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ABBREVIATIONS

ACL	Adult Community Learning
AL	Adult Learning
AoI	Area of Intensification
ASB	Adult Skills Budget
ASC	Adult Social Care
BIS	Department for Business, Innovation and Skills
BSF	Building Schools for the Future
CAZ	Central Activities Zone
CCG	Clinical Commissioning Group
CHP	Combined, Heat and Power
CIFT	Camden and Islington Foundation Trust
CIL	Community Infrastructure Levy
CILIP	Chartered Institute for Library and Information Professionals
CIP	Community Investment Programme
CSF	Camden Children, Schools and Families Directorate
CSO	Combined Sewer Overflows
CVS	Connection Voucher Scheme
DCLG	Department for Communities and Local Government
DE	District Energy
DECC	Department for Energy and Climate Change
DFC	Devolved Formula Capital
DfE	Department for Education
DGCF	Demographic Growth Capital Fund
DSG	Dedicated Schools Grant
DWP	Department for Work and Pensions
EA	Environment Agency
EFA	Education Funding Agency
EIA	Environmental Impact Assessment
ESIF	European Structural Investment Fund
ESOL	English for Speakers of Other Languages
FALP	Further Draft Alterations to the London Plan
FE	Forms of Entry
FE	Further Education
FRZ	Flood Risk Zone
FTE	Full time equivalent
GLA	Greater London Authority
GP	General Practitioner
GSP	Grid Supply Point
ha	Hectares
HE	Higher Education
HEPI	Higher Education Policy Institute
HS1	High Speed 1
HS2	High Speed 2
HUDDU	NHS Healthy Urban Development Unit

ICCS	Islington and Camden Cemetery Services
JSA	Job Seekers Allowance
km ²	Square kilometres
kVA	Kilo Volt Amperes
kWh	Kilowatts per hour
LAS	London Ambulance Service
LB	London Borough
LDF	Local Development Framework
LEAP	Locally Equipped Areas for Play
LEP	Local Enterprise Partnership
LFB	London Fire Brigade
LFEPA	London Fire and Emergency Planning Authority
LIFT	Local Improvement Finance Trust
LIP	Local Implementation Plan
LLFA	Lead Local Flood Authority
LSC	Learning Skills Council
LU	London Underground
M	million
m ²	Square metres
m ³	Cubic metres
MI/d	Million litres per day
MOPAC	Mayor's Office for Policing and Crime
MPS	Metropolitan Police Service
MUGA	Multi Use Games Area
NEAP	Neighbourhood Equipped Areas for Play
NEET	Not in Education, Employment and Training
NEF	Nursery Education Funding
NLWP	North London Waste Plan
NPPF	National Planning Policy Framework
OA	Opportunity Area
Ofcom	Office of Communications
p.	Page
PA	Planning Area
PCC	Per Capita Consumption
PCSO	Police Community Support Officer
PCT	Primary Care Trust
PDCS	Proposed Draft Charging Schedule
PDZ	Planning Delivery Zone
PMF	Probable Maximum Flood
PPG	Planning Practice Guidance
POC	Points of Connection
PTAL	Public Transport Accessibility Levels
s106	Section 106
SFA	Skills Funding Agency
SNT	Safer Neighbourhood Team

SPG	Supplementary Planning Guidance
SRP	School Roll Projections
SSA	Site Specific Allocations
STW	Sewage Treatment Works
SUDs	Sustainable Urban Drainage Systems
TLRN	Transport London Route Network
TWRM	Thames Water Ring Main
UCL	University College London
UKPN	UK Power Networks
UWWTD	Urban Waste Water Treatment Directive
WBL	Work Based Learning
WDA	Waste disposal authority
WRMP	Water Resource Management Plan
WRZ	Water Resource Zone
WTE	Work Time Equivalent
YPLA	Young People's Learning Agency

EXECUTIVE SUMMARY

Project Context and Aims

The London Borough Camden (LBC) commissioned URS to prepare an update to the previous Infrastructure Study completed in 2012 as part of their Local Plan review. The update provides an up-to-date evidence base of infrastructure required to support growth over the Local Plan period to 2031 and inform the development of effective and deliverable policies.

For the purposes of this study infrastructure is defined by three broad categories:

- Social infrastructure (education, health, sports and leisure, play space, libraries, job brokerage, cemeteries, community space and faith facilities)
- Transport (comprising rail, road, pedestrian and cycle provision); and
- Utilities and hard infrastructure (gas and electricity, telecommunications, sewerage and waste water, waste management, flood-risk and emergency services).

Information was collected through a process of consultation with service providers, stakeholders and borough officers, desk-based research and modelling using appropriate benchmarks to estimate potential demand arising. For each type of infrastructure we have applied a systematic approach to identifying infrastructure requirements. The assessment expresses both gross and net requirements, the latter taking into account existing capacity levels (surplus or deficit) and investments committed which could provide additional future capacity.

Growth within Camden

Camden is a diverse inner London Borough with a population of approximately 225,000. The borough is experiencing population and economic growth, both of which generate a need for infrastructure. At the borough level, LB Camden's adopted Core Strategy (2010) projects a total of 12,250 new homes over the period 2011 to 2026 the majority of which should be concentrated within Opportunity Areas (OA) and areas for intensification (Aoi) and town centre's within the borough. These areas of population increase are likely to place further pressure on LB Camden's social, transport and utility infrastructure.

Based on information on the major development sites within LB Camden likely to come forward from 2015 to 2031, it is estimated that approximately 12,900 new residential units could be delivered. The estimated phasing of delivery of these units, broken down as three five-year periods to 2031, is outlined below.

Table E-1: Estimated Growth within LB Camden to 2031

Phase	Residential Units	Residents	Of which are Children/Young People (0-18)	Jobs
2015-2020	7,030	14,846	3,191	16,000
2021-2025	2,938	7,294	1,787	14,000
2026-2031	2,905	7,205	1,760	16,000
Total	12,873	29,344	6,739	46,000

Jobs associated with the development of new commercial space within LB Camden over the period to 2031 have been based on the GLA borough employment projections (2013). In total, it is anticipated that a net increase of 46,000 net new jobs could come forward within LB Camden up to 2031.

The requirement for new infrastructure is driven by the additional residents and jobs associated with growth. To estimate the new residential population, occupancy rates were applied to the new

residential units coming forward with assumptions made on unit sizes and tenure mix. To estimate the new residential population, occupancy rates by size and tenure were applied to the new dwellings coming forward, drawn from the GLA population yield calculator. These assumptions also include child yields which are relevant for modelling demand for education within the infrastructure model.

Over the planning period it is estimated that new development will give rise to approximately 29,300 residents of whom 6,700 will be aged 0-18.

Key Findings: Social Infrastructure

Education

Early Years Education

There are approximately 295 childcare providers within LB Camden supplying approximately 5,508 childcare places for children aged 5 and under. Of these, 33 were maintained nursery classes offering Nursery Education Funding (NEF) and 10 were children's centres. The supply of childcare in LB Camden broadly meets the needs of working parents and those undertaking activities that support employment. No committed or planned provision has been identified in documents or through consultation. It is estimated that over the planning period there will be gross new demand for 368 early years' places with an estimated cost of £4.8m. In addition there is a statutory requirement to provide early year's provision for disadvantaged two year olds in line with latest education policy.

Primary Education

Primary education caters for pupils aged four to ten years old. LB Camden's Primary School Place Planning Report (2014) records 10,763 pupils on the rolls of primary schools in the borough. The combined capacity of the schools is 11,449 places which indicates a surplus of 686 places (7.5%). It is anticipated that until 2023/24 the addition of the 2FE at Kingsgate and a further 2FE at Kings Cross Academy should provide sufficient capacity within the borough's primary schools to meet demand for places. From 2023/24 onwards an additional 1.7FE to 2.3FE could be required however the report suggests that there should be capacity at the end of the reporting period (up to 2028/29) to absorb this demand. In the longer term (up to 2028/29), there may be a need for additional primary school provision within the Euston Area as a result of growth proposals, however this should be monitored. Overall given that existing capacity is in excess of the actual roll and committed investment will cater for demand arising, the net cost required to support growth is taken to be zero.

Secondary Education

Secondary education caters for pupils aged 11 to 16 years old. The Secondary Place Planning report (2014) indicates that there are 10 secondary schools within the borough with a total of 9,786 pupils on the rolls of secondary schools. Secondary schools within LB Camden have a combined net capacity of 11,622 pupil places and therefore the report indicates that a surplus of 1,836 secondary school places (15.8%) currently exists. LB Camden is also currently a key exporter of secondary age children with Islington's and Westminster's key importers.

Demand for secondary school places is estimated to remain below borough capacity until 2019/20 when the borough may need to utilise the additional 2FE capacity that is potentially available at Regent High. A peak in demand in 2020/21 may result in the requirement for additional bulge classes over and above available capacity but after this demand will fall to below borough capacity again. Beyond 2023/24 an additional 2FE per year group is expected to arise from new housing development with the majority of demand expected to result from development within Euston and Kings Cross. However, secondary schools within these areas are currently undersubscribed and current parental preference patterns suggest that LB Camden has the capacity to take more borough residents than it currently does.

Based on consultation with CSF we assume that existing surplus capacity can accommodate demand arising from growth. As with primary education, growth proposals within Euston should be monitored to ensure that adequate secondary places are provided within this area.

Further Education

Further Education (FE) is typically taken up by young people and adults aged 16 to 19. In 2012/13 there were 1,800 FE learners aged under 19 and an additional 14,750 FE learners aged 19 years and over within LB Camden. Though no figures on FE capacity are available, consultation has indicated that there is surplus capacity within the borough at present. Given that from 2015 the statutory leaving age for school children will be 18 years, it is assumed that 100% of all children aged 16-18 will be engaged in some form of education or training. Gross demand for FE places is therefore projected to total 1,028 FE places over the period to 2031. Of this it is estimated that 833 sixth form places will be required and 195 FE College and work based learning places will be needed. For the purposes of this assessment we have assumed that in the short term (2015-2020) current capacity will match projected demand; but that in the medium (2020-2025) and long term (2025-2031), demand will exceed supply. It is therefore estimated that net demand for 541 FE places will be required over the period to 2031, although this falls to 430 FE places once leakage rates are accounted for. Assuming that over the long term the movement of FE learners from/to the borough is in balance the net cost of provision would be £10.8m.

Higher Education

Due to the large catchment of Higher Education (HE) provision, there is not necessarily a clear link between local housing growth and HE demand. LB Camden currently has the highest number of university institutions of any local authority in London. There are currently nine universities in LB Camden comprised of undergraduate and post graduate students. A number of these institutions are currently undertaking extensive estates programmes aimed at increasing capacity and improving current services. HE institutions have a large catchment area which means that it is particularly difficult to attribute a proportion of the cost to the local housing growth. For this reason and the fact that universities are providers of non-statutory education, a net cost requirement for the council of zero has been assumed.

Adult Education

Adult Learning (AL) caters for people aged 19 and over wishing to take below degree-level classes across a wide range of subjects to obtain both formal qualifications and informal learning. Funding responsibilities for adult learners (aged 19 years and over) have transferred from the now defunct Learning Skills Council (LSC) to the Skills Funding Agency (SFA). In LB Camden there are three specialist adult learning colleges and Westminster Kingsway College which offers both FE and adult learning. It is estimated that demand for 281 additional AL places will be required by 2031 of which approximately 50% could be accommodated within existing education and community infrastructure facilities. Therefore the cost of providing 141 net AL places has been estimated to be £3.5m.

Health Care

Primary Health Care

For the purposes of this report, primary healthcare is defined as incorporating general practitioner (GP) services and community healthcare services. There are currently 38 local GP practices within the borough, supporting a total of 212 registered GPs and 200 locums across the borough. An audit of GP Practices commissioned by the CCG revealed that of these 38 practices only seven (19%) had capacity in their clinical rooms and many practices which cannot be improved or expanded. It was concluded that the majority of practices are currently operating to capacity within their existing premises and that the quality of the Primary Care estate is of concern, particularly in the south and west localities. The WC1 area south of Euston Road, an area which could see significant residential growth, is identified by the CCG as an area of priority.

Planned provision of healthcare services over the Local Plan period with committed funding in place has been identified as part of the Abbey Area scheme which will involve the redevelopment of the Belsize Priory Health Centre. Given that the majority of GP practices within the borough are currently operating at capacity it is estimated that development within LB Camden over the planning period will generate a net demand for an additional 17 GPs, resulting in a total cost to meet demand of £6.8m.

Secondary Health Care

Secondary health care is defined as covering acute healthcare provision; mental healthcare and intermediate healthcare provision. Consultation with the Council did not identify any current commitments for major expansion of secondary health care infrastructure in LB Camden. The main priority is for improvement of the existing health care services, in particular LB Camden's mental health infrastructure to ensure more accessible and reliable care. For the purposes of this study the NHS Healthy Urban Development Unit (HUDU) model has been used to assess secondary healthcare requirements arising from projected population growth within LB Camden. The HUDU model estimates that there will be gross demand for 2,420m² of secondary healthcare space over the plan period to 2031 at a cost of £10.69m. Consultation with the CCG did not yield any definitive position on the capacity of existing provision to accommodate the scale of demand for secondary health care provision estimated within the HUDU Model; therefore it has not been possible to estimate net costs at this stage.

Adult Social Care

For the purposes of this study Adult Social Care (ASC) covers care services for people aged between the ages of 18 to 64 including people with physical and sensory disabilities, people with learning difficulties and care for older people (65+ years). There are currently eight care homes within LB Camden and two in LB Barnet which are available for Camden residents. In 2013 two care homes closed and residents moved into a new care home which is managed by Shaw Healthcare. In 2014 it is expected that a further two care homes will close and residents will move into a new care home, also managed by Shaw Healthcare. One of the primary mechanisms by which improvements in ASC services are being realised is through the Community Investment Programme (CIP); however there is currently a shift away from institutional ASC to home focused models of provision. As ASC is affected more by population and demographic change than by housing growth, we have not modelled demand arising from housing growth. Given that demographic trends to 2031 indicate a shift towards an increasing number of older people within the borough, however it is expected that demand will increase and new services will need to be provided.

Sports and Leisure

Indoor Sports Provision

There are 18 large sports halls within LB Camden providing a total of 44 badminton courts accessible to the public. In addition there are a further 17 sports halls which offer less than 3 courts which are available for public use. The Camden Open Space, Sport and Recreation Study (2014) demonstrate that at present current capacity is insufficient to satisfy the total demand within the borough. There are deficiencies in meeting demand in Central London, Belsize Park, Kentish Town, Regents Park and the west of the borough. The Open Space, Sport and Recreation Study identifies an area equivalent to 21 badminton courts should be provided to meet the shortfall in sports hall facilities over the Local Plan period to 2025. The areas of most need have been identified as the Kentish Town, West and Central London sub-areas. A standard for sports halls of 0.32 halls per 1,000 population has been applied to the population arising beyond 2025 to estimate demand beyond the scope of the open space study. This indicates that a further two badminton courts should be provided within LB Camden to 2031 resulting in a net demand for an additional 23 courts, resulting in a cost of £18.8m. There is currently a commitment for the delivery of a four court sports hall within the Kings Cross Central development which will be funded through developer contributions. There is however no strategic commitment at present to increase provision within the rest of the borough. Therefore no costs or funding are currently allocated.

Swimming Pool Provision

Within LB Camden there are a total of 19 swimming pools which meet Sport England's criteria; however this includes all commercially operated facilities including those where access is only granted to those with registered membership. The Open Space, Sport and Recreation Study (2014) identifies that presently there is sufficient capacity to accommodate overall demand for swimming pools within LB Camden except for within the Regent's Park, Somers Town, and Gospel Oak areas where there is no swimming pool provision at all and within the Belsize / Primrose Hill area where demand is still not

met. There is a large amount of swimming pool capacity within the Central London area, attributed to the large number of commercial facilities within this area. It is considered that the proportion of demand for swimming pool space is sufficient to accommodate the needs of local residents and visitors alike, particularly taking account of the additional facilities to be provided within the King's Cross development.

Sports Pitches

Within LB Camden there are 19 sports pitches comprised of 15 football pitches, three cricket pitches and one rugby pitch. The majority of pitches identified are in general public access. Other outdoor sports provision includes athletics facilities, multi-use games areas (MUGAs), tennis courts, netball courts, basketball courts and bowls. There are 79 'other sports' facilities within the borough, the majority of which are MUGAs and tennis courts. It is unlikely that LB Camden will be able to provide additional outdoor sports pitches given the urban nature of the borough. The Open Space, Sports and Recreation Study states that by 2025 demand for tennis facilities within the borough is likely to equate to four additional courts. However, whilst there is an identified need for additional tennis court provision within the borough there is currently no strategic commitment to increase provision and thus there are currently no costs or funding allocated to the provision of additional courts within LB Camden.

Parks and Open Spaces

Public open space is defined in the London Plan 2011 as public parks, commons, heaths and woodlands and other open spaces with established and unrestricted public access and capable of being classified according to the open space hierarchy which meets recreational and non-recreational needs. The Open Space, Sport and Recreation study (2014) identifies that LB Camden has a total of 293 open spaces, totalling approximately 589ha. In total 77% of the open spaces are public parks, comprising 98 parks and 396ha of land. New public spaces and parks will come forward as part of the King's Cross Central development, though this is likely to be hard public realm design as part of place shaping. Applying the requirements for new public open space from new developments as set out within LB Camden Planning Guidance to the number of new residents and employees arising over the Plan period, an estimated 285,000m² of public open space will be required within LB Camden to 2031.

Child Play Space

Play space incorporates a number of open space types including dedicated areas for children containing play equipment provided within public open space and multi-use games areas for young people. Out of a total of 258 open spaces, 66 contain some form of formal children's play provision whilst 54 had an informal recreational role for children's play. The distribution of children's play space across the borough is not even however and there are areas that do not have access to dedicated children's play space. The Open Space, Sports and Recreation study (2014) identified that to meet the needs of the borough to 2025 and to address existing deficiencies in access to child play space, the quantity of formal provision should be increased by approximately 4,600m². However, applying the recommended GLA standard to the number of children (aged 0-15) arising within Phase 3 (2025-31) it is estimated that net demand for 5,744m² of additional formal child play space within LB Camden will be required to 2031. This results in a cost of £1.1m of which 50% is anticipated to be delivered through in kind payments from development contributions.

Allotments

Allotments include allotments, community gardens and city farms. Within the borough there are four council managed allotment sites; Antrim Grove Allotments, Fitzroy Park, Branch Hill allotments and Westcroft Estate allotments. There are also two community gardens. Borough wide it is estimated that 49% of households are not well provided for with regards to allotment space based on a catchment of 800m (walking distance) from the existing plots within the borough. Within the borough, deficiencies are concentrated in Bloomsbury, Camden Town with Primrose Hill, Holborn and Covent Garden, Kentish Town, Kilburn, King's Cross, Swiss Cottage and West Hampstead. It is estimated that net demand for allotments will be for an additional 217 allotment plots (2.2ha) to 2031. At present no costs or funding have been identified for the provision of additional allotment plots.

Libraries

This report considers that there has been a shift to new models of provision in libraries towards greater provision of community services. Previous studies have identified a surplus in provision of library space within the borough with no resident more than one mile away from a public library. In 2013 LB Camden had the second highest physical library visits per 1,000 population within London and the third highest nationally. As part of the council's ongoing savings programme, the provision of council maintained libraries within the borough reduced from thirteen to nine. Co-location of other public services within library buildings is also under active development at a number of locations. Two possible projects at existing libraries (Crowndale Centre and Holborn Library) are identified, both of which may involve the re-provision of library facilities on-site as part of wider redevelopment opportunities under the CIP programme. However, no firm plans have been concluded. There are currently no strategic infrastructure requirements for libraries arising over the Core Strategy planning period from to 2031. Costs associated with the re-provision of both the Crowndale and Holborn libraries as well as future provision of library facilities are anticipated to be met through the CIP.

Employment and Training

A key Camden Plan objective is to create the conditions for and harness the benefits of economic growth supported by two primary outcomes - investing in growth and reducing the number of young people in not in education, employment and training (NEETS) and unemployment. The availability of job brokerage space in the borough is highly dependent upon overall demand, and could be affected if there were major changes in the structural labour market, created by national and international conditions. The King's Cross Construction Skills Centre recently opened providing 150m² space devoted to job brokerage. However, it is recognised that this space is focused on servicing construction sector employment needs. Gross demand is estimated at 516m² however based on future uncertainties regarding job brokerage provision a net requirement of zero is currently assumed for LB Camden.

Cemeteries

The London Boroughs of Islington and Camden established the Islington and Camden Cemetery Services (ICCS) acting as a joint cemetery service. Together, the two boroughs operate four cemeteries, two of which are located within Camden's boundaries. Available burial space within LB Camden is very limited and although Highgate contains some spare capacity, there is limited space within the Islington, St. Pancras and Trent Park cemeteries. There are three priorities for planned and committed projects over the short to medium term. There are currently proposed plans to expand Trent Park cemetery and look at the reuse of older areas within Islington and St Pancras cemeteries which may also include Hampstead cemetery. Although space is available within Trent Park, the infrastructure required to make it usable requires funding the scale of which is estimated at between £500,000 and £1m. A further £364,000 of costs will be required to fund maintenance and improvement projects within the four cemeteries which provide cemetery space for LB Camden residents.

Community Facilities

There are a total of 41 council owned community buildings within Camden offering a wide range of services and facilities catering to all age groups. The Camden CIP is the primary mechanism for delivering new community facilities and improvements. Consultation has indicated that many of the community buildings within LB Camden have less space than they need to meet demand, particularly for services provided to meet the needs of children under five years of age, adults requiring training and support to access employment and daytime activities for seniors. The current CIP programme includes relocation of the St Pancras Community Centre, improvements to the Highgate Newton Community Centre, relocation of the Bengali Workers Association and the re-provision of the Abbey Community Centre at a cost of £7.5m met through S106 and CIL payments. It is likely that in the future new provision will continue to come forwards where viable under the CIP.

Faith Facilities

For the purposes of this study, faith facilities refer to all religious places of worship, including meeting halls and other facilities used. Faith facilities are a crucial aspect of community life and at times

entwine with community buildings. Camden is an ethnically diverse borough. Almost a third of the residents come from black or minority ethnic backgrounds, one in 10 of the population is Muslim, and there are significant immigrant and refugee communities, including from Somalia and Bangladesh. The existing ethnic mix has led to the demand for space that is bespoke for the different faith groups. The council is currently encouraging faith communities to engage with one another and to facilitate the multi-use of faith facilities. Overall, Camden appears to be functioning well in terms of provision of faith facilities overall. However, the Muslim community is currently experiencing severe inadequate supply to meet demand. Previous proposals for the construction of a new Mosque within Camden were not realised due to lack of available sites. Camden has recently seen an increase in 'pop-up' mosques within the borough which has involved the short-term leasing of industrial units for use as faith facilities. No costs or funding associated with the provision of faith facilities within LB Camden have been identified.

Key Findings: Transport

Relevant local policy documents and GLA policy outline aspirations to increase public transport use and reduce reliance on private vehicles within LB Camden. The transport infrastructure projects identified as required to support growth within the LB Camden include local schemes, which aim to reduce the dominance of traffic, improve safety, encourage inclusive and affordable modes of transport and reduce obstacles to mobility. In addition there are also strategic schemes which are designed to bring benefits to many London boroughs, the wider the region and beyond. Given their wider strategic objectives they are not the responsibility of Camden council to deliver.

The Camden Transport Strategy (CTS) aims to meet the objectives set out in the Camden Plan objectives and deliver the Mayor of London's Transport Strategy.

Local schemes being delivered within the LB Camden under the CTS include area improvements to key neighbourhoods and centres within the borough including improvements to public realm, highway and connectivity upgrades and improved pedestrian and cycling routes. Larger schemes being pursued in the Corridors and Neighbourhoods funding stream of the Local Implementation Programme (LIP) involves a study stage following by elements that are subsequently implemented as part of broader visions for the areas concerned.

The Camden Transport Strategy is based upon a three year rolling programme of schemes and funding. Known funding for the current Camden Transport Strategy (CTS) schemes is estimated at approximately £15.1m, though funding for 2017/18 is yet to be confirmed. As the CTS has a short term horizon of investment it has not been considered suitable to forecast spend beyond the current three year programme.

Key Findings: Utilities

Water

Thames Water is the owner, operator and supplier of water resources within the LB Camden and the majority of Greater London. 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. Thames Water's preferred programme of options to ensure security of supply in London includes a variety of both demand management and supply schemes as adopted in Thames Water's Water Resource Management Plan (2014-2040).

The Barrow Hill zone is one of the biggest water supply areas in north-west London and supplies the Camden area. Barrow Hill has been identified as having a storage deficit meaning that any power failure or burst main would result in immediate interruption to supply. The new Barrow Hill storage reservoir located in Primrose Hill will provide a new 25 Megalitre (Ml) capacity reservoir which will increase the resilience of supply and the capacity to maximise the efficiency of pumping water around Thames Water's main ring. The project is expected to cost £11m and is due for completion in March 2015. Consultation with Thames Water has confirmed that additional demand resulting from growth over the Local Plan period to 2031 can be accommodated within their existing investment plans,

however continued network modelling will need to be undertaken on a number of development sites to determine the additional demand which will be placed on pumping stations.

Energy

The main grid supply points (GSP) which cover Camden are St John's Wood, City Road and Moscow Road. Statistics from the Department for Energy and Climate Change (DECC) demonstrates that within LB Camden, whilst the majority of registered connections are from domestic users (80%), commercial and industrial users account for 80% of energy consumption within the borough. UKPN forecast that electricity demand in London is likely to increase from 2015-2023. The London Infrastructure Plan 2050 identified that London may face power supply problems in the future due to a legacy of under investment in energy supply to the grid. Within London, 40% of substations are currently under stress and one in five sub-stations has only 7% spare capacity. A total of £210 million of investment is required in the short term to help increase substation capacity in London. No projects of relevance to LB Camden have been identified. It is assumed that costs associated with upgrades to existing infrastructure and new infrastructure will be funded directly through UKPN or through developer contributions.

Decentralised energy networks have been established in King's Cross, Bloomsbury and Gospel Oak. The Kings Cross Combined Heat and Power (CHP) system is one of the largest plants within the UK and provides 7MW of electricity to the Kings Cross Central development which accounts for 79% of the total power demand and 95% of the development's heat demands. Heat networks have also been established within Gospel Oak and Bloomsbury. Decentralised energy networks in the future are likely to begin in and expand in the growth areas of King's Cross, Euston, Tottenham Court Road, West Hampstead and Holborn. Consultation has identified that £9m will be required for the delivery of a new de-centralised energy network within Kentish Town and the expansion of networks within Euston (Phase 3, 2026-31) and Bloomsbury.

Telecommunications and Digital Infrastructure

For the purposes of this study, telecommunications infrastructure is defined as including the availability of fast broadband, Wi-Fi Hotspots, data centres, street cabinets, and copper, fibre and Ethernet connections. The majority of LB Camden has access to Next Generation broadband, however, consultation indicates that at present Next Generation internet speeds are not always being realised at premises within the coverage area. This is primarily a consequence of how existing mainstream broadband providers are choosing to invest and expand their current networks. Uneven coverage, particularly within the south of the borough within the Central Activities Zone (CAZ) is having an adverse effect on existing businesses, potentially constraining competitiveness and growth. BT Openreach has confirmed that they do not currently have any specific planned or committed projects in LB Camden.

Sewerage and Wastewater

Sewage infrastructure covers both surface water drainage and foul water drainage. The sewerage system in the LB Camden and the majority of Greater London is operated by Thames Water. The combined drainage system that collects sewage and surface water in this part of London is inadequate for the flows that occur at times of high rainfall, with surface sewer flooding occurring within the Counters Creek sewerage catchment area. Thames Water's London Tideway Improvement Programme consists of: upgrades and/or capacity extensions to STW; works to the Lee Tunnel; and construction of the Thames Tunnel which will capture flows from the 34 unsatisfactory CSOs.

Thames Water have advised that the council ensure that all major planning applications, all developments of more than 1 dwelling, and all developments within the Counters Creek area are accompanied by a drainage study which demonstrates how surface water and foul water will be dealt with. Adequate surface water and foul drainage should be secured via appropriate worded drainage planning conditions (Grampian conditions). It is anticipated that capacity is already available to post 2021 and most likely to circa 2025. Based on completions in the subsequent years and future forecasts, Thames Water will re-assess the available capacity at Beckton STW to accommodate future development during the preparation of their next Business Plan. There are currently no planned or

committed projects identified specific to LB Camden. Future funding will need to be agreed with Ofwat and financed through charges to customers.

Flood Risk

The LB Camden is currently a Lead Local Flood Authority (LLFA) under the Flood and Water Management Act 2010. The main source of flooding in Camden is from surface water after high intensity rain fall events, and the incapacity of the combined sewer system to remove the rain water quickly enough. There have also been recorded instances of basement flooding within the borough. Flood defences in LB Camden are run by Thames Water (Sewerage Systems); Canal and River Trust (Canals); and London Borough of Camden (Highways Drainage and Land Drainage). It is identified that the most likely flooding event to occur within the Camden North area is surface water flooding, of which Gospel Oak, Hampstead Town and Highgate would be most at risk. There are currently no viable schemes recognised for Gospel Oak or Highgate.

Within Hampstead Town the use of SUDs retrofits, embankments and methods to improve the control of water into the sewerage system have been proposed. There are also plans to address the risks associated with overtopping of the Hampstead Ponds by increasing the capacity of the two chain ponds on Hampstead Heath and the strengthening of dams. There are also a number of schemes within West Hampstead to mitigate against flood risk including a 55m raised flood wall along Cannon Hill, compensation storage at the downstream West End Lane Public Conveniences and West End Green as well as individual property measures. Further modelling in the Highgate area is being undertaken to ascertain whether a flood alleviation scheme in this area could be eligible for Flood Defence Grant in Aid (FDGiA) funding. For the schemes in West Hampstead a total of £150,000 of funding has been raised, however there remains a significant funding gap for the residual borough wide risk.

Waste Management

Waste Management within LB Camden is organised by the North London Waste Authority (NLWA) and waste disposal services within the LB Camden are largely delivered by London Waste Ltd. In 2012/13 a total of 822,384 tonnes of waste were collected by the NLWA. Of this, 219,439 tonnes of waste was sent to composting and recycling facilities. Within LB Camden the level of residual house waste has dropped from 494kgs per household in 2011/12 to 456kgs per household in 2012/13. There are currently proposals being consulted on with regards to a new energy from waste facility at Edmonton EcoPark which would help to continue the capacity to generate energy from waste within North London. It is anticipated that this new facility would cost between £450-500m, however no fixed costs have been confirmed.

Emergency Services

Police

The Metropolitan Police Service (MPS) run the policing services in LB Camden and are scrutinised by the Mayor's Office for Policing and Crime (MOPAC). MOPAC has a strategic managing role, while the MPS run the day-to-day operations. The local Safer Neighbourhood Teams (SNTs) act as an additional force to the MPS, acting towards a specific community's safety rather than policing within the wider borough. Significant changes in approach to policing within London has seen the closure of Hampstead police station and the reduction of front counter services with Kentish Town police station the only base offering 24/7 front counter services within LB Camden. There are now seven Contact Points within the borough that members of the public can attend when they need to report a crime or obtain police assistance. Discussions with the MPS have confirmed that population is not directly a driver of police force numbers, and therefore of police infrastructure.

Due to the way additional demand for police provision is assessed by MOPAC, this assessment has not modelled additional demand arising from the projected population and jobs growth. No costs or funding associated with the provision of policing infrastructure within LB Camden have been identified.

Ambulance Services

The provider of ambulance services in LB Camden is the NHS LAS NHS Trust. The LAS are a member of the Camden Community Safety Partnership and works closely with the MPS and the London Fire Brigade (LFB) to prepare for large scale and major incidents within London. The LAS are a pan London organisation and ambulance services within LB Camden are commissioned by the North West London Commissioning Support Unit. Whilst there are two ambulance stations within LB Camden, in the event of an incident the nearest available ambulance will be sent. Consultation has revealed that the strategic direction will be towards a reduction in static stations and therefore it is not anticipated that there will be any planned redevelopment or new stations within LB Camden.

Changes in the provision of ambulance services and associated infrastructure are driven predominantly by a calculation of the likelihood of incidents requiring ambulance intervention. As such, an increase in population as a result of growth within the Borough is not considered to directly result in an increased demand for ambulance facilities. No costs or funding associated with the provision of ambulance infrastructure within LB Camden have been identified.

Fire Service

Fire provision in LB Camden is run by the London Fire and Emergency Planning Authority (LFEPA) which manages the London Fire Brigade (LFB). The main duty of the LFEPA is to respond to fires and emergency situations, but in recent years it has also become increasingly involved in fire prevention and community safety. In LB Camden there are three fire stations; Kentish Town; Euston; and West Hampstead. The Belsize station closed in January 2014. Significant budget savings continue to be made within the LFB as part of the Government's comprehensive spending review with the LFB aiming to achieve a reduction of 25% of its budget between 2010 and 2015. No costs or funding associated with the provision of fire infrastructure within LB Camden have been identified.

Infrastructure Importance

This study considers the level of importance an infrastructure item has in supporting the delivery of growth in LB Camden over the Local Plan period defined as either:

1. Critical
2. Highly desirable or
3. Important.

The level of importance assigned is an indication of the relative degree to which the item or scheme is required to support the projected residential and/or employment growth. Infrastructure items classified as critical are items which are likely to be 'showstoppers' to development if not implemented. Without these items there is a risk that residential and commercial growth will not be able to continue beyond certain thresholds. This includes strategic transport schemes, sewerage capacity increases and flood risk schemes.

Those items which mitigate against the effects of development and which help to deliver development in a sustainable and acceptable way in planning terms are deemed highly desirable. The provision of these items is typically driven by a statutory requirement and thus includes social infrastructure, local transport schemes and sustainable energy initiatives.

Important infrastructure items help deliver development in a sustainable way and are necessary to help deliver the borough's place making agenda in line with the vision and objectives of the Core Strategy, however broadly, development can proceed without their implementation. This includes some local transport improvements as well as items such as open space management schemes.

Given that the overall costs of infrastructure requirements identified in this assessment are likely to exceed the levels of funding available to support growth, it will be necessary for the council to undertake its own assessment of infrastructure priority to enable future decision making on what items to deliver first.

Summary and Infrastructure Schedule

Section 7 provides a schedule of all infrastructure items identified as being required to support growth over the Local Plan period.

The table acts as a summary of information collected as part of this assessment and includes the following details:

- Item name
- Description
- Location
- Cost
- Funding committed and source of funding
- Phasing (timing of delivery)
- Level of importance.

1 INTRODUCTION

1.1 Context

This infrastructure study update has been prepared in order to refresh the information provided in the original 2009 infrastructure study (the '2009 study') and the 2012 infrastructure study update (the '2012 update'). These two previous studies identified the strategic infrastructure needs required to support housing and employment growth in the London Borough of Camden (LB Camden) over the lifespan of the Core Strategy (2006 to 2025/6), to establish infrastructure priorities and support the introduction of a Community Infrastructure Levy (CIL).

A key driver of this update is the Local Plan review. Camden council is currently reviewing key planning documents in the Local Development Framework (LDF) – the Core Strategy 2010-2025 and Development Policy Documents, which were adopted in 2010. The review is intended to ensure the borough has robust and up-to-date planning policies that support the delivery of local priorities.

A key document supporting the early phases of the Local Plan is the Camden Plan¹ (adopted in 2012) which sets out the five year vision for the borough up to 2017. The Camden Plan has five objectives which attempt to address some of the most significant issues within the borough such as reducing child poverty, increasing employment and building new housing.² The Camden Plan aims to bring new approaches to the design and delivery of services against a backdrop of reductions in public funding.

This update has been commissioned to support the council in their Local Plan review and strategic planning. It provides an up-to-date evidence base of infrastructure required to support growth, the capital cost associated with infrastructure provision, committed funding and an estimate of funding raised through developer contributions and other methods. This will inform the council of any residual funding gap and support the council in their assessment of whether their policies are effective and deliverable over the lifespan of the Local Plan.

LB Camden consulted on a Proposed Draft Charging Schedule (PDCS) in June 2014, which built on their PDCS for their CIL in 2012 and incorporated changes to CIL regulations introduced in February 2014. The Charging Schedule was submitted for CIL examination in November 2014 and approved in January 2015. The council is looking to operate the CIL by April 2015. CIL will have the potential to contribute to funding infrastructure alongside other established funding sources. This update will support the council in its funding strategy and preparation of its CIL regulation 123 list.

1.2 Scope

There are broadly four requirements to this study:

1. To update the assessment of the infrastructure required for LB Camden over the Local Plan's lifespan, which runs to 2031
2. To review relevant infrastructure providers' plans and strategies informed through a process of consultation
3. To identify any critical limitations or barriers to infrastructure delivery within the Local Plan's lifespan.

¹ LB Camden, (2012); *The Camden Plan 2012-2017*.

² The Camden Plan has five strategic objectives that will form the focus of the council's activities. They are: Objective One, Providing democratic and strategic leadership fit for changing times; Objective Two, Developing new solutions with partners to reduce inequality; Objective Three, Creating conditions for and harnessing the benefits of economic growth; Objective Four, Investing in our communities to ensure sustainable neighbourhoods; and Objective Five, Delivering value for money services by getting it 'right first time'.

To enable comparison with the 2009 study and 2012 update this assessment uses the same definition of infrastructure has been used. Infrastructure is defined as:

- Social infrastructure (education, health, sports and leisure, play space, libraries, job brokerage, cemeteries, community space and faith facilities)
- Transport (comprising rail, road, pedestrian and cycle provision); and
- Utilities and hard infrastructure (gas and electricity, telecommunications, sewerage and waste water, waste management, flood-risk and emergency services).

1.3 Approach

Our approach to this update applies the same methodology applied in the 2009 study and 2012 update, which both established infrastructure needs arising from growth. The approach is in accordance with statutory and policy framework relating to infrastructure planning, including the National Planning Policy Framework (PPF) and Planning Practice Guidance (PPG) and the London Plan.

Broadly our approach incorporates the following steps:

1. Housing and employment development trajectory
 - Identify the Local Plan's growth trajectory relating to housing and employment space.
 - Estimate the future demand arising from the anticipated housing development based on a relationship between population and housing type/size/tenure, and employment space.
2. Existing baseline and capacity assessment
 - Identify capacity in existing infrastructure provision and committed development.
 - Give consideration to the relevant policy and plans, in particular how current policy and plans may impact upon provision requirements.
3. Infrastructure needs arising as a consequence of development
 - Estimate the gross demand of infrastructure arising from population and employment growth based on provision standards and consultation findings.
 - Determine the net infrastructure needs arising taking into account existing provision surplus/deficit and committed development.
4. Timing and location of infrastructure need
 - Determine the phasing of infrastructure required to support growth.
 - Consider the locational implications.
5. Infrastructure costs
 - Where information is readily known, ascertain costs associated with infrastructure needs arising from growth.
 - Where information is readily known, identify the extent to which committed development is funded. This may be through public monies or other sources such as developer contributions.
6. Infrastructure importance
 - Assess the importance of identified infrastructure items based on factors such as the item's role in supporting growth.

This report draws on information from published documents, information sources and through consultation with providers of the infrastructure types listed in the scope above.

Consultees were asked to provide responses with their views on the current infrastructure baseline, as well as their position on demand arising from background growth, as well as generated through future residential and commercial development. Where available consultees were asked to provide details of any planned or committed projects as well as costs associated with future infrastructure requirements.

1.4 Limitations of this Study

This report aims to capture all strategic infrastructure requirements within LB Camden, as well as determining the priorities of these infrastructure items, their costs and timings and identifying potential funding sources and mechanisms. Whilst it is acknowledged that there may be benefits arising from infrastructure investment within LB Camden to the wider region, and vice versa, these benefits are not reported as part of this study.

Strategic infrastructure may be required to address sub-regional/regional issues. Costs and funding for these items would be best apportioned to areas of benefit and so could involve a number of boroughs contributing to the cost of an intervention extending beyond LB Camden. It may be necessary for further work to be undertaken to establish the business case and funding strategy for larger strategic infrastructure items or groups of infrastructure interventions.

Our assessment has been derived from a combination of sources: through consultation with service providers, existing reports and data, and calculations based on benchmarks and assumptions. Information provided by service providers was considered to be more insightful and accurate than calculations based on benchmarks. We have therefore reported on information by service providers where provided. Funding systems typically work on shorter timescales than our period of assessment (the Local Plan period), and so service providers are typically working to a different timescale than the Local Plan period of 2015 to 2031. On this basis we have, broadly, better quality information and greater certainty on the infrastructure needs arising in the short to medium term (e.g. 2015 to 2025) than the longer term (2025-3031).

We have provided information on costs where this information is known. However, there are some items for which costs are unknown or not easily established. Similarly, there are some funding sources that could come forward in the longer term which are not currently known. This is to be expected as most planning and funding regimes look forward five to ten years and the Local Plan attempts to consider a period to 2031. Where reasonable we have applied benchmarks and assumptions to project demand arising for infrastructure items beyond their typical planning periods.

For some social infrastructure items, broad brush assumptions have been applied to estimate net demand and costs over the entire plan period. Given the strategic nature of this document this is considered appropriate. Further detailed studies should be undertaken to establish the business and strategic case for infrastructure interventions as part of future work.

The infrastructure study should be treated as a live document which is updated as information about development proposals and infrastructure projects becomes available.

1.5 Report Structure

Following this introduction the report is structured as follows:

- Section 2 sets out the anticipated growth and provides details of the housing and employment growth trajectory which will drive the requirement for infrastructure provision
- Section 3 describes the requirements for social infrastructure associated with growth
- Section 4 considers the transport infrastructure
- Section 5 covers utilities and hard infrastructure
- Section 6 summarises the funding gap and level of importance for infrastructure items

Section 7 summarises the study and presents the infrastructure schedule – a list of all infrastructure requirements; and

- Appendix A scopes out potential funding sources and mechanisms which could be used to address the infrastructure funding gap arising from growth.

