	Mayor's Transport Strategy
NHS	National Health Service
NLWA	North London Waste Authority
OFGEM	The Office of Gas and Electricity Markets
PCP	Primary Capital Programme
PCT	Primary Care Trust
s106	Section 106
SLARS	South London Artificial Recharge Scheme
SNT	Safer Neighbourhood Team
SRP	School Roll Projections

STW	Sewerage Treatment Works
UCL	University College London
UKPN	UK Power Networks
UWWTD	Urban Waste Water Treatment Directive

1. INTRODUCTION

1.1. Purpose and Scope

This technical report has been prepared as an addendum to the 2009 Camden Infrastructure Study. Its purpose is to refresh the information provided in the 2009 Study, which identified the strategic infrastructure needs of the London Borough of Camden (LB Camden) over the period 2006 to 2026, and therefore to serve as an up-to-date, robust evidence base for strategic planning and to inform the preparation of a Community Infrastructure Levy (CIL) charging schedule.

The 2009 Camden Infrastructure Study

The 2009 Camden Infrastructure Study was issued in four parts: an Executive Summary and Infrastructure Plan; a Social Infrastructure Needs Assessment (SINA), a Transport Needs Infrastructure Assessment (TINA) and a Utilities and Physical Infrastructure Needs Assessment (UPINA). The key aims of the 2009 Study were as follows:

- To identify the infrastructure needs of the LB Camden over the lifespan of the LDF (to 2025/6)
- To help establish the relative importance and priorities of infrastructure needs.

The information and conclusions provided by the 2009 Study comprised an evidence base for strategic planning in Camden, informed the LB Camden *Core Strategy*, and formed the basis of a paper scoping out a potential approach and impacts of a CIL on new development.

The 2012 Update

This addendum updates the information provided by the 2009 Study, reflecting any changes identified in the baseline position, policy context, forecast requirements and planned projects and the costs and funding of infrastructure provision.

In addition, this report provides a review of the current context for growth in the LB Camden, including the borough's local plans and new policy and initiatives at the Greater London and national level with significance for planning, infrastructure and investment.

The information provided by this report will underpin *Camden's Local Development Framework (LDF)* and wider planning work, and will also feed directly into future work on Camden's CIL.

1.2. Research Methods and Approach

This report is a desktop review based on information provided through consultation with infrastructure providers and available within publicly published documents.

Contacts for each infrastructure category were wherever possible recommended by LB Camden. Consultees were contacted by email, followed up by a telephone call.

Infrastructure providers were requested to comment on the relevant section of the 2009 Study, supplying where possible any updated information relating to:

- Policy context – including notification of new or discontinued policy initiatives
- Baseline – including changes in supply and demand of the infrastructure or service in question since 2009
- Forecast supply and demand for the future and any projects planned to meet demand
- Costs of meeting infrastructure requirements and planned projects, including detail on funding and the extent to which this has been committed.

1.3. Report Structure

In keeping with the 2009 Study, this report is structured around the key types of infrastructure under consideration. The remainder of the report is set out as follows:

- Section 2 – Context
- Section 3 – Social Infrastructure
- Section 4 – Utilities Infrastructure including Emergency Services
- Section 5 - Transport Infrastructure
- Section 6 - Conclusions.

2. CONTEXT

This section covers the context for this update of the Camden Infrastructure Study in terms of spatial development and infrastructure planning. It first recaps on the local context. As set out in LB Camden's *Core Strategy*, considerable growth is expected in Camden in the next 20 years, including at a number of major regeneration sites. This section then reviews important changes since 2009 in government policy, new legislation and new initiatives relating to planning and infrastructure provision at the regional and the national level.

2.1. Local Context: Growth and Planning Policy in Camden

Camden Local Development Framework

The LB Camden's *Core Strategy* was adopted in November 2010. This document sets out the spatial vision and spatial policies to guide development in the borough up to 2026 and is a key part of the borough's Local Development Framework (LDF). The *Core Strategy* reflects and draws upon the 2009 Camden Infrastructure Study as one of a number of evidence base documents.

The overall vision for LB Camden set out in the Core Strategy and the Community Strategy is for Camden to be a borough of opportunity. Four key themes have been identifies within this vision, as follows:

- A sustainable Camden that adapts to a growing population
- A strong Camden economy that includes everyone
- A connected Camden community where people lead active, healthy lives
- A safe Camden that is a vibrant part of our world city.

The *Core Strategy* estimates future growth in LB Camden to 2025, which is significant and will result in increased demands being placed on infrastructure in the borough. Population increase is estimated at around 36,000 people (about 18% of total population) between 2006 and 2026.

The Council has a target of 8,925 additional homes for the plan period of 2010-2026 (595 homes per year). On the basis of the Annual Monitoring Report 2008/09, delivery of additional homes is expected to total 12,250 or around 815 per year for 2010/11 to 2024/25, significantly above the 8,925 target.

Growth in Camden will be concentrated in a series of locations identified as 'growth areas', 'highly accessible areas' and 'areas of more limited change'. Just over 60% of new homes will be on sites in the growth areas, just over 20% will be in other highly accessible areas, and around 15% will be in areas of more limited change. The growth areas are also expected to be the location for over 80% of the new business floorspace, and consequently the majority of jobs created, in the borough over the period covered by

the *Core Strategy*, and also the location for over two-thirds of retail growth, in particular through provision at King's Cross and Euston.

Table 2-1 London Plan Targets for Camden's Growth Areas

		Minimum Homes	Indicative Jobs
Opportunity Areas:	Kings Cross	2,250	25,000
	Euston	1,000	5,000
	Tottenham Court Road	1,000	5,000
Areas for Intensification:	Holborn	200	2,000
	West Hampstead	2,000	500

Source: LB Camden Core Strategy 2010/London Plan 2008. Note: the number of minimum homes anticipated for King's Cross, Tottenham Court Road and West Hampstead have been revised down in the 2011 London Plan. The number of indicative jobs in the West Hampstead Area for Intensification has also been revised down.

Key policies from the *Core Strategy* are highlighted below.

CS1 Distribution of Growth states that the Council will identify suitable locations for growth and manage development to ensure that it is sustainable and to make the most efficient use of the borough's limited availability of land.

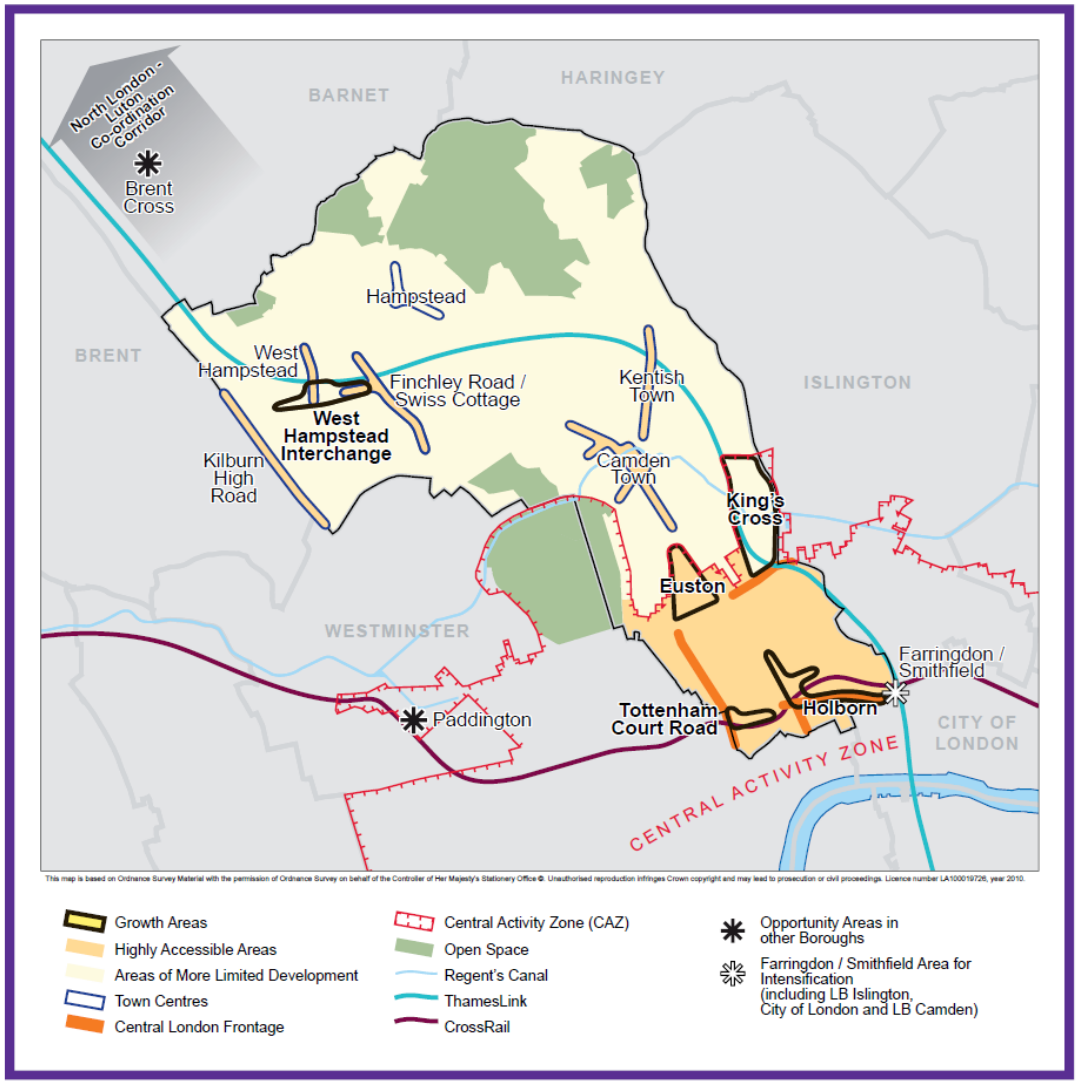
CS2 Growth Areas of the Core Strategy sets out five key growth areas in which the proposed growth will take place: Kings Cross, Euston, Tottenham Court Road, Holborn and West Hampstead. These areas were identified in the Mayor's London Plan as suitable for large scale development.

CS3 Other Highly Accessible Areas sets out the council's strategy for the distribution of future growth outside of the key growth areas. These areas include central London (outside of the existing growth areas) and the town centres of Camden Town, Finchley Road/Swiss Cottage, Kentish Town, Kilburn High Road and West Hampstead, including appropriate edge of centre locations.

CS4 Areas of More Limited Change sets out five key growth areas which are expected to experience more limited development, including areas in close proximity to the other growth areas and Hampstead town centre.

The distribution of growth across Camden is described in the key diagram, reproduced below.

Figure 2-1 Key Diagram of Growth Areas in Camden (Core Strategy 2010 Map 1)



Source: LB Camden, Core Strategy 2010

CS5 Managing the Impact of Growth and Development sets out the overall approach to managing growth in order to ensure that opportunities and benefits are delivered and that growth is delivered in a sustainable manner, including *'providing the infrastructure and facilities needed to support Camden's population and those who work in and visit the borough.'*

CS10 Supporting Community Facilities and Services sets out the aim to ensure that infrastructure and services are provided in suitable locations in order to meet increasing demand caused by population growth. **CS11 Promoting Sustainable and Efficient Travel** seeks to address the challenges of congestion on roads in the borough. The theme of promoting sustainability is also captured in **CS15 Protecting and Improving Our Parks and Open Spaces and Encouraging Biodiversity.** Access to health facilities is supported in **CS16 Improving Camden's Health and Well-being**. The development of

new waste facilities will be set out in the North London Waste Plan, which LB Camden is feeding into, as set out in **CS18 Dealing with our waste and encouraging recycling.**

The emerging *LB Camden Site Allocations Development Plan Document* will identify land and buildings for future development. It replaces LU1 - Schedule of Land Use Proposals of the *Camden Unitary Development Plan* which has now been superseded by the *Core Strategy*.

London Plan 2011

Planning policy for Greater London continues to be set by the Mayor's London Plan. Since the 2009 Study was prepared a new version of this has been adopted: *The London Plan 2011.* The overall thrust and direction of *The London Plan 2011* remains unchanged from the previous iteration. However changes to the Plan's contents which are relevant to infrastructure are described below.

- Housing: *The London Plan 2011* maintains the focus of the previous Plan on increasing housing supply, set out in **Policy 3.3,** which sets an annual target for London of 32,210 homes to 2021, an increase of 1,710 homes annual compared with the 2008 London Plan Target to 2017. Borough level targets for housing have also been revised. The affordable housing target is set in **Policy 3.11** as a minimum of 13,200 additional affordable homes in London per year, compared to the previous London Plan target of 50%. Boroughs have been given responsibility for setting their own affordable housing targets in their LDF documents.

- Growth Areas and Opportunity Areas: Increased detail is provided on the development of Growth Areas (**Policy 2.3**), Opportunity Areas in (**Policy 2.13**), and the Central Activities Zone (**Policy 2.10**).

- Crossrail contributions: The Plan sets out in **Policy 6.5** that £300 million is anticipated to be raised through planning obligations. A further £300 million is to be raised through the Community Infrastructure Levy as set out in **Policy 8.3.**

2.2. Relevant Legislative and Policy Developments

The 2010 Comprehensive Spending Review

The *Coalition Government's Spending Review*, published October 2010, laid out plans to cut public borrowing over the next few years. Austerity measures are expected to allow the Government to cut borrowing by £113 billion by 2014-15. The plans set out measures which will allow around 74% of these savings to be made through cuts to public spending, with the remainder being raised through increased tax revenues.

Funding for infrastructure projects has been affected, as many central and local government budgets have been reduced following the CSR and several significant programmes which were anticipated to help deliver infrastructure projects have been discontinued. These include the *Building Schools for the Future (BSF)* and *Primary Capital Programmes*, which were expected to help deliver investment programmes into primary and secondary education facilities nationally.

Community Infrastructure Levy (CIL) and section 106

The Community Infrastructure Levy (CIL) is a levy charged on new development of all use classes. It allows charging authorities to raise funds from new developers to help fund the infrastructure requirements of the area.

The imposition of a CIL was provided for in Part 11 of the 2008 Planning Act, after which the CIL Regulations came into force in April 2010, which were subject to the Amended Regulations, which came into force on 6th April 2011. The Localism Act, which was passed in December 2011, also includes some reforms to CIL.

The level of each CIL will be set out by the relevant charging authority through a charging schedule, which will identify the cost to be levied per square metre of development.

DCLG has published the following papers outlining the development and implementation of CIL in the UK:

- *DCLG (2011) Community Infrastructure Levy: An Overview*
- *DCLG (2011) Community Infrastructure Levy: Collection and Enforcement*
- *DCLG (2011) Community Infrastructure Levy Relief*
- *DCLG (2011) Community Infrastructure Levy: collection and enforcement*
- *DCLG (2011) Community Infrastructure Levy Guidance: Charge setting and charging schedule procedures*

CIL should pay for required infrastructure in a charging authority's area. The main caveat on this approach is that CIL should be set at a level that allows most development schemes to remain viable.

The CIL Regulations require that the CIL charging schedule is supported by evidence of the scale and cost of infrastructure requirements associated with growth. In addition, charging authorities can publish on their website a separate list of 'required infrastructure', that is, projects or types of infrastructure that it intends will be, or may be, wholly or partly funded by CIL.

The CIL Regulations also serve to limit the scope of Section 106 (s106) agreements. The Government's intention is that the purposes of CIL and planning obligations should not significantly overlap in future (Regulations paragraph 122 to 123). The Circular 05/05 tests are moved from policy into law via paragraph 122 of the Regulations, to reinforce that the use of s106 should be applied only in line with its original purpose – to facilitate the granting of planning permission by mitigating the direct specific impacts of a proposed development. Affordable housing will also continue to be funded by s106 agreement and will not be provided by a CIL payment. However, the government published a consultation paper in October 2011 which seeks views on a number of proposals, including whether CIL should be able to be used to fund affordable housing. In London, a CIL can be set by the GLA and the London Boroughs. The Regulations currently restrict

spending by the Mayor to funding transport infrastructure such as Crossrail, which ensures a balance of spending priorities between the boroughs and the Mayor[1].

The Mayoral CIL was introduced in April 2012 is hoped to raise £300 million through a levy placed on development which will apply across all London boroughs. The rates charged in each borough will vary according to which of three designated charging zones the borough falls within. The Charging Schedule indicates that LB Camden is located in Zone 1, which has the highest charging rate (£50 per sqm).

In addition to the Mayoral CIL, Crossrail will be funded by a s106 charge across London, which will raise a further £300 million. The s106 charge will apply only to new applications for additional office space developments of over 5,000 sq ft in size which are located within central London, the northern Isle of Dogs and around Crossrail stations. Payments made under the Crossrail CIL would be deducted from what needs to be paid under the s106 charge. The s106 levy may also be applied to "*developments in the rest of London where this is appropriate under Government guidance, policies in this Plan and in local development frameworks*"[2].

The CIL Regulations make clear that the Mayor can only apply his CIL to one part of total infrastructure need. The Mayor therefore intends to allow any payment of CIL to be offset against the sum otherwise due from a s106 payment levied solely for the purposes of contributing to Crossrail[3].

A further source of funding for Crossrail will be provided by a business rates supplement (BRS) of two pence per pound of rateable value to be placed on most new developments across London, which will raise around £4.1 billion[4]. This BRS was introduced by the Mayor in April 2010 and is collected by the 32 London Boroughs.

Localism Act

The *Localism Act* passed into law through Royal Assent in November 2011.

This Act has a number of planning elements including reforms to CIL (Chapter 2). The Act:[5]

---

[1] DCLG, Community Infrastructure Levy: An Overview, May 2011

[2] GLA, London Plan Policy 6.5, July 2011

[3] See paragraph 4.1.12 of Proposals for a Mayoral Community Infrastructure Levy Draft Charging Schedule (Mayor of London; June 2011)

[4] GLA, Crossrail BRS Final Prospectus, January 2010

[5] See http://www.publications.parliament.uk/pa/cm201011/cmbills/161/11161.i-vii.html (accessed on 8th December 2011) and also Explanatory Memorandum to the Community Infrastructure Levy (Amendment) Regulations 2011 http://www.legislation.gov.uk/ukdsi/2011/9780111506301/pdfs/ukdsiem_9780111506301_en.pdf (accessed on 8th December 2011)

- Provides for regulations to set out the evidence a charging authority is to consider in preparing their charging schedule, and how that evidence is to be used (see clause 94 (2))
- Rebalances the relationship between a charging authority and the independent examiner
- Clarifies the general purpose of the CIL
- Provides for regulations to direct charging authorities to pass funds raised through the CIL to other bodies to spend on infrastructure (clause 95(4)).

The *Localism Act* sets the framework for achieving a number of goals relating to decentralisation but further primary legislation will be required to achieve some of them - for example, for neighbourhoods to receive CIL funds (see clause 95(4)). In addition the Act may be changed further before coming into power later this year. Issues which ministers are considering include the duty to cooperate that would require local authorities to work together across council boundaries and whether CIL could be used to fund affordable housing.

National Planning Policy Framework (NPPF)

The *National Planning Policy Framework* (NPPF) was published and came into effect on 27th March 2012. The NPPF condenses all planning policy statements into a single all encompassing planning framework with the intention of making the planning system less complex and more accessible.

With regard to planning for infrastructure the NPPF requires that local planning authorities should set out the strategic priorities for the area in the Local Plan. It requires that strategic policies deliver:

- The homes and jobs needed in the area;
- The provision of retail, leisure and other commercial development;
- The provision of infrastructure for transport, telecommunications, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat);
- The provision of health, security, community and cultural infrastructure and other local facilities; and
- Climate change mitigation and adaptation, conservation and enhancement of the natural and historic environment, including landscape.

The NPPF specifies that crucially, amongst other aims, that local authorities should "*plan positively for the development and infrastructure required in the area to meet the objectives, principles and policies* of *this Framework"*. With specific regard to infrastructure planning, it requires that local planning authorities *"work with other authorities and providers to:*

- *assess the quality and capacity of infrastructure for transport, water supply, wastewater and its treatment, energy (including heat), telecommunications, utilities, waste, health, social care, education, flood risk and coastal change management, and its ability to meet forecast demands; and*

- *take account of the need for strategic infrastructure including nationally significant infrastructure within their areas."*

Local Enterprise Partnerships

The government published its *Local Growth White Paper* in October 2010, which outlined the government's approach to fostering growth. This approach includes a shift in power over strategies for fostering local economic growth away from central government to local businesses and communities. Included in this aim is the creation of Local Enterprise Partnerships (LEPs), which it is hoped will enable partnerships between local councils and businesses to shape the strategy for economic growth in their area. The role adopted will be specific to each LEP depending on what the local area priorities are, though this is likely to include working to support national and local economic targets and ensuring that planning and infrastructure investment is meeting local business needs. LEPs will be expected to fund their own running costs, with the remainder of their funding coming in the form of private sector investment and successful bids for the Regional Growth Fund.

The London LEP was approved in February 2011 and is a pan-London area partnership between the Mayor of London and London Councils, with the support of leading business organisations.

New Homes Bonus Scheme

The *New Homes Bonus*, which commenced in 2011, creates an incentive for local authorities to deliver housing growth in their area, and is likely to be an important new revenue stream for councils delivering growth. It is based on the additional Council Tax raised for new homes and properties brought back into use, with an additional amount for affordable homes, for the following six years to ensure that the economic benefits of growth are returned to the local area.

DCLG has set aside almost £1 billion over the Spending Review period to fund the scheme, including nearly £200m in 2011 to 12 in year 1 and £250m for each of the following three years.

3. SOCIAL INFRASTRUCTURE

3.1. Education

Reflecting the approach taken in the 2009 Study, this section of the addendum is broken up into sub-sections that consider, in turn, each level of the education system as follows:

- Early Years (Nursery)
- Primary
- Secondary
- Further Education
- Adult Learning
- Higher Education.

Early Years (Nursery)

This section has been informed by consultation with LB Camden.

Baseline: Policy

Since the 2009 Study policy with regard to early years education has undergone some changes.

