

INFRASTRUCTURE DELIVERY PLAN (IDP)

NOVEMBER 2016



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1. INTRODUCTION

1.1 Bromley's Infrastructure Delivery Plan (IDP) sets out what infrastructure is required to support planned growth identified in the Local Plan. The Council, its partners and other stakeholders will use the document to ensure that the appropriate infrastructure is in place as growth is delivered. This document reviews and outlines the infrastructure needed to support the growth and objectives reflected in the Local Plan.

1.2 The infrastructure identified in the IDP, should be deliverable within the Plan period (2016-31) and includes details of where funding for this infrastructure will be sourced (where known). In cases where a gap is found between the identified infrastructure cost and the likely available funding to pay for infrastructure, this will be used to support the development of a Borough Community Infrastructure Levy (CIL), which can be charged on new development in Bromley and used to provide the items which are needed to support growth.

1.3 The IDP will be reviewed on a regular basis and will be treated as a 'live' document that will evolve over time as development potential is realised. It will also be used to inform decisions on infrastructure delivery, for example the allocation of CIL receipts to projects. The IDP can also be used as supporting evidence in bids for external funding and to support proposals for specific sites to be protected for use as schools or other infrastructure required throughout the plan period.

Background and Structure

1.4 The Infrastructure Delivery Plan (IDP) looks at each infrastructure category that may be affected by growth over the next 15 years. To identify where there will be a need for new infrastructure and funding, the following has been assessed for each type:

- Existing infrastructure
- Future demand (from growth)
- Infrastructure costs (where applicable)
- Potential Funding sources

1.5 By reviewing the existing infrastructure and any existing deficit ('current shortfall'), the phasing of infrastructure delivery in the borough and how vital the infrastructure is to support growth can be assessed. Where an infrastructure deficit is found, the area can be prioritised for delivery in the early phases of the Local Plan, to support any further growth in the borough and confirm funding streams available to do so. This may have implications upon the funding available to deliver future infrastructure projects.

Infrastructure Delivery Plan Schedule

1.6 A key output of the IDP will be the Infrastructure Delivery Plan Schedule for the Borough over the Local Plan period of 2016-2031. This is summarised in this document at Appendix 1, and is also an appendix to the Draft Local Plan (Appendix 10.13) and forms part of the Community Infrastructure Levy (CIL) evidence base information. The schedule outlines the infrastructure, the relevance to the local plan with appropriate policy reference, rationale, funding arrangements and delivery details including who is responsible for delivery, as far as is known at the moment. The timescales set out for the delivery of infrastructure are not definitive, and keeping the IDP updated will be essential. The IDP does not prioritise what funding should be allocated for infrastructure, and inclusion of a scheme does not guarantee that it will be delivered. The future iterations of the IDP schedule table will include more detailed information when available.

1.7 The criteria for projects listed in the IDP are:

- The infrastructure element contributes to the delivery of one or more of the Local Plan objectives; and
- The infrastructure element is required to address the demographic change, and requirements brought about by future development, and are not purely to address existing deficiency.

The Council's current approach to seeking developer contributions towards infrastructure provision is set out in the UDP 2006, Policy IMP1, and the Planning Obligations Supplementary Planning Document (SPD)¹, and emerging Policy 125 in the Draft Local Plan. The SPD will be reviewed prior to the adoption of the Council CIL Charging Schedule.

Supporting evidence for a Community Infrastructure Levy

1.8 The IDP provides an evidence base for the development of a borough CIL. To establish a CIL, it must be shown that there is a funding gap between the infrastructure needed and the funding available to deliver this infrastructure. Where this is established to be the case, funding can then be secured through a levy on development which must be set in accordance with the CIL regulations 2010. The receipts from CIL can be spent on infrastructure to support development. While this evidence will be reviewed as part of the future preparation of Charging Schedule for the council's CIL, the information presented here is seen as demonstrating a significant enough funding gap to justify an acceptable rate of CIL for the London Borough of Bromley.

Evidence base

1.9 Having identified the extent of the predicted growth for the Borough, the next step is to assess the required infrastructure provision. Consulting and engaging with infrastructure and service providers, both internal and external stakeholders, has made it possible to collate information either in person, or email, or from strategies, service plans, documents and reports. The full list of internal and external stakeholders consulted is set out at Appendix 2. External stakeholders were briefed as to the housing trajectory, areas of economic growth and supplied with a map showing anticipated housing over the life of the Local Plan as at March 2016. This map has been updated for this document and is to be found at the end of this chapter.

1.10 The evidence base used to develop the Local Plan, the Infrastructure Delivery Plan and subsequent CIL development must be consistent in content and this has been acknowledged throughout the IDP process.

1.11 Local and national standards for infrastructure provision are compiled by the government or particular organisations. Where appropriate, these have been used to establish levels of infrastructure which should be in place now and in the future. In other cases, the infrastructure identified will deliver specific elements of the emerging Local Plan vision for Bromley.

1.12 The infrastructure needs identified in this document are a snapshot of what is required at the time of preparing the respective evidence bases. While these assumptions have been justified, it is the case that the needs in Bromley may change and will be subject to regular review. The impact of economic conditions will be significant on the scale, timing and deliverability of the infrastructure at a time of significant constraints on public expenditure, with fewer resources available for infrastructure and other provision needed to support the growth identified.

¹ LB Bromley SPD on Planning Obligations 2010.

Reviewing and monitoring the IDP

1.13 Infrastructure requirements will change over the Plan period, (according to Council priorities) and the impacts of the planned growth as it occurs. This process should be managed by the governance structure which is put in place to manage infrastructure delivery and in line with the review process for the Borough's CIL. Progress in delivering the infrastructure in the IDP will be recorded through the council's Monitoring Reports. When a CIL is adopted, the required monitoring obligations will be complied with as set out within the regulations and associated guidance.

Legislative Context: Community Infrastructure Levy (CIL)

1.14 Changes to government legislation have modified how infrastructure planning is undertaken and has strengthened the link between the Local Plan and the delivery of infrastructure. The Planning Act 2008 contained enabling legislation for the charging of a Community Infrastructure Levy (CIL) which was then prescribed in detail in the CIL Regulations 2010 (which has seen subsequent amendments).

1.15 The Planning Act 2008, amended by the Localism Act 2011, defines infrastructure in the context of the application of CIL as including:

- a) roads and other transport facilities;
- b) flood defences;
- c) schools and other educational facilities;
- d) medical facilities;
- e) sporting and recreational facilities;
- f) open spaces

1.16 Affordable housing was also originally included in the definition – however this was amended by the Localism Act 2011 and Reg 63 of the 2010 CIL Regulations. The Council has specific policies that set out the amount and types of affordable housing sought as part of the planning process which are updated in the new Draft Local Plan and are therefore not addressed further in this document.

1.17 There has been uncertainty as to the types of community support which should be included within infrastructure. However, with effect from 29th November 2012, Reg. 59(1) of the 2010 Regulations was amended to ensure that there was no doubt as to the wide manner in which CIL can be applied with respect to infrastructure. After the amendment, the clause provided that “59(1) A charging authority must apply CIL to funding the provision, improvement, replacement, operation or maintenance of infrastructure to support the development of its area.” Prior to the amendment, it read that “59(1) charging authority must apply CIL to funding infrastructure to support the development of its area”.

1.18 The CIL Regulations 2010 (and its subsequent amendments) require a balance to be struck between the desirability of funding from CIL to deliver the infrastructure required to support the development of its area and the potential impact on economic viability of CIL for future development. It also requires that this information is evidenced and set out in a ‘charging schedule’ and that there are reviews to the ‘schedule’, as well as a comprehensive consultation which culminates in an examination in public.

1.19 The Department for Communities and Local Government (DCLG) has published CIL guidance which sets out how infrastructure planning should be carried out to inform the CIL process and the direct relationship that this should have to the infrastructure assessment which ‘underpins the relevant plan’. This guidance also clarifies the link which is required

between the infrastructure identified at the planning stage and that which is funded through the CIL once adopted.

Policy Context

National Planning Policy Framework

1.20 The National Planning Policy Framework (NPPF) (para. 162) states that local planning authorities should work with other authorities and providers to assess the quality and capacity of a range of infrastructure types; to assess its ability to meet forecast demands, and take account of the need for strategic infrastructure within its area.

1.21 The NPPF (para. 156) also states that local planning authorities should set out the strategic priorities for the area in the Local Plan. This should include strategic policies to deliver:

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

1.22 The NPPF (para. 177) explains that it is important to ensure that there is a reasonable prospect that planned infrastructure is deliverable in a timely fashion. It is therefore important that local planning authorities understand district-wide development costs at the time Local Plans are drawn up.

National Planning Policy Guidance

1.23 The government published National Planning Guidance on how infrastructure needs should be identified through the Local Plan. Infrastructure needs for the first five years of a plan should be identified with detail on how it will be funded and how it relates to the anticipated rate and phasing of development. For later stages of the plan period, less detail may be provided as the position regarding the provision of infrastructure is likely to be less certain².

The London Plan 2016

1.24 The Mayor of London has adopted and is charging a CIL to support pan-London growth. Mayoral CIL must be taken into account when setting the Borough's CIL charge, as it will constitute an additional, non-negotiable cost for development. Mayoral CIL goes towards the Crossrail infrastructure project.

Bromley Local Plan

1.25 The London Borough of Bromley's Local Plan sets out the spatial strategy for sustainable growth in the borough to 2031. The infrastructure needs that arise from this growth will form the basis for the Infrastructure Delivery Plan (IDP).

² NPPG Paragraph 018 reference ID:12-018-20140306

Demographic change in Bromley

1.26 The publication of the 2011 census revealed that Bromley had seen a population increase of 4.7% since the 2001 census. Population growth is projected to continue in Bromley over the Local Plan period in accordance with the Greater London Authority (GLA) 'Local Authority population projections – Trend projections, long-term migration scenario'.

Table 1.1 Recorded and projected population growth between 2001-11 and 2016-31

Local or unitary Authority	2001 population	2011 population	Change since 2001 (%)	2016 population	2031 Projected population	Projected change over plan period since 2016
Bromley	295,532	309,392	4.7	326,800	371,300	13.62%

Source: GLA 2016 Local Authority population projections – Trend projections, long-term migration scenario
© GLA 2016 Round Demographic Projections

Population projections

1.27 Based upon the findings of the 2011 census, both the GLA and the Department for Communities and Local Government (DCLG) have produced revised population projections. The 2011 census highlighted that previous GLA predictions had underestimated growth in London which has been attributed to an issue in calculating net in-migration. The revised projections have been used in the Local Plan and to inform the Infrastructure Delivery Plan (IDP). The limitations of past GLA projections highlight the uncertainty in estimating population growth. The data included in the table above should be read with the understanding that whilst it is possible to review past trends, it is not possible to accurately predict future demographic trends.

1.28 The GLA population projections used are based upon 2013 Strategic Housing Land Availability Assessment (SHLAA) housing data which is a key part of a local planning authority's evidence base on housing delivery. The SHLAA takes account of the amount of available land for new houses and recognises the major constraints on the increase of the population.

Table 1.2 Bromley Population Projections by Ward

Source: GLA 2016 Ward-level projections based on SHLAA development assumptions, using the Capped Household Size model

Ward Population Projections; Persons, all ages				
London Borough of Bromley District	2016	2024	2031	Percentage change 2016-2031 (%)
Bickley	17957	18489	18755	4.44
Biggin Hill	10573	11213	11626	9.96
Bromley Common & Keston	17413	17965	18243	4.77
Bromley Town	18539	21046	22358	20.60
Chelsfield & Pratts Bottom	15066	15741	16291	8.13
Chislehurst	16428	17200	17733	7.94
Clock House	16527	16544	16523	-0.02
Copers Cope	16378	16870	17159	4.77
Cray Valley East	16254	16929	17398	7.04
Cray Valley West	17285	17328	17308	0.13
Crystal Palace	13256	13295	13824	4.28
Darwin	5647	7212	8457	49.76
Farnborough & Crofton	14919	15229	15519	4.02
Hayes & Coney Hall	16403	17086	17738	8.14
Kelsey & Eden Park	16553	17270	17464	5.50
Mottingham & Chislehurst North	10504	10532	10567	0.60

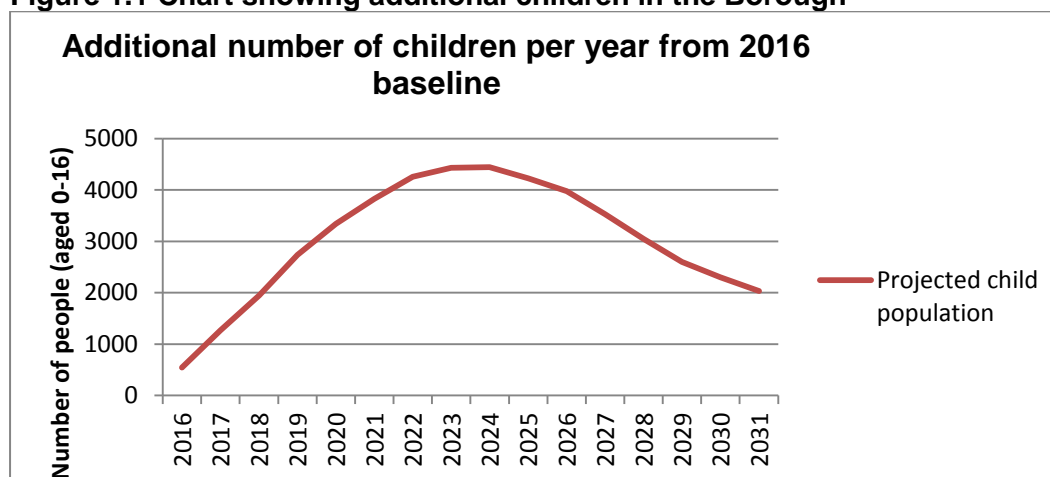
Orpington	15389	15601	15820	2.80
Penge & Cator	18000	18170	18473	2.63
Petts Wood & Knoll	14180	14631	14869	4.86
Plaistow & Sundridge	15972	16459	16662	4.32
Shortlands	10238	10396	10497	2.53
West Wickham	15078	15296	15574	3.29
Bromley Total	328559	340502	348858	Average % Change - 7.30

© Greater London Authority, 2016

Child yield

1.29 The number of children (0-16) projected to live in the Borough in the following graph is also estimated using the GLA Population Projection figures. It is predicted that the number of children will increase dramatically until 2024 and then begin to decrease. The large increase in numbers of children from the baseline figure in 2016 to the end of the plan period in 2031 can be seen below. As before, these forecasts are an estimate and should be read with the understanding that they are likely to be inaccurate. These predictions will impact upon the need for further educational infrastructure.

Figure 1.1 Chart showing additional children in the Borough



Source: London Borough of Bromley 2016 from GLA Projection figures

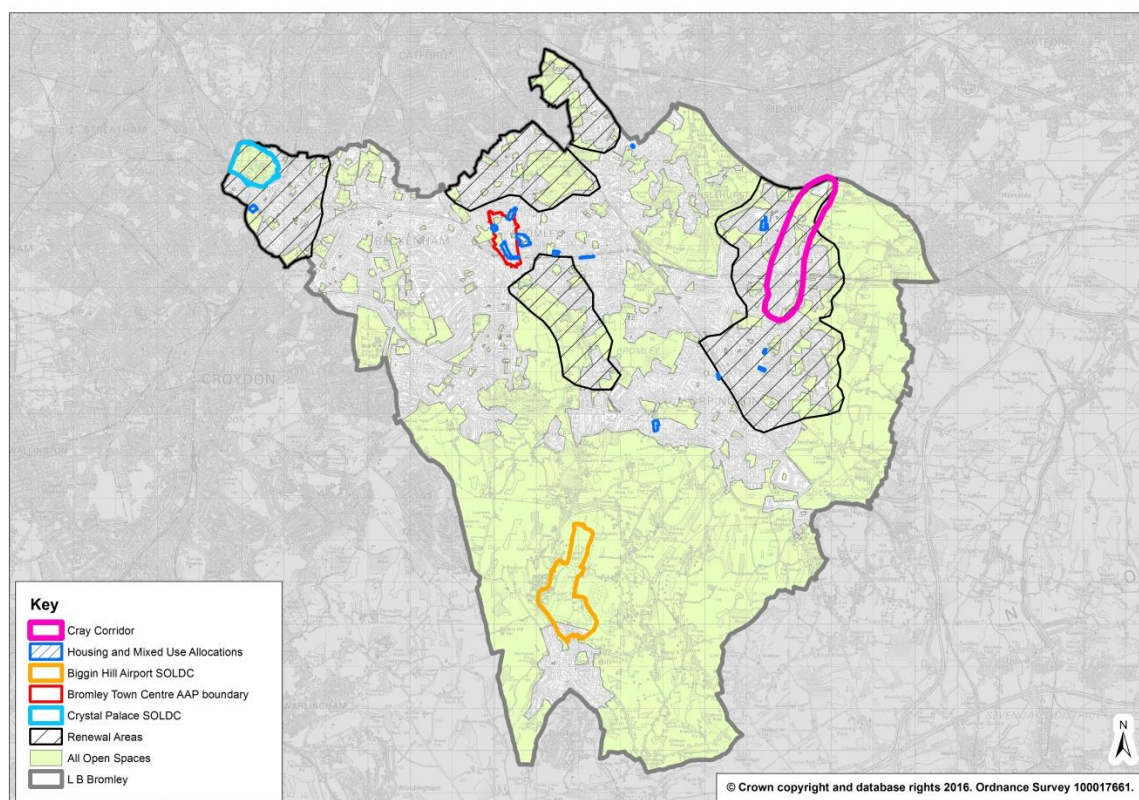
Employment

1.30 The 2015 London Plan includes a forecast of growth in employment within the borough from 118000 in 2011 to 134000 in 2036. The emerging local plan identifies the Cray Valley Business Corridor, Bromley Town Centre and Biggin Hill SOLDC (Fig 1.2) to be the main areas of growth. However, the network of town centres and business areas will continue to play an important role.