2 ANTICIPATED GROWTH

2.1 Introduction

This section summarises the scale and location of anticipated development in LB Camden between 2015 and 2031. It sets out a development trajectory for the borough and estimates the potential residential and employment population arising from growth, which drive the increase in infrastructure requirements in subsequent sections.

2.2 Context for Growth

Camden is a diverse inner London Borough with an estimated population of 225,000. The borough is experiencing pressure from both the effects of population and economic growth, generating a need for infrastructure to be enhanced in order to meet this demand. At the borough level, LB Camden's adopted Core Strategy (2010)³ projects a total of 12,250 new homes over the period 2011 to 2026 the majority of which should be concentrated within Opportunity Areas (OA) and areas for intensification (Aol) and town centre's within the borough. These locations offer the potential to accommodate a large proportion of new residential and business floorspace and consequently the locations of new population and employment growth. These areas of population increase are likely to place further pressure on LB Camden's social, transport and utility infrastructure. It is likely that new infrastructure will need to be provided at or in the vicinity of these areas to improve and maintain the quality of life for existing and new residents.

The importance of the OAs and Aols in meeting LB Camden's growth was highlighted in the London Plan of 2011⁴ and the Further Alterations to the London Plan (FALP)⁵, which have been published since the 2012 infrastructure update. These alterations to the London Plan 2011 are aimed at ensuring that the London Plan is a London expression of the Government's National Planning Policy Framework (NPPF) and that key housing and employment issues are addressed in a sustainable way.

The FALP proposes revised housing and employment targets for OA and Aol within Greater London. **Table 2-1** sets out the minimum provision of housing and indicative job numbers from the FALP. In LB Camden the minimum potential for the OA and Aol is 6,200 new homes and 39,800 jobs. These five locations have significant development capacities because they currently benefit from good public transport connections or are locations where it is expected improvements will be undertaken.

Table 2-1: Growth Areas in LB Camden and their Capacity

	Area Name	Minimum Homes	Indicative Jobs
Opportunity Areas (OA)	Kings Cross	1,900	25,000
	Euston	2,800	7,700
	Tottenham Court Road	500	5,000
Areas for Intensification (Aol)	Holborn	200	2,000
	West Hampstead	800	100
Total		6,200	39,800

Source: GLA, (2014); Draft Further Alterations to the London Plan.

³ LB Camden, (2010); *Camden Core Strategy 2010-2025: Local Development Framework*.

⁴ Greater London Authority, (2011); *The London Plan Spatial Development Strategy for Greater London*. GLA, London.

⁵ Greater London Authority, (2014); *Draft Further Alterations to the London Plan*. GLA, London.

In addition, the FALP proposes changes to the London Plan of 2011 housing target for LB Camden and to the provision of affordable housing. This has implications for the planning of infrastructure provision.

For LB Camden the FALP sets a target of a minimum of 8,892 additional homes over 2015-2025 (an annual target of 889 new homes). This is an increase from the minimum target of 6,650 new homes by 2021 set out in the 2011 London Plan.

The affordable housing target is set out in Policy 3.11 of the FALP. Across London there is a target for a minimum of 17,000 additional affordable homes per year to 2031 of which 60% should be for social and affordable rent, and 40% for intermediate rent or sale. However, boroughs still however have responsibility for setting their own affordable housing targets.

2.3 Housing Growth Trajectory

Though LB Camden's growth areas provide significant capacity to accommodate growth, there are other locations across the borough which are able and expected to see residential and employment growth. For the purposes of this study the development trajectory has been derived using data from a number of different sources:

- Site Specific Allocations (SSA) (including allocations within the Fitzrovia Area Action Plan)
- Community Investment Programme (CIP) sites (those sites yielding residential units)
- Self-contained permissions (including student bedrooms and hostel bedrooms)
- West Hampstead Interchange area sites; and
- Residential windfall sites.

In total these sites have the potential to accommodate approximately 12,900 new housing units based on information provided by the Council.⁶

The development trajectory drives estimates of the potential additional population arising and the timing of demand, which guides our discussions and calculations of infrastructure requirements. Population growth is determined by the number of residential units, size of units and tenure mix. In the absence of information on unit size and tenure mix the following assumptions, agreed with the council were applied to the housing trajectory in the following way:

- Tenure: In line with the Local Plan a sliding scale of affordable housing provision for developments with capacity for 10 to 30 additional dwellings has been applied, starting at 10% affordable housing where capacity is for 10 additional dwellings and increasing by 2% with every one dwelling increase in capacity. This is in the context of an affordable housing target of 50% for self-contained housing.
- Unit size: In line with Development Policies Document⁷ Policy DP5 it has been assumed that 50% of social rented units will provide 3 or more bedrooms, 10% of intermediate units will provide 3 or more bedrooms and 40% of market units will provide 2 bedrooms.

The estimated breakdown of residential development by five-year phase is shown in **Table 2-2**. This shows a front loaded trajectory, with over half of all units coming forward by 2020.

⁶ This includes specialist accommodation such as student and hostel bedrooms which for the purposes this study have been classified as market housing. It has been assumed that one person per unit will be accommodated in these dwellings.

⁷ LB Camden, (2010). *Camden Development Policies*.

Table 2-2: LB Camden's Residential Growth Trajectory

Phase	Residential	Market	Social	Intermediate	All Units
2015-2020	7,030	4,416	1,568	1,046	55%
2020-2025	2,938	1,469	881	588	23%
2025-2031	2,905	1,461	867	578	23%
Total	12,873	7,346	3,316	2,211	100%

Source: URS

The table below outlines the geographical distribution of housing coming forwards to 2031. It shows that 34% of residential growth within LB Camden up to 2031 will be delivered within the CAZ. The majority of this growth will occur within Phase 1 and Phase 3. In comparison residential growth within the rest of the borough will predominately come forwards during Phase 1 and Phase 2 with approximately 59% of residential units coming forwards during the initial phase (2015-20).

Table 2-3: Residential Units by Area

Phase	Within CAZ		Rest of the Borough	
	Number	% of all Units	Number	% of all Units
2015-2020	1,752	14%	5,278	41%
2020-2025	662	5%	2,276	18%
2025-2031	2,020	16%	885	7%
Total	4,434	34%	8,439	66%

Source: URS

2.4 New Residents

Requirements for new infrastructure are driven by the additional residents and jobs associated with growth. To estimate the new residential population, occupancy rates by size and tenure were applied to the new dwellings coming forward, drawn from the GLA population yield calculator⁸. The GLA population yield calculator is designed to provide estimates of the number of people who can be expected to live in new housing development once completed. These assumptions also include child yields which are relevant for modelling demand for education within the infrastructure model.

Using this methodology it is estimated that over the period to 2031 new development within LB Camden will support over 29,300 residents, of whom approximately 6,700 will be aged 0 to 18 years old. A breakdown of the estimated population by phase is shown in **Table 2-4**.

⁸ Greater London Authority (GLA), (2014). *GLA Population Yield Calculator*. Available from: <http://data.london.gov.uk/dataset/population-yield-calculator>. [Last accessed: 05/02/15]. LB Camden falls within the central London sub-region so for the purposes of this study we have used population and child yields attributable to the central London sub-region.

Table 2-4: Population Arising from Housing Growth

Phase	Residents	Age (Yrs.)		
		<i>Total</i>	<i>0-9</i>	<i>10-18</i>
2015-2020	14,846	1,841	1,350	3,191
2020-2025	7,294	1,030	757	1,787
2025-2031	7,205	1,015	745	1,760
Total	29,344	3,886	2,853	6,739

Source: URS

As outlined above, residential growth within the borough will come forwards at different rates within different parts of the borough with a distinction made between the CAZ and the rest of the borough for the purposes of this study. As **Table 2-5** shows, it is projected that 9,514 people will arise from new development within the CAZ and 19,830 people will arise from residential development within the rest of the borough.

Table 2-5: Population Growth by Area

Phase	Within CAZ	Rest of the Borough
2015-2020	3,837	11,008
2020-2025	1,153	6,141
2025-2031	4,524	2,681
Total	9,514	19,830

Source: URS

The following table shows the breakdown of projected child population by age and area. It demonstrates that 2,552 children will come forwards from new development within the CAZ, whilst a further 4,186 children will come forwards from new development within the rest of the borough.

Table 2-6: Child /Young People by Age and Area

Phase	Within CAZ			Rest of the Borough		
	<i>0-9</i>	<i>10-18</i>	<i>0-18</i>	<i>0-9</i>	<i>10-18</i>	<i>0-18</i>
2015-2020	573	430	1,003	1,268	920	2,188
2020-2025	202	160	361	828	598	1,426
2025-2031	678	510	1,188	337	236	573
Total	1,453	1,099	2,552	2,433	1,753	4,186

Source: URS

2.5 New Jobs

Jobs associated with the development of new commercial space within LB Camden have been based on the GLA borough employment projections (2013)⁹. The GLA produces projections of future labour market demand in London using historical data from the Office for National Statistics to create trend based projections of future employee numbers. The GLA advise boroughs to use these figures for forward planning purposes and as such they are considered suitable for the purposes of this study.

The GLA projects employment growth by a method which triangulates employment trends by broad sector class, the availability of land for the development of new employment sites, and transport improvements planned. Employment projections are broken down by use class and published for each borough up to year 2036.

In total, it is anticipated that a net increase of 46,000 jobs could come forward within LB Camden up to 2031. These findings are set out within **Table 2-7** below.

Table 2-7: Employment Growth 2015 - 2031

Phase	Net Jobs
2015-2020	16,000
2020-2025	14,000
2025-2031	16,000
Total	46,000

Source: URS analysis of GLA Borough Employment Projections (2013)

⁹ Greater London Authority (GLA), (2013). *Borough Employment Projections 2013*. Available from: <http://data.london.gov.uk/dataset/gla-employment-projections>. [Last accessed: 15/10/14].

3 SOCIAL INFRASTRUCTURE

3.1 Introduction

This section considers social infrastructure requirements arising from growth over the Local Plan period, comprising education, health, adult social care, sports and leisure, play space, libraries, job brokerage, cemeteries, community space and faith facilities.

3.2 Education

Our assessment of education demand arising from growth covers early years' (nursery), primary, secondary, further education, adult learning and higher education.

3.2.1 Early Years' Education

Context

Since the *2012 Update*, early years' education policy has undergone some changes. In addition to the statutory free entitlement of 15 hours per week places for all three and four year old children the council also provides an additional 10 hours per week to 3 and 4 year olds in maintained schools and children's centres. The government has recently extended the early years' places entitlement to include 15 hour per week early learning places for the most disadvantaged 2 year olds, beginning with the 20% most disadvantaged from September 2013 and extending to 40% from September 2014. Based on data provided by the Department for Work and Pensions (DWP), 930 children in LB Camden are eligible for this entitlement. LB Camden has yet to identify provision to accommodate these extra places but work is in progress to do so. All families eligible have been contacted and demand for these places is growing as the benefits for the children are promoted.

Existing and Committed Provision

Information on the existing provision of early years' provision is set out in the borough's Childcare Sufficiency Assessment (April 2013). The assessment recorded approximately 295 childcare providers within LB Camden supplying approximately 5,508 childcare places for children aged 5 and under. Of these, 33 providers were maintained nursery classes offering Nursery Education Funding (NEF) and 10 providers were children's centres. The assessment reported that the supply of childcare in LB Camden broadly met the needs of working parents and those undertaking activities that support employment. No committed or planned provision has been identified in documents or through consultation.

Need Arising as a Consequence of Growth

Based on the residential development trajectory and assumptions set out in Section 2, it is estimated that growth over the Local Plan period will support 792 children aged 3 and 4 years. Assuming that seven percent of children attend private early years' providers, which is in line with the UK average, the gross demand for early years' places is estimated to be 368.¹⁰ By phase demand is broken down as follows: Phase 1 (2015-20), 174 FTE; Phase 2 (2020-25), 98 FTE; and Phase 3 (2025-31), 96 FTE.

The extended early years' places entitlement, to cover provision of free part time nursery places to disadvantaged two year olds in the borough is complicated to project as it is affected by government policies on welfare, deprivation indices and the changing circumstances of individual families. Assuming that the extended early years' place entitlement arising from growth is proportionate to the additional demand of 930 in relation to Camden's 2 year old population as a whole, then the additional extended early years place entitlement arising from growth is likely to be low.¹¹

¹⁰ Based on an assumption that a full time equivalent place is 30 hours per week and that the statutory requirement is 15 hours per week, resulting in a FTE pupil place factor of 0.5.

¹¹ For example, if we were to use the same ratio of those eligible for additional early year care to total borough population (930 to 225,000) and apply this to the additional population arising from growth (6,700), then the estimate of additional places would be in the region of 28. This assumes, however, that the new population arising has the same socio-economic demographic structure as per the wider borough's population.

Cost

We understand that Camden's CSF Directorate's response to increased demand for places will not be to build stand-alone facilities. Alternative methods for delivery are being considered and it is expected that additional demand from three and four year olds will be met mostly through the provision of nursery classes linked to primary school expansions. The extended early years' places entitlement will be met within existing provision and by working with private and voluntary childcare providers, community organisations, schools and child-minders. Demand from the extended early years' places entitlement will need to be monitored as changes occur to welfare benefits and tax credits as this will impact on demand for early years' provision.

Our estimate of potential cost arising is based on a benchmark provision cost per pupil of £14,578¹². From this it is estimated that the cost of provision of 368 FTE early years' places for 3 and 4 year olds would be approximately £4.8m. The cost of the additional extended early years place entitlement arising from growth has not been estimated.

Consultation with the council suggest that LB Camden will face difficulties in ensuring sufficient two year old early learning places with the revenue and capital funding currently allocated. Two year old places are currently funded at a higher rate than that provided by the government and therefore additional capital would be required to ensure the creation of sufficient places. It is not possible at this stage however to estimate what these costs might be.

3.2.2 Primary Education

Context

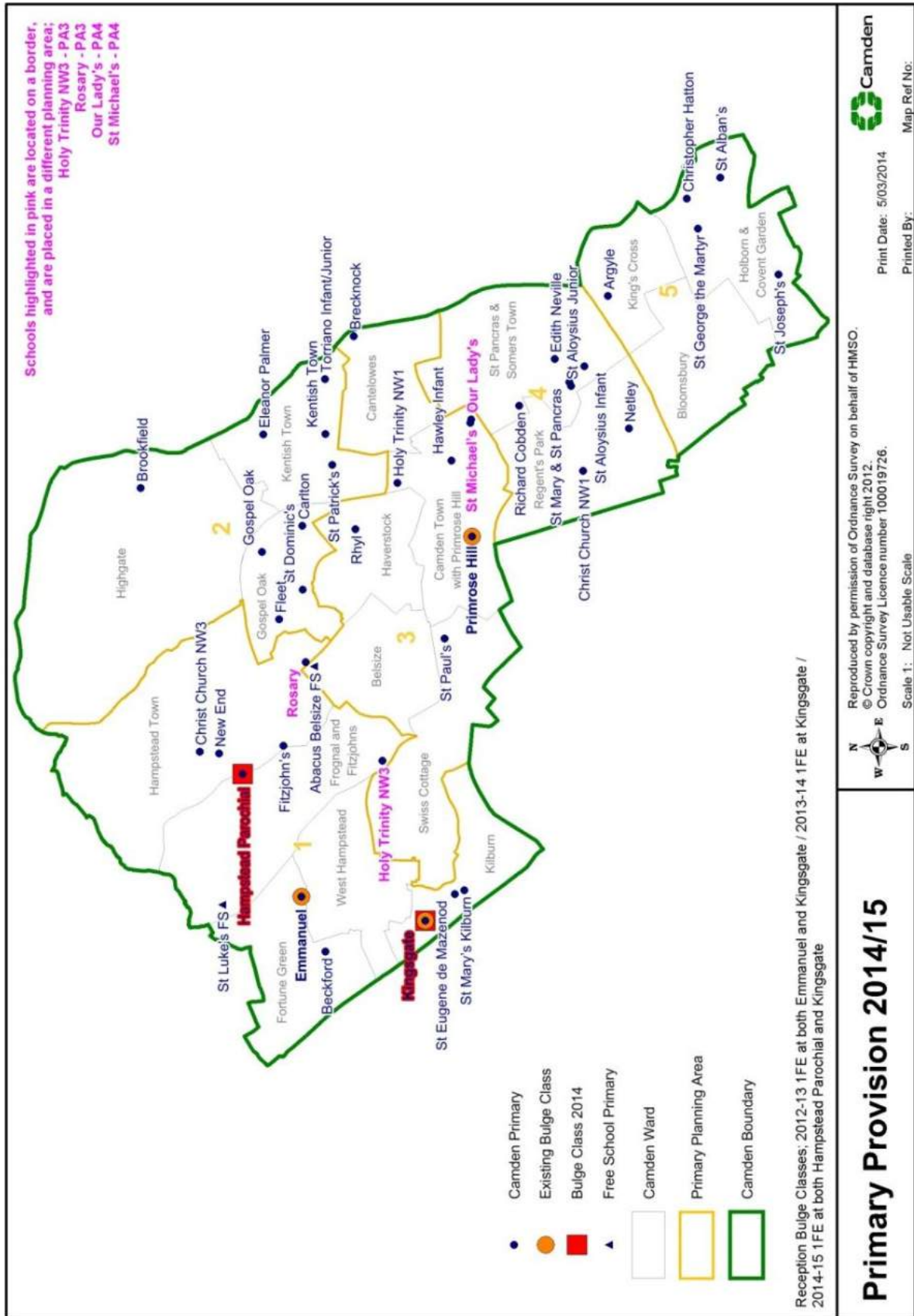
Since the 2009 study there has been the introduction of academies and free schools. Some of the newly created academies (publicly-funded independent schools) will provide primary education facilities. The funding for academies is provided by central government and in some cases will be supplemented by a sponsor, which can be a number of organisations including businesses, universities and other schools. Free schools are also being introduced as an alternative form of provision. These schools will also be funded directly by central government, which will remove decision making from the local authority, which can have implications for the local authority's ability to plan for pupil places according to need. The duty remains however with the LA to ensure that the capacity exists to provide for all children in the borough.

Existing Provision

Primary school places planning within LB Camden is undertaken for the borough as a whole and by each of the five primary planning areas (PAs). The existing provision is presented in **Figure 3-1**. This shows that two free schools have opened in the north-west of the borough. These are St Luke's primary school of 0.5 forms of entry (FE) and Abacus Belsize School of 1FE, the latter is currently in temporary accommodation in Belsize until 2017/18 when the school will move into a permanent facility at the former Hampstead Police Station.

¹² Based on information from Teachernet. The cost per pupil does not include site procurement, land costs or any temporary accommodation that might be required.

Figure 3-1: Primary School Planning Areas (2014)



Source: LBC, (2014). 2014 Primary School Place Planning Report.

LB Camden's Primary School Place Planning Report (2014) records 10,763 pupils on the rolls of primary schools in the borough (Reception to Year 6) in May 2014. The combined capacity of the schools is 11,449 places which indicates a surplus of 686 places (7.5%). A breakdown of rolls and capacity data for LB Camden is presented in **Table 3-1**. This surplus has been planned to meet the growing needs of the existing population.

Table 3-1: Primary School Places for LBC (May 2014) by Planning Areas (PA)

Planning Area	Actual Roll	Capacity	Capacity % (Surplus +ve / deficit -)
PA1: North West	2,527	2,571	4.9
PA2: North East	2,693	2,922	7.9
PA3: Central North	2,183	2,418	12.7
PA4: Central South	2,209	2,279	3.6
PA5: South of Euston Road	1,151	1,259	8.6
Total	10,763	11,449	7.5

Source: LB Camden (2014). 2014 Primary School Place Planning Report.

The LB Camden *Primary School Place Planning Report's* findings are in line with the Greater London Authority's (GLA) School Roll Projections (SRP) (2014)¹³ which record roll projections for primary education across the borough. Across the borough there is expected to be a surplus of Reception places of around 5% until 2020.

SRP data indicates that particular pressure for primary school places will be felt within the North-West of the borough (Planning Area (PA) 1) which includes West Hampstead. Surplus within this area is anticipated to be approximately 0.2FE by 2023/24, even after the planned expansion to Kingsgate School is realised. However, given potential surplus places within PA 2 and PA 3 and the potential for residents opting to go to out of borough schools it is expected that there will be sufficient places to accommodate PA1 residents.

Across all other PAs the Primary Places Planning Report indicates that planned expansions and provision of primary places will be adequate to meet demand in the longer term (from 2023/24 onwards). The Report states however that housing development within the borough should be monitored to ensure that additional child yield from projected housing is appropriately accounted for. In addition, development of the HS2 proposals within the borough may have an impact on PA4 and PA5 and therefore should be closely monitored and updated.

Committed Provision

Committed investment in primary school provision within the borough is set out in **Table 3-2**. The Primary Places Planning report suggests that there may be a requirement for additional primary school places within the Euston area beyond those currently committed within the rest of the borough, but does not say how many additional places could be required.

¹³ Greater London Authority (GLA), (2014). *School Roll Projections (SRP)*.

Table 3-2: Planned Investment in Primary School Expansion

Infrastructure Provision	Proposed Expansion	Delivery Period	Cost (£) (000's)	Funding Arrangement
Liddell Road Site	Expansion of Kingsgate School (2FE)	2016/17	13,440	Govt funding for additional pupil places + other
Kings Cross Academy	New school (2FE)	2015	13,440	Govt funding for additional pupil places + other
Hawley School	Additional 123 places	2016/17	6,700	S106
Abacus Belsize (Free School)	Expansion of provision (1FE) (unconfirmed)	2017	n/a	Free school programme

Source: Primary School Place Planning Report; LB Camden (2014)

Need Arising as a Consequence of Growth

Our demand assessment is based on work completed by the LB Camden Children, Schools and Families (CSF) Directorate, in particular the 2014 Primary School Place Planning Report, which provides a comprehensive picture of demand arising over the period 2014 to 2028/29. Though this time period does not cover the complete Local Plan period (to 2031) the majority of planning period is considered, with greatest certainty in the short to medium term.

Geographically, the CSF's Primary Place Planning Report (2014) demonstrates that the need for school places will be particularly high within the north-west of the borough. This pressure will be alleviated somewhat once the 2FE expansion of Kingsgate School in 2016/17 is complete.

The Primary Place Planning Report, which takes account of growth arising from new homes to the period 2028/29, indicates that up until 2023/24 the addition of the 2FE at Kingsgate and a further 2FE at Kings Cross Academy should provide sufficient capacity within the borough's primary schools to meet demand for places. From 2023/24 onwards an additional 1.7FE to 2.3FE could be required however the report suggests that there should be capacity at the end of the reporting period (up to 2028/29) to absorb this demand. Overall, it is not anticipated that there will be a requirement for additional primary school places beyond the provision of the Kingsgate and Kings Cross Academy, though it is suggested that demand be monitored over the Local Plan period.

In the longer term (up to 2028/29), the Primary Place Planning Report indicates that there may be a need for additional primary school provision within the Euston Area as a result of growth proposals set out within the Euston Area Plan, which indicates capacity for 3,800 new homes. At present the Euston Area Plan identifies the provision of a new 2FE primary school on the Camden Cutting and a further 1-2FE of school provision within the Regent's Park Estate area. The Plan also notes the potential to expand the new Edith Neville Primary School by 1FE if required. The growth proposals for the Euston area should be monitored with regards to demand arising for additional primary school places.

Cost

The council's approved capital programme allocates £27m for the delivery of the new primary school at King's Cross and the expansion of Kingsgate School. The total funding required for these schemes is being met through capital grants, developer contributions and the generation of capital receipts from the sale of assets. Increased annual revenue costs will be covered by an increase in the Dedicated Schools Grant (DSG) provided by Central Government.

Provision of primary education will also continue to be provided through the council's 'Community Investment Programme' (CIP), which provides an approach to planning for and funding community related investments typically through developer contributions and cross subsidy through disposal of council owned land and buildings.

Given that existing capacity is in excess of the actual roll and committed investment will cater for demand arising the net cost required to support growth is taken to be zero.

3.2.3 Secondary Education

Context

As identified in the previous section LB Camden has reviewed its priorities for funding since the previous infrastructure studies and schools' needs have been included as part of the LB 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 government's policy on encouraging free schools to be set up in response to local demand, independently of the local authority, has implications for the authority's ability to plan for pupil places according to need. The Academies Act 2010 require that local authorities demonstrate that free school and academy options have been fully explored before other forms of new school provision are explored.

Existing Provision

The Secondary Place Planning report indicates that as of May 2014 there were 10 secondary schools within the borough with a total of 9,786 pupils on the rolls of secondary schools in the borough (Year 7 to Year 11). Secondary schools within LB Camden have a combined net capacity of 11,622 pupil places and therefore the report indicates that a surplus of 1,836 secondary school places (15.8%) currently exists within the borough's secondary schools. This surplus figure is up from the surplus of 626 places recorded in the *2012 Update*¹⁴. Increasing surplus is primarily due to lower rolls at Regent High and Maria Fidelis secondary schools (both within the Kings Cross / Euston Area) as well as the opening of the new University College London (UCL) academy which opened in 2012/13. This is shown in **Table 3-3**.

Table 3-3: Secondary School Places for LB Camden (May 2014)

Secondary School	Actual Roll	Net Capacity	Net Capacity Surplus (%)
Acland Burghley	1,156	1,367	15.4
Camden School for Girls	1,012	1,063	4.8
Hampstead Secondary School	1,250	1,312	4.7
Haverstock Secondary School	1,215	1,247	2.6
La Sainte Union	1,187	1,233	3.7
Maria Fidelis	613	953	35.7
Parliament Hill	1,220	1,267	3.7
Regent High	782	1,181	33.8
UCL Academy (opened 2012/13)	533	1,150	53.7
William Ellis	818	849	3.7
Total (including UCL Academy)	9,786	11,622	15.8
Total (excluding UCL Academy)	9,253	10,472	11.6

Source: *Secondary School Place Planning Report (LB Camden (2014))*

There are two school groups which are currently exploring options for new free schools within the Euston and West Hampstead areas, although both proposals have been rejected by the DfE. It is

¹⁴ LB Camden, (2014). *2014 Secondary School Place Planning Report*.

understood that at the time of writing the group submitting proposals for the academy within Euston are due to submit another application to the DfE in due course.

Committed Provision

Based on the consultation with the council and information contained within the School Place Planning Report, there are currently no committed projects with regards to secondary school provision within LB Camden.

Need Arising as a Consequence of Growth

As in the 2009 study and the subsequent update in 2012, this study has relied on work completed by the CSF Directorate to conclude the assessment of need for the provision of secondary school infrastructure over the planning period to 2031.

Higher projected numbers within primary schools (as previously discussed) could be expected to roll through to LB Camden secondary schools eventually. In particular the council have an ambition to see less movement out of the borough for secondary education, particularly in the south of the borough. Currently LB Camden residents only account for 62% of secondary school rolls within the borough. Comparison with historic data within the Secondary School Places Planning report indicates that LB Camden is a key exporter of secondary age children with approximately 38% of Islington's school roll and 37% of Westminster's school roll comprised of LB Camden residents.

Additional secondary school places will also be required as a result of planned housing development within the borough. Residential growth is anticipated to be particularly concentrated within specifically defined growth areas such as King's Cross, Euston and the West Hampstead Interchange.

In terms of demand for secondary school places the GLA's SRP (2014) indicate that demand for secondary school places is estimated to remain below borough capacity until 2019/20 when the borough may need to utilise the additional 2FE capacity that is potentially available at Regent High. It outlines that a peak in demand in 2020/21 may result in the requirement for additional bulge classes (i.e. temporary classrooms) over and above available capacity (including Regent High) but after this demand will fall to below borough capacity again. In addition, whilst there is an estimated peak in 2020/21 this may not result in a requirement for additional places beyond borough capacity once parental choice is realised.

Beyond 2023/24 an additional 2FE per year group is expected to arise from new housing development across the borough, with the majority of demand expected to result from development within PA4 which includes Euston and Kings Cross. At present however, secondary schools within PA4 are currently undersubscribed and current parental preference patterns suggests that LB Camden has the capacity to take more borough residents than it currently does.

Based on consultation with CSF we assume that existing surplus capacity can accommodate demand arising from growth.

In the longer term, there may be a need for additional secondary school capacity within the Euston Area as a result of growth proposals set out within the Euston Area Plan which indicates capacity for 3,800 new homes (note that this figure of new homes is not wholly captured in the growth trajectory of this study). Financial contributions could therefore be required from new development towards enhancements to secondary school provision within or outside of the Euston area. This should continue to be monitored as development comes forward.

Cost

The CSF Secondary Places Planning Report (2014) suggests that there will not be a requirement for additional secondary school places within the borough over the reporting period and therefore no additional costs are associated with secondary education provision. The net cost associated with secondary school provision is therefore zero.

However, should growth proposals within the Euston area be realised, it may be necessary to provide additional secondary school places locally. It is likely that contributions from development will be required to help meet these costs.

3.2.4 Further Education

Context

Further Education (FE) is typically taken up by young people and adults aged 16 to 19, although it can also include people aged 19+ with regards to vocational learners and employers. Individual colleges supported by the Education Funding Agency (EFA) are the traditional providers of FE courses.

In 2013 the Department for Education (DfE) changed the statutory leaving age within schools from 16 years to 17 years of age. From 2015 the statutory leaving age will increase further to 18 years of age. This legislative change will impact on demand for FE places.

Since the *2012 Update*, funding responsibilities for 16 to 19 year old learners have been transferred from the Young People's Learning Agency (YPLA) to the Skills Funding Agency (SFA). The responsibilities for FE learning within LB Camden can be separated into two strands. Firstly the SFA plays an important role in the delivery of apprenticeships and classroom learning (i.e. vocational learning) for post-16 learners. Secondly, the EFA in conjunction with the Local Authority are responsible for the delivery of academic pathways including FE provision in colleges and schools (i.e. A-levels).

Trend data indicates that an increasing proportion of LB Camden residents age 16 to 19 are currently studying at locations outside of the borough.

Since the *2012 Update* further devolution of power to Local Enterprise Partnerships (LEPs) has also taken place which has seen LEPs taking a new strategic role in the delivery of FE. LEPs are now encouraged to develop skills strategies for their areas and to work closely with colleges and FE providers through initiatives such as City Deals, and Whole Place Community Budgets to ensure that skills provision is responsive to employer demand. LEPs will now also take responsibility for capital expenditure decisions with regards to investment in colleges and premises. Previously these decisions were made by the SFA.

Existing and Committed Provision

In LB Camden in 2012/13 there were 1,800 FE learners aged under 19 and an additional 14,750 FE learners aged 19 years and over¹⁵. Though no figures on FE capacity have been provided by LB Camden, consultation has indicated that there is surplus capacity within the borough at present.

Capital funding arrangements have also changed since the *2012 Update*. Devolved Formula Capital (DFC) is now delivered by the EFA and is capital funding provided to sixth form colleges to address priorities such as improvements to buildings and capital repairs or refurbishment and minor works. This funding allocation is provided to all sixth form colleges on an annual basis. In addition to the DFC, the 16 to 19 Demographic Growth Capital Fund (DGCF) is also available to support the cost of additional places needed as a result of increases in population and / or increases in participation.

There have been a number of improvements to FE provision in LB Camden. LB Camden currently has one FE College within its administrative boundaries, the WKC which has sites in both LB Camden and LB Westminster. The WKC Camden campus is a relatively modern campus which was recently rebuilt on a site in King's Cross as part of a £52.5m investment completed under the (now defunct) Government's Building Colleges for the Future programme. The college also runs classes in community centres throughout LB Camden further supplementing the College's presence in the borough.

In 2013 a successful bid was submitted for the new Alexandra College on the former Jack Taylor school site. In total £8.5m of funding was provided for the provision of a new college to deliver local

¹⁵ Skills Funding Agency, (2014). *FE Data Library: Further Education and Skills*.

specialist provision for young people aged 16-25 who have severe and complex needs. In total £2.5m was provided by the DGFC (2013-2015 allocations). The Alexandra College will provide 50 FE places together with short breaks residential support by 2015. The college is being delivered by LB Camden in partnership with WKC Camden.

The UCL Academy opened in 2012 providing capacity for an additional 125 sixth form pupils per year. Consultation with the council has confirmed that demand has been high and it is currently oversubscribed.

No future committed projects were identified as part of this update with regards to FE in LB Camden.

Need Arising as a Consequence of Growth

Given that from 2015 the statutory leaving age for school children will be 18 years, it is assumed that 100% of all children aged 16-18 will be engaged in some form of education or training. Following consultation with the LB Camden CSF, it was found that approximately 81% of Camden residents undertaking post-16 education were engaged in 6th form education whilst 19% were engaged in learning at FE colleges or work based learning (WBL) providers. We have used the proportions outlined above to project demand up to 2031 based on the estimated number of 16-19 year olds arising from future development within LB Camden. This is shown in **Table 3-4**.

Table 3-4: Gross Demand for FE Places

	2015-2020	2020-2025	2025-2031	Total
Sixth Form Places	394	221	217	833
Colleges / WBL	93	52	51	195

Source: URS

As **Table 3-4** shows, based on the assumed provision rates given above, gross demand for FE places is projected to total 1,028 places over the period to 2031. Of this it is estimated that 833 sixth form places will be required and 195 FE College and work based learning places will be needed.

Guided by consultation responses and for the purposes of this assessment we have assumed that in the short term (2015-2020) current capacity will match projected demand; but that in the medium (2020-2025) and long term (2025-2031), demand will exceed supply. It is therefore estimated that gross demand for 541 FE places will be required over the period to 2031, of which 438 will be sixth form places and 103 will be FE College and work based learning places.

The catchment of FE provision is wide. FE colleges include, for example, specialist colleges attracting learners from across Greater London and further afield. Similarly, many vocational learners resident within LB Camden will travel to other colleges located in other boroughs. Consultation with the council has indicated that 90% of Camden residents attending sixth forms do so within the borough. However, of those attending FE colleges only 30% attend college within LB Camden. Furthermore only 5% of work based learners are based within the borough. Taking these leakage rates into account it is possible to estimate the net demand for FE places, as presented in **Table 3-5**.

Table 3-5: Net Demand for FE Places

	2015-2020	2020-2025	2025-2031	Total
Sixth Form Places	-	199	196	394
Colleges / WBL	-	18	18	36

Source: URS

Cost

In line with the *2009 study*, cost estimates can be calculated on a cost per pupil basis, which were previously assumed to be £25,000 per workspace. This includes external works, furniture, fixtures and equipment (FF&E) and fees but excludes temporary accommodation, ICT equipment, site specific costs, acquisition costs and VAT. Based on one workstation per FTE the cost of 430 FE places would be approximately £10.8m. Assuming that over the long term the movement of FE learners from/to the borough is in balance (LB Camden attracts as many FE learners as it loses to other boroughs) the net cost of provision would be £10.1m. Capital programmes for funding 16-19 FE provision includes the 16-19 Demographic Growth Capital Fund. It is likely that future funding for expansion in provision will be available from this fund, though it is not possible to say how much.

3.2.5 Higher Education

Context

Due to the large catchment of Higher Education (HE) provision, there is not necessarily a clear link between local housing growth and HE demand. Demand for higher education services cannot be easily modelled against Camden's future growth. As per the *2009 study* and *2012 update* this section does not therefore make recommendations for infrastructure provision arising from growth.

The Department for Business, Innovation and Skills (BIS) White Paper entitled '*Higher Education: Students at the Heart of the System*' was published in 2011 and introduced some key changes to the Higher Education system. Principally this involved a move away from the government funding universities directly to a fee-paying system where students contribute to their education. Currently the fee level is capped at £9,000 per year per student. The introduction of the fee system has implications on demand and how HE provision is funded.

Existing and Committed Provision

LB Camden has the highest number of university institutions of any local authority in London. There are currently ten¹⁶ universities in Camden comprised of undergraduate and post graduate students as well as some FE students. These universities and their rolls are detailed in **Table 3-6** below. It shows that in 2012/13¹⁷ there were over 79,000 FTE higher education students enrolled in university institutions within Camden. This is higher than attendance recorded within both the previous infrastructure studies.

¹⁶ The School of Pharmacy has now merged with University College London

¹⁷ Latest data available.

Table 3-6: Higher Education Institutions Camden, 2013

University	FTE Students Enrolled
Birkbeck College	16,460
University College London	26,275
The School of Oriental and African Studies	5,420
The Royal Veterinary College	2,155
London School of Hygiene and Tropical Medicine	1,135
Institute of Education	5,425
Conservatoire for Dance and Drama	1,260
Central School of Speech and Drama	1,000
University of London (Institutes and Activities)	255
University of the Arts	19,785 ¹⁸
Total	79,170

Source: Higher Education Statistics Agency, 2013. *Students in Higher Education Institutions 2012/13*. Available from: HESA.ac.uk. [Last accessed: 08/10/14].

A report was published by the Higher Education Policy Institute (HEPI) in 2011 which modelled the projected future demand for higher education places nationally up to 2020¹⁹. The report built on HEPI's previous report²⁰ and confirmed that there will be unmet demand for higher education at 2020, mainly due to the cap placed on supply²¹. A subsequent report published in 2013²² by HEPI found that 2011 saw the highest ever applicant rate for university places. Latest data from 2013 has shown that application rates continue to be high and it looks likely that this trend will continue. According to this report 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.

There are a number of HE projects planned in Camden, they are as follows:

University College London (UCL)

University College London (UCL) commissioned the Bloomsbury Master plan in 2011 to provide the strategic framework for the development and improvement of the UCL Bloomsbury estate over the next ten to fifteen years. In 2014 the first major projects started following a suite of smaller projects initiated in 2012/13 designed to improve the student and staff experience. Current major projects identified are outlined in **Table 3-7** below.

¹⁸ Note that the University of the Arts has a number of locations within London of which the Kings Cross campus is one. A breakdown of FTE enrolment by site is not available.

¹⁹ Higher Education Policy Institute (HEPI), (2011); *Higher Education Supply and Demand to 2020*. HEPI, London.

²⁰ HEPI, (2011); *Demand for Higher Education up to 2020*. HEPI, London.

²¹ The cap has been implemented to prevent over recruitment which would put pressure on funding for higher education

²² HEPI, (2013); *The Impact on Demand of the Government's Reforms of Higher Education*. HEPI, London.

Table 3-7: UCL Estates - Major Projects

Project	Description	Phase
Wates House Redevelopment	Wates House is to be comprehensively remodelled and extended to create a new home for the Bartlett School of Architecture.	2014-16
Wilkins Terrace Redevelopment	The Wilkins Terrace will transform the current Physics Yard into a social, events and amenity space for UCL students.	2014-16
Wilkins Lower Refectory	The Wilkins Lower Refectory project offers an opportunity to improve connections between the New Student Centre and the Wilkins Terrace. The new design will improve the flow of users of the space.	2014-16
Anatomy Phased Refurbishment	There are a number of phased projects taking place in the Anatomy building that involve the creation of new and improved facilities within this existing research and teaching building including labs, offices and student hubs.	2013-18
Bloomsbury Theatre Redevelopment	The Bloomsbury Theatre, Café, the UCL Union offices, meeting rooms, student welfare facilities and a fitness centre will be redeveloped.	2013-15
New Student Centre	The New Student Centre will create a student focused facility that will provide 1000 study spaces, student enquiry services plus other facilities including a café and IT clusters.	2015-17
Kathleen Lonsdale Building Refurbishment	The phased refurbishment will provide improved teaching, research and social learning spaces. Significant modifications are proposed to improve access around the building, as well as improving environmental performance and space utilisation.	2015-16

Source: UCL Estates: Available from: <http://www.ucl.ac.uk/transforming-ucl/major-projects>.

There are also a number of minor refurbishment projects currently planned for the Roberts Building, DMS Watson building, UCLU building, and the medical sciences building which are due for completion within 2014-15.

The School of Oriental and African Studies (SOAS)

The SOAS Estates and Infrastructure Strategy (2010) identified that at present there is no current shortfall in teaching or research offices but a considerable amount of surplus of ancillary support space. Therefore a process of space utilisation is being undertaken to rationalise the estate and use space more effectively. Current projects are outlined below in **Table 3-8**.

Table 3-8: SOAS Estates Strategy- Key Projects

Project	Description	Cost (£)
Site of 20 Russell Square	SOAS was successful in obtaining the right to develop upon the site of 20 Russell Square and is currently in negotiation with the University of London on the terms of the lease. The new site will represent a gain of 4,200m ² GIA.	£23m
31 Tavistock Square	SOAS has been successful in a bid to take a 99 year lease for 31 Tavistock Square and is currently in negotiation with the University of London on the terms of the lease.	Unspecified
53 Gordon Square	SOAS is currently renegotiating the lease to 53 Gordon Square and plans to refurbish the building and bring it into use as facilities for research.	Unspecified
West Block	A plan to extend the Western elevation of the Philips Building has outline planning consent. The development would represent a net gain of 3,700m ² GIA.	£26m

Source: School of Oriental and African Studies (2010). *Estates and Infrastructure Strategy 2010-2016*.

University College of Arts

In 2011 the University College of Arts moved into their new campus on a site in Granary Square in the Kings Cross Central development. The new site provides 32,000m² of new campus space for approximately 5,000 students.

Royal Veterinary College (RVC)

The RVC Estates Strategy covers the period from 2009 to 2018 and sets targets with regard to an anticipated growth in student numbers by 25% to 2018. It states that:

- 39% of the non-residential estate is defined as Category C which indicates that it is operational but requires major repair or replacement in the short to medium term;
- 3% of the non-residential estate is defined as Category D which indicates that it is inoperable or at serious risk of major failure or breakdown;
- There are a number of planned projects within the Estates Strategy. These include the creation of social learning spaces at the Camden campus at a cost of £1m. Consultation with the estates team confirmed that this has now been achieved.

As part of the University's strategic plan there is an aspiration to increase its annual intake for BSc numbers to 300, equivalent to a three year total of 900 students. Consultation has revealed that to accommodate this intake there would need to be an expansion of facilities at the Camden campus however no proposals are currently planned.

Need Arising as a Consequence of Growth

With regards to the resulting infrastructure requirement, the conclusions of the 2009 and 2012 infrastructure studies remain unchanged, and indicate that that future growth in Camden will not have a direct impact on the number of university students in Camden.

Whilst a range of factors are likely to influence the need for additional higher education space, consultation and research into individual universities in Camden suggests that that plans are in place to ensure a potential growth in student rolls is met by the provision of adequate facilities.