LB Camden continues to provide statutory part-time (15 hour) places for all three and four year old children. LB Camden recently announced that from September 2012 the number of free full time nursery places for three and four year olds in the borough will be reduced from 1,450 to 800. Eligibility criteria apply for these places.[6]

In November 2011, the government launched consultation on the extension of provision of free nursery education for 140,000 two year olds nation-wide. The government originally identified an indicative target for the provision of 600 nursery part-time places (15 hours per week) to disadvantaged two year olds in LB Camden, however, the government has now doubled this target to 280,000 nationally, which would equate to approximately 1,200 additional places in Camden. While the policy remains under consultation, local authorities are expected to work towards this revised total until implementation in 2013. Consultation has revealed that the revised target of between 1,000 to 1,200 part time places is unlikely to be met through the existing availability of suitable places. Funding is being given to all local authorities from this financial year in order to build up to the new entitlement. This is part of the Early Intervention Grant for the first two years. The consultation asks for views on the best funding route from 2013-14

[6] http://camden.gov.uk/ccm/content/education/schools/nursery-admissions.en

onwards.[7] Progress in the delivery of this number of places will be dependent on the extent that funding is available to pay providers an appropriate hourly rate and the provision of capital funding to improve and expand facilities. The current estimate of capital funding required to meet the new government target for provision for disadvantaged two year olds (not including population growth in LB Camden) is £15m.

Consultation also highlighted that demand for nursery places for 2 year olds is likely to increase in the short term and will be linked to the changing economic climate.

Baseline: Provision

Information on the existing provision of early years provision is set out in the borough's *Childcare Sufficiency Assessment (April 2011)* document. Since the 2009 Study, two Children's Centres in LB Camden have closed[8].

Projections of Future Need

LB Camden indicated that the projections of future need for early years (see 2009 SINA, Table 2-1 *Cumulative Demand for Early Years Places (2, 3 & 4 yr olds) 2011-12 to 2026-27*) will be affected by LB Camden's increased target for the statutory provision of free part time nursery places to disadvantaged two year olds in the borough.

Infrastructure Requirement

Camden's CSF Directorate has confirmed that its response to increased demand for places will not be to build stand-alone facilities. Alternative methods for delivery are still being explored, although it is likely that additional demand from three and four year olds will be met primarily through the provision of nursery classes linked to primary school expansions. Planning will have regard to the effect of the reduction of full time provision for this age group.

Additional provision of part-time places for approximately 1,000 to 1,200 two year olds will be met by redefining the Children's Centre offer and by working with private and voluntary childcare sector providers.

Projected demand over the medium and long term needs to consider the effect of a reduction in full time provision for three and four year olds, in addition to the increase in provision for disadvantaged two year olds.

Other changes such as changes to welfare benefits and tax credits in addition to rising unemployment rates may also have an impact on demand for early years provision in the future[9].

---

[7] http://www.education.gov.uk/inthenews/inthenews/a00200071/consultation-launched-on-free-early-education

[8] LB Camden, Childcare Sufficiency Assessment, April 2011

[9] *Ibid*

Costs and Funding

A general reduction in available funding is likely to impact on the provision of early years education. In particular, the removal of ring fencing will necessitate difficult decisions on funding priorities and is likely to mean more services targeted at the most vulnerable with a reduction in universally available provision[10].

In addition, from April 2011 local authorities are required to implement a single funding formula for early years provision. This will aim to eliminate inconsistency in the current system, although it also means that providers will no longer be able to charge a top up fee, which has caused seven providers in Camden to withdraw from the free offer[11].

An indicative figure for the amount of capital funding required to meet the provision of new early years places is £15,000,000.

In many cases, sources of funding for expansion to primary schools which could cater for early years provision have yet to be identified. Section 106 education contributions could be applied to help fund these schemes in the short term but this needs to be considered alongside other educational funding priorities for these funds.

Primary

This section has been informed by consultation with LB Camden.

Baseline: Policy and Funding

Since the 2009 Study, LB Camden has had to review priorities for funding and identify an alternative way of funding needs within the borough. As a result, schools' needs, along with the needs identified in other housing and non-housing sites, have been included as part of a corporate investment programme called the *Community Investment Programme (CIP)*. The CIP enables LB Camden to plan and fund investments in a holistic way and to decide how much funding can be prioritised for each service through the capital programme.

In addition to the above, further changes are taking shape within primary education through new and proposed legislation giving existing schools more autonomy from the local authority and the introduction of 'free schools', with central government assessing proposals for the latter on a case-by-case basis. The government's policy on encouraging free schools to be set up in response to local demand, independently of the local authority, affects the authority's ability to plan for pupil places according to need.

Existing Primary School Provision

As of 2011 there were 10,362 pupils on the rolls of primary schools in the borough (Reception to Year 6) – an increase from that recorded in the 2009 study. The schools

[10] *Ibid*

[11] *Ibid*

had a combined net capacity of 11,004, and a surplus of 722 primary school places within the borough's primary schools – a reduction from 803 places in 2008 - equating to a 6.6% surplus[12].

Table 3-1 Primary School Numbers for London Borough of Camden in May 2011 by Planning Areas (DfE School Census)

Planning Area	*Actual Roll*	*Net Capacity*	*Net Capacity Surplus (%)*
Planning Area 1 - North West	2,296	2,314	2.1
Planning Area 2 – North East	2,657	2,936	9.5
Planning Area 3 - Central North	2,085	2,208	7.8
Planning Area 4 - Central South	2,166	2,275	4.8
Planning Area 5 - South of Euston Road	1,158	1,271	8.9
Total	**10,362**	**11,004**	**6.6**

Source: LB Camden CSF Directorate: School Capacity Collection August 2011

Camden's first free school, St Luke's Church of England primary school, opened in September 2011 with 15 pupils per year group and this has been accounted for in pupil numbers from September 2012 and in projections.

Committed/Planned Primary School Provision

Committed/planned investments in primary school provision in LB Camden are set out in Table 3-2 below.

Table 3-2 Planned Investment in Primary School Expansion (4-10 year olds)

Infrastructure Provision	*Proposed Expansion*	*Delivery Period*	*Funding Arrangements*
Emmanuel School – West Hampstead / Fortune Green (North West sub-area)	Expansion of provision (0.5 FoE expansion)	September 2011	PCP, s106, Basic Need, and Local Authority Coordinated Voluntary Aided Programme (LCVAP)
King's Cross	Expansion of provision (1 school/2 FE)	2015/16	S106 and Camden Capital Programme funds

Source: LB Camden: Camden Community Investment Programme

[12] LB Camden, Children Schools and Families (CSF) Directorate, December 2011, DfE School Capacity Collection 2008 & 2011

Future Demand

As was the case in the 2009 Study, this update has relied on work completed by the LB Camden Children Schools and Families (CSF) Directorate to conclude the assessment of the need for provision of primary school infrastructure over the planning period to 2026.

In terms of demand for primary school places, *GLA School Roll projections (SRP)* in 2011 for the borough were lower than previous years, yet still indicate that demand will grow, albeit at a slower rate than previously forecast.

In the future, pupil places planning will need to take account of the likely impact of government reforms to welfare benefits; in particular housing benefits that are being introduced over the coming years. An example of this is the *Local Housing Allowance (LHA),* introduced from April 2011, which prescribes that housing benefit claims for private rented accommodation will be capped.

Infrastructure Requirement

Infrastructure requirements have been revised slightly since the previous Study, with between one and three primary FE estimated as could be required over the Core Strategy period. Although not committed, the Council has discussed the possibility, as a priority of its proposed CIP, that a new one/two FE primary school could be built in the West Hampstead area of the borough in order to meet demand there - an area where there is already pressure for primary school places. The decision to proceed or not will be taken in the summer of 2012 by Cabinet following the release of further school roll projections by the Greater London Authority and revised housing data.

Costs and Funding

Some information about costs and funding for primary and secondary schools was provided in the borough's Proposed *Camden CIP* (December 2010). However, medium to long term funding requirements and arrangements have not been confirmed or committed.

LB Camden have estimated that the indicative cost of meeting new demand will be between £10m and £15m.

Secondary

Baseline: Policy and Funding

As identified above, LB Camden has had to review priorities for funding since the 2009 Study and schools' needs have been included as part of the Camden CIP, which enables the borough to plan in a more holistic way and to decide how much funding can be prioritised for each service.

The national discontinuation of the BSF programme has meant that the majority of school modernisation projects in LB Camden have been stopped. Three projects are still going ahead, totalling around £80m of investment. These projects are: the new six FE UCL Academy plus sixth form; rebuilding of the co-located Swiss Cottage Special School

(Jack Taylor Special School will be part of the larger Swiss Cottage); and expansion of South Camden Community School by 2 FoE (approved under BSF).

The government's policy on encouraging free schools to be set up in response to local demand, independently of the local authority, affects the authority's ability to plan for pupil places according to need.

Existing Secondary School Provision

As of 2011, there were 9,708 pupils on the rolls of secondary schools in the borough (Year 7 to Year 11). The schools had a combined net capacity of 10,137, and a surplus of 626 secondary school places within the borough equating to a 6.2% surplus[13].

Committed/Planned Secondary School Provision

Committed/planned investments in secondary school provision in LB Camden are set out in Table 3-3 below.

Table 3-3 BSF Planned Secondary School Investment Provision 2008-2017

Infrastructure Provision	***Proposed Works/ Expansion***	***Delivery Period***	***Funding Arrangements***
Adelaide Road (UCL Academy)	Expansion of provision (1 new secondary school) to provide 6 FoE places plus 250 new 6th Form places.	From September 2012	Department for Schools Children and Families (DSCF)/ Partnership for Schools PfS/ LB Camden
Adelaide Road (Swiss Cottage Special School) and merging with Jack Taylor Special School	Expanded provision for 30 additional pupils for all ages.	From September 2012	
South Camden Community School	Extensive remodelling of the school and potential for Expansion to provide 2 additional FoE.	Under Review	

Source: LB Camden: Camden Community Investment Programme

Future Demand

In terms of demand for secondary school places, 2011 GLA School Roll projections (SRP), as with primary schools, forecast lower rolls than previous years but still indicate that the number of secondary school aged children will continue to increase into the future, across the borough.

Infrastructure Requirements

LB Camden considers that the planned investments that are going ahead (as set out in Table 3-3) will be sufficient to meet the need for secondary places up to 2020/21 and no

[13] LB Camden, Children Schools and Families (CSF) Directorate, DfE School Capacity Collection 2011

further expansions are therefore proposed at this time[14]. The 2009 Study identified a need for up to four FE to cater for requirements beyond planned provision (i.e. from 2017 to 2026). Based on currently available revised housing development data it is envisaged that up to 3FE of additional provision may be required up to the mid 2020s. A potential site in Wren Street has been identified which could meet some of this capacity.

The development of the UCL Academy in Camden is intended to meet a need for additional school places and enable more Camden residents to be able to successfully express a preference for a Camden school. Based on applications for 2012/13, evidence suggests that this is beginning to happen. Coupled with the projected child yield from proposed housing developments LB Camden will continue to monitor actual school rolls along with projected numbers.

Further Education

Since 2009 there have been changes to the way that Further Education provision is managed. Specifically, funding responsibilities for 16–19 year old learners have transferred from the now defunct Learning and Skills Council to the Young People's Learning Agency (YPLA), which will administer this until its own abolition in 2012[15] (under the provisions of the *Education Act 2011*). This responsibility will then transfer to the Skills Funding Agency (Camden is covered by the Central North team). The 14-19 groups in each Local Authority also play a role in provision.

The Skills Funding Agency was contacted as part of this update exercise. It was confirmed that colleges attended by Further Education students resident in Camden would have received Capital Works Grant Money in 2010/11, and some would be received Enhanced Renewal Grants in 2011/12. No further information was provided on current and forecast FE demand and planned provision in Camden.

It is considered that the findings of the 2009 Study (which estimated demand for Further Education arising from population growth in Camden) remain broadly accurate. It should be noted that the DfE changes to the statutory school leaving age will have an impact on schools, this is increasing from the current 16 years, to 17 years in 2013 and 18 years in 2015.

Adult Learning

There have also been changes to the way that provision of Adult Learning (AL) is managed i.e. funding responsibilities adult learners (aged 19 years and over) have transferred from the now defunct Learning and Skills Council to the Skills Funding Agency.

The Skills Funding Agency was contacted as part of this update exercise, but did not have relevant data.

[14] LB Camden, School Organisation Places Planning Report, September 2011

[15] Department for Education, Education Act 2011, November 2011

It is considered that the findings of the 2009 Study (which estimated demand for AL places arising from population growth in Camden) remain broadly accurate.

Higher Education

Baseline: Policy

The situation with regards to policy and provision of Higher Education (HE) has changed substantially since the preparation of the 2009 Study. In summary, the principal change is that the Government will no longer fund universities directly – except to a very limited extent – and that universities will instead be funded primarily through fees paid by students, with the Government providing loans to students in order to enable them to pay these fees. Although initially no cap on fees chargeable by universities was proposed, a £9,000 per annum cap has since been introduced. These changes were set out in detail in the Department for Business Innovation and Skills (BIS) White Paper entitled *Higher Education: Students at the Heart of the System* (2011)[16].

Future Demand

A new report which models the projected future demand for higher education places nationally up to 2020 has been published by the Higher Education Policy Institute (HEPI)[17]. The report builds on HEPI's previous report[18] and, amongst other issues, confirms that there will be unmet demand for higher education in the future, and that there will be impacts arising from this, mainly due to the cap placed on supply[19], which require addressing by the Government.

In spite of the policy changes discussed above, it will still likely be the case, according to Government analysis (reflecting that of the HEPI), that there will continue to be unmet demand nationally with regard to Higher Education provision in the UK, with some students failing to obtain places each year[20].

Resulting Infrastructure Requirement

With regards to the resulting infrastructure requirement, the conclusions of the 2009 Study remain the same, i.e. that that future growth in Camden will not have a direct impact on the number of university students in Camden.

---

[16] BIS, Higher Education: Students at the Heart of the System (White Paper), June 2011

[17] Higher Education Policy Institute (HEPI), Higher Education Supply and Demand to 2020, February 2011

[18] HEPI, Demand for Higher Education up to 2020, 2011

[19] The cap has been implemented to prevent over recruitment which would put pressure on funding for higher education

[20] BIS, Higher Education: Students at the Heart of the System (White Paper), June 2011

3.2. Health Care

Policy

The commissioning model for healthcare is undergoing significant changes at present. By 2013 PCTs will be disbanded and expenditure decisions will be made via GPs acting in collaboration with an NHS Commissioning Board. PCTs are therefore pulling back from any long-term commitments and options are being explored as the future uses of their estates and assets.

The key policies driving healthcare development that post-date the 2009 Study include:

- The Government's White Paper *Healthy Lives Healthy People: Our Strategy for Health in England* (2010). This outlines key principles and strategies focused around localism and the empowerment of individuals, putting local communities at the heart of public health provision.

- *Health and Social Care Bill 2010-2011*: The Bill was introduced to parliament in January 2011 and takes forward the crucial parts of the NHS White Paper 'Equity and Excellence: Liberating the NHS' (July 2010) which sets out the Government's long-term vision for the NHS. The Bill aims to meet the combined challenges of rising demand for services and rising treatment costs, and to reduce administration costs whilst ensuring the improvement of services provided under the NHS. Key policy areas of the Bill are as follows:

    - The establishment of an independent NHS Board which will provide commissioning guidance and allocate resources

    - Increasing GP commissioning powers on behalf of their patients

    - Creating greater accountability through the expansion of the role of the Care Quality Commission

    - Developing Monitor, the body that currently regulates NHS foundation trusts, into an economic regulator to oversee aspects of access and competition in the NHS

    - Reducing to the number of health bodies including abolishing Primary Care Trusts and Strategic Health Authorities in order to help meet the Government's commitment to cut NHS administration costs by a third.

- *The London Health Inequalities Strategy,* GLA, 2010: This strategy outlines the social determinants of health, including income levels, and sets out a framework to tackle the resulting health inequalities.

Key updates to healthcare policy in Camden include:

- NHS *Camden Commissioning Strategy Plan 2009 – 2014*: sets out the vision for health and health services in Camden alongside the key challenges for NHS Camden, and the organisation's plan for the next five years in order to achieve their goals

- *North Central London Cluster Commissioning Strategy and Quality, Innovation, Productivity and Prevention (QIPP) Plan 2011/12 – 2014/15* (June 2011): Plans for the next four years to support improvement in health and healthcare provision in NCL within the financial resources available
- Draft Joint Strategic Needs Assessment (2010): A review of the current health and needs of the population.

The objective of generating a more integrated healthcare model for both primary and secondary care remains a key priority. This promotes the delivery of health services in community-based settings, through the development of integrated primary care facilities and health hubs, rather than a reliance on hospitals. The creation of a system of Polyclinics in LB Camden therefore remains a key priority, as set out in the NHS Camden Commissioning Strategy[21].

The funding situation for health has also changed following the 2010 CSR. The Coalition Government have committed to increase funding for the NHS in real terms every year until 2015, though this will equate to an increase of 0.4% per annum. Capital spending will be cut by 17% and a commitment has been made to reducing NHS management costs by more than 45% by 2015.

Primary Health Care

Baseline

The Primary Care Trust (PCT) responsible for commissioning healthcare on behalf of local residents in LB Camden is NHS Camden, which is working together with four other PCTs (Barnet, Enfield, Haringey and Islington) to form the NHS North Central London Cluster (NCL). All GPs in the borough belong to the Camden GP Consortium.

There are currently 38 GP surgeries in Camden[22]. This is two less than was recorded in the 2009 Study. There are also nine health centres in the borough, which is an increase of three compared to the 2009 Study. There are currently 169 registered GPs in Camden[23]. These figures do not necessarily represent full time equivalent (FTE), and therefore may not be directly comparable with the 2009 Study figure which identified 152 FTE GPs.

There are 42 Dental practices in LB Camden, compared to 23 recorded in the 2009 Study baseline.[24]

[21] Camden PCT, Operating Plan 2009/2010, 2009

[22] North Central London NHS, North Central London Cluster Commissioning Strategy and QIPP Plan 2012/13 - 2014/15, 2012

[23] Ibid

[24] Ibid

Planned and Committed Investment, Future Demand and Resulting Infrastructure Requirements

No updated information has been provided by NHS Camden regarding planned and committed investment or likely future demand. As such the findings of the 2009 Study with respect to these remain unchanged.

Secondary Health Care

As in the 2009 Study, secondary healthcare is defined, in line with the HUDU model, as the combination of:

- Acute healthcare provision, covering acute elective and non elective in patients and acute day care;
- Mental healthcare provision, covering mental health; and
- Intermediate healthcare provision, covering intermediate beds and day spaces.

No updated information has been obtained through consultation with secondary health care infrastructure providers or desk based research. It is assumed that baseline and future demand, and thus estimated future infrastructure requirements, are unlikely to have changed considerably from when the 2009 Study was prepared. As such the findings of the 2009 Study are considered to remain sound.

3.3. Sports and Leisure Facilities

Consultation has confirmed that although the information provided in the 2009 Study's section on Sports and Leisure Facilities remains up to date for both tennis courts and swimming pool provision, the position with regard to planned investment in indoor sports halls has changed. An updated needs assessment has also been undertaken since the original study - Camden Sport and Physical Activity Needs Assessment (2009)[25].

Existing/Planned Provision – Indoor Sports Halls

The discontinuation of the BSF programme, means that of the seven indoor sports halls (28 courts) identified in the 2009 Study as planned provision, only one hall is now committed to be provided, which will come forward, through the construction of the UCL Academy at Adelaide Road.

This will result in four courts being provided which is nine fewer courts than the 13 identified in the *Camden Sport and Physical Activity Needs Assessment* (2009) as being required to meet demand over the Core Strategy period[26].

[25] NHS Camden and Pro-Active Camden, Camden Sport and Physical Activity Needs Assessment, 2009

[26] The Kings Cross development will potentially provide up to one sports hall (four courts), though at present its exact specifications remain uncertain and subject to change.

Resulting Infrastructure Requirement – Indoor Sports Halls

There is a requirement for nine additional sports courts to meet the demand identified in the Camden Open Space, Sport and Recreation Study Update, beyond what is currently planned.

3.4. Parks and Open Space

Consultation confirmed that the information provided in the 2009 Study's section on Parks and Open Space remains accurate with the exception of child play space, which is discussed below.

In addition to the information presented in the 2009 Study, LB Camden have an aspiration to meet the GLA's Area of Deficiency in Access to Nature criteria and contribute towards LB Camden's obligations under the S40 of the Natural Environment and Rural Communities Act 2006 to have regard to biodiversity in all aspects of the local authority function.

Areas of deficiency in Access to Nature are defined as one kilometre walking distance from a publicly accessible Site of Borough or Metropolitan Importance for Nature Conservation.

Access to nature can be improved in the following ways:

- Improving the natural value of an accessible site, or creating new open space, to provide significant experience of nature;
- Creating new access points to a site providing a significant experience of nature, or opening up access to a previously restricted site; and
- Improving the walking access through areas surrounding a site, extending the catchment area.

To reduce the area of deficiency, the nature conservation interest must be enhanced to meet the designation criteria for Sites of Borough Importance for Nature Conservation. This will not always be practicable, particularly in areas lacking in open space generally. Such spaces have to meet competing needs and opportunities and therefore improvement to biodiversity may be limited. Smaller scale enhancements may not reduce the area of deficiency, but would nevertheless bring visible improvements, valued by the local community, and significantly alleviate the deficiency in access to nature.

In order to address the requirements for natural open space provision, the calculation of requirements and costs will follow that set out in Camden Planning Guidance 6 Amenity Open Space, Sport and Recreation'.

Child Play Spaces

Costs and Funding

Updated information has been provided on the costs of infrastructure provision. The Play Pathfinder programme grant has paid for 28 play spaces & an adventure playground in the borough, which was divided into £1.6m for the play areas & £1m for the adventure playground. This updated cost breakdown indicates an average cost for each play area of just over £57,000 - less than the £98,000 estimated average cost per space stated in the 2009 Study.