1.31 The Local Plan evidence base identifies a significant requirement for office space, driven by business services and financial services, as well as growth in employment in utilities, wholesale, retail and transport/storage. The following increase in land uses is planned to take place in Bromley Town Centre:

- B1 Business (gross additional) – 7,000m²
- A1 retail (gross additional) – 42,000m²
- A3/A4/A5 Food and Drink (gross additional) – 7,500m²
- Hotel beds (gross additional) – 350m²
- Leisure (gross additional) – 4,000m²
- Community (gross additional) – 3,500m²

Figure 1.2 LB Bromley Spatial Strategy Map



Source: London Borough of Bromley 2016

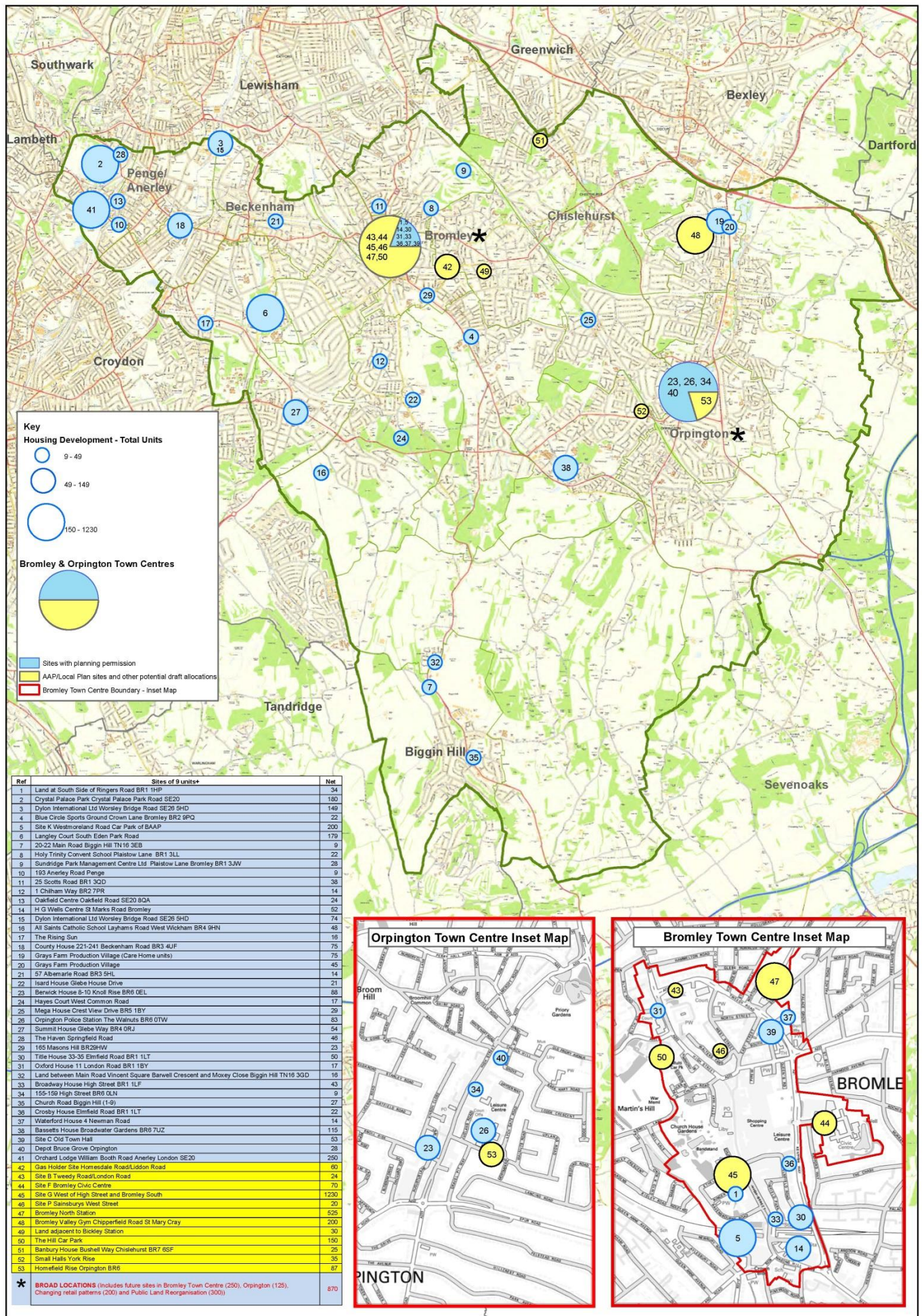
Housing

1.30 The London Plan: Spatial Development Strategy for Greater London (March 2015) requires Bromley to provide a minimum of 641 dwellings per annum from 2015-2025. Based on these figures, a minimum total of 6,413 new homes need to be planned for over a 10 year period.

1.31 A significant proportion of the housing anticipated in Bromley over the next 15 years will be delivered through the Bromley Town Centre Area Action Plan. Over half of the Borough's area is open countryside protected by the designation of Green Belt and the pattern of existing development in the borough is predominately scattered across the northern part of the borough and is focused around the main population centres. Additional housing sites will be brought forward during this timeframe; however their location is yet to be determined. The housing trajectory as at November 2016 is illustrated on the following map Figure 1.3 L.B Bromley – Housing anticipated during the Local plan period 2016-2031 as at November 2016.

Figure 1.3: L.B Bromley – Housing anticipated during the Local Plan period 2016-2031 as at November 2016 (overleaf page 10).

LB Bromley - Housing anticipated during the Local Plan period 2016-2031 as at November 2016



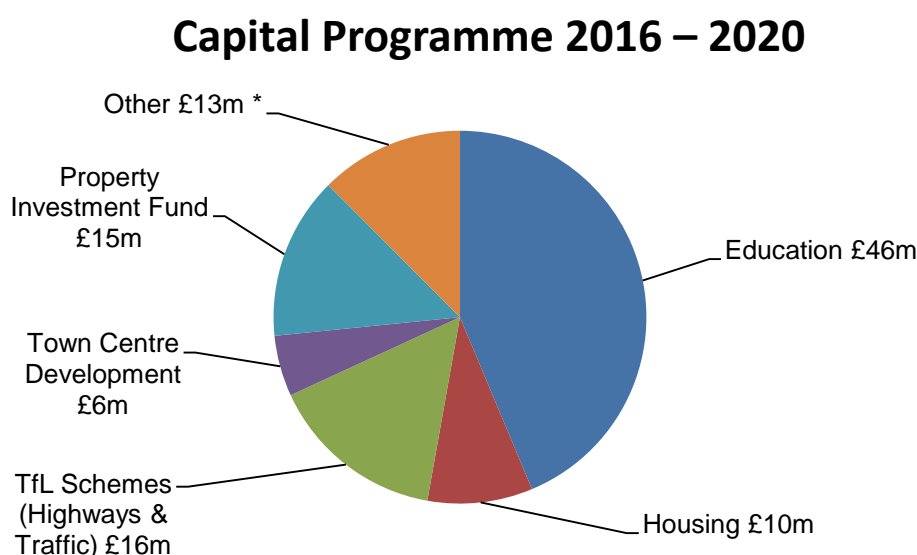
2. INFRASTRUCTURE FUNDING SOURCES

2.1 When assessing the deliverability and costs of infrastructure items, existing funding sources must be taken into consideration. Infrastructure can be funded through a variety of different mechanisms. Whilst some infrastructure projects may be funded from current and forecast contributions, others may require a complex mix of funding streams. Some funding streams are often only confirmed in the shorter term, some are subject to funding bids and others will continue to evolve. Exploring a range of funding opportunities is vital and this section sets out some of the key sources of funding available.

Council Capital Programme

2.2 Funding for key projects, including infrastructure, is available through the Capital Programme. In the current four year period (to 2019/20) the programme totals £106m. The key capital projects and associated funding are shown below.

Fig 2.1 Capital Programme



** A number of individual capital schemes including Adult Social Care, Libraries and Leisure Services*

Funding Source	Proportion
Capital Grants	41%
Other External Contributions	28%
Capital Receipts	23%
Revenue Contributions	8%

Source: London Borough of Bromley 2016

2.3 Capital Bids for new schemes are submitted by departments annually as part of an Annual Capital Programme Review. Successful bids are included in the Programme following consideration of a detailed business case and feasibility study where relevant funding sources, as well as any ongoing revenue implications, will be identified. All capital schemes are subject to a post-completion review within one year of completion.

Council Growth Fund

2.4 Funding has been set aside to support economic development and growth projects and to create opportunities for further investment. To date, £10m has been ring-fenced for specific developments in the Biggin Hill area, Cray Corridor and Bromley Town Centre and

the Council will continue to seek further opportunities subject to the necessary funding being available.

Community Infrastructure Levy

2.5 The Community Infrastructure Levy (CIL) Regulations were introduced to enable planning authorities to set a charge for new development in their area and use the funds to help deliver supporting infrastructure. To introduce a CIL, authorities are required to demonstrate an infrastructure funding gap and to set out a list of those projects or types of infrastructure that will, or may, be funded through the levy. Where this includes a generic type of infrastructure, such as transport or education, Section 106 contributions should not be sought on any projects in that category. This provides clarity about what developers are required to pay for and through which route.

2.6 The Council does not yet have its own CIL in place, although the Council already collects, on behalf of the Mayor of London, a Mayoral CIL which is used to help finance Crossrail, a major cross-London transport infrastructure project. This reduces the level of CIL which can be charged by the Council as it is an additional cost on development which must be taken into account when setting CIL.

Section 106 Contributions

2.7 A planning obligation made under Section 106 of the Town and Country Planning Act 1990 may require developer contribution towards infrastructure to mitigate the impacts of a development proposal. This is an existing mechanism to secure contributions towards infrastructure delivery.

2.8 A Section 106 agreement is negotiated at the point of a planning application and becomes a signed legal agreement between the Council and the developer. Contributions are subject to the conditions set out in the legal agreement.

2.9 Any contribution should meet all the statutory tests set out in the CIL Regulations 2010 (Regulation 122 (2)):-

A planning obligation may only constitute a reason for granting planning permission for the development if the obligation is -

- (a) Necessary to make the development acceptable in planning terms;
- (b) Directly related to the development; and
- (c) Fairly and reasonably related in scale and kind to the development.

2.10 From April 2015 restrictions on pooling contributions apply which limit pooling for infrastructure type or project to five or fewer separate planning obligations.

New Homes Bonus (NHB)

2.11 The Government has committed to providing a 'bonus' for new homes by match funding the additional council tax raised for new homes and empty properties brought back into use, with an additional amount for new affordable homes, for a period of six years.

2.12 Although NHB is not ring-fenced, it is a key source of income and the Council's policy has been to set aside this funding to support one-off investment to provide ongoing additional investment income. Proposed changes to the scheme from 2017/18 provide a degree of uncertainty on future funding levels.

2.13 In 2015/16, NHB was top sliced to provide funding to the Local Enterprise Partnership.

2.14 The funding received by the Council since NHB was introduced is Table 2.1.

Table 2.1 Funding received since NHB was introduced

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
	£m	£m	£m	£m	£m	£m
New Homes Bonus	0.99	2.0	3.9	5.0	6.2	7.4
LEP Adjustment	-	-	-	-	1.7	-
Net New Homes Bonus	0.99	2.0	3.9	5.0	4.5	7.4

Source: London Borough of Bromley 2016

2.15 Proposed Government changes to the NHB Scheme are expected to significantly reduce funding levels beyond 2017/18.

Business Rates

2.16 Under the Business Rates Retention Scheme, the Council retains 30% of business rates received with 50% being passed to central government and 20% to the GLA. The total annual business rates collected is approximately £80m, generating around £24m for the Council.

2.17 Income received from business rates is not ring-fenced and provides funding for the delivery of the Council's core services. 30% of any growth in the business rates baseline is also retained by the Council.

2.18 The Chancellor has set out plans to fully devolve 100% of business rates to local government (which includes the GLA) by 2020. Although expected to be cost neutral overall, this change will provide an opportunity to generate additional income through the uplift in business rates arising from economic growth as the Council will retain a higher share. The Council will also carry the downside risks, such as the impact of rating appeals, and the reset period (currently scheduled for 2020), which does create uncertainty in forecasting a longer term business rate income stream. However, generating additional business rate income will become more critical as core grant funding will be phased out. The Council's investment in growth and economic development will contribute towards increased business rate income.

Business Rate Supplement (BRS)

2.19 Local Authorities can place a supplement on business rates and retain the proceeds for investment in the economic development of an area. The Council does not currently have a BRS scheme in place, but the Mayor of London introduced a BRS levy to contribute towards the cost of the Crossrail project.

2.20 Some examples of other funding sources are shown in Table 2.2.

Table 2.2 Funding Sources examples.

Joint Ventures and Public/Private Delivery Vehicles	Provides a partnership approach to the delivery of infrastructure services and projects.
Tax Increment Financing (TIF)	TIF involves re-investing a proportion

	of future business rate income from an area back into infrastructure and related development.
Prudential Borrowing	A local authority can utilise powers under the Prudential Code to borrow to finance infrastructure or development needs.
Single Local Growth Fund	A single funding pot to support growth for which Local Enterprise Partnership (LEP) areas can bid.
Heritage Lottery Fund	Supports projects across the UK aimed at helping people explore, enjoy and protect our heritage.
Big Lottery Fund	Provides funding for community groups and projects that improve health, education and the environment.
Business Improvement District	A Business Improvement District (BID) is a business led and business funded scheme to improve a defined commercial area, such as a town centre or industrial estate through additional services or new initiatives.

Source: London Borough of Bromley 2016

3. TRANSPORT

Definition

3.1 Transport infrastructure involves more than providing extra capacity on the road and public transport network, it is also about improving accessibility for all residents including by foot, bicycle and interchange between travel modes, especially in areas of growth. Ensuring transport infrastructure is adequate to support growth in the borough is a key part of the Infrastructure Delivery Plan and its implementation.

Existing Infrastructure provision

3.2 The transport network in the London Borough of Bromley (LBB) is the responsibility of a number of organisations.

3.3 Transport for London (TfL) is responsible for the Transport for London Road Network (TLRN) and its subsequent maintenance, the Borough's 'Red Routes' and Bus Network. The Department for Transport and Network Rail are responsible for the rail infrastructure of all mainlines in the Borough. Southeastern Railways operate rail services on the Bromley North Line, Hayes Line, Chatham Main Line, and South Eastern Main Line. Govia Thameslink Railway (GTR) are responsible for Thameslink services primarily on the South Eastern Main and Southern (part of GTR) for services on the Crystal Palace line. London Overground, part of TfL, are responsible for services on the East London Line. Tram services are the responsibility of London Trams, which is also part of TfL. Please note that operators are subject to change and may be affected by any future rail devolution. Bromley Council is responsible for all remaining roads within the Borough's boundary.

3.4 There are over 100 miles of cycle routes across the borough, located both off road and in quieter residential areas. There are also 12 designated cycle routes. The transport networks within Bromley broadly reflect the Borough's geography, with more densely developed areas having increased levels of access to public transport when compared with the borough's more rural sectors. Bromley's Second Local Implementation Plan 2011- 2031 (LIP) outlines the existing transport provision at various geographical scales (see Table 3.1).

3.5 The preparation of a LIP is a statutory requirement by the Greater London Authority (GLA) on London boroughs and outlines the Borough's proposals for implementing the Mayor's Transport Strategy.

Table 3.1 Bromley's Transport Geography

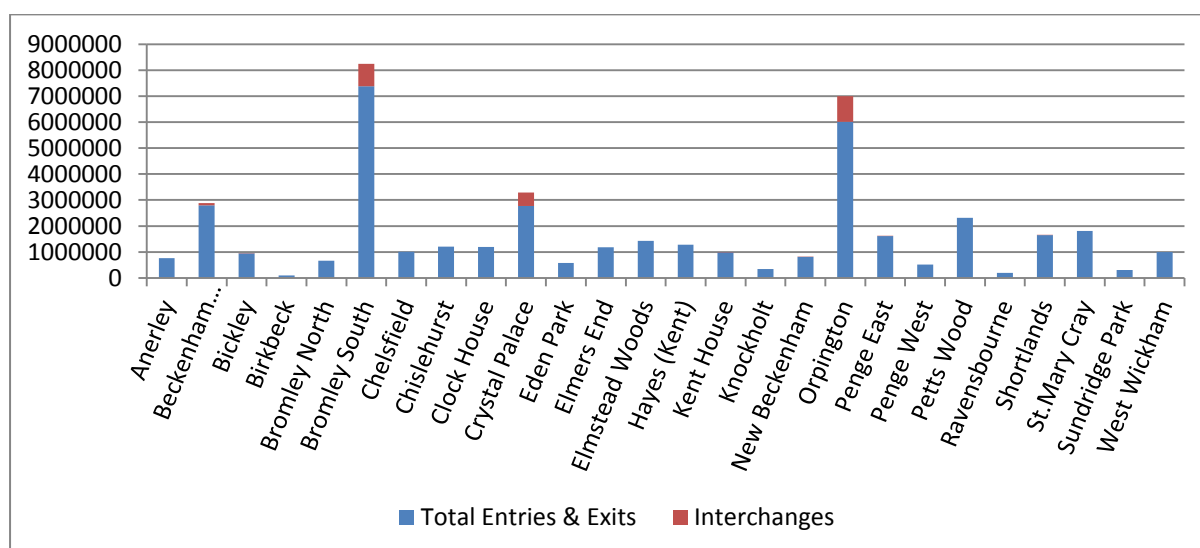
Level	Key transport connections	Stations/stops interchanges
London-Wide	Rail: South Eastern, Govia Thameslink Railway Road: A21 Rail Termini: London Bridge, Cannon Street, Charing Cross, London Victoria, Waterloo East, Blackfriars, and Lewisham (for Docklands Light Railway (DLR)).	
Sub-Region	TLRN: A21, A232, A20	Railway Stations: 26 in total
South (adjacent to East and Central Sub	Major Borough Roads: A222, A224, A232, A234, A2015 Bus Corridors:	Bus Interchange: Bromley North, Orpington Station, Elmers End

regions)	A21, A22 Cycling Corridors: 5 London Cycle Network (LCN)+ Routes and 14 established borough cycling routes Major Walking Routes: London Loop, Green Chain and the Capital Ring, along with 9 borough-defined healthy walks.	Train/Tram Interchange: Beckenham Junction Elmers End Freight Distribution Centres: None
Local	Roads and streets: 43 miles/ 70km of principal roads, 458 miles/ 737 km of local roads and 12 miles/ 20km of Transport for London roads. Bus Routes: 61 routes service the borough Cycling: 93 miles/ 150km of cycle ways across the borough Walking: 870 miles/1400km of footway	Bus Stops Total: 1040 within the borough Bus Stops with Proposed Countdown Signs from 2012: 74 No. of Rail/Tram Stations with Cycle Parking: 25 No. of Rail/Tram Stations with full or partial mobility impaired access: Full: 8 Partial: 9 None: 11 ³

Source: London Borough of Bromley 2016

3.6 There are 26 national rail stations and 5 Tramlink stops in the borough. Bromley South and Orpington are the busiest national rail stations as illustrated in Table 3.2.

Table 3.2 National Rail station usage in LB Bromley 2014/15



Source: Estimates of station usage: 2014 to 2015 (Office of Rail and Road 2015)⁴

Current Shortfall

³ Bromley's Second Local Implementation Plan October 2013

⁴ <http://orr.gov.uk/statistics/published-stats/station-usage-estimates>

Rail

3.7 There is no surplus in the current service provision. Thameslink services are currently reliant on Class 319 rolling stock which was first introduced in the late 1980s. The rebuilding of London Bridge station constrains Thameslink cross-London services to run via Elephant & Castle. A lack of viable alternate routes means that it can take up to four times longer to recover from any incident than it took before the cross-London route through London Bridge closed. There is no further capacity to run additional trains at present and that will remain the case until London Bridge station reopens in May 2018.

3.8 Network Rail is aware that some train services require lengthening to adequately accommodate today's passenger numbers. This is particularly the case on trains during the morning peak period.

Bus

3.9 Bus wait times have begun to increase during the past two years, largely as a result of congestion. The bus is a key mode for the South sub-region, as the South continues to grow there is a need to ensure that appropriate measures are taken to maintain attractive and reliable bus services.⁵

3.10 Bus Mode Share in the sub-region has continued to increase faster than any other sub-region. TfL will continue to plan, monitor and manage the bus network and make any changes to meet demand. Current bus-standing facilities in Bromley Town Centre (particularly around Bromley North station and also in Simpson's Road near Bromley South station) are at capacity and limit the opportunity to terminate services within the town centre. There also remain only two direct bus services between Biggin Hill and Bromley Town Centre and no direct high frequency services between Biggin Hill and New Addington.

3.11 Difficult topography of the land surrounding Downe House has made running bus services difficult although a Sunday service is now in operation. Poor weather has also been known to make roads in Biggin Hill inaccessible for the 320 bus route from Catford to Biggin Hill.