Cost

Costs relating to planned and committed projects are listed above. From the information gathered it is not clear whether this provision will be sufficient to meet demand over the Local Plan period. As discussed, HEs have a large catchment area which means that it is particularly difficult to attribute a

proportion of the cost to the local housing growth. For this reason and the fact that universities are providers of non-statutory education, we assume a net cost requirement for the council of zero.

3.2.6 Adult Learning

Context

Adult Learning (AL) caters for people aged 19 and over wishing to take below degree-level classes across a wide range of subjects to obtain both formal qualifications and informal learning.

There have also been changes to the way that provision of AL is managed. Since 2012 funding responsibilities for adult learners (aged 19 years and over) have transferred from the now defunct Learning Skills Council (LSC) to the Skills Funding Agency (SFA).

Within LB Camden, Adult Community Learning (ACL) provision is funded by the SFA through the Community Learning and Adult Skills Budget (ASB). The ACL service aims to encourage and support adults to make their first steps back into learning and increasing economic activity, in their families and communities, and maintain better health.

Existing and Committed Provision

The ACL service targets adults aged 19 years and over who may have low skills, barriers to access of education including disability and learning difficulties and those seeking employment. The service also aims to provide for parents with low skills and low incomes whose children are at risk of underachieving.

In LB Camden there are three specialist adult learning colleges in addition to Westminster Kingsway College. The latter provides both FE and Adult Learning. These colleges offer both open access to the public, as well as in conjunction with the ACL service. Adult Learning courses are also provided in association with other community groups and organisations, through community centres, school buildings, and even sometimes utilising space in galleries or museums. The colleges offering adult learning within LB Camden are outlined in **Table 3-9** below.

Table 3-9: Adult Colleges in Camden

College	Type of Establishment
Westminster Kingsway College	FE and Adult Learning
City Lit	Adult Learning
The Mary Ward Centre	Adult Learning
The Working Men's College (WMC)	Adult Learning

The ACL service currently supports three strands of learning including the ASB programme, community learning and family learning.

In 2013/14 102 learners enrolled on the Westminster Kingsway College's ASB programme of accredited English for Speakers of Other Languages (ESOL) courses designed to increase employability and improve learners functional English. These courses were delivered at three community venues: Kentish Town and Abbey Community Centres and Highgate Community Health Day Centre, as well as at the college's Regent's Park campus. This programme attracted 79% new learners (+15% on the Service-wide figure)²³.

The LB Camden ACL service delivered its community learning programme through agreements with colleges, voluntary sector and council providers and its own in-house staff. In 2013/14 2,742 learners enrolled on community learning programmes; this was a 13% reduction from 12/13 due to changes in

²³ Based on consultation with the LB Adult Community Learning service 2014

SFA funding, which meant that Westminster Kingsway College’s community learning allocation and target learner numbers were reduced from 1,700 learners in 2012/13 to 918 in 13/14.

Family learning within LB Camden is delivered through an agreement with City Lit, an in-house team, a partnership arrangement with Best Start for Families to deliver family learning in prisons and a smaller agreement with Ampersand to deliver the Easy to Read Programme. Provision targets families from the most disadvantaged sections of the community. In 2013/14 1,288 learners enrolled on family learning programmes, (1,298 in 2012/13). There has been an 84% increase in the number of learners enrolled on in-house provision.

This study has not identified any further planned or committed investments in adult learning infrastructure in the borough.

Future Demand

Most of the colleges are based in the south of the borough, however with the excellent transport links across the borough there is no known issues of deficiency of either adult learning centres in any part of the borough. The wide range of college courses, and in particular the specialist courses at City Lit, encourage active take up of services with people willing to travel across the borough to participate in the courses on offer.

There is an issue of space for future expansion; currently the courses are full in terms in usage, so there is not a lot of spare capacity for an increase in users. The buildings currently used are well run to exploit available spare capacity and community centres are used where they offer educational facilities. There is a possibility of increasing the amount of space used within university campus buildings and halls of residence at evenings and weekends.

Need Arising as a Consequence of Growth

In the absence of any updated provision standards with regards to AL services we have used the same provision requirement standard used within the 2009 study for the purposes of this report to project demand for AL services up to 2031. The following assumptions have therefore been applied:

- 10% of LB Camden’s working age (16-65 years old) population will require AL provision; and
- A conversion rate of 9.4 learners per FTE should be applied to calculate demand for FTE places.

Table 3-10 shows that 281 additional AL places would be required by 2031.

Table 3-10: Demand for Adult Learning Places

	2015-2020	2020-2025	2025-2031	Total
Full time places	142	70	69	281

Source: URS

Learners are likely to be prepared to travel outside of their local neighbourhoods and across the borough, particularly for specialist classes. Therefore whilst demand for AL services has been identified, not all of this provision may be located within LB Camden.

Demand for space is likely to be dependent on the ability to share facilities with other types of community infrastructure such as community facilities, secondary schools, and university campus buildings. The opportunity to make use of community centres, schools and university campus buildings should be maximised.

Cost

In line with the 2009 study, cost estimates can be calculated on a cost per pupil basis, which were previously assumed to be £25,000 per workspace (similar to FTE pupil). This includes external works,

FF&E and fees but excludes temporary accommodation, ICT equipment, site specific costs (e.g. remediation), acquisition costs and VAT.

On this basis, the cost of providing infrastructure to accommodate 281 AL places would be approximately £7.0m in the period to 2031. However, on the assumption that community centres and schools could be able to accommodate some of the demand for AL classes, this cost could be significantly lower. In absence of further information we assume that half of demand could be met within existing education and community infrastructure. The net cost therefore for providing additional AL classes is estimated to be £3.5m.

It is also important to recognise that the true cost of provision will be dependent on decisions taken about how to meet the demand for AL places in future. It is possible that further provision will be made elsewhere in London and that additional provision will not be made in LB Camden over the period to 2031. In addition existing capacity may be adequate to accommodate demand arising from new growth within the borough.

3.3 Health Care

3.3.1 Primary Health Care

Context

For the purpose of this report primary health care is defined as incorporating general practitioner (GP) services and community healthcare services.

The commissioning model for health care services has undergone significant changes since the previous infrastructure studies were written. The Health and Social Care Act (2012) disbanded Primary Care Trusts (PCT) and created Clinical Commissioning Groups (CCG) which are now responsible for expenditure decisions in collaboration with an NHS Commissioning Board.

The Camden Clinical Commissioning Group (CCG) now has control of a local health care budget and procures local healthcare services on behalf of the local population; this includes most hospital services, GP services, mental health providers and community healthcare services.

In addition NHS England are now responsible for the commission of primary healthcare services including providing medical services and reimbursing overhead costs such as rent, rates and clinical waste services.

In 2014 the Camden CCG approved the 2014-2017 Primary Care Mandate which supports GP practices within Camden continuing to work together to improve primary health care across the borough. This will primarily be achieved through the federation of Camden GPs to jointly deliver services. By March 2016 the Mandate targets that 90% of Camden GP practices will be federated.

Existing and Committed Provision

There are currently 38 local GP practices within LB Camden, which is in line with numbers recorded within the *2012 Update* supporting a total of 212 registered GPs and 200 locums across the borough. The number of registered GPs within the borough is somewhat greater than that recorded within the *2012 Update* where there were 169 registered GPs within LB Camden. These figures do not necessarily represent full time equivalent (FTE) GPs (this data was unavailable at the time of writing).

Of these 38 GP practices, approximately 55% are owned by private landlords, 1 property is owned by the Central and North West London (CNWL) NHS Foundation Trust, 2 properties are owned by the Camden and Islington Foundation Trust (CIFT), 4 are owned by NHS Property Services and 1 is owned by Community Health Partnerships (CHP). In 2008, the Camden Primary Care Trust (PCT) (now defunct) completed the Kentish Town Health Centre with its Local Improvement Finance Trust (LIFT) partner.

In 2014 an audit of GP Practices was commissioned by the CCG and it was observed that of the 38 practices only 7 (19%) had capacity in their clinical rooms²⁴. Within the North of the borough there are two GP practices with capacity, a similar number of surgeries with capacity are recorded within the West of the borough whilst in the South of the borough there are three surgeries with capacity in their clinical rooms.

It is also acknowledged that the overall quality of GP premises within LB Camden is poor, particularly within the South and West localities within which only 26% and 28% respectively achieved the highest grade for quality. With regards to building functionality only 46% achieved a satisfactory score for building functionality, with GP surgeries within the North of the borough scoring particularly poorly (38%).

The headline conclusions from the audit were that the majority of practices are operating to capacity within their existing premises and that the quality of the Primary Care estate is of concern, particularly in the South and West localities. In total eight practices require major works (or relocation) to enable their premises to be compliant with the Equalities Act.

The CCG Premises Context Document²⁵ identifies that LB Camden currently has a number of unique and specific Primary Care premises challenges. These include the King's Cross area regeneration, a number of practices which need to relocate in WC1 and the redevelopment of the Belsize Priory Health Centre. The most significant issue identified is that being an inner London borough, land and premises costs within LB Camden are at a premium.

At present a planning application has been submitted and permission granted for the redevelopment of the 'Abbey Area' which will involve the re-provision of the Belsize Priory Health Centre during Phase 2 of the proposed development (2016-17). The proposals currently include the provision of up to 1,500m² of new health centre floorspace. This development should help to address problems of GP provision within West Hampstead.

A strategic priority has also been identified within the King's Cross and Maiden Lane area as a result of residential development. This area has limited GP provision, and those within close proximity suffer from barrier to access. The CCG and NHS England are currently taking part in a multi-stakeholder working group looking at a preferred response for the area. However, there is currently no further detail on these proposals.

The WC1 area south of Euston Road is also identified by the CCG as an area of priority, given anticipated residential development as well the number of practices within the area which cannot be improved or expanded. In addition, the largest practice in this area (patient list size of 15,000) has been given notice to vacate its premises by July 2015. Furthermore the Bedford Square practice is closing in 2014 along with several practices within Westminster which may increase registration pressures on remaining surgeries.

A number of premises within the borough have also outlined plans for development or relocation. These projects are outlined within **Table 3-11**.

²⁴ Camden CCG, (2014). GP Premises Context Document 2014.

²⁵ Ibid

Table 3-11: Committed Development - GP Provision

GP Surgery / Health Centre	Ward	Description
Adelaide Road Medical Centre	Belsize	The practice is progressing redevelopment of its existing site with Camden council. This will be progressed as part of the CIP.
Brookfield Park	Highgate	The practice is due to move into new premises by the end of March 2015.
Prince of Wales Group Practice	Haverstock	The practice is relocating to new premises.
Four Trees Surgery	Gospel Oak	The practice wishes to relocate to adjacent property and has submitted a Project Initiation Document (PID) to NHS England for approval. The owners intend to fit out the surgery and lease back the premises to the practice.
Gower Place Practice	Bloomsbury	Draft business case submitted to NHS England for relocation to a building in Mallet Street. Practice must be moved no later than 31st July 2015 due to lease expiration on the current premises. If this is successful the practice will achieve additional clinical space and become a training practice. In addition the feasibility of bringing the Gower Street and Museum practices to co-locate with Gower Place are currently being considered.
West End Lane Surgery	Fortune Green	A proposal has been submitted to co-locate at Fortune Green Rd.

Source: Camden CCG (2014), *Premises Development in Camden*.

Need Arising as a Consequence of Growth

It is estimated that by 2031 there will be an additional 29,344 people living within the borough as a result of population increases arising from new development. As outlined within **Section 2** the majority of this growth is likely to occur within the strategic growth areas, intensification areas and allocated sites in the borough. It is likely that increases in population within these areas will place increased strain on existing primary health services and will require the provision of additional GP surgeries.

Given the number of privately owned GP premises within LB Camden there is also a concern that single handed GPs nearing retirement will further decrease the supply of Primary Health care within the borough. There is currently limited capacity amongst remaining practices to absorb these additional patients.

The 2009 study assumed a GP/patient ratio of 1,700 patients per GP. This was based on consultation within the Camden PCT and whilst it is acknowledged that a GP/patient ratio does not fully account for the complexities of primary health care provision it is assumed to be a reasonable basis to project primary health care infrastructure needs. Based on this ratio it is estimated that growth over the period to 2031 will generate a gross demand for 17 additional FTE GPs. This demand is expected to be greatest within Phase 1 (2015-2020) when approximately 9 FTE GPs will be required. Within the latter two phases there will be cumulative demand for an additional 8 FTE GPs between 2020 and 2031.

Demand arising by area is set out in **Table 3-12**.

Table 3-12: Gross Primary Health Care Demand- Additional GPs

Area	2015-2020	2020-2025	2025-2031	Total
Total	9	4	4	17

Source: URS

There are a number of models of delivery which could be used in order to provide this increased infrastructure, including the creation of new provision or the expansion and redevelopment of existing provision to accommodate increased demand. The remodelling of primary healthcare facilities will facilitate a shift in provision to become more integrated and community based through co-location with other community facilities and services.

Cost

The costs associated with providing an additional 17 GPs to meet the demand arising from population growth within LB Camden has been calculated as £6.8m²⁶.

As stated within the CCG Premises Development Policy²⁷ it is likely that some of these costs will be sought from CIL funding sources to allow developers to contribute to the costs of meeting additional healthcare needs associated with housing development.

3.3.2 Secondary Health Care

Context

Updated information has been obtained through consultation with the CCG and secondary health care providers with regards to acute healthcare and mental healthcare provision. For the purposes of this study the NHS Healthy Urban Development Unit (HUDU) model has been used to assess secondary healthcare requirements arising from projected population growth within LB Camden.

Secondary health care is defined as covering the following healthcare services:

- 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.

Existing and Committed Provision

LB Camden has the second highest mental health need within the Country with a high incidence and prevalence of mental health problems. In total it is estimated that there are approximately 37,000 people living within the borough with a common mental health problem such as depression and anxiety. In 2014 this equated to approximately 1 in 5 adults within the borough compared to 1 in 6 adults nationally²⁸.

Camden is broadly similar to other inner city boroughs in some ways, but has particular issues related to the high levels of drug and alcohol misuse, high levels of homelessness, a relatively transient population, unemployment and extremes of wealth and poverty which can exacerbate, and are risk factors associated with, mental illness.

Camden CCG currently spends an average of £379 per head per year on mental health problems compared to £339 within the ONS cluster and £212 in England²⁹. This equates to approximately £60m of investment in secondary mental health services which is 12% of the total borough budget³⁰.

²⁶ This is based on a benchmark of 165m² health space requirement per GP at a cost of £2,380. This assumption is based on the Healthy Urban Development Unit (HUDU) model. The space requirement is set at a higher level than traditional standards however to reflect the changing role of primary health care in providing a wider range of services to the community.

²⁷ Camden CCG, (2014), Primary Care Premises Development in Camden.

²⁸ Camden Clinical Commissioning Group (CCG), (2014). *Mental Health Programme Mandate: 2014*.

²⁹ Camden Clinical Commissioning Group (CCG), (2011). *Public Health England: Spend & Outcome Factsheet, NHS Camden CCG 2011/12*

³⁰ Camden Clinical Commissioning Group (CCG), (2012). *Camden Mental Health Plan*.

The Mental Healthcare Programme was approved by the Camden CCG in April 2014 and sets out the strategic aims for the CCG. This mandate covers a period of five years to 2019 and will be reviewed annually in line with the CCG's internal processes.

Trust acute bed capacity is provided from two sites – the Highgate Mental health centre, and the Huntley Centre, as well as two community based crisis houses. Between them, these provide:

- 16 assessment beds;
- 123 treatment ward beds (including 12 on a female only treatment ward);
- 24 crisis house beds; and
- 12 male psychiatric intensive care units (PICU) beds.

Six crisis house beds and one assessment bed have been opened since January 2014 – a 4.5% increase in the bed base. However, analysis of inpatient bed numbers indicates that bed occupancy rates have increased from 88% in 2010 to 99% in 2013. This is primarily as a result of a net reduction in bed numbers across the trust by 39%.

When no bed is available in a Trust bed, additional capacity is sourced in alternative hospitals, usually in the private sector. In the last year, 160 admissions to the private sector have taken place (including PICU) compared to 129 in the previous twelve month period. The costs of this additional capacity were £573,000 in the first two months of 2014 alone.

The Mental Healthcare Mandate outlines the commitment to a budget of approximately £16.1m over the five year period to 2019 across a number of programme areas including education, training and awareness and improved service delivery and rebalance of specialist care with primary care. As with all programmes within the mandate, the overall aim over time is to reduce service demand in specialist mental health services.

Need Arising as a Consequence of Growth

As set out above the HUDU model has been used for the purposes of this study to estimate demand for future service and cost requirements for secondary health care. Therefore, all assumptions regarding provision standards are set by default within the HUDU model. It is also important to recognise that the HUDU model does not take into consideration the geographical area of provision and therefore the results represent demand across the whole of the borough. This is considered to be a reasonable approach given that secondary health care needs are not typically met at the neighbourhood or local level.

Table 3-13 provides the results given by the HUDU model analysis in terms of space requirements for secondary healthcare provision over the Plan period to 2031.

Table 3-13: Gross Secondary Health Care Demand- Secondary Care Space (m²)

Area	2015-2020	2020-2025	2025-2031	Total
Total	1,175	625	620	2,420

Source: URS

It should be emphasised that **Table 3-13** represents gross demand and therefore does not take account of whether existing infrastructure would be sufficient to meet the secondary healthcare needs from additional population growth. These results therefore represent a conservative approach to estimating infrastructure needs arising from secondary health care in LB Camden.

Consultation within the Camden CCG has indicated that at present health service models are constantly evolving and it is currently unclear how future secondary health care provision needs will be met. The responsibility for NHS capital investments has become more fragmented since 2012 and there is no longer one single body to make decisions in this area. It was also noted that primary or

community services may be able to replace additional requirements for Acute capacity although this is not confirmed.

In addition, based on consultation with the Council this study did not identify any current commitments for major expansion of secondary health care infrastructure in LB Camden. The main priority is for improvement of the existing health care services, in particular LB Camden's mental health infrastructure to ensure more accessible and reliable care.

Cost

The HUDU Model estimates that total capital costs for secondary healthcare over the forecast period 2015 to 2031 is £10.69m, of which £4.48m would be generated within Phase 1 (2015-20), £2.86m within Phase 2 (2020-25) and £3.34m within Phase 3 (2025-31). As discussed above, these costs should be seen as a 'worst-case' estimate given the potential for existing infrastructure within the borough to meet future demand arising from growth.

Consultation with the CCG did not yield any definitive position on the capacity of existing provision to accommodate the scale of demand for secondary health care provision estimated within the HUDU Model. Therefore, in the absence of more detailed local analysis it has not been possible to estimate net costs at this stage.

3.4 Adult Social Care

Context

Adult Social Care (ASC) covers care services for people aged between the ages of 18 to 64 including people with physical and sensory disabilities, people with learning difficulties and care for older people (65+ years). The Government's White Paper 'Our Health, Our Care, Our Say'³¹ promotes multi-agency, integrated community facilities such as Health and Social Care Centres, Community Centres, and extended schools.

ASC is an important part of the council's functions and is likely to be placed under increasing pressure in the future by a growth in population as well as changing demographics and continued reductions to future service budgets.

Existing and Committed Provision

Within LB Camden there are currently eight care homes as well as a further two located in LB Barnet which are available for Camden residents. Until 2013 Camden council directly provided four of these residential care homes for older people, in Wellesley Road, Ingestre Road, Branch Hill and St Margarets. In summer 2013 Wellesley and Ingestre Road care homes closed and residents moved into the new Maitland Park care home which is managed by Shaw Healthcare. In 2014 it is expected that both Branch Hill and St Margarets care homes will close and residents will move into a new care home in Wellesley Road, also managed by Shaw Healthcare.

Camden council will continue to hold block contracts for nursing older people including for beds in St John's Wood, Ash Court and Lansdowne care homes. LB Camden is a part sponsor of bed spaces in all three of these homes. In addition to these block contracts Camden council also spot purchases bed spaces in Rathmore House, Compton Lodge and Spring Grove residential care homes.

One Housing Group also operates the Camden Park House and Mary Wollstonecraft House which is a care home for adults with mental health problems. Consultation with LB Camden has revealed that at present, for older people, demand for residential and nursing care exceeds in-borough supply, which has resulted in spot-purchasing of beds from outside of LB Camden. It should however be noted that this is the case for most, if not all, inner-London boroughs. In 2013 it was found that Camden council had spot-purchased 190 residential and 90 nursing beds to accommodate service care requirements for older people.

³¹ Department of Health (DoH), 2006. *Our Health, Our Care, Our Say: A new direction for community services.*

One of the primary mechanisms by which improvements in ASC services are being realised is through the CIP. There are currently four ASC projects being delivered under the CIP and these are detailed in **Table 3-14** below. All of these projects will be funded by the CIP through capital receipts from disposal of existing facilities and S106 contributions.

Table 3-14: Summary of Key Adult Social Care Projects

Project	Description	Location	Delivery
Community Resource Centre at Greenwood Place	A new day care facility providing services for people with dementia, mental health conditions and learning difficulties. It will also host the Centre for Independent Living giving advice and support for people with disabilities. Provides additional capacity for young people with profound and multiple learning difficulties who use services outside of Camden.	Kentish Town	2016
New residential care home, Wellesley Road	Accommodation for 60 older people replacing facilities at Branch Hill House and St. Margaret's elderly person's home	Gospel Oak	2015
Replacement of Charlie Ratchford Resource Centre in Belmont Street with a new facility in Crogsland Road	Development of a new resource centre with provision of extra care flats	Haverstock	2016
Holmes Road Hostel	Redevelopment of the hostel to create 59 studio units for single homeless people	Kentish Town	2015

Source: LB Camden Adult Social Care consultation.

Future Demand

There is currently a move away from institutional ASC to home focused models of provision which provide people with greater opportunities for improving their own wellbeing.

Consultation with the council estimates that by 2018 a similar number of residential beds will be required to those spot purchased in 2013 (190 bed spaces). However, it is expected that the number of nursing beds which will be required is likely to drop once the new care homes at Maitland Park and Wellesley Road are open as these care homes will increase the in-borough provision.

Need Arising as a Consequence of Growth

Adult Social Care is affected more by population and demographic change than by housing growth, and we have not therefore modelled demand arising from housing growth. However, given that demographic trends to 2031 indicate a shift towards an increasing number of older people within the borough it is expected that demand will increase and new services will need to be provided. Given increasing budget reductions for ASC services it is anticipated that the CIP will continue to be the primary mechanism through which improvements are made.

Costs

A review of existing documents, information and consultation has not identified any costs associated with demand arising for adult social care.

3.5 Sports and Leisure Facilities

Context

This section considers publicly accessible sports courts, swimming pools and sports pitches. It is important to acknowledge up front that some people may choose to use privately operated sports courts and swimming pools as part of health clubs or fitness centres within private facilities within LB Camden.

3.5.1 Indoor Sports Provision

Existing and Committed Provision

At the borough level it is identified that there are 18 sports halls within LB Camden which provide more than three badminton courts³². These halls provide a total of 44 badminton courts which are accessible to the public. In addition there are a further 17 sports halls which offer less than 3 courts which are available for public use. The largest facility is a six court hall at Regent High School / Somers Town Community Sports Association. In July 2014 a new pool and fitness centre also opened at 5 St Pancras Square.

The Camden Open Space, Sport and Recreation Study (2014)³³ demonstrates that at present current capacity is insufficient to satisfy the total demand within the borough. The study identifies that there are deficiencies in meeting demand in Central London, Belsize Park, Kentish Town, Regents Park and the west of the borough. However, Gospel Oak, Hampstead and Highgate and Somers Town currently have sufficient capacity for sports hall facilities. It is important to note that whilst the study has identified areas within the borough experiencing a deficiency in sports hall provision it is likely that residents of these areas will travel to other areas in order to use sports hall facilities. In addition capacity could potentially be increased through extending operating hours and dual use arrangements at certain facilities.

Prior to the cancellation of the Building Schools for Future (BSF) programme the redevelopment of UCL Academy and Regent's High School were approved. This resulted in the addition of a new four court sports hall at the UCL Academy and improved sports hall facilities at Regent's High School. Under the Priority School Building Programme a new school (Netley School) is being constructed on the border between Somers Town and Regent's Park which will include a small activity hall (165m²) and is due to open in 2014. In addition a new 4 court sports hall opened at South Hampstead High School in November 2014. This is an independent school run by the Girls Day School Trust. These facilities are available for public use outside of school hours.

Need Arising as a Consequence of Growth

Based on an assessment of existing and committed supply and demand arising (at present and in future, as measured in visits per week) we conclude that Camden currently has an insufficient supply of indoor sports hall facilities. This problem will be exacerbated by the expected growth in population over the period to 2031.

The Open Space, Sport and Recreation Study (2014) covers the period up to 2025. It identifies an area equivalent to 21 badminton courts should be provided to meet the shortfall in sports hall facilities over the Local Plan period. The areas of most need have been identified as the Kentish Town, West and Central London sub-areas. The provision of additional facilities should be flexible enough to accommodate multi-use of the halls for a range of sporting activities.

The Open Space, Sport and Recreation Study also suggests that the recommended standard for sports halls should be 0.32 halls per 1,000 population. Applying this provision ratio to the population arising over the whole planning period it is estimated that a further two badminton courts should be provided within LB Camden resulting in a net demand for an additional 23 courts.

Cost

Based on estimates from the sports facility calculator³⁴ net provision for 23 additional indoor sports halls would equate to a total net cost of £18.8m.

³² To meet Sport England criteria, sports halls must provide space for 3 or more badminton courts.

³³ LBC, (2014); Open Space, Sport and Recreation Study.

³⁴ Sports England, (2014); Sports Facility Calculator. Available from: <https://www.sportengland.org/facilities-planning/planning-for-sport/planning-tools-and-guidance/sports-facility-calculator/download-the-sports-facility-calculator/>. [Last accessed: 20/10/2014].

Further analysis of demand for sports facility provision within the borough is currently being undertaken by LB Camden. This will inform a revised sports facilities strategy. At present there is an agreement for the delivery of one four court sports hall within the Kings Cross Central development which will be funded through developer contributions. However, whilst there is an identified need for additional sports hall provision within the rest of the borough there is currently no strategic commitment to increase provision and therefore no funding is currently allocated.

There is therefore no funding requirement for the provision of additional indoor sports halls within LB Camden over the plan period to 2031.

It should also be noted that the private sector typically plays an important role in the provision of sports and leisure facilities. Accordingly it may be that additional provision will be made by the private sector to help meet existing and future demand, although it should be acknowledged that cost will be a barrier to some of Camden's population.

3.5.2 Swimming Pool Provision

Existing and Committed Provision

Within LB Camden there are a total of 19 swimming pools which meet Sport England's criteria. However, as with indoor sports halls, all commercially operated facilities including those where access is only granted to those with registered membership or a sports club are also included. This includes school sports facilities utilised by sports clubs and those with dual-use agreements.

The Open Space, Sport and Recreation Study (2014) identifies that presently there is sufficient capacity to accommodate overall demand for swimming pools within LB Camden except for within the Regent's Park, Somers Town, and Gospel Oak areas where there is no swimming pool provision at all and within the Belsize / Primrose Hill area where demand is still not met. The study states however that in reality the populations within these areas would likely travel to other areas within the borough to use swimming pool facilities.

The study shows that in particular there is a large amount of swimming pool capacity within the Central London area. This is most likely to be attributed to the large number of commercial facilities, within this area which not only cater for the local population but are also utilised by local workers.

Recent development at Kings Cross Central includes the provision of a main pool of 25m in length and five lanes in width and a learner pool of 15m in length. The swimming pools are part of the public health and fitness facility which includes space capable of providing for gym/fitness suite, studio space and changing rooms. The facility opened in July 2014.

There are currently no committed or planned projects with regards to swimming pool provision.

Need Arising as a Consequence of Growth

The Open Space, Sport and Recreation Study suggests that the proportion of demand for swimming pool space is sufficient to accommodate the needs of local residents and visitors alike, particularly taking account of the additional facilities to be provided within the Kings Cross development. However, whilst the total supply of swimming pools are adequate to meet future demand, it is identified within the study that over half of the total pool space provision within LB Camden is provided at registered members-only sites.

The study concludes that whilst there is a large proportion of member-only provision within the borough, in total 93% of total estimated demand could be met through non-registered facilities up to 2025 with registered facilities accommodating the residual requirement for pool space. Therefore it is judged that there is no requirement for additional pool space within the borough up to 2025.

Whilst the Open Space, Sport and Recreation Study (2014) only covers the period up to 2025 it is the position of this Infrastructure Study Update that it is likely that the existing pool provision will be adequate to accommodate the needs of residents within LB Camden up to 2031. In addition, existing capacity could potentially be expanded through extended opening hours and dual use provision at certain facilities.

Cost

There are no costs as the capacity of existing provision is able to accommodate the potential demand arising.

3.5.3 Sports Pitches

Existing and Committed Provision

Within the borough there are currently 19 sports pitches comprised of 15 football pitches (including full size, junior, and mini pitches), three cricket pitches (full size) and one rugby pitch. The majority of pitches identified are in general public access (43%), whilst 21% of pitches have restricted access (access only to members of clubs or associations), whilst the remaining 36% are in shared/dual use (e.g. formal arrangements which allow the use of facilities out of hours).

Other outdoor sports provision includes athletics facilities, multi-use games areas (MUGAs), tennis courts, netball courts, basketball courts and bowls. There are 79 'other sports' facilities within the borough, the majority of which are MUGAs and tennis courts.

At present LB Camden has a very limited supply of outdoor pitches and as such the Open Space, Sports and Recreation Study (2014) highlights that typical playing pitch methodologies are unsuitable in the context of the borough as it is unlikely that LB Camden will be able to provide additional outdoor sports pitches. The focus therefore should be on retention of existing provision and ensuring that the quality of pitches is of a high standard to enable effective use.

There are currently no committed or planned projects with regards to outdoor sports provision.

Need Arising as a Consequence of Growth

Projection of demand for outdoor sports facilities was made within the Open Space, Sports and Recreation Study by applying participation rates³⁵ to the demographic profile of the borough up to 2025. The participation rates indicated that there is a greater participation in football and tennis in the borough when compared to the national average. The study states that by 2025 demand for tennis facilities within the borough is likely to increase by 3% and that four additional courts would be required to meet demand up to 2025. The existing supply of courts should also be maintained and the quality and surface of some of the courts should be upgraded.

No demand was identified for other forms of outdoor sports facilities.

Cost

Further analysis of demand for sports facility provision within the borough is currently being undertaken and will result in an updated facilities strategy. However, whilst there is an identified need for additional tennis court provision within the borough there is currently no strategic commitment to increase provision and thus there is currently no funding allocated to the provision of additional courts within LB Camden.

As the cost of four additional tennis courts is not yet committed and the exact costs of each tennis court could not therefore be provided.

3.6 Parks and Open Spaces

Context

Public open space is defined in the London Plan 2011 as public parks, commons, heaths and woodlands and other open spaces with established and unrestricted public access and capable of being classified according to the open space hierarchy which meets recreational and non-recreational needs. The benefits of sufficient, high quality open space contributing to a green infrastructure network

³⁵ Based on the Resident's Survey 2013

include a better environment and sense of place, encouragement of non-motorised transport modes, and improved mental and physical health and wellbeing.

Existing and Committed Provision

The Camden Open Space, Sport and Recreation Study 2014 provides an up to date assessment of parkland and open space assets within Camden, and the requirement for these, over the period to 2025.

The study identifies that Camden has a total of 293 open spaces, totalling approximately 589ha. In total 77% of the open spaces are public parks, comprising 98 parks and 396ha of land. The remaining public open space is comprised of amenity green space, allotments and community gardens, cemeteries, civic spaces, natural or semi-natural urban green spaces and outdoor sports facilities of which some of the space is publically accessible.

In terms of access to metropolitan parks, both Hampstead Heath and Regents Park serve the borough well and all areas of the borough, including the key growth areas, have reasonable access, in distance terms, to Metropolitan Parks. In the case of smaller open spaces such as Local Parks and Small Local Parks however, the 2014 Study identified areas of shortage in central and western areas of the borough. There is also an identified shortage of District Park access within West Hampstead, Highgate, Gospel Oak, Kentish Town, Somers Town and Central London when assessed against the GLA Open Space Hierarchy³⁶. There are also identified deficiencies in open space in the south of the borough in areas such as Holborn and Covent Garden where it has been difficult to create traditional areas of public open space.

The 2014 study states that the current level of provision equates to 2.7ha of public open space per 1,000 population including 1.8ha of public park provision per 1,000 population in LB Camden. It is identified however that many wards currently fall below this average. At present if Hampstead Heath is excluded then public open space per 1,000 population drops to 1.4ha and public park space to 0.6ha.

The study estimates that the amount of open space per person will drop to 1.3ha per person in 2025 assuming a population increase to 247,228 people living in LB Camden, down from 1.4ha per 1,000 population when taking into account the exclusion of Hampstead Heath.

The key conclusions from the study with respect to parks and open space are:

- Firstly, that Camden performs well at the upper end of an open space hierarchy in terms of provision of metropolitan and district parks, but doesn't perform as well at the lower end of the hierarchy, having in particular few Local Parks of reasonable size thereby restricting access to such parks by local residents; and
- Secondly, the 2014 Study recommends that the amount of open space per worker in the borough should remain at 0.8m². This should be applicable to future large developments including mixed use, B1 offices and retail developments, using the council's existing threshold of 1,000m² to signify what is and is not a major development. The study recommends that a standard of 1.3ha of public open space per resident should be maintained to 2025 based upon the population expansion estimates of the GLA. This includes new residential development and has been calculated in order to address existing deficiencies.

Some new public spaces and parks are coming forward as part of the King's Cross Central development, though this site is in a highly urban and dense area of inner London, and the provision of space is likely to be hard public realm design as part of place shaping.

Funding allocated for provision and improvements is detailed in Camden's Park Improvement Plan, which provides a strategic plan of investment in parks and open spaces over five years. The plan is reviewed regularly to ensure it continues to meet the highest priorities and to respond to changes in demand and funding. The plan is funded by a combination of Section 106 contributions, capital

³⁶ GLA, (2012); Draft SPG: Shaping Neighbourhoods: Children and Young People's Play and Informal Recreation. HMSO

funding and external grants. The investment programme for 2014/15 and 2015/16 totals £1.13 million, of a total £3.3 million available to be invested, as of April 2014.

Need Arising as a Consequence of Growth

The Open Space, Sport and Recreation Study (2014) identifies that to meet deficiencies in public park provision within the borough up to 2025, approximately 13.6ha of additional park space should be provided. However, what can actually be provided within the borough will depend on what is achievable given the urban nature of LB Camden and what is viable given developer contributions.

The following measures to address public park deficiencies were proposed within the Open Space, Sport and Recreation Study (2014):

- One additional pocket park in the Gospel Oak sub-area;
- Two additional pocket parks in Holborn and Covent Garden;
- Two additional small local parks in Frognal and Fitzjohns ward and one small local park in Highgate ward;
- One additional pocket park in St Pancras and Somer Town; and
- Two additional small local parks in Fortune Green ward and Kilburn ward.

A total of nine additional open spaces, inclusive of four pocket parks and five small local parks are proposed to meet deficiencies within the borough up to 2025.

LB Camden Planning Guidance³⁷ indicates that new development should provide 9m² of public open space per residential occupier and 0.74m² of public open space per employee/student. Of the requirement for residential occupiers, approximately 5m² of amenity open space and 4m² of natural green space should be provided. For employees and student occupiers, approximately 0.4m² of amenity open space and 0.34m² of natural green space should be provided.

Based on these requirements, the infrastructure model indicates that 284,506m² of public open space should be provided as a result of new residential and commercial development within the borough over the period to 2031. The breakdown and phasing of this requirement is outlined within **Table 3-15**.

³⁷ LB Camden, (2011). Camden Planning Guidance: Amenity.

Table 3-15: Requirement for Public Open Space (2015-2031)

Phase	Residents (ex. Students)	Public Open Space Requirements (m ²)	Of which Amenity Open Space (m ²)	Of which Natural Green Space (m ²)
2015-2020	13,106	117,950	65,528	52,422
2020-2025	7,294	65,644	36,469	29,175
2025-2031	7,205	64,844	36,024	28,820
Total	27,604	248,438	138,021	110,417
Phase	Employees / Students	Public Open Space Requirements (m ²)	Of which Amenity Open Space (m ²)	Of which Natural Green Space (m ²)
2015-2020	17,740	13,128	7,096	6,032
2020-2025	14,000	10,360	5,600	4,760
2025-2031	17,000	12,580	6,800	5,780
Total	48,740	36,068	19,496	16,572
Total Requirement	-	284,506	157,517	126,989

Source: LB Camden, (2011). Camden Planning Guidance: Amenity. URS calculations.

In addition to the provision of new public open space there will be also be opportunities within the borough to expand and enhance the provision of open space and the majority of new provision is likely to be in the form of small open space and pocket parks given the constrained urban nature of LB Camden. In addition the council will be looking to deliver other forms of green infrastructure such as green corridors and green roofs and walls to improve the quality and value of existing spaces. It is likely that development will be assessed on a site-by-site basis and there will be trade-offs dependent on the scale, nature and location of individual schemes.

Whilst an increase in population will place additional demands on Camden's parks and open spaces, the fact that Camden is already very built up means that there is often little space for new open space provision. As a result, there are serious difficulties faced by the borough in providing new open space. This is particularly so for large open space areas, such as District Parks or large Local Parks. It is recommended that where additional open space cannot not provided that the quality of existing spaces should be improved.

As identified above however, the borough does have reasonable provision of large open space areas including Hampstead Heath and Regent's Park (which partly falls within Camden and which is reasonably accessible to the south-western side of the borough) that can meet the demand from those residents living proximate to these parks.

Cost

For the purposes of this study it is assumed that where open space is provided in kind, the cost of provision will be borne by the developer and there will be no cost to LB Camden council associated with the provision of that space. In situations where a financial contribution is warranted, the value of the contribution should be worked out in reference to the cost required to mitigate the impact of development.

3.7 Child Play Space

Context

The GLA's Supplementary Planning Guidance (SPG) '*Providing for Children and Young People's Play and Recreation*'³⁸ provides guidance for the provision of play space and recreational facilities for children under the age of 18. It identifies the need to reflect the diverse needs of children and young people and the potential to meet the needs for play through the multi-functional use of other categories of space.

The Camden Open Space, Sport and Recreation Study 2014 provides an up to date assessment of child play space assets within Camden, and the requirement for these, over the period to 2025.

Existing and Committed Provision

Out of a total of 258 open spaces (which did not include school sites) assessed in 2013, 66 contain some form of children's play provision. There are also play spaces provided within housing estates across the borough, however these have not been included as these facilities can often be restricted to residents use only.

Children's play space offers play provision for children aged 0-16 years. The 2014 Study states that there is currently an average level of provision of 26.5m² per child. The majority of informal play space provision is concentrated within a small number of wards including, Highgate (37%), Regent's Park (25%) and Camden Town (24%). Areas such as Frognal and Fitzjohns have a very low provision of informal play space per child (0.2m² per child).

The distribution of children's play space across the borough is therefore not even and there are areas that do not have access to dedicated children's play space. The potential exists however to upgrade existing children's play space within areas of deficiency to meet Locally Equipped Areas of Play (LEAP) and Neighbourhood Equipped Areas of Play (NEAP) standards and therefore alleviate access deficiencies.

The quality of child play space within the borough is assessed to be of predominantly 'good' quality (86%) whilst 14% of spaces were identified as 'fair' and none were identified as 'poor' or below.

The recreational role of open spaces was also assessed as part of the Open Space Study (2014) where open spaces provided a recreational role for children. It was identified that 54 publicly accessible open spaces had an informal recreational role for children's play with space suitable for activities such as informal games, and space for running.

Camden's Park Improvement Plan forms the strategic-level framework for the allocation of Section 106 open space contribution investments to enhance provision of child play space within the borough. The investment programme for 2014/15 and 2015/16 totals £1.13 million (including open space improvements), of a total £3.3 million available to be invested, as at April 2014.

Need Arising as a Consequence of Growth

It is assessed within the 2014 open space, sports and recreation study that to meet the needs of the borough to 2025 and to address existing deficiencies in access to child play space, the quantity of formal provision should be increased by approximately 4,600m². This provision could be bought forward at new open spaces or through the adaption / redesign of existing spaces but should be located to provide maximum benefit to alleviating access deficiencies.

Proposals for new housing development should also mitigate against demand arising from new populations and needs generated as a result of proposed development. The 2014 Open Space, Sports and Recreation Study states that the recommended quantity standard for formal children's play provision is 0.65m² of formal provision per child. The recommended quantity standard for formal

³⁸ GLA, (2012); Draft SPG: Shaping Neighbourhoods: Children and Young People's Play and Informal Recreation. HMSO, (2004); Planning and Compulsory Purchase Act.

children's play provision constitutes part of the recommended GLA standard of 10m² per child for new development.

Whilst the 2014 study presents the infrastructure requirements for child play space up to 2025 this study must consider infrastructure needs up to 2031. Therefore, applying the recommended standard above to the number of children (aged 0-15) arising within Phase 3 (2025-31) it is estimated that gross demand for a further 1,144m² of formal child play space within LB Camden.

It is therefore estimated that there will be a net demand for 5,744m² of child play space to meet demand over the period to 2031.

Cost

Assuming £199 construction cost³⁹ per square metre of child play space the net cost for child play space provision within the borough up to 2031 would be £1.1m.

For the purposes of this study it is assumed that where child play space is provided in kind, the cost of provision will be borne by the developer and there will be no cost to Camden council associated with the provision of that space. It is therefore assumed that approximately 50% of the costs of providing additional child play space will be met by in-kind contributions. A net funding gap of approximately £572,000 therefore remains.

3.8 Allotments

Context

Allotments include allotments, community gardens and city farms. Interest and demand for allotments has increased within recent years due to public awareness of 'green' issues and concerns over the links between food and health. Furthermore, demand within Camden is likely to be exacerbated by the high proportion of flats and terraced housing which reduces the potential for residents to 'grow their own' within private open space.