3.5. Libraries

Costs and Funding

The Libraries Service in LB Camden are currently undertaking a savings programme to reduce the libraries budget by £1.6 million by April 2014 as part of the Council's medium term financial strategy. Work was undertaken as part of the LB Camden *Strategy on Provision of Public Library Services* 2011-14 to shape the savings programme, including wide-spread consultation and a needs assessment.

Work included baseline assessment which measured the performance of libraries in LB Camden against the *Public Library Service Standards* (2002). The results identified a surplus in provision, which is in keeping with the baseline assessment conducted as part of the 2009 Study. This work concluded that provision is generally good, with no resident more than one mile away from a public library, with adequate supply of stock, internet access and workstations. However, the assessment also showed that libraries in Camden fall slightly below the desired proportional rating of ‘good’ or ‘very good’.

As part of the ongoing savings programme, the Cabinet have considered options set out in the *Future Shape of Library Service and Implementation of Savings Programme* (June 2011) and agreed to reduce from 13 to nine the number of libraries resourced by Camden, as well as other reductions in services offered by libraries and opening hours. One library (Regents Park) will close, with some reinvestment of resources in the local community to provide key services. As part of the *Savings Programme* , the Council have already transferred the management of three libraries (Belsize Park, Chalk Farm and Heath) to community organisations It remains committed to re-providing libraries in the Kings Cross development (to replace the existing Town Hall library) and in Camden Town as part of the redevelopment of the Crowndale Centre. Co-location of other public services within library buildings is also under active development at a number of locations.

Consultation confirmed that the remainder of the information provided in the 2009 Study section on Libraries remains accurate.

3.6. Employment and Training Projects (job brokerage)

Consultation with LB Camden indicated that information pertaining to employment and training projects (job brokerage) within the original 2009 study is no longer a current and robust evidence base. Updated information is presented below.

Baseline: Policy and Contextual Drivers

LB Camden and its partners on the Employment and Skills Network are committed to supporting residents to improve their skills and to access employment opportunities within the borough and further afield in London.

The Employment and Skills Network was created in 2011 to improve the coordination of local employment and skill providers, as well as to enhance the borough's ability to utilise available opportunities (access to funding, employment opportunities, and to improve partnership working such as cross-organisation referrals. Its membership includes Jobcentre Plus, the Work Programme Prime Contractors, the local Further Education Colleges, community training providers, the University Careers Service, and the council.

Baseline: Existing provision

The combination of the recession and the change in government policy has led to a much changed job brokerage provision across the United Kingdom, and this is evident in Camden.

Camden Working, the previous Council run job brokerage, has been withdrawn as part of the council's move to a strategic Economic Development approach.

Following a government review of the commissioning of employment and skills support, significant changes have been made to job brokerage for residents claiming out of work benefits. The two core services now provided are:

- Jobcentre Plus
- The Work Programme

Jobcentre Plus is now the core universally available job brokerage function for residents claiming out of work benefits. Jobcentre Plus works out of offices in Kentish Town and Kilburn (they also have accessible offices in the neighbouring boroughs of Islington, Westminster, Brent and Barnet). These two offices are estimated to contain 373m^2 and 495m^2 Net Internal Area (NIA) of job brokerage floorspace respectively.[27]

The Work Programme (WP) has been commissioned to private sector providers, being delivered by Reed in Partnership, Ingeus Deloitte and Maximus in the Department for Work and Pensions (DWP) West London Contract Package Area (CPA), in which Camden sits. The WP is an 'outcomes based commissioning' model procured by the Department for Work and Pensions (DWP), where payments are only received when long term unemployed residents enter and sustain employment.

Other government and European funded programmes of support have also been commissioned and local providers also supply job brokerage support, including:

[27] Based on Valuations Office Agency (VOA) Business Rates Valuations for 2010, Accessed at. http://www.2010.voa.gov.uk/rli/en/basic/find. A factor of 0.77 has been applied to Gross External Area (GEA) floorspace figures to calculate the NIA floorspace of these premises, and then an assumption applied that only 50% of the centre floorspace will be dedicated to job brokerage.

- Next Steps
- ESF Families Programme
- Local community training and job brokerage providers
- Further Education Colleges.

Next Steps has been commissioned to Prospects in London, and the European Social Funded Families Programme commissioned by the DWP is being delivered by Reed in Partnership for the West London CPA for three years from 2012 to 2015.

In addition to these programmes, there is also a range of local provision through community training providers such as Communities into Training and Employment (CITE) who provide sector specific training and brokerage, and specialist organisations such as Jobs in Mind (support for residents with mental health issues) and the Camden Society (support to residents with learning disabilities), to mention a few (there are more community and voluntary organisations as well as Housing Associations providing job brokerage). Following the Wolf Report[28], the Government has also announced new funding for colleges that will focus on employment and work experience outcomes for students, as highlighted in 'Building Engagement, Building Futures' (2011).[29] Colleges such as Westminster Kingsway will have an increasing involvement in job brokerage in the borough.

LB Camden has chosen to focus their support on key areas of delivery, including: the Camden Apprenticeship Scheme, the Kings Cross Construction Skills Centre (KXCSC), and the Kings Cross Skills and Recruitment Centre (KXSRC). The Camden Apprenticeship Scheme brokers opportunities within the council and with local employers in a range of sectors, such as business administration, hospitality and hairdressing. The KXCSC provides job brokerage and training for roles in construction, predominantly available on the Kings Cross Central development site. Job brokerage space here comprises around 150m^2 NIA.

There is also a requirement within the King's Cross Central development's Section 106 to provide a job brokerage facility to utilise the employment opportunities created on the development, which are forecast as 25,000 over the duration of the development. The Skills and Recruitment Centre (SRC) will be developed in partnership with Argent (the developer), Jobcentre Plus, the London Boroughs of Camden and Islington, and the Camden Employment and Skills Network of training providers. The key objective of the SRC is to secure local vacancies at King's Cross Central and promote high levels of local employment within the end use workforce. It will provide recruitment services to

[28]Department for Education, Wolf Review of Vocational Education – Government Response, 2011 accessed at http://www.education.gov.uk/schools/teachingandlearning/qualifications/a0074953/review-of-vocational-education-the-wolf-report

[29]HM Government, http://www.education.gov.uk/inthenews/inthenews/a00200925/government-sets-out-strategy-for-helping-young-people-access-education-training-and-work

employers, employees, job seekers and other business support. The premises will comprise not less than 250m^2 NIA and is likely to be operational in 2013.

Existing Demand

Employment

A slightly smaller proportion of Camden residents are in work than elsewhere in London and the rest of the country. At 67.0% in Quarter 2 (Q2) 2011 (the latest period available), the employment rate for Camden residents was slightly lower than for London and Great Britain. This is likely to be due to the large proportion of students in the borough. The rate remains similar to that recorded in Q1 2010.

Unemployment

The unemployment claimant count, covering people claiming Job Seekers Allowance (JSA), stood at 5,585 in December 2011 or 5.6% of the economically active population excluding students, lower than London as whole (6.2%) and slightly higher than Great Britain (5.5%)[30]. It should be noted that unemployment rate/figures are based on GLA modelled estimates and differ from ONS estimates.

Female unemployment by this measure has steadily increased since the beginning of the recession and now stands at 4.9% - almost twice pre-recession levels of 2.5%. While lower than the percentage for London as a whole, the level is higher than that recorded for Great Britain as a whole. This increase may in part be due to the shift of some lone parents from income support to JSA following the previous government's changes to the welfare system.

As elsewhere in London and the UK, the claimant count unemployment rate for young people not in full-time education is considerably higher than for the population as a whole. Youth unemployment in Camden has increased significantly since the beginning of the recession but not more so than for London as a whole. The unemployment claimant count for young people aged 16-24 in December 2011 was 1,175 or 13.0% of the population not in full-time education, very similar to the Central London and Greater London rates but slightly higher than the Great Britain rate of 12.3%. This represents an increase of 95 (9%) on December 2010 and an increase of 490 or 72% on April 2008, the beginning of the recession. However the youth claimant count at that time was at its lowest point since 1991 (when comparable data began).

People from ethnic minorities made up 43.0% of all JSA claimants in November 2011.[31] The number of people from ethnic minorities claiming JSA has increased by 12% since November 2010 compared with 6% for all claimants. The increase from the beginning of the recession in April 2008 is 59% and 50% respectively. These figures are nevertheless considerably lower than the pan-London figures.

[30] Jobseekers Allowance claimant data – captured by the Jobcentre Plus Labour Market System, 2012

[31] NOMIS, ONS Claimant Count Rate, 2012, accessed on 27th January 2012

Unemployment is highest in St Pancras and Somers Town, Kilburn, Haverstock and King's Cross wards. The wards with the highest claimant count unemployment rates in December 2011 are St Pancras and Somers Town (10.1%), Kilburn (8.9%), King's Cross (7.6%) and Haverstock (7.5%). These wards are also among the most deprived and contain large ethnic minority populations. Hampstead Town has the lowest rate (1.8%).

Economic inactivity/worklessness

26% of Camden's working age population are economically inactive, slightly higher than the proportion for London as a whole. This has been the case since 2004 when the dataset started. The recession has not had a significant impact. The rate of economic inactivity is higher for women (34%) than men (18%)[32].

In February 2011, 22,480 people in Camden were claiming out-of-work benefits, equivalent to 12.6% of the working age population. This is lower than the proportions for London as a whole and Great Britain. The proportion has been on a steadily downward trajectory since 1999 when the data first became available[33].

The highest proportion of residents claiming out-of-work benefits were in St Pancras & Somers Town (19.9%), Kilburn (18.2%) and Haverstock (17.4%).

Employment forecasts are indicative and may change in time, as it is difficult to predict factors that may cause deviations from this, such as the wider macro economics that prompted the global recession and in turn has led to increased unemployment locally. In 2009, the number of employees working within the LB Camden's boundaries stood at approximately 281,000 and is forecast to increase to 311,000 by 2026 – an increase of 11%[34].

Support is also available from the council's Children Centre's for parents with children 0-5 years old and the Housing Pathways service supporting residents at risk of losing their housing.

Assessing Need for Job Brokerage Infrastructure

As discussed in the 2009 Study, assessing the adequacy of job brokerage services is a complex question, especially with regard to considering the need for physical infrastructure such as a building which such services can be provided from. This is further complicated when considering the requirement for job brokerage services into the future.

An important factor to consider is the current economic downturn. At present, the economic downturn would indicate that additional resources are needed. However, economic conditions are cyclical and hence the demand for services is likely to rise and

[32] *Ibid*

[33] *Ibid*

[34] GLA Economics, Working Paper 51: Employment projections for London by sector and trend-based projections by borough, 2011

fall several times over the planning period under examination, in synchronisation with increases and decreases in unemployment during that time.

Furthermore, the effectiveness of job brokerage services is only partly dependent on the provision of physical buildings to house such services. A range of other factors are likely to play a significant role including the existence of training programmes, the existence of well-organised and facilitated employer-employee networks to facilitate access to job opportunities, the organisation and arrangement of the services themselves, and last but not least, the prevailing economic conditions.

Where physical building space is required consideration can also be given to temporary or short term accommodation such as vacant shop spaces. Indeed, such space is likely to be readily available during an economic downturn when the need for job brokerage services is at its highest.

With regard to recent investments in new provision, the King's Cross Construction Skills Centre provides approximately 150m^2 space devoted to job brokerage (see above). It is recognised however that this space is focused on servicing construction sector employment needs, which is a relatively small sector in employment terms within the Borough's population, and the facility is only guaranteed to be open for eight years.

For the purpose of this Study, in consultation with LB Camden, an updated estimation of future demand has been made, using forecasts of the economically active population in the borough.

Camden's economically active population is projected to grow by 6,800 people over the period 2009 to 2026[35]. If the JSA claimant rate were to increase by the same proportion (11%) to 2026, and one job brokerage worker has a workload of 60 cases, this would result in a need for sufficient workspace to accommodate 103 workers in 2026. Using the Homes and Communities Agency (HCA) employment density guidance figure for office floorspace of 12m^2 per worker, 103 workers would result in a gross requirement for 1,239m^2 of space in total to satisfy future need.

Resulting Infrastructure Requirements

The existing and planned supply of job brokerage space in LB Camden has been estimated at 1,268m^2 NIA of floorspace. This comprises the Kings Cross Construction Skills Centre (150m^2 NIA), the planned King's Cross Central Skills and Recruitment Centre (250m^2 NIA), and the two Jobcentre Plus offices at Kentish Town and Kilburn (estimated to contain 373m^2 and 495m^2 NIA of job brokerage floorspace respectively - see above for details).

Given that KXCS is not certain to remain open longer than 8 years from its opening, forecast supply will likely to decrease to 1,118m^2 before 2026, meaning that demand may well exceed supply in the later years of the Core Strategy period (from around 2020 at the earliest).

[35] GLA, Population Forecasts, 2011

In conclusion, there is considered to be potential for a deficit of job brokerage floorspace of 121m^2 beyond the year 2019 (dependent on whether or not KXCS remains open beyond its guaranteed lifetime.

Also, more detailed analysis should be undertaken to test the level of access of key groups such as young people, to the currently available job brokerage support to ensure that the location of job brokerage space adequately meets need.

Also, it is not clear whether there is sufficient support available in areas of deprivation, where unemployment is most prominent. This does not necessarily result in further job brokerage infrastructure being required however as co-location options can be explored, for example using libraries, children centres or community facilities.

3.7. Cemeteries

Consultation with Islington and Camden Cemeteries Service (ICCS) indicated that information on Camden's needs regarding cemeteries presented within the original 2009 Study is no longer a current and robust evidence base. Updated information relevant to cemeteries, provided by ICCS, is presented below.

Introduction

In June 2004 the London Boroughs of Islington and Camden set up the Islington and Camden Cemetery Services (ICCS) acting as a joint cemetery service. Together, the two boroughs operate four cemeteries[36], one of which (Hampstead Cemetery) is physically located within Camden's boundaries. These cemeteries together hold a great deal of history and also form an important open space asset for the borough.

Baseline: Existing Provision and Funded/Approved Investment

Existing Provision

There are two cemeteries located in Camden: Hampstead, and Highgate Cemetery. Hampstead is a Council-owned facility, whereas Highgate is a privately owned and operated facility.

Camden's two cemeteries account for approximately 25.6 hectares of the borough's open space[37], and given Camden's high urban density they form a valuable part of the borough's open space provision.

Planned Investment

[36] This includes Hampstead Cemetery, Islington Cemetery and Crematorium, St. Pancras Cemetery and Trent Park Cemetery and Islington Cemetery and Crematorium.

[37] http://www.camden.gov.uk/ccm/content/leisure/outdoor-camden/parks/great-parks-in-camden.en?page=6; and http://www.highgate-cemetery.org/index.php/faqs both accessed on 14th December 2011

There is currently no firm plans or committed investment to expand any of the cemeteries managed by the ICCS. Consultation with ICCS has identified that some investment in new burial space may be forthcoming, however this has not yet been formally agreed and committed – see below.

Adequacy of Existing and Committed Infrastructure

ICCS has advised that in relation to the four cemeteries which it operates the situation with regard to available capacity is as follows:

- Hampstead Cemetery (located within Camden)
    - Has no burial spaces available, but there is an area for cremation remains to the north of the cemetery.
- Islington Cemetery and Crematorium
    - This cemetery is located within Barnet and shared with Islington, with Camden residents being able to be buried here
    - Has seven years of burial space remaining (inclusive of space at Islington Cemetery and Crematorium – see below).
- St Pancras Cemetery (located within Barnet)
    - Camden shares approximately 190 - 200 acres of this cemetery with Islington
    - The cemetery is rapidly running out of burial space, having an estimated seven years of burial space remaining (inclusive of space at Islington Cemetery and Crematorium – see above).
- Trent Park Cemetery
    - This cemetery is located within Enfield and shared with Islington, with Camden residents being able to be buried here
    - Although the cemetery has 47 acres of burial space available, this isprojected to decrease over the coming years.

Highgate Cemetery (located within Camden) is privately operated by a charity. Most recent consultation has identified that this cemetery has approximately ten years of burial space currently remaining.

It is evident from the above information that available burial space within Camden is very limited. The privately owned Highgate contains some spare capacity. Although there is limited space within the Islington, St. Pancras and Trent Park cemeteries, this is diminishing quite quickly.

Overall, Islington and Camden Cemetery Services estimate that 57% of all burials in its cemeteries are accounted for by Camden and Islington residents. It is considered that a

greater proportion of burials at the privately operated Highgate Cemetery will likely be non-residents, although exact figures are not known.

Measuring Future Demand for Cemeteries

There are a number of crucial factors to consider when examining whether or not Camden needs to outline a strategic infrastructure requirement over the *Core Strategy* period for cemeteries.

- Camden has virtually no space within the borough's boundaries to enable expansion of or provision of new cemetery space (without appropriating land that is used for other purposes such as open space).
- In common with other European countries, the UK has an ageing population. The proportion of people aged 65 and over is projected to increase from 16% in 2008 to 23% by 2033. This is an inevitable consequence of the age structure of the population alive today, in particular the ageing of the large numbers of people born after the Second World War and during the 1960s baby boom.
- The multi-culturalisation of the UK population has resulted in the increased prominence of religions other than Christianity, many of which forbid cremation with burial being the only option (such as in Islam). This increase of other religious denominations is reflected within the population make up of Camden, and has created increased demand for burial space. As there is no other alternative option for them, the supply of burial space is essential. They also have other requirements such as the time between the passing and the burial.
- Also, although Camden's population reflects a relatively very young borough and has a more healthy and active population, it does not automatically follow that this will lead to a corresponding decrease in demand for burials. As stated previously there are more people alive over 75 today in Camden and statistics show more extended families with aged dependants among the Muslim population. These family groups may not be able to move to other areas and complete the transformation from asset rich/cash poor to cash rich/asset poor based on lower property values outside London. They and their dependants are highly likely to still be living in Camden as they grow older, and so this may also exacerbate any correlation between the growth of a younger population and demand for burial space.
- It should also be taken into account that due to the location of Islington and St Pancras Cemeteries, ICCS are having to admit more non-residents for burial as other nearby borough cemeteries are running out of available burial space. Whilst this impacts on available space, the income derived is essential to keep ICCS viable.

Camden has a higher proportion of burials than the national average. The national figures for the number of burials to cremations ratio is 30:70, whereas in Camden the figure is around 55:45 (a reflection of the importance of religious factors explained above).

Resulting Infrastructure Requirement and Costs for Cemeteries

On the basis of the above analysis it is considered that there is an identified need for physical infrastructure provision within the ICCS operated cemeteries, as available burial space is diminishing and will be depleted within the *Core Strategy* period.

Consultation with ICCS has identified that investment in Trent Park cemetery (located in the LB Enfield) will be required as part of a joint venture between Camden and Islington Council (around 2015), in order to increase the amount of burial space capacity accessible to meet future demand from Camden and Islington residents. Although space is available within Trent Park, the infrastructure required to make it usable requires funding. The scale of the investment required to achieve this is currently subject to ongoing discussions between ICCS and the two councils.

3.8. Community Meeting Facilities and Space

Provision Requirement Standard

The provision requirement standard for community space in LB Camden has been set out in the *2011 Camden Planning Guidance*, specifically CPG8 – Planning Obligations. This document sets out that for each new bedspace provided by a development, a requirement is generated for 0.2 sqm of multi-purpose community space. This space standard is then used to arrive at a standard developer contribution (in the absence of provision which meets this requirement for community space) of £980 per bedroom, based on estimate that 0.2 sqm floor space in a community building extension will cost around £4,900.

Baseline

The Asset Review which was referenced in the 2009 Study has now become the Camden CIP. Detail has been provided by the emerging CIP regarding the planned investment into Camden's community centres, as set out below. This information provides an update to *Table 9-5 'Recent and Planned Investments in Camden'* from the 2009 Study.

- Bengali Workers Association (Surma Community Centre): the CIP refers to plans for the relocation of the Surma Centre to a new site. Funding requirements are anticipated to be covered by the sale of market housing on the existing site, though an additional subsidy may be required through CIL or s106;
- Castlehaven Community Centre: planning permission was granted in August 2011 for a one storey extension. It is anticipated that the majority of the costs will be met from s106 contributions from two neighbouring developments;
- Kentish Town Community Centre: a first floor extension has recently been completed, funding for which has been provided by various sources, including Lottery funding, charities and s106;

- Queens Crescent Community Centre: the planned extension was completed in 2009. The funding for this was provided by s106 and Neighbourhood Management Pathfinder funding;
- Somers Town Community Centre: the information included in the 2009 Study is up to date;
- St Pancras Community Centre: the CIP sets out the relocation of the Centre to a new site. Funding is anticipated to be covered by the sale of market housing on the site, but additional subsidy may be required from CIL or s106. The anticipated completion date is 2014;
- Marchmont Street: the information included in the 2009 Study is up to date; and
- Samuel Lithgow Youth Centre: a new two storey extension to the centre was completed in 2009 which received some section 106 funding.

Assessment of Infrastructure Need

Consultation with LB Camden indicated that the conclusions from the 2009 Study remain largely valid. The key conclusion of the community centre needs assessment conducted in 2009 was that many organisations which manage community buildings maintain that they have less space than needed to meet demand, particularly for services provided to meet the needs of the following groups:

- children under five years of age and their families
- adults requiring training and support to access employment,
- daytime activities for seniors.

Some s106 funds are planned to be used to expand or improve these facilities but this is only likely to be for smaller scale incremental improvements/ investment.

Costs

An estimated overview of the costs associated with future provision has been provided by LB Camden, as set out in **Table 3-4** below.