Roads

3.12 Traffic congestion on part of the road network; namely the A21, A24, A222 and A232 can be particularly bad during weekday morning peak periods. A study undertaken by SKM Colin Buchanan (June 2010) identified a number of pinch points on the road network that contributed to traffic congestion issues. This report formed the basis of congestion relief schemes funded through the Local Implementation Plan (LIP). Outstanding LIP schemes awaiting implementation include:

- A21 Masons Hill, between Kentish Way and the B265 intersection Hayes Lane and Homesdale Road (TLRN)
- A233 Leaves Green Road/Downe Road to Blackness Lane, Keston
- B251 Hayes Lane/Shortlands Road/Scotts Lane
- A232 Croydon Road and the A233 Westerham Road and Oakley Road (TLRN)

3.13 The planning status of these schemes varies, although the responsibility for planning and implementing those schemes on the TLRN lies with TfL. However, funding the schemes could be a joint responsibility between TfL and LBB, particularly where the traffic congestion impact is on a principle road.

⁵ South London Sub-regional Transport Plan 2016 update

3.14 The latest survey (2015/16) identified 7.2% of the principal road network in Bromley to be in need of maintenance, based on a DVI (detailed visual inspection). The DVI surveys are undertaken each year by LB Hammersmith & Fulham on behalf of all London boroughs, to ensure consistency across the capital. The cost of the surveys is met by TfL, as the results are used to allocate principal road maintenance funding. Planned works for principal roads are funded by TfL through the LIP process.

Future Demand

Rail

3.15 According to the 2011 Census, travel by train was the second most popular method of travel to work by Borough residents, with 32.7 per cent of Bromley residents travelling to work by train. An additional 3.5 per cent travelled by Underground, Metro, Light rail or Tram (Tramlink serving Beckenham Junction and Elmers End).

3.16 By mid-2017, all Thameslink services running on the Catford Loop to and from Sevenoaks will be formed of brand new fixed-formation eight-car trains. The new rolling stock will provide considerably greater capacity. A consultation by Govia Thameslink Railway (GTR) proposes that from May 2018, there will be an increase off-peak in the service frequency of Thameslink trains calling at Ravensbourne, Shortlands, Bromley South, Bickley and St Mary Cray, however there will be a further consultation before a decision is made later in 2017.

3.17 The Orpington – Bromley South – Victoria Southeastern service increased to 4 trains per hour off-peak in 2006 when the Eurostar services which used this line transferred to the high speed line via Ashford International. The additional capacity allowed Southeastern to increase frequency between Orpington and Victoria and no further increases are currently planned. The Sevenoaks/Orpington, Bromley South/Blackfriars Thameslink service via the Catford loop is to be increased to 4 trains per hour all day from 2018 as part of the DfT/Network Rail Thameslink programme. TfL is supportive of this; it does not require any infrastructure.

3.18 Possible further options for lengthening trains are being reviewed and developed by a Network Rail team working on the forthcoming Kent Route Study. The Route Study is a 30-year strategy document for the route looking forward to 2044 and then identifying priorities for the next funding period; Control Period 6 (2019-2024).

3.19 The Kent Route Study will also look at the land implications, depot and stabling facilities across the Kent route. This will establish where depots or stabling facilities may need to be provided going forward or where the existing stabling facilities may need to be enlarged to accommodate larger trains.

3.20 Internal Network Rail processes have identified that Bromley South and Beckenham Junction stations will require enhancements to accommodate forecast growth at these locations. A high level review of the areas of development and growth, put forward by LB Bromley, have established a potential need for enhancements at Anerley and Crystal Palace stations to accommodate forecast growth. This will remain subject to review and potentially require a station capacity assessment to be undertaken to gain current day baseline information for the purposes of modelling the impact of forecast growth.

3.21 TfL has an aspiration to increase the frequency of Overground services by 2 trains per hour to Crystal Palace (shorter term) and West Croydon (longer term). For the latter, serving

Penge West and Anerley, grade separation of Gloucester Road junction between Norwood Junction and West Croydon is likely to be necessary.

3.22 The Borough currently lacks a direct rail link to Canary Wharf; it is therefore a Council aspiration to have the Docklands Light Railway (DLR) extended to Bromley North. Whilst this is currently unfunded, it is felt that this project would derive significant benefits for the Borough.

3.23 A Bakerloo Line extension into Bromley has been discussed, and after assessing a number of options, TfL has decided to focus on an extension from Elephant & Castle to Lewisham via the Old Kent Road as a first phase. Beyond 2030, subject to further work a future phase could see the line being extended to Hayes via Eden Park and/or to Bromley Town Centre from Beckenham Junction at costs in the region of £3bn.

3.24 TfL are proposing a new partnership with the Department for Transport (DfT) that will work with local authorities and train operators to provide strategic direction to the specification and management of rail passenger services across London and the South East. TfL are also proposing to complete the transfer of responsibility from the DfT to TfL for inner suburban rail services that operate mostly or wholly within Greater London.

3.25 This suburban devolution proposal is looking at a new metro system (Metroisation) for south London. The devolution proposals could include an increase in capacity of services which call at stations in the borough from 2021. TfL have advised that, this could include continued lengthening of all inner suburban services running via Bromley South (to 10 car) and Grove Park (to 12 car). Following that, higher frequency inner suburban services via both Bromley South and Grove Park through Metroisation could be enabled by technological improvements, more efficient use of existing infrastructure and targeted infrastructure schemes.

Bus

3.26 Bus priority opportunities are being monitored and are implemented where possible. Current priorities in Bromley include the retention and improvement of the facility at Bromley North.

3.27 Capacity contributions are not classified as infrastructure under the planning Act 2008, and therefore would not be able to be funded through any future local CIL, rather remaining as contributions through s106 planning obligations or other forms of funding.

3.28 TfL requested inclusion of enhanced bus infrastructure in Bromley Town Centre, There is no cost of this work and it depends on the impact arising from the scheme at Bromley North and associated improvements at Lewisham and Croydon. However, the potential developer of the Bromley North site would be expected to include this re-provision within the scheme proposal. Any associated costs can be updated in due course.

Trams

3.29 Passenger numbers are expected to reach nearly 60 million by 2030. 'Trams 2030' is TfL's proposed 15-year plan to accommodate growing demand, improve reliability and support the regeneration of numerous town centres. It includes the Wimbledon line enhancement programme and the current proposals including major upgrades and expansions to the network. In order to support future capacity increases, new and expanded maintenance facilities are needed. TfL are exploring additional facilities at Elmers End with a joint estimated cost of £39m for stabling and platform facilities. TfL is looking to significantly

enhance frequency and capacity on the Beckenham Junction Line, with additional trams and line upgrade, which has a project cost of £28m.

Walking, Cycling, and Roads

3.30 TfL is transforming conditions for all road users and pedestrians with initiatives such as the Roads Modernisation programme. Strategic analysis is available within the Sub-regional Transport Plan⁶, giving an indication of the high level transport requirements within LB Bromley.

3.31 TfL's study has identified a number of improvements that are feasible that could reduce delays and congestion for users accessing Bromley town centre, helping to retain Bromley's status as a key shopping destination. These interventions would also deliver some pedestrian and cycle benefits where facilities are presently not provided.

3.32 The Council is working with TfL on measures to improve the A21 in the area. A wider study via a revised modelling exercise will suggest improvements that are proposed including around some of the Bromley Town Centre junctions on the A21.

3.33 Measures will also be taken to improve accessibility to Biggin Hill in light of the proposed London Plan designation of Biggin Hill as a Strategic Outer London Development Centre (SOLDC). This includes schemes at A233/A232, Keston Mark and A233 Leaves Green Road/Downe Road to Blackness Lane, Keston.⁷

3.34 On a site by site basis, TfL assesses the impact of development proposals on the network and in conjunction with London Plan policy. Where mitigation is necessary, TfL works with the Council and GLA to secure this in line with statutory tests. Much of this strategic analysis will be available within the Sub-regional Transport Plan which will give an indication of the high level transport requirements within LBB, based on current analysis. The London Borough of Bromley will continue to work with TfL to address traffic congestion issues through the Local Implementation Plan (LIP).

Infrastructure Costs

Table 3.3 Transport Infrastructure costs where known/applicable

Aim	Infrastructure	Cost	Delivered by
Rail	Shoulder peak lengthening, additional fast services, 12 car outers and additional fast services, grade separation at Herne Hill	Unknown	Network Rail/TfL/ LIP/Planning Obligations s106/CIL or TBC
	Further train lengthening on the Sydenham line	Unknown	
	Petts Wood/Shortlands/St Mary Cray – provision of step-free access	Unknown	
Trams	Additional capacity on Elmers End Tramlink branch – construction/second platform at Elmers End plus Stabling facilities	£39m	
	Additional capacity Beckenham Junction	£28m	
	Extension of Tramlink from Beckenham Junction to Bromley town centre*	£100m*	
	Extension of Tramlink to Crystal Palace*	Unknown*	
DLR	DLR extension from Lewisham to Bromley North Station*	£800m*	

⁶ South London, Sub-regional Transport Plan 2016 update TfL

⁷ Planning for growth in Bromley – Biggin Hill Study Final Report February 2015

Bakerloo line extension	Bakerloo Line southern extension – which remains an option*	£3bn*	
Buses	Measures to reduce journey times - Bromley and Canary Wharf/Croydon	Unknown	S106 planning obligations/TfL / TBC
	Improvements between Biggin Hill and the rest of the borough	Unknown	
Cycling and walking	Cycle hubs at various stations	£80k	TfL/ South Eastern/ LB Bromley, neighbouring boroughs
	Quietway cycle routes	Unknown	
	Petts Wood Bridge Cycle replacement	£1.3m	
	TfL cycle safety review of junctions – A21	Unknown	
	Bicycle Motocross (BMX) track in Norman Park	£300k	
	Cycle Superhighway (CS6) – Extension of Route 6 (Penge to City via Elephant & Castle*)	Unknown	
Roads	A21 – Road capacity and junction improvements at various points	£21m	TfL/LIP + Planning obligations s106/ s278/CIL
	A233/A232 Junction improvements - Biggin Hill*	Unknown	
	Chislehurst congestion relief scheme	Unknown	
Rail Bridges	Orpington and Shortlands	£20m +	Network Rail/ TfL/ LIP
	Oakley Road	£1m	
	A222 – Congestion relief scheme*	£450k	
	A234 Corridor study	£40k	
	New car park Locksbottom (PRUH)	£3m	National Health Service (NHS)/ LB Bromley/TfL/Developer contributions s106/CIL
Total potential minimum costs		£4,014,170,000	

Note: *Not on current TfL's business plan but remain listed in Appendix 1 of this IDP and Draft Local Plan Bromley 2016-31 Appendix 10.13.

Source: London Borough of Bromley 2016

Funding Sources

3.35 The costs for many of the transport items will be shared responsibility of a number of external organisations, including Transport for London, and Network Rail. Many of these projects have unknown costs at present as they are aspirational or in the early stages of development. Network Rail station enhancements would require funding from the Local Authority through Section 106 or Community Infrastructure Levy (CIL) funding.

3.36 Locally the need for physical transport improvements will be determined on a site specific basis. Costs cannot be accurately predicted in advance and will have to be calculated in the context of individual planning development applications. Site specific improvements would therefore be secured by s106 or s278 legal agreements.

3.37 The remaining road improvement schemes identified by SKM Colin Buchanan (2010)⁸ will be delivered through LIP funding. Where improvement schemes are on roads owned by the London Borough of Bromley, funding would be a joint responsibility between TfL and the council.

Infrastructure Costs

3.38 Depending on the particular project(s), there are varying cycles for investment planning. In general, TfL funded or part funded projects are aligned to the TfL business plan. Although intended for five years, Business Plans are refreshed on a regular basis and are linked to wider funding settlements and arrangements.

In addition, the London Borough of Bromley accepts planning obligation contributions from developers as part of locally managed s106 agreements/ CIL. These are used for transport improvements managed by TfL and Network Rail.

⁸ SKM Colin Buchanan – Transport Study 2010 + Bromley First Infrastructure Delivery Plan – July 2012

4. UTILITIES

Definition

4.1 The term ‘utilities’ is given to a group of services that includes electricity, gas, water and sewage, and latterly broadband, that are supplied for the use of the public by a company(s).

4.2 Electricity, gas, water and sewage infrastructure must have or be able to have sufficient capacity to accommodate all new development within the borough. Various providers are responsible for the delivery of these services. Electricity and gas are supplied by a range of private companies through the National Grid infrastructure. In the London Borough of Bromley, these services are provided by UK Power Networks (UKPN) and Southern Gas Networks (SGN). UKPN are responsible for the local electrical distribution network including overhead transmission lines, underground cables and electricity substations. SGN are responsible for the local gas distribution network. The distribution of water to individual premises and local sewage infrastructure is the responsibility of Thames Water. For small firms and entrepreneurs/home workers, there is an increasing awareness that access to high-quality broadband provision is a commercial necessity and that in many respects broadband represents the ‘fourth utility’.

Existing Infrastructure provision

UK Power Networks

4.3 Electricity is provided through a transmission and distribution network. The transmission network provides electricity on a strategic level throughout the country and is owned and managed by National Grid. Within LBB, there is a 400kv overhead cable route from Rowden substation in Bromley town centre to Northfleet substation in Dartford.⁹ There is also an underground cable from Beddington substation in Sutton to Shinglewell substation in Gravesham.

4.4 The distribution network provides electricity on a local level and within LBB is owned and maintained by UK Power Networks. LBB is supplied by the Beddington to Hurst 132kv cable which distributes electricity supply to local substations via the Bromley Grid 33kv route. There are local main substations at Bromley (Bromley Grid 33kv), Bromley South, Chislehurst, Orpington and Petts Wood (Orpington).

Southern Gas Network

4.5 Gas is provided through a transmission and distribution network. The transmission network provides gas on a strategic level throughout the country and is owned and managed by National Grid. Within LBB, National Grid has no gas transmissions assets located within the administrative area.

4.6 The distribution network provides gas on a local level. Within LBB, this network is owned and maintained by Southern Gas Networks. Southern Gas Networks are statutorily obligated to develop and maintain an efficient and economical pipe-line system for the conveyance of gas in accordance with the Gas Act 1986.

4.7 SGN are in the process of decommissioning the mains and plant equipment from the former Bromley gas holder site at Holmesdale Road, Bickley, and this site has been included as a proposed site allocation¹⁰.

⁹ NETS Seven Year Statement; 2011

¹⁰ SGN consult response 3rd May 2016

Thames Water

4.8 It is the statutory duty of Thames Water PLC under the Water Industry Act 1991 to develop and maintain an efficient and economical system of water supply within its area and to provide, improve and extend public sewers as to ensure that areas continue to be effectually drained. Thames Water currently supplies Bromley as part of its wider coverage of London and the Thames Valley.

4.9 Thames Water PLC is responsible for the management of Public Sewers (surface water) and Public foul Sewers within the borough. Planned upgrades to Long Reach Sewage Treatment Works (STWs) which serves the London Borough of Bromley and surrounding boroughs were delivered in December 2012. This improvement has provided additional treatment to improve effluent quality to meet Thames Tideway water quality standards¹¹.

Broadband services

4.10 Asymmetric Digital Subscriber Line (ADSL) is the most accessible broadband provision available in the UK today. It works alongside frequencies used for mainline telephone calling and allows the use of the telephone whilst retrieving data from the internet. This technology, including the newer ADSL2+ technology, has been deployed to all telephone exchanges within the borough. The older ADSL technology offers up to 8 Megabytes per second (Mbps) download speeds and up to 800 kilobytes per second (kbps) upload speeds, whereas the newer ADSL2+ technology is capable of up to 24Mbps download speeds and up to 2.5Mbps upload speeds. The speed you receive, however, is dependent on the quality and length of the telephone line.

4.11 Broadband speeds across Bromley as a whole are good in respect to UK averages, with the borough having an average download speed of 27Mbps and an average upload speed of 3Mbps¹².

4.12 Alternatives to ADSL broadband include cable. The two providers of cable infrastructure in Bromley are Virgin Media and BT Openreach. Virgin Media currently offer the highest download speeds in the borough with connected premises capable of receiving download speeds of up to 200Mbps.

Current Shortfall

UK Power Networks

4.13 There are no specific shortfalls identified in the London Borough of Bromley for electricity.

Southern Gas Network

4.14 SGN do not envisage a requirement for significant infrastructure reinforcement on SGN Medium Pressure (MP) or Intermediate Pressure (IP) systems, however they cannot discount the possibility of some localised requirements where connections are made to SGN Low Pressure (LP) systems.

Thames Water

¹¹ Environment Agency response June 2016

¹² <https://www.cable.co.uk/local/broadband/greater-london/bromley/>

4.15 Thames Water are currently undertaking a series of strategic infrastructure improvement projects across London, but there are no specific shortfalls identified in the London Borough of Bromley. Thames Water generally considers infrastructure shortfalls on a case by case basis. Where there are concerns with regards to capacity for an individual application, Grampian Style conditions will be requested as appropriate to ensure that there is no detrimental impact to the existing network as a result of the new development.

Broadband services

4.16 Some 95.9% of premises in the Borough have access to fibre-based broadband, however some areas of Bromley do not have access to cable services and are restricted to the slower speeds offered by ADSL. These areas include Downe, Cudham, Keston, and Chelsfield¹³; however to provide a solution BT Openreach have planned works in 2017 to enable fibre broadband in these areas.

Future Demand

UK Power Networks

4.17 The impact of new development on the National Electricity Transmission System (NETS) within the South Eastern boundary has been identified as a possible driver towards the NETS reaching its thermal capacity¹⁴. The National Grid will ensure that as interconnector capacity increases over time, measures will be taken to increase capacity to ensure the transmission route can sustain the growth in requirement.

Southern Gas Networks

4.18 SGN use computer modelling techniques to assess committed demands on gas networks. These models are built to compensate for potential growth which is obtained from developers and local authority Local Plan information. Should any reinforcement be required above predicted growth, SGN would deal with this on an individual basis under the Gas Transporter Licence. Funding for investment planning regulated by Ofgem and provision is subject to review every 8 years. There is no significant planned investment into gas infrastructure within Bromley.

Thames Water

4.19 The planning cycle for investment in service delivery is 5 years; a process considered by Asset Management Plans (AMPs). There are no significant planned changes to infrastructure in the current AMPs or next AMPs period. Generally speaking, network capacity constraints and requirements for upgrades will depend on the location, scale and timing of development together with that of other development within the same catchment. Thames Water relies heavily on the planning system to ensure infrastructure upgrades are provided ahead of development, either through local phasing and Local Plan policies, or the use of Grampian style conditions attached to planning permissions¹⁵.

4.20 Thames Water use Local Authority housing and employment growth figures and census data to help project likely increases in sewage flows to its Sewage Treatment Works (STWs). Thames Water also takes into consideration a range of other factors, including data on wastewater flows entering the STW.

¹³ <http://www.thinkbroadband.com/news/6924>

¹⁴ National Grid - Electricity Ten Year Statement November 2015 - <http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=44084>

¹⁵ Thames Water/Savills response April 2016

4.21 Thames Water's infrastructure investment is aggregated across its operational area and then financed for example through loans, and recovered by charges made to customers across that operational area. Customer bills are set by OfWAT through the business plan process. In some cases, developer contributions for local upgrades also help to fund infrastructure, where required.

Broadband services

4.22 The fibre optic cabling network in Bromley is subject to continual growth. Virgin Media are currently investing £3 billion¹⁶ nationally to deliver services to areas that cannot currently receive their services. This includes a trunk fibre cable into the borough run from Virgin Media's head end in Lewisham. Major trunk cables are linked in rings to ensure that services can always be provided, even when cables get damaged.