Existing Provision

Within the borough there are four council owned and managed allotment sites including Antrim Grove Allotments, Fitzroy Park, Branch Hill allotments and Westcroft Estate allotments. In addition there are a further three privately managed allotments which include Augustus and Redhill Allotments, Railway Embankments, Hampstead Heath and Railway Embankment Village. There are also two community gardens including Adelaide Community Garden, and the Calthorpe Project which provides food growing areas.

The four council managed sites include a total of 194 allotment plots with a total area of 1.6ha whilst there are approximately 145 privately managed plots with a total area of 1.8ha. As of December 2013 there were a total of 1,746 people on a waiting list for a council owned allotment within the borough⁴⁰. All council managed plots are currently occupied.

The spatial distribution of allotment provision is uneven, and only six wards within the borough have access to council or privately managed allotment including Belsize, Fortune Green, Frognal and Fitzjohns, Gospel Oak, Highgate and Regent's Park wards. Borough wide it is estimated that 49% of households are not well provided for with regards to allotment space based on a catchment of 800m (walking distance) from the existing plots within the borough.

Within the borough, deficiencies are concentrated in Bloomsbury, Camden Town with Primrose Hill, Holborn and Covent Garden, Kentish Town, Kilburn, King's Cross, Swiss Cottage and West Hampstead.

³⁹ LB Camden, (2008). *Open Space, Sport and Recreation Study*. Consultation with LB Camden confirmed no up to date cost figures are available.

⁴⁰ Waiting list data for privately managed plots is not available.

Need Arising as a Consequence of Growth

The average provision of allotment space within LB Camden is currently 0.29ha per 1,000 population. However, by 2025 this is estimated to decrease to 0.27ha per 1,000 population demonstrating the impacts of population growth on allotment supply.

The Open Space, Sport and Recreation Study estimates that, based on demographic change and existing shortfalls in provision, there could be demand for an additional 41 allotment plots by 2025 in addition to the 166 plots currently needed. Therefore, to fulfil demand for allotment provision for both demographic change and existing latent demand from areas underserved by existing provision it is estimated that a net total of 207 allotment plots will be required by 2025.

Whilst the study presents the infrastructure requirements for allotment provision up to 2025 this study must consider infrastructure needs up to 2031. The resident population arising within Phase 3 (2025-31) is estimated to yield an additional 3,189 households⁴¹. As per the Open Space, Sport and Recreation Study, an assumption of 3 plots per 1,000 households has been applied resulting in a net requirement for an additional 10 allotment plots to meet demand arising from new development up to 2031.

Based on an average plot size of 0.01ha it is assessed that additional demand for a net total of 217 allotment plots will result in a requirement for approximately 2.2ha of allotment land to be bought into use.

Given land constraints within the borough it is unlikely that an additional 2.2ha of allotment land could be provided over the Plan period. However, this demand could be met to some degree through the re-use of other types of open space as well as seeking new space in non-traditional forms of provision. This could include community gardens or roof gardens.

The Open Space study also suggests that new housing development should include proposals to improve allotment provision, particularly where the development lies within an area of existing deficiency in access to allotment sites. Developments could also incorporate non-traditional allotment forms such as community gardens, window boxes and planted garden roofs.

Cost

At present provision is generally managed by the council. However, additional funding would secure a more comprehensive management and maintenance strategy. This may be achieved by integrating the improvement of allotments within other initiatives relating to regeneration, neighbourhood renewal and Local Agenda 21 and bidding for external funding.

The Open Space, Sport and Recreation Study proposes that improvements and expansion of allotment sites could also be funded through National Lottery funding, the SEED programme, the ENTRUST Landfill Communities Fund and the Co-operative Group Community Dividend.

At present no costs have been identified for the provision of additional allotment plots.

3.9 Libraries

Context

Camden recognises that there has been a shift to new models of service provision in libraries. Libraries are no longer solely a place to borrow books but also function as a community hub offering services and facilities to cater for a range of community needs including those of children, students and job seekers.

There is an emerging trend in some other communities for libraries to increasingly become a community focus point offering a wider range of services than has traditionally been the case. Camden's Core Strategy notes that the model of provision for community services is changing and

⁴¹ This is based on an average household size of 2.259 as used in the Open Space, Sports and Recreation Study (2014).

that there is a need to ensure that the efficient use of community facilities is achieved and a range of services (including library provision) is provided to the community at accessible locations. This model of provision could eventually lead to lead to greater efficiencies in space utilisation through the multi-purpose use of space and reduce overall space requirements for the range of services being offered across libraries and other community facilities.

Existing and Committed Provision

Work undertaken as part of the LB Camden Strategy on *Provision of Public Library Services 2011-14* included a 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 of library space within the borough. The provision of library facilities was generally observed to be 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 LB Camden fell slightly below the desired proportional rating of ‘good’ or ‘very good’.

Based on data provided by the Chartered Institute for Library and Information Professionals (CILIP)⁴², in 2013 LB Camden had the 2nd highest physical library visits per 1,000 population within London and the 3rd highest nationally. However, in terms of total book issues per 1,000 population, LB Camden was 25th highest within London and 148th highest nationally highlighting the non-traditional use of libraries by residents within the borough for activities such as computer use (LB Camden has the 3rd highest number of computer hours used per 1,000 population within London).

As part of the council’s ongoing savings programme, the Cabinet set out a number of options in the *Future Shape of Library Service and Implementation of Savings Programme* in 2011 which resulted in the provision of council maintained libraries within the borough reduced from thirteen to nine. Three libraries were transferred to community organisations whilst one library closed permanently. Co-location of other public services within library buildings is also under active development at a number of locations. The libraries within LB Camden are listed in **Table 3-16**.

Table 3-16: Library Provision within LB Camden

Maintained Libraries
Camden Town Library
Highgate Library
Holborn Library
Kentish Town Library
Kilburn Library Centre
Pancras Square Library
Queen’s Crescent Library
Swiss Cottage Central Library
West Hampstead Library
Community Libraries
Primrose Hill Community Library (previously Chalk Farm Library)
Belsize Community Library
Keats Community Library (formally Heath Library)

Source: LBC, (2014). *Camden Council Libraries*, available at <http://www.camden.gov.uk/ccm/content/contacts/council-contacts/leisure-council-contacts/contact-camden-libraries.en>. [Last accessed: 10/10/14].

In addition to LB Camden’s local libraries there are also home, mobile and school library services. There is also a local studies and archives service, commissioned IT facilities and homework support in

⁴² Chartered Institute for Library and Information Professionals (CILIP), (2013). *Libraries Comparator Data- LB Camden*.

the Regent's Park area and outreach is provided in community settings by three Early Years librarians. The borough also benefits from having the British Library within its borders. The British Library is however primarily a national facility and does not aim to provide facilities and services for the LB Camden community in the same way that the borough's other libraries do.

Consultation within the council has revealed that over recent years the range of activities within libraries has been increasing, including council services and community and voluntary led activities and services. As such the role of libraries within the borough has started to become a significant network of council service points for local communities.

In terms of provision committed, there are no current plans for capital investment to expand any of Camden's libraries. Two possible projects at existing libraries (Crowndale Centre and Holborn Library) are acknowledged, both of which may involve the re-provision of library facilities as part of wider redevelopment opportunities under the CIP programme. If both projects are realised, they will likely involve the decant of library services by 2017/18, however, no firm plans have been concluded.

There are currently no other plans to rebuild Camden's libraries; the main focus regarding planned investment is on increasing accessibility by improving the services which libraries in the borough offer. It should also be noted that there will be opportunities to review library provision in other areas where CIP projects are being progressed.

Need Arising as a Consequence of Growth

There are currently no strategic infrastructure requirements for libraries arising over the Core Strategy planning period from to 2031.

While concluding that there is sufficient provision of library space both currently and looking forward to 2031, there may be improvements with regard to the quality of provision and its geographic distribution. With regard to the latter, it is noted that the existence of a large facility at Holborn is beneficial given the expected increase in population in the south of the borough both within and surrounding the growth areas. However, the library is currently outdated and is in need of modernisation. The current proposals for the re-provision of the library as part of wider development objectives will offer a significant opportunity to improve the quality of library provision within this area.

It is further noted that there are other ways to get more out of existing library infrastructure through various means, including through introducing new technologies, reconfiguration of existing sites and offering longer opening hours. An extension of opening hours could provide a significant increase in provision of library services which could be achieved within existing premises throughout the borough.

Costs

The Libraries Service in LB Camden undertook 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.

There are currently no costs associated with the provision of library facilities within LB Camden up to 2031 as a result of growth arising from development. Costs associated with the re-provision of both the Crowndale and Holborn libraries are anticipated to be met through the CIP and it is anticipated that any future redevelopment opportunities for library provision will also be delivered through the CIP.

3.10 Employment and Training Projects (Job Brokerage)

Context

The Camden Plan⁴³, launched in 2012, sets out the council's five-year vision for the borough and sets out how it is seeking to make Camden a better borough by 2017. A key Camden Plan objective is to create the conditions for and harness the benefits of economic growth. This is supported by two primary outcomes- investing in growth and reducing the number of young people not in education, employment and training (NEETS) and unemployment. These plan out comes set the context of the strategy influencing the council's approach to employment, training and job brokerage.

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, such as 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, and housing associations.

The council has identified the growth sectors of professional, administration and business support services, science and creative industries likely to deliver future growth and jobs in the borough. A number of important sectors have also been identified, which will deliver certain types of jobs and wider benefits including retail, visitor economy, higher/further education, health, construction and jewellery. This information informs the council's work and supports the delivery of the Camden Plan objectives.

There is also a growing policy driver around boroughs working sub-regionally focused on job brokerage and skills and employment initiatives. This has been the focus of recent New Homes Bonus work and the impending European structural fund bidding rounds.

Existing and Committed Provision

Following the onset of the recession in 2008 and the change of government in 2010, major structural changes occurred to the funding landscape of employment and skills across the country. In Camden this was reflected by a move away from significant investment in its own employment and skills service, Camden Working, which was withdrawn in early 2011.

LB Camden has sought to utilise the range of resources available across the public, private and voluntary sectors, to ensure that support is available for its residents. These wide ranging partners are represented in the Employment and Skills Network (listed above). This means the infrastructure requirements are not for the council but for the partners in the borough, and their needs and demands fluctuate depending on the funding they have at any point in time to deliver their employment services. There are no clear requests from partners stating a lack of space to provide their services at present, which is the best indicator of whether sufficient space is available for these partners.

Jobcentre Plus and the Work Programme are commissioned by the Department of Work and Pensions (DWP) to provide 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 373m² and 495m² Net Internal Area (NIA) of job brokerage floorspace respectively.

The Work Programme (WP) has been commissioned to private sector providers, being delivered by Reed in Partnership, Ingeus, and Maximus by the DWP. Their offer covers the 'West London Contract Package Area' (CPA), in which Camden sits along with 15 other boroughs. The WP is an 'outcomes

⁴³ LB Camden, (2012). *The Camden Plan: 2012-2017*.

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:

- The National Careers Service (delivered currently by the private sector provider Prospects); and
- ESF Families Programme (delivered currently by the private sector provider Reed in Partnership).

Neither has office space in Camden, and provide drop-in services using other facilities such as libraries and community centres.

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 who have a small office space in Bloomsbury, and West Euston Partnership (WEP) have secured a significant office and brokerage space from British Land, creating additional space in the borough. There are a number of voluntary sector specialist providers such as the Camden Society who support residents with learning disabilities into work, as well as provision commissioned by the council such as the 'Mental Health Working' service managed by Remploy and the Single Homelessness Project (SHP), both operating out of premises they lease. Further Education Colleges, namely Westminster Kingsway College, City Lit, and Working Men's College all provide a range of employability training or sector based training, and also have advice and guidance integrated into their work.

There are significant European Structural Investment Funds (ESIF) being released by government in 2015, which may result in additional employment and skills capacity, and consideration may need to be given whether sufficient physical brokerage space is available to house them. The council's aspiration to utilise its resources as 'networked hubs' is also of relevance, as other public service spaces are increasingly used to cope with a wider range of service demands.

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 Recruit (KXR). The Camden Apprenticeship Scheme brokers opportunities within the council and with local employers in a range of sectors, including childcare, health and social care, building maintenance and facilities management as well as support functions such as business administration, customer service, finance and ICT. The council is currently developing a two year programme of higher apprenticeships focused on the growth sectors of science and creative industries.

The KXCSC provides job brokerage and training for roles in construction, predominantly available on the Kings Cross Central development site. KXCSC also provides a wider recruitment support function to developments being undertaken across the borough. Job brokerage space here comprises around 150m² NIA.

Kings Cross Recruit has been developed as part of 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 27,000 over the duration of the development. Kings Cross Recruit has been 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 KXR is to secure local vacancies at King's Cross Central and promote high levels of local employment within the end use workforce. It provides recruitment services to employers, employees and job seekers. The premises are 250m² NIA and opened in 2014.

Building Lives have also developed a construction training centre at Gospel Oak, providing a range of multi-skills training programmes. Financed through the Skills Funding Agency (SFA), the centre provides training to 50 candidates per year.

Existing Demand

Existing demand can be considered under the following headers:

- Employment:
 - Fewer Camden residents are in work as a proportion of the working age population than in London or the country as a whole. The employment rate in Camden was 65% for Q1 2014⁴⁴. The relatively low rate is due to the large proportion of students resident in the borough but there remain sections of the population that also face significant barriers to accessing employment. Comparison with similar central London boroughs suggests that a low employment rate is fairly typical of Central London - Camden has a slightly lower employment rate than Westminster or Islington, but higher than Kensington & Chelsea.
- Unemployment:
 - The unemployment claimant count, covering people claiming Job Seekers Allowance (JSA), stood at 3,395 in June 2014 or 3.4% of the economically active population excluding students, lower than London as whole (3.8%) and Great Britain (3.5%)⁴⁵. It should be noted that unemployment rate/figures are based on GLA modelled estimates and differ from ONS estimates. JSA claimants have been falling since the peak of the recession and are currently at the lowest level since the mid-1980s. The claimant rate is currently lower than it was pre-recession.
 - Female unemployment by this measure now stands at 2.9% - still higher than pre-recession levels of 2.5%. While lower than the percentage for London as a whole, the level is the same as that recorded for Great Britain as a whole. The recovery of females in the labour market has not been as marked as that by the males but is still outperforming those of Inner, Outer and Greater London.
 - 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 had increased significantly during the recession but has now fallen back to below pre-recession levels. The unemployment claimant count for young people aged 16-24 in June 2014 was 510 or 5.1% of the population not in full-time education, the same as for Central London, but lower than Greater London (5.7%) and Great Britain (6.2%). This represents a fall of -220 (-30%) on March 2008, the lowest point before the start of the recession.
 - Of people who identified their ethnicity, people from black and minority ethnic groups made up 41% of all JSA claimants in May 2014⁴⁶. The number of people from ethnic minorities claiming JSA had increased during the recession but has now fallen. Compared to February 2008, there are now 105 fewer claimants from minority ethnic groups (-7%). However, this compares less favourably with falls for the White groups of -20% over the same period.
 - Unemployment is highest in St Pancras and Somers Town, Kilburn, King's Cross, Gospel Oak and Regent's Park wards. The wards with the highest claimant count unemployment rates in June 2014 are St Pancras and Somers Town (6.4%), Kilburn (5.5%), King's Cross (5%), Gospel Oak and Regent's Park (both 4.6%). These wards

⁴⁴ Annual Population Survey 2014 Q1 (ONS). Compares with London (70.5%) and UK (71.7%).

⁴⁵ JSA Claimant Count and rate as calculated by GLA (ONS/GLA).

⁴⁶ Some caution is needed when using these figures as not all people declare their ethnicity – in Camden this proportion is much higher than in other places: Camden (20.6%), London (10.7%), GB (5.7%). The proportion not declaring has changed over time, increasing in Camden from 12.8% in April 2008.

are also among the most deprived and contain large ethnic minority populations. Hampstead Town has the lowest rate (1%).

- Economic Inactivity / Worklessness
 - In total 30% of LB Camden's working-age population are currently economically inactive⁴⁷, higher than the proportion for London as a whole. This has been the case since 2004 when the dataset started, though has been more volatile post-recession. The rate of economic inactivity is higher for women (37%) than men (24%). In November 2013, 20,220 people in Camden were claiming out-of-work benefits, equivalent to 10.7% of the working age population. This is slightly higher than the proportions for London (10.2%) and Great Britain (10.6%)⁴⁸. The proportion has been on a steadily downward trajectory since 1999 when the data first became available. The highest proportion of residents claiming out-of-work benefits were in St Pancras and Somers Town (15.6%), Kilburn (15.1%) and Haverstock (13.2%).
 - 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. Since 2009, the number of employee-jobs estimated working within the LB Camden's boundaries has increased from 280,300 to 316,400 in 2013 (+36,100 or 12.9%)⁴⁹. GLA forecasts growth of 28,000 employee-jobs over the next 10 years, though projecting from a different base⁵⁰.

Need Arising as a Consequence of Growth

As stated in the *2012 Update*, 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.

The availability of job brokerage space in the borough is highly dependent upon overall demand, and this could be affected if there were major changes in the structural labour market, created by national and international conditions outside of LB Camden's control. This could then create a greater need for job brokerage space.

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

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 150m² space devoted to job brokerage. It is recognised however that this

⁴⁷ Annual Population Survey 2014 Q1 (ONS). Variability may be related to small APS sample size for Camden.

⁴⁸ DWP Benefits Data (ONS).

⁴⁹ Business Register and Employment Survey 2013 (ONS). Please note this does not include those who are self-employed.

⁵⁰ GLA Economics Employment Forecast Feb 2013 (GLA).

space is focused on servicing construction sector employment needs, which is a relatively small sector in employment terms within the borough's population, Construction on Kings Cross is expected to continue until 2020.

For the purpose of this study, in consultation with LB Camden, an updated estimation of future demand has been made, using forecasts of the population arising from new development in the borough.

Based on the projected housing trajectory to 2031 it is estimated that an additional 29,344 residents will arise from new development within the borough to 2031. If the claimant rate (as a proportion of the total population) over this period were to remain stable (9%), and an assumption is made that one job brokerage worker has a workload of 60 cases, this would result in a need for sufficient workspace to accommodate an additional 43 workers by 2031. Using the Homes and Communities Agency (HCA) employment density guidance figure for office floorspace of 12m² per worker, 43 workers would result in a gross requirement for 516m² of space in total to satisfy future need. This demand by phase is set out below.

Table 3-17: Gross Demand for Job Brokerage Services

Phase	Job Brokerage Workers (Gross demand)	Job Brokerage Space Requirement (m ²) (Gross Demand)
2015-2020	22	264
2020-2025	11	132
2025-2031	10	120
Total	43	516

Source: URS

KXCSC is due to be relocated from its current site before by the end of 2015. Kings Cross will however continue to support a construction training facility for the remaining duration of the build programme until 2019/20. A forward strategy is in the process of being developed and will consider future construction demand within the borough. Further development opportunities such as the council's 15 year Community Investment Programme (CIP), potential development of HS2 and regeneration around Euston alongside wider construction and sub-regional working are also being considered in the development of this strategy.

At this point it is difficult to predict what construction training and brokerage provision will be beyond the existing commitment to Kings Cross Central, where the build schedule is expected to be completed by 2019/20. Therefore it has not been possible to estimate future costs with any certainty.

It should be recognised that employment brokerage can be delivered from a range of venues and it is not essential that this is undertaken from a purpose built facility, for example construction brokerage can be delivered from an office.

Costs

No costs have been identified for this infrastructure item.

3.11 Cemeteries

Context

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, 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.

Consultation has been undertaken with Islington and Camden Cemeteries Service (ICCS) for this update.

Existing and Committed 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, and given Camden's high urban density they form a valuable part of the borough's open space provision.

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 which 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;
 - It has six 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 six 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 is projected to decrease over the coming years as grave space is used up.

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.

Consultation with ICCS has identified that there are three priorities for planned and committed projects over the short to medium term. There are currently proposed plans to expand Trent Park cemetery and look at the reuse of older areas within Islington and St Pancras cemeteries which may also include Hampstead cemetery which are managed by the ICCS. Details of this project and other planned projects are detailed in **Table 3-18**.

Table 3-18: Committed and Planned Cemetery Provision

Project	Phase	Cost (£) (000's)
Priority 1		
Essential repairs to the cemeteries roads	2015-18	80
Expansion of the burial area at Trent Park cemetery	2015-18	500-1,000
Improvement of corporate signage and maps around Trent Park	2015-18	180
Tree risk survey of Islington, St Pancras and Hampstead cemeteries including 3 year inspections and an initial rectification programme	2015-18	104
Priority 2		
Prioritisation of areas within St Pancras and Islington cemeteries for re-use of grave areas	Post 2018-19	
Priority 3		
Develop the old RC chapel site in St Pancras Cemetery into an area of high value vaults and mausolea	2017-18	

Source: ICCS consultation (2014).

Need Arising as a Consequence of Growth

The current demand for new graves is in the order of 350 and there is an estimated current availability of un-used land in St Pancras and Islington cemeteries of around 6 years. However, through a process of site maintenance including scrub clearance it is expected that additional space can be made suitable for future graves which may increase the supply of grave space although it is not possible to quantify this increase.

At present the death rate nationally is very low. According to the Office for National Statistics (ONS), this is expected to rise by the end of this decade and thus is expected to increase the annual numbers of new graves required, thereby decreasing the amount of available land at an increased rate.

There are however 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. These are outlined below:

- 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).
- 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.
- 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).

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 Local Plan period.

Consultation with ICCS has identified that investment in Trent Park cemetery (located in the LB Enfield) is a key investment project and will be required as part of a joint venture between Camden and Islington council (around 2015). This will increase the amount of burial space capacity accessible to meet future demand from Camden and Islington residents.

Costs

Although space is available within Trent Park, the infrastructure required to make it usable requires funding the scale of which is estimated at between £500,000 and £1m

In addition consultation with the ICCS has confirmed that a further £364,000 of costs will be required to fund maintenance and improvement projects within the four cemeteries it maintains which provide cemetery space for LB Camden residents.

3.12 Community Meeting Facilities and Space

Existing and Committed Provision

Community buildings in Camden can have either a single purpose or they can be multi-purpose facilities providing for a range of different services. There are a total of 41 council owned community buildings within Camden offering a wide range of services and facilities catering to all age groups.

The Camden Community Investment Programme (CIP) sets out the planned investment into Camden's community centres, as set out below. Consultation with the council has revealed that the following projects are still pending:

- **St Pancras Community Centre:** the CIP sets out the relocation of the Centre to a new site. The community centre will be constructed on the Richard Cobden School changing room site with activities for children and support for the elderly. The centre will include a small sports hall, recording studios, café, meeting spaces and better changing rooms. 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 2014/15;
- **Highgate Newtown Community Centre:** the CIP has developed a proposal to repair and improve Highgate Newtown Community Centre. The proposals including building a high ceiling community hall with sprung floor and other features for multi-purpose use including sports and games activities with new flats above. The sale of the proposed new housing will pay for the new community hall, improved community centre and any improvements possible to areas around the site.
- **Bengali Workers Association (Surma Community Centre):** the CIP refers to plans for the relocation of the Surma Centre to a new site. Target planning permission was for the beginning of 2014, with the aim of commencing works in summer 2014. This was subject to identifying alternative accommodation for the BWA during the redevelopment of the 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.

- Abbey Community Centre- The re-provision of the community centre is part of a wider redevelopment of the area. As part of the Abbey Estate regeneration scheme, the existing Abbey community centre will be demolished and a new community centre will be built at an adjacent location. The new community centre will be larger than the current premises.

Since the *2012 Update* improvements and investment to community infrastructure at Castlehaven Community Centre, Kentish Town Community Centre, Queen's Crescent Community Centre, Marchmont Street Community Centre and Samuel Lithgow Youth Centre have now been delivered.

The publication of the Euston Area Plan⁵¹ also outlines the proposed measures for mitigating against the impacts of HS2. This includes the replacement of all community facilities affected by the construction of HS2, in advance of the commencement of works close to their original location.

Need Arising as a Consequence of Growth

Consultation with LB Camden has indicated that many of the community buildings within LB Camden have less space than they need 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 the elderly.

Cost saving measures which the council are now required to implement have resulted in a lack of opportunity for further investment in community facilities, and the CIP will now be the primary mechanism for delivery. However, whilst CIP projects create new homes it is not always possible for financial contributions for the improvement or expansion of community facilities to be realised and therefore it is likely that the current supply of community facilities within the borough will remain relatively stable over the period to 2031.

With a growth in population arising from new housing, there will be an increase in demand for community space. Provision standards for community space can be drawn from the Camden Planning Guidance, specifically CPG8 – Planning Obligations. For each new bedspace provided by a development, a requirement is generated for 0.2 sqm of multi-purpose community space. Based on this ratio the gross area requirement from growth over the Local Plan period is 4,550m².

Consultation with the council has revealed that opportunities to increase the amount of community floorspace will be limited and any future opportunities will be delivered through the CIP. Therefore, it is not possible to estimate what the net demand for community floorspace will be in the period up to 2031. It is likely that new provision will come forward where viable under the CIP.

Costs

The CIP programme identifies costs associated with replacement and refurbishment of community facilities in LB Camden to cater for existing provision, as outlined in **Table 3-19**. This shows that approximately £7.5m will be required for the future provision of community facilities within the borough. The CIP programme anticipates that all of these costs will be met from S106 and CIL payments.

⁵¹ LB Camden, (2014). Euston Area Plan: A new plan for the Euston area.

Table 3-19: Estimated Costs of Community Centres in Camden

Location / Name	Funding arrangement	Phase	Cost (£) (000's)
<i>New Replacement Community Buildings</i>			
Abbey Community Centre	Costs expected to be met from market housing on the site, but additional subsidy may be required from CIL	2015	2,000
Surma Community Centre	Costs expected to be met from market housing on the site, but additional subsidy may be required from CIL	2015	2,000
St Pancras Community Centre	Costs expected to be met from market housing on the site, but additional subsidy may be required from CIL	2015	2,000
<i>Investment to Refurbish Internal Space</i>			
Highgate Newton	New funding secured for extension to youth club and work expected to commence in 2012, but main community centre requires further investment	2015	1,500
Total			7,500

Source: URS consultation.

Consultation with the council has confirmed that the replacement and improvement of community facilities within the borough beyond those identified above will continue to be delivered by the CIP although future projects have not yet been identified.

3.13 Faith Facilities

Context

This section considers the provision of faith facilities and the need for space arising from growth in Camden.

For the purposes of this study, faith facilities refer to all religious places of worship, including meeting halls and other facilities used. The main denominations of faith considered include all those listed below:

- Christianity – Anglican, Baptist, Methodist, Orthodox, Pentecostal, Presbyterian, Roman Catholic among others
- Islam – Shia and Sunni sects
- Hinduism
- Sikhism
- Jainism
- Judaism; and
- Other minor faiths including Baha'i, Buddhism, Zoroastrianism.

Faith facilities are a crucial aspect of community life and it should be noted that faith facilities at times entwine with community buildings.

Existing and Committed Provision

Faith facilities and communities are independent of the council and, as such, the council does not maintain a detailed information register that would provide comprehensive information on all faith facilities in the borough. As a result the actual facilities and buildings are also completely independent of the council, except where there is a community centre linked to the facility. Even then support and involvement of the council is not based on the fact that the centre is linked to a faith facility, but on the basis that it has wider non-partisan community usage.

Camden is an ethnically diverse borough. Almost a third of the residents come from black or minority ethnic backgrounds, one in 10 of the population is Muslim, and there are significant immigrant and refugee communities, including from Somalia and Bangladesh. The existing ethnic mix has led to the demand for space that is bespoke for the different faith groups. The numbers of people demanding access to Islamic facilities continues to rise.

An assessment of the existing faith communities is provided by CINDEX. It should be noted here that although the directory tries to be as comprehensive in its approach as possible it is, to some extent, 'self-selecting'. Furthermore, the assessment is a snapshot in time, i.e. it does not include future planned investments.

As of 2014, the following faith facilities existed in Camden:

- Approximately 32 Anglican churches, 4 Baptist churches, 7 Independent churches, 5 Methodist churches, 4 Orthodox churches, 12 Pentecostal churches, 4 Presbyterian churches, 11 Roman Catholic churches, and 32 which would come under the 'others' category
- 8 Islamic places of worship
- 7 synagogues
- 1 Hindu centre
- 2 Buddhist centres
- 1 Scientology centre
- The national and European headquarters of Zoroastrianism; and
- The spiritual assembly of the Bahá'í faith, which is responsible for all local Bahá'í community activities.

Consultation with the council has revealed that there is currently no planned or committed investment for faith facilities.

The council is however encouraging faith communities to engage with one another and to facilitate the multi-use of faith facilities, for example where one community has spare capacity and another nearby has need for more space.

Need Arising as a Consequence of Growth

The future demand for faith facilities will depend on the make-up of the community at the time. Being situated in one of the most populous boroughs of a multi-cultural city such as London, it is difficult to accurately predict the nature of the community within the borough 10 to 15 years from now. Recent trends indicate a growing Bangladeshi community. Additionally consultation has indicated that the council is expecting a significant increase in the Bangladeshi, Somalian and Kosovan communities in the near future. There is also a growing trend for Pentecostal Christians from African communities to meet in hired or domestic premises.

This study supports this finding, although the lack of data means that this conclusion is mainly drawn from anecdotal evidence and cannot be substantiated by hard, quantitative data. It should also be noted that the assessment is based on consultation with an officer at Camden council and it is likely that this view is not representative of the wider population in Camden. Overall therefore, Camden appears to be functioning well in terms of provision of faith facilities overall.

The only faith group experiencing severe inadequate supply to meet demand is the Muslim community. Previous proposals for the construction of a new Mosque within Camden were not realised due to lack of available sites and consultation within the council has confirmed that the current direction of travel will involve the expansion of existing mosques although there are currently no firm proposals. Consultation has also revealed that Camden has seen an increase in 'pop-up' mosques within the borough which has involved the short-term leasing of industrial units for use as faith facilities.

Costs

No costs associated with the provision of faith facilities within LB Camden have been identified.

4 TRANSPORT INFRASTRUCTURE

4.1 Introduction

This section identifies transport infrastructure requirements arising over the Local Plan period to 2031. As with other infrastructure items it builds on the *2009 Study* and *2012 Update* and incorporates the latest information from documents and consultation with the council. It reconsiders the policy context and baseline situation, provides an update to the infrastructure schedule, and seeks to establish any existing unmet needs where further mitigation may be of benefit to the efficient operation of the transport network within Camden.

The assessment focuses primarily on those parts of the transport network that are the responsibility of Camden council. Though not the delivery responsibility of the council, we have identified the requirements for changes to rail, bus services, the underground (delivered by London Underground) and road network (the Transport for London Route Network (TLRN) which is delivered by Transport for London) but, as per the *2009 Study* and *2012 Update*, we do not identify their delivery costs.

Camden's Transport Strategy⁵² (CTS) provides the most up to date information on what interventions could be required to maintain the transport network, address existing levels of unmet need and support growth. The focus of this document is identifying what infrastructure is required over the short to medium term, as funding regimes work on this time horizon. Though there is a clear recognition of planning for long term transport requirements, details on these long term requirements are not provided in the CTS. This is reflected in the information presented in this section.

4.2 Policy Context

We begin by looking at what regional policy documents say regarding LB Camden transport infrastructure requirements and then look at LB Camden policy documents.

The *London Infrastructure Plan 2050* is a document which provides a long term perspective on transport needs. It envisages the delivery of the following major projects in support of Camden's growth by 2031⁵³:

- Piccadilly and Northern Line frequencies increased to 36 trains per hour by 2035 to provide capacity enhancements between 20% and 60%;
- Crossrail and Crossrail 2 before the end of the Local Plan period;
- HS2 completed by 2032;
- 24 hour London Underground operation; and
- Extended Cycle Super Highway Network.

These projects are designed to support the transport priorities of the Central Activities Zone (CAZ) in which part of LB Camden falls, as set out in the London Plan 2011 (Greater London Authority). The priorities of the CAZ, and therefore for LB Camden, are:

- Bringing forward development and supporting infrastructure;
- Enhancing the strategically vital linkages between CAZ and labour markets;
- Improving infrastructure for public transport, walking and cycling;

⁵² LB Camden, (2013). *Camden's Transport Strategy: Camden's Local Implementation Plan August 2013*.

⁵³ GLA, (2014), *London Infrastructure Plan 2050: Transport Supporting Paper*

- Securing completion of essential new transport schemes necessary to support the roles of CAZ, including Crossrail; maintain and enhance its transport and other essential infrastructure; and
- Realising scope for intensification associated with existing or proposed improvements in public transport accessibility, such as Crossrail, making better use of existing infrastructure and promote inclusive access including cycling and walking.

The Mayor's Transport Strategy (2013)⁵⁴ notes that the CAZ is anticipated to remain the key destination for trips within London, and consequently that connectivity must be maintained and improved. Policy 4 of the Strategy reflects this:

“The Mayor, through TfL, and working with the DfT, Network Rail, train operating companies, London boroughs and other stakeholders, will seek to improve people’s access to jobs, business’ access to employment markets, business to business access, and freight access by seeking to ensure appropriate transport capacity and connectivity is provided on radial corridors into central London. In particular, the Mayor will seek to maximise public transport connectivity and capacity benefits on the two main east-west and north-south corridors (incorporating the Crossrail and Thameslink projects respectively)”.

The particular emphasis on Thameslink highlights the role of LB Camden's transport infrastructure, both in terms of a sub-regional hub assisting movement within London and to other UK regions and as an international hub providing connections with Europe via Eurostar services from St Pancras International.

To reduce the pressure of vehicular movements, walking and cycling will play an important role for boroughs in Central London such as LB Camden. This will be encouraged through improvements to the public realm.

The Mayor's 'Vision For Cycling In London An Olympic Legacy for all Londoners'⁵⁵ contains the following outcomes for cycling in London:

- A Tube network for the bike – a network of direct, high-capacity and joined-up routes;
- Safer streets for the bike – London's streets and spaces will become places where cyclists feel they belong and are safe;
- More people travelling by bike – Cycling across London will double in the next 10 years; and
- Better places for everyone – policies to help all Londoners, whether or not they have any intention of getting on a bicycle.

The Mayor's 'Vision For Cycling In London' highlights innovation and best practice in LB Camden to improve cycling facilities, noting the work to segregate cyclists at signal controlled crossings and proposals for semi-segregation along Royal College Street.

The CTS identifies the borough's transport objectives. These objectives align to the regional and local policy in terms of transport, economy and environmental objectives. The CTS objectives are set out in the next table.

⁵⁴ GLA (2013); *The Mayor's Transport Strategy*.

⁵⁵ Mayor of London, (2013). *The Mayor's Vision for Cycling in London: An Olympic legacy for all Londoners*.

Table 4-1: LB’s Camden’s Transport Strategy Objectives

Camden Transport Strategy Objectives
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'
Encourage healthy and sustainable travel choices by prioritising walking, cycling and public transport in Camden
Improve road safety and personal security for people travelling in Camden
Effectively manage the road network to manage congestion, improve reliability and ensure the efficient movement of goods and people
Develop and maintain high quality, accessible public streets and spaces and recognise that streets are about more than movement
Ensure the transport system supports Camden’s sustainable growth and regeneration as well as enhancing economic and community development
Ensure the transport system supports access to local services and facilities reduces inequalities in transport and increases social inclusion.
Ensure that the provision of parking is fair and proportionate by considering the needs of all users, whilst also encouraging sustainable travel choices.

LB Camden, (2013). Camden’s Transport Strategy: Camden’s Local Implementation Plan August 2013

4.3 Baseline Conditions

Camden council is responsible for the majority of the road network within its boundary, however TfL maintains key roads in the borough as shown in

Figure 4-1. The peak period traffic surveys conducted at intervals between 2006 and 2013 indicate that:

- Total vehicle flows have fallen;
- Private car numbers have reduced;
- There has been a significant rise in cycling;
- Bus volumes have remained broadly constant while taxi volumes have decreased; and
- Numbers of goods vehicles have decreased.

Figure 4-1: LB Camden Road Hierarchy (Maintained by TfL)



The public transport network in LB Camden is considered to be good, with complimentary international, national, overground and underground rail services available alongside a large number of bus services. Passenger numbers at rail stations within the borough are steadily increasing. The council has concerns about crowding at Camden Town station outlined in its response to the Transport and Works Act Order consultation for the Northern Line Extension. The concerns raised were in regards to crowding related to the existing transport position, not capacity changes as a consequence of an extension to the Northern Line. Crowding is also identified as a particular issue at Holborn Underground station. Euston Underground station is also overcrowded. If implemented, works relating to High Speed 2 (HS2) and Crossrail 2 will address some overcrowding issues at this station however. When proposals for these schemes are confirmed a clearer view of outstanding overcrowding on the London Underground (LU) network will become possible.

The provision of orbital routes, primarily using the London Overground network, is a key issue that LB Camden has raised in response to Network Rail consultation. LB Camden have identified the importance of maintaining sufficient capacity on these routes given the passenger demand growth for the London Overground and the relative importance of orbital services on journey times for residents

within Camden. LB Camden support the extension of the London Overground line from Barking to Barking Riverside acknowledging the need to provide additional rail capacity and encouraging sustainable travel choices.

LB Camden has raised a number of objections to HS2, one of which concerns its infrastructure connections with High Speed 1 (HS1) which could limit expansion of the London Overground North London Line, which has six stations throughout the borough. LB Camden also have concerns with regards to the social and economic impacts of the proposed HS2 route on the borough and will be seeking to secure a number of mitigation work packages should the scheme proceed.

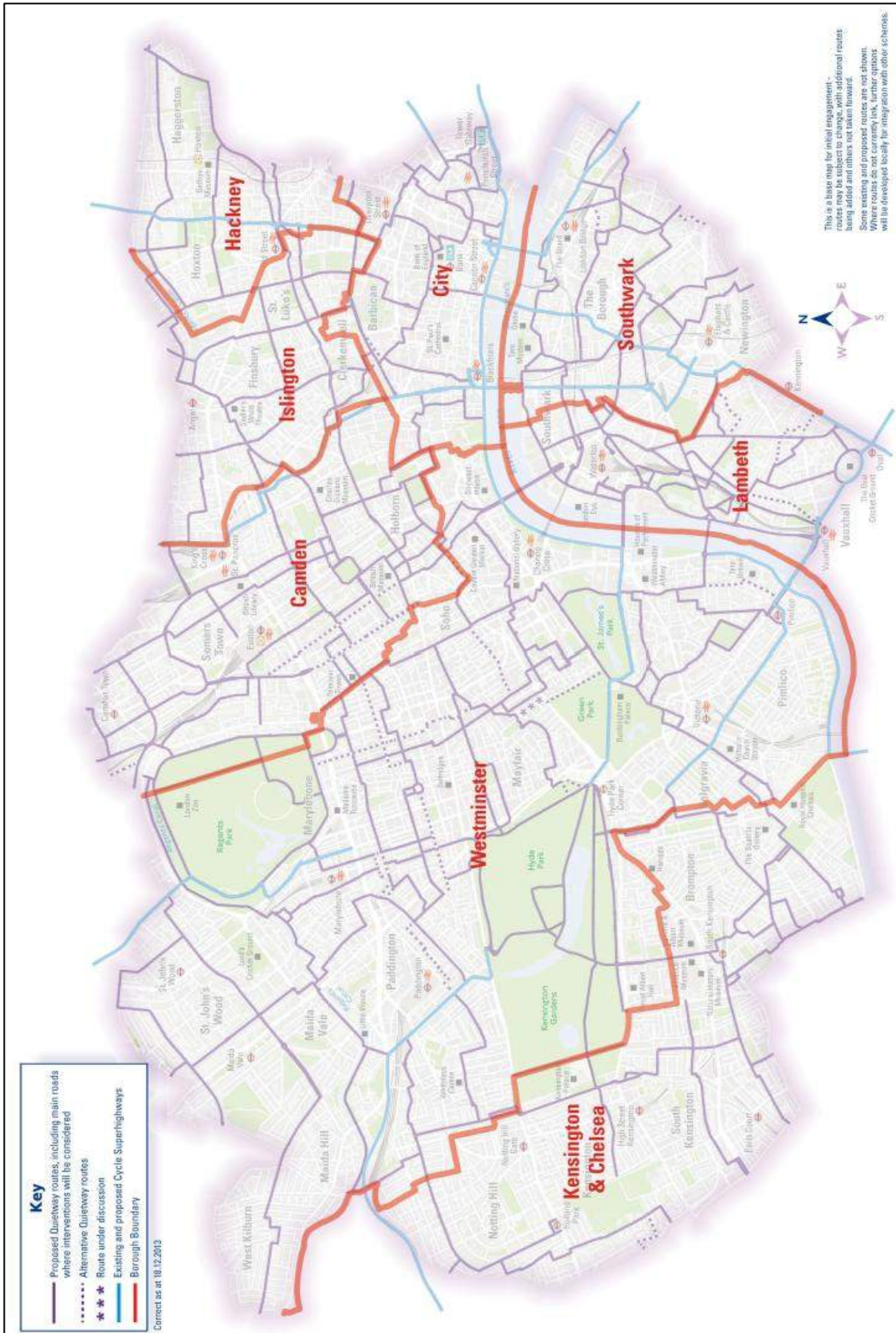
Significant increases have been observed on buses, with an increase of 72% throughout the day and 67% in peak periods observed between 1999/2000 and 2008/09. Analysis of bus boarding information in Camden's Transport Strategy identifies key generators of bus passengers as key interchanges (such as Euston Station) and residential areas with poor rail access.

There is generally a good provision of cycle infrastructure (both cycle routes and cycle hire locations) in the south and mid-areas of the borough but north of the Regent's Canal is less well served (see **Figure 4-2**). The Central London Cycling Grid (see **Figure 4-3**, incorporating an inset of LB Camden) will enhance cycle routes in south and mid Camden but it is unclear how east and west areas will be affected by these and other proposals. An increase in the numbers of people cycling in LB Camden of 70% has been reported over the last six years indicating a consistent trend with the rest of Central London that is expected to continue. Provision of safe and convenient routes throughout the borough remains important. Accessibility with regards to cycling in LB Camden is generally good or better (see **Figure 4-2**) but there are pockets of poor and very poor accessibility, particularly in the north of the borough.