Table 3-4 Estimated requirements and costs of community centres in Camden

Location/Name		*Unit cost*	*Total cost*
New/ replacement community buildings planned			
Abbey Community Centre	Costs expected to be met from market housing on the site, but additional subsidy may be required from CIL or s106	£2,000,000 each (Including fees and VAT, excluding land acquisition costs)	£16,000,000 For 8 buildings

Location/Name		*Unit cost*	*Total cost*
Surma Community Centre	Costs expected to be met from market housing on the site, but additional subsidy may be required from CIL or s106		
Camley Street Education Centre	Some s106 funding secured (Kings Cross Central), but additional funding required		
Hopscotch Asian Women's Centre	No information on funding arrangements		
Phoenix Garden education centre	£300k funding available from Central St Giles s106, but additional funds may be required		
Somali Community Centre	Funding not committed		
St Pancras Community Centre	No information on funding arrangements		
West Hampstead Community Association	Costs expected to be met from sale of market housing on its current site but additional subsidy may be required from CIL or s106		
Community building extensions			
Calthorpe Project	Funding not committed	£1,000,000 each (Derived from costs of extensions to community buildings in Camden 2009 - 2011)	£5,000,000 For 5 extensions
Castlehaven Community Centre	Planning permission granted 2011. Potential s106 contribution from neighbouring development sites which if secured will cover the majority of costs.		
Holly Lodge Community Centre	£200K from Holly Lodge Estate Project		
Kentish Town City Farm	Funding not committed		
Plot 10 Play Centre	Planning permission granted in 2011. Some funds secured via s106, but most of funds required still to be secured.		

Location/Name		*Unit cost*	*Total cost*
Investment required to refurbish internal space			
Bedford House	Funding not committed	£500,000 each	£3,000,000
Highgate Newtown	New funding secured for extension to youth club and work expected to commence in 2012, but main community centre requires further investment	(Internal works affecting majority of floorspace)	For 5 refurbishments
		£100,000 each (Smaller scale internal works)	£500,000 For 5 refurbishments
KCBNA Argyle Centre	Funding not committed		
Kingsgate Community Centre	Funding not committed		
Maiden Lane Community Centre	Funding not committed		
Primrose Hill Community Centre	Funding not committed		
Queens Crescent Community Centre	Funding not committed		
Sidings Community Centre	Funding not committed		
SHAK	Funding not committed		
Somers Town Community Centre	Funding not committed		
Winchester Project	Funding not committed		
			£24,500,000

Source: LB Camden

3.9. Faith Facilities

Baseline

Consultation with LB Camden indicated that there is an ongoing programme of expansion of Muslim places of worship, through both the extension of current buildings and through the conversion of new buildings into places of worship. It is also noted that the creation of a new mosque, located to the south of Euston Road, remains an aspiration for the local Muslim community.

Consultation confirmed that the remaining information provided in the 2009 Study on Faith Facilities remains accurate.

4. UTILITIES

4.1. Water

Consultation with Thames Water has concluded that information within Section 2 of the 2009 Study's UPINA is no longer a current and robust evidence base. Updated information relevant to water infrastructure, provided through consultation with Thames Water, is presented below.

Introduction

Thames Water uses information contained within Local Development Framework documentation to best predict what development will be coming forward in the future.

This information is used to identify any network or treatment constraints using computer models and then the most cost effective strategic solution will be drawn up. Unfortunately, as development is sometimes not phased in a way that most suits proposals, more development-specific solutions have to be considered further down the planning process.

Often planning applications do not consider off site network matters and desk top assessments are undertaken to predict the impact. In these instances a Grampian planning condition will be sought if Thames Water identify concerns regarding the scale of the development and the receiving network. The condition seeks to ensure that no development should start on site until a detailed network strategy has been drawn up to identify what infrastructure is required where to serve what development numbers. The second part of the condition looks to ensure that there should be no occupation until the identified infrastructure is in place.

Where developers engage with Thames Water ahead of the submission of a planning application a joint network strategy is drawn up. The strategy will identify if capacity exists. Where capacity doesn't exist Thames Water will identify what infrastructure needs to be provided ahead of occupation. This information can then be submitted as supporting documentation with the planning application and a planning condition is then unlikely to be sought.

Upgrades should be anticipated, and their exact location, scale and delivery will be determined by the phasing of the development proposed. The cost of the infrastructure will be borne by Thames Water and/or the developer if the infrastructure has to be brought forward sooner.

The time to deliver infrastructure should not be underestimated - it can take 18 months to 3 years for local infrastructure upgrades and 3 to 5 years for more strategic infrastructure solutions.

Baseline: Strategic Water Supply Infrastructure and Need

The majority of London's public water supply is abstracted from the rivers Thames and Lee and is stored in reservoirs located in west London and the Lee Valley. The rest of London's water is supplied from groundwater sources. Thames Water's desalination plant

at Beckton in East London can provide additional water supply to around one million people in times of drought.

Thames Water supplies approximately 75% of London's water. The other water companies that supply London include Sutton and East Surrey Water, Veolia Water Central and Essex and Suffolk Water. The water companies have a statutory duty to develop and maintain efficient and economical water supply systems. They are responsible for managing the water supply network including the reservoirs, boreholes, pipes and water treatment works which make up London's water supply infrastructure.

London and the South East have been classified as areas under serious water stress[38.] High population density combined with limited resources means that we need to carefully manage and plan the water resources in London. Water demand in London is much higher than the average for England and Wales. Each Londoner consumes an average of 162 litres per day compared to the England and Wales average of 148 litres per person per day (5 year average)[39].

The water companies supplying London would need to manage a potential cumulative deficit of over 300 mega litres a day by 2031, if no action was taken to either increase supply or manage demand. This compares to a total current demand of around 2,000 mega litres a day.

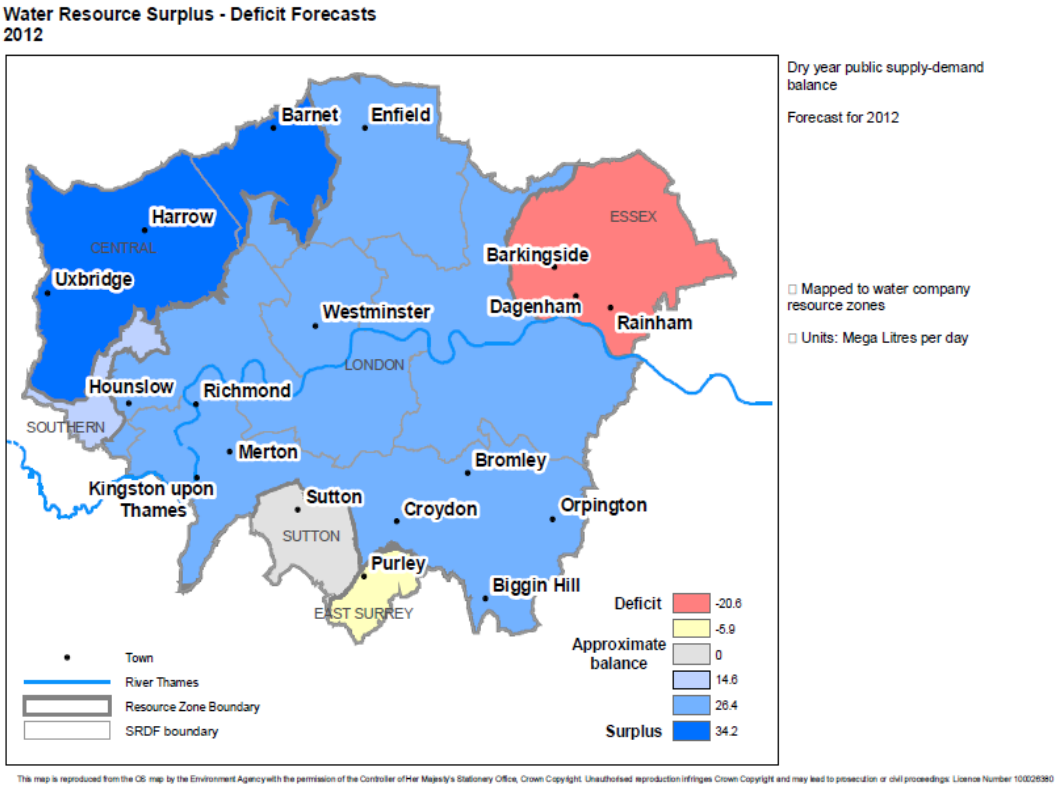
Water companies have a duty to maintain a secure water supply. Every five years water companies produce Water Resources Management Plans (WRMPs) which set out the current water supply-demand balance and proposed measures to address any supply demand deficit. These measures include specific resource development schemes and demand management actions. The WRMPs use population projections to make sure that future proposed growth in London is planned for. It is important that new development in London is designed to be water efficient.

Figure 4-1 shows the supply-demand balance in 2012 based on information from the WRMPs covering London. As shown, there is currently no deficit in LB Camden.

[38] Environment Agency, Water for People and the Environment - Water Resources Strategy for England and Wales, 2009, accessed at (http://publications.environment-agency.gov.uk/PDF/GEHO0309BPKX-E-E.pdf)

[39] Proportioned average per capita consumption for the water companies supplying Greater London taken from the OFWAT June Returns Data 2006-2010

Figure 4-1 Existing Water Supply and Demand Balance in Greater London



Source: Thames Water

Forecast Need

Water companies adopt the twin track approach of increasing supply but also of managing demand and reducing leakage, which often has wider social and environmental benefits. By adopting demand management measures and helping customers reduce the amount of water they use, the need for large infrastructure and supply schemes can be reduced. Defra has an aspiration to reduce water consumption to 130 litres per household per day (l/h/d) by 2030.

Table 4-1: Preferred programme set out in Thames Water Water Resource Management Plan 2010-2035

Programme	*Short term (2010-2015)*	*Medium term (2015-2020)*	*Long term (2020-2035)*
(Based on revised draft WRMP for 2010-35 (December 2011)			
Leakage reduction	1,000km of mains replacement	2,000km of mains replacement	
	Pressure management	Pressure management	
	Network reconfiguration	Network reconfiguration	

Programme	*Short term (2010-2015)*	*Medium term (2015-2020)*	*Long term (2020-2035)*
	Active leakage control	Active leakage control	
Metering	Compulsory targeted metering to achieve 40% meter penetration	Compulsory targeted metering to achieve 60% meter penetration	Compulsory targeted metering to achieve 80% meter penetration
Water efficiency	Enhanced water efficiency programme	Enhanced water efficiency programme	Enhanced water efficiency programme.
Resource development			Northern New River (2020/21) East London Resource Development (ELReD) (2020/21) SLARS (South London Artificial Recharge Scheme) Larger resource yet to be finalised (2026/27) (not located in London)

Source: Thames Water, 'Water: Planning for the Future: Draft Water Resources Management Plan 2010-2035 (December 2011)'

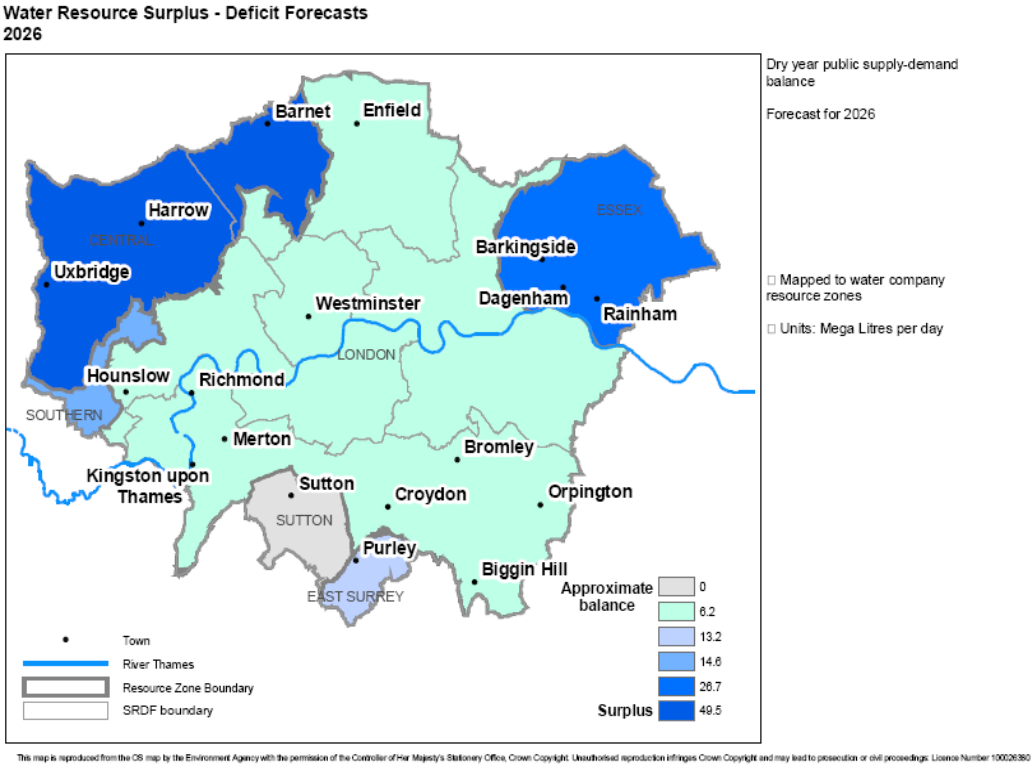
Thames Water is currently planning to reach a per capita consumption (pcc) of 135l/h/d by 2035. However, this will require a significant change in people's behaviour and involvement of multiple stakeholders. Water efficient new homes will drive down consumption, as will metering of existing homes and retrofitting of water efficient devices.

Thames Water's preferred programme of options to ensure security of supply in London, as set out in Table 4-1 above, includes a variety of both demand management and supply schemes. The construction activities associated with the leakage reduction and mains replacement programmes will probably have the biggest impact on Londoners.

The 2010 to 2015 leakage reduction and metering programmes listed above are currently proceeding at a reduced rate as they have not to date received funding from OFWAT. Also the resource development required in the long-term is under review following further discussion of Thames Water's revised draft WRMP at a Public Inquiry in summer 2010. An amended WRMP for the period 2010-2035 was published for consultation in December 2011.

The figure below shows the supply-demand balance in 2026, which takes into account population growth projections and the options water companies plan to manage supply and demand highlighted above. It shows that there is a forecast surplus of supply in LB Camden for 2026.

Figure 4-2 Forecast Water Supply and Demand Balance in Greater London 2026



Source: Thames Water/Environment Agency

Due to climate change and requirements from legislation such as the Water Framework Directive there is currently some uncertainty over the amount of water that will be available to supply London in the future. Where water abstraction may be causing environmental damage it may be necessary to reduce or revoke a water abstraction licence to protect the environment. These cases are known as sustainability reductions. Where investigations have shown sustainability reductions to be definitely necessary, the Environment Agency has informed the water companies and these reductions have been included in the WRMPs. There are currently no sustainability reductions for London, however, a number of investigations are still ongoing. Water companies will be given sufficient time to plan for reductions and the need for possible new infrastructure schemes.

The Barrow Hill zone is one of the biggest water supply areas in north-west London. It supplies the Camden area. Since the decommissioning of Barrow Hill reservoir in Primrose Hill Park, treated water has been supplied directly by pumping from the Thames Water Ring Main.

The Barrow Hill zone has been identified as having a storage deficit meaning that any power failure or burst main would result in immediate interruption to supply. There is limited space available but it is understood that a c. 29Ml reservoir would provide adequate storage capacity to enhance the resilience of supply to the zone. This will comply with Ofwat's requirements that Thames Water supply periods of higher demand from reservoir storage and comply with the Thames Water Strategic Business Plan. Therefore Thames Water has been funded by its regulator Ofwat to replace and commission a new reservoir on the existing site. The reservoir, which requires planning consent from the LB Camden, will be in operation by the end of Thames Water current business plan period in 2015.

Costs and Funding

In parallel with their WRMPs, water companies are required to produce business plans that set out how they will fund the first five years of their plan.

The funding for investment in water supply infrastructure is raised through charges to water company customers. The price that the companies can charge is regulated by Ofwat through the five-yearly business planning process.

4.2. Energy

Since the 2009 Study there have been a number of changes to the context within which energy is provided within LB Camden. UK Power Networks (UKPN) provided a detailed response to the request for up to date information, updating the section from the 2009 Study in a number of places. Below, key information is summarised. At Appendix A, the relevant sections from the 2009 reports are reproduced in full, for completeness. No response was obtained from National Grid.

Camden's Energy Network

Since 2009, EDF has been replaced by UK Power Networks (UKPN) as the electricity network operator for Camden.

In London UKPN takes supply at 132,000 volts from a number of National Grid substations, and then distributes electricity at voltages from 132,000 volts to 230 volts via a network of cables and substations. The local networks in Camden operate primarily at 11,000 volts and 400/230 volts, the voltage that is typically utilised in residential circumstances.

For large energy users, the connection into the property could be 11kV and not 230 volts used for residential properties. Commercial premises, such as factories, large office facilities and some larger supermarkets all fall within this category.

UKPN is currently reviewing its capital investment plans in preparation for the next regulatory review, which will commence in 2012 and come into force in April 2015. It has embarked on a major process of engagement with stakeholders to ascertain their requirements for the period through to 2023, as well as reviewing likely demand driven by

economic and household growth, as well as the potential implications of delivering the Government's carbon emissions targets.

Sustainable Energy

UK Power Networks is leading the Low Carbon London Programme to explore how the electricity distribution network must change to support the delivery of the city's tough carbon reduction target. We will look at how commercially innovative tariffs and demand response contracts supported by smart meters and communications systems can support renewable generation and electric vehicles to deliver reliable, affordable, low carbon electricity. Low Carbon London aims to put London businesses and communities at the heart of a smart energy revolution, embarking on a four year learning journey that will demonstrate that the electricity distribution network must change to meet tough carbon reduction requirements. We need to find the most efficient and cost-effective ways of making our distribution network enable a low carbon future for London. What is learnt in London will be valuable to any city that has sustainability ambitions.

With regards to sustainable energy planning specifically, the Mayor of London is driving the uptake of decentralised energy systems at the London level through a number of initiatives:[40]

- In 2009, the Mayor, with London First and the London Development Agency launched *Powering Ahead - Delivering low carbon energy for London*[41]. This prospectus supports the expansion of the decentralised energy market in London.

- The Mayor has also developed a comprehensive evidence base of the technical and deployment potential of renewable and decentralised energy potential in London and developed a roadmap, building on the Powering Ahead report, to show how the Mayor's target can be achieved.

- Most recently the Mayor's Decentralised Energy for London programme was set-up with €3.3m funding, 90% of which was secured from the European Investment Bank's ELENA facility, will provide London boroughs and other project sponsors with technical, financial and commercial assistance to develop and bring decentralised energy projects to market. The programme will predominantly look at district heating schemes supplied from combined heat and power (CHP) and sources of waste heat. It aims to facilitate over £95m of decentralised energy projects before summer 2014.

[40] GLA Website, accessed 27th January 2011

[41] GLA, Powering Ahead – Delivering low carbon energy for London, 2009

To help achieve the above, Policy 5.5 of the *London Plan*[42] requires Boroughs to identify and safeguard existing heating and cooling networks and maximise opportunities for providing new networks supplied by decentralised energy.

There are a number of well established benefits for Camden associated with implementing decentralised energy solutions:

- It offers the opportunity to reduce the carbon intensity of energy use and to help the Borough to contribute to the London CO2 reduction targets.
- It reduces reliance on national energy production and its associated rising costs.
- It provides energy security to the affected area by reducing impacts of rising costs and uncertainty associated with the National Grid.
- It can help create new employment and business opportunities to local people through the construction and management phases.
- Energy produced nearer to the end user reduces wastage associated with the national grid infrastructure.

Decentralised energy requires a number of bodies to work in partnership to develop and manage new networks. Consultation undertaken for this has revealed that UK Power Networks, Camden's electricity provider, aims to work towards achieving a decentralised energy network by:

- *'Installing smart meters in thousands of homes in the Mayor's Low Carbon Zones and Green Enterprise District. This means we can investigate the best ways to encourage customers to change their energy consumption patterns to lower their electricity bills.*
- *Monitoring electric vehicle (EV) use. We will learn how to influence customers' charging behaviour to maximise the use of network capacity and low-carbon generation.*
- *Trialling groundbreaking commercial contracts with industrial and commercial customers in the City of London and the Green Enterprise District. These will determine how we can incentivise consumers to adopt a more flexible and 'greener' approach to their electricity usage. This will make better use of the low-carbon electricity network capacity while helping the transmission system operator (TSO) balance the national electricity system more efficiently.*
- *Establishing a Low Carbon London Learning Laboratory at Imperial College London to capture and analyse the research and share the learning, helping to enable more low-carbon communities across the UK—and possibly the world.*

[42] GLA, The London Plan 2011, 2011

- *Providing an opportunity for the whole industry to work together to improve the entire energy chain.*
- *By showing where changes need to be made to the way the industry is regulated and markets are structured'*[43]

The 2009 Camden Infrastructure Study described policies and fiscal mechanisms which incentivised renewable, decentralised energy and low carbon solutions. Since then there have been changes to the national and international framework for the funding and delivery of sustainable energy, including the cut of feed-in tariffs introduced by the 2008 Energy Act. Economic incentives and the workings and structure of OFGEM, BIS and key other institutions will continue to be fundamental to the realisation of ambitions relating to sustainable energy in the current economic climate.

The Powering Ahead report recognises that the investment environment in London is changing as political initiatives are beginning to create a more favourable policy framework for decentralised energy. Ensuring a positive regulatory and policy context is critical to delivering decentralised energy, as is the public sector's ability to remove delivery barriers. The report recognises the crucial role that London's Boroughs are playing as facilitators – providing supportive local policies and assembling public heat demand data[44].

Existing and Committed Infrastructure

For the electricity network, UKPN expect that energy consumed through their network will decrease if decentralised energy and the Code for Sustainable Homes impacts as predicted; however this is not a given, and may be in part offset by increasing use of electric vehicles and other low carbon initiatives.

UKPN particularly note in their long term development statement that the potential to connect CHP systems to their network is proving increasingly difficult technically,and particularly in the London area. The difficulties that may arise are two-fold: Firstly the network itself needs to be of a voltage and capacity that is commensurate with the amount of electricity generated by the CHP. Secondly the highly resilient design of the London electricity infrastructure inherently limits the amount of energy that can safely be fed into the network by a generator in the event of a fault occurring. In London these two factors can combine to inhibit the amount of generation that can be accepted for connection to the network.