4.23 Rural areas of the borough are still reliant upon ADSL broadband services due to the lack of fibre infrastructure available in some areas. Some Internet Service Providers (ISPs) specialise in providing high speed broadband services to rural communities. As part of the IDP process, the council reached out to independent ISPs regarding their ability to provide such services to the worst affected regions within the borough. Unfortunately, none of the ISPs contacted provided coverage within Bromley or had any planned network build for the intervention areas highlighted. Some 14 per cent of small businesses in the UK consider lack of reliable and fast broadband connectivity to be their main barrier to growth¹⁷. However as a solution, BT Openreach has been contracted to provide fibre broadband in the Chelsfield, Keston, and to most of the Downe areas on 01689 exchange number in 2017.

Infrastructure Costs

4.24 There are no infrastructure costs identified for utility provision in the Borough.

¹⁶ <http://www.virginmediabusiness.co.uk/news-and-events/news/news-archives/2015/Virgin-Media-and-Liberty-Global-announce-largest-investment-in-UKs-internet-infrastructure-for-more-than-a-decade/>

¹⁷ The fourth utility: Delivering universal broadband connectivity for small businesses across the UK –FSB 2014

5. EDUCATION

Definition

5.1 Local authorities have a statutory duty under the Education Act 1944 to secure sufficient school places within their areas. The Academies Act (2012) changed the approach to educational provision and encourages the establishment of new Free Schools¹⁸.

Existing Infrastructure Provision

5.2 The borough has 74 primary schools which includes separate infant and junior schools. There are currently 17 secondary schools which offer either single sex or mixed provision and vary in size. In addition, some 250-300 reception aged children enter private schools each year.

5.3 Provision for primary places has been increasing significantly and steadily. Over the last 6 years, the pupil intake at reception age has increased by over 25 Forms of Entry (FE). One FE will typically cater for 30 pupils in most cases at primary and secondary stage and each FE requires ongoing provision throughout the child's educational life. Expansions to existing school infrastructure and new provision have together provided 16.5 FE with the rest provided in single year 'bulge' classes and through new provision in temporary locations.

5.4 Eighty-eight percent (65 of the 74 Bromley borough primary schools) are academies either converting to, or exploring conversion to academy status. 16 of the borough's 17 secondary schools are academies, with the last maintained secondary school currently exploring conversion to academy status.

5.6 Bromley College recently merged with Greenwich Community College and Bexley College to form London South East Colleges (LSEC).

Current Shortfall

Early Years

5.7 Local authorities must secure availability of at least 570 hours of free provision over a minimum of 38 weeks for each child aged between 2 to 4 over a 12 month period¹⁹. This works out at 15 hours per week when spread over 38 weeks.

5.8 The GLA 2015 projections (based on 2013 birth data) indicated a school reception population of approximately 4,000 in 2015 and drop off slightly after 2017 reflecting, in part, the anomalous drop in borough birth rate in 2013. More recent birth data indicates that live births have increased back to nearly 4,100, suggesting that the 2015 projections may be a low estimate.

5.9 In general across the borough, there is sufficient early years and childcare provision to meet the needs of working parents, and enough places for all eligible children to take up a free early education place. There are, however, pockets of the borough in which there is a lack of high quality childcare for families, notably, the following wards:

- Bromley Common & Keston
- Bromley Town,
- Cray Valley East,

¹⁸ Draft Local plan – For Development Control Committee July 2016

¹⁹ Early education and childcare - Statutory guidance for local authorities; Department for Education, September 2014

- Cray Valley West,
- Mottingham & Chislehurst North,
- Penge & Cator,
- Plaistow & Sundridge²⁰.

School Provision

5.10 The provision of new schools to address primary shortfall is through the Free School process. Free schools can be delivered through two routes: Government funded whereby founding groups, including parents, education charities and religious groups, submit applications to the Department for Education on the basis of parental demand to meet local need, or the 'presumption route' whereby the Local Authority funds the new school and runs a competition to choose a provider. As such, the desired location of new schools can be difficult to anticipate; however the projections set out in the evidence base indicate that the primary school pressures are substantially to the north, northwest and centre of the borough in Education Planning Areas (EPA 1-4). This demand is generally reflected in the locations of Free School proposals coming forward.

Primary Schools

5.11 Demand for reception places is concentrated in Penge and Anerley, Beckenham, central Bromley and Cray Valley²¹.

5.12 To ensure that the Local Authority was able to meet its duty to offer all Bromley children a place, the Council's 'Primary School Development Plan 2015' (PSDP), approved January 2016, illustrates that some of the need was being addressed through 7 bulge classes at schools in the Borough and 2 FE provided through a Free School in a temporary location.

Secondary Schools

5.13 The growth trend experienced in the primary sector is now being felt in the secondary sector which exceeded the capacity of the existing infrastructure in 2015, resulting in the provision of 3 bulge classes at existing secondary schools.

5.14 Secondary school need is less localised and in theory is more 'footloose' as secondary-aged children are able to travel further distances on their own and therefore the Borough is treated as a single planning area for secondary education. However, that is not to say there are no limits to travel distances. The Council considers "reasonable travelling distance" when offering places, in light of the The DfE "Home to school travel and transport guidance - Statutory guidance for local authorities July 2014". Additionally, the circumstances surrounding some of the specific Free School applications to the Secretary of State for Education have a particular locational focus.

5.15 The Council's 'Secondary School Development Plan 2015' (SSDP), approved January 2016²², indicates that in 2015, there were insufficient places in secondary schools within a reasonable travelling distance resulting in the provision of bulge classes.

5.16 The SSDP, which is based on the GLA 2015 round of projections, suggests that by 2018/19, there would be a need for 15 additional FE.

²⁰ Childcare Sufficiency – London Borough of Bromley October 2015

²¹ Position Statement on Education and Education Services in Bromley

²² Secondary and Primary Development Plans (January 2016)

Further Education

5.17 The Bromley campus of LSEC is currently oversubscribed with young people for general learning provision. The construction and engineering offerings are at full capacity and LSEC is exploring other ways in which this provision can be expanded sub regionally given the demand for skills labour in London. LSEC is also aware of a skills and training deficit for the Aviation and Aeronautical industries²³.

Future Demand

5.18 The Local Plan education policies reflect the NPPF and the London Plan and state that the Council will ensure provision of an appropriate range of educational facilities by assessing the need over the plan period and allocating sites accordingly. The overall strategy in both 'Secondary and Primary Development Plans' has been to meet forecast growth through a combination of 'bulge' classes, permanent expansion of existing provision and new schools.

5.19 All sites with permitted use for education purposes, including the sites of schools, colleges and purpose built day nurseries, will be defined as 'Education Land' and protected for education purposes until 2031 (Local Plan period). This includes any future sites where new educational provision (excluding non-purpose built early years provision) is established on a permanent basis. The council will also support proposals for new educational facilities which meet local need, looking first at opportunities to maximise the use of existing 'Education Land' or redundant social infrastructure²⁴.

Early Years Provision

5.20 The Council will continue to encourage the take up of free early education places for 2, 3 & 4 year olds, especially in Mottingham, Cray Valley East and Cray Valley West. The council will also work with the Schools Expansion program to create new Early Years provision in 3 schools²⁵.

Primary Schools

5.21 The Borough currently has 133.5 primary Forms of Entry (FE).

5.22 An additional 18.7 (FE) are required over the Local Plan period. The PDSP, based on the GLA 2015 round of pupil suggests a need for between 16.5 to 19.5 FE over the Local Plan period to 2030. Over the next 5 years, 9FE will be required to address current outstanding need catered for in bulge / temporary accommodation and a further 5.6FE will be required up to 2020/21, totalling 14.6FE.

5.23 Projections beyond the 5 year timeframe for the remaining 10 years of the Local Plan will change over time and will be subject to future assessments. Whilst projections become less robust and further assessment will be required a further provision of 4.1FE is assumed for the 10 year period to 2030/31 (based on the projected increase in pupil numbers from the GLA 2014 projections, which are considered more robust over the longer period). The additional 4.1FE equates to 3% of primary provision.

²³ Response from Bromley College

²⁴ Draft Local Plan – For Development Control Committee July 2016

²⁵ Childcare Sufficiency – London Borough of Bromley October 2015

5.24 The Primary School Development Plan informs the Local Plan Education Background Paper (2016) and the Proposed Submission Draft Local Plan 2016 which outlines school expansions and proposed allocations for new schools

5.25 Sites appropriate for new primary schools or existing schools that can be expanded to address need are set out below in Table 5.1. In total, these proposals have the potential to provide the increased provision 18.7 FE required over the plan period.

Table 5.1 Proposals to meet primary need

Ward (Education Planning Area in brackets)	School	Forms of Entry (FE)	Expansion type
(1) Penge and Cator	St Johns	0.5	Expansion to existing school
(1) Crystal Palace	James Dixon	1	Expansion to existing school
(2) Kelsey and Eden Park	Marian Vian	1	Expansion to existing school
(2) Kelsey and Eden Park	Langley Park Schools	2	New schools/Sites
(3) Hayes and Coney Hall	Wickham Common	1	Expansion to existing school
(4) Bickley	Scotts Park	1	Expansion to existing school
(4) Bickley	La Fontaine	2	New schools/sites
(5) Bromley Common and Keston	Bromley Education Trust (BET)*, Hayes Lane	2	New schools/sites
(5) Farnborough and Crofton	Farnborough	1	Expansion to existing school
(6) Chislehurst	Bushell Way**	2	New schools/sites
(6) Chislehurst	Edgebury	1	Expansion to existing school
(7) Cray Valley West	Leesons	1	Expansion to existing school
(7) Cray Valley West	Midfield Site	1	Expansion to existing school
(7) Cray Valley West	Poverest	1	Expansion to existing school
(7) Cray Valley East	St Mary Cray	1	Expansion to existing school
(8) Orpington	Blenheim	1	Expansion to existing school
(9) Biggin Hill	Oaklands	Proposed expansion to meet existing need	Expansion to existing school
TOTAL		16.5 - 19.5 FE	

*Bromley Education Trust also identified as potential secondary Free School Site

** Only 1 FE if Chislehurst St Nicholas relocates

Source: London Borough of Bromley 2016

Secondary Schools

5.26 The borough currently has 118.8 secondary FE. GLA (2015 round) pupil projections forecast that 34 FE are required from 2015/16 to 2030/31, of which 2 Forms of Entry (FE) already have planning permission.

5.27 As previously indicated, the projections show an additional 15FE will be required by 2018/19. The increased need is anticipated to continue to a peak of 4,370 in 2022/23 requiring a further 17 FE, requiring a total further demand of 32 forms of entry in the secondary sector between now and 2022/23. It should be noted that these estimates do not make any allowance for a 5% uplift to allow for parental choice

5.28 There is therefore a pressing need to make allocations for secondary school provision. The Secondary School Development Plan informs the Local Plan Education Background

Paper (2016) and the Proposed Submission Draft Local Plan 2016 which outlines school expansions and proposed allocations for new schools

5.29 Proposals in the Local Plan have the potential to produce up to 37FE of which up to 21FE is obtainable without green belt releases for which exceptional circumstances must be shown (including 4FE on the Kentwood Site). Site proposals addressing need in the Local Plan are otherwise dependent on school size.

5.30 Sites appropriate for new secondary schools or existing secondary schools that have the potential to be expanded to address need during the plan period are set out below in Table 5.2.

Table 5.2 Proposals to meet secondary need (new schools/sites or expansions)

Ward	School	Forms of Entry (FE)	Expansion type
Bickley	Bullers Wood School for Boys	6	New schools/sites
Bickley	Widmore Centre	-	New schools/sites
Bromley Town	1 Westmoreland Road	6-8	New schools/sites
Bromley Common and Keston	Turpington Lane Allotments	6-8	New schools/sites
Bromley Common and Keston	Ravenswood	1	Expansion
Bromley Common and Keston	BET Hayes Lane	-	New schools/sites
Chislehurst	Land adjacent Edgebury Primary	8	New schools/sites
Chislehurst	Chislehurst School for Girls	1	Expansion
Farnborough and Crofton	Darrick Wood	1	Expansion
Penge and Cator	Kentwood Site	4	New schools/sites
TOTAL		Up to 37FE	

Note – BET – potential expansion of existing alternative provision or primary Free School Site
Bromley College have ministerial approval for a University Technical College (UTC 14 years+) which may come forward on 1 Westmoreland Road
Source: London Borough of Bromley 2016

Specialist Educational Facilities

5.31 There will be additional requirements over the plan period for specialist educational facilities, including alternative provision for pupils who, because of exclusion, illness or other reasons, would not otherwise receive suitable education. Proposals to address these additional requirements are set out in Table 5.3.

Table 5.3 Proposals to meet specialist education need

Ward	School	Forms of Entry (FE)	Expansion type
Bromley Town	1 Westmoreland	-	New University Technical College
Bromley Common and Keston	Bet Hayes Lane	-	Expansion of alternative provision
Cray Valley West	Midfield Site	-	Expansion of alternative provision or special school
Orpington	Burwood	-	Social, Emotional and Mental Health Specialism

Note – BET – also potential new primary or secondary school
Source: London Borough of Bromley 2016

Further Education

5.32 It is anticipated that with the continued population growth of children and young people aged 5 to 24 until 2031; further investment in new schools and the facilities/space they require will be needed. LSEC and Bromley Educational Trust (BET) are playing a role in meeting this need with the proposed opening of a new 11-19 Health and Wellbeing Academy, the expansion of Alternative provision schooling in the opening of the Bromley Futures Academy and through continued investment in the LSEC Bromley Campus.

5.33 LSEC have invested heavily in the past two years in Hospitality, Catering and Enterprise Careers College in Orpington with further investment and expansion this autumn

to the complete value of circa £7m by the end of this financial year (2016). This is viewed as a growth area for skills and employment across London and therefore continued investment will be required.

5.34 LSEC may offer increased specialism at level three and above across all sites in response to labour market shortages and growth industries. These include the Aviation and Aeronautical industries and LSEC is working strategically with Biggin Hill Airport and the London Borough of Bromley to develop a new Aviation Training Academy.

5.35 Other industries include, but are not limited to Construction, Automotive Engineering, Creative and Digital Skills, Business and Financial Services. It is anticipated that greater space will be needed to deliver these services.²⁶

Infrastructure Costs

5.36 The Council receives Basic Need Capital grant from the DfE to support the delivery of sufficient school places, with a total of £70.9m so far allocated for 2011-2018. Table 5.4 below includes the Basic Need Capital grant available inclusive of contributions from DfE Capital Maintenance grant and funds allocation within the Council's capital programme for the reconfiguration of special schools²⁷.

Table 5.4 Basic Need Capital grant available

2011-12 allocation	£4,496,771
Autumn 2011 exceptional in-year allocation	£1,277,936
2012-13 allocation	£2,404,519
Spring 2012 exceptional in-year allocation	£1,590,436
2013-15 allocation	£9,968,079
2015-16 allocation	£20,635,153
2016-17 allocation	£21,666,911
2017-18 allocation	£8,837,573
Contribution from DfE Capital Maintenance Grant underspend	£1,200,000
Transfer from Reconfiguration of Special Schools Scheme	£113,000
Total allocation to date:	£72,190,378

Source: London Borough of Bromley 2016

5.37 There are risks to the education programme. This includes the availability of funding from the Department of Education (DfE) in terms of Basic Need Capital Grant, as each Free School reduces the number of additional places required and funding the council receives. Furthermore, most schools in the borough have converted to academy status (or are in the process of doing so) and as such the council has received very little DfE capital maintenance grant. Bromley is currently limited in its ability to top up budgets using capital maintenance grants. The council has not allocated reserves or used prudential borrowing to support the creation of additional places²⁸.

²⁶ Response from Bromley College June 2016

²⁷ Basic Need Programme – Executive March 2016

²⁸ Basic Need Programme – Executive March 2016

Table 5.5 Infrastructure costs based on future need for places

Type of provision	Number of places	Estimated numbers of form of Entry	Average Build cost per place over all schemes	Total cost over Plan Period
Primary	561	18.7	£16,909	£26,733,129
& Secondary	1020	34		
SEN	Unknown	Unknown	£10,765	Unknown

Source: London Borough of Bromley 2016

5.38 The recent price index that informed the figures above is recent and does not include the early years of the programme when costs were generally much lower. The delivery of school places has now entered a phase where more expensive schemes are being delivered as the easier options have already been completed.

Funding Sources

5.39 The Council receives Basic Need Capital grant and Capital Maintenance grant from the Department for Education (DfE) to support the delivery of sufficient school places.

Within the Basic Need Capital programme are contributions from other capital funding programmes including Seed Challenge, Access Initiative and Suitability along with Section 106 contributions. Free schools, however, are funded centrally through the Education Funding Agency. This funding is allocated to established free schools for both revenue and capital purposes.

Table 5.6 Education Funding Gap

Funded through the Basic Need School Expansion Programme	Total cost	Funding Secured	Funding Gap
	£141,654,000	£85,535,000	£56,119,000

Source: London Borough of Bromley 2016

6. HEALTH

Definition

6.1 The definition of health as formulated by the World Health Organisation in 1948 is that *“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”*.

6.2 Health and Wellbeing Boards are part of the NHS reforms laid out in the Health and Social Care Act 2012. Health and Wellbeing Boards act as a forum where key leaders from the health and care system work together to improve the health and wellbeing of their local population and reduce health inequalities. They oversee the commissioning of most local health services such as GP surgeries, pharmacies, NHS dentists and opticians and hospital care.

6.3 The Health and Wellbeing Board is a collaboration between Bromley Council and various partner agencies whose role is to understand their local community’s needs, agree priorities and encourage commissioners to work in a more joined up way. This should result in patients and the public experiencing a more joined-up provision of services from the NHS and local councils in the future²⁹.

6.4 Health services in Bromley are planned and funded through the NHS Bromley Clinical Commissioning Group (CCG) which is a NHS organisation led by GPs with involvement from other healthcare professionals. The CCG works closely with its partners to set out the strategic context, drivers and vision for the development of the estate infrastructure that will underpin the delivery and transformation of health care in the Borough.