Figure 4-2: LB Camden Cycle Network

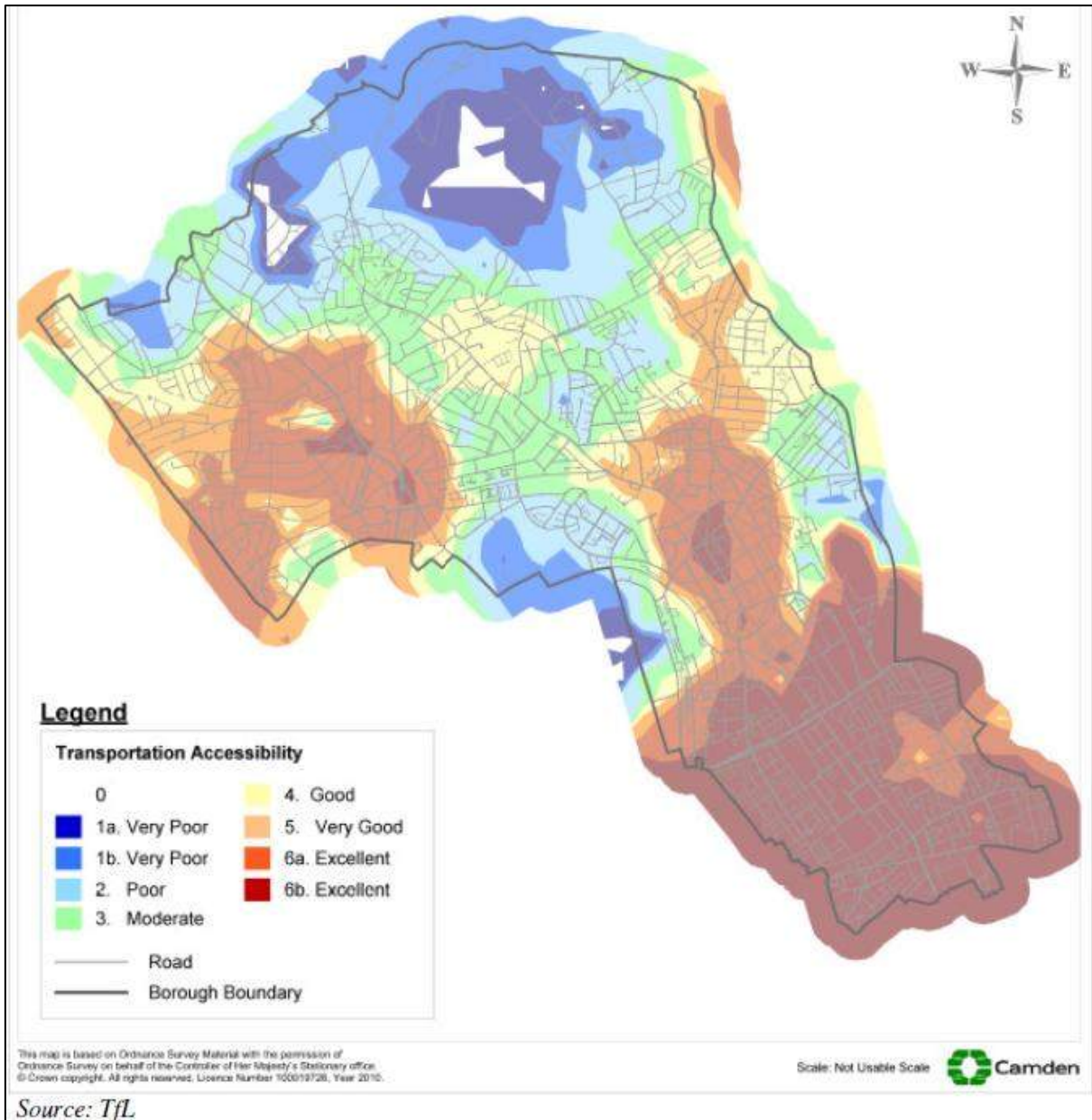


Figure 4-3: Proposed Central London Cycling Grid⁵⁶



⁵⁶ <https://www.tfl.gov.uk/travel-information/improvements-and-projects/central-london-cycling-grid> accessed 20 October 2014.

Figure 4-4: Public Transport Accessibility Level in LB Camden



4.3.1 Patterns of Movement & Mode-Share

Census 2011 data was interrogated to identify patterns of movement for journey to work. **Figure 4-5** shows that the resident population primarily works within central London and in particular in LB Camden itself and the neighbouring City of Westminster and City of London. **Figure 4-6** shows that the daytime population, those that work in LB Camden, includes residents from the borough but a more significant proportion is made up from those travelling from a wider catchment, although still based within London. LB Barnet and LB Islington indicate the highest levels of in-commuting to LB Camden.

Figure 4-5: Distribution of LB Camden’s Resident’s Place of Work

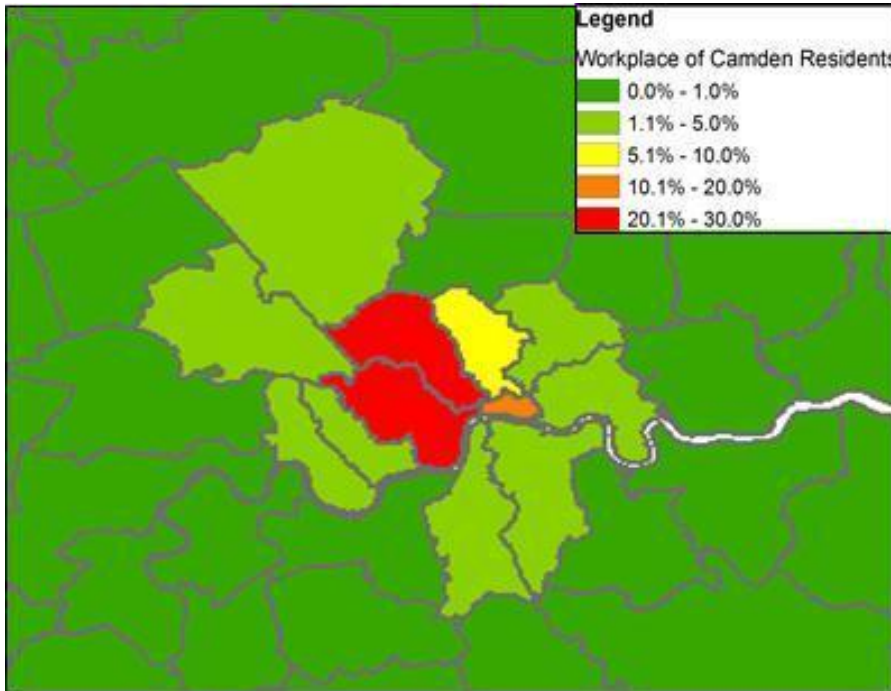
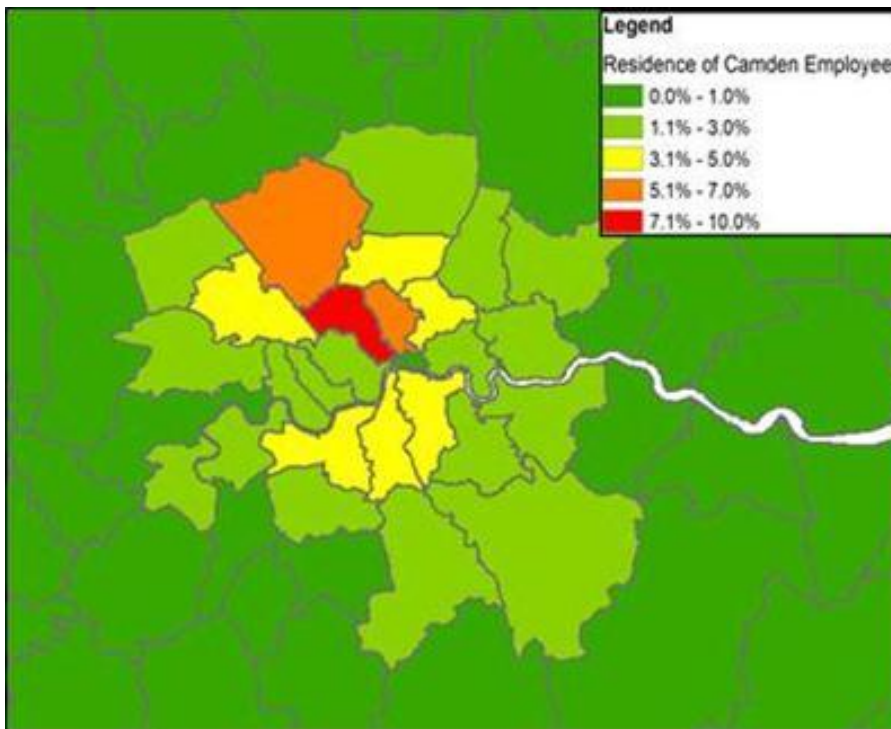


Figure 4-6: Distribution of LB Camden’s Employees Place of Residence



Census 2011 data allows movements within LB Camden to be assessed. The movements between the areas defined as south, mid, east and west (illustrated in **Figure 4-7**) are provided as a matrix

Figure 4-7: Local Map of LB Camden Residents Place of Work

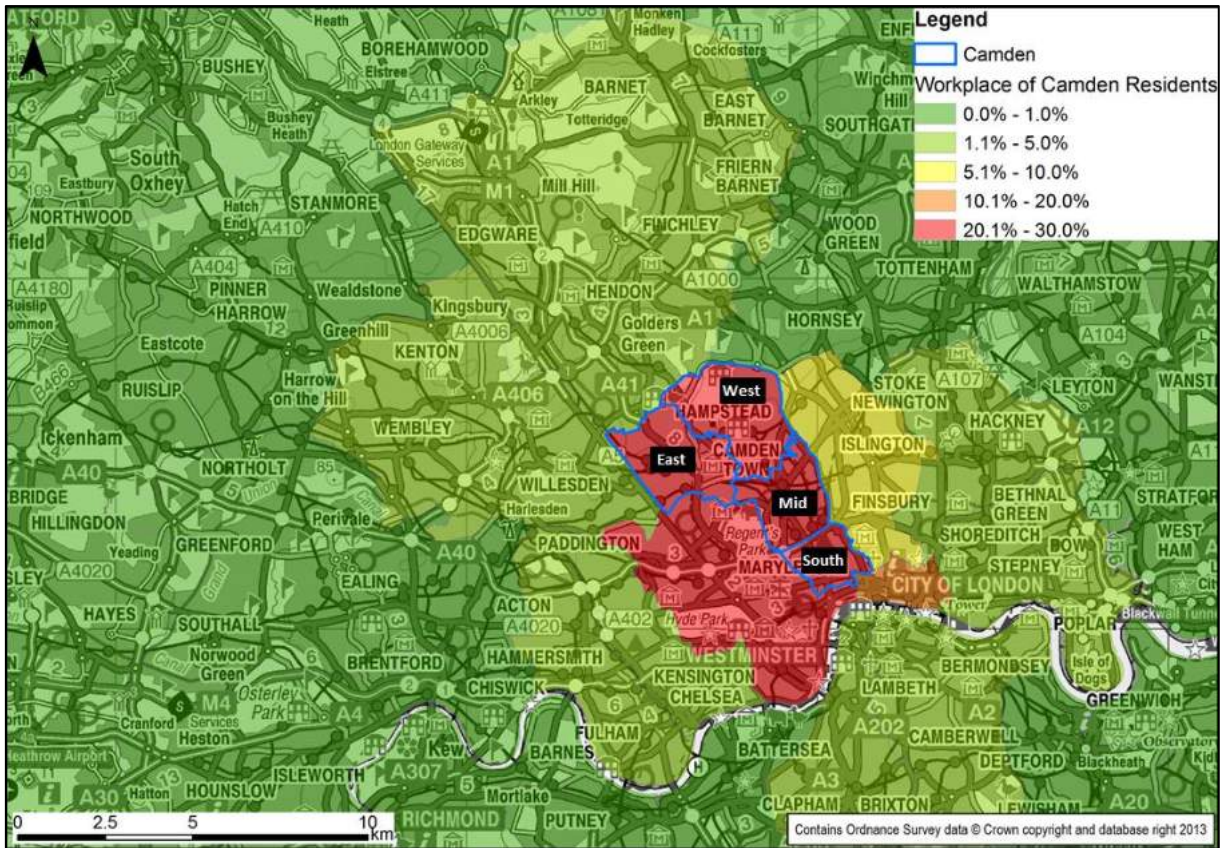


Table 4-2. This indicates that jobs for LB Camden residents are mostly concentrated north of the A501 Euston Road. The smallest area of employment for residents working within LB Camden is the east area. The west region generates the highest source of migration to other areas of the borough. In each area of the borough identified in **Figure 4-7** a high proportion of residents employed within LB Camden also work in their area of residence.

Figure 4-7: Local Map of LB Camden Residents Place of Work

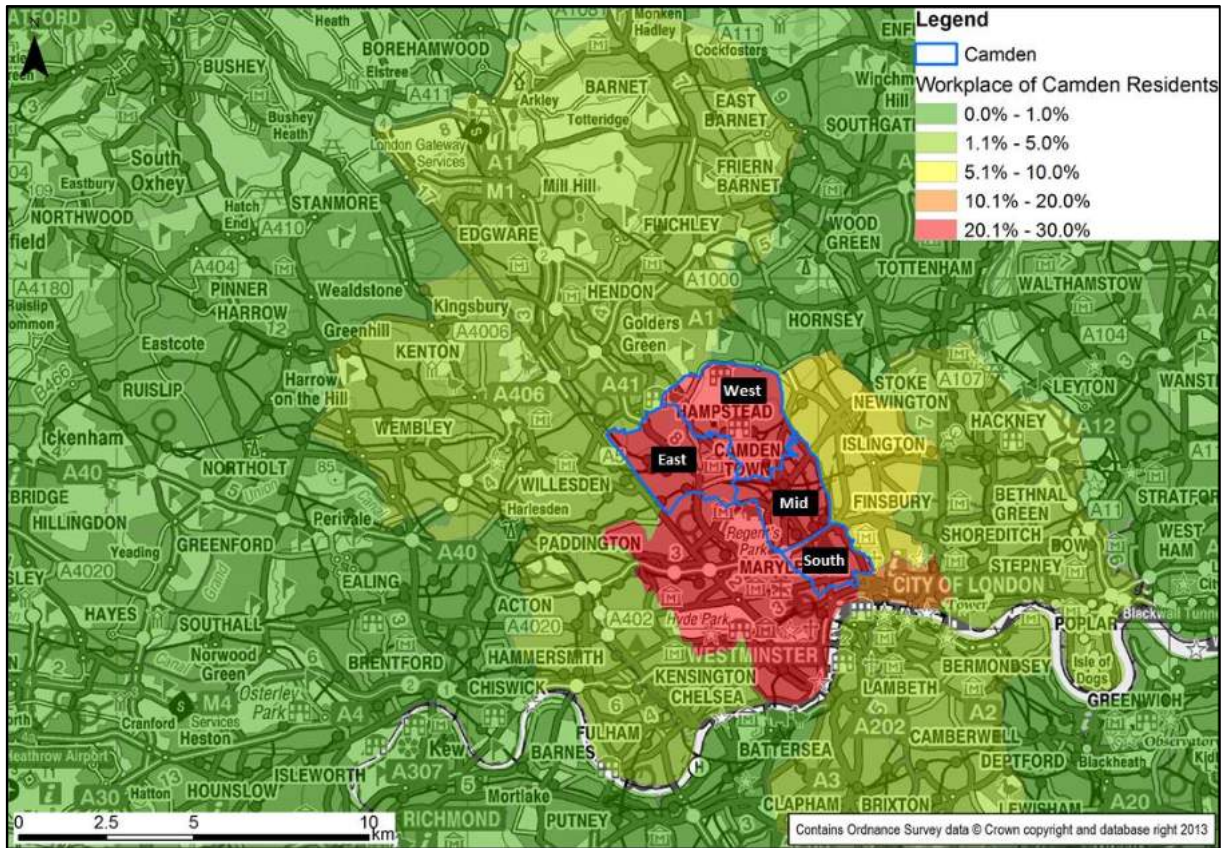
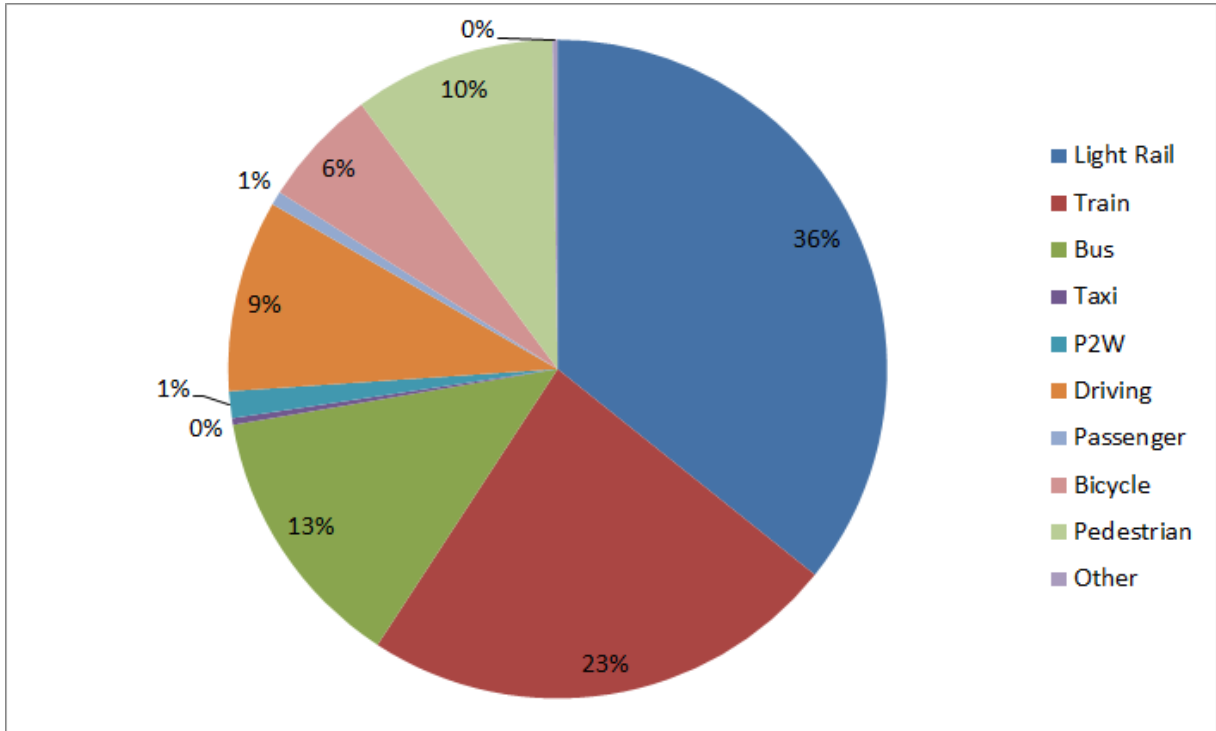


Table 4-2: Matrix of Movement for Employment within LB Camden

From (resides)	To (works)				Total
	South	Mid	East	West	
South	2,796	2,589	2,016	2,357	9,758
Mid	627	2,510	1,387	1,115	5,639
East	155	787	1,571	713	3,226
West	192	632	1,002	2,702	4,528
Total	3,770	6,518	5,976	6,887	9,579

Census 2011 data was reviewed to identify mode share proportions for journey to work (see Figure 4-8). This combines both resident population and daytime (employee) population and so consequently includes some double counting of people that both live and work in LB Camden. The data reveals that the majority of people commute use public transport (comprising 'light rail', meaning the London Underground system including Docklands Light Railway, train and bus) and with roughly equal numbers of people walking compared with driving. Cycling accounts for 6% of journeys to work in LB Camden but is still significant when compared alongside the mode share of driving (9%).

Figure 4-8: Mode Share of Journey to Work



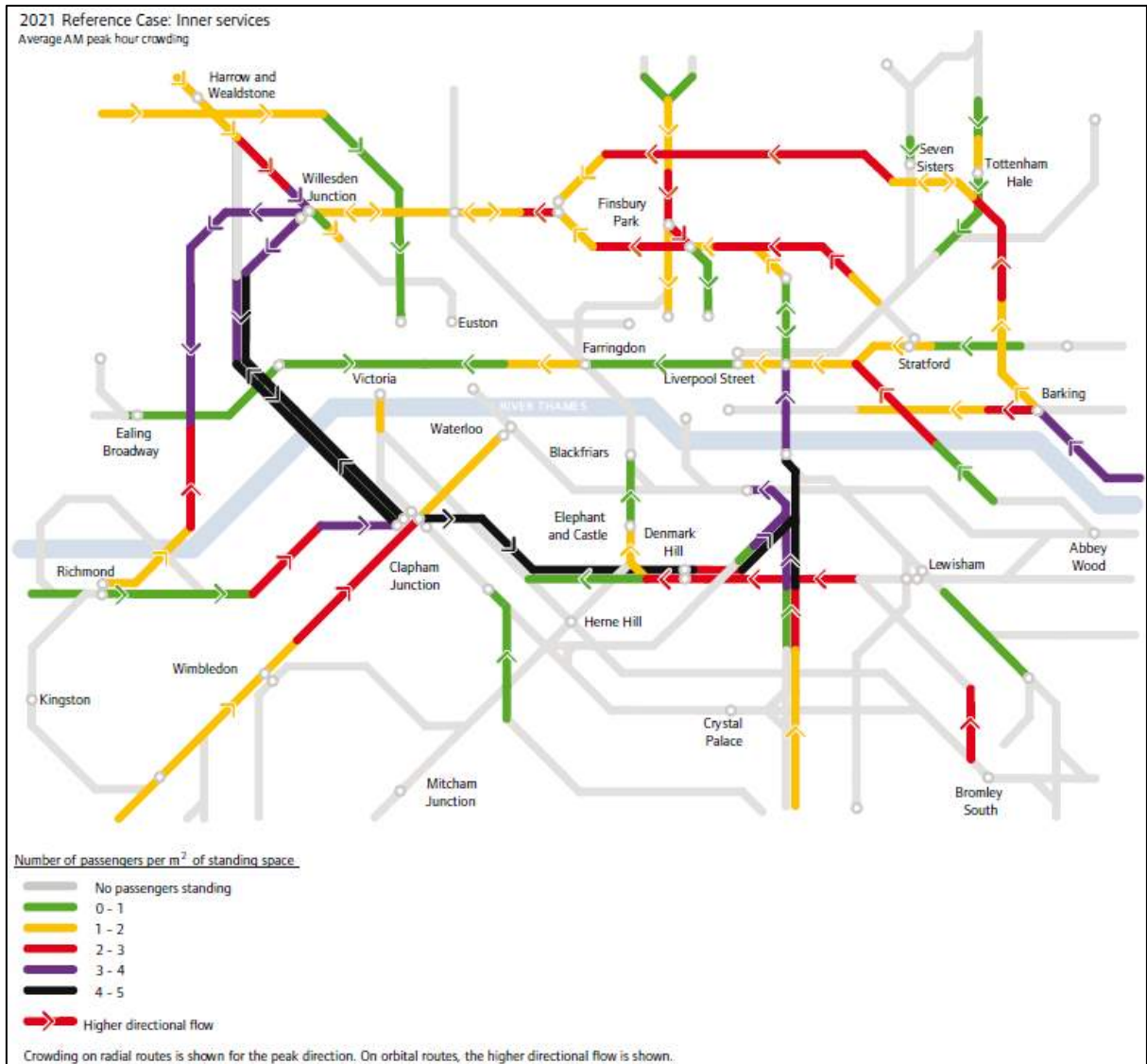
4.4 Anticipated Growth

The Mayor’s Transport Strategy indicates that around 90% of journeys to the CAZ in the morning peak are made by public transport with LGVs and HGVs accounting for about 25% of circulating traffic throughout the day. In addition to the pressure of existing resident and daytime population demands within the CAZ the population of Central London is forecast to expand by 18% between 2013 and 2031. In addition, over the next 20 years 35% of London’s employment growth is anticipated to occur within the CAZ. This will place further demands on the LB Camden’s transport system.

To give an indication of the scale of the additional demand Camden’s Transport Strategy further specifies the growth in population, noting that forecasts for growth anticipate up 35,000 additional residents by 2031. Crossrail 2, should it be delivered, will help to support growth and assist residents to access increased employment opportunities such as in the Lee Valley. In their consultation responses the borough has indicated that the construction of Crossrail 2 should be phased with that of HS2, to avoid cumulative impacts of the two schemes on residents and businesses within its boundaries.

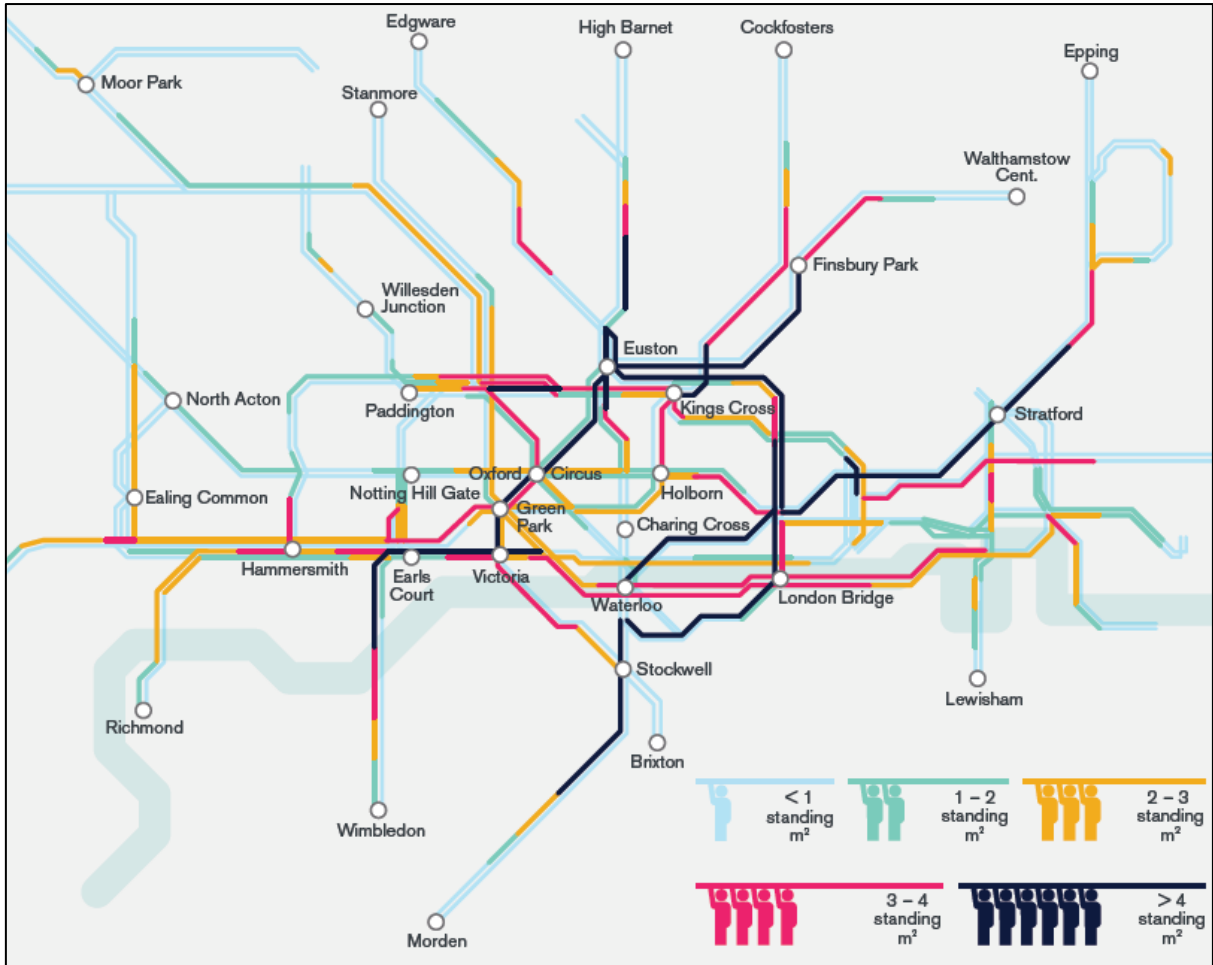
Peak hour crowding forecast on National Rail services is presented in **Figure 4-9**. The figure indicates that radial services are not anticipated to experience crowding but orbital services may experience some crowding. Crowding on the London Underground network in 2031 is presented in **Figure 4-10** and indicates that some of the highest levels of crowding on the Tube network will occur through LB Camden.

Figure 4-9: National Rail AM Peak Hour Crowding, 2021 Reference Case



Source: GLA, (2012). *The Mayor's Rail Vision Investing in Rail Services in London*

Figure 4-10: Underground AM Peak Network Crowding Levels, 2031



Source: GLA, (2014). *London Infrastructure Plan 2050: Transport Supporting Paper*

The London Infrastructure Plan 2050⁵⁷ includes information on population growth of Greater London. It states that population is anticipated to grow across London. Between 2011 and 2050 population is projected to grow by 37%. As a consequence it anticipates that there will be an increase in demand for public transport by 50%. Underground and rail demand are expected to see the strongest demand increases; 60% and 80% respectively. Managing this growth will be particularly important to LB Camden because to retain and expand its role as a transport hub within London and links with Europe through St. Pancras. Population growth will increase demand on all forms of transport including infrastructure managed by TfL and Network Rail but also local infrastructure such as buses, and increases in walking and cycling throughout the borough.

Although this *Infrastructure Update* considers a time horizon of 2031 the projected population growth and continuing growth in transport demand to 2050 should be acknowledged so as not to inhibit the flexibility of the transport system beyond 2031.

⁵⁷ GLA (2014); *London Infrastructure Plan 2050*.

4.5 Transport Requirements to Support Growth

This section identifies transport schemes required to address existing issues of unmet demand and support growth with respect to baseline conditions and scale of population and employment growth arising.

We produce two lists of transport scheme required to support growth:

1. Long-term transport projects to increase public transport capacity, as per **Table 4.3**; and
2. Short-term transport schemes identified in the Camden Transport Strategy, as per **Table 4.4**.

The lists comprise those transport schemes identified in documents and through consultation.

Long-term transport projects includes large infrastructure projects that are in progress, such as Crossrail, and projects which are proposed and yet to receive permission, such as HS2 and Crossrail 2. These multi-billion pound projects are designed to bring benefits to many London boroughs, the wider region and beyond. Given their wider strategic objectives they are not the responsibility of Camden council to deliver. These projects are however recognised in our list of infrastructure items which support growth in LB Camden as they would affect the capacity and connectivity of the borough positively.

With greater certainty over demand and funding over the short to medium term, there is a greater emphasis on transport projects proposed in the next five years. Short-term transport projects listed in the CTS are, however, not necessarily as a consequence of growth arising during the planning period. Schemes include for example, investment in efficient lighting, road safety projects and feasibility studies. For each short term transport scheme we have collected information on scheme title, with a brief description where necessary, cost where available, justification for its inclusion in the list and a timescale for potential delivery. This is set out in the infrastructure schedule in Appendix A.

4.5.1 Long-term Transport Projects to Increase Public Transport Capacity

Table 4.3 provides a list all long-term, strategic transport projects which have implications for LB Camden, transport connectivity and/or capacity. These large linear infrastructure schemes pass through a number of London boroughs and are designed to generate strategic benefits across large geographical areas.

It is difficult to be definitive about this list because investment in one part of London's transport network will have implications across the network in terms accessibility, journey times, the reduction in overcrowding, etc. For example, the proposed southern extension of the Bakerloo line will result in a reduction of overcrowding in central London, resulting in indirect effects (potentially both positive and negative in terms of improved connectivity but also a greater stress on the transport network in Camden).

Table 4-3: Transport Schemes Designed to Increase Public Transport Capacity

Project	Timescale	Comments
Crossrail	2018/2019	The operation will open in phases. The Crossrail station at Old Oak Common will be important for as a point of egress/ access for HS2 passengers and relieving pressure at Euston station.
Thameslink Programme	2018	Several stations in Camden will be served, with particular growth potential at Farringdon, St Pancras/Kings Cross and West Hampstead.
North London Line	Unconfirmed	Expansion of capacity – from 4 car to 5 car operation. There could be ongoing expansion of capacity on this line and other lines forming the London Overground, and potential service frequency enhancements in future.
Gospel Oak- Barking (GOB) electrification	2019	In addition, there is potential for ongoing expansion of capacity through train lengthening.
GOB extension to Barking Riverside	2019	Completion date depends on funding. Residents of new housing district (Barking Riverside) will have ready access to jobs in Camden and in other ways can help develop Camden's local economy. The Autumn Statement 2014 confirmed that principal heads of terms have been agreed between Barking Riverside Limited, the Mayor of London and Government for a loan of £55 million to support the extension of the London Overground to Barking Riverside.
North-South Cycle Super Highway	2015/16	The TfL Board has now approved plans for the construction of the North-South Cycle Super Highway between Kings Cross and Elephant and Castle.
Crossrail 2	2029-2030	Firm decision has yet to made (subject to technical appraisal and funding/finance package) whether a Metro or Regional scheme will be pursued. The Regional scheme will have greater growth potential, and in particular would open up employment opportunities for Camden residents in the upper Lee valley. The project will deliver improved access from new areas to the two Crossrail 2 stations in Camden – Tottenham Court Road and Euston/St Pancras. This will support Camden's local economy and encourage sustainable growth in the borough. The Euston/St Pancras station will be key to help disperse HS2 passengers.
Northern line extension to Battersea/Nine Elms	2014-2020	Direct access to this regeneration area will improve job prospects for Camden residents and support Camden's local economy from new residents of this area.
Operation of late night services on the Underground	Starting in 2015 and with further improvements thereafter.	This will encourage sustainable growth in the borough.
Enhancements to bus services	Ongoing	London Buses is due to review east-west bus operation as a result of Crossrail opening. Camden expects that further enhancements to bus services will be made to meet the requirements of London's growing population with particular enhancements in central London in response to growing employment in the CAZ.
Extension of the Overground to Old Oak Common	2026	The timescale is linked to HS2 works and is indicative. The extension will reduce the extent of passengers using HS2 from Euston depending on which extension is chosen, and the configuration of station(s) adopted.

In addition to the schemes included in

Table 4-3 there will be improvements to the London Underground network as presented in **Figure 4-11**, many of which will support growth in LB Camden both directly and indirectly.

Figure 4-11: Improvements to the London Underground Network

Line	Improvements	Completion Dates
Victoria	New trains and signalling – 33 trains per hour (tph) service – 21% capacity increase	2013
	World Class Capacity - 36tph service	2017/18
Metropolitan	New trains and signalling – 22% capacity increase	2018
Circle / H&C	New trains and signalling – 61% capacity increase	2018
District	New trains and signalling – 24% capacity increase	2018
Northern	NLU1: Signalling upgrade with increased frequency – 24tph service – 20% capacity increase	2014
	NLU2: Partial separation of the Charing Cross and Bank branches – up to 33tph service – additional 20% capacity increase	2021/22
Jubilee	World Class Capacity 36tph service	2019/20
Piccadilly	New trains and signalling	2030s
Bakerloo	New trains and signalling	2030s
Central	New trains and signalling	2030s

4.5.2 Short-Term Transport Schemes Identified in the Camden Transport Strategy

The CTS investment programme has a short term horizon based on a three-year rolling programme of investment using monies primarily from TfL via the LIP programme. It is therefore not suitable to forecast spend beyond the current three year programme or to state a funding gap for transport projects.

The CTS investment programme aims to meet the objectives set out in the CTS while seeking to deliver the Mayor of London's Transport Strategy and meeting the Camden Plan objectives. In doing so it aims to reduce the dominance of traffic, improve safety, encourage inclusive and affordable modes of transport, and reduce obstacles to mobility such as creating wider footways and improving pedestrian crossings. A majority of households in the borough do not have access to a car so the promotion of walking, cycling and public transport will have positive impacts.

Investment in public realm and reducing the dominance of motor traffic, particularly around town centres, is key to supporting sustainable growth and regeneration. The balanced management of parking and loading with high quality public realm and pedestrian safety that enable not only the movement of people and goods, but attracts people to high streets and encourages them to dwell is also highly important when it comes to maximising economic potential of Camden's high streets and town centres.

The main focus of the CTS is to reduce the negative impacts associated with car use and to prioritise sustainable, active travel choices. This includes the impacts of deteriorating air quality, noise and road danger associated with motor vehicle use in order to improve health outcomes. This is approached by developing long term visions on a neighbourhood basis, with community engagement, to provide a strategy for implementation beyond the three-year cycle. In addition, developing a range of schemes through more intelligent feasibility work makes it easier to access potential future funding opportunities, which often come at very short notice.

It should be noted that there is also approximately £300-£500k spent annually on Smarter Travel measures to promote sustainable travel and provide road safety advice and education. Whilst infrastructure is the main focus this ongoing investment helps to ensure that the infrastructure is used

and that people are aware of their travel choices, including targeting young people before travel behaviour has become entrenched.

Table 4-4: LB Camden Schemes- CTS Programme 2014-2017

Investment	Cost(£k)	Phase
Kilburn Area Improvements	410	2014-16
Camden and Kentish Town and Wider Area Improvements	1,226	2014-17
Holborn, Bloomsbury and Wider Area Improvements	700	2015-17
Kings Cross and Wider Area Improvements	685	2014-16
Farringdon Area Improvements	450	2015-17
West of Euston Station Area Improvements	200	2014-15
West End Project	6,500	2014-17
Cobden Junction Project	1,500	2014-15
Holborn Improvement Project	Unknown	2016-17
CPZ Reviews	300	2014-17
Priority Minor Traffic Management Schemes	300	2014-17
Sustainable Transport Schemes	630	2014-17
Minor Parking Changes	300	2014-17
Disabled Parking	120	2014-17
Motorcycle Parking	30	2014-17
Borough-wide 20mph limit	0	2014-17
Road safety schemes	1,210	2014-17
ASLs	60	2014-17
Cycle parking	150	2014-17
Travel information and way-finding	33	2014-17
Local Transport Fund	300	2014-17
LIP Reserve Schemes- Not Funded	1,981	2014-17

4.5.3 Additional Projects Required

In addition to the transport schemes set out in the CTS, more up to date data on bus and cycle capacity suggest there is a need for more bus and cycle provision over and above that set out in **Table 4-4** to address deficiencies in provision within the north of the borough.

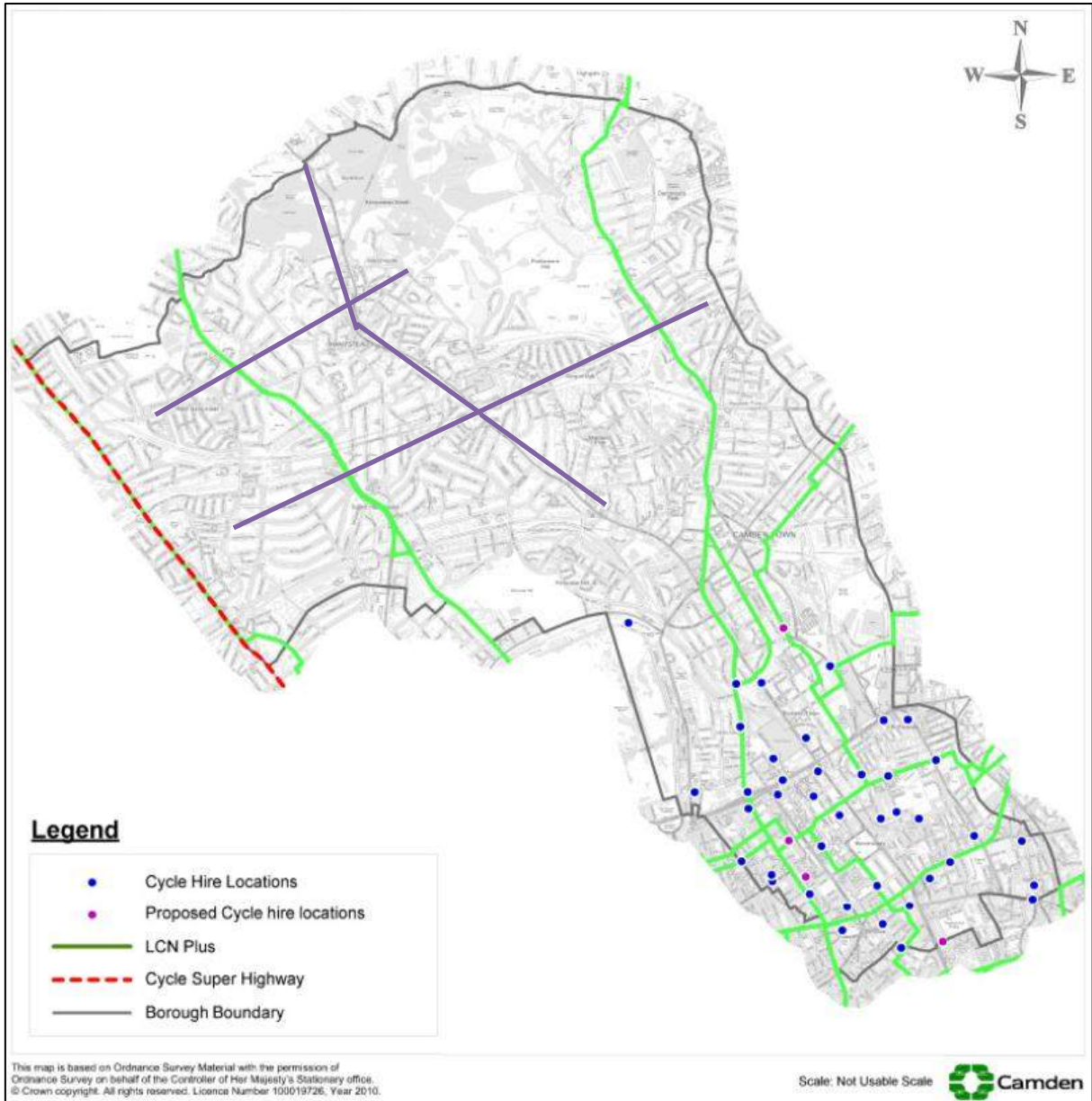
The LB Camden LIP identifies the need for bus improvements to support north-south capacity and orbital connectivity. Baseline evidence suggests that there is likely to be a lack of capacity in the future as the population increases and trends in movement to, from, through and around the borough continue to evolve. In response to this a review of bus service provision is required by TfL, with the outcome from this driving changes to the bus network through LB Camden and the surrounding area (including the CAZ) as appropriate. Bus services are assumed to be fully funded by TfL.