In the City and its environs, UKPN is developing a 33,000 volt distribution system to supply new large commercial loads, and this is designed to accept higher levels of embedded generation.

[43] Consultation with UK Power Networks, December 2011

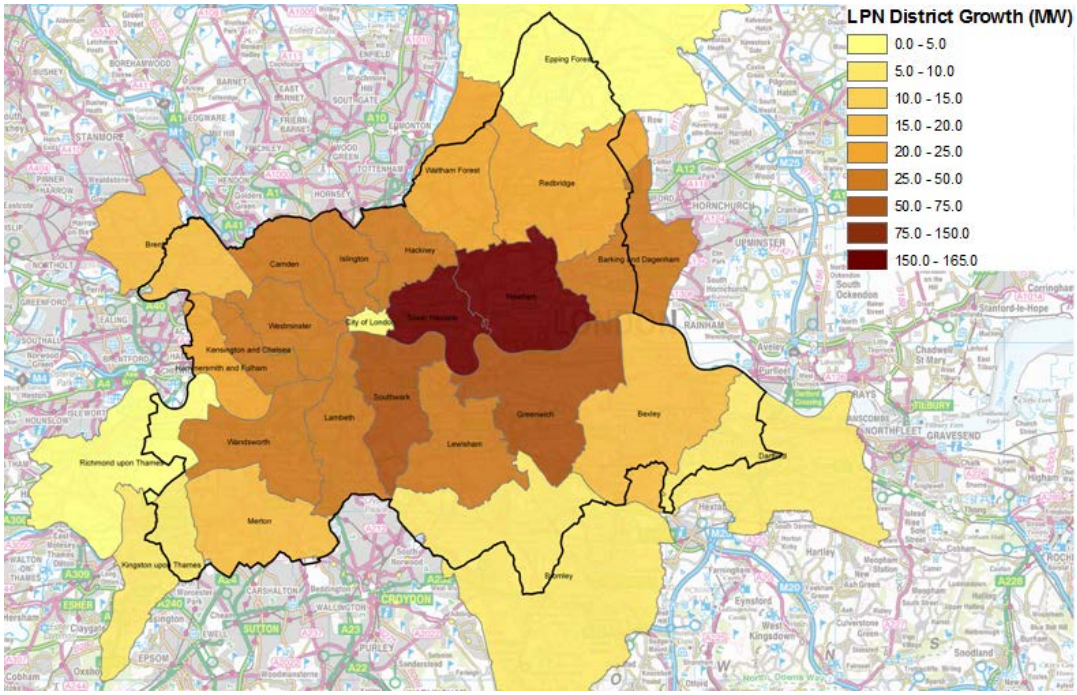
[44] GLA, Powering Ahead – Delivering low carbon energy for London, 2009

UKPN are also investigating new technologies that may help restrict the energy that is supplied by the generator under fault conditions, and this may, in time go some way to easing that particular constraint.

Figure 4-3 below shows within the black line, the area served by the LPN network.The adjacent coloured areas are also served by UK Power Networks but are within the SPN and EPN license areas. This also shows UK Power Networks current view of the load growth that is anticipated in each of the London Boroughs. LB Camden is anticipated to have load growth of 25.0 to 50.0 MW from 2011/12 to 2019/20, which is more than some London Boroughs though not as high as LB Tower Hamlets, LB Newham, LB Southwark or LB Greenwich.

For both gas and electricity, data currently employed to develop projections of future load reflects that of historical consumption. However, the impact of the Code for Sustainable Homes and the desire to employ low or zero carbon technologies to furnish energy in Camden is somewhat of an unknown quantum and therefore is likely to be assessed with a degree of scepticism.

Figure 4-3 District Level Load Growth within the LPN



Source: UK Power Networks

Planned Provision and Future Requirements

Camden's Energy Network

National Grid and UKPN have developed a joint strategy for National Grid to build a new 400kV/132kV substation at Finsbury Park and to install cables from there to a new UK Power Networks 132kV substation at Islington. This will, in turn facilitate UKPN upgrading

its existing major substations at St Pancras and Holloway, thereby providing some 70MW of additional transformer capacity. Reinforcement of local 11kV network and 11kV/400/230 volt substations will be required once firm loads are identified.

If further 132/11 kV transformer capacity should be required, it may be necessary to identify a site for a new substation, typically requiring a site of some 40m x 40m with adequate access for construction, operation, and eventual asset replacement.

Identifying the infrastructure needs for growth critically depends upon understanding the context of both local and strategic requirements. In essence, mains that serve the immediate area will have a defined capacity and the assessment will consider their ability to cater for further capacity requirements. The strategic mains are no different and it is feasible that only one may be able to accommodate the growth agenda.

However, based on forecast demand it is possible to gauge the quantum of energy infrastructure that is indicative of the scale of the infrastructure needed to support such levels of growth in Camden up to 2026, but does not incorporate detailed considerations of existing spare capacity. For electricity this will require additional 132/11kV transformer capacity and up to 77 1MVA substations (i.e. secondary substation catering for local demand). The specific requirements for electricity sub-stations may risk delaying development unless they are adequately planned for. The reason for this rests firstly in the space demands for both primary (generally of 40 by 40 metres) and secondary sub-stations (generally 4 by 4 metres). Additionally planning for substations must consider the need for adequate acess for construction, operation, and eventual asset replacement.

For gas, the gas network is assumed to be functional and without need of uprating for the most part, with the exception of local reinforcement works that may be applicable. Assuming no capacity is available in the existing network, there may be a requirement for the equivalent of 2 to 3 pressure reducing stations (transforming the gas from medium pressure to low pressure).

Energy infrastructure is funded over five-yearly (to become eight-yearly from 2015) investment programmes. UKPN also maintains long-term outline plans beyond this period. Currently, UKPN are preparing plans for submission to the Regulator for the period 2015-2023.

Sustainable Energy

LB Camden recognises that it needs to play its part in supporting London's drive towards a lower carbon energy supply. Consultation with the Council has indicated that three areas within the borough could form the focal points for public investment - Euston/Kings Cross; Bloomsbury/Tottenham Court Road; and Gospel Oak – with a figure of £1 million for each area (£3m in total) being considered appropriate to help lever in further private investment. To date £3.8 million has been secured from the Francis Crick Institute (national medical research centre next to St Pancras station), although the further £1 million identified through consultation with the counicl will still be needed to address linking up other major development sites in the Euston/Kings Cross area.

Funding

Camden's Energy Grid

Both National Grid and EDF are responsible for providing strategic capacity and the regulatory reviews take into account projected growth, system performance improvements, safety improvements and maintenance. The energy bill (gas or electricity) paid by each consumer in the UK contains a charge related to the use of the network, and this provides the main financial resource available to the network operators to fund the operation of and investment in the networks.

The current regulatory framework, established by OFGEM, however encourages network investment to mirror the demand, thus protecting the consumer from funding network enhancements without a clearly established need. The works required to provide connections for new developments and the associated increased energy requirements and diversions can broadly be charged to third parties, e.g. developers, reflecting the fact that the developer will obtain the benefit from such investments.

In reality, most sizeable developments will impose additional demands on the local utility network, particularly electricity. These additional demands will be funded by the developer, recognising that the investment is being driven by their requirements. However, more often than not, this investment will create capacity which can be made available to other network users. In such circumstances, the network company may bear a proportion of the cost. Alternatively, the developer may receive a subsequent refund of a part of the charges, if other developers are able to make use of this spare capacity.

4.3. Telecommunications

Consultation with British Telecom (BT) revealed the following changes to the baseline position for telecommunications infrastructure (see 2009 Study's UPINA report section titled *Adequacy of Existing and Committed Infrastructure).*

In addition to the estimated 895 projects on the network in Camden each year (see UPINA page 88), British Telecom (BT) is currently engaged in a programme of the installation of super fast broadband. This programme includes installation of new street cabinets, mostly positioned adjacent to existing street cabinets which will remain. There will also be some degree of additional civil infrastructure required in respect of clearing duct blockages to enable fibre provision to the new cabinets. There will be a programme of fibre optic cabling to the premises which will also necessitate some additional civil infrastructure. The exact timing of these programmes will be made public in advance of project commencement via BT public websites.

Consultation confirmed that the remaining information provided in the 2009 Infrastructure Report section on Telecommunications remains accurate.

4.4. Sewerage/Wastewater

Consultation with Thames Water has concluded that information within Section 5 of the 2009 Study's UPINA is no longer a current and robust evidence base. Updated

information relevant to Sewerage/Wastewater infrastructure, provided through consultation with Thames Water, is presented below.

Introduction

Please refer to the **Introduction** of Section 4.1 above for an explanation of the role that Thames Water plays with regard to the provision of Water and Sewerage/Wastewater infrastructure within Greater London and LB Camden.

Baseline: Strategic Sewerage/Wastewater Supply Infrastructure and Need

Thames Water is the sole sewerage undertaker for London. It is responsible for managing the sewage treatment works (STW) and the sewerage network e.g. the pipes and pumping stations, which make up London's wastewater infrastructure. Much of central London has a combined drainage system, which carries both surface and wastewater. London's sewage is treated at eight major STW - Beckton, Crossness, Mogden, Riverside and Long Reach (that discharge effluent to the tidal River Thames) and Hogsmill, Beddington and Deephams (that discharge into freshwater tributaries of the Thames). Wastewater from Camden is treated at Beckton Sewage Works.

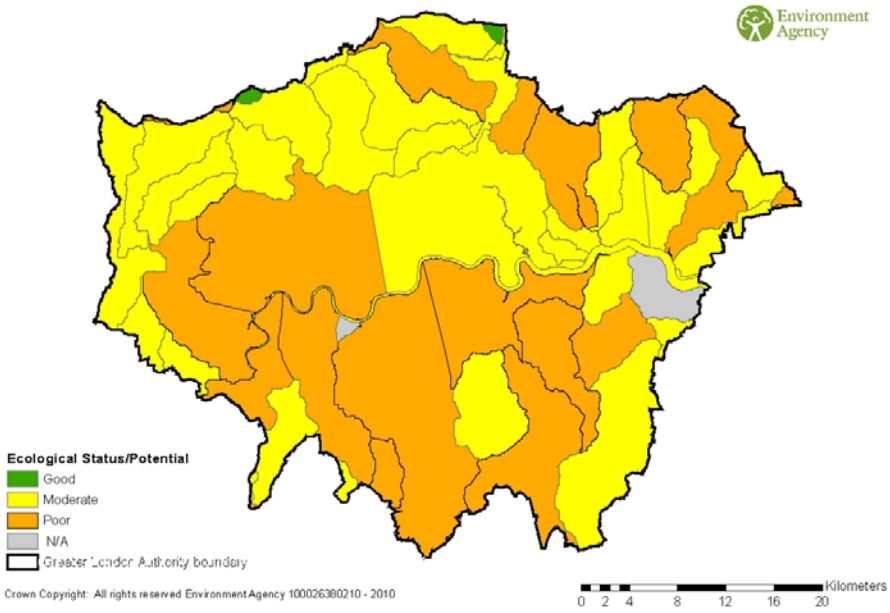
Wastewater infrastructure is essential to sustain urban life. The Urban Waste Water Treatment Directive (UWWTD) requires that urban wastewater should be properly collected and treated.

In some locations, as little as 2mm of rainfall can result in discharges of storm sewage to the Thames, and this may happen 50 to 60 times in a typical year. It is estimated that 39 million cubic metres of storm sewage is discharged to the river in a typical year, mainly from the combined sewer overflows (CSOs), but also from the tideway sewage treatment works (STW). This could rise to 70 million cubic metres by 2022 if no action were taken; however due to improvements already underway by 2015 this figure should reduce to some 18 million m^3. These discharges can have a significant adverse effect on dissolved oxygen levels, the ecology of the river and potentially on the health of river users. The need for strategic wastewater infrastructure to address these issues is given in Thames Water's Thames Tunnel Needs Report and the Thames Tideway Strategic Study.

On a more local scale, if sewers are not maintained and upgraded this can result in CSOs operating in a way that causes environmental harm and an increase in the number of pollution incidents.

The quality of London's water bodies must be improved if they are to meet the requirements of the European Water Framework Directive (WFD). None of London's rivers are currently meeting good ecological status (see Figure 4-4 below). It is essential that strategic wastewater infrastructure is planned and provided in a timely way to support existing and new development to maintain and improve water quality in London. There can be severe consequences for the health of the aquatic environments upon which we depend for safe drinking water, recreation, and wildlife if wastewater infrastructure provision does not keep pace with development. The Environment Agency's 'London Environmental Infrastructure Needs: A Strategic Study' (LEINS), gives further evidence on the need for planning of strategic wastewater infrastructure.

Figure 4-4 Ecological status/potential of river water bodies in Greater London under Water Framework Directive



Forecast Need and Planned Provision

The London Tideway Improvement Programme will help address the issues highlighted above and consists of three components:

- Upgrades and/or capacity extensions to Crossness, Beckton, Mogden, Long Reach and Riverside STW. These upgrades, which are currently under construction, will improve the quality of the effluent and increase the amount of sewage the sites can treat, so reducing the frequency and size of storm discharges to the river. The upgrades are due to be completed in 2014 and should largely accommodate future population growth.

- The Lee Tunnel, which together with the extensions to the Beckton STW, will largely eliminate the overflows from the Abbey Mills pumping station, which is currently the largest single source of storm sewage to the river. This too is under construction and is expected to be completed in 2015.

- The Thames Tunnel, which is in its development phase, with the second round of public consultation underway. As currently designed, it will capture flows from the 34 unsatisfactory CSOs along the tideway, and convey them for treatment at the extended Beckton STW. It is currently expected to be complete by 2023, subject to approvals and financing.

As part of its Business Plan for 2010-2015 (AMP5) Thames Water is developing and implementing a proposal for the major upgrade of Deephams STW. The primary aim of

this upgrade is to help the River Lee meet environmental quality targets but it will also provide sufficient capacity to accommodate growth up to 2026. This project will not complete until the 2015-2020 period.

To support the anticipated housing growth in London beyond 2021, Thames Water may have to increase its overall sewage treatment capacity to cope with an increased population of around 740,000 by 2031. Some of London's smaller treatment works, away from the Thames Tideway, may require some extra capacity before 2021.

Provision for growth will be identified and planned for by Thames Water through their next Business Plan, which is due to be prepared during 2012 and 2013 after consultation with local planners.

Costs and Funding

Investment in wastewater infrastructure is financed through charges to water company customers. Thames Water will seek approval from Ofwat to invest in strategic growth schemes through the five-yearly periodic review of water company prices[45]. The next periodic review will be in 2014.

In the period 2010-2015, Thames Water expects to invest some £1.3 billion to upgrade five of London's sewage treatment works and to construct the Lee Tunnel. The cost of the Thames Tunnel will be billions of pounds but the precise figure has yet to be finally established as it depends on a number of external factors. Similarly, the upgrade to Deephams STW is expected to cost several hundred millions of pounds.

There may also need to be additional investment in local sewers and sewage treatment works to accommodate growth up to 2031. The Environment Agency's London Environmental Infrastructure Needs: A Strategic Study' (LEINS) report estimated that an additional £335 million may need to be invested in London's sewage treatment works over this period to prevent deterioration in water status and that further investment will be needed to improve London's water quality.

Future costs could include investment driven by measures in the Thames River Basin Management Plan, sewer network improvements, sewer flood alleviation schemes, sewage treatment work expansions to cope with greater effluent volume and improvements to sewage sludge disposal.

Provision for these improvements which will address growth and environmental impacts will be identified and planned for by Thames Water through their next Business Plan, which is due to be prepared during 2012 and 2013 after consultation with stakeholders, including with local planners. Future funding will need to be agreed with Ofwat and financed through charges to customers.

[45] Thames Water, Our Plans for 2010-2015, 2010 (http://www.thameswater.co.uk/cps/rde/xbcr/corp/our-plans-for-2010-2015.pdf)

4.5. Flood Risk

Information pertaining to flood risk infrastructure contained in the 2009 Study was prepared by URS based on publicly available sources, including published reports.

A review of information used has been undertaken for this 2012 Study Update, with the primary change being identified as the change in the Council's responsibilities resulting from the Flood and Water Management Act. The previously draft *Mayor's Water Strategy* (2011) has also now been adopted.

Since the 2009 Study, and based on the above changes, the Council has produced a *Surface Water Management Plan* (2011) as part of the GLA Drain London project and has also undertaken enhanced surface water modelling for "critical drainage areas" across Camden. This work has identified areas at flood risk (notably Gospel Oak) and the Council are currently developing capital bids to DEFRA via the Environment Agency to partly fund mitigation schemes. Significant historic flooding in the borough in 1975 and 2002 demonstrates that there is a need for such investment.

4.6. Waste Management

LB Camden provided updated information on waste management resourcing and capacity.

Camden's *Green Action for Change (2011-2020)* is the Council's new environmental sustainability plan.

The *North London Joint Waste Plan* will identify sites for major recycling and other waste handling facilities in North London and set out policies relating to waste. It is being be prepared jointly by Camden and the six other boroughs in the North London Waste Authority area. The Plan was the subject a public examination, in April 2012. This has not been concluded to allow for further consultation to be undertaken in line with the Localism Act. It is anticipated that the plan should be completed in the next year.

Waste management infrastructure for LB Camden is provided by its statutory waste disposal authority (NLWA). Current provision is made under the NLWA waste management contract and supplementary contracts, including for the management of recyclate. As set out in the North London Waste Authority (NLWA) Outline Business Case (Jan 2010), a procurement exercise is being undertaken relating to future provision from 2014. This is currently at the detailed solutions stage with two bidders remaining in the exercise.

The technical options appraisal for the NLWA procurement exercise resulted in the selection of a reference project (Section 4-13 of the NLWA Outline Business Case) that proposes the waste management facilities set out in **Table 4-1** below.

Table 4-1 Proposed North London waste facilities (Summary of NWLA technical solution)

Proposed facility	*Number of proposed facilities*	*Nominal capital expenditure*	*Capacity of facility*
Household waste recycling centre	5 new facilities (additional refurbishment of a number of old sites)	£16.1m for 5 new sites and refurbishment of old sites	5 sites totalling additional 37,500 tonnes of capacity
In vessel composting (green waste composting capacity)	1 facility	£5.4m	30,000 tonnes of capacity
Rail Transfer Station	1 facility	£0m	n/a
Materials recycling facility	1 facility	£15.1m	10,000 tonne plants
Anaerobic digestion plant	1 facility	£15.3m	112,000 tonne capacity
Mechanical biological treatment/ Anaerobic digestion plants	2 facilities	£236.2m (including £6m development costs)	345,000 tonne and 240,000 tonne facilities
Solid recovered fuel (fuel use facility)	1 facility	£284.5m (including £6m development costs)	320,000 tonne capacity

Source: NLWA Outline Business Case

The NLWA reference project models an affordability gap for Camden of £231m (including collection costs and assumptions for inflation) over the 30 year contract life. Various sensitivity analyses on a number of key variables resulted in an upper affordability envelope for Camden of £265m. In October 2008 Camden's Executive approved this affordability envelope for the future provision of waste facilities across north London under the NLWA waste services contract.

In March 2010, the NLWA was awarded £258.4 million of PFI credits to support the procurement. This represented the largest ever PFI credit award for a waste procurement. As a part of the Comprehensive Spending Review announced in October 2010, the Department of Environment Food and Rural Affairs (DEFRA) withdrew this provisional PFI credit allocation in addition to those allocated to six other waste PFI projects.

Further updated information provided through consultation with Camden Council is discussed below.

Camden Council provides various waste management services for its municipal solid waste customers, which were summarised in Table 7-2 in the 2009 Utilities Infrastructure Report. **Table 4-2** below sets out information relating to waste streams for which management arrangements have changed since 2009.

Table 4-2 Waste management services provided by Camden Council

Waste Stream	*Management Method*	*Comment*
Household white goods	Charge for collection	Processed at European Metal Recycling, Willesden
Household garden waste	Free collection from LBC	In-Vessel composting (Edmonton)
Commercial waste	Paid for collection	Treated as per non-recyclable municipal solid waste below

Source: LB Camden

Table 7-4 of the 2009 UPINA sets out policy drivers for Waste Management in Camden. Consultation has identified an updated NI191 target, to reduce residual household waste per household from 2008/09 levels by:

- 3% by 2012
- 7.5% by 2015
- 15% by 2020

It is hoped that this will also contribute to a North London recycling and composting rate of 50% by 2020 from the 2009-2010 levels of 30% in Camden. Camden will aim to maintain year on year increases in recycling. LB Camden has now approved the Inter Authority Agreement between the seven boroughs of the NLWA which enables them to work closely together towards achieving this target.

It should also be noted that London Waste Limited is now the sole operator of the Edmonton incinerator.

Updated information on the projected growth of municipal solid waste generation from Camden up to 2020 has been set out in the London Plan 2011, as follows:

- 2011 – 140,000 tonnes per annum (tpa)
- 2016 – 146,000 tpa
- 2021 – 153,000 tpa
- 2026 – 159,000 tpa
- 2031 – 163,000 tpa

4.7. Policing

Baseline

Consultation has revealed that the LB Camden policing estate now encompasses the following Safer Neighbourhood Team (SNT) ward bases, which help to manage neighbourhood policing, as set out in **Table 4-3**.

Table 4-3 LB Camden Safer Neighbourhood Team Bases

Area	*SNT Base*
Camden/Primrose Hill	Greenland Road
Cantelowes	Kentish Town Road
Fortune Green	West End Lane
Gospel Oak	Queen's Crescent
Haverstock	Queen's Crescent
Highgate	Highgate Road
Kentish Town	Kentish Town Road
Kilburn	Swiss Cottage
Swiss Cottage	Swiss Cottage
West Hampstead	West End Lane

Source: Metropolitan Police: Camden Borough Commander

Consultation has confirmed that the remaining information provided in the 2009 Study on Policing remains accurate.

4.8. Ambulance Services

Consultation has confirmed that the information contained in the 2009 Study on Ambulance Services remains accurate.

4.9. Fire Services

Consultation with the London Fire Brigade (LFB) has confirmed that the position of fire services in Camden remains broadly consistent with that set out in the 2009 Study. Updated contextual information has been stated below.