Existing Infrastructure Provision

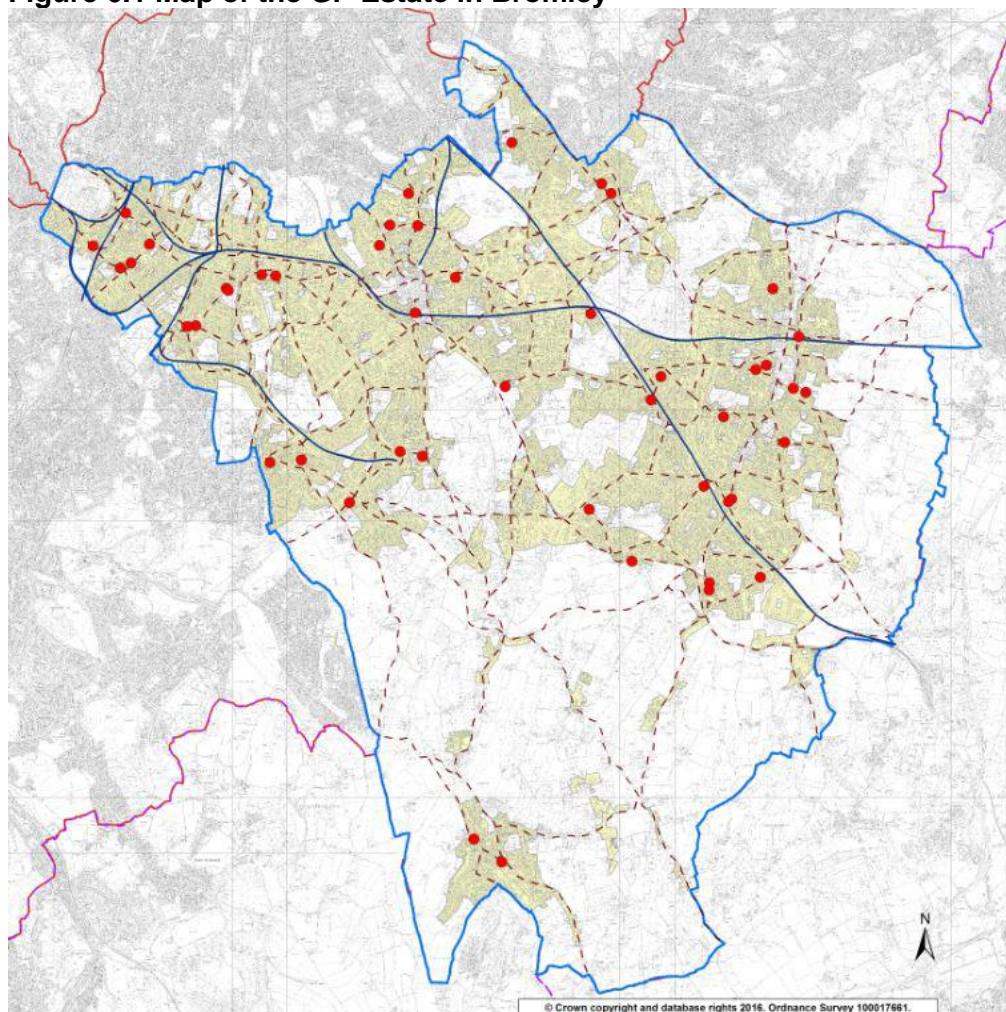
6.5 Existing facilities in Bromley include 45 General Practices (including 7 single handers) that operate from 48 sites of which 33 are converted residential or retail premises. There are 3 main health service providers with 42 occupations situated in 37 buildings. The main providers are as follows:

- King’s College Hospital NHS Foundation Trust (KCH) – Provides acute services from Princess Royal University Hospital and Orpington Hospital in the borough and some outpatient services from Beckenham Beacon.
- Bromley Health Care (Bromley Healthcare CIC) – a community investment company and provider of general community services.
- Oxleas NHS Foundation Trust (Oxleas) – mental health provider and provides some community health services for the borough and other parts of South London.

6.6 Other facilities in the Borough include 53 dental services, 62 pharmacies, 30 opticians and 70 care homes.

²⁹ <http://cds.bromley.gov.uk/mgCommitteeDetails.aspx?ID=617>

Figure 6.1 Map of the GP Estate in Bromley



Source: London Borough of Bromley 2016

Current Shortfall

6.7 The majority of GP practices are located in the North and Centre. The south of the borough has an aging population, but only has primary care facilities in Biggin Hill. Public transport in the south is limited and patients are reliant on cars and other private transport to access health services.

6.8 With the numbers of older people in Bromley rising, the health and social care provision needs to reflect the increased need.

Future Demand

6.9 Population density in a given location is a key driver in any investment decisions where the aim is to benefit the greatest number of people by deployment of scarce resources. The demand on health services in the London Borough of Bromley will be predominately driven by an ageing population. This will require services to work flexibly and at scale, to co-locate and integrate services and to maximise the efficiency of current estate. This is particularly the case where there is significant population growth, namely Bromley Town Centre.

6.10 The proportion of older people in Bromley (aged 65 and over) is expected to increase gradually from 17.7% of the population in 2015 to 17.9% by 2020 and 18.7% by 2025. The

pattern of population change in the different age groups is variable between wards; Biggin Hill in particular is experiencing a large rise in the proportion of over 75s³⁰.

6.11 People are living longer, but many live with long term conditions, such as diabetes, heart disease, high blood pressure and mental illness. The technical advances in diagnostics and treatments mean that the costs of providing care are rising faster than inflation each year.

6.12 Local Care Networks or Integrated Care Networks (ICNs) are being developed to support everyone across south east London. These involve primary, community, mental health and social care colleagues working together and drawing on others from across health, wider community services like housing and schools, and voluntary sectors. ICNs will focus on a number of agreed priority initiatives, such as improving access to community based services and preventative services that proactively manage patients, addressing inequalities, promoting self-management and the development of strong and confident communities.

6.13 It is NHS Bromley's vision to have three ICNs covering the borough, divided up by the Bromley Area Network, Beckenham Area Network and Orpington Area Network. To support the ICNs, it is proposed that there are a few large hub sites that can house a range of health, social care and other services. The CCG has identified potential hub locations at:

- Beckenham Beacon
- Orpington Health & Wellbeing Centre
- Bromley (town centre)

6.14 In addition, there will be a number of other buildings housing primary care and other services that may form part of the ICN for that part of the borough.

These could include:

- Orpington Hospital
- Phoenix Centre
- Princess Royal University Hospital (PRUH)
- Penge Health Centre

6.15 The CCG is reviewing its localities to understand how the demand on services in certain Wards will be accommodated either by the current health estate, other public sector estate or by new health infrastructure. Bromley will need three ICNs in the north, the centre and the south of the borough. Supporting hub and spoke sites are yet to be confirmed, but three schemes are being progressed as follows;

- Penge Health Centre – due to open in 2017 with 2 GP practices relocating
- Orpington Health & Wellbeing Centre due to open in 2019 with two practices relocating
- Bromley Health & Wellbeing Centre to be located on a site in Bromley Town Centre, and to incorporate the Dysart Surgery and potentially other services

Infrastructure Costs

6.16 The NHS set up the Healthy Urban Development Unit (HUDU) to coordinate spatial planning and health care provision across London. The HUDU model is designed to assess the impact of individual planning applications. The model calculates revenue and capital financial contributions. The capital cost of providing the required space; and the revenue costs of running the necessary services before mainstream NHS funding takes account of

³⁰ Bromley Joint Strategic Needs Assessment 2015

the new population. The Council currently seeks the capital element only to provide/enhance the physical space for healthcare through the use of s106 planning obligations.

6.17 As a guide using the predicted population growth in Bromley based upon GLA Demographic Projections, the HUDU model on the basis of 641 units per annum identifies capital costs of over £14.600m over the Local Plan period Table 6.1 refers.

Table 6.1 Health Capital Costs

Capital Costs	
Acute	£7.675m
Mental Healthcare	£0.676m
Intermediate care	£1.765m
Primary Healthcare	£4.489m
Total	£14.605m

Source: LB Bromley

6.18 NHS England is facing a financial challenge in many areas. Across all the six CCG boroughs in South East London, the overall spend on adult social care is just over £576m with further cost pressures of £132m by 2020/2021. The boroughs need to contain cost pressures and make budget reductions in their adult social care. Councils are working to transform services with health sector partners (source: South East London Sustainability and Transformation Plan³¹ October 2016).

Funding Sources

6.19 Within the terms of CIL Regulations 122 and 123, Section 106 financial contributions currently required by developers for major schemes and used to help fund community infrastructure such as additional health facilities with financial contributions are restricted to five pooled section 106 payments per piece of infrastructure. However, when a borough wide Community Infrastructure Levy (CIL) is developed, 'health' infrastructure, is likely to be listed on the Regulation 123 list of schemes.

6.20 The NHS England's Estates and Technology Transformation Fund (ETTF) (previously the Primary Care Infrastructure Fund) is a multi-million pound programme to accelerate the development of infrastructure to enable the improvement and expansion of joined-up out of hospital care for patients. This is part of additional NHS funding announced by the government in 2014 to enable the direction of travel set out in the NHS Five Year Forward View³².

6.21 GPs were invited to submit bids for investment in 2015/16, the majority of which have focused on making improvements in access to clinical services by extending existing GP premises. The criteria for 2016-19 has changed and only the larger scale projects have been put forward, which is different to previous years.

Infrastructure Costs

6.22 In 2016, NHS Bromley CCG put forward a bid for a new build premises for the Bromley Health and Wellbeing Centre. This bid has an estimated at a current cost of £8.5m and is now at a due diligence stage which will determine both the funding source and the level of funding which enables scheme delivery; work is likely to occur post 2018/19.³³

³¹ South East London: Sustainability and Transformation Plan Oct 2016

³² <https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf>

³³ <https://www.england.nhs.uk/commissioning/primary-care-comm/infrastructure-fund/2016-17-schemes/london-schemes/#london-tech>

7. OPEN SPACE

7.1 Open space is defined in the Town and Country Planning Act 1990 as land laid out as a public garden, or used for the purposes of public recreation, or land which is a disused burial ground. The greater proportion of the Borough comprises of over 50% open space of some description, varying from very small formal and informal urban open spaces and parks of great importance and highly valued to local communities (especially to those living in the more densely developed areas of the borough), to natural countryside and farmland. Planning policies act to protect open space.

7.2 Playgrounds and sports facilities are dealt with separately in this document under the Community Facilities section. This is in accordance with the Mayor of London's 'Play and Informal Recreation SPG' which offers indicative guidance to London boroughs for calculating play space and should be used in addition to other standards for 'Open Space'.

Existing Infrastructure Provision

7.3 The Borough has just over 9000 hectares of Green Belt or Metropolitan Open Land (MOL), 120 miles of public rights of way, and over 2,900 acres of council-owned parks and open space. It is estimated that there is about 4 hectares of publicly accessible open space per 1000 of the population.

7.4 Local Nature Reserves (LNRs) are for both people and wildlife. They are places with wildlife or geological features that are of special interest locally. They offer people special opportunities to study or learn about nature or simply to enjoy it and are therefore equally important for both conservation and recreation. There are five designated Local Nature Reserves (LNR) in LB Bromley: -

Jubilee Country Park (near Petts Wood)
Scadbury Park, Chislehurst
High Elms Country Park (south of Farnborough).
Darrick & Newstead Woods
Hayes Common, Keston Common, Ravensbourne Open Space & Padmall Wood
(Combined)

7.5 Management plans have been prepared for each of these sites. These provide a framework for the work carried out by the rangers, conservation volunteers and Friends Groups and ensures that different habitats, their characteristic species – including those like Stag Beetles, Glow Worms, Butterflies, Great Crested Newts and Skylark for which there are action plans in the Bromley Biodiversity Plan or London Biodiversity Partnership Plan³⁴ – are taken into account, whilst ensuring that each reserve provides an accessible green space for local people.

7.6 The South East London Green Chain walk comprises a 40 mile network of footpaths through a number of open spaces in a variety of ownerships, and largely in recreational use, these are accessible to the public, and extend in a virtually continuous arc from the Thames, through the London Boroughs of Bexley, Greenwich, Lewisham, Southwark and Bromley. The London Plan states that "Green Chains are important to London's open space network, recreation and biodiversity³⁵."

³⁴ <http://www.gigl.org.uk/londons-biodiversity-action-plan/>

³⁵ London Plan para 7.56 and Policy 7.17, and Local Plan draft Policy 54

7.7 London Borough of Bromley coordinates the management and maintenance of parks across the borough through commissioned contractors, in conjunction with 'friends' groups based at specific sites across the Borough³⁶.

7.8 There are 57 Local Parks in LB Bromley totalling 524 hectares, and an additional 25 Natural and Semi Natural (NSN) open spaces (459 hectares) which function as parks.

7.9 The London Plan Policy 7.18 Protecting Open Space and Addressing Deficiency, categorises public open space as shown in the following table, London Borough of Bromley data has been added on right hand side column:-

Table 7.1 Public Open Space Categorisation

Open Space categorisation	Size Guide-line	Distances from homes	Number in LB Bromley
Metropolitan Parks Large areas of open space that provide a similar range of benefits to Regional Parks and offer a combination of facilities at a sub-regional level, are readily accessible by public transport and are managed to meet best practice quality standards.	60 hectares	3.2 kilometres	5
District Parks Large areas of open space that provide a landscape setting with a variety of natural features providing a wide range of activities, including outdoor sports facilities and playing fields, children's play for different age groups and informal recreation pursuits.	20 hectares	1.2 kilometres	15
Local Parks and Open Spaces Providing for court games, children's play, sitting out areas and nature conservation areas.	2 hectares	400 metres - 10 minute walk time	57
Small Open Spaces Gardens, sitting out areas, children's play spaces or other areas of a specialist nature, including nature conservation areas.	Under 2 hectares	Less than 400 metres	43
Pocket Parks Small areas of open space that provide natural surfaces and shaded areas for informal play and passive recreation that sometimes have seating and play equipment.	Under 0.4	Less than 400 metres	16
Linear Open Spaces Open spaces and towpaths alongside the Thames, canals and other waterways; paths, disused railways; nature conservation areas; and other routes that provide opportunities for informal recreation. Often characterised by features or attractive areas which are not fully accessible to the public but contribute to the enjoyment of the space.	Variable	Wherever feasible	-

Source GLA 2016

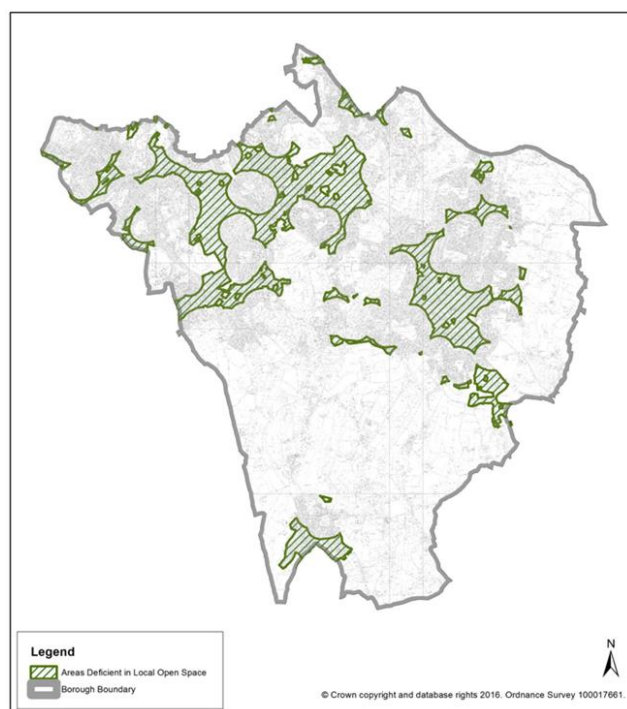
Current Shortfall

7.10 There is currently sufficient per capita provision of public open space within the borough, relative to similar local authority areas and the national standard³⁷. Shortfalls have

³⁶ http://www.bromley.gov.uk/directory/4/parks_in_bromley

been identified in access to existing public open space and vary by borough location. Figure 7.1 below highlights in green, the areas of the borough which are further than 400m (10 minute walk) to a local park or open space. The assessment of the quality of the Metropolitan, District and Local Parks across the Borough, undertaken as part of the Local Plan evidence base, shows provision to the west is largely high quality, but the provision to the east of the Borough is in greater need of improvement.

Figure 7.1 Local Open Space Deficiency 2016



Source: London Borough of Bromley data 2016.

Table 7.2 Quantitative need – Amenity Green Space

Year	Population	Current provision (hectares)	Provision (hectares per 1000)	Quantity standard (hectares per 1000)	Overall hectares needed (shortfall)
2016*	321,680	45.49	0.141	0.16	-5.98
2030*	323,505	45.49	0.141	0.16	-6.27

*Based on GLA 2015 round SHLAA population projections

Future Demand

7.11 When the quantity standard is applied across the Borough, it demonstrates that while current provision is almost sufficient to meet demand, population growth will generate higher shortfalls if amenity green spaces are not provided as part of new development.

7.12 Any new projects that are connected to open space are often delivered alongside transport schemes (walking and cycling) or related to leisure activities (see also the 'Community facilities' at Chapter 8).

³⁷ Planning and Design for Outdoor Sport and Play (formerly the Six Acre Standard); Fields in Trust (formerly the National Playing Fields Association) 2008. [LBB = 2.14 ha per 1,000 population]

7.13 The intensification of use of the open space generally will also put pressure on the resources for maintenance and upgrade of that space. The amount of publically-owned open space is unlikely to be increased as the Council is not in a position to take ownership of additional space. The Council and its partners will therefore invest in improving and maintaining the quality of existing space.

7.14 There is however the potential to expand privately owned public open space as development potential is realised and sites are built out, particularly in areas where there is an identified deficiency in open space (Figure 7.1).

Infrastructure Costs

7.15 Costs for upgrading playground facilities are obtained on a case by case basis; these may be for replacement or maintenance costs or for where an area has a deficit of play facilities.

Funding Sources

7.16 On a site by site basis, Section 106 contributions have been a source of funding towards schemes for open space improvements or management plans and this practice is likely to continue. Therefore, any improvement to open space provision needed as a result of development would be secured through planning conditions or funded by the developer through Section 106 agreements.

8. COMMUNITY FACILITIES

Leisure, Cultural, and Burial Services

Definition

8.1 Community facilities make an essential contribution to the health, wellbeing, development and education of individuals living and working in the Borough. There are substantial health benefits associated with access to community and leisure facilities, including not just physical health, but also better mental health, through increased social interaction. The National Planning Framework highlights the important role of planning in facilitating social interaction and creating healthy, inclusive communities.

Existing Infrastructure Provision

8.2 A range of different services and facilities are provided for leisure and cultural purposes by the council; others are private concerns. Of the public, these include leisure centres, swimming pools, sport pitches, libraries, play spaces and community halls. Some leisure and cultural facilities in the London Borough of Bromley are managed through contracts with external service providers.

8.3 Currently, facilities in the Borough include:

- 14 libraries (collections from the former Bromley Museum in Orpington are now displayed at the Central Library Bromley)
- 1 Museum at Crystal Palace (Charitable Trust)
- 13 public leisure centres including swimming pools
- 8 cemeteries (6 managed by the council)
- 26 sports halls
- 52 allotment sites
- 67 playgrounds
- 21 Outdoor Sports Facilities
- 2 Theatres
- 3 Cinemas (plus a further 2 with planning permission)
- Crofton Roman Villa (managed on behalf of the London Borough of Bromley by Kent Archaeological Rescue Unit)

A new Heritage Centre is being developed subject to planning permission, (refer to the Heritage Assets Section) for the Biggin Hill Memorial Museum.

8.4 The 52 allotment sites are supported by the independent Bromley Allotment and Leisure Garden Federation (BALGF) and the Bromley Leisure Gardens and Allotments Consultative Panel³⁸. The 1969 Thorpe Report (Departmental Committee of Inquiry into Allotments) recommends a minimum provision equivalent to 15 per 1,000 households. There are almost 30,000 plots in Bromley (private and public), this equates to about 21 plots per 1,000 HH (2014 ONS HH projections) and there are waiting lists for plots.

Sport facilities

8.5 Sport England (Active Places Power) 2016 confirms that the London Borough of Bromley has a total of 465 pitches. The current provision is equivalent to 1.28 pitches per 1,000 of the population (using ONS MYE figures for 18+). Table 8.1 shows the breakdown of public and private grass pitches.

³⁸ www.bromleyparks.co.uk

Table 8.1 Sport England 2016 breakdown of all grass pitches both public and private.