The importance of cycling is established in **Section 4.3**. While some areas of the borough will experience improved connectivity as a result of the Central London Cycling Grid other areas, particularly in the east and west of LB Camden, may continue to be less well served. This may serve to discourage further significant take-up of cycling in support of the significant north-south movement of people within the borough. As such additional cycling provision in the form of new routeways and cycling parking is required. Potential new routes identified by URS have been illustrated in **Figure 4-12** as purple lines.

To encourage further cycle use a capital cost has been estimated in the region of approximately £1,390,000 based on the assumptions below:

- New routes illustrated in **Figure 4-12** as purple lines. This totals approximately 10km of cycle routes. If this were new off-road infrastructure an assumption of £100/m indicates a total cost of £1million; it is assumed that this includes a small allowance for junctions but would not accommodate major works or utilities.
- To support an increase in cycling facilitated by these additional routes it is expected that S106 agreements will require developers to provide cycle facilities alongside all land uses. It is also anticipated that the Council will continue to provide on-street cycle parking and lockers. Currently this equates to £60-80k annually. Opportunities for cycle parking are becoming harder to identify and consequently an annual budget of £30k is assumed from 2018/19 onwards, to follow on from the current LIP allocation.

Figure 4-12: LB Camden Cycle Network with Potential Additional Routes



Source: LB Camden, (2011). Camden's Transport Strategy

4.5.4 Funding Committed

In this section we report only on the funding committed to short-term transport schemes.

Funding for transport schemes identified in the CTS investment programme may come from a number of sources:

- Funding set aside for the LIP;
- Developer contributions (S.106 and CIL);
- Other grants and funding from central government, TfL and other strategic government bodies such as the GLA; and
- From the borough's own resources.

In the CTS Programme of Investment for 2015/16 to 2017/18 (September 2014, LB Camden) the borough sets out its funding sources for the coming years (see **Figure 4-13**). The report notes that only funding for the ‘Corridors, Neighbourhoods and Supporting Measures (LIP)’ for 2015/16 is confirmed.

TfL requires that a new three year programme is submitted to TfL every three years. In addition to the three year programme, London boroughs are required to submit an Annual Spending Submission to TfL for each of the relevant financial years separately in order for TfL to assess that the funding continues to be used in a way that delivers against the Mayor’s transport objectives and, subject to this approval, to receive the annual financial allocation. This annual submission also allows the programme to take account of any changes or developments, and be amended as the programme progresses.

LB Camden has moved to a rolling three year programme rather than developing a new three-year programme every three years. The funding set out in **Figure 4-13** includes a proposed programme for an additional year, 2017/18. At present there has been no indication of potential funding for 2017/18 and it has been assumed that a similar level of funding will be available. Each year the programme is reviewed. Funding for the projects may be altered, with budgets increased or decreased and timescales brought forward or moved back in response to changing priorities and the results of studies being undertaken for the larger projects. Camden council also maintain a reserve list of schemes (some minor, some major) that can be incorporated into the programme to ensure that the council maximises its allocated LIP annual spend. It is assumed that LIP funding, or an alternative to it, will be available in the future beyond the current funding cycle.

In addition to the sources above it is assumed that s106 and CIL will be used to support the delivery of transport infrastructure.

Figure 4-13: Funding Sources for LB Camden’s Transport Capital Programme 2014-18

Funding Source	2014/15 (£000)	2015/16 (£000)	2016/17 (£000)	2017/18 (£000)
Corridors, Neighbourhoods and Supporting Measures (LIP)	2,275	2,258	2,331	2,250
Traffic, Parking and Sustainable Transport (Borough)	560	560	560	560
Local Transport Fund (LIP)	100	100	100	100
Major Scheme – West End Project (S106/other contributions)	2,000	6,000	9,500	9,000
Planned Maintenance (Borough)	6,550	6,550	6,550	6,550
PRN Maintenance (LIP)	498	498	498	498
PRN reserve (LIP)*	125	125	125	125
Bridge Maintenance (LoBEG)	35	70	700	100
Mayor’s Cycling Fund	492	6,853	121	
Total	12,635	23,014	20,485	19,183

*PRN Reserve funding – this value is requested by TfL though funds will only be allocated if they become available during that year

Source: LB Camden, (2014). Camden Transport Strategy- Programme of Investment for 2015/16 to 2017/18.

Larger schemes being pursued in the Corridors and Neighbourhoods funding stream of the LIP programme involves a study stage following by elements that are subsequently implemented as part of broader visions for the areas concerned. Larger schemes being pursued in the current three-year programme involve making improvements in ‘area-based schemes’ that include the following places: Kilburn, Kentish Town, Holborn, Farringdon, Gospel Oak, Cantelowes/Camley, Chalk Farm/Primrose Hill and Fortune Green. The Corridors and Neighbourhoods funding stream is also being used for borough-wide schemes (particularly road safety schemes, and some smaller projects such as cycle

parking and wayfinding) and the Smarter Travel programme (such as projects involving cycle instruction, the sustainable school travel programme and road safety workshops).

The Traffic, Parking and Sustainable Transport funding stream uses monies from the council and involves CPZ reviews, minor traffic management schemes, minor parking changes and similar.

Major schemes include the West End Project (changing the Tottenham Court Road and Gower Street gyratory and making public realm improvements in the West End) and the Cobden Junction project (now complete) primarily using S106 money.

The Planned Maintenance stream, funded by the borough, involves maintenance of Camden's public highways. While this includes mainly carriageway and footway works, it also includes minor surfacing, column replacement and street lighting, drainage, street clutter reduction, tree pits and similar. Principal road maintenance is covered through a LIP funding stream.

The Mayor's Cycling Fund includes £1.1 million which was received in 2013/14 for the Central London Cycle Grid, together with funding for a Cycle Safety Officer and Cycle to School Officer, and a further £492,000 for the current financial year, 2014-15. For future years, funding for the two Cycle officers for 2015/16 and 2016/17 has been confirmed. However, funding to deliver the Central London Grid element (£6.7 million in 2015/16) is indicative and subject to designs being agreed.

The Camden Transport Strategy is based upon a three year rolling programme of schemes and funding. The sources of funding are indicated in **Figure 4-13** but may also include those discussed above. The planning horizon for this study is to 2031 and over this period it is reasonable to assume that the approach to schemes, on a neighbourhood and corridor basis and with other specific traffic and transport schemes, will continue, with key sources of funding for the CTS expected to continue in a similar fashion.

5 UTILITIES AND HARD INFRASTRUCTURE

5.1 Water

Updated information relevant to water infrastructure has been provided through consultation with Thames Water.

Introduction

Thames Water uses GLA growth projections, London borough site allocations and information contained within Local Development Framework documentation to estimate the scale of development coming forward.

This information is used to identify any constraints to the network or treatment of water. Where issues are identified a cost effective strategic solution is drawn up. 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 based assessments are undertaken to estimate the impact. In these instances a Grampian planning condition will be sought if Thames Water identifies concerns regarding the scale of the development and the receiving network⁵⁸. 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 does not 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 likely to be sought.

Upgrades should be anticipated. 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 three years for local infrastructure upgrades and three to five years for more strategic infrastructure solutions.

Baseline: Strategic Water Supply Infrastructure

Thames Water supplies approximately 75% of London's water and is responsible for water provision within LB Camden. 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.

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.

⁵⁸ Conditions requiring works on land that is not controlled by the applicant, or that requires the consent or authorisation of another person or body often fail the tests of reasonableness and enforceability. It may be possible to achieve a similar result using a condition worded in a negative form (a Grampian condition) – i.e. prohibiting development authorised by the planning permission or other aspects linked to the planning permission until a specified action has been taken. (From planningguidance.planningportal.gov.uk)

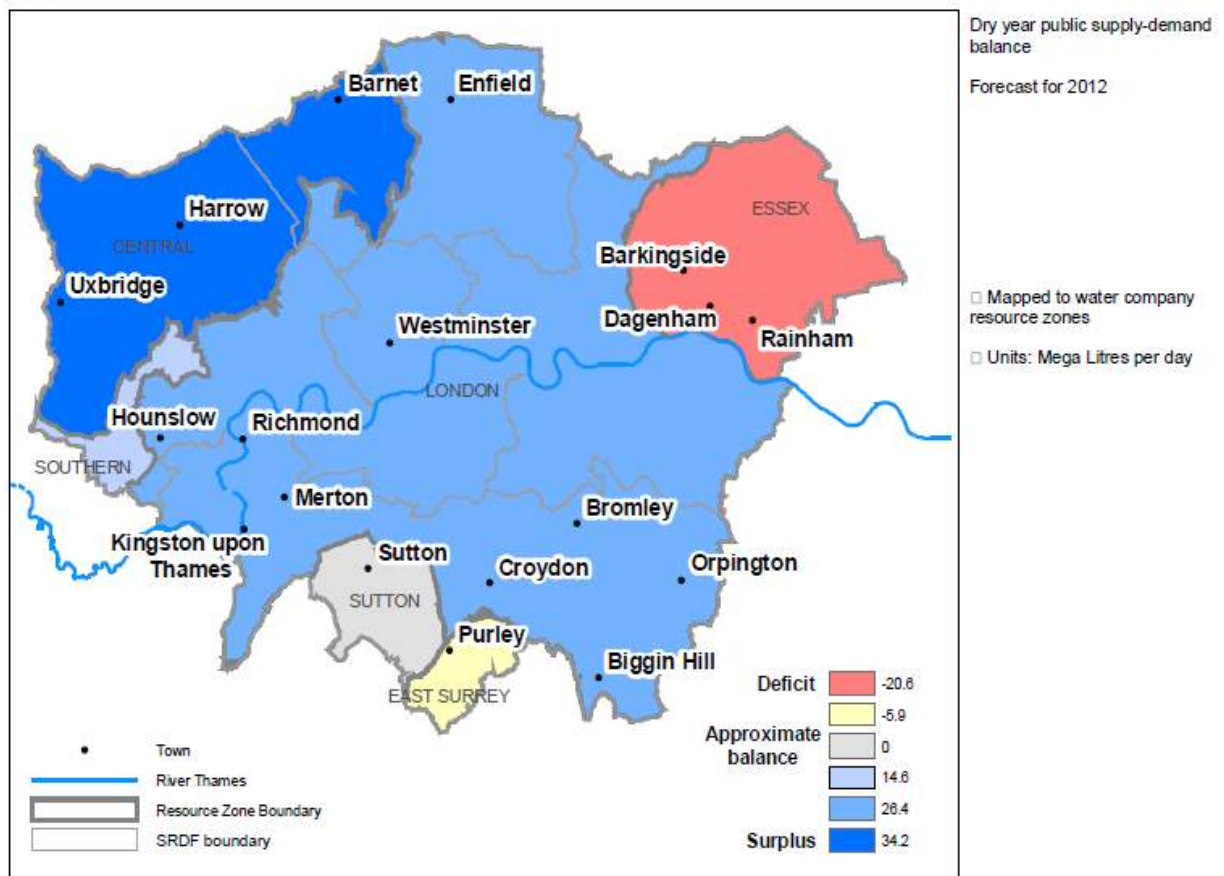
London and the South East have been classified as areas under serious water stress⁵⁹. High population density combined with limited resources means that we need to carefully manage and plan the water resources in London. Water demand in London is much higher than the average for England and Wales. Each Londoner consumes an average of 162 litres per day compared to the England and Wales average of 148 litres per person per day (based on a five year average)⁶⁰.

The water companies supplying London would need to manage a potential cumulative deficit of over 300 mega litres⁶¹ 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 5-1 shows the supply-demand balance in 2012 based on information from the WRMPs which cover London. As shown, there is currently no deficit in LB Camden.

Figure 5-1: Existing Water Supply and Demand Balance in Greater London
Water Resource Surplus - Deficit Forecasts
2012



⁵⁹ 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>)

⁶⁰ Proportioned average per capita consumption for the water companies supplying Greater London taken from the OFWAT June Returns Data 2006-2010

⁶¹ A mega litre is equivalent to 1,000,000 litres.

Source: Thames Water

Existing and Committed Provision

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. The Department for Environment, Food & Rural Affairs (Defra) has an aspiration to reduce water consumption to 130 litres per household per day (l/h/d) by 2030.

Thames Water's preferred programme of options to ensure security of supply in London, as set out in **Table 5-1**, includes a variety of both demand management and supply schemes. This programme was recently adopted in Thames Water's Water Resource Management Plan (2014-2040). The plan focuses heavily on demand reduction in the short to medium-term, driven through a combination of leakage reduction, progressive metering and water efficiency measures. This is supported by groundwater development in the short-medium term. A large water resource scheme needs to be planned to secure long-term supply-resilience for London post 2027. The Plan shortlists 150Ml/d of wastewater re-use as the solution based on minimising costs and on the assumption that it can be promoted successfully.

Thames Water's proposed programme for the London WRZ can broadly be split into leakage reduction measures, water efficiency measures, resource development schemes and options for wastewater re-use. Resource development schemes can broadly be defined as any activity which increases the value of water available for supply. Within the London WRZ these schemes are based on a combination of groundwater (GW), aquifer recharge schemes (AR), raw water transfer schemes (RWT) and aquifer storage and recovery schemes (ASR).

Leakage reduction programmes will include a combination of mains replacement, pressure management and active leakage control including Customer Side Leakage (CSL) control post metering and Thames Side Leakage (TSL) control post metering which involves using data from a number of meters within that programme to identify leakage after the installation of meters within the Progressive meter programme.

Thames Water are also aiming to increase meter penetration within the London WRZ which will enable Thames Water to achieve better leak detection, demand management and network visibility. It is anticipated that by 2025 meter penetration will have increased to 70% of households, rising to 75% by 2040.

Table 5-1 Preferred programme for the London WRZ set out in Thames Water Water Resource Management Plan 2015-2040

Programme	Short Term (2015-2020)	Medium Term (2020-2025)	Long Term (2025-2040)
(Based on revised draft WRMP for 2015-40 (October 2014))			
Leakage Reduction	405km of mains replacement	76km of mains replacement	
	Pressure management		
		Active leakage control	
	Active leakage control CSL control post metering	CSL ⁶² control post metering	
	TSL control post metering	TSL control post metering	
Progressive Metering- Number	441,000 (Ml/d)	294,000 (Ml/d)	
Meter penetration at end of AMP (% including occupants and new meters)	58%	70%	75%
Water Efficiency	Enhanced water efficiency programme	Enhanced water efficiency	Enhanced water efficiency programme.
Resource development	GW ELRED ⁶³	AR Kidbrooke	GW Southfleet/Greenhithe
	GW Tottenham	AR SLARS ⁶⁴ – Merton	RWT Oxford Canal Transfer (London
	ASR Darent Valley (Horton Kirby)		AR Hornsey
	GW Honor Oak		GW – Addington
Three options being considered, including wastewater re-use (reverse osmosis)			Beckton

Source: Thames Water, 'Water: Planning for the Future: Draft Water Resources Management Plan 2015-2040 (October 2014)'

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.

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 up to 2026.

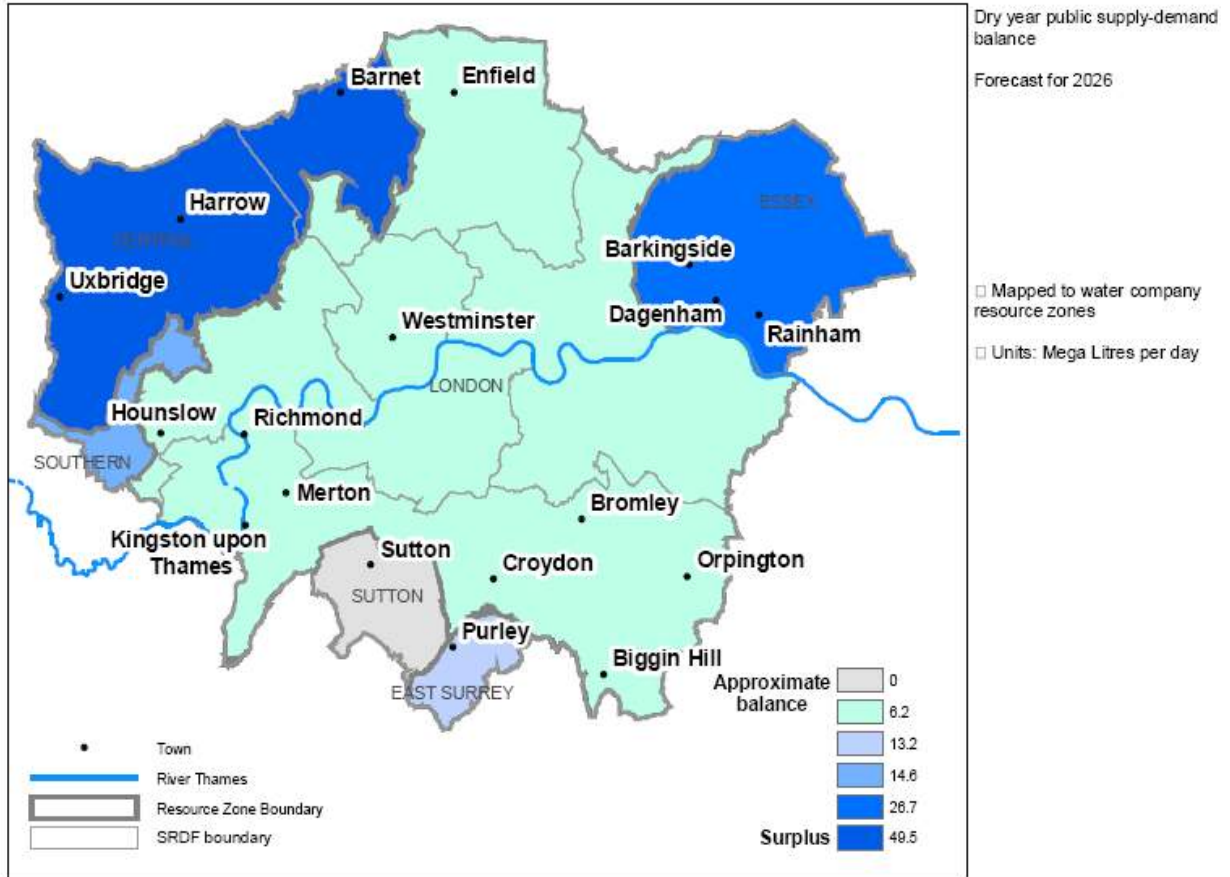
⁶² Customer Side Leakage (CSL)

⁶³ East London Resource Development (ELReD) programme

⁶⁴ South London Aquifer Recharge Scheme (SLARS)

Figure 5-2 Forecast Water Supply and Demand Balance in Greater London 2026

Water Resource Surplus - Deficit Forecasts
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 Park⁶⁵, 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 25MI 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

⁶⁵ The Barrow Hill reservoir was decommissioned in 2002 due to concerns about structural instability from embankment movement.

reservoir (with capacity for 25MI) on the existing site in Primrose Hill. This new reservoir, which is currently under construction is planned to be operational by April 2015.

Need Arising as a Consequence of Growth

URS has estimated the gross demand for water arising from development in LB Camden over the Local Plan period. This can be estimated using a ratio of litres used per day, per resident or employee. The breakdown for residential and non-residential uses is as follows:

- Residential demand, 160 litres/day per resident⁶⁶; and
- For non-residential demand, 8 litres/day per employee.⁶⁷

On the basis of the ratios outlined above, the indicative gross demand is outlined in **Table 5-2** below.

Consultation with Thames Water has confirmed that additional demand resulting from growth over the Local Plan period to 2031 can be accommodated within their existing investment plans. The majority of the development sites within the borough are currently supplied through the Thames Water Ring Main (TWRM) shafts which are in turn supplied from large Water Treatment Works, all of which have capacity to accommodate additional future demand.

However, consultation has revealed that the following development sites, Former Nurses Hostel 29 New End, 58-86 Chester Road and 41-71 Balmore Street, 156 West End Lane, NW6 and 100 Avenue Road Swiss Cottage are supplied by the Fortis Green and Cricklewood pumping stations. Further network modelling in the future will need to be undertaken to understand the additional demand that will be placed on these pumping stations and whether they will need upgrading.

⁶⁶ Based on URS research undertaken for other strategic infrastructure assessments.

⁶⁷ Based on URS research undertaken for other strategic infrastructure assessments.

Table 5-2: Estimated Water Demand from New Development (litres / day)

Gross Demand	Litres/Day
2015-2020	
Gross demand: Residential	2,375,288
Gross demand: Non-residential	125,530
<i>Sub-total</i>	2,500,817
2021-2025	
Gross demand: Residential	1,167,010
Gross demand: Non-residential	110,400
<i>Sub-total</i>	1,277,410
2026-2031	
Gross demand: Residential	1,152,782
Gross demand: Non-residential	134,400
<i>Sub-total</i>	1,287,182
Total in LB Camden	
Gross demand: Residential	4,695,079
Gross demand: Non-residential	370,330
Total Gross Demand	5,065,408

Source: URS

Planned and Committed Projects

The new Barrow Hill storage reservoir located in Primrose Hill will provide a new 25MI capacity reservoir which will increase the resilience of supply and the capacity to maximise the efficiency of pumping water around Thames Water's main ring. The project is expected to cost £11m and is due for completion in March 2015.

At present there are no other planned or committed projects identified of relevance to LB Camden.

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. Based on consultant responses which indicated that additional demand over the Local Plan period can be accommodated within existing investment plans no costs are estimated at this stage.

5.2 Energy

Introduction

No updated information was provided by UK Power Networks (UKPN) regarding planned and committed investment or likely future demand and updates are therefore made on based on publicly available reports.

National Grid provides high voltage energy transmission in England and Wales, and owns the high pressure gas network which transfers the bulk of gas over Britain, excluding Northern Ireland. UK Power Networks (UKPN) is the local electricity grid operator for London and LB Camden. The low and medium pressure gas distribution network is run by National Grid in LBC.

UKPN have developed a Business Plan 2015-2023⁶⁸ which is currently going through consultation. It outlines their strategies for the London Power Network (LPN) in the future. Supplementary documents to the plan include Regional Development Plans (RDP). Camden does not fit within the administrative boundaries of one specific plan. The borough is situated within the Lodge Road, St John's Wood and City Road RDP's, so will be affected by the decisions which are made within each RDP.

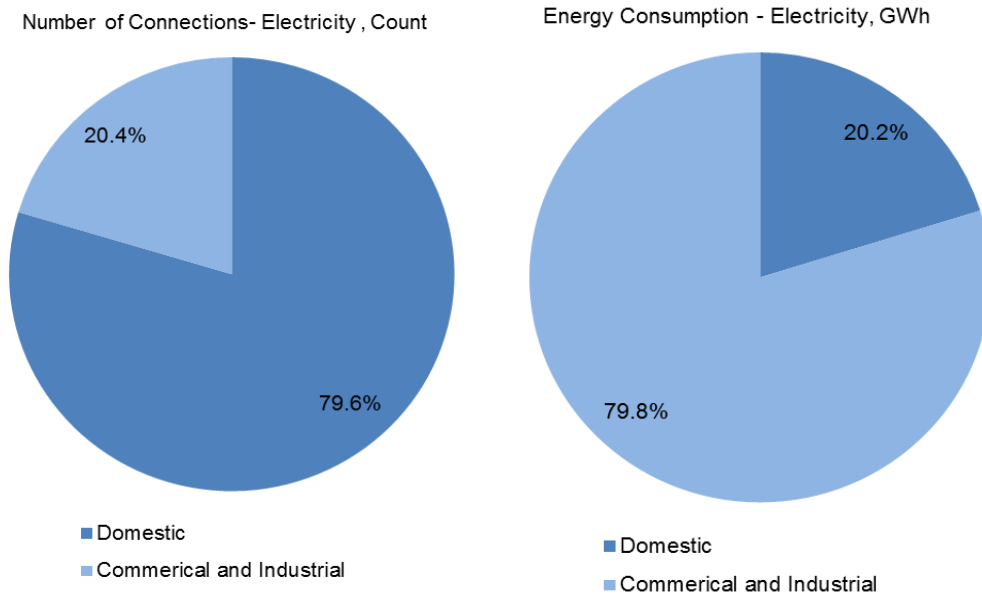
Existing Provision

Electricity and Gas: 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. Larger energy users such as supermarkets receive the 11kV connections.

The main grid supply points (GSP) in the RDPs which cover Camden are St John's Wood, City Road and Moscow Road. **Figure 5-3** shows LB Camden's electricity consumption in 2012. It demonstrates that whilst the majority of registered connections are from domestic users (80%), commercial and industrial users account for 80% of energy consumption within the borough.

⁶⁸ UKPN (2014); *Business Plan 2015-2023*.

Figure 5-3: Electricity usage in Camden (2012)

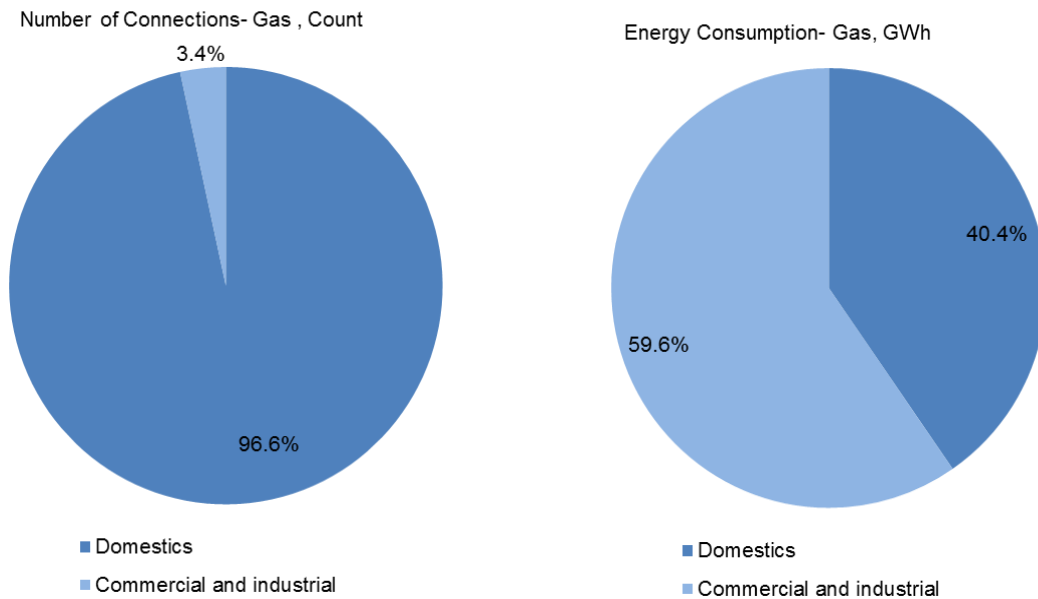


Source: Department of Energy and Climate Change (2014); Regional and local authority energy consumption statistics: 2005-2012.

The gas network in Camden delivers substantial amounts of gas to domestic and non-domestic users alike.

Figure 5-4 shows LB Camden’s gas consumption in the borough during 2012. Proportionally there are far more domestic users than industrial and commercial, but commercial and industrial customers consume more gas overall. The amount of energy consumed is shown based in gigawatts per hour (GWh).

Figure 5-4: Gas usage in Camden (2012)



Source: Department of Energy and Climate Change (2014); gas sales and numbers of customers by region and local authority: 2005 to 2012.

Sustainable Energy: Since 2012, decentralised energy networks have been established in King's Cross, Bloomsbury, Gower Street and Gospel Oak.

The Kings Cross Combined Heat and Power (CHP) system is one of the largest plants within the UK. The main energy centre at Kings Cross will comprise three 2MW CHP engines and three 10MW gas-fired boilers to provide heating, hot water and locally generated electricity to the development. The network is operated by Metropolitan and is targeting a 50% reduction in CO₂ emissions. At full build out, it is intended that the energy centre will be able to provide almost 100% of heat and hot water needs and 80% of electricity demand. The energy centre has been operational since 2012 and currently contains two CHP engines with the third planned for future installation.

The Bloomsbury heat and power system was established at the School of Oriental and African Studies (SOAS). The network is served by 4.5MW of gas fired CHP plant. The network serves a number of colleges of the University of London including Birkbeck, School of Oriental and Asian Studies, University of London and the Institute of Education. The network is operated by Cofely District Energy.

The Gower Street network serves the main University College London (UCL) Bloomsbury Campus as well as a number of University College London Hospital (UCLH) buildings adding to the thermal base load. Heat is provided from a combination of CHP and conventional boiler plant. The Gower Street network contains a 3MW CHP engine, with potential for an additional 1.5MW generation capacity.

The Gospel Oak network supplies circa. 1.4MW of surplus heat from a new CHP engine within the Royal Free Hospital to 1,500 dwellings across Camden housing estates, via approximately 1km of heat network. This meets approximately 50% of the residential heat demands, with the remaining 50% met by high efficiency communal boilers within a new purpose built energy centre. The scheme saves an estimated 2,500 tonnes of CO₂ per year.

Need Arising as a Consequence of Growth

UKPN forecast that electricity demand in London is likely to increase over the period 2015 to 2023. UKPN expect that increased load from electric vehicles (EV) and heat pumps will be most noticeable towards the mid-2020s. It is anticipated that by 2023, 20% of the growth in peak demand is expected to be caused by EVs and heat pumps. However, industrial and commercial partners are also expected to continue as the core generators of demand.

The London Infrastructure Plan 2050 identified that London may face power supply problems in the future due to a legacy of under investment in energy supply to the grid. Within London, 40% of substations are currently under stress (utilised as near capacity) and one in five sub-stations has only 7% spare capacity indicating an acute need for substation renewal. In total it is estimated that £210million of investment is required in the short term to increase substation capacity.

In the long term energy efficiency and localised power are being promoted. The Mayor has targeted 25% of London's energy to be generated by local sources by 2050 and the promotion of smart grid systems is high on the agenda. The Department for Energy and Climate Change (DECC) define a smart grid as a "*modernised electricity grid that uses information and communications technology to monitor and actively control generation and demand in near real-time which provides a more reliable and cost effective system for transporting electricity*"⁶⁹. By automating and computerising utility delivery systems it is expected that smart grids will support the transition to a low carbon economy ensuring energy security and creating more efficient and flexible energy networks. The GLA is also supporting decentralised energy systems which will have 74MW of generating capacity. However, given the anticipated increase in population and economic growth within London, the Mayor predicts that by 2050 there will be a doubling in demand for electricity.

⁶⁹ DECC, 2014. *Smart Grid Vision and Routemap*.

Planned and Committed Provision

Electricity and Gas Network: No further response was received from consultation and therefore the findings of the 2012 Update remain valid with regards to planned and committed provision.

Sustainable Energy: Decentralised energy networks in the future are likely to begin in and expand in the growth areas of King's Cross, Euston, Tottenham Court Road, West Hampstead and Holborn. Existing networks currently exist within Kings Cross, Bloomsbury and Gospel Oak.

LBC has recently developed a CHP network that takes extra heat from the Royal Free Hospital and sends it off to 1,500 homes in the Gospel Oak area. LBC are now developing a CHP led network in Somers Town which will provide heating to four estates and potentially commercial buildings by 2016/17.

The Euston District Heating Network was identified as a cluster in the 2007 SEA study for LB Camden on Large Scale CHP Pilot Site Identification. Known also as the 'Somers Town Low Carbon Heat Network', the scheme is currently in construction and will consist of two phases. The first phase will centralise the heating systems of approximately 340 dwellings across four housing estates within an energy centre to be retrofitted into an existing basement car park. Phase 1 is due for completion in Autumn 2015. The proposed second phase (envisaged for 2016/2017) will see the installation of a CHP engine to also provide electricity to a newly built commercial development, the Francis Crick Institute. This scheme will be designed, built, operated and maintained by Vital Energi Ltd on behalf of Camden council.

The council have also been awarded funding through the Heat Networks Delivery Unit (HNDU) to carry out a number of studies including a borough-wide heat mapping exercise which will look at updating heat demands and a study identifying secondary heat sources across LB Camden. This is due for completion in Q1, 2015. The aim of the study will be to identify opportunity areas for the development of de-centralised energy networks. In addition to this mapping work, HNDU funding has been obtained to carry out feasibility studies-for Kentish Town West, Bloomsbury and the extension of the Euston District Heating Network. These studies will include a techno-economic appraisal of options of the Kentish Town and Euston areas and a master-planning exercise within Bloomsbury. These studies are currently ongoing and further details are not yet available.

Costs and Funding

Camden's Energy Grid: Both National Grid and UKPN 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.

UKPN plans to fund future projects with an additional £0.4 billion of debt and £0.1 billion of shareholder committed equity. Customers will also help pay for the upgrades but over the Business Plan period (2015-2023) general bills are anticipated to decrease by 6% on average from 2014/2015 levels, according to UKPN predictions.

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.

Sustainable Energy: Phase 1 and Phase 2 of the Euston network has secured funding via the Francis Crick Institute and thus no further costs have been identified. Consultation with the council however has identified that an estimated £9m will be required for the delivery of a new de-centralised energy network within Kentish Town and the expansion of networks within Euston (Phase 3, 2025-31) and Bloomsbury. It should be noted that these are indicative costs at this stage and will be refined further following the outcomes of the HNDU studies.

5.3 Telecommunications and Digital Infrastructure

Introduction

The telecommunications sector is regulated by the Office of Communications (Ofcom). BT is considered to be the primary supplier of telecommunications as it owns much of the fixed-line apparatus through BT Openreach. Other key players in the sector include Virgin, 3, O2, Everything Everywhere and Vodafone.

Telecommunication provision needs to respond flexibly to a wide range of demands from residential users and businesses. The nature of provision is changing rapidly, driven by the fast pace of innovation and change in the sector. The London Plan Implementation Plan (2013)⁷⁰ defines telecommunications infrastructure as including the availability of fast broadband, Wi-Fi Hotspots, data centres, street cabinets, and copper, fibre and Ethernet connections.

The LB Camden has recently developed a Digital Strategy⁷¹ that sets out how technology will support and enable the borough in the coming years. The council is keen to help local businesses to develop, lower the costs of activities so the council can stay within its ever tightening budget, and lower local unemployment as well as improving LB Camden's competitive offer.

Existing Provision

The average broadband speed in London is 20.4 Mbit/s (megabit per second). In total broadband take-up is 83% of which 25% is superfast whilst approximately 5% of users have broadband speeds of less than 2Mbit/s⁷² which is below the speed set by the Government to meet universal broadband access by 2015⁷³. There has also been an ongoing programme to roll out super-fast broadband (up to 110 Mbit/s) within Greater London.

Figure 5-5 shows which areas of Greater London do not have access to Next Generation (NG) internet broadband speeds (defined as speeds up to 24Mbit/s). As **Figure 5-5** demonstrates, the majority of LB Camden has access to NG broadband, with the exception of a small area of the borough close to the border with LB Westminster and areas within the South of the borough. However, consultation with the Council has revealed that at present NG internet speeds are not always being realised at premises within the coverage area.

Uneven coverage, particularly within the south of the borough within the CAZ is having an adverse effect on existing businesses, potentially constraining competitiveness and growth. Whilst the GLA's Connection Voucher Scheme is actively being promoted within the borough, fibre installations within LB Camden borough could be progressed faster. The speed of installation is primarily a consequence of how existing mainstream broadband providers are choosing to invest and expand their current networks and whilst there is increasing competition from new market entrants it is the established providers who have the greatest influence within the London market.

As part of a London wide initiative, LB Camden also now has a wireless concession to provide public wireless services in areas of high footfall within the borough.

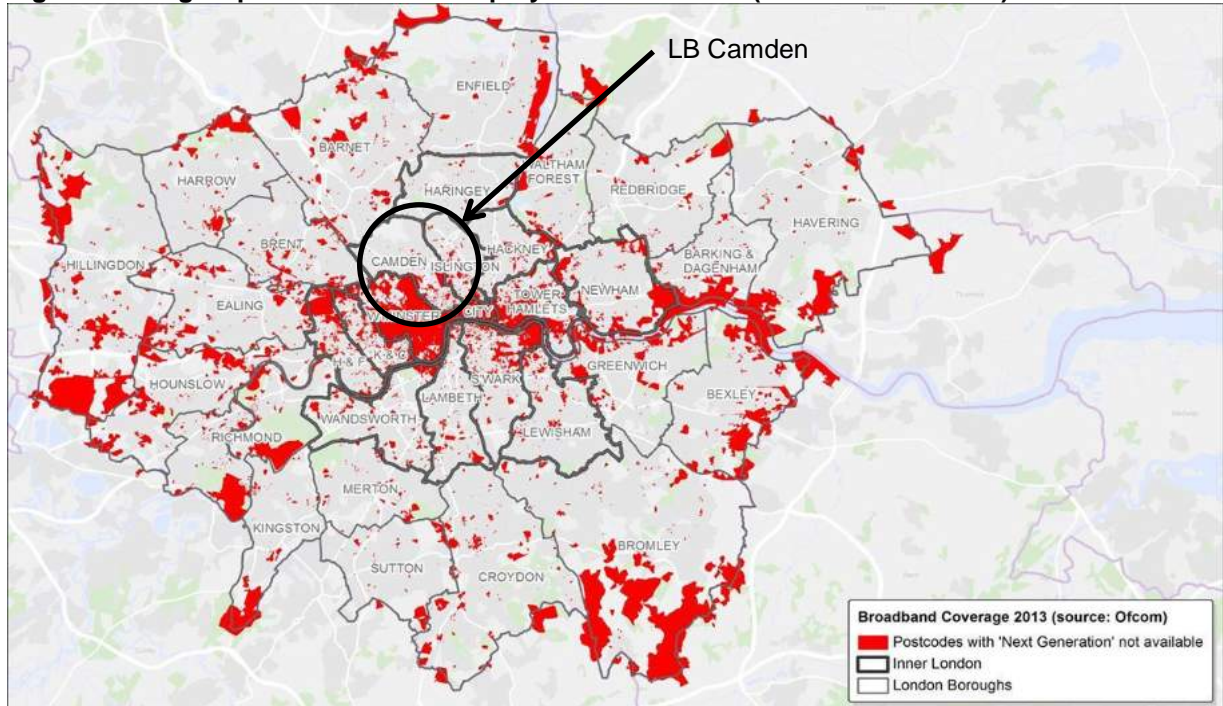
⁷⁰ GLA, (2013); London Plan Implementation Plan, January 2013.

⁷¹ LB Camden, (2014). *Digital Camden: A new approach to digital change for our borough*.

⁷² Ofcom, (2013). *UK Fixed Broadband Map 2013*. Available from: <http://maps.ofcom.org.uk/broadband/>. [Last accessed: 20/10/14].

⁷³ <https://www.gov.uk/broadband-delivery-uk>

Figure 5-5: High-Speed Broadband Deployment in London (LB Camden shown)



Source: GLA.

Planned Provision

The Connectivity Advisory Group, supported by the GLA will aim to improve conditions for the roll out of faster broadband within London including the development of a London wide connectivity network. The London Infrastructure Plan identifies Opportunity Areas within London as key locations to build in high quality communication networks providing high speed internet access. This will include a mix of fibre broadband, mobile broadband and future methods of wireless internet delivery.

The London Infrastructure Plan also intends to work closely with Ofcom to ensure sufficient radio spectrum is identified to help London become one of the first cities in the world to deploy 5G mobile internet connectivity (by 2020).

Consultation with BT Openreach has indicated that they are likely to augment fibre spines in London to meet increased demand for high speed broadband. This will likely be achieved via existing duct routes. These upgrades which are currently happening in Central London which involve upgrades to ducts and cabinets to accommodate superfast broadband are almost complete. BT Openreach has confirmed that they do not currently have any specific planned or committed projects in LB Camden.

Need Arising as a Consequence of Growth

The key requirement for residential properties and small and medium sized enterprises (SMEs) is for improvements in broadband connectivity and bandwidth. There is increasing demand for greater bandwidth in residential areas, driven by technological advancement in home entertainment.

With regards to commercial users large business services require an Ethernet connection (up to 10 Gbit/s (gigabits)) and data centres are important to provide resilient business telecommunications infrastructure. Demand for telecommunication provision and enhancement at the regional level is being driven in part by the growth of the Information, Communication and Technology (ICT) sector in London. The provision of good telecommunications infrastructure is therefore viewed as important to help keep London competitive at a global scale, particularly in relation to the 'digital economy'.

In 2013 the Government set up the Super Connected Cities scheme which aims to improve cities through superfast broadband to small businesses. This programme is managed by Broadband

Delivery UK (BDUK). The council plans to collaborate with the GLA as part of the Super Connected Cities scheme. They aim to:

- ensure that the supply of business broadband services is sufficient to meet the projected future needs of our local businesses;
- increase competition and high speed broadband coverage in the south of the borough which is behind many parts of London;
- identify businesses that are not online and where feasible, organise support to get them online so they can benefit from doing business electronically; and
- support local businesses and SMEs that are already online to increase the speed and quality of existing broadband connections.

The Connection Voucher Scheme (CVS) forms part of the Super Connected Cities scheme. Since March 2014 CVS vouchers have been available in all 33 London boroughs. Small and medium sized enterprises (SMEs) can apply to the CVS for a £3,000 grant to install a superfast broadband connection (30Mbit/s or more). The CVS operates until March 2015. The larger scheme also includes the expansion of wireless coverage in city centres and public buildings.

The London Infrastructure Plan states that within London a 'Connectivity Advisory Group' comprised of the GLA, London boroughs and key stakeholders will be established to ascertain existing levels of connectivity, to advise on barriers to provision and identify strategic priorities for areas with poor connectivity.

Costs and Funding

The GLA and councils within London are working with industry partners to plan future programmes of provision. Funding to support faster broadband connections across the UK has been rolled out by the Government. Of this fund, the GLA has secured £25m for improvements in provision in London.

The Super Connected Cities programme is backed by £150 million of government funding and further investment from Broadband Delivery UK. BT is also currently investing £50million into commercial broadband in city regions, and overall is spending £3 billion in fibre expansion in the UK⁷⁴.