Resulting Infrastructure Requirement

Updated information has been made available in the recently published *LFB Asset Management Plan (2011)*. The plan identifies the need for upgrades and redevelopment of existing fire stations, though it should be noted that this infrastructure is planned on a London wide basis, taking into account a combination of the demand (incidents attended) and attendance standards (how quickly LFB can get to a fire), and not based on increased demand due to population growth.

In LB Camden, the Kentish Town fire station is awaiting potential redevelopment proposals as part of the Corporate Property Project. The remaining three fire stations in Camden are also listed as medium to high priorities for refurbishment work as part of the ongoing capital programme.

Consultation has confirmed that other information contained in the 2009 Study on Fire Services remains accurate, although information on incidents will be updated on a periodic basis.

5. TRANSPORT

5.1. Introduction

The 2009 Transport Infrastructure Needs Assessment (TINA) examined the transport infrastructure required to support Camden's growth over the LDF period. It identified planned projects where funding had been committed, as well as other projects at various stages of development where funding was not committed and a funding gap was apparent.

There are proposals for a new transport needs assessment to be undertaken by LB Camden in due course which will update and supersede the 2009 Transport Infrastructure Needs Assessment (TINA).

Therefore, this chapter of the update does not revisit the 2009 TINA in its entirety. Rather it draws upon currently available information and consultation with the LB Camden in order provide a picture of planned projects and required investment which is as complete and up-to-date as possible at this time.

The 2009 TINA covered rail infrastructure requirements, including rail stations, in detail. LB Camden noted during consultation that while these are relevant to the borough's infrastructure needs, core responsibility for the funding and delivery of improvements at Underground, Overground and national rail stations and the services that serve them sits with TfL, Network Rail and the train operators rather than with LB Camden.

5.2. Policy Context

Camden's Transport Strategy (CTS) (2011), referred to in the 2009 Study as LIP2, was adopted in August 2011. The CTS is currently the key policy document guiding and setting future direction for transport strategy in LB Camden. It provides details of the key challenges facing transport in Camden and forms the basis of funding requests to TfL for borough transport schemes.

The key objectives for LB Camden regarding transport are as follows:

- Objective 1: Reduce motor traffic levels and vehicle emissions to improve air quality, mitigate climate change and contribute to making Camden a 'low carbon and low waste borough'
- Objective 2: Encourage healthy and sustainable travel choices by prioritising walking, cycling and public transport in Camden
- Objective 3: Improve road safety and personal security for people travelling in Camden
- Objective 4: Effectively manage the road network to manage congestion, improve reliability and ensure the efficient movement of goods and people
- Objective 5: Develop and maintain high quality, accessible public streets and spaces and recognise that streets are about more than movement

- Objective 6: Ensure the transport system supports Camden's sustainable growth and regeneration as well as enhancing economic and community development
- Objective 7: Ensure the transport system supports access to local services and facilities, reduces inequalities in transport and increases social inclusion
- Objective 8: Ensure that the provision of parking is fair and proportionate by considering the needs of all users, whilst also encouraging sustainable travel choices
- Objective 9: Support the delivery of a successful London 2012 Olympic and Paralympic Games.

Objective 9 is of short term significance only, and is irrelevant in the timescale that the council anticipates it will set its CIL charging schedule.

Camden's *Core Strategy* was adopted by the Council on 8 November 2010. The final objectives relating to transport remain unchanged from the emerging objectives referenced in the 2009 Study. Relevant policy areas outlined in the *Core Strategy* include *CS11 Promoting sustainable and efficient travel* and *CS16 Improving Camden's health and well-being*.

The *Second Mayor's Transport Strategy (MTS2)* was formally adopted in May 2010. MTS2 sets out the Mayor's transport vision for London and details how TfL and partners will deliver the plan over the next 20 years.

5.3. Baseline Conditions and Forecast Need

The CTS sets out the current challenges for transport in LB Camden. A key area of focus includes supporting a growing population, which is forecast to increase by 17% (around 35,000 people) by 2031.

5.4. Planned Investment

This section identifies transport infrastructure projects in or affecting Camden which are currently in place with committed funding.

Consultation with LB Camden indicated that the priority of future projects for the council's CIL, in line with the CTS objectives, is to improve the environment to encourage sustainable travel such as walking and cycling, including urban realm schemes that facilitate mode shift and sustainable economic development. LB Camden will work closely with TfL in order to ensure that improvements to the public transport network in the borough are made as well as TfL facilities that promote cycling, such as the cycle hire scheme and the proposed Cycle Superhighway route 11.

TfL funding is provided for three key programmes:

- Corridors, Neighbourhoods and Supporting Measures
- Maintenance

- Major Schemes.

More detail on each of the three key programmes is provided below.

With regard to the first programme, the 'Corridors and Neighbourhood' element includes engineering measures and urban realm improvements that support the CTS objectives. The 'Supporting Measures' element includes the Smarter Travel programme which is a marketing tool to raise awareness about sustainable travel options. Activities to be supported under this element include education initiatives and travel planning. .

Camden has identified the following key priority areas to be addressed as part of the LIP:

- Camden Town (especially the area East of Camden Town)
- Kings Cross/ St Pancras (south and north of Euston Road)
- West Euston
- Holborn (including Bloomsbury and St Giles)
- Tottenham Court Road/Fitzrovia
- Kentish Town
- West Hampstead
- Kilburn
- Swiss Cottage/Finchley Road

Gospel Oak has also been identified as a key priority area which will link into the proposed regeneration of the area.

The 'Maintenance' programme mainly involves Principal Road Renewal and Bridge Strengthening. Road maintenance projects are undertaken according to the results of road condition survey data. The bridge assessment and strengthening schemes are funded by TfL as part of the TfL Maintenance programme, funds from which are allocated according to needs assessments and London-wide priorities. The council's maintenance programme covers other roads and street infrastructure and furniture, such as pavements, lighting and gulleys. The demand for ongoing maintenance is generally greater than funding allows and results in compromises in the quality of materials that the council can affordably use.

The 'Major Scheme' programme provides support for transformational schemes of more than £1 million and which assist in the delivery of the Mayor's Better Streets Agenda. Funding for Major Schemes is through a competitive bidding process to TfL. Funding has been secured for the following major schemes in LB Camden:

- Bloomsbury Streets for People
- West Hampstead interchange – completion of scheme

- Tottenham Court Road/Gower Street, as well as public realm improvements at Euston Circus, St Giles Circus and Princes Circus

- Britannia Junction, Camden Town.

Indicative funding allocations to support the delivery of these programmes are set out in the CTS 2011 (see **Figure 5-1** below). They total almost £39m from all sources for the whole three year programme (2011/12 to 2013/14). TfL allocations have been confirmed for all three years; however Council funds and third party funding (developer contributions and Business Improvement District funds) are not committed beyond 2011/12 and may change. On this basis, estimated committed funds (all funds for 2011/12 and TfL funds for 2012/13 and 2013/14) total £20.5m and the funding gap (Council and third party funds for 2012/13 and 2013/14) is just under £18.5m.

Figure 5-1 Indicative Funding Allocations for Camden – 2011/12 to 2013/14

Funding source	2011/12 ('000)	2012/13 ('000)	2013/14 ('000)	Total ('000)
Integrated Transport (Corridors, Neighbourhoods and Smarter Travel excluding Maintenance				
TfL - LIP Allocation	2,522	2,419	2,074	7,015
Council capital/revenue	540	540	540	1,620
Council Local Transport Fund – match funding	130	130	130	390
Third Party Sources				
Developer Contributions	500	300	0	800
Business Improvement District Funding	0	250	0	250
Sub Total integrated transport	**3,692**	**3,639**	**2,744**	**10,075**
Maintenance				
LIP Allocation	345	350	350	1045
Council Capital/revenue Funding	7,200	6,300	6,300	19,800
Sub total maintenance	**7,545**	**6,650**	**6,650**	**20,845**
Major Schemes				
Bloomsbury Streets-for-people LIP Major Scheme funding	1100	0	0	1,100
Britannia junction • LIP Major Scheme funding • Developer contributions • Council funding	770 0 0	0 0 0	0 0 0	770 0 0
West Hampstead • LIP Major Scheme funding • Developer contributions • Council funding	100 0 0	0 0 0	0 0 0	100 0 0
West End • LIP Major Scheme funding • Developer contributions • Council funding	150 0 0	1100 0 0	850 4000 0	2,100 4000 0
Sub total Major schemes	**2,120**	**1,100**	**4,850**	**8,070**
Grand Total	**13,357**	**11,389**	**14,244**	**38,990**

Note: Other than TfL funding for Integrated Transport, all funding for 2012-13 and 2013-14 is indicative only.

Source: Camden Transport Strategy 2011

5.5. Other Future Investment Requirements

LB Camden have provided information on likely required investment beyond that identified in the 2011 CTS and described above, identifying indicative costs and the potential funding gap.

Camden adopts a holistic approach to transport improvements as reflected in the Mayor's MTS and Camden's CTS. This approach focuses on area-wide projects through the Neighbourhoods, Corridors and Supporting Measures programme which aims to address all the problems in an area rather than smaller or mode specific schemes. The Council also allocates funding to road safety which remains a priority concern.

Investment in future years for CIL funding will therefore use an approach similar to that used in identifying and developing projects for the LIP, but with a focus on those schemes that will help to support expected development.

Camden's Transport Strategy team have provided details of potential projects which will contribute to meeting transport objectives while also supporting and encouraging development. These are set out in **Table 5-1** overleaf.

The table indicates that the total amount of investment required to provide these projects is £194m. Whilst no funding is yet confirmed for these improvements, if it is assumed that, to 2026, this continues at the levels identified for the 3 years covered by the CTS (on average approximately £6m per year), then £72m of the estimated need of £194m would be met. This would leave a funding 'gap' of £122m to 2026.

Table 5-1 List of Other Investment Requirements

Investment Requirement	***Amount***	***Justification***
Road maintenance backlog - Network Recovery Strategy	£41m	Information based on Network Recovery Plan. Not entered here as location specific and the plan covers the whole borough. Note that this is on top of our regular maintenance costs and is to remove the backlog of maintenance work and stem the deterioration of the network. This figure is based on the existing need and condition of the network, but the need could fluctuate based on the level of use of the asset.
Improve Public Realm (incl. pedestrian movement)	£32.5m	Creating a sense of place that attracts movement to and within an area through high quality public realm projects that reduce the dominance of traffic. This will include for example, shared space projects, pedestrianisation/cycle only, public squares and street parks
Cycling Infrastructure	£10.4m	Wayfinding: facilitate movement to areas through pedestrian (Legible London) and cycle wayfinding project.

Investment Requirement	*Amount*	*Justification*
Improve Pedestrian Safety	£7m	Addressing both actual and perceived road danger and personal security to make places and movements to, through and within places safer, calmer more attractive for people to live, work and enjoy; this would include for example, home zones
Markets	£1.5m	To support the Councils strategy for improving the markets, funding is required to make changes to the traffic management of the market areas (e.g. road closure, trader pitches, loading and parking arrangements). Funding is also required to improve the public realm at these locations to help support the vitality of the markets.
Storm Surge Protection using SUDS	£2m	A demonstration project of a Sustainable Urban Drainage Scheme has been designed in Fairhazel Gardens area. The location of flood areas are known. Such schemes have potential for reducing long-term drainage maintenance costs (i.e. 'Highway Maintenance'). The figure would cover the widespread borough-wide use of SUDS.
Improve Accessibility	£16.8m	Addressing severance including the use of the waterways and bridges, to improve accessibility and open up development potential.
Removing Gyratories	£60m	Removal of gyratory systems which act as a major barrier to pedestrian and cycle movement and accessibility in order to reduce the dominance of traffic, improve connectivity and permeability and to create a sense of place and opportunity.
Station Capacity surrounding works	£4m	Undertaking of necessary changes to the surrounding transport network at the surface level to ensure that connections and routes to all entrances / exits at stations are as good as possible.
Bus Improvements	£2m	Much bus priority work has been completed in Camden in the past as a result of a significant amount of funding being invested. Some additional measures are still needed to take account of changes to routes and passenger demand.
Freight Consolidation	£3.5m	More innovative approaches to freight are required as Camden increases in density and intensity of use. We are not going to be able to solve the problem of London wide inefficient freight operation in isolation, but we can make significant progress through the development and support of freight consolidation. Focus for Camden will be on cycle and small electric vehicle freight operations.

Investment Requirement	*Amount*	*Justification*
Sustainable Lighting	£3m	
Air quality infrastructure	£10m	Measures would include expansion of EV charging bays and car-clubs as well as expansion of biomethane re-fuelling and the creation of Camden's first hydrogen refuelling station.
Total	**£194m**	

Source: LB Camden, 2012

6. CONCLUSIONS

6.1. Introduction

The key findings in terms of social, utilities and transport infrastructure that have been updated from the 2009 Study are discussed below. This section then presents an infrastructure schedule setting out headline infrastructure requirements, costs and funding commitments in LB Camden up to 2026.

6.2. Key Findings: Social Infrastructure

Education

Early Years

The 2009 Study concluded that there was an estimated provision requirement to meet projections of future need equating to approximately 124 two year old places, 210 three year old places and 247 four year old places over the planning period. It was considered that this requirement would be best met primarily through the provision of nursery classes linked to required primary school expansions. No estimate of cost was made. No funding was in place beyond that relating to previously identified requirements (via the *Primary Strategy for Change (PSfC)* funding stream).

This 2012 Update has concluded that the requirement for early years infrastructure has changed somewhat from the 2009 Study, as a result of changing policy requirements[46]. As well as meeting the projected need identified in the 2009 Study, it is likely that LB Camden will need to substantially expand its provision of free part time places for deprived 2 year olds, though central government funding is likely to be available for this.

Camden's CSF Directorate has confirmed that its response to increased demand for places will not be to build stand-alone facilities. Alternative methods for delivery are still being explored, although it is likely that additional demand from three and four year olds will be met primarily through the provision of nursery classes linked to primary school expansions. Additional provision of part-time places for approximately 1,000 to 1,200 two year olds will be met by redefining the Children's Centre offer and by working with private and voluntary childcare sector providers. An indicative figure for the amount of capital funding required to meet the provision of new early years places which can cater the expended provision for deprived two year olds is £15,000,000.

The removal of ring fencing is leading to changes in funding priorities, which could impact on the ability to meet the new demand, and there may also be impacts arising (such as a fall in the number of independent sector places available) from the requirement for local authorities to implement a standard charging formula. As in 2009, sources of funding for expanding primary schools to cater for early years provision have yet to be identified.

[46] i.e. the new need to provide approximately 1,000 to 1,200 part-time places for disadvantaged two year olds; and the reduction of free full-time places for three and four year olds.

Primary

The 2009 Study concluded that, in addition to planned provision, there was an identified requirement need to provide between one and two primary FoE to meet demand over the Core Strategy period, with s106 and CIL identified as key potential funding sources.

This 2012 Update revised this estimate of potential additional need based on current housing data available to between one and three primary FoE to meet demand; however this estimate may change with the revised data as it becomes available.. In terms of funding, schools' needs (along with the needs identified in other housing and non-housing sites) have been included as part of the borough's CIP, which identifies that capital receipts (including s106) could be generated from a number of development projects in the borough that could help fund new provision.

Secondary

The 2009 Study concluded that, in addition to planned provision, there was an identified requirement need to provide up to four secondary FoE to meet demand over the Core Strategy period, with s106 and CIL identified as key potential funding sources.

This 2012 Update has revised this estimate of potential additional need, on the basis of current housing data, to up to three secondary FoE to the mid 2020's to meet demand. It should be noted that this may change as revised data becomes available. The school roll projections are lower than in 2009 (however they still show growth) and planned provision is forecast to be adequate to meet demand to 2021, rather than 2017 as originally specified. This is despite a number of proposed BSF projects being cancelled (resulting in the loss of around £167m earmarked for investment in schools). No expansions have been planned by the Council as yet to meet the expected shortfall beyond 2021; however school rolls and projections are monitored closely. In terms of funding, schools' needs (along with the needs identified in other housing and non-housing sites) have been included as part of the borough's CIP, which provisionally identifies that capital receipts for the funding of new provision could be generated from a number of development projects in the borough.

Further Education

The 2009 Study concluded that there was a requirement to meet demand for 160 Further Education places in LB Camden. The cost of providing this infrastructure would be in the range of £5.7 million and £7.5 million for the period, and likely be required between 2016 to 2026.

The 2012 Update has concluded that the position with regards to Further Education in LB Camden has not changed significantly, though some changes have taken place in the way that infrastructure is funded along with the planned changes to statutory school leaving ages.

Adult Learning

The 2009 Study concluded that there was a requirement to meet demand for 271 Adult Learning places in LB Camden, half of which could potentially be accommodated within

community centres and schools. Based on this assumption, the cost of providing this infrastructure would be in the range of £3.4 million and £4.5 million for the period, and likely be required between 2011 to 2026.

The 2012 Update has concluded that the position with regards to Adult Learning in LB Camden has not changed significantly, though some changes have taken place in the way that infrastructure is funded.

Higher Education

The 2009 Study concluded that demand for Higher Education places would not be directly influenced by population growth in LB Camden, and as such requirements to meet demand were not modelled.

The 2012 Update has concluded that the position with regards to Higher Education has not changed, with plans by individual HE institutions likely to ensure potential growth in student rolls is met by the provision of adequate facilities.

Health Care

Primary Health Care

The 2009 Study concluded that there was a requirement for space for 19 additional GPs to 2026, with an estimated cost for provision of £5.6 million. For dentists, space for 14 dental practitioners was estimated to be required, at an estimated cost of £7 million.

In the absence of any updated information on planned investments, it is assumed that future demand and resulting infrastructure requirements for primary healthcare in LB Camden remains unchanged from the 2009 Study.

Secondary Health Care

The 2009 Study estimated that total capital costs for secondary healthcare over the forecast period 2006 to 2031 (as dictated by HUDU) could be some £27.16 million for Acute and Mental Care and £12.89 million for Intermediate care. It was considered that these costs should be interpreted with a high degree of caution and are likely to be an overestimate of what is needed in the borough because of the substantial existing capacity in the borough already.

In the absence of any updated information on planned investments, it is assumed that future demand and resulting infrastructure requirements for secondary healthcare in LB Camden remains unchanged from the 2009 Study.

Sports and Leisure Facilities

The 2009 Study concluded that rates of provision were sufficient to meet future needs of the Camden's residents for tennis courts[47] and planned swimming pool provision at King's Cross would be sufficient to meet demand for these facilities over the Core Strategy period. The provision of six indoor sports halls through BSF was identified as being sufficient to meet demands for these facilities over the period.

The 2012 Update has concluded that the position with respect to tennis courts and swimming pool provision remains unchanged, i.e. demand will be met by existing facilities and the provision of a swimming pool at King's Cross. With regard to sports halls, the withdrawal of BSF funding for several school expansions has meant that there is now an identified need for nine courts to meet demand arising over the Core Strategy period after planned provision is accounted for. Funding for these courts has not been identified.

Parks and Open Spaces

The 2009 Study concluded that there was a requirement to provide 9m^2 per new resident and 0.74 m^2/new worker at developments over 60 units or over 3 hectares in size, to serve additional demand from new population growth. With regards to playspace it was concluded that 22 playspaces would be required to meet additional demand at an estimated cost of circa £2.0million.

The 2012 Update has concluded that the infrastructure requirement with regards to parks and open spaces remains unchanged, with the exception of some additional detail provided on the Council's aspiration to meet the GLA's Area of Deficiency in Access to Nature criteria. With regards to costs of provision, information provided by the Council has shown that the average cost per space of the 28 which were committed for investment was £57,000, meaning that the estimated cost of providing the 22 playspaces required can be revised downwards to approximately £1.3million in total.

In order to address the requirements for natural open space provision, the calculation of requirements and costs will follow that given in Camden Planning Guidance 6 'Amenity Open Space, Sport and Recreation'.

Libraries

The 2009 Study concluded that as the forecast rate of library provision throughout the Core Strategy period would be greater than the benchmark requirement, no additional infrastructure was assessed as being required, though there may need to be improvements made with regard to the quality of provision and its geographic distribution.

The 2011 Study conclusions remain the same, i.e. that, as presently assessed, there will be sufficient provision of libraries within LB Camden to meet demand over the Core Strategy period, though it should be noted that, at the time of publication of this Study, the

[47] The 2009 Study did however identify further investments are required to improve the quality of the existing courts and provide for ancillary facilities such as floodlighting and changing facilities.

Council is considering options regarding the future configuration and resourcing of library services in the borough. The management of three libraries has recently been transferred to community organisations and there are plans for the re-provision of library facilities with regard to the Kings Cross and Camden Town libraries.

Employment and Training Projects (job brokerage)

The 2009 Study concluded that LB Camden was well placed to meet future demand for brokerage services over the Core Strategy period, and no firm additional requirements in terms of floorspace were identified. It was recognised that there was a need to ensure that provision takes account of the fact that the unemployed will be more likely to make use of services if they are local to their homes.

As part of the 2012 Update, LB Camden provided up-to-date information regarding current needs for job brokerage services, and the way in which existing services are delivered. The Update has concluded that, on the basis that demand may potentially exceed supply from 2020 onwards, there may be a requirement for additional job brokerage infrastructure of around 112m^2 of additional space over the planning period. Also it is recognised that more detailed analysis to test the level of access of key groups, such as young people, to the currently available job brokerage support is required to ensure that the location of adequately meets need. Additionally, it is not known with certainty whether there is sufficient support available in areas of deprivation, where unemployment is most prominent, although if space is required to service this need, it could be met through co-located provision alongside other services.

Cemeteries

Consultation undertaken with Islington and Camden Cemeteries Service as part of the 2012 Update has led the conclusions drawn in the 2009 Study to be revised. This consultation concluded that there is a need for cemeteries infrastructure provision to meet the needs of LB Camden residents during the Core Strategy period, with new burial space (of unidentified size) scheduled to be required from around 2015. This will likely be provided within Trent Park cemetery in the LB Islington. Funding has not yet been committed to meet this need.