Type	Number of pitches
Cricket	59
Full sized Football	162
Hockey	6
Junior Football	90
Junior Rugby League	1
Junior Rugby Union	7
American Football	1
Mini Soccer	56
Rounders	26
Senior Rugby Union	57
TOTAL	465

Source- Sport England 2016

Table 8.2 Other sports facilities in the London Borough of Bromley*:

Facility Type	No. of pitches	Information	Recommended accessibility (km)
Pitches –all types	465	Including over 285 <u>full</u> size grass pitches	720m (15 min walk) to grass pitches and tennis courts
Tennis Courts	197	This includes 7 indoor and 190 outdoor.	
Bowling Greens ³⁹	21	Current provision is equivalent to 0.06 greens per 1,000 of the population.	15 minute drive to synthetic turf pitches, athletics tracks, bowling greens and netball courts
Synthetic Turf Pitches	49	No breakdown between full-size and 5 a-side pitches	
Synthetic Athletics Tracks	2	Both public	
Golf Courses	9 Eighteen hole and 4 Nine hole Public and Private and Commercial courses,	This includes two par three courses and 3 driving ranges providing 94 bays. Provision is significantly above the regional average.	8km (30 min drive) to golf courses

Source: Sport England and LB Bromley data 2016 .

*Additionally, just outside the Borough there is an 18 hole golf course at Broke Hill (between Orpington and Sevenoaks), and at Croydon there is a driving range with 24 bays.

Play and fitness

8.6 The Borough has 67 playgrounds for children, most of which are located within one quarter mile from their homes. For teenagers, there are six dedicated skateboard facilities, ten Multi-Use Games areas and a dedicated BMX facility in Mottingham Woods. There are also two paddling pools along with one boating pool for family recreation, whilst adult fitness is provided by two pilot Outdoor Gyms at Tugmutton Common and Betts Park.

³⁹ <https://www.bowlsengland.com>

Libraries and Community facilities

8.7 Bromley Libraries currently operates a network of 14 Libraries, additionally electronic book borrowing facilities and computers are available at Anerley Town Hall. The Library service is statutory under the Public Libraries and Museums Act 1964 and is currently funded and provided by the London Borough of Bromley. The Home Library Service operates in partnership with Royal Voluntary Service (RVS) and the back office management functions are provided by a shared service partnership with the London Borough of Bexley, which also delivers the Local Studies and Archive Service. This commenced in January 2012.

Burial grounds

8.8 The London Plan states that boroughs should ensure provision is made for London's burial needs, including the needs of those groups for whom burial is the only option. Provision should be based on the principle of proximity to local communities and reflect the different requirements for types of provision. The London Plan Social Infrastructure⁴⁰ SPG (May 2015) notes that decisions made about what happens to remains are often influenced by a persons' faith; this can vary significantly by faith. Consequently, this has implications for the amount of land each local authority will need to provide for burials.

Current Shortfall

Sports facilities

8.9 Geographical variations in provision across the borough broadly reflect the varying development density characteristics. An audit of open space facilities is being undertaken and will be used to inform future reviews of the IDP.

Play and fitness

8.10 The London Plan Social Infrastructure SPG states that "*Many children do not have adequate access to play areas and some existing provision across London is not fit for purpose*"⁴¹. The benchmark standard recommends a minimum of 10sq/m of dedicated play space per child. In Bromley, there is currently 1261 hectares of accessible recreation play areas in the borough, which equates to 16sq/m per child, but there are distinct areas in the borough where there is a deficiency of play space facilities – see Figure 8.1 diagram. Subject to funding, a new BMX track facility is proposed at Norman Park, and also under review are improvements to playgrounds or equipment at various locations in the Borough⁴².

Libraries and Community facilities

8.11 Where some Council owned facilities/sites have been functioning in aging buildings, in the short to medium term, two library sites (Chislehurst and St Paul's Cray) are set for re-provision subject to planning permission, under plans to fully utilise these sites, to provide new residential units and create new community facilities including at the St Paul's Cray proposed allocation site at Chipperfield Road, a new Linear Park and a new Gymnastics Centre.

⁴⁰ London Plan Social Infrastructure (May 2015)

⁴¹ Mayor of London SPG; Shaping Neighbourhood: Play and Informal Recreation 2012

⁴² <http://bromleyparks.co.uk/wp-content/uploads/2016/08/160704-Q2-Forward-Plan-Action-Plan.pdf>

Burial grounds

8.12 Bromley is a borough of all faiths and none; an audit was undertaken by the GLA in 2011 of Burial Provision⁴³. The audit report considered that Bromley is one of five London boroughs with 10-20 years supply of burial space.

Future Demand

Sports facilities

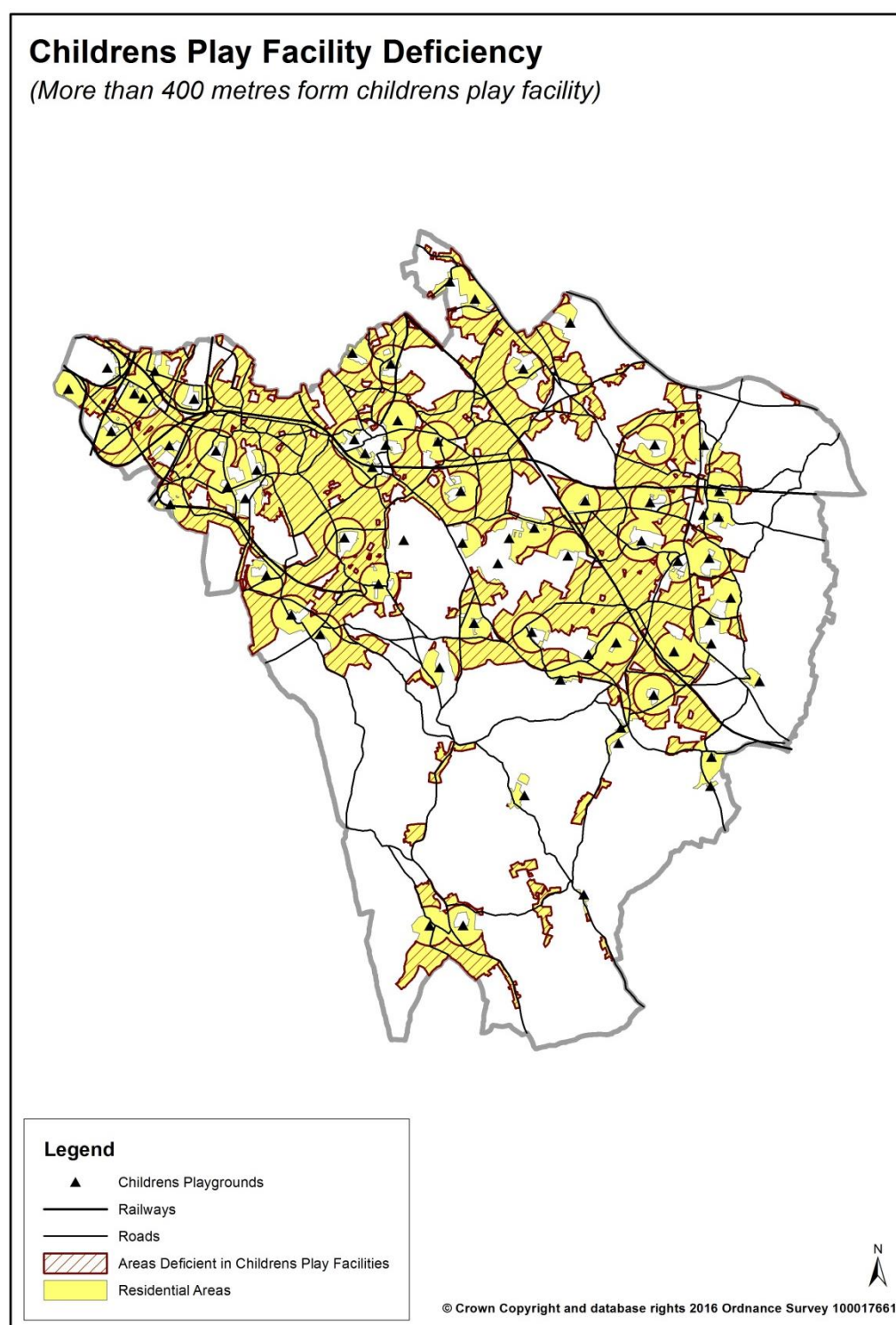
8.12 The promotion of health and wellbeing of those living and working in the Borough is a strategic aim for the Borough. Engaging with providers and agencies to ensure the provision, enhancement and retention of a wide range of facilities for sports is crucial means of improving quality of life.

Play and fitness

8.13 Where there are deficits of play facilities in the Borough (see map at Figure 8.1 page 45) or where there are facilities that may require upgrading or maintenance of playground equipment, then these will be reviewed in the light of the impact of schemes that arise over the life of the plan.

⁴³ <https://www.london.gov.uk/file/5284> Rugg, J. and Pleace, N. (2011) An Audit of London Burial Provision, London: GLA.

Figure 8.1. Map of Childrens Play Facility Deficiency



Source London Borough of Bromley 2016

Libraries and Community facilities

8.14 Subject to planning permission the existing Chislehurst Library site could be re-developed. The plans are for a new modern purpose built library on the first floor with retail space on the ground floor. The development opportunity at Chislehurst allows for a purpose built new modern library of equivalent size to the existing library; experience elsewhere in

the borough shows that where libraries are modernised and refurbished to a high standard, use significantly increases and remains higher than prior to any development works.

8.15 Whilst at Chipperfield Road, St Pauls Cray, subject to planning permission, a development opportunity aims to create a new modern leisure and community hub, incorporating a library and community learning shop whilst simultaneously creating a new gateway to Cotmandene Crescent shopping parade. It could bring together under one roof the existing services which are currently being delivered from a disparate range of aging buildings. A formal application is yet to be submitted, and is likely to cost around £1m, being delivered post 2018.

Burial grounds

8.16 It is difficult to predict how demand for internments and cremations may change over time and any significant new proposals for burial sites would likely be confined to land with Metropolitan Open Land or Green Belt designations. There is capacity in the council's cemeteries at Biggin Hill and St Mary Cray for the period of the plan and there is substantial capacity at the private Kemnal Park Cemetery and Memorial Gardens.

Infrastructure Costs

Sports facilities

8.17 For the development of a new BMX track at Norman Park which is subject to funding available from delivery partners, costs are estimated to be in the region of £3000k.

Play and fitness

8.18 Subject to planning permission the library re-development at Chipperfield Road, St Pauls Cray, could include re-provision of Bromley Valley Gym Club, this is on Council owned land and costs are not currently defined as the scheme has only just concluded the feasibility stage. Specific costs and funding for playgrounds/equipment projects is under review.

Libraries and Community facilities

8.19 Subject to planning permission a replacement Chislehurst Library could be delivered at no cost to the Council as part of a broader mixed use development; however costs for fit out could be in the region of £1m. Whilst at St Pauls Cray Library, costs are likely to be in the region of £5.5m dependent on the value of the capital asset.

Burial Grounds

8.20 No current infrastructure costs identified.

Funding Sources

8.21 In the case of community halls/facilities, the scale of individual developments is often insufficient to justify a complete new facility. Where larger sites are developed in areas of existing deficiency, there may be more opportunities to justify provision. If development creates a need to replace an existing community facility or exacerbates existing deficiencies, then this will be considered on a case by case basis.

8.22 For the library regeneration schemes (subject to planning permission) that are planned in the short-medium term, funding will be through a combination of capital, and from delivery partners.

8.23 S106 planning obligations may be used and in the life of the plan, and it may be that CIL is used if projects fall to be listed under the Regulation 123 list. For provision and improvement of community facilities in a particular catchment area where development occurs, the local neighbourhood element of CIL (15%) could be allocated and used.

9. HERITAGE ASSETS

Definition

9.1 The NPPF encourages the conservation of *heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations*⁴⁴. A heritage asset can be a landscape, place, building, monument or feature that has been identified as having special architectural or historic interest. Heritage assets in the borough range from nationally and locally listed building to ancient monuments and sites, and include Conservation Areas.

Existing Heritage Provision

9.2 At present, borough heritage provision includes:

- 9 Scheduled monuments
- 28 Areas of Archaeological Significance
- 621 Statutory listed and 2153 locally listed buildings
- 45 Conservation Areas
- 5 Registered Historic Parks and Gardens

9.3 Historic England maintain the Heritage at Risk (HAR), which includes all listed buildings, places of worship, monuments, parks and gardens, conservation areas, plus other heritage categories which are assessed as being vulnerable through poor condition and or vacancy. The HAR Register 2016 lists 26 sites within the Borough that have been determined as being at risk.

9.4 Whilst heritage assets may be in varying states of repair, they should be both maintained and protected by their respective owners. The Council encourages the protection of heritage assets, therefore maintaining the contribution that they make to our culture and quality of life. When a heritage asset undergoes neglect or inappropriate alterations, the Council has a number of tools and powers available to help remedy the situation, including the planning and legal systems. This may involve ongoing and ad hoc actions by the Council towards the owner(s) of historic assets, for example in the assessment of planning applications, provision of advice to owners, maintenance of the public realm and enforcement action to cease or remedy inappropriate alterations.

9.5 There are also specific projects which the Council have identified that aim to proactively improve heritage assets. These are detailed at appendix 1) for which the Council have specific projects planned; these are at Crystal Palace and Biggin Hill.

Current Projects

Crystal Palace Park

9.6 Crystal Palace Park is a Grade II* historic registered park and garden designed by Sir Joseph Paxton. The 200 acre park was created between 1853 and 1855 with spectacular water features, a grand terrace to house the 1851 Crystal Palace relocated from Hyde Park (burnt down in 1936), a central axis and models of pre-historic monsters/dinosaurs that are Grade I listed. The site was designed to impress, educate, entertain and inspire and was an international attraction. The iconic dinosaurs were the Victorians' answer to Jurassic Park. Sculptor and fossil expert Benjamin Waterhouse Hawkins and founder of the Natural History

⁴⁴ NPPF para 17

Museum Richard Owen erected the model dinosaurs when the park first opened. They were the first artistic representations of dinosaurs of their size and have been enjoyed for over a century. In the 1960s sporting significance gave additional heritage interest and the National Recreation Centre is Grade II* listed.

9.7 However, this is a large and complex park with the 19th and 20th century legacies competing with each other⁴⁵. Many of the built features associated with the original 'Crystal Palace' are now in a deteriorating condition. Crystal Palace Park was added to the London HAR in 2009. The grade II listed terraces; the railings along Crystal Palace Parade and the pedestrian subway are also at risk. The park is now owned and managed by the London Borough of Bromley together with the Greater London Authority (GLA). Informed by a condition survey funded by Historic England, the six sphinxes which flank the terrace steps will be repaired. The dinosaur sculptures most in need of conservation will also be prioritised for repair. Visitors will also be able to view and better appreciate the sculpture from a new café terrace.

9.8 These initial projects will help protect the grandeur of the original design by Paxton. Works are expected to be complete by March 2017, but given the scale and complexity of Crystal Palace Park, the £2.4m project is only the start and future projects are envisaged over the Local Plan period 2016-2031.

Biggin Hill Heritage Centre

9.9 Royal Air Force (RAF) Biggin Hill is designated as a Conservation Area, and is one of the most famous military airfields in Britain. The name Biggin Hill has entirely eclipsed the former name of the adjacent village, once known as Aperfield. Along with Historic England, the Council is supporting the development of a Conservation Area Management Plan for the area to ensure preservation of heritage assets. Creating the Biggin Hill Memorial Museum to keep the memory of the Battle of Britain alive, as well as preserve the Chapel are in progress. Biggin Hill opened on 14 February 1914, using eighty acres of high meadowland, formerly in the ownership of the Earl of Stanhope's Cudham Lodge Estate. The site was chosen because its elevation raised it above the mists that affected lower lying areas and interfered with flying. Use by the RAF for flying ceased in 1959, after which the runways were transferred to civil control, use of the ground facilities ceased in 1992, leaving many of the buildings vacant. A conservation area was designated in June 1993, with the strong support of Historic England and a number of RAF veterans associations. It incorporates the best remaining examples of airfield architecture associated with the RAF presence.

9.10 When the project is completed in late 2018, there will have a large shop/café, designed to complement the already present lookout café, on the opposite side of the airfield. This will be free to enter, as will the chapel, as it will still have a community and religious function. The museum itself will be more than double the size of the chapel, and should allow visitor flow through the site to encourage customers to visit all the parts of the site. It will include various sections, based around –

- Display – object display, AV and handling objects, supported by hand-held digital interpretation.
- Hand held interpretation – paper trails and hand held interpretation only.
- Experiential – minimal text, scene setting, projection and sound.

Infrastructure Costs

⁴⁵ Historic England Crystal Palace Park Case Study Oct 2015

9.11 The owner (whether private or public) of a Heritage asset is liable for costs associated with that HAR assets, these will relate to their condition and potential use.

Crystal Palace

9.12 The Council and the Mayor of London have committed a total of £2.4 million capital to improve the park, in line with the Sustainable Regeneration Plan currently being drawn up by consultants, and with the Heritage Lottery Fund (HLF) also contributing.

Biggin Hill Heritage Centre

9.13 The total cost of delivering the preferred scheme will be £5,177,000. The breakdown of the estimated costs and potential funding committed can be found below. The total spend currently committed by the council is £106,000, with further match funding of £250,000 required in order to bring forward the Heritage Lottery Fund (HLF) funding of £1,850,000. This will bring the councils total spending to £356,000.

There will also be further funding:

- £2,000,000 from the Treasury
- £968,000 form S106 monies
- £3,000 from the Biggin Hill Memorial Trust

Ongoing funding for the centre should be provided through the donations of the 25,000 projected visitors, which is likely to be a conservative estimate, along with an adult entry charge of £7.50 for the museum.

Funding Sources

9.14 Future projects or phases are envisaged over the Local Plan period 2017-2031, these will be clarified in future iterations of the IDP, however funding sources for the current projects are:-

Crystal Palace: LB Bromley, GLA, and Heritage Lottery Fund. Future projects are envisaged over the Local Plan period 2016-2031.

Biggin Hill Heritage Centre: Section 106 financial planning obligations, LB Bromley Capital, Heritage Lottery Fund, and the Treasury.

10 PUBLIC REALM

Definition

10.1 The public realm in the context of this IDP section consists of streets, squares, hard and soft landscaping between buildings. It is where public activity takes place; where people walk, drive, and cycle, meet and interact. The public realm plays a vital role in the connectivity and legibility of a place and an attractive, efficient and good quality public realm can help facilitate regeneration and growth in an area. The public realm is an important aspect of any development and ensures that the development is integrated into and enhances the existing character and use of the area.

Existing Provision

10.2 The Council will seek to identify there is a demonstrable need for significant improvements to the public spaces in and around development sites, town centres and local parades. In line with the priorities of 'Building A Better Bromley', the Council will actively seek to implement and/or promote public realm improvement strategies and programmes within these areas with the objective of encouraging inward investment, improving the vibrancy and vitality of town centres and local parades and uplifting the quality of the physical environments around development sites. Projects will be commissioned subject to the availability of funding which may be sourced from developer contributions, Transport for London implementation programmes, central government funding schemes for e.g. New Homes Bonus Fund or internally funded by the Borough through its Growth Fund.

10.3 Project work streams would include:

- Improved public spaces that support community use, local events and markets
- New and or replacement high quality contemporary paving
- Kerbside and carriageway improvements
- Upgraded pedestrian and street lighting
- New and improvement street furniture
- New and/or replacement public and street trees and planters
- Wayfinding improvements which include the implementation of 'Legible London' signs, heritage plaques, welcoming signage and murals
- The lighting of strategic building and points of interest in town centres
- Shop front improvement programmes

Current Projects

10.4 Projects that have been identified and are currently underway include public realm improvement schemes for:

- Bromley Town Centre High Street (£3.1m),
- Beckenham Town Centre (£4.4m),
- Penge Town Centre (£1.1m),
- Orpington Walnuts Shopping Area (£850K).