5.4 Sewerage / Wastewater

Introduction

Updated information relevant to Sewerage/Wastewater infrastructure has been provided through consultation with Thames Water and is presented below. **Section 5.1** above provides 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.

Existing Provision: 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, pumping stations and treatment works, which make up London's wastewater infrastructure. Much of central London has a combined drainage system, which carries both surface and wastewater. Wastewater from LB Camden is treated at Beckton Sewage Works located in the London Borough of Newham.

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. It is estimated that 39 million cubic metres of storm sewage is discharged to the Thames in a typical year, mainly from the combined sewer overflows (CSOs), but also from the tideway sewage treatment works

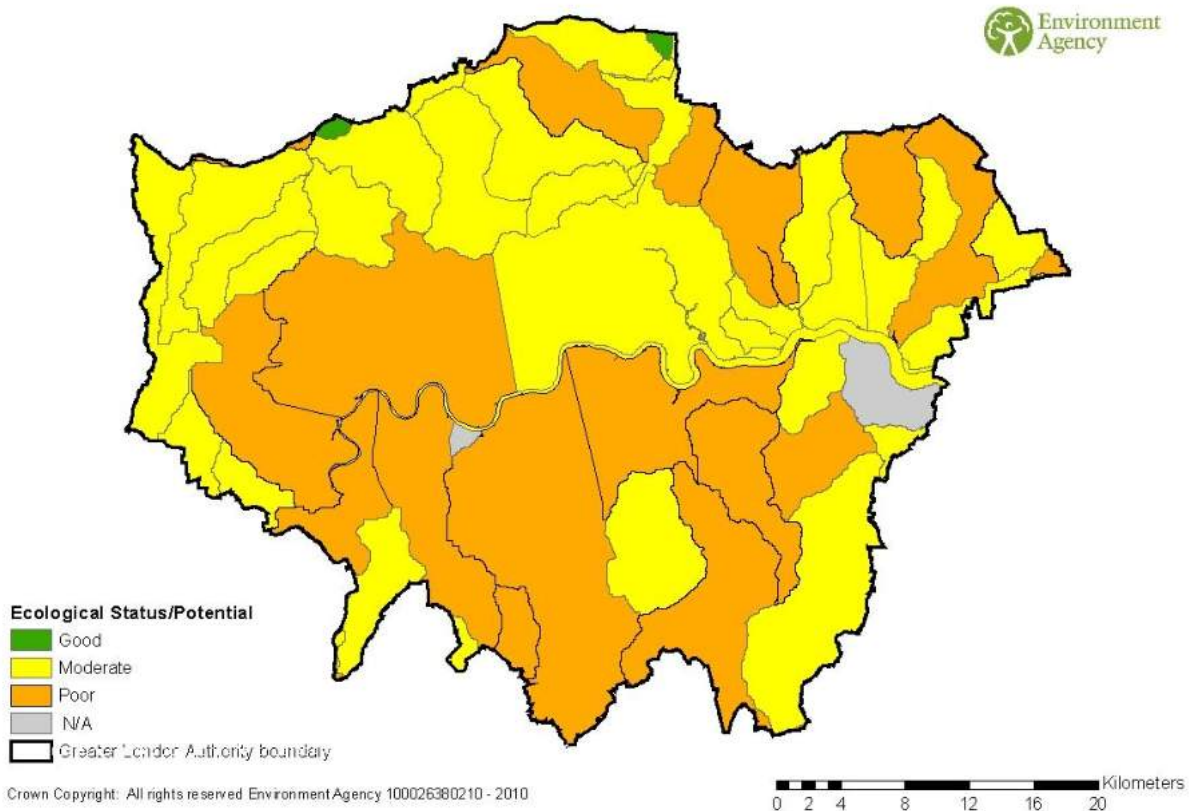
⁷⁴ BT Website, accessed 17th October 2014.

(STW). This could rise to 70 million cubic metres by 2022 if no action is taken; however due to improvement works recently completed this figure has been reduced significantly.

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 results in an increase in the number of pollution incidents.

The quality of London’s water bodies must also be improved if they are to meet the requirements of the European Water Framework Directive (WFD). None of London’s rivers are currently meeting ecological standards (see **Figure 5-6** 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 5-6 Ecological status / potential of river water bodies in Greater London under Water Framework Directive



Planned and Committed Provision

Provision for growth at Beckton STW will be identified and planned for by Thames Water through their next business plan. Due to the significant change in growth forecast from 2006/7 (which defined the size of the capacity upgrade that has just been completed) to current growth forecasts it is anticipated that there is a strong likelihood that capacity is already available to post 2021 and most likely to circa 2025. Based on completions in the subsequent years and future forecasts, Thames Water will re-assess the available capacity at Beckton STW to accommodate future development during the preparation of their next Business Plan. This will be completed in 2016/17 for submission in 2019. If sufficient capacity is identified for the period 2020 to 2025 investment will be deferred to future periods.

Provision for sewer capacity is also required to accommodate proposed development. As the local sewer system is a combined system accommodating both foul water (from toilets and sinks) and surface water (from roof drainage, hard standing, pedestrian walkways and roadways) the system can run to capacity at certain places due to rainfall. In these events, excess flow is relayed directly to the River Thames via a Combined Sewerage Overflow (CSO) that yields the associated deterioration in river quality. The capture of flows from CSOs is being addressed by the Thames Tideway Tunnel project.

Due to the high level of urbanisation of London and the lack of available land, increasing sewer capacity to accommodate the additional flow due to new development can be unfeasible. For this reason Sustainable Urban Drainage Systems (SUDS) are the most frequently used approach to reduce flow in the sewer system to accommodate the increase in flow anticipated by additional development. Thames Water therefore strongly supports all activities that reduce both the volume of surface water entering the combined sewer system as well as the rate at which it is discharged.

The London Tideway Improvement Programme will help address growth within London and sewerage capacity issues. The programme consists of three components:

- Upgrades and/or capacity extensions to Crossness, Beckton, Mogden, Long Reach and Riverside STW have now been completed. These upgrades 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 should largely accommodate future population growth to circa 2021.
- 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 December 2015.
- The Thames Tunnel has recently received a Development Consent Order. 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.

As part of its Business Plan for 2015-2020 (AMP6) Thames Water is 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 at least 2031. This project will be completed by 2017/2018.

Need Arising as a Consequence of Growth

The gross demand for sewage management can be estimated using the ratio of litres per day, per resident or employee. The breakdown for residential and non-residential uses is as follows:

- Residential property flow rate. 200 litres/day per resident⁷⁵; and
- Non-residential flow rate, 9.5 litres/day per employee⁷⁶.

On the basis of the ratios outlined above, the indicative gross demand is outlined in **Table 5-3**.

⁷⁵ Based on URS research undertaken for other strategic infrastructure assessments.

⁷⁶ Based on URS research undertaken for other strategic infrastructure assessments.

Table 5-3: Estimated Sewerage Flow Rate (litres / day)

Gross Demand	Litres/Day
2015-2020	
Gross demand: Residential	2,969,110
Gross demand: Non-residential	149,066
<i>Sub-total</i>	3,118,176
2021-2025	
Gross demand: Residential	1,458,762
Gross demand: Non-residential	131,100
<i>Sub-total</i>	1,589,862
2026-2031	
Gross demand: Residential	1,440,977
Gross demand: Non-residential	159,600
<i>Sub-total</i>	1,600,577
Total in LB Camden	
Total Gross demand: Residential	5,868,848
Total Gross demand: Non-residential	439,766
Total Gross Demand	6,308,615

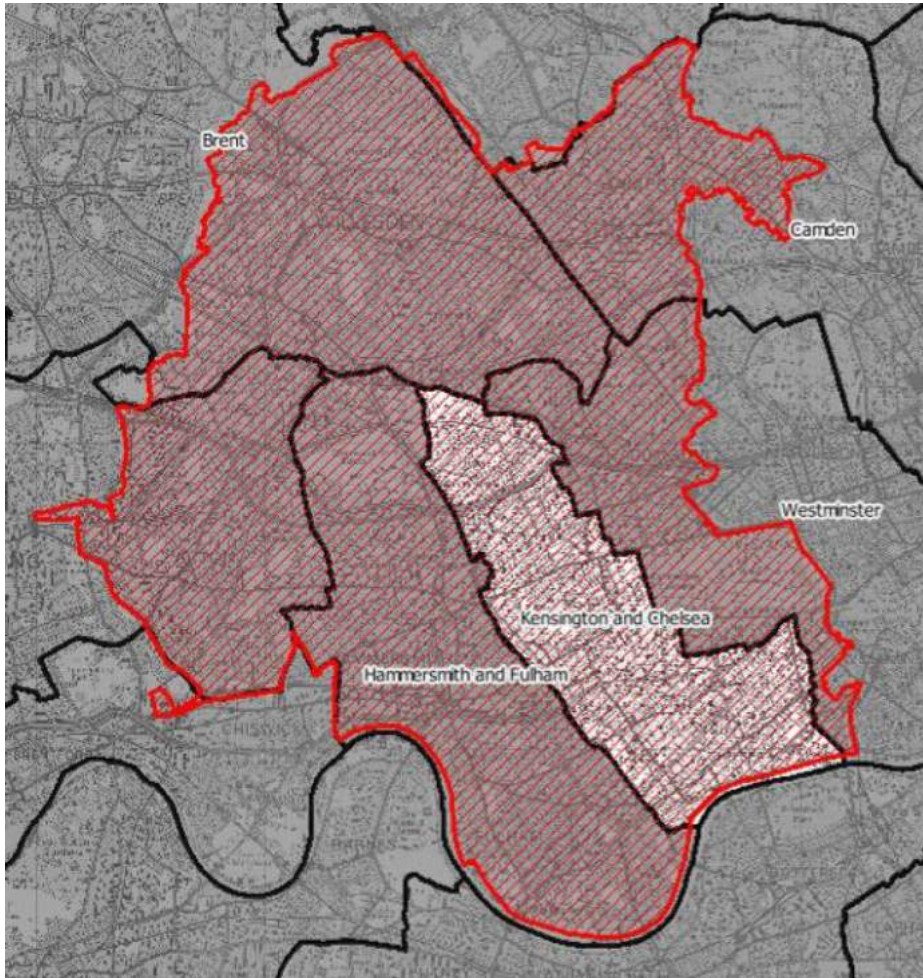
Source: URS

Consultation with Thames Water has revealed that within LB Camden there are currently concerns with regards to sewer flooding in the Counters Creek sewerage catchment area. Sites within this catchment have been identified by Thames Water as being most at risk from sewer flooding due to excess surface water entering the sewerage network.

Thames Water have advised that where practical the council should ensure that all major planning applications, all developments of more than 10 dwellings, and all developments within the Counters Creek catchment area are accompanied by a drainage study which demonstrates how surface water and foul water will be dealt with. It is acknowledged that not all development will have an impact on surface water and therefore requirements should be assessed on a case-by-case basis. The London Plan states that 50% of surface water drainage will need to be drained via SUDs. However Thames Water would like the council to aim for 100% where practicable, particularly in the Counters Creek catchment area (shown in **Figure 5-7**). Adequate surface water and foul drainage should be secured via appropriate worded drainage planning conditions (including Grampian conditions).

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.

Figure 5-7: Counters Creek Hydraulic Catchment



LB Camden, (2011). Surface Water Management Plan.

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 prices⁷⁷. The next periodic review will be in 2019.

There may also need to be additional investment in local sewers 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 which are focused on the protection, improvement and sustainable use of water, 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 2017 and 2018 after consultation with stakeholders, including with local planners. Future funding will need to be agreed with Ofwat and financed through charges to customers.

5.5 Flood Risk

Since the 2012 Update the LB Camden has updated their Strategic Flood Risk Assessment⁷⁸ as required by the NPPF, the findings of which have been incorporated into this study.

Introduction

The Mayor's Water Strategy for Greater London was adopted in 2011 and is complementary to other strategies and plans for the management of water. The LB Camden is currently a Lead Local Flood Authority (LLFA) under the Flood and Water Management Act 2010. This stipulates that the council is responsible for managing flood risk from surface water and groundwater in the borough.

The main source of flooding in Camden is from surface water after high intensity rain fall events, and the incapacity of the combined sewer system to remove the rain water quickly enough. There have also been recorded instances of basement flooding within the borough.

LB Camden's Core Strategy identifies that surface water flooding is the largest flood risk and in Policy CS13 outlines that the borough will require additional infrastructure to mitigate and prevent surface water and down-stream flooding, especially in areas of higher flood risk such as: South and West Hampstead, Gospel Oak and Kings Cross. To manage these requirements the council have developed a Flood Risk Management Strategy. This document identifies flood risks in LB Camden, outlines how flood risk alleviation schemes will be delivered and details how improvements to flood risk management can be achieved in LB Camden.

Flood defences in LB Camden are run by:

- Thames Water (Sewerage Systems);
- Canal and River Trust (Canals); and
- London Borough of Camden (Highways Drainage and Land Drainage).

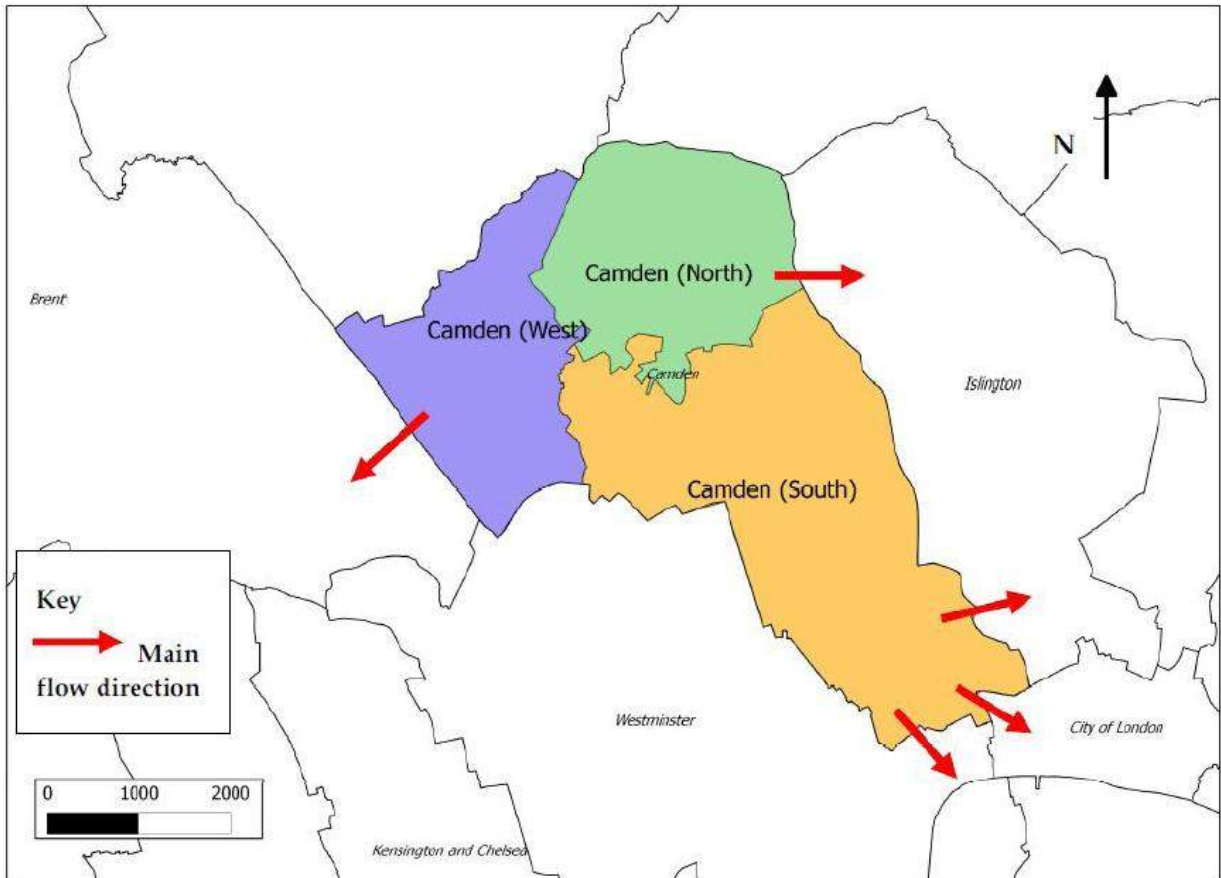
Existing and Planned Provision

Camden's Flood Risk Management Strategy⁷⁹ splits Camden into three flood areas and shows where the main water flow from each flood area is likely to go, as highlighted in **Figure 5-8**.

⁷⁸ LB Camden, (2014). *London Borough Camden Strategic Flood Risk Assessment*.

⁷⁹ LB Camden, (2014). *Managing Flood Risk in Camden - The London Borough of Camden flood risk management strategy*.

Figure 5-8: Map of Camden Flood Areas and Flows into Neighbouring Boroughs



Source: Camden Borough Council (2014), *Managing flood risk in Camden: The London Borough of Camden flood risk management strategy*.

Camden’s Flood Risk Management Strategy identifies that the borough is primarily at risk from surface water runoff, groundwater flows and flooding from the sewerage system which could potentially be filled beyond capacity during heavy rainfall events. The risk of flooding from groundwater sources is more uncertain; however incidents of groundwater leaking into basements were recorded during the winter of 2012/13 when there was heavy rainfall. Flooding from burst waters mains is also a possibility. In total 12,700 properties in the borough are considered to be at risk from surface water flooding at a depth of above 0.3 m, based upon a 1 in 200 year rainfall event⁸⁰.

The Strategy outlines that LB Camden is not considered to be at risk from flooding from the Thames. In addition whilst the borough does have a number of water bodies, the risk of flooding from these is generally considered to be very low.

Modelling within the council’s flood risk management strategy has identified that the north and west of the borough is most at risk from a future major flood event. The council is currently considering methods to develop new flood alleviation schemes for these segments of the borough as well as some areas within the south of the borough.

Within Camden north, key risks evolve from surface water runoff in an extreme rainfall event, and to a lesser extent, from the Hampstead Heath ponds overtopping or breaching. The Royal Free Hospital is also identified as a piece of critical infrastructure at risk from flooding events.

The Camden’s Flood Risk Management Strategy identifies that the most likely flooding event to occur within the Camden north area is surface water flooding, of which Gospel Oak, Hampstead Town and

⁸⁰ Greater London Authority (2012); *London Strategic Flood Framework*.

Highgate would be most at risk. There are currently no viable schemes recognised for Gospel Oak or Highgate. However, within Hampstead Town the use of SUDs retrofits, embankments and methods to improve the control of water into the sewerage system have been proposed.

There are also plans to address the risks associated with overtopping of the Hampstead Ponds by increasing the capacity of the two chain ponds on Hampstead Heath and the strengthening of dams to prevent overtopping during the Probable Maximum Flood (PMF). However, these proposals are currently the subject of a judicial review, the outcome of which will be decided in December 2014.

In Camden west, there are a number of schemes within West Hampstead proposed to mitigate against flood risk including a 55m raised flood wall along Cannon Hill, compensation storage at the downstream West End Lane Public Conveniences and West End Green as well as individual property measures at three commercial and two residential properties. Soft measures such as flood wardens and community groups are also being considered, particularly within the South Hampstead and West Hampstead areas.

Camden south does not have the same level of flood risk as the north of the borough, and only the Primrose Hill area was identified as having any significant risks. No other areas in Camden south were identified as either being at serious risk of flooding or of contributing significantly to flood risk in other areas.

Consultation with the council has revealed that currently a small amount of funding has been provided to carry out further modelling in the Highgate area and ascertain whether a flood alleviation scheme in this area could be eligible for Flood Defence Grant in Aid (FDGiA) funding.

Costs and Funding

The UK government is currently committed to providing £2.34billion of capital funds for spending on flood defences in the UK⁸¹. The Government committed an additional £130million worth of funding for emergency repairs and maintenance after the 2014 winter floods and capital investment in flood defences in 2015/16 is going to be £370million. This will stay the same in real terms until the end of the decade.

The council has managed to secure a small amount of levy money to help pay for further flood risk modelling to ascertain whether any flood alleviation schemes may be eligible for Flood Defence grant in Aid (FDGiA) funding. However, funding is often hard to obtain because surface water flooding alleviation schemes do not normally meet the cost/benefit ratio threshold needed to secure the funding. For the schemes outlined above in West Hampstead a total of £150,000 of funding has been raised so far, however there remains a significant funding gap for the residual borough wide risk.

Further £15million of costs have been identified to increase the capacity of Hampstead Ponds to prevent overtopping during the PMF. These costs will be met by the City of London (CoL). This project is currently the subject of a judicial review and therefore the certainty of this project is not currently clear.

Consultation with the council has indicated that currently no additional funding has been committed to flood mitigation infrastructure by LB Camden.

⁸¹ Oliver Bennett (2014) *Flood Defence Spending in England*, House of Commons Library.

5.6 Waste Management

This section provides an update on the current state of LB Camden's waste management infrastructure from consultation with LB Camden and the North London Waste Plan (NLWP) personnel.

Introduction

The London Plan sets out key policies for reducing waste and waste management in London. In addition, the Mayor of London has also adopted a Business Waste Strategy⁸² and a Municipal Waste Management Strategy⁸³. Both strategies set out targets for recycling and waste reduction and outline policy solutions to help fulfil these targets. The documents are meant to act as high level direction to deal with waste in Greater London over the period from 2010-2031.

Waste Management within LB Camden is organised by the North London Waste Authority (NLWA). The NLWA consists of the London boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest. The NLWA organises how waste is transported and disposed of, and aims to promote waste minimisation and recycling.

The same seven boroughs in their capacity as planning authorities are responsible for producing the North London Waste Plan (NLWP) which will set out the planning framework for waste management in North London Boroughs over the next 15 years up to 2031.

The document will identify sites for major recycling and other waste handling sites within North London and set out policies relating to waste. The Plan was the subject of a public examination in April 2012. The Inspector at that examination concluded that the plan failed to meet the Duty to Co-operate which came into force during the final stages of the plan making process. Boroughs have subsequently agreed to start work on a new waste plan in order to be able to meet the duty to co-operate. It is anticipated that the plan will be completed in 2017.

Existing Provision for Local Authority Collected Waste (LACW)

As a waste collection authority, LB Camden collects waste from households and some businesses. Waste disposal services within the LB Camden are largely delivered by London Waste Ltd. The company is owned by the NLWA and is contracted to provide waste management services to its seven North London boroughs.

The NLWA has sole ownership of its main waste management contractor, LondonWaste Ltd which has a range of waste management infrastructure as follows:

- Energy from waste facility at Edmonton EcoPark Enfield, 1 facility which processed c550,000 tonnes waste in 2013/14;
- In-vessel composting (garden and food waste composting) at Edmonton EcoPark, Enfield, 1 facility handling 30,000 tonnes of waste;
- Rail Transfer Station, Hendon, Barnet, leased from Network Rail, 1 facility c166,000 tonnes transferred through the site in 2013/14;
- Road Transfer Station, Hornsey Street, Islington, leased for 999 years from London Borough of Islington, 1 facility c193,000 tonnes of material handled through the site in 2013/14; and
- These facilities are supplemented by the use of third party recycling facilities in London.

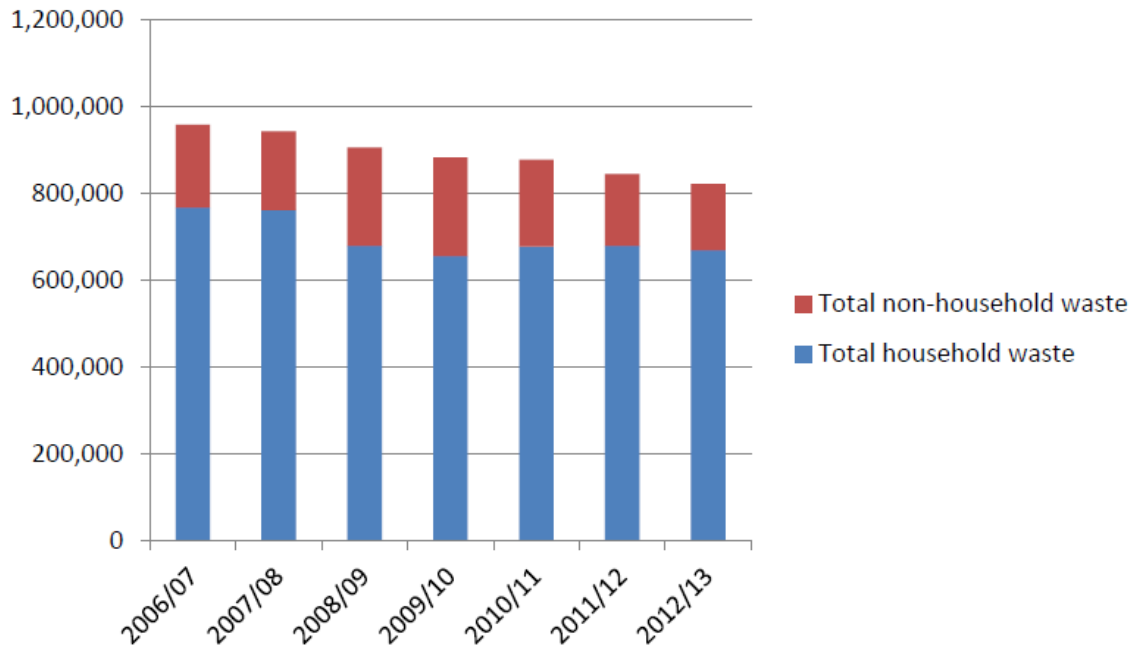
The NLWA also manages seven of the nine reuse and recycling centres (RRC) across the north London area (Barnet and Enfield manage their own).

⁸² Mayor of London, (2011). *Making Business Sense of Waste: The Mayor's business waste strategy for London.*

⁸³ Mayor of London, (2011). *London's Wasted Resource: The Mayor's Municipal Waste Management Strategy.*

In 2012/13 a total of 822,384 tonnes of waste were collected by the NLWA. Of this, 219,439 tonnes of waste was sent to composting and recycling facilities. **Figure 5-9** shows the progress that is being made by the NLWA boroughs in decreasing the amount of waste collected.

Figure 5-9: Total Local Authority Collected Waste (Tonnes)



Source: North London Waste Authority (2013); North London Joint Waste Strategy: Annual Monitoring Report 2012-13.

Within LB Camden the level of residual house waste has dropped from 494kgs per household in 2011/12 to 456kgs per household in 2012/13. Recycling rates worsened however, with decreases from 32.8% in 2011/12 to 30.9% in 2012/13.

Within LB Camden there are limited waste management facilities with just one reuse and recycling facility within the borough at Regis Road. It has a maximum capacity of 9,497 tonnes. At present most of LB Camden’s waste is transported outside of the borough due to the lack of current waste management capacity. The current facilities available within the borough include:

- A re-use and recycling centre at Regis Road;
- Street recycling collection banks;
- Recycling collection facilities in schools; and
- Recycling banks outside of tube stations and on busy streets for commuter litter.

Committed and Planned Provision

The North London Joint Waste Strategy sets out targets of achieving a combined household recycling and composting rate of 50% by 2020, and a reduction in the amount of biodegradable municipal waste going to landfill, so that the current proportion of material that goes to landfill is decreased to 35% of 1995 levels by 2020. The London Plan sets a target of 50% recycling by 2020, as well as moving towards a circular economy⁸⁴. Existing NLWA policy measures are insufficient to reach the recycling target in North London⁸⁵.

⁸⁴ Mayor London (2014); Draft Further Alterations to the London Plan , Mayor of London, London.

⁸⁵ North London Waste Authority (2014); Public Document Pack, NLWA, London.

Household waste projections undertaken by the GLA for the Further Alterations to the London Plan (2015) show a growth in household waste due to the expected growth in households within Greater London.

The NLWA wants to build an Energy Recovery Facility to replace the existing plant at the Edmonton EcoPark by 2025 so they can continue to recover energy – heat and power – from waste. The existing Energy from Waste plant has served north London well for around 45 years but is coming to the end of its operational life. The first of two phases of consultation to help shape the proposals for a replacement facility starts on 28 November 2014 and ends on 27 January 2015 with the second phase of consultation planned for May - June 2015. The NLWA will demolish the existing Energy from Waste plant after moving operations to the new one in around 2025. NLWA will be applying for a Development Consent Order (DCO) for the replacement facility.

Costs and Funding

The NLWA from 2013 to 2014 invested £430,000 to fund food, furniture and textile waste re-use facilities; £350,000 was also committed to work with the constituent borough's to reach the 50% recycling target by 2020.⁸⁶ The NLWA expects to expend £297,000 on recycling initiatives and £316,000 on new waste reduction programme initiatives in the 2014/15 financial year.

Funding for future NLWA projects is likely to come through London Waste Ltd⁸⁷. It is estimated that the new Energy Recovery Facility in Edmonton will cost in the region of £450-500m. However, the proposals are currently out to consultation and no fixed costs have been identified.

5.7 Policing

Introduction

Information has been provided by the Metropolitan Police Service (MPS) regarding planned and committed investment, strategic plans and likely future demand. A desktop review of available information has also been undertaken and the findings are presented below.

The MPS run the policing services in LB Camden and are scrutinised by the Mayor's Office for Policing and Crime (MOPAC). MOPAC has a strategic managing role, while the MPS run the day-to-day operations. The local Safer Neighbourhood Teams (SNTs) act as an additional force to the MPS, acting towards a specific community's safety rather than policing within the wider borough. MOPAC has a strategic management role and is not responsible for day-to-day delivery of policing. It works closely with the MPS and its partners to secure an efficient police service for London.

Existing Provision

In 2013/14, staff within the MPS numbered approximately 32,000 officers and 12,200 support staff⁸⁸. There were 5,000 special constables in service during 2013⁸⁹. Police officer numbers are the same as in the *2009 study* and the subsequent *2012 update*, though there have been changes to the composition of staffing: the number of special constables has increased, while other staff levels have dropped.

The Police and Crime Plan indicates that the number of police officer posts is expected to be greater in 2015 than levels recorded within 2011 with significant increases in the number of SNT officers. Within LB Camden the number of SNT officers is anticipated to increase from 52 officers in 2011 to 157 officers in 2015. Total borough officers are expected to increase from 749 officers in 2011 to 751 officers in 2015, so a marginal increase.

⁸⁶ North London Waste Authority (2014); Public Document Pack, NLWA, London.

⁸⁷ Consultation with LB Camden waste officer.

⁸⁸ Metropolitan Police Service (MPS), (2013). *Mayor's Office for Policing and Crime: Annual Report 2013/14*.

⁸⁹ Mayor of London, (2013). *Police and Crime Plan 2013-2016*.

Since the *2009 study* and the subsequent *2012 update* the number of police stations within LB Camden has decreased from five to two. Within the borough only the Holborn and Kentish Town police stations remain. West Hampstead police station is still open but does not offer a front counter service like the other two stations. The only station which provides full 24/7 front counter service is the Kentish Town police station. This station now operates as a single patrol base for the entire borough accommodating all Emergency Response police officers for the borough.

Hampstead Police Station was sold in 2014 to the Secretary of State for Communities and Local Government for educational uses.

There are currently 19 SNTs in LB Camden assigned to one of three clusters which is an increase of one SNT based on findings presented within the *2012 Update*. SNT's have undergone significant change in structure since 2012 however and are now comprised of one Sergeant, one Constable and one Police Community Support Officer (PSCO). In addition to the dedicated officers there are a number of constables that are assigned to a cluster. These officers can be 'flexed' across the cluster to patrol/problem solve/respond to calls based on demand. The Neighbourhood officers work out of three bases:

- North Cluster - West Hampstead Police Station;
- Central Cluster - Kentish Town Police Station; and
- South Cluster - Holborn Police Station.

There are also seven Contact Points within the borough that members of the public can attend when they need to report a crime or obtain police assistance. These are typically open at regular, advertised times and are designed for the reporting of non-urgent face-to-face contact with the public. The use of Contact Points is recognised as a move away from front counter services.

Crimes in the LB Camden per 1,000 population have dropped in the period between 2011/12 to 2013/14, but crime remains significantly above the London average at the borough level. The highest levels of crime within LB Camden are recorded within the Camden Town with Primrose hill Ward. Crime within the rest of the borough's wards are categorised as being average in comparison to levels within Greater London⁹⁰.

Committed and Planned Provision

MOPAC has overall responsibility for all Metropolitan Police buildings and facilities in London and recognises the vital role the estate plays in supporting the delivery of effective and efficient policing across the capital. MOPAC and the Metropolitan Police released the Police and Crime Plan 2013-2016 and Estate Strategy 2013-2016^{91 92} in 2013.

The Crime Plan outlines future changes that are going to be made to the police service in London and provides targets over the time period to 2016. The Plan outlines a '20:20:20' strategy. This states that from 2013-16 the Metropolitan Police aims to reduce 20% of all neighbourhood crime, increase public confidence in the police by 20% and deliver a budget cut of 20% (equivalent to £500 million). This is due to a 20% cut in the grant the Metropolitan Police gets. The number of officers in London boroughs is expected to increase by 1,200 despite these budget reductions however.

The MPS Estates Review indicates that the MPS are planning to upgrade facilities and transfer more back of house staff onto the street, to maximise frontline services. Outdated office space and buildings will be re-furbished and replaced. The standard of one 24/7 counter service station will be maintained in all London boroughs.

⁹⁰ Metropolitan Police Service (MPS), (2014). *Metropolitan Police Crime Mapping*. Available from: <http://maps.met.police.uk/?areacode=E09000007>. [Last accessed: 22/10/2014].

⁹¹ Mayor's Office for Policing and Crime (2013); *Police and Crime Plan 2013-2016*.

⁹² Mayor's Office for Policing and Crime and Metropolitan Police Service (2013); *Estates Strategy 2013-2016*.

Need Arising as a Consequence of Growth

LB Camden's community safety partnership strategy emphasises the focus on community safety in Camden by introducing actions to reduce crime and ensure safety in homes and the local community with a focus on tackling anti-social behaviour. The document however does not include specific actions to address future needs stemming from Camden's projected residential and commercial growth.

There is no clear guidance available at either national or local level which indicates how to translate an increase in development (residential and / or commercial) into additional demand for police services, and thereby into demand for a new police station or SNT.

Discussions with the MPS have confirmed that population is not directly a driver of police force numbers, and therefore of police infrastructure. The size of territorial police force is driven by a resource allocation formula (RAF) which considers the levels of crime, the size of the existing population and the presence of potentially sensitive targets (for instance in Camden the British Museum is considered to be one). The criteria for the allocation are considered to be one of the reasons for Camden's under-resourcing: whilst lacking the concentration of sensitive targets present for instance in Westminster, areas of high footfall such as Camden are not directly considered to require additional officers.

Because of the way additional demand for police provision is assessed by MOPAC, this assessment has not modelled additional demand arising from the projected population and jobs growth.

Costs and Funding

Funding for police services is currently given out by the Home Office and Department for Communities and Local Government (DCLG). The funding mechanisms are: the police grant; revenue support grant; redistributed business rates; specific grants.

The MPS's Estates Strategy is planning to raise capital and lower costs by selling part of the MPS estate. This includes using current offices more efficiently by increasing employee density. New investments to help modernise infrastructure will be achieved by releasing £300 million of the current estate.

Consultation with the MPS, for this study, identified no projects of relevance to LB Camden.

5.8 Ambulance Services

Introduction

Consultation has been undertaken with the London Ambulance Service (LAS) and responses have been presented below. Desktop research and publically available documents have also been drawn upon.

Context

The provider of ambulance services in LB Camden is the NHS LAS NHS Trust. The LAS are a member of the Camden Community Safety Partnership and works closely with the MPS and the London Fire Brigade (LFB) to prepare for large scale and major incidents within London. The LAS are a pan London organisation and ambulance services within LB Camden are commissioned by the North West London Commissioning Support Unit.

Existing Provision

There are currently two ambulance stations located in the borough. One is located in the North East (known as Camden but located in Gospel Oak) and a satellite station to the Waterloo Complex in the south (Bloomsbury) sub-area. The main station includes offices where managers and administrative staff are based whilst the satellite station is predominantly a parking base and staff rest stop for ambulance crews. In the event of an incident the nearest available ambulance will be sent.

In 2013 the LAS undertook a significant programme of change which resulted in a new rota for all ambulance staff to better match capacity with demand. It is envisaged that this programme will continue to be reviewed and implemented into 2015.

Table 5-4 illustrates how many incidents that were attended by ambulances in LB Camden during September to August in 2012/13 and from September to August in 2013/14.

Table 5-4: Incidents Attended by Ambulance Services in LB Camden.

Borough	2012/13 (September-August)	2013/14 (September-August)	Total
Camden	35,631	30,994	66,625

Source: London Ambulance Service (2014); Incidents per Borough Monthly

Future Demand

Demand for services in London increased during the 2013/14 year, meaning LAS were not always able to attend to emergency callers as fast as the targets the LAS outline within their operating strategy⁹³. The level of calls the LAS currently receives goes up on average 6% per year and the number of incidents increases at an average rate of 3%. Alcohol related ambulance callouts for the service increased by 123% between 2007 and 2012. Alcohol related demand is therefore likely to remain a key problem in the future with regards to provision.

Committed and Planned Provision

The LAS's future goals are to improve the quality of care, deliver care with a highly skilled and representative work force and spend money wisely. The LAS are also in the process of becoming an NHS Foundation Trust and are likely to become licensed within the 2016/17 time period. This will allow for greater autonomy from central government control and enable the LAS greater freedom over the way it provides, develops and invests in services.

To meet its future goals the LAS will take patients to specific centres where patients can get specialist treatment that is more appropriate for their problem; thereby minimising ambulance callouts when lesser injuries may not require a high level of treatment. LAS plans to recruit more staff for the coming year because of high staff turnover over the 2013/14 time period. This will help keep services at the level required by demand.

A long term strategy is currently being developed that will outline future plans from now up until 2020 and will provide more detail on LAS' plans⁹⁴. It is expected that the strategic direction will be towards a reduction in static stations and therefore it is not anticipated that there will be any planned redevelopment or new stations within LB Camden. At present however no firm details are available.

Need Arising as a Consequence of Growth

For the purposes of this assessment it is not considered appropriate to model additional demand for ambulance services arising from the projection population and employment growth over the period to 2031.

Changes in the provision of ambulance services and associated infrastructure are driven predominantly by a calculation of the likelihood of incidents requiring ambulance intervention. As such, an increase in population as a result of growth within the Borough is not considered to directly result in an increased demand for ambulance facilities.

⁹³ London Ambulance Service (2014); *Annual Report 2013-2014*.

⁹⁴ Ibid.

Costs and Funding

The Health and Social Care Act 2012 came into effect in 2013 and signalled significant changes to the management of NHS services within London. The LAS is now commissioned by 32 clinical commissioning groups, coordinated through the North West London Commissioning Support Unit.

The LAS is now predominantly funded through annually approved NHS Service Level Agreements made with each of London’s CCGs. For patient transport services additional resources are available on a contractual basis from foundation trusts (secondary healthcare).

No projects of relevance to LB Camden have been identified as part of this study.

5.9 Fire Services

Introduction

This section analyses LB Camden’s current fire infrastructure and what conditions may impact on the infrastructure in the future. Consultation with the London Fire Brigade (LFB) and data analysis has found that the situation in LB Camden has changed since the original *2009 study* and the *2012 update*.

The London Fire Safety Plan⁹⁵ outlines the aims and objectives of the LFB and includes target response times for fire brigades within all the London boroughs. Response time is measured from when the first and second fire engines reach the emergency. The Plan includes proposals for how to maintain good response times and quality of service in the face of cuts to the resources that the LFB has available to it.

Fire provision in LB Camden is run by the London Fire and Emergency Planning Authority (LFEPA) which manages the LFB⁹⁶. The main duty of the LFEPA is to respond to fires and emergency situations, but in recent years it has also become increasingly involved in fire prevention and community safety. The LFB is also part of the LB Camden Community Safety Partnership, reinforcing the goal of improving community safety.

Existing Provision

The LFB resources pack provides information up to 2013 about the existing provision of fire services in Camden.

Table 5-5 reviews the resources available to the fire brigade in Camden in 2012/13. In LB Camden there are now three fire stations; Kentish Town; Euston; and West Hampstead. The Belsize station closed in January 2014. The latest statistics do not take account of the closure of Belsize fire station and therefore there are likely to be fewer resources available than stated in the following table.

Table 5-5: Camden Fire Brigade Resources 2012-2013

Number of Stations	Number of Station Based Staff	Number of fire Engines	Number of Specialist Vehicles
4	175	5	1

Source: Borough Statistics. London Fire Brigade, 2013.

Table 5-6 shows the operational incidents in 2012/13. All incident types have decreased in number over the last nine years.

⁹⁵ London Fire Brigade, (2014). *Fifth London Safety Plan 2013-2016*.

⁹⁶ Members of the London Fire and Emergency Planning Authority are appointed by the Mayor of London. Eight are nominated by the London Assembly, seven are nominated by the London Boroughs and two are Mayoral appointees. <http://moderngov.london-fire.gov.uk/mgMemberIndex.aspx?bcr=1>, [accessed 07/10/2014].

Table 5-6: Operational Incidents 2012/13 in LB Camden

Fire	Deliberate Fires	False Alarms	Special Services
631	62	3,441	1,513

Source: *Incident Mapping, London Fire Brigade, 2014.*

Committed and Planned Provision

The London Fire Safety Plan outlines that the number of incidents has steadily decreased, while the size of London's population has grown, suggesting there is no correlation between population density and growth and the number of fires. However, the LFB aims to maintain the current service provided, whilst the level of resources available are reduced due to budget cuts. This will result in more pressure on a smaller number of resources.

Costs and Funding

Significant budget savings continue to be made within the LFB as part of the Government's comprehensive spending review with the LFB aiming to achieve a reduction of 25% of its budget between 2010 to 2015.

Consultation has revealed that there are currently no costs or funding associated with planned or committed projects within LB Camden.

6 IMPORTANCE OF INFRASTRUCTURE

6.1 Approach to Determining Importance

This section considers the level of importance an infrastructure item has in supporting the delivery of growth in LB Camden over the Local Plan period.