Community Buildings

The 2009 Study concluded that that there were requirements for: community buildings and multi-purpose space provision in south sub-area; community buildings in NW sub-area (particularly with services for under 5s and elderly); and a potential for community buildings provision in NE sub-area. These conclusions were based largely on evidence demonstrating that groups had insufficient space to meet demand.

The 2012 Update conclusions remain the same as the previous study, in that a need remains for new community space to be provided to meet demand over the Core Strategy period. Recent work undertaken by LB Camden identifies projects for investment with a total estimated cost of £24.5m. These projects include new/replacement community buildings, community building extensions, and investment required to refurbish internal

space. Limited funds have been secured from s106 payments towards these facilities, but in most cases they are currently unfunded.

Faith Facilities

The 2009 Study concluded that that there was an identified need for a mosque to serve the borough (which is currently an aspiration of the Muslim community).

The 2012 Update conclusions remain the same as the previous study.

6.3. Key Findings: Utilities

Water

Consultation with Thames Water has concluded that the information contained in the 2009 Study is no longer a current and robust evidence base.

The 2012 Update therefore incorporates updated information on baseline supply, need, infrastructure requirements and funding mechanisms, provided through consultation with Thames Water.

With regard to existing supply, there is currently no deficit in water supply in LB Camden. In order to meet future need, water companies are adopting the twin track approach of increasing supply but also of managing demand and reducing leakage, which often has wider social and environmental benefits. Therefore, Thames Water (like other water companies do elsewhere) plans a programme of options to ensure the security of supply in London, which includes a variety of both demand management and supply schemes. The resource development required in the long-term to ensure supply for London is under review following further discussion of Thames Water's revised draft WRMP at a Public Inquiry in summer 2010. In addition, there is some uncertainty about what the future supply of water will be in London will be owing to the Water Framework Directive, which may create a need for new infrastructure schemes to be built. It should also be noted that Thames Water's 2010 to 2015 leakage reduction and metering programmes are currently proceeding at a reduced rate as they have not to date received funding from OFWAT.

Thames Water has been funded by its regulator Ofwat to replace and commission a new reservoir (Barrow Hill) at the site of a former reservoir in Primrose Hill Park in LB Camden. The scheme will be operational by the end of Thames Water current business plan period in 2015, subject to planning permission.

Funding for investment in water supply infrastructure is raised through charges to water company customers, regulated by Ofwat through the five-yearly business planning process.

Energy: *Camden's Energy Network*

Since 2009, EDF has been replaced by UK Power Networks (UKPN) as the electricity network operator for Camden. Historically both electricity and gas distribution networks operators have been subject to a regulatory review every five years. However from April 2013 for gas and April 2015 for electricity infrastructure, funding and investment

programmes will operate on an eight-yearly basis. UKPN also maintains long-term outline plans beyond this period.

To develop the electricity infrastructure in Camden and surrounding areas, National Grid and UKPN have developed a joint strategy for National Grid to build a new 400kV/132kV substation at Finsbury Park and to install cables from there to a new UKPN 132kV substation at Islington. This will in turn facilitate UKPN's upgrade of its existing major substations at St Pancras and Holloway, thereby providing some 70MW of additional transformer capacity. Reinforcement of local 11kV network and 11kV/400/230 volt substations will be required once firm loads are identified. If further 132/11 kV transformer capacity should be required, it may be necessary to identify a site for a new substation, typically requiring a site of some 40m x 40m with adequate access for construction, operation, and eventual asset replacement.

Also, in the City and its environs UKPN is developing a 33,000 volt distribution system to supply new large commercial loads, and this is designed to accept higher levels of embedded generation.

Identifying the longer-term infrastructure requirements associated with growth in Camden is problematic. UKPN is currently reviewing its capital investment plans in preparation for the next regulatory review, which will commence in 2012 and come into force in April 2015. It has embarked on a major process of engagement with stakeholders to ascertain their requirements for the period through to 2023, as well as reviewing likely demand driven by economic and household growth, as well as the potential implications of delivering the Government's carbon emissions targets.

Based on longer-term forecast demand and ignoring considerations of existing spare capacity, for electricity it is estimated that an additional 132/11kV transformer capacity and up to 77 1MVA substations (i.e. secondary substation catering for local demand) will be required to 2026.

For gas, as set out in the 2009 Study, the gas network is assumed to be functional and without need of upgrading for the most part, with the exception of local reinforcement works that may be applicable. Assuming no capacity is available in the existing network, the 2009 Study found that there may be a requirement for the equivalent of 2 to 3 pressure reducing stations (transforming the gas from medium pressure to low pressure). No update to these findings was provided by National Grid.

Sustainable Energy

With regard to Sustainable Energy, the 2009 Camden Infrastructure Study described policies and fiscal mechanisms which incentivised renewable, decentralised energy and low carbon solutions.

With regards to sustainable energy planning specifically, the Mayor of London is driving the uptake of decentralised energy systems at the London level through a number of initiatives. Decentralised energy itself requires a number of bodies to work in partnership to develop and manage new networks, and UK Power Networks has developed several strategies in this regard.

The Powering Ahead report recognises that the investment environment in London is changing as political initiatives are beginning to create a more favourable policy framework for decentralised energy.

In terms of investment in sustainable energy, LB Camden recognises that it needs to play its part in supporting London's drive towards a lower carbon energy supply. Consultation with the Council has indicated that three areas within the borough could form the focal points for public investment - Euston/Kings Cross; Bloomsbury/Tottenham Court Road; and Gospel Oak – with a figure of £1million for each area (£3m in total) being considered appropriate to help lever in further private investment (additional to the £3.6m already invested by the Francis Crick Institute in Euston/Kings Cross). There have been a number of changes to the national and international framework for the funding and delivery of sustainable energy since 2009, including the cut of feed-in tariffs introduced by the 2008 Energy Act. Economic incentives and the workings and structure of OFGEM, BIS and key other institutions will continue to be fundamental.

Telecoms

It is not possible to pinpoint precise requirements associated with telecommunications infrastructure in LBC to 2026. There are on-going programmes of work to maintain and improve LB Camden's existing networks, including BT's installation of superfast broadband. In general given the way this fast moving sector operates there is unlikely to be a gap in provision. It is important that Camden Council maintains dialogue with telecommunication providers in order to co-ordinate the use of highway space and to mitigate the need to re-excavate highway.

Sewerage/Wastewater

Consultation with Thames Water has concluded that the information contained in the 2009 Study is no longer a current and robust evidence base.

The 2012 Update therefore incorporates updated information on baseline supply, need, infrastructure requirements and funding mechanisms, provided through consultation with Thames Water.

With regard to existing supply, the primary issues regarding wastewater infrastructure are:

- The need to improve the ecological quality of London's river networks to comply with the European Water Framework Directive
- The strategic need (overlapping with the above) to address sewage overflow discharges into the River Thames (as set out in Thames Water's Thames Tunnel Needs Report and the Thames Tideway Strategic Study)
- A local need to maintain and upgrade sewerage infrastructure to prevent ecological harm.

Thames Water plans to address these issues through a package of measures included in the London Tideway Improvement programme, and an upgrade of Deephams STW. It

also acknowledges that to support the anticipated housing growth in London beyond 2021, it may have to increase its overall sewage treatment capacity to cope with an increased population of around 740,000 by 2031. Some of London's smaller treatment works, away from the Thames Tideway, may therefore require some extra capacity before 2021.

Over the period 2010-15, Thames Water will need to invest around £1.3 billion in improvements to five treatment works in London. Beyond 2015, it is estimated that additional investment of around £335 million will be required up to 2031 at STWs to prevent deterioration in water status. Additional investment, with costs not yet fully determined, will be require for the construction of Thames Tunnel (which will be in £ billions), Deephams STW upgrade (£ hundred millions), and various other measures which will be required to meet demands from London's increased population.

Future funding will need to be agreed with Ofwat and financed through charges to customers.

Flood Risk

Information pertaining to flood risk infrastructure contained in the 2009 Study was prepared by URS based on publicly available sources, including published reports. In terms of requirements, it concluded the following was required:

- Sewer flooding investigation
- Preparation of a Surface Water Management plan
- Preparation of emergency management plans and associated inundation mapping for the reservoirs at Hampstead Heath
- Further analysis of flood risk presented by Regents Canal to the surrounding areas.

Since the 2009 Study, the role of the Council has changed as a result of the adoption of the Flood and Water Management Act and, in some part, to the adoption of the Mayor's Water Strategy. Subsequent work undertaken has identified areas at flood risk and the Council is currently developing capital bids to DEFRA via the Environment Agency to partly fund mitigation schemes. Significant historic flooding in the borough in 1975 and 2002 demonstrates that there is a need for such investment although at present the amount of investment required remains unknown.

Waste Management

As was the situation in 2009, Camden uses North London wide facilities to manage its waste including the Energy from Waste Incinerator at Edmonton, the Hendon Rail Transfer Station in Barnet, the Civic Amenity Site at Hornsey Street, Islington and various metal recycling sites and MRFs.

Procurement of the waste disposal contract by the NLWA in 2014 is key future consideration to the borough. The NLWA Outline Business case has identified waste

management facilities and sites required to meet waste apportionment across seven North London boroughs going forward. In March 2010, the NLWA was awarded £258.4m of PFI credits to support the procurement. However as a part of the Comprehensive Spending Review announced in October 2010, the Department of Environment Food and Rural Affairs (DEFRA) withdrew this provisional PFI credit allocation.

The NLWA reference project models an affordability gap for Camden of £231m (assuming PFI credits awarded, and including collection costs and assumptions for inflation) over the 30 year contract life. Given that PFI credits have now been withdrawn, it is assumed that costs to Camden could be even higher. Consultation has indicated that the funding of the proposed affordability gap was approved by Camden's Cabinet in October 2008 demonstrating that LB Camden will cover these costs in its future budget setting.

Policing

The 2009 Study identified that LB Camden has a need for new police space at the King's Cross Central development, the delivery of police shop fronts in Camden's town centres retail frontages, and the modernisation and consolidation of estate and relocation of facilities if required. Specific costs of these improvements were unknown, with funding being allocated at a Greater London, rather than at LB Camden level. Redevelopments and relocations could be funded at a local level from the sale of unsuitable assets.

The 2012 Update has concluded that the position with regards to Policing in LB Camden has not changed, with the exception of changes to the organisation of SNTs.

Ambulance

The 2009 Study concluded that given the status of the Ambulance Estate Management plan, and that there is no readily available basis for modelling demand for ambulance services, no clear recommendations for future ambulance service requirements in the London Borough of Camden could be made.

The 2012 Update has concluded that the position with regard to Ambulance service provision in LB Camden has not changed.

Fire

The 2009 Study concluded that the London Fire Brigade did not foresee any restructuring of Camden's existing fire provision due to forecast population growth, and as such there was no requirement for additional infrastructure.

The 2012 Update has concluded that the position with regard to Fire services provision in LB Camden has not changed.

6.4. Key Findings: Transport

The 2009 Transport Infrastructure Needs Assessment (TINA) examined the transport infrastructure required to support Camden's growth over the LDF period. It identified planned projects where funding had been committed, as well as other projects at various

stages of development where funding was not committed and a funding gap was apparent.

The 2012 Update does not revisit the TINA and instead draws upon currently available information and consultation sourced from LB Camden in order provide a picture of existing planned projects which require investment.[48]

In terms of policy, two major strategic documents, the *Camden Transport Strategy* (CTS) (2011) and the Second *Mayor's Transport Strategy* (2010), have been adopted since the 2009 Study. The CTS sets out the current challenges for transport in LB Camden. A key area of focus includes supporting a growing population, which is forecast to increase by 17% (around 35,000 people) by 2031.

In terms of investment, the priority of future projects for the Council, in line with the CTS objectives, will be to improve the environment to encourage sustainable travel such as walking and cycling, including urban realm schemes that facilitate mode shift and promote sustainable economic development. LB Camden will work closely with TfL to ensure that improvements to the public transport network in the borough are made as well as TfL facilities that promote cycling, such as the cycle hire scheme and the proposed Cycle Superhighway route 11.

The LBC CTS 2011 set outs planned investment from 2011/12 to 2013/4. TfL funding is provided for three key programmes, more details on which are provided in section 5 above:

- Corridors, Neighbourhoods and Supporting Measures
- Maintenance
- Major Schemes.

Indicative funding allocations to 2013/14 to support the delivery of these programmes are set out in the CTS. They total almost £39m from all sources for the whole three year programme (2011/12 to 2013/14). TfL allocations have been confirmed for all three years; however Council funds and third party funding (developer contributions and Business Improvement District funds) are not committed beyond 2011/12 and may change. On this basis, estimated committed funds total £20.5m and just under £18.5m is uncommitted.

With regard to further investment beyond the current CTS, Camden adopts a holistic approach to transport improvements as reflected in the Mayor's MTS and Camden's CTS. This approach focuses on area-wide projects through the Corridors, Neighbourhoods and Supporting Measures programme which aims to address all the problems in an area

[48] The 2009 TINA covered rail infrastructure requirements, including rail stations, in detail. LB Camden noted during consultation that while these are relevant to the borough's infrastructure needs, core responsibility for the funding and delivery of improvements at Underground, Overground and national rail stations and the services that serve them sits with TfL, Network Rail and the train operators rather than with LB Camden.

rather than smaller or mode specific schemes. The Council also allocates funding to road safety which remains a priority concern.

Investment planning will be based on an approach similar to that used in identifying and developing projects for the LIP, but with a focus on those schemes that will help to support expected development.

LB Camden have identified a number of projects which will likely be suitable for investment in due course, with indicative costs and the likely funding gap. Costs total an estimated £194m. These projects include removal of gyratories, public realm improvements, improvements in accessibility, and improvements to cycling infrastructure. Whilst no funding is yet confirmed for these improvements, if it is assumed that indicative funding for the 3 years covered by the CTS (which is on average approximately £6m per year) continues through to 2026, then £72m of the estimated need of £194m would be met. This would leave a funding 'gap' of £122m to 2026.

6.5. Infrastructure Schedule

A key reference point in setting the CIL charge is the estimated total scale and cost of infrastructure required to support development and the gap in funding available to provide this infrastructure.

As set out in the March 2010 guidance on *Charge Setting and Charging Schedule Procedures* (CLG, 2010), in determining the size of its total or aggregate infrastructure funding gap, the charging authority should consider known and expected infrastructure costs and the other sources of funding available, or likely to be available, to meet those costs. This process will identify a CIL infrastructure funding target, which can be based on a selection of infrastructure projects or types of infrastructure that are indicative of the infrastructure likely to be funded by CIL in the area. The focus should be on providing evidence of a funding gap and the need to levy CIL rather than pinpointing exact costs.

Table 6-1 below draws together information from the 2009 Camden Infrastructure Study and this update report to estimate total infrastructure requirements and present the list of indicative projects.

Taking into account the indicative projects shown in Table 6-1 for which cost and funding information is available, a funding gap of £281m is identified.

The actual funding gap is probably substantially higher, given that:

- There are many infrastructure items for which information on costs and funding are not available, including some major items such as utilities
- In many cases, it is difficult to isolate costs for Camden as projects cater for a wider geographical area
- Land acquisition costs are not included
- Costs are not inflation index linked.

It can therefore be seen that Camden's infrastructure requirements and costs to 2026 are substantial, and this emphasises the importance of levying developer contributions to help meet infrastructure costs.

Table 6-1 LB Camden Infrastructure indicative Requirements and Costs

Infrastructure Type	*Primary Funding Responsibility*	*Indicative Projects*	*Indicative Cost*	*Funding committed*	*Estimated funding gap to 2026 (£m)*	*Notes*
Education - Early Years	LB Camden / DSCF, VCS, private sector	Capital funding for additional free part time places for deprived 2 year olds (not including population growth)	£15m		£15m	Provision strategy, costs and funding mechanisms tbc.
Education - Primary	LB Camden / DfE / Developer contributions	Requirement for one to three additional FE identified to 2026.	Between £10m and £20m		Between £10m and £20m	Source: LB Camden
Education - Secondary	LB Camden / DfE / Developer contributions	Estimated requirement for up to 3FE to mid 2020's.	£18m		£18m	2009 Study indicates cost of 4FE secondary provision (with 6th form) as approximately £24m.
Further Education	LB Camden / Skills Funding Agency / Developer contributions	Estimated demand arising in LBC for 160 FTE additional places from 2016 to 2026	£6.6m		£6.6m	Estimate of demand is from 2009 Study (has not changed). Associated cost estimated at £5.7m to £7.5m.
Adult Learning	LB Camden / Skills Funding Agency / Developer contributions	Estimated demand arising in LBC for 270 FTE additional learner places to 2026	£3.95m		£3.95m	Estimate of demand is from 2009 Study (has not changed). Associated cost estimated at £3.4m to £4.5m.
Primary Health care	NHS Camden / Developer contributions	Estimated requirement for accommodation for 19 GPs and 14 dentists. Development of Integrated Health Centres (IHC)	£12.6m		£12.6m	Estimate of demand and costs is from 2009 Study (has not changed).
Secondary Health care	NHS London	HUDU model calculation of estimated need for 89 acute beds,18 intermediate beds, and 18 intermediate day spaces	£40.05m		£40.05m	Estimate of demand and costs is from 2009 Study (has not changed).

Infrastructure Type	*Primary Funding Responsibility*	*Indicative Projects*	*Indicative Cost*	*Funding committed*	*Estimated funding gap to 2026 (£m)*	*Notes*
Sports and Leisure	LBC, developer contributions	Requirement for nine sports courts	£2.51m		£2.51m	Assuming average cost of £1,823 per sq m (a sports hall measuring 1,377 sq m would be sufficient to accommodate nine courts. Source: Sports England: Sports Halls Designs & Layout (2011))
Parks and Open Space	Developer contributions	On-site provision of public open space to be provided at a standards of 9m^2 / new resident and 0.74m^2 / new worker. This includes contributions to initiatives targeting nature conservation.	Unknown [49]			
Child play spaces	Requirement for 22 child play spaces/MUGAs	Requirement for 22 child play spaces/MUGAs	£1.26m		£1.26m	Estimated cost of £57,100 each.
Libraries	LBC	Reprovision of libraries at Kings Cross and Camden Town	Unknown	Yes, TBC		Options for the Camden Town Library are currently under consideration.
Employment and Training	LBC, Job Centre Plus	Potential requirement for 112m^2 of job brokerage space to meet future demand	Unknown	No		
Cemeteries	LBC (managed by Islington and Camden Cemeteries Service)	New burial space infrastructure required from around 2015 (possibly within Trent Park cemetery in the LB Enfield).	Unknown	No		

[49] Calculation of requirements and costs for a variety of public open space, natural open space, and outdoor sport and recreation facilities is given in Camden Planning Guidance 6 Amenity Open space, sport and recreation.

Infrastructure Type	*Primary Funding Responsibility*	*Indicative Projects*	*Indicative Cost*	*Funding committed*	*Estimated funding gap to 2026 (£m)*	*Notes*
Community Facilities	LBC, VCS, Developer contributions	New / replacement buildings, extensions, and refurbishment to meet new demand	£24.5m	£2m s106 funds (estimate)	£22.5m	List of required projects and estimated costs provided by LBC. Some s106 funding already secured.
Faith Facilities	VCS	New mosque	Unknown	Partly	Unknown	
Energy	Utility provider (UK Power Networks/National Grid)	Electricity: new 400kV/132kV substation at Finsbury Park and associated cables; upgrade existing major substations at St Pancras and Holloway; reinforcement of local network and substations Gas: local reinforcement works; potentially pressure reducing stations.	Unknown		Unknown	Capital investment plans are being revised for forth-coming regulatory reviews.
	LB Camden	Area focused investment in sustainable energy schemes at St Pancras/Euston/Kings Cross; Bloomsbury/Tottenham Court Road; and Gospel Oak.	£6.8m	£3.8m from Francis Crick Institute	£3m	
Telecoms	BT and other utilities (via customer charges)	On-going maintenance and improvement of telecoms network.	Unknown		Unknown	Funding would be sourced from customer charges or developers where enabling infrastructure required
Water	Thames Water/customer charges	Schemes to manage demand/reduce leakage and increase supply to cater for growth. Replacement of Barrow Hill reservoir (funded by Ofwat)	Unknown	No	Unknown	Schemes and funding agreed with Ofwat through Thames Water's WRMP / 5 year business plan process.
Sewage	Thames Water/customer charges	Investment to cater for growth in London including Camden, including upgrades and/or capacity extensions to Crossness, Beckton, Mogden, Long Reach and Riverside STW; Lee Tunnel; Thames Tideway Tunnel; major upgrade of Deephams STW; extra capacity in	Unknown	No	Unknown	Schemes and funding agreed with Ofwat through Thames Water's WRMP/5 year business plan process.

Infrastructure Type	*Primary Funding Responsibility*	*Indicative Projects*	*Indicative Cost*	*Funding committed*	*Estimated funding gap to 2026 (£m)*	*Notes*
		some of London's smaller works.				
Flood risk	LPA	Sewer flooding investigation	£0.05m	Unknown	£0.05m	From 2009 Study. Indicative cost only.
		Flood defence improvements (Gospel Oak)	Unknown	No		
Waste	LBC (via NLWA apportionment) - PFI credits/other funding streams	Waste management services and facilities from 2014	At least £231m for LBC from 2014 to 2034	Yes		Source: NLWA Outline Business Case 2010 / LB Camden. The funding of the proposed affordability gap was approved by Camden's Cabinet in October 2008.
Police	Metropolitan Police	Delivery of new facilities, modernisation and consolidation of estate	Unknown		Unknown	
Ambulance	London Ambulance Service	No requirement identified				
Fire	LFEPA	No requirement identified				
Transport	TfL / LBC / developer contributions	Corridors, Neighbourhoods and Supporting Measures Maintenance Major Schemes.	Approx. £39m	£20.5m	£18.5m	As set out in LBC 2011 CTS. estimated committed funds comprise all funds for 2011/12 plus TfL funds for 2012/13 and 2013/14. Council and third party funds for 2012/13 and 2013/14 have yet to be approved and committed.
		Further projects identified in Table 5-1 above	£194m	£72m	£122m	LBC have identifed indicative costs and funding gap, assuminglevels of funding set out in CTS continue (£6m/year for 12 years therefore £72m

Infrastructure Type	*Primary Funding Responsibility*	*Indicative Projects*	*Indicative Cost*	*Funding committed*	*Estimated funding gap to 2026 (£m)*	*Notes*
						committed).
Total					**£281.02m***	

** Calculation assumes use of a mid-point figure of Primary Education of £15m*

6.6. Conclusions and Recommendations

Since the 2009 Study, there have been significant changes to arrangements for the funding and delivery of infrastructure in LB Camden.