10.5 The planned improvements for *Bromley High Street* were driven by the successful Bromley North Village Improvement Scheme which was based on a policy of the Bromley Town Centre Area Action Plan⁴⁶ and jointly funded by the Council, TfL and the Mayor of

⁴⁶ Bromley Town Centre Area Action Plan adopted 2010

London. It was always envisioned that a further stage of the programme would involve improvements to the central High Street area and uplift in the public realm would support various forthcoming development opportunities planned for the town centre. This scheme is currently funded by the Council with contributions to be pooled from major developments coming forward in the town centre.

10.6 In *Beckenham Town Centre*, it was identified that the High Street lacks coherence and legibility with tired and outdated public realm that also lacked connectivity between its main destinations and public spaces. The High Street was perceived to be undergoing economic pressure and decline linked to falling pedestrian footfall, particularly during the daytime which was accentuated by the substantial loss of office floor space. Based on this, the Council made a successful bid to TfL to undertake a Major Improvement Scheme that would attract inward investment into the day and night time economy and improve community safety, amenity, legibility and coherence of the public realm to increase footfall and cycling and the waiting experience of bus passengers.

10.7 *Penge Town Centre* was also suffering from similar issues in terms of lacking coherence, legibility and connectivity between its major rail stations and public spaces. The two town squares suffered from poor quality public realm and the pavement on the High Street is dated and tired. The New Homes Bonus Top slice Fund has provided the Council with the opportunity by means of funding to address this and a major programme of improvements is underway.

10.8 The New Homes Bonus Top Slice Fund along with the Mayor's High Street Fund and Developer Section 106 contributions are also being used to fund major improvements to the Walnuts Shopping area in *Orpington Town Centre* which has recently seen an uplift in vibrancy in terms of the opening of a 7 screen multiplex cinema, a 61 bed hotel and a future high quality 83 unit residential development. The quality of the public realm which was dated and impractical needed to be upgraded to match the high quality development and anticipated increased vibrancy of the area.

Future Demand

10.9 Economic growth is a priority for the Borough and it is envisioned that future growth comprising of increases in the retail offer, employment workspaces and residential developments in the town centres would in turn increase pressures on the physical environment. Public realm improvements would be a necessary means to minimise, eliminate or mitigate against the negative impacts of these pressures and such mitigation may be required to cover aspects such as quality and durability of the public realm, access and connectivity, community safety and other matters integral to improving the quality of the environment for users and residents of these areas. As future work streams for growth are identified, it is anticipated that there may be future public realm improvement projects required to meet this need, subject to the availability of funding through the channels discussed above.

10.10 It is appropriate that the CIL or S106 planning obligations for public realm improvements are sought from developments within town centres in order to address the localised impacts of introducing new residents and visitors to an area. It is necessary and reasonable for all new development coming forward within a town centre locality to contribute towards public realm improvements that go beyond a specific site boundary.

Infrastructure Costs

10.11 It is anticipated through the analysis of expenditure on previous and current projects and factoring increases in the costs of materials and labour, for which the yearly cost of future public realm projects borough wide would be in the region of £2m per annum. Over the Local Plan period 2016-2031, this funding will be required to maintain and/or update the public realm in Town Centres. To date, the Council is planning a £4.1m upgrade to the public realm of Bromley High Street which is included in the wider regeneration strategy for Bromley town centre and as part of an ongoing process, the Council will be identifying future potential projects in locations in Bromley, Beckenham, Orpington, Penge, West Wickham and Crystal Palace town centres (details of these projects will be provided in future iterations of the IDP Schedule). This strategy is line with the Council priorities of supporting 'Vibrant and Thriving Town Centres' and providing a 'Quality Environment'.

Funding Sources

10.12 Most schemes have previously been funded either internally or through external sources, such as the New Homes Bonus, Outer London Fund, High Street Fund, and supplemented by developer contributions through the S106 process. To date, this has been an efficient method of funding delivery of these schemes particularly where there has been a certainty of a timely delivery of these projects. In light of reduced funding being made available from Central Government and funding pressures from other Council priorities, it is likely that funding for public realm projects relating to the enhancement of the appearance, safety and security of the general public realm, particularly in Town Centres, be included in the CIL Reg 123 list.

10.13 It is also expected that provision be made to allow s106 obligations to continue to be a source of funding for public realm improvements provided within a development site or in the project being undertaken in the vicinity of the development to mitigate against the negative impacts of the development, subject to pooling regulations.

11. EMERGENCY SERVICES

Definition

11.1 Emergency services in Bromley consist of the Metropolitan Police, the London Fire Brigade, and the London Ambulance Service. The Metropolitan Police and the London Fire Brigade both have divisions within Bromley, whereas the London Ambulance Service functions as part of a London-wide NHS trust.

Existing Infrastructure Provision

Metropolitan Police

11.2 Bromley's main deployment base is Bromley Police Station, located in Bromley High Street. The majority of staff, including all of the Emergency Response Teams, investigative teams, Neighbourhood Tasking Teams, and custody facilities are based here. In addition, Designated Ward Officers and Police Community Support Officers are based in Safer Neighbourhood bases in St Mary Cray, Biggin Hill, West Wickham and Beckenham. The Metropolitan Police Service (MPS) sets the number of officers that are deployed within each of the Borough Command Units in London.

London Fire Brigade

11.3 There are four fire stations in the borough; Bromley Town Centre, Beckenham, Biggin Hill and Orpington. The fire service operates across boundaries and sends its resources to the nearest emergency irrespective of borough.

Ambulance Service

11.4 The 999 service provided is purchased by Clinical Commissioning Groups, and performance is monitored by NHS England. The London accident and emergency service is split into three operational areas; west, east and south with 70 Ambulance Stations. There are three ambulance stations in the borough, at Crown Lane Bromley, Beckenham Road Beckenham, and Chipperfield Road St Pauls Cray⁴⁷.

Current Shortfall

Metropolitan Police

11.5 There are no shortfalls in infrastructure currently reported. The service is dealing with over 20,000 reported criminal offences and approximately 34,000 emergency and non-emergency calls (to 999 and 101 numbers) per year.

London Fire Brigade

11.6 The fire service has maintained its existing target of getting a first fire engine to an emergency within an average six minutes; the second fire engine, when needed, within an average of eight minutes; and to get a fire engine anywhere in London within 12 minutes on 95% of occasions.

⁴⁷ <http://www.londonambulance.nhs.uk/>

Ambulance Service

11.7 Targets are set by Government and 75% of Category A calls are to be answered within 8 minutes and 95% of Category A calls within 19 minutes. In the year 2015/16 across London, medics attended 504,685 patients with life-threatening conditions.

Future Demand**Metropolitan Police**

11.8 The Police are currently structured in a borough-based model that is replicated across all 32 boroughs in London. This may change from 2016/17 to a 12-14 Basic Command Unit structure, subject to approval from the Mayor of London as the MPS police authority. There is no local ability to increase the resources in Bromley in response to population growth or other development. This is a MPS strategic decision taken in light of anticipated growth across London.

London Fire Brigade

11.9 Standard of service is linked to response times and does not directly correlate with expected growth patterns. Although increased levels of development are likely to increase the number of incidents the fire service must respond to, the most recent London Safety Plan does not highlight any foreseeable infrastructure demands arising from forecasted growth in the borough over the Plan period.

Infrastructure Costs

11.10 There are no infrastructure costs identified for either the Metropolitan Police or the London Fire Brigade.

12. ENERGY AND LOW CARBON

Definition

12.1 Minimising energy consumption and supplying power from sustainable sources is a key aim within the London Plan, as established by the energy hierarchy⁴⁸. It is intended that this will help mitigate the impacts of climate change. One such method is through Decentralised energy; a term not widely understood, but broadly refers to energy that is generated off the main grid, including micro-renewables, heating and cooling⁴⁹. The changes required to achieve sustainable development will have implications upon existing infrastructure and require new developments to utilise energy networks and in some cases, provide new energy sources. Applicants for planning permission are required to set out how any proposals will apply the following energy hierarchy:

- Be lean: use less energy
- Be clean: supply energy efficiently
- Be green: use renewable energy

Existing Infrastructure Provision

12.2 Reducing energy consumption can be achieved with efficient building design and operation and therefore has infrastructure implications. This will be delivered through the Local Plan policies and national building regulations. Existing buildings in the borough will already have a range of efficiencies built in, depending on the policies and regulations they were subject to at the time of planning and construction.

12.3 Creating Decentralised Energy (DE) networks is a relatively new approach to the sustainable delivery of energy and therefore examples of existing infrastructure are limited. There is a Combined Heat and Power (CHP) plant at The Walnuts in Orpington, first built in the 1980s to supply heat via a high/medium-temperature hot water district-heating system. Subject to the replacement of the current aging CHP plant, surrounding premises could (as currently happens) be supplied heat as part of a larger and expanding energy network.

Current Shortfall

12.4 The majority of buildings in the borough are likely to fall short of current standards for energy efficiency. This is especially the case for a large proportion of public buildings which are likely to be older stock. This is largely to do with recent policy placing emphasis upon the issue of climate change mitigation which has had significant impact upon the design and management of buildings.

12.5 A comprehensive DE network does not currently exist within the borough. The Arup (2012) Heat Mapping Study⁵⁰ of the London Borough of Bromley shows that the building proximity and heat demands potential opportunities for district heat networks, outside of Bromley Town Centre are limited.

12.6 The Arup study goes on to state that this does not mean that there are no opportunities in the borough to achieve the wider aims of decentralised energy schemes, namely; decarbonisation of the energy supply, resulting in reduced fuel poverty and increased security of supply⁵¹.

⁴⁸ The London Plan 2011; London's Response to Climate Change.

⁴⁹ <https://www.carbontrust.com/news/2013/01/decentralised-energy-powering-a-sustainable-future/>

⁵⁰ Arup Heat Mapping Study 2012 - <https://data.london.gov.uk/dataset/london-heat-map>

⁵¹ Mayor of London – London Heat Map +, Heat Mapping Study – London Borough of Bromley

Future Demand

12.7 Standards for new buildings in the borough are set out in the emerging Local Plan and follow a stepped approach towards zero-carbon development, whereby targets for carbon emissions gradually increase up until 2031 in accordance with the London Plan. The emerging Local Plan also explains how carbon reductions should be met on site where feasible and allows for any shortfalls to be met off site where exceptional circumstances exist.

12.8 The Heat Mapping⁵² exercise has identified opportunities for a heat network within Bromley Town Centre. This opportunity cluster contains a few potential large heat loads, such as Bromley Civic Centre amongst other large sites. This cluster could also be considered as a wide catchment area within which smaller potential heat network(s) may exist, and if built over time may connect together to make a bigger network. Potential new developments also exist in the area that has been identified in the Bromley Town Centre Area Action Plan.

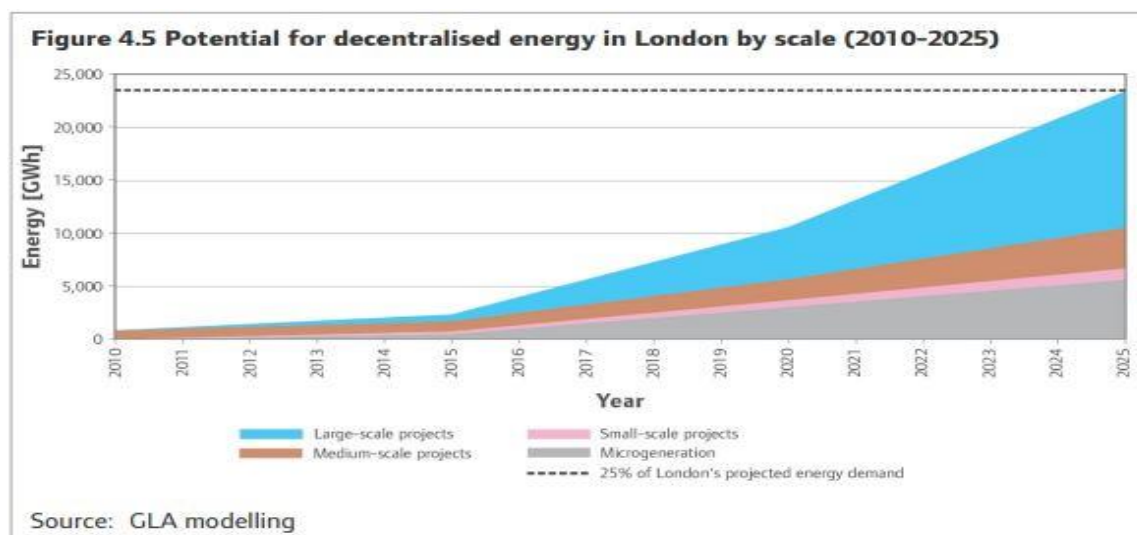
12.9 At this stage, taking forward the Bromley Town Centre cluster would require additional feasibility investigation work to establish an understanding of other potential loads in the cluster area.

12.10 The borough can largely be characterised as:

- A suburban region with energy loads relatively sparsely spread
- Few large publically owned energy loads (government offices, hospitals, prisons)
- Few large energy sources (e.g. waste treatment plants, industrial processes, power plants)

12.11 The appropriate options for decentralised energy would therefore be focused on taking a more building level technical approach rather than a district level technical approach.

Figure 12.1 Potential for decentralised energy in London by scale (2010-2025)



Source: (GLA Modelling) Mayor of London. Delivering London's Energy Future, October 2011

⁵² Mayor of London – London Heat Map +, Heat Mapping Study – London Borough of Bromley

Infrastructure Costs

12.12 Improvements to the energy and low carbon infrastructure within the borough will predominantly be provided through new development with costs being absorbed as part of wider development financing.

12.13 Capital costs of London-wide piping to multiple heat generators would exceed £100 million as costed by the Mayor of London's Delivering London's Energy Future⁵³ 2011. Local costs have not been identified for developing a section of this network within the London Borough of Bromley.

Funding Sources

12.14 Section 106 agreements, including monies from a local carbon offsetting fund, will be key for delivering such infrastructure on development sites. CHP and other energy and low carbon infrastructure units can be delivered in this way, as well as the connection to energy centres. It is important that developments that intend to connect to a wider heat network are designed to accommodate the necessary infrastructure to facilitate this, even if the completion of the development precedes the completion of the heat network.

⁵³ https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/Energy-future-oct11.pdf

13. WASTE AND RECYCLING

Definition

13.1 The collection of domestic waste and recyclable goods is a statutory duty for local authorities under the Environmental Protection Act 1990. Domestic recyclable goods collected by the local authority are defined by the scope of the collection service offered. The London Borough of Bromley, like many other local authorities, collects recyclable materials through a free weekly green box collection service.

13.2 Facilities for waste disposal are planned sub-regionally, through the emerging South London Boroughs Joint Waste Apportionment Technical Paper. The technical paper is directed by waste management policies detailed in the London Plan, protecting existing sites and allocating new sites to meet the waste needs of the borough.

Existing Infrastructure Provision

13.3 There is currently a weekly collection recycling service and 2 weekly refuse collection service in the London Borough of Bromley. These services are operated by a contractor, Veolia who are responsible for recycling and refuse collections and the disposal of waste at 137,758 properties until March 2019.

13.4 There are two council owned recycling and waste transfer centres in the London Borough of Bromley, located at Churchfields Road in the west of the Borough, and Waldo Road which is to the north but central area, near the main town centre . Waldo Road is the largest with a capacity of 30,000 tonnes. Churchfields Road has a capacity of 19,136 tonnes.

13.5 Waldo Road and Churchfields Road are council run refuse and recycling facilities, incorporating a 'Household Waste' recycling centre, a Waste Transfer Station, and a depot area providing a base for the operation of municipal waste collection and disposal activities. Waldo Road also features vehicle repair facilities⁵⁴.

13.6 There is also Swanley recycling centre on Cookham Road, an open composting facility that is currently run by Tamar Organics. Located in the Green Belt, it received planning permission in 2012 for an anaerobic digester plant which was supported by the council with a view to it being used for managing household waste⁵⁵.

13.7 Waste destinations as of 2014/15 were as follows; Recycling 23%; Composting 18%; Waste to energy 32%; Landfill 27%.

13.8 143,700 tonnes of municipal waste was collected in 2015/16 and the household recycling rate was 48%. The table below breaks down collected waste and waste received at Household Waste Recycling Centres (HWRC).

⁵⁴ Development Control Committee Report – July 2016

⁵⁵ Development Control Committee Report – July 2016

Table 13.1: 2015/16 Tonnages

Collected waste (2015/16)	Tonnes	HWRC Waste (2015/16)	Tonnes
Household Kerbside Residual	50,704	Green garden waste	8,093
Kerbside Paper/Card	10,805	Street Sweeping Detritus	1,574
Kerbside Glass/Cans/Plastics	11,580	Wood	3,877
Kerbside Food Waste	9,960	Metals	953
Green garden waste Collection service	6,540	Furniture/bric-a-brac	640
Bulky Waste	371	Oil	19
Fly Tips	1,270	Gas canisters	4
Street Cleansing waste	6,495	Tyres	5
Trade waste Collected	10,622	Fridges	224
Paper Banks	1,200	Waste Electrical and Electronic Equipment	805
Bottle Banks	600	Plasterboard	96
Can/Plastic Banks	220	Asbestos	52
		Public delivered residual	8,020
		Trade delivered residual	8,582
		Inert/Rubble	577 ⁵⁶⁵⁷

Current Shortfall

13.9 The Borough's recycling and waste transfer centres are not at capacity and both have a licensed annual throughput that exceeds the actual recycling tonnage averaged over the last three years.

13.10 The London Borough of Bromley is able to calculate past performance in waste collection and disposal via contractual monitoring. Table 13.2 below shows the 2015/16 targets and the actual figures for that year through Key Performance Indicators (KPIs).

Table 13.2 Waste and Recycling Key Performance Indicators

Description (KPIs)	2015/16 Target	2015/16 Actual
Household waste recycled/composted (%)	49	47.3
Municipal waste landfilled (%)	26	27.22
Residual waste per household (kg)	450	478
Dry recycling per household (kg)	260	236
Organics recycling per household (kg)	180	178
Total waste arising (refuse & recycling) (tonnes)	145,000	146,192
Missed bins (/000,000)	60	128

Future Demand

13.11 The Council aims to increase the proportion of waste recycled and reduce the amount of waste sent to landfill. Legislation (e.g. the EU Circular Economy package) may also

⁵⁶ Environment Portfolio Plan 2016/19 – Minimising Waste & Increasing Recycling

⁵⁷ London borough of Bromley; Waste Services: Frequently Asked Questions

require the council to review its collection and disposal options to ensure regulatory compliance.

13.12 Options will be developed for integrating services on expiry of the current waste collection and waste disposal contract (2019) to maximise economies of scale and harmonise collection and disposal methodologies for all elements of the waste stream.

13.13 The Council will continue to monitor green garden waste arising's each month, in light of further changes to satellite site provision and the continued expansion of the paid collection service. It is hoped that customers of the Green Garden Waste Collection Service will increase to 20,000 with the option to pay by Direct Debit.

13.14 Options for site reconfiguration at Waldo Road and Churchfields Road HWRCs will be explored to facilitate better separation and quality control of recyclable and reusable materials. The allocation of Waldo Road, Churchfields and Cookham Road as strategic waste management sites will safeguard them for waste uses only⁵⁸.

13.15 The Council will consider options for the future continuation of the kerbside collection service for Waste Electronic and Electrical Equipment (WEEE) in the light of the changes to the WEEE regulations.