For the purposes of this study we determine an infrastructure item as being either:

1. Critical;
2. Highly desirable; or
3. Important.

The level of importance has been determined in relation to the overarching aim to deliver growth in a way which is sustainable and acceptable in planning terms, and which is consistent with the council's Core Strategy and the London Plan. As part of our consideration we have considered the role of each infrastructure item in supporting development and the implications of not providing it. **Table 6-1** outlines the criteria for determining importance levels.

Table 6-1: Prioritisation Criteria

Importance of Infrastructure	Definition
1. Critical	Physical constraint to growth – development cannot come forward without it. These items are definitely required over the Plan period to deliver growth.
2. Highly Desirable	These items typically mitigate the impacts of growth and help to deliver development in a sustainable and acceptable way in planning terms.
3. Important	Development can come forward but without these items some sustainability goals will need to be compromised and some adverse impacts will need to be accepted.

Source: URS

We have identified a level of importance for each infrastructure item listed in the infrastructure schedule held in **Section 7**. Below we summarise our findings.

6.2 Infrastructure Items of Critical Importance

Infrastructure items classified as critical are items which are likely to be 'showstoppers' to development if not implemented. It is determined that without these items there is a risk that residential and commercial growth will not be able to continue beyond certain thresholds.

Infrastructure items assessed to be of critical importance within this infrastructure study include:

- **Transport** – covering strategic schemes designed to reduce congestion, increase capacity and improve connectivity and interchange on rail, underground, overground and bus modes, particularly within the CAZ, Camden and West Hampstead. Many of these schemes are large linear infrastructure improvements to the capacity and connectivity of existing provision which cut across and benefit areas beyond LB Camden and will be delivered over the long term.
- **Sewerage** – capacity increases and improvements within the Counters Creek area are likely to be critical to reducing the risk of surface sewer flooding within this area.
- **Flood risk** – covering flood prevention schemes within West Hampstead and Hampstead Ponds.

6.3 Infrastructure Items Classified as Highly Desirable

Highly desirable infrastructure items comprise those which mitigate against the effects of development and which help to deliver development in a sustainable and acceptable way in planning terms. These

items are not likely to prevent development taking place in the short term (but which may become crucial at a later stage). The provision of these items is typically driven by a statutory requirement.

Infrastructure items assessed to highly desirable within the infrastructure study include:

- **Social infrastructure** – given the strong relationship between social infrastructure demand and population growth these requirements are likely to arise in areas of the borough experiencing the strongest growth in population: in the OAs, the AoI and town centres of LB Camden.
- **Local Transport Schemes** – certain local schemes aimed at increasing capacity and improving connectivity are deemed highly desirable. This includes schemes necessary to promote sustainable methods of transport such as cycling infrastructure.
- **Sustainable Energy** – sustainable energy solutions are unlikely to be a critical requirement of growth but their development within the borough is considered highly desirable over the longer term, particularly given the support from local and regional policy. The development of new networks and the expansion of existing networks will help to mitigate the negative impacts of future growth. At present opportunities for decentralised energy systems are being considered in Kentish Town, whilst the expansion of networks in Euston and Bloomsbury are also being explored.

6.4 Infrastructure Items Classified as Important

Those classified as important are typically required to help deliver development in a sustainable way and are necessary to help deliver the borough's place making agenda in line with the vision and objectives of the Core Strategy. However, broadly, development can proceed without their implementation and they are not considered as being essential to mitigate against the impacts of development.

- **Local Transport Improvements** – this includes accessibility improvements and public realm enhancements which ensure that the onward movement of people from Camden's key transport nodes is facilitated. As such, schemes which promote modes of travel such as walking are also recognised. This includes initiatives such as way finding and enhancements to pedestrian facilities as well as safety improvements.
- **Open Space Management** – this includes open space improvement works which will be required in cemeteries serving Camden residents within LB Camden and LB Islington.

6.5 Prioritising the Delivery of Infrastructure

Whilst infrastructure items have been categorised according to their relative importance in supporting growth, importance does not necessarily indicate the order in which infrastructure items should be delivered. The delivery of infrastructure will be dependent on a range of factors: the type, timing and location of development which generates its need; aspirations to prepare sites to encourage investment; the levels of funding available; and the support received from stakeholders.

Given that the overall costs of infrastructure requirements identified in this assessment are likely to exceed the levels of funding available to support growth, it may be useful for the council to undertake its own assessment of what to deliver first. This could involve a more comprehensive assessment of funding available at a project specific level (expenditure against cash flows and any specific funding or finance shortfalls) and reflection on policy aspirations.

Prioritising infrastructure delivery would help articulate trade-offs between infrastructure items: for example, which critical transport projects to deliver first; or whether it would be more suitable for some highly desirable or important items to be delivered ahead of critical items to ensure different types of infrastructure are in place to support the creation of sustainable communities and wider aspirations of the Local Plan.

7 SUMMARY AND INFRASTRUCTURE SCHEDULE

The strategic infrastructure assessments carried out in the preceding sections gives a picture of infrastructure requirements arising from growth over the Local Plan period in LB Camden.

Our assessment of infrastructure required has been guided by the development trajectory for residential and employment space. In total, these development sites in LB Camden have the potential to accommodate approximately 12,900 new housing units and support over 29,000 residents. The distribution of these sites could mean that around a third of these residents would live in the CAZ. GLA employment projections suggest that LB Camden could grow by 46,000 jobs over the Local Plan period.

The assessment has covered three broad types of infrastructure: social and community uses, transport and utilities and hard infrastructure. Information has been collected through a process of consultation with service providers, stakeholders and borough officers, desk-based research and modelling using appropriate benchmarks to estimate potential demand arising. For each type of infrastructure we have applied a systematic approach to identifying infrastructure requirements. Our assessment has expressed both gross and net requirements, the latter taking into account existing capacity levels (surplus or deficit) and investments committed which could provide additional future capacity.

The primary focus of this work has been to update the assessment of infrastructure need arising from growth by providing evidence of the need and capturing details on items/schemes such as their scale, location, phasing and cost. For each infrastructure item identified we have provided an indication of the relative level of importance of each infrastructure item, based on a three level hierarchy: critical, highly desirable and important. The level of importance assigned is an indication of the relative degree to which the item or scheme is required to support the projected residential and/or employment growth.

The infrastructure schedule overleaf lists all infrastructure items/scheme required to support growth, and their key details, and provides a useful summary to this assessment.

In summary we provide the following points:

- **Social infrastructure.** Broadly, existing and planned social infrastructure was assessed to have capacity sufficient to meet demand arising from growth. The assessment however noted a number of areas of concern: Regarding education, the statutory requirement to provide early year's provision for disadvantaged two year olds in line with latest Government's education policy will place extra pressure on provision requirements over and above demand through residential population growth. Growth in areas of intensive development such as Euston will need to be monitored carefully to ensure that adequate provision of school places is accommodated, as well as other forms of social infrastructure and community uses. In terms of health care, the majority of primary health care practices are currently operating to capacity and the quality of the primary health care estate is of concern, particularly in the south and west areas. The ageing population and increasing number of older people within the borough is expected to increase demand for adult social care too. For sports and leisure demand will increase for indoor sports facilities and pitches, however there is no strategic commitment to increase provision and currently no funding allocated (beyond the sports hall facility committed at Kings Cross Central). This is the same conclusion for allotment space, the demand for which is projected to increase but no plans are in place to increase provision. Provision for other facilities or uses such as child play space/young people's space or library facilities will be met through a combination of funding sources such as in kind payments or development contributions, or via the Community Investment Programme.
- **On transport** we identified both large projects of strategic importance to LB Camden, and London more widely, as well as smaller scale projects being delivered by the council. The projected growth in resident and employee population will place increased pressure on the transportation network. The Camden Transport Strategy (CTS) aims to meet the objectives set out in the Camden Plan objectives and deliver the Mayor of London's Transport Strategy. The CTS places an emphasis on what is required in the shorter term, though larger strategic

projects proposed over the longer term are also identified. Local schemes include area improvements to key neighbourhoods and centres within the borough, improvements to public realm, highway and connectivity upgrades and improved pedestrian and cycling routes. Strategic schemes bringing sub-regional and wider benefits include long term projects such as Crossrail and Thameslink Programme which are coming forward, as well as others which have yet to be fully determined, such as Northern line extension to Battersea/Nine Elms.

- Utilities infrastructure will be critical to enabling growth in LB Camden. However these items are typically planned at a strategic level by statutory providers who have a duty to develop and maintain networks and ensure supply. Local Planning Authorities are often not directly responsible for the infrastructure items considered in this report such as water, electricity, sewerage and emergency services. Funding for items such as electricity and water is likely to come from utility companies (including through customer charges) and directly from developers (who will pay as required to connect to and use existing or new infrastructure). Whilst over the plan period considerable investment is likely to be required in utilities infrastructure, at this stage, it has not possible to identify specific infrastructure projects with any certainty over the medium to long term. Investment programmes are typically developed over short term periods (i.e. five years plans) and at spatial levels unrelated to administrative boundaries. As development progresses within the borough it is likely that further consultation will need to be undertaken with utilities providers to establish local requirements.
- For emergency services, reduction in funding levels has seen a need to consolidate levels of provision in more cost-effective forms, such as the reduction of front counter services in the Metropolitan Police Service within LB Camden. It is anticipated that this trend is likely to continue in the face of continuing austerity measures.

Where information has been available, or where it has been possible to estimate, we have indicated the gross cost of infrastructure and net cost taking into account any funding committed. For many of the large, strategic transport schemes, which cut across more than one borough and are designed to bring benefits for a sub-region or wider area it has not been possible within this scope of work to identify or apportion costs to LB Camden.

Looking forward LB Camden should develop a stronger understanding of the net funding costs and timing of infrastructure requirements, which could have implications for phasing development. An assessment of the funding gap would be useful in advancing an understanding of the scale of additional funding required to support infrastructure delivery, provide evidence for strategy decision making, business plan writing and inform discussions on the trade-offs between items or reprogramming development, if funding and finance is insufficient. Once the infrastructure gap has been fully established, analysis could be undertaken using the infrastructure schedule to analyse the infrastructure costs and, in particular the funding gap, by phase, timing, location and level of importance.

In anticipation that the combination of funding committed and funding raised through developer contributions (S106 and CIL primarily) will be insufficient to address the funding gap, we have undertaken an initial scoping of potential funds and mechanisms which could support the delivery of infrastructure in **Appendix A**. This information could inform initial thinking on a strategy to maximise developer returns and fund infrastructure delivery.

CAMDEN INFRASTRUCTURE STUDY UPDATE - INFRASTRUCTURE SCHEDULE

URS ID (Final Report)	Infrastructure Category	Item	Description/ notes	Location of Project	Cost (£'000s)	Funding committed (£'000s)	Funder Source	Year funding required	Importance (Critical, Highly Desirable Important)	Importance Justification
1	Early Years Education	Additional Early Years Places	368 additional FTE early years places as a result of new development.	Borough wide	4,788	-	LBC, S106	2015-2031	HD	Highly desirable for catering for new demand up to 2031 and to meet the new statutory requirement to cater for disadvantaged two year olds.
2	Further Education	Additional Further Education Places	430 net additional FE places inclusive of 394 Sixth form places and 36 College / WBL places.	Borough wide	10,760	-	LBC	2015-2031	HD	Highly desirable for catering for new demand up to 2031 and to meet the new statutory increase in the school leaving age of 18.
3	Adult Education	Additional Adult Education Places	281 additional AL places. This represents gross demand. It is assumed that 50% funded through capital programmes.	Borough wide	3,512	-	LBC / SFA	2015-2031	HD	Highly desirable to cater for increase in local provision as a result of population increase. However, demand could potentially be accommodated elsewhere within London.
4	Primary Healthcare	Additional GP Provision	Provision of 17 additional GPs	Borough wide	6,779	-	NHS / LBC	2015-2031	HD	Highly desirable to serve additional demand for primary healthcare from future population growth.
5	Secondary Healthcare	Additional Secondary Healthcare Provision	Provision of 2,420m ² of secondary healthcare floorspace (this represents gross demand)	Borough wide	10,690	-	NHS / LBC	2015-2031	HD	Highly desirable to serve additional demand for secondary healthcare from future population growth.
6	Adult Social Care	Community Resource Centre at Greenwood Place	A new day care facility providing services for people with dementia, mental health conditions and learning difficulties. It will also host the Centre for Independent Living giving advice and support for people with disabilities. Provides additional capacity for young people with profound and multiple learning difficulties who use services outside of Camden.	Kentish Town	NA	NA	LBC (CIP)	2016	HD	Highly desirable to provide adequate adult social care facilities for existing and future populations.
7	Adult Social Care	New residential care home, Wellesley Road	Accommodation for 60 older people replacing facilities at Branch Hill House and St. Margaret's elderly person's home	Gospel Oak	NA	NA	LBC (CIP)	2015	HD	Highly desirable to provide adequate adult social care facilities for existing and future populations.
8	Adult Social Care	Replacement of Charlie Ratchford Resource Centre in Belmont Street with a new facility in Crogsland Road	Development of a new resource centre with provision of extra care flats	Chalk Farm	NA	NA	LBC (CIP)	2016	HD	Highly desirable to provide adequate adult social care facilities for existing and future populations.
9	Adult Social Care	Holmes Road Hostel	Redevelopment of the hostel to create 59 studio units for single homeless people	Kentish Town	NA	NA	LBC (CIP)	2015	HD	Highly desirable to provide adequate adult social care facilities for existing and future populations.
10	Open Space and Recreation	Additional Open Space Provision	Publically accessible open space to meet the needs arising from residents - additional provision of 285,000m ² to 2031	Borough wide	NA	NA	LBC	2015-2032	HD	Highly desirable to provide an adequate provision of open space for existing and future population.
11	Open Space and Recreation	Additional Indoor Sports Provision	Provision for an additional 23 indoor courts to 2031	Borough wide	18,800	-	LBC	2015-2032	HD	Highly desirable to provide an adequate provision of indoor sports provision for existing and future populations.
12	Open Space and Recreation	Additional Outdoor Sports Provision	Provision of an additional 4 tennis courts to 2031	Borough wide	NA	NA	LBC	2015-2031	HD	Highly desirable to provide an adequate provision of outdoor tennis courts for existing and future populations.
13	Open Space and Recreation	Additional Child Play Space	Provision for an additional 5,744m ² of child play space of which 50% will be met through in kind contributions resulting in a net requirement for 2,872m ² of child play space provision.	Borough wide	572	-	LBC	2015-2031	HD	Highly desirable to provide an adequate provision of child play space for existing and future children.
14	Open Space and Recreation	Additional Allotment Plots	Provision of 217 allotment plots up to 2031 resulting in a gross requirement for 2.2ha of allotment land.	Borough wide	NA	NA	LBC	2015-2031	HD	Highly desirable to serve additional demand from population growth.
15	Job Brokerage	Additional Job Brokerage Provision	Provision of 516m ² of job brokerage space to 2031	Borough wide	NA	NA	LBC	2015-2031	HD	Highly desirable to serve additional demand from population growth.
16	Cemeteries	Essential Repairs to cemetery roads within LBC and Islington	Plans to carry out essential repairs to the cemeteries roads on a 3 year phased programme.	Borough wide / LBI	80	-	LBC / LBI	2015-2018	HD	Highly desirable to serve both existing and new demand for cemetery provision within LBC and LBI
17	Cemeteries	Expansion of the burial area at Trent Park cemetery	Plans to extend the burial area at Trent Park Cemetery on Islington owned land on an initial joint financed 3 year phased programme.	Trent Park	1,000	-	LBC / LBI	2015-2018	HD	Highly desirable to increase capacity and to serve both existing and new demand for cemetery provision within LBC and LBI
18	Cemeteries	Improvement of corporate signage and maps around Trent Park cemetery	Improve the corporate signage and maps around the site	Trent Park	180	-	LBC / LBI	2015-2018	I	Important to improve visitor experience within the Trent Park cemetery.
19	Cemeteries	Tree risk survey of Islington, St Pancras and Hampstead cemeteries	Tree risk survey of Islington, St Pancras and Hampstead cemeteries including 3 year inspections and an initial rectification programme	Borough wide / LBI	104	-	LBC / LBI	2015-2018	I	Important to improve site management of cemeteries within LBC and LBI
20	Cemeteries	Re-use of grave areas	Prioritisation of areas within St Pancras and Islington suitable for re use of grave areas and spaces post 2018-19.	Kings Cross / Islington	NA	NA	LBC / LBI	2018-2019	HD	Highly desirable to increase grave capacity and to serve both existing and new demand for cemetery provision within LBC and LBI.
21	Cemeteries	Re-develop the old RC chapel site	Re-develop the old RC chapel site in St Pancras Cemetery into an area of high value vaults and mausolea	Kings Cross / Islington	NA	NA	LBC / LBI	2017-2018	HD	Highly desirable to increase capacity at the St Pancras Cemetery to meet current and future demand.
22	Community Facilities	Abbey Community Centre	New Replacement Community Buildings	Kilburn	2,000	2,000	LBC (CIP)	2015	HD	Highly desirable to serve both existing need and additional demand from new population growth
23	Community Facilities	Surma Community Centre	New Replacement Community Buildings	Euston	2,000	2,000	LBC (CIP)	2015	HD	Highly desirable to serve both existing need and additional demand from new population growth
24	Community Facilities	St Pancras Community Centre	New Replacement Community Buildings	Kings Cross	2,000	2,000	LBC (CIP)	2015	HD	Highly desirable to serve both existing need and additional demand from new population growth
25	Community Facilities	Highgate Newton	Investment to Refurbish Internal Space	Highgate	1,500	1,500	LBC (CIP)	2015	I	Important to increase the visitor experience within the Highgate Newton community centre.
26	Transport	Crossrail	The operation will open in phases. The Crossrail station at Old Oak Common will be important for as a point of egress/ access for HS2 passenger and relieving pressure at Euston station.	Central Activities Zone-Tottenham Court Road	NA	NA	TfL	2018/2019	C	Critical for improved connectivity and capacity to meet demand from future population growth.
27	Transport	Thameslink Programme	Several stations in Camden will be served, with particular growth potential at Farringdon, St Pancras/Kings Cross and West Hampstead.	Borough wide	NA	NA	DfT	2018	C	Critical for improved connectivity and increased capacity to meet demand from future population growth.
28	Transport	North London Line	Expansion of capacity – from 4 car to 5 car operation. There could be ongoing expansion of capacity on this line and other lines forming the London Overground, and potential service frequency enhancements in future.	Borough wide	NA	NA	TfL	Unconfirmed	C	Critical for improved connectivity and increased capacity to meet demand from future population growth.
29	Transport	Gospel Oak- Barking (GOB) electrification	Improve capacity for orbital travel. In addition, there is potential for ongoing expansion of capacity through train lengthening.	Gospel Oak	NA	NA	TfL	2019	C	Critical for improved connectivity and increased capacity to meet demand from future population growth.
30	Transport	GOB extension to Barking Riverside	Completion date depends on funding. Residents of new housing district (Barking Riverside) will have ready access to jobs in Camden and in other ways can help develop Camden's local economy.	Gospel Oak	NA	NA	TfL	2019	C	Critical for improved connectivity and increased capacity to meet demand from future population growth.
31	Transport	North-South Cycle Super Highway	Segregated cycle route between Elephant & Castle and King's Cross.	Kings Cross	NA	NA	TfL	2015/16	HD	Highly desirable for improving cycle accessibility and to facilitate increased modal shifts to more sustainable modes of transport.
32	Transport	Crossrail 2	Firm decision has yet to be made (subject to technical appraisal and funding/finance package) whether a Metro or Regional scheme will be pursued. The Regional scheme will have greater growth potential, and in particular would open up employment opportunities for Camden residents in the upper Lee valley. The project will deliver improved access from new areas to the two Crossrail 2 stations in Camden – Tottenham Court Road and Euston/St Pancras. This will support Camden's local economy and encourage sustainable growth in the borough. The Euston/St Pancras will be key to help disperse HS2 passengers.	Central Activities Zone-Tottenham Court Road, Euston, Kings Cross	NA	NA	TfL	2029-2030	C	Critical for improved connectivity and increased capacity to meet demand from future population growth.
33	Transport	Northern line extension to Battersea/Nine Elms	Direct access to this regeneration area will improve job prospects for Camden residents and support Camden's local economy from new residents of this area.	Borough wide	NA	NA	TfL	Unconfirmed	C	Critical for improved connectivity and increased capacity to meet demand from future population growth.
34	Transport	Operation of late night services on the Underground	This will encourage sustainable growth in the borough.	Borough wide	NA	NA	TfL	Starting in 2015 with further improvements thereafter.	C	Critical for improving the accessibility and capacity of existing underground services throughout London which will have benefits for LB Camden.
35	Transport	Enhancements to bus services	London Buses is due to review east-west bus operation as a result of Crossrail opening. Camden expects that further enhancements to bus services will be made to meet the requirements of London's growing population with particular enhancements in central London in response to growing employment in the CAZ.	Borough wide	NA	NA	TfL	Ongoing	C	Critical to improve bus capacity to meet increased demand from population increase.
36	Transport	Extension of the Overground to Old Oak Common	The timescale is linked to HS2 works and is indicative. The extension will reduce the extent of passengers using HS2 from Euston depending on which extension is chosen, and the configuration of station(s) adopted.	Euston	NA	NA	TfL	2026	C	Critical for improved connectivity and increased capacity to meet demand from future population growth.
37	Transport	Improvements to the London Underground Network	Improvements in capacity to London Underground network which will support growth within LB Camden both directly and indirectly.	Borough wide	NA	NA	TfL	2014-2030	C	Critical for improved connectivity and increased capacity to meet demand from future population growth.
38	Transport	Kilburn Area Improvements	Improvements to the A5 Corridor between Greville Place/Boundary Road in the south and Maygrove Road/Christchurch Avenue in the north to improve pedestrian and cyclist safety, improve pedestrian accessibility particularly at crossings, de-clutter the streetscape and regenerate the High Street. Additional measures to improve personal safety through street lighting or other means and measures to reduce congestion (particularly bus congestion) will be covered.	Kilburn	410	410	LIP / LBC	2014-16	I	Important for improving pedestrian and cyclist accessibility and safety following increased population growth and traffic movements within the Kilburn area.
39	Transport	Camden and Kentish Town and Wider Area Improvements	Building on the on-going feasibility work to develop improvements for the area, the implementation work over the next 3 year programme will focus on improving cycle permeability and unlocking the gyratory, with a focus on East to west routes – Delancey Street, Hawley Street, Parkway, Albert Road. It will also include an extension to the Royal College Street cycle route, to provide a continuous route from Holborn through to Kentish Town, north of Camden Road. Opportunities will be taken to widen the 'Naked Streets' approaches used on Camden High Street (north of the underground station) to other roads in the area.	Camden and Kentish Town	1,226	1,226	LIP / LBC	2014-17	I	Important for improving cyclist accessibility and safety following increased population growth and traffic movements within the Camden and Kentish Town area.
40	Transport	Holborn, Bloomsbury and Wider Area Improvements	Improvements to the Holborn area will focus on delivering elements in the feasibility study. While it is hoped that Major Scheme funding will deliver the larger vision for Holborn area, if that funding is not available, a smaller scale project will be progressed. The work will be coordinated with the implementation of the central London cycle grid as it develops.	Holborn and Bloomsbury	700	700	LIP / LBC	2015-17	I	Important for increasing pedestrian and cyclist accessibility and safety following increased population growth and traffic movements within the Holborn and Bloomsbury area.

URS ID (Final Report)	Infrastructure Category	Item	Description/ notes	Location of Project	Cost (£'000s)	Funding committed (£'000s)	Funder Source	Year funding required	Importance (Critical, Highly Desirable Important)	Importance Justification
41	Transport	Kings Cross and Wider Area Improvements	The delivery of improvements to the Goods Way junction with Pancras Road and Midland Road will be the primary focus of these improvements. Making changes to these junctions is priority as the new council offices and community facilities at the junction of Pancras Road and Goods Way are due to open in July 2014. However the work requires traffic signal changes, which commonly take a long time to deliver. This means it is unlikely that the changes will be made in time, but plan is to deliver them as soon as possible in 2014 and officers will continue to push this as a priority. Following the changes to the Goods Way junctions, consideration will be given to the implementation of additional measures in the wider area coming out of the on-going feasibility work.	Kings Cross	685	685	LIP / LBC	2014-16	I	Important to facilitate place making objectives and to achieve sustainability goals within the Kings Cross Opportunity Area.
42	Transport	Farringdon Area Improvements	An area based scheme to begin the implementation of measures identified from on-going feasibility work, coordinating with the implementation of the central London wide cycle grid as it develops.	Farringdon	450	450	LIP / LBC	2015-17	I	Important for increasing cyclist accessibility and safety within the Farringdon area.
43	Transport	West of Euston Station Area Improvements	Measures will aim to improve pedestrian footway and crossing facilities, improved signage and lighting, street trees, parking review and increased cycle parking where appropriate. The impacts of HS2, should it go ahead, and the possible future expansion of Euston Station or reconfiguration of Euston Station has been taken into consideration as part of the feasibility and design work being undertaken. Measures are being delivered in this area this year, using S106 funding.	Euston	200	200	LIP / LBC	2014-15	I	Important for improving cyclist accessibility and safety following increased population growth and traffic movements within the Euston area. Also important for facilitating place making objectives and achieving sustainability goals within the Euston Opportunity Area.
44	Transport	West End Project	The West End project is currently under development and design and includes a number of public realm and transport improvements that will help to transform the area of the West End that lies within Camden, including Tottenham Court Road, Gower Street, Euston Circus, St Giles Circus and Princes Circus. The project is a set of interlocking proposals that would enable the significant upgrade of a series of public spaces. This includes a rearrangement of traffic movements that would allow for the creation of new places at sites which are currently traffic dominated and less than pleasant arrival points into the a 'World City'.	Central Activities Zone- Tottenham Court Road	6,500	6,500	LIP / LBC	2014-17	I	Important for improving public realm and the pedestrian environment within the West End. Necessary for delivering the Council's placemaking agenda.
45	Transport	Cobden Junction Project	Improvements to the Junction by Mornington Crescent Station, also known as Cobden Junction. This area is the joint responsibility of Transport for London and Camden Council. Key objectives of the project are to improve the existing public space (currently in the middle of the street) and pavements, to provide better crossings for pedestrians, a well as new trees and benches, and to make the area better for cyclists. The existing public space includes the Cobden statue and the Prisoner of War memorial, which will need to be relocated, and is surrounded by busy traffic lanes.	Mornington Crescent	1,500	1,500	LIP / LBC	2014-15	I	Important for improving pedestrian and cyclist accessibility and safety following increased population growth and traffic movements within this area.
46	Transport	Holborn Improvement Project	Camden has prioritised Holborn as the next Major Scheme project to be submitted for funding under TfL's Major Scheme programme. It is likely that the Step 1 bid will be submitted towards the end of 2015, so that, if successful, it is ready to progress as soon as the West End project is completed. This project is a priority for TfL and officers have been discussing possible changes with them. The scheme would also link to any possible future changes to the Holborn Underground station. Money may be secured to help progress this scheme from the Mayor Cycle fund, although it would be unlikely to cover the cost of all the changes a truly transformational scheme could achieve, there it is likely that bids for major scheme funding in this area would still be pursued in the future.	Holborn	NA	NA	LIP / LBC	2016-17	I	Important for improving pedestrian and cyclist accessibility and safety following increased population and employment growth and traffic movements within the Holborn area including any upgrades to the Underground station.
47	Transport	CPZ Reviews	A rolling programme for reviewing controlled parking zones in part or in their entirety. The work includes public consultation and the implementation of any changes that arise.	Borough wide	300	300	LIP / LBC	2014-17	I	Important for managing the effects on population and employment growth within the Borough on car parking provision.
48	Transport	Priority Minor Traffic Management Schemes	These programmes implement minor schemes and changes that fall outside the current programme of area based schemes that are considered a priority. Given the proposed focus in the south half of the borough for area based scheme work over the next 3 years, it is likely that these programmes will focus in the north of the borough during this time.	Borough wide	300	300	LIP / LBC	2014-17	I	Important for managing the effects on population and employment growth within the Borough with regards to increased traffic movements within the borough.
49	Transport	Sustainable Transport Schemes	These programmes implement minor schemes and changes that fall outside the current programme of area based schemes that are considered a priority. Given the proposed focus in the south half of the borough for area based scheme work over the next 3 years, it is likely that these programmes will focus in the north of the borough during this time.	Borough wide	630	630	LIP / LBC	2014-17	I	Important for improving the provision of sustainable modes of transport to help meet increased demand for future population and employment growth within the borough.
50	Transport	Minor Parking Changes	These programmes implement minor schemes and changes that fall outside the current programme of area based schemes that are considered a priority. Given the proposed focus in the south half of the borough for area based scheme work over the next 3 years, it is likely that these programmes will focus in the north of the borough during this time.	Borough wide	300	300	LIP / LBC	2014-17	I	Important for managing the effects on population and employment growth within the Borough on car parking provision.
51	Transport	Disabled Parking	Programmes to install disabled parking bays and secure motor cycle parking facilities, including installing measures to make existing motor cycle bays more secure with ground anchors.	Borough wide	120	120	LIP / LBC	2014-17	I	Important for managing the effects on population and employment growth within the Borough on disabled car parking provision.
52	Transport	Motorcycle Parking	Programmes to install disabled parking bays and secure motor cycle parking facilities, including installing measures to make existing motor cycle bays more secure with ground anchors.	Borough wide	30	30	LIP / LBC	2014-17	I	Important for managing the effects on population and employment growth within the Borough on motorcycle parking provision.
53	Transport	Borough-wide 20mph limit	This scheme is now being implemented this financial year and is costing a lot less than originally anticipated.	Borough wide	NA	NA	LIP / LBC	2014-17	I	Important for improving pedestrian and cyclist safety within the borough and reducing road casualties. Measures will also encourage increased use of sustainable modes of transport.
54	Transport	Road safety schemes	Dedicated road safety programme to install priority road safety improvements in areas that fall outside area based schemes where changes are expected in the near future. The work will give particular attention to improvements for safety of cyclists as well as measures to improve the effectiveness of the borough-wide 20mph limit.	Borough wide	1,210	1,210	LIP / LBC	2014-17	I	Important for improving pedestrian and cyclist accessibility and safety following increased population and employment growth and traffic movements within the borough.
55	Transport	ASLs	Borough-wide programme for installing advance cycle stop lines at traffic signal and cycle parking in order to install these measures as quickly as possible without the need for an area based scheme to take place in a particular location.	Borough wide	60	60	LIP / LBC	2014-17	I	Important for improving cyclist safety within the borough.
56	Transport	Cycle parking	Borough-wide programme for installing advance cycle stop lines at traffic signal and cycle parking in order to install these measures as quickly as possible without the need for an area based scheme to take place in a particular location.	Borough wide	150	150	LIP / LBC	2014-17	I	Important for encouraging the use of sustainable modes of transport
57	Transport	Travel information and way-finding	A significant part of this programme relates to pedestrian way-finding signage that conforms to the TfL 'Legible London' standard. Legible London is an important part of the Camden's sustainable transport strategy helping people to find their way to and from destinations on foot.	Borough wide	33	33	LIP / LBC	2014-17	I	Important for improving pedestrian wayfinding and encouraging sustainable methods of travel.
58	Transport	Local Transport Fund	This is a discretionary budget provided by TfL on top of the Corridors, Neighbourhoods and Supporting Measures LIP funding. This is held in reserve to use as a contingency fund should issues arise during the year, otherwise it is used to increase the scope of existing schemes or take forward schemes on the reserve scheme list.	Borough wide	300	300	LIP / LBC	2014-17	I	Important for bringing forwards schemes identified within the Camden Transport Strategy.
59	Transport	LIP Reserve Schemes- Not Funded	When additional funding becomes available, bringing forward schemes on the existing programmes for delivery sooner will be considered in the first instance, followed by consulting this list of reserve schemes. The list is continually added to with proposals that come out of feasibility work, where there is currently no funding to take them forward at that time.	Borough wide	1,981	1,981	LIP / LBC	2014-17	I	Important for delivering further improvements to pedestrian and cycling accessibility and safety within the borough as well as improvements to local road networks.
60	Transport	Additional cycle Infrastructure	To help with encouraging further cycle use, to supplement existing routes.	Borough wide	1,390	-	LIP / LBC	2015-2031	HD	Highly desirable for improving accessibility and facilitating modal shift to more sustainable transport modes related to future population growth.
61	Water	Gross demand for 5.1ML / per day water demand	Capacity for approximately 5,065,408 litres per day gross water demand from new development.	Borough wide	NA	NA	Thames Water	2015-2031	C	Critical enabling infrastructure to support future development sites and demand from existing and future populations.
62	Sewerage	Gross demand for 6.3 ML / per day sewerage demand	Capacity for approximately 6,308,615 litres per day gross sewerage demand from new development.	Borough wide	NA	NA	Thames Water	2015-2031	C	Critical enabling infrastructure to support future development sites and demand from existing and future populations.
63	Flood Risk	Hampstead Ponds Project	Flood risk project to mitigate against the risk of overtopping of the Hampstead Ponds due to a PMF as well as strengthening dams within the pond.	Hampstead	15,000	15,000	LBC / Col	2015-2020	C	Critical to mitigate the risks from flooding on both existing and future populations within the Hampstead area.
64	Flood Risk	Flood mitigation West Hampstead	55m raised flood wall along Cannon Hill, compensation storage at the downstream West End Lane Public Conveniences and West End Green as well as individual property measures.	West Hampstead	150	150	LBC	2015-2020	C	Highly desirable to mitigate the risks from flooding on both existing and future populations within the West Hampstead area.
65	Energy	Decentralised Energy networks	Delivery of a new de-centralised energy network within Kentish Town and expansion of networks within Euston (Phase 3, 2025-2031).	Kentish Town / Euston	9,000	-	LBC	2015-2031	HD	Highly desirable to meet sustainability goals and to support local and regional policy objectives. The development of new networks and the expansion of existing networks will help to mitigate the negative impacts of future growth and help meet demand for energy from new growth.
66	Waste Management	Replacement Energy Recovery Facility at Edmonton Energy Park	Replacement of the existing plant at the Edmonton EcoPark by 2025 so the NLWA can continue to recover energy – heat and power – from waste.	North London	450000 - 500,000	-	NLWA	2025	HD	Highly desirable to maintain capacity to increase sustainable waste management within North London for both existing and future populations.

NA= Information not available

APPENDIX A - POTENTIAL FUNDING SOURCES AND MECHANISMS

Introduction

There are a number of funding sources which public sector stakeholders could draw upon to support delivery of infrastructure in LB Camden. These could be used to directly fund infrastructure, subject to rules on eligibility, state aid and match-funding, or alternatively to raise an upfront lump sum.

The funding sources described below represent a long-list of options which could be further investigated by the client team.

Developer Contributions

LB Camden already collects S106 contributions through their planning process, which will be complemented by CIL once approved. The funds raised through S106 and CIL funds are proportionate to the scale of growth arising, though collected via two different processes: the former determined through a combination of policy requirements and negotiation; the latter by way of a unit cost charge. The strategy for how S106 and CIL dovetail to maximise developer contributions by site and across the borough is an important consideration for Camden.

In order to maximise funding from development, LB Camden should carefully consider its CIL strategy and Regulation 123 list with regard to developer contributions. This should take into consideration current viability levels and how viability is expected to improve over the medium term. If viability improves the most effective approach to accessing the surplus available from development may be to remove funding gap items in the CIL Regulation 123 list so that planning obligations can be negotiated for relevant items on these sites. Alternatively, on the basis of viability evidence the CIL Charging Schedule and Regulation 123 List could be revised to increase CIL rates.

In practice the degree to which funding can be raised from developer contributions in a timely way and spent on the infrastructure will depend on a variety of factors. It is therefore appropriate to consider other funding sources and delivery mechanisms which might fill the funding gap, or facilitate growth by injecting funding earlier, including grants and loans available from the public sector.

Other Funds Generated as a Consequence of Development

New Homes Bonus

The New Homes Bonus (NHB), which commenced in 2011, creates an incentive for local authorities to deliver housing growth in their area. It is based on central government match funding the 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 a grant of over £1 billion over the Spending Review period (2011 to 2015) to fund the scheme, which totals £2.2 billion. The final allocations for 2014 to 2015 are £917 million, of which LB Camden has £1.1m⁹⁷.

From 2015 NHB will continue to be allocated to councils but within Greater London it will include a requirement that some resources are pooled to support the Local Growth Fund. The current technical consultation (July 2013) states that, owing to London's unique governance arrangements, the London LEP is an advisory body and therefore in London the pooled element of NHB funds would be transferred to the GLA, with advice on spending being offered by the LEP⁹⁸. At present the understanding is that this will be about 30-35%.

Local councils can decide how to spend the NHB. There is an expectation that local councils consult communities about how they spend the money, especially communities where housing stock has increased. Generally councils have incorporated NHB into their general capital plans, rather than setting it aside for spending specifically on infrastructure needs arising from development.

⁹⁷ DCLG, 2014; New Homes Bonus Final Allocations for 2014 to 2015. Available from: <https://www.gov.uk/government/policies/increasing-the-number-of-available-homes/supporting-pages/new-homes-bonus>. [Last accessed: 14-04-23].

⁹⁸ DCLG (July 2013) New Homes Bonus and the Local Growth Fund, Technical Consultation

Growing Places Fund

The Growing Places Fund (GPF) is a fund managed by DCLG and DfT, intended to be used to invest in key items of infrastructure to enable development. It is a revolving pot with the loaded money invested to be returned to the devolved administration (the GLA in the London case) for re-investment in further provision of infrastructure. The GLA has been allocated £39.5 million⁹⁹.

The Local Infrastructure Fund (LIF) is administered by HCA with repayments from successful applicants being made to the HCA. A £1 billion extension of the Local Infrastructure Fund for large scale housing sites was confirmed in autumn 2013, which will help to unlock around 250,000 homes over 6 years. To be eligible for funding schemes must include a minimum of 1,500 housing units and be able to show strong local support for the scheme. The HCA will run an annual open competition for funding from 2015 onwards and will engage with the GLA regarding projects in London.

Business Rates Retention

The Business Rates Retention (BRR) scheme was introduced in April 2013 and provides the opportunity for councils to retain a proportion of business rates revenue as well as growth on the revenue that is generated. The scheme could be used as a potential mechanism to provide either upfront funds or as a repayment mechanism. Under the BRR scheme local authorities are able to pool together on a voluntary basis to generate additional growth and smooth the impact of volatility in rates income across a wider economic area.

Business rates would generate funds which could be used to pay for a range of needs. Their use to help meet the funding of infrastructure would need to be carefully considered against other funding council objectives.

Grants to Support Growth

There are a number of grants which LB Camden could potentially access, which by definition which would not require any repayment.

LIPS/Other Transport Funding

Transport for London makes an annual contribution to borough budgets through Local Implementation Plan (LIPS) funding, which is allocated on a formula basis. Boroughs need to 'use or lose' this money every year. Although it is not possible to say what funding will be available beyond current funding allocations, it is reasonable to assume that a steady stream of income will be available to LB Camden over future years from this source, although it is for the borough to determine priorities across the whole of Camden.

In addition, TfL often invites bids to specific funding rounds, for cycling and walking, or other initiatives, and these may be potential sources of future funds for transport projects, alongside its more general 'major schemes' bidding pot.

Local Growth Fund

The Local Growth Fund (LGF) is part of the Growth Deal which the Government will negotiate with each LEP. From April 2015 the LGF will bring together resources to support housing, transport and skills, decentralising those funding streams that are appropriate for devolution. The size of the LGF for 2015/16 is £2.0 billion for England. The allocation of the LGF will be partly competitive, based on local Strategic Economic Plans, and partly based on formula or on a process reflective of the funding source in question.

European Structural and Investment Funds

The 'European Structural and Investment Funds Growth Programme for England' is a combination of the European Regional Development Fund, the European Social Fund and part of the European Agricultural Fund for Rural Development. The relevant bodies and LEPs were informed in June 2012 of their provisional allocations of the European Regional Development Fund and the European Social

⁹⁹ DCLG (November 2011) Growing Places Fund

Fund for 2014-2020, which total to over £5 billion for England as a whole. The London Enterprise Panel (LEP) has been awarded £670m to invest in driving economic development and growth for London¹⁰⁰. These funds are anticipated to be combined with Local Growth Funding and Growth Deal Funding to deliver complementary activities¹⁰¹.

JESSICA

JESSICA funds (Joint European Support for Sustainable Investment in City Areas) are a financial initiative developed by the European Commission, European Investment Bank (EIB) and council of Europe Development Bank which supports sustainable development and regeneration of urban areas. The funds are allocated to specific geographical areas within the UK. The only fund of potential relevance to LB Camden is the London Green Fund, a £100m UDF for London which to invest in schemes that will cut London's carbon emissions.

Public Sector Sources of Finance

Prudential Borrowing

The public sector can borrow from the Public Works Loan Board (PWLB) at a low cost to fund its spending. At present nearly all borrowers are local authorities requiring loans for capital purposes. The Commissioners are legally required, before making a loan, to satisfy themselves that there is sufficient security for its repayment. Moneys are drawn from the National Loans Fund and rates of interest are determined by the Treasury.

Local authorities use prudential borrowing for a wide range of purposes including to deliver: efficiency savings; better procurement; economic development and regeneration; partnership working; central government targets; better market operation; better capital programming; cheaper funding options; better asset management; and innovation.

The Local Government Act 2003 introduced new freedoms and flexibilities for local authorities allowing them to increase their prudential borrowing. Borrowing is regulated by the Prudential regime and must be in accordance with the Prudential Borrowing Code. Local authorities can borrow to invest in capital works and assets so long as the cost of borrowing is affordable and in line with the principles set out in a professional Prudential Code. Local authorities must use various prudential indicators to judge whether their capital investment plans are affordable, prudent and sustainable. The main limiting factor on the council's ability to undertake capital expenditure is whether the revenue resource is available to support in full the implications of capital expenditure.

¹⁰⁰ <https://www.london.gov.uk/priorities/business-economy/championing-london/london-and-european-structural-funds>

¹⁰¹ HM Government, (July 2013) Growth Deals Initial Guidance for Local Enterprise Partnerships