The austerity measures implemented by central government have led to a general reduction in the amount of funding available, and, in some cases the discontinuation of infrastructure investment programmes (e.g. PCPs and BSF). This in turn has caused delivery providers to explore alternative funding mechanisms and attempt to access new funding streams. Other arrangements which have changed since the 2009 Study include the abolition of PCTs in primary health care, introduction of tuition fees in respect of higher education and operational changes in the delivery of electricity and gas services.

The 2012 Update has identified a funding 'gap' of around £281.02m over the *Core Strategy* planning period – see **Table 6-1** above for a breakdown of these costs. Though the most significant portion of the 'gap' which has been quantified relates to transport infrastructure items, it should be noted that cost and funding information on utilities is largely missing and that therefore the funding gap will in fact be considerably greater.

The 2009 Study concluded that there were several critical infrastructure items which could be considered 'show-stoppers' to development in Camden, including electricity and water supply, sewerage, flood mitigation and transport improvements. This Update concludes that the adequate provision of these items remains critical to ensuring that the residential and commercial growth planned for in the borough's Core Strategy can be realised.

Some of the most readily identifiable 'gaps' in future provision evident in both the 2009 Study and the 2012 Update relate to social infrastructure items, such as education and community facilities. Social infrastructure, although not a prerequisite for development in the same way as the 'hard' infrastructure items mentioned above, is essential to the creation of sustainable communities. Those social infrastructure items which the local authority has a statutory obligation to provide, such as schools, must remain a funding priority for LB Camden. That said, it is evident that transport infrastructure also contains readily identifiable gaps, with such infrastructure together totalling a large unmet need (in terms of likely cost) than social infrastructure as a whole.

The conclusions and findings of this 2012 Update can inform a CIL charging schedule for LB Camden, which could be an important tool in helping to fund required infrastructure.

The 2009 Study and the 2012 Update established channels of communication between different infrastructure providers. Such processes and partnerships are crucial to effective strategic planning in Camden, and should be maintained and built upon in future. This is especially the case with regard to utilities and other infrastructure providers whose business planning processes and timescales are different to and separate from the frameworks within which the Council operates.

Appendix A: Energy Infrastructure - Further information

Introduction

Since the 2009 Study there have been a number of changes to the context within which energy (electricity and gas) is provided within LB Camden. UK Power Networks (UKPN) provided a detailed response to the request for up to date information, updating the section from the 2009 Study in a number of places. In Section 4.2, key information provided by UKPN in December 2011 is summarised. Below, to provide additional context and to supplement Section 4.2, the relevant up-dated sections from the 2009 reports are reproduced in full.

It should be noted that the context for provision of sustainable energy has also changed since 2009. A brief update is provided at the end of this Appendix.

Infrastructure Management Arrangements

UK Power Networks (UKPN) is the electricity distribution network operator for Camden and supplies energy via a system of underground cables and associated infrastructure (substations etc.) to each connection required. Historically, UKPN was the London Electricity Board, which was privatised in 1990 and has subsequently gone through a number of changes of ownership. On November 1st 2010, it was acquired by a consortium of Cheung Kong Group companies. This group is the owner of a number of regulated utilities in countries such as Hong Kong, the UK, Australia and New Zealand.

For gas, the network operator is National Grid (historically nationalised as British Gas and more recently Transco) with a system broadly the same as UKPN's but with pipes as opposed to cables.

Both National Grid (NG) and UKPN manage their respective networks against the back drop 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 headlines for each network that are most visible to the general public include quality of supply and security of supply (people easily recall 'dim' lights or power cuts for example).

Expansion/enhancement of the networks can be driven either through the requirements of specific developments, e.g. a new housing or office development, or through system-wide planning based on overall demand or the need to replace infrastructure at the end of its life. The difference between the two is that the developer will typically pay for the requirements of new connections, whereas all end-customers pay for the general development of the network. Of course, the requirements of a new connection can result in a requirement to reinforce the surrounding network, in which case such developments are in effect jointly funded.

Regardless of the requirements arising from residential and commercial growth in Camden, both UKPN and NG review their networks against known development that is derived from the general planning process and as part of the statutory consultee process. Subsequently, a capital expenditure programme is then prepared to match their obligations. The regulatory framework encourages only 'efficient' investment which in essence means 'delivered at the point it is needed'. As a consequence the distribution companies are not able to invest too far ahead of need, and aim to operate network infrastructure at a high-level of utilisation. This can cause delays when a major development is proposed that will require a significant supply from the local network.

UKPN is leading the Low Carbon London Programme to explore how the electricity distribution network must change to support the delivery of the city's tough carbon reduction target. The programme will look at how commercially innovative tariffs and demand response contracts supported by smart meters and communications systems can support renewable generation and electric vehicles to deliver reliable, affordable, low carbon electricity. Low Carbon London aims to put London businesses and communities at the heart of a smart energy revolution, embarking on a four year learning journey that will demonstrate that the electricity distribution network must change to meet tough carbon reduction requirements. The programme aims to find the most efficient and cost-effective ways of making the distribution network enable a low carbon future for London. What is learned in London will be valuable to any city that has sustainability ambitions.

Baseline: Camden's Power Infrastructure

Historically, London Electricity Board (LEB) and British Gas Board afforded electricity and gas supplies to the borough. Since the mid 1980's both providers were privatised and, more recently, through acquisition and/or re-branding have become UK Power Networks (electricity distribution) and National Grid (gas).

In both electricity and gas distribution, the UK is divided into a number of licence areas with one regulated distribution network operator responsible for each licence area.

UKPN owns the three electricity licence areas, covering London, the South East of England and the East of England. Camden falls within what is known as 'LPN', or London Power Networks. LPN has technical criteria which makes the system unique in the UK, recognising that security of supply is of utmost importance. The LPN zone covers some 665km^2 and employs circa 30,000km of cables, extending from SW14 in the west to Dartford in the east. Of course, Camden constitutes only a geographical component of the overall zone.

For gas, NG has a local management team that looks after the 'North Thames LDZ' or local distribution zone. Whilst the technical requirements are identical to those of other areas, the working environment in the North Thames LDZ is wholly different in that the number of stakeholders, the level of coordination, and the intensity of energy consumption is far greater than most other provincial circumstances.

In both cases, the networks are underground, however the streets are congested with utilities to an extent that, particularly in the business areas, the options to work are very limited.

The expansion of each network has continued for many years with the last 40 years seeing an ever increasing demand for energy. The energy networks typically are designed for a 40 years life cycle although, of course, extending asset life is beneficial to the owners of the network, the customers who pay for this, as well as the wider environment in general.

Energy resources for Camden and the UK in general are derived via a grid connected system that has mains of varying capacities and pressures that depend upon the strategic nature of the asset. A main for a side street in Camden is not going to be the same cross sectional area, or indeed pressure, as that of a main serving the whole borough.

The gas and electricity infrastructure delivers energy to individual properties via mains and service pipes that are sized to reflect the requirement. The operational concept is that energy is drawn from each respective grid and subsequently transformed down to appropriate pressures.

Maintaining pressures is important for many technical reasons. From an end user point of view, the most obvious is that home appliances are designed to operate within defined criteria and operating outside of this could cause damage to the unit or result in it operating ineffectively (low voltage causes a kettle to take longer to boil water for example).

Gas

National Grid have a system of mains throughout Camden that deliver gas to each connection point; in essence, gas is transported at different pressures but this is dependant upon the strategic nature of the asset.

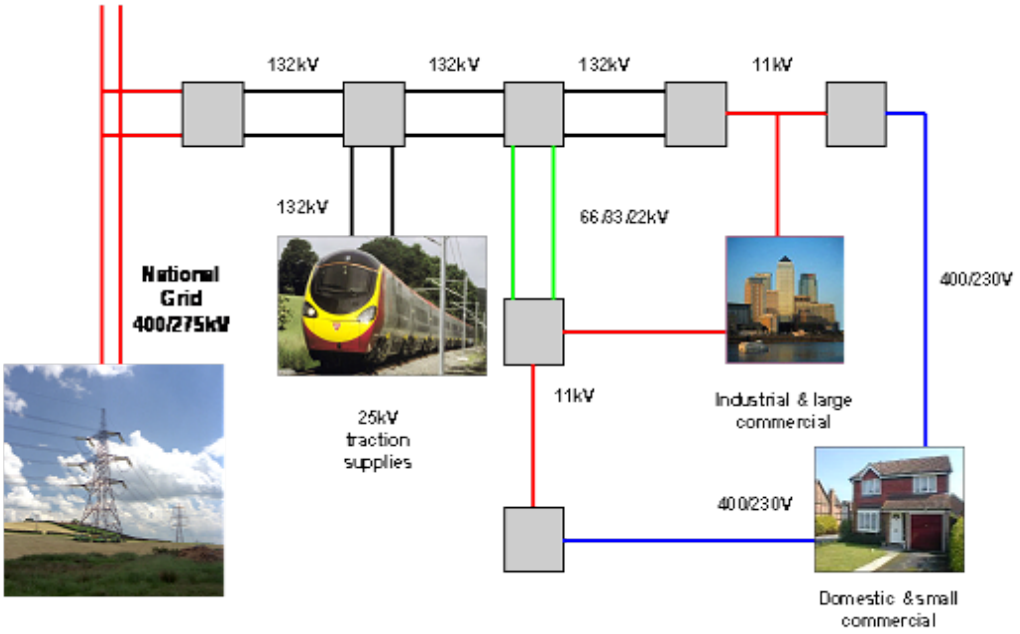
In Camden, the system operates at medium and low pressure[38]. The medium pressure network distributes gas to pressure reducing stations (PRS) located at various points within the borough and it is at this juncture that gas is subsequently reduced to a lower pressure. This low pressure network is the 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.

The gas capacity contained within the borough is projected by National Grid to provide sufficient energy without the need of upstream reinforcement, albeit it is worth noting that all utility networks are dynamic and subject to change at relatively short notice.

Electricity

The electricity infrastructure in London is shown in simplified diagrammatic form in Figure A-1 below.

Figure A.1 Electricity Supply Arrangements



Source: UK Power Networks

In London UKPN takes supply at 132,000 volts from a number of National Grid substations, and then distributes electricity at voltages from 132,000 volts to 230 volts via a network of cables and substations. The local networks in Camden operate primarily at 11,000 volts and 400/230 volts, the voltage that is typically utilised in residential circumstances.

For large energy users, the connection into the property could be 11kV and not 230 volts used for residential properties. Commercial premises, such as factories, large office facilities and some larger supermarkets all fall within this category.

UKPN is currently reviewing its capital investment plans in preparation for the next regulatory review, which will commence in 2012 and come into force in April 2015. It has embarked on a major process of engagement with stakeholders to ascertain their requirements for the period through to 2023, as well as reviewing likely demand driven by economic and household growth, as well as the potential implications of delivering the Government's carbon emissions targets.

Baseline: Policy and Regulatory Drivers

As required under the regulatory framework both UKPN and National Grid submit their own growth plans to OFGEM, the regulator, and ensure that economic and environmental aspects are fully considered. Once the process has been reviewed and commented upon, the Secretary of State for Energy and Climate Change (DECC) ultimately agrees the final document. These plans determine the capital expenditure that each company is committed to (for example, to replace existing assets or promote new capacity) and the

allowed day-to-day operating costs, as well as agreeing a formula to recover all costs from end users.

It should be noted that historically both electricity and gas distribution networks operators have been subject to a regulatory review every five years, however this has been extended to an eight year cycle commencing in April 2013 for gas and April 2015 for electricity.

Baseline: Existing Provision

The gas networks in Camden deliver substantial usage for both domestic and non-domestic users alike.

For the electricity network, UKPN expect that energy consumed through their network will decrease if decentralised energy and the Code for Sustainable Homes impacts as predicted; however this is not a certainty, and may be in part offset by increasing use of electric vehicles and other low carbon initiatives.

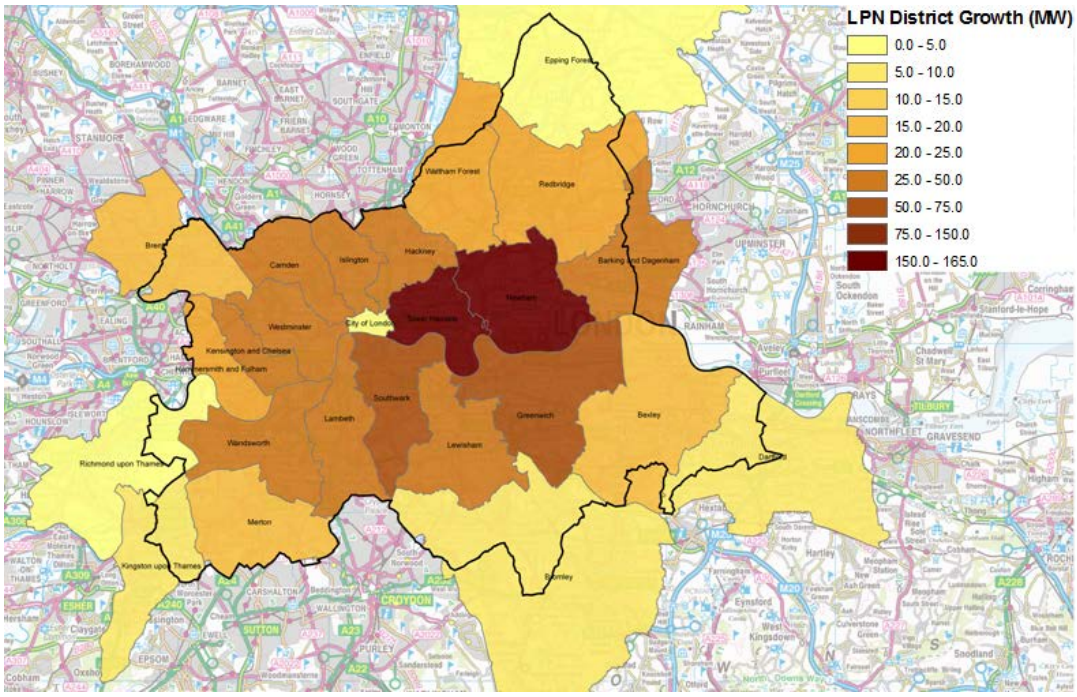
UKPN particularly note in their long term development statement that the potential to connect CHP systems to their network is proving increasingly difficult technically, and particularly in the London area. The difficulties that may arise are two-fold. Firstly the network itself needs to be of a voltage and capacity that is commensurate with the amount of electricity generated by the CHP. Secondly the highly resilient design of the London electricity infrastructure inherently limits the amount of energy that can safely be fed into the network by a generator in the event of a fault occurring. In London these two factors can combine to inhibit the amount of generation that can be accepted for connection to the network.

In the City and its environs, UK Power Networks is developing a 33,000 volt distribution system to supply new large commercial loads, and this is designed to accept higher levels of embedded generation.

UKPN are also investigating new technologies that may help restrict the energy that is supplied by the generator under fault conditions, and this may in time go some way to easing that particular constraint.

Figure A.2 below shows within the black line the area served by the LPN electricity network. The adjacent coloured areas are also served by UKPN but are within the SPN and EPN license areas. This also shows UKPN current view of the load growth that is anticipated in each of the London Boroughs.

Figure A.2 District Level Load Growth within the LPN



Source: UK Power Networks

For both gas and electricity, data currently employed to develop projections of future load reflects historical consumption. However, the impact of the Code for Sustainable Homes and the desire to employ low or zero carbon technologies to provide energy in Camden is still unknown.

Adequacy of Existing and Committed Infrastructure

Gas supplies in Camden are understood to be able to meet demand and therefore not require additional provision.

As part of its strategy to develop the electricity infrastructure in Camden and surrounding areas, UKPN are developing a new substation in Islington where supply will be taken from National Grid, and is upgrading its existing major substations at St Pancras and Holloway.

As with all central London boroughs, space in existing highway is extremely limited. Therefore works to replace mains are expensive and constrained, particularly when considering that other statutory bodies, such as water and telecommunication providers, are also under extreme pressure to maintain their own regulatory obligations. As with works on water infrastructure, the delivery of improved or additional infrastructure is also subject to indirect pressures and requirements. Typically, they include pressure from local stakeholders whom are continually affected by excavations in highways, working hours restrictions and limited resources. Further pressures have arisen from mains replacement programmes necessary for the London 2012 Olympic and Paralympic Games.

Resulting Infrastructure Requirements

National Grid and UKPN have developed a joint strategy for National Grid to build a new 400kV/132kV substation at Finsbury Park and to install cables from there to a new UKPN 132kV substation at Islington. This will in turn facilitate UKPN's upgrade of its existing major substations at St Pancras and Holloway, thereby providing some 70MW of additional transformer capacity. Reinforcement of local 11kV network and 11kV/400/230 volt substations will be required once firm loads are identified.

If further 132/11 kV transformer capacity should be required, it may be necessary to identify a site for a new substation, typically requiring a site of some 40m x 40m with adequate access for construction, operation, and eventual asset replacement.

As with water, identifying the longer-term infrastructure needs for growth critically depends upon understanding the context of both local and strategic requirements. In essence, mains that serve the immediate area will have a defined capacity and the assessment will consider their ability to cater for further capacity requirements. The strategic mains are no different and it is feasible that only one may be able to accommodate the growth agenda.

Based on forecast demand it is possible to gauge the quantum of energy infrastructure that is indicative of the scale of the infrastructure needed to support such levels of growth in Camden up to 2026, though this does not incorporate detailed considerations of existing spare capacity. For electricity it is estimated that an additional 132/11kV transformer capacity and up to 77 1MVA substations (i.e. secondary substation catering for local demand) will be required. The specific requirements for electricity sub-stations may risk delaying development unless they are adequately planned for. The reason for this rests firstly in the space demands for both primary (generally of 40 by 40 metres) and secondary sub-stations (generally 4 by 4 metres). Additionally planning for substations must consider the need for adequate access for construction, operation, and eventual asset replacement.

For gas, the gas network is assumed to be functional and without need of uprating for the most part, with the exception of local reinforcement works that may be applicable. Assuming no capacity is available in the existing network, there may be a requirement for the equivalent of 2 to 3 pressure reducing stations (transforming the gas from medium pressure to low pressure).

Phasing

In the light of the absence of firm recommendations on energy infrastructure requirements it is not possible to set out an infrastructure phasing plan at this time.

All growth will impact upon local infrastructure and the strategic network. The design of the system will establish a point at which it will fail technically so, as an example, it may be that the local mains can afford an extra 500 residential units but the 501st requires a new main from location a to location b; of course, strategically, the capability may be

significantly different so whilst the local mains are suitable for 500 units, the strategic capability may only be able to support around 200.

The ability to understand the trigger points is what will determine the level of reinforcement required. From current assessments and on the basis that National Grid report favourable capacity provision, the likelihood is that major improvement works are not necessary for the gas network; however, the electricity network is anticipated to require upstream reinforcement as described above.

Energy infrastructure is funded over five-yearly (to become eight-yearly from 2015) investment programmes. UKPN also maintains long-term outline plans beyond this period.

Currently, UKPN are preparing plans for submission to the Regulator for the period 2015-2023. For both networks, elements of reinforcement may already be planned however as part of an internal process whereby asset replacement programmes necessitate the need to replace apparatus.

Funding Apparatus

Both National Grid and EDF are responsible for providing strategic capacity and the regulatory reviews take into account projected growth, system performance improvements, safety improvements and maintenance. The energy bill (gas or electricity) paid by each consumer in the UK contains a charge related to the use of the network, and this provides the main financial resource available to the network operators to fund the operation of and investment in the networks.

The current regulatory framework, established by OFGEM, however encourages network investment to mirror the demand, thus protecting the consumer from funding network enhancements without a clearly established need. The works required to provide connections for new developments and the associated increased energy requirements and diversions can broadly be charged to third parties, e.g. developers, reflecting the fact that the developer will obtain the benefit from such investments.

In reality, most sizeable developments will impose additional demands on the local utility network, particularly electricity. These additional demands will be funded by the developer, recognising that the investment is being driven by their requirements. However, more often than not, this investment will create capacity which can be made available to other network users. In such circumstances, the network company may bear a proportion of the cost. Alternatively, the developer may receive a subsequent refund of a part of the charges, if other developers are able to make use of this spare capacity.

In defence of the utility industry, developments do not always proceed and given that energy requirements are based upon individual client specifications, it is difficult to design and install apparatus in advance. Likewise, from a business point of view, having a third party pay for assets is an attractive proposition as it means that all capital expenditure is focussed upon managing assets and providing for natural growth. Equally it is fair that developers who benefit pay for dedicated network investment, rather than the wider base

of consumers. Current rules employed by OFGEM support this position. The negative element to this is that infrastructure investment can only be planned against known spatial planning requirements, and this investment is only likely to be activated when there is a specific requirement. The specific constraints of planning and consents in London can then result in a long lead-time before work can go-ahead, thus leaving the network company struggling to meet the aspirations of the developer.

Options for consideration are to lobby OFGEM for a change in process whereby the development parcel is allocated a load profile and UKPN or National Grid is charged with establishing capacity to a given point in advance. The incoming developer would then be tasked with designing a building to that profile and this inherently encourages developing technologies or stimulating engineering excellence.

Alternatively, Camden, as an asset provider, could install utility apparatus based upon the above and recover costs plus administration from each developer – effectively a roof tax but based upon a true business model. In most cases, the political winds will determine how this is to be tackled going forward; as the system operates currently the regulatory framework discourages investment in utility networks in advance of development.