Infrastructure Costs and Funding Sources

13.16 There are currently no identified budgets, projections or funding allocations in place for development of Waste facilities. Future developments could be incorporated into the new Waste Contract (which will commence in April 2019), and thus the cost would be incorporated into the overall Contract costs.

⁵⁸ Development Control Committee – July 2016

14. FLOOD RISK MITIGATION

Definition

14.1 Flooding can be caused by a range of sources including heavy rainfall, rivers overflowing or river banks being breached, dams overflowing or being breached, or groundwater emergence⁵⁹. There are areas of land in Bromley surrounding the main watercourses in the north of the Borough that sit within flood zones 2 and 3 of the River Ravensbourne and the River Cray. These areas are at particular risk of flooding and have been the subject of floods in the Ravensbourne catchment since 2001.

14.2 Surface water flooding will occur as storm water flows over ground towards the Main River Network. Normal ground water flooding affects a tiny proportion of residences, other than those with un-tanked basements or cellars. There is group known as Groundwater 'Solution Cell' which consists of the neighbouring boroughs, which was initiated in 2014 following the major Groundwater emergence in Croydon and Bromley to monitor, investigate and develop medium to long-term measures for managing groundwater flooding. The Environment Agency regularly monitors Groundwater levels and issues alerts to members of this group.

14.3 The Flooding and Water Management Act (FWMA) 2010 requires the London Borough of Bromley, as the Lead Local Flood Authority (LLFA), to develop, maintain, apply and monitor a strategy for local flood risk management in its area.

14.4 As the LLFA, the Borough has a duty to identify the causes of surface water flooding, including groundwater, and determine those organisations or authorities that have a role in mitigating the flood risk. Bromley is of the South East London Flood Risk Partnership (SELFRP), working in partnership with the boroughs of Bexley, Lewisham, and Greenwich.

Existing Infrastructure Provision

14.5 The Borough of Bromley is outside of the tidal limit of the River Thames and therefore is not affected by coastal flood risk. However, there is a risk of river flooding. In an effort to address the flood risk from rivers, the Environment Agency, its predecessors and partners have implemented alleviation measures to reduce the risk to the community. This included significant works undertaken on the River Ravensbourne in the mid to late 1960s to improve the channel's ability to convey floodwater quickly to the River Thames. Rivers in the borough have been extensively culverted which can create significant complications when preparing future proposals to manage the flood risk. This is especially in regard to maintenance and risk of blockage during flood incidents.

14.6 Environment Agency data indicates that as a consequence of existing mitigation works, 85% of the properties at risk of fluvial flooding in the borough are in areas where the likelihood of flooding is low. However, 1252 properties, less than 1%, remain at a moderate to significant risk of fluvial flooding within the borough. These are largely grouped along the length of the River Ravensbourne and its tributaries.

14.7 The Ravensbourne catchment partnership is hosted by Thames21. The steering group is made up of Thames21, the Environment Agency, London boroughs of Lewisham, Bromley and Greenwich, the London Wildlife Trust and the Quarry Waterways Action Group. The priority river basin management issues to tackle in this catchment are the physical

⁵⁹ London Borough of Bromley – Local Flood Risk Management Strategy, August 2015

modifications made to the river, diffuse pollution from urban areas and point-source pollution of sewage.

Current Shortfall

14.8 The shortfalls currently identified in the flood mitigation infrastructure in Bromley are being addressed over time by planning restrictions that reduce run off from redeveloped sites, by creating the Local Flood Risk Management Strategy action plan and through active cooperation with agencies such as the Environment Agency and partners.

Future Demand

14.9 The probability of flooding will increase in the future as a result of factors such as:

- Urban Creep (infill development and loss of green space)
- Ageing infrastructure (increased pressure on drainage systems and other infrastructure designed for different levels and patterns of use and in deteriorating condition)
- Population Growth (denser populations means the impact of a flood for a given area will impact upon more people)
- Climate Change (increased storms)

14.10 Development management policies aim to prevent vulnerable development, such as housing, from being located in areas of the borough where there is a heightened risk of flooding. All development proposals should seek to incorporate Sustainable Urban Drainage Systems (SUDS) or demonstrate alternative sustainable approaches to the management of surface water as far as possible. In flood risk areas, the sequential test and exception test, as set out in the NPPF and associated technical guidance, should be applied. Flood Risk Assessments should be submitted in support of all planning applications in these areas as for major development proposals across the borough to ensure that all development is appropriate.

14.11 The Surface Water Management Plan (SWMP) 2011 for Bromley identifies critical drainage areas and local flood risk zones in the borough. The SWMP has an action plan which is designed to be reviewed and updated annually, with potential impacts for infrastructure needs in the future. Many mitigation measures identified in the SWMP, aim to protect existing infrastructure from flooding. These measures should be delivered by the relevant infrastructure provider, in line with an agreed timeframe with the Council.

14.12 Bromley will continue to contribute to key mitigation projects within the flood risk management partnership (SELFRG) area such as the Thames Estuary 2100 Plan, the Ravensbourne Corridors Improvement Plan and the Cray Valley's set of long-term projects.

Infrastructure Costs

14.13 A Flood Risk Management Plan (FRMP⁶⁰), published August 2015, was conducted by JBA Consulting on behalf of the London Borough of Bromley. Annex 3 of the Flood Risk Management Strategy includes indicative costs of potential schemes. The Environment Agency has four projects in the borough dealing with Fluvial Flood Risk Management in their current 6 year plan - see Table 14.1 below.

⁶⁰ http://www.bromley.gov.uk/downloads/file/2236/flood_risk_management_strategy_appendix_3_action_plan

Table 14.1 Environment Agency Projects

Location	Project	RFCC	Value (£'s)	GiA (£'s)	External funding Req'd (£s)	Number of Properties at risk
Kyd Brook	Fluvial Flood Risk Management	Thames	1,380	814	TBC	195
Ravensbourne (East Branch)	Fluvial Flood Risk Management	Thames	634	120	63	11
St James Stream, Upper Elmers End	Fluvial Flood Risk Management	Thames	1,236	767	TBC	110
Beck (East Branch)	Fluvial Flood Risk Management	Thames	497	80	50	108

Funding Sources

14.14 The Environment Agency operates a Flood Defence Grant in Aid (FDGiA) programme for capital works which runs on a six year programme with an opportunity to refresh on an annual basis (see current list of local projects above). This can be applicable to all flood mitigation schemes, subject to being put forward for project appraisal funding at the annual programme refresh.

14.15 As LLFA, Bromley Council will, where possible prepare schemes and measures that provide multiple benefits and target government funding for the most vulnerable communities. An area-based grant is available to each LLFA from central government, depending on the level of flood risk.

14.16 Bromley works with the SELFRG partnership and with other organisations to support their applications for funding where there will be a tangible benefit to Bromley or its residents.

APPENDIX 1

DRAFT INFRASTRUCTURE DELIVERY PLAN (IDP) SCHEDULE TABLE

DRAFT Infrastructure Delivery Plan (IDP) Schedule Table

APPENDIX 1

Transport Infrastructure

Roads

Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Beckenham Road (A234), between Croydon Road and Kent House Road	Penge and Cator	Carry out corridor study	31	Congestion issues	Bromley	£40K	Bromley	TBC	TBC	2016-20	LIP2/3 Congestion Relief programme
Rail over road bridge pinch points	Shortlands, Orpington	Rail over road bridge pinch points Shortlands and Orpington	31	Congestion issues	TBC	£10m+ per scheme	Network Rail	Network Rail and TfL	TBC	2020	LIP2/3
A222 between Croydon Road and A20	Various	Multi-year congestion relief scheme	31	Current levels of congestion	Bromley	£450k	Bromley	TfL	N/A	2016-20	LIP2/3
Oakley Road/Bromley Common	Bromley Common and Keston	Realignment and signalisation of junction	31	Congestion relief	TfL	£1m	TfL	TfL	Funding and feasibility	2016-20	LIP2/3
A21, Mason's Hill, between Kentish Way and B265 intersection with Hayes Lane and Homesdale Road	Bromley Town	Provision of additional road capacity on the A21 between junction with Westmoreland Road and	36	To assist with release of development sites in town centre	TfL/ Developer s106 Planning Obligation s /CIL	£21m	TfL	TfL Bromley	Feasibility study and business case	2018-22	LIP2/3

Scheme	Location/ Ward	Description of Infrastructure Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
		junction with Hayes Lane.									
Bromley, Masons Hill/High Street/ Westmoreland Road	Bromley Town	Junction capacity improvements with localised widening to facilitate change of priority between Masons Hill and Westmoreland Road.	36 BTC23 AAP	To assist with release of development in town centre,	TfL/ Developer s106 Planning Obligation s/ CIL	£2.9m	TfL	Bromley	Feasibility and business case	2018-22	LIP2/3
Crofton Road (A21/A232)/ Farnborough Common (A21)	Farnborou gh and Crofton	Junction improvements	31	Highway network pinch point	TfL	£5m	TfL	Bromley	Planning	2016-20	LIP2/3
Keston to Biggin Hill accessibility scheme (includes proposed schemes at A233/A232, Keston Mark and A233 Leaves Green Road/Downe Road to Blackness Lane, Keston)	Darwin	Junction and on-line improvements	36	Support the growth strategy for Biggin Hill Airport	TfL	TBC	Bromley	TBC	Planning	2016-20	LIP2/3, URS- Biggin Hill study
Crystal Palace/ Anerley Hill feasibility	Crystal Palace	Route and junction improvements	32	Capacity and safety issues	TfL	TBC	Bromley	TBC	Feasibility, underground services, and support	2016-20	LIP2/3 Congestion Relief programme

Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Chislehurst congestion relief scheme	Chislehurst	Chislehurst congestion relief scheme	31	Congestion relief	LBB	TBC	LBB	LBB/Commons Conservators	Feasibility, underground services, and support from the Commons Conservators	2016-20	LIP2/3 Congestion Relief programme

Parking

New car park at Locksbottom	Farnborough and Crofton	Provision of increased parking capacity at the Princess Royal University Hospital site.	30	Parking capacity deficit at Princess Royal University Hospital	NHS/Bromley/ TfL/develop per contributions s106/CIL	£3m	TBC	TBC	Negotiations with South London NHS Trust have begun	2018-20	LIP2/3
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Cycling and walking

Cycle Hubs	Various	Orpington Station, Beckenham Junction, Crystal Palace Station	31/ 33	Encourage new cyclists onto the road network. Health benefits Air quality/ environment benefits, reduced traffic congestion	LBB	£80k	LLB	TfL, South Eastern	Stakeholder negotiations	2016-18	TfL Borough Cycling Programme/ LBB Cycling Strategy
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Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Quietways	Various	Network of two Quietway cycle routes.	31/ 33	Encourage new cyclists onto the road network. Health benefits Air quality/ environment benefits, reduced traffic congestion	TfL	Approx £864k	TfL/Sustrans	Bromley, neighbouring boroughs	Funding, feasibility, and support	2016-18	TfL Quietways programme
Petts Wood Cycle Bridge	Petts Wood and Knoll	Replacement of footbridge with Cycle/Foot bridge at Petts Wood	31/33	Encourage new cyclists onto the road network. Health benefits Air quality/ environment benefits, reduced traffic congestion	LBB	£1.3m	TfL, Network Rail	TBC	Funding	2019-2021	LBB Cycling Strategy
TfL cycle safety review of junctions (covered under TfL better junctions programme)	Bromley Town, Chelsfield and Pratts Bottom	Schemes to improve safety at A21 Kentish Way / Stockwell Close; and A21 Farnborough Way, 100m north of Green Street Green.	32	Cycle safety issues identified at junctions	TfL	TBC	TfL/LBB	TBC	Feasibility studies and identification of budget	TBC	TfL Better junctions Programme
BMX track	Bromley Common and Keston	BMX track built in Norman Park	20/58	Increase use of the bicycle for all trips. Increase activity levels in children.	Access Sport, British Cycling, GLA Sport Fund	£300k	TBC	Access Sport, British Cycling, GLA Sport Fund	Funding	2018-2020	TBA

Scheme	Location/ Ward	Description of Infrastructure Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timeframe	Source
Cycle Superhighway (CS6)	Penge and Cator	Extension of Route 6 (Penge to City via Elephant & Castle)	33	TfL target to increase cycling by 400% from 2001 baseline by 2026	TfL	TBC	LBB	TfL BP	Outcome of consultation	2017- 2021	TfL BP 2011-2015

Car Clubs

Car clubs	Various	To work with car club operators to develop a network of car clubs in appropriate locations in the Borough.	30	Car club promotion to reduce congestion	Bromley/ s106 Planning Obligations	N/A	LBB	TfL/Car Club operators	Car Club operators choice of locations	On-going	LIP2
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Buses

Measures to reduce bus journey times between Bromley and Canary Wharf, and Bromley and Croydon	Various	None available at present	35	Improve bus services from Bromley, encourage mode shift to bus	Developer s106 Planning obligations	TBC	TfL	TBC	Feasibility study, business case	TBC	TfL South S RTP
Bus route improvements between Biggin Hill and the rest of the Borough	Various	Investigate the possibility of an express bus to improve link	35	To support the sustainable growth strategy of Biggin Hill Airport	s106 Planning obligations		LBB	TfL	Future funding	In line with phased expansion of Biggin Hill Airport	URS- Biggin Hill study

Scheme	Location/ Ward	Description of Infrastructure Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timeframe	Source
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Rail accessibility and station improvements

Petts Wood 'Access for All'	Petts Wood and Knoll	Provision of step-free access at station	33	Access For All programme allocated based on DfT assessment criteria	Network Rail/ DfT	TBC	Network Rail	Network Rail	N/A	2017-2019	DfT
Shortlands 'Access for All'	Bromley Town	Provision of step-free access at station	33	Access For All programme allocated based on DfT assessment criteria	Network Rail/ DfT	TBC	Network Rail	Network Rail	N/A	2017-2019	DfT
St Mary Cray 'Access for All'	Cray Valley West	Provision of step-free access at station	33	Access For All programme allocated based on DfT assessment criteria	Network Rail/ DfT	TBC	Network Rail	Network Rail	N/A	2017-19	DfT

Rail Infrastructure

Additional capacity on Elmers End Tramlink branch	Kelsey and Eden Park	Construction of stabling and a second platform for trams at Elmers End to allow more trams to run to Croydon town centre	35	Allowing more trams to run to Croydon town centre from the Elmers End branch, thus adding capacity	TfL	£39m	TfL	TfL and Network Rail	Funding/ Tramlink Dingwall Road Loop extension consultation	2020-30	TfL Tram 2030 Strategy
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Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Additional capacity on Beckenham Junction Tramlink branch	Copers Cope	Double tracking or additional loops on the Beckenham Junction branch	35	Allowing more trams to run on the Beckenham Junction Tramlink Branch	TfL	£28m	TfL	TfL and Network Rail	Funding Scheme detail Tramlink Dingwall Road Loop extension consultation/	2020-30	TfLTram 2030 Strategy
Extension of Tramlink from Beckenham Junction to Bromley town centre	Copers Cope, Shortlands, Bromley Town	Extension of existing Tramlink alignment terminating at Beckenham Junction to Bromley town centre, potentially utilising existing rail tracks	36	Demand for Outer London orbital PT capacity enhancements	TBC	£100m	TBC	Network Rail (depends on route alignment) Not something included within TfL's current strategy.	Engineering feasibility study, organisation of rail services and use of tracks serving Bromley South	2022-30	LIP2
Extension of Tramlink to Crystal Palace	Crystal Palace	Extension of Tramlink services to Crystal Palace and the removal of all heavy rail services on the Birkbeck route	36	Demand for Outer London orbital PT capacity enhancements	TBC	TBC	TBC	Network Rail (depends on route alignment) Not something included within TfL's current strategy.	New turnback facility required at Norwood junction to allow necessary level of service on Gipsy Hill route to be retained	TBC, but long term, beyond 2020.	L&SE RUS (July 2011)
DLR extension from Lewisham to Bromley North station	Bromley Town	Use of existing rail route from Bromley North to Grove Park for DLR services extended from Lewisham	36	Demand for public transport corridor between Bromley and Canary Wharf	TBC	Unknow n	Scheme not included in TfL's current strategy	TfL and Network Rail (depends on route alignment)	Engineering feasibility study and business case	2022-30	LIP2

Scheme	Location/ Ward	Description of Infrastructure Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timeframe	Source
Bromley South to Victoria additional capacity enhancements	Bromley Town	Shoulder peak lengthening, additional fast services, 12- car outers and additional fast services, grade separation at Herne Hill,	35	More capacity needed to avoid worsening crowding – growth likely to be especially strong serving Bromley town centre	Network Rail	TBC	TBC	TBC	Funding and feasibility	TBC but post 2016	TfL South SRTP
Bakerloo line southern extension/ Metroisation	Hayes and Coney Hall	Conversion of Hayes branch for use by LUL services from Elephant & Castle via Lewisham - option to Beckenham Junction also under consideration	Beyond 2030	Alleviate pressure on routes via London Bridge; provide additional capacity in inner South London; possible capacity relief for Elephant & Castle corridor to Blackfriars	TfL	£3bn confirmed cost for the southern line extension which remains an option for TfL.	TfL	Possibly Network Rail (depending on route alignment) A future phase of the Bakerloo extension could see the line extended but the current TfL focus is to Lewisham. Metroisation of services may influence any future phase.	Funding and physical constraints on converting line for use by LUL	TBC, but long term, beyond 2030	L&SE RUS (July 2011)

Scheme	Location/ Ward	Description of Infrastructure Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timeframe	Source
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Education

New Primary Schools

Langley Park Primary	Kelsey and Eden Park	New Primary School – 2FE – Currently open in temporary accommodation	27/28/29	Need for school places	Free School	-	Education Funding Agency (EFA)	EFA/Langley Park Academies/ LPSB	-	2016-	-
Bushell Way	Chislehurst	New Primary School – 2FE	27/28/29	Need for school places	Free School	-	Education Funding Agency (EFA)	-	-	-	-

Primary School Expansions

St John's CE Primary	Penge and Cator	1.5 to 2FE First bulge class September 2016 – Feasibility stage	27	Need for school places	DfE Basic Need Capital/S1 06	£2.182m	LBB	Aquinas MAT, CE Diocese of Rochester	-	2016-?	-
Stewart Fleming (Pioneer)	Clock House	2 to 3 FE expansion. 2 bulge classes admitted - Construction	27	Need for school places	DfE Basic Need Capital/S1 06	£9.006m	LBB	The Pioneer Academy Trust	-	2018	-

Scheme	Location/ Ward	Description of Infrastructure Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Churchfields	Clock House	1 to 2FE Expansion - Construction	27	Need for school places	DfE Basic Need Capital/S1 06	£1.367m	LBB	-	-	2016	-
James Dixon	Crystal Palace	Possible permanent expansion 2 to 3FE. 2 bulge classes admitted - Feasibility (on hold)	27/29	Need for school places	DfE Basic Need Capital/S1 06	£0.740m (to date)	LBB	-	-	?	-
Marian Vian	Kelsey and Eden Park	1 bulge class admitted 2015, 2 nd in September 2016. Expansion 3 to 4FE - feasibility	27	Need for school places	DfE Basic Need Capital/S1 06	£3.009m	LBB	Compass Academy Trust	-	TBC	-
Wickham Common	Hayes and Coney Hall	1FE Expansion	27/29	Need for school places	DfE Basic Need Capital /S106	-	LBB	-	-	TBC	-
Scotts Park	Bickley	4 additional classes admitted – planning stage	27/29	Need for school places	DfE Basic Need Capital/S1 06	£3.468m	LBB	E21	-	2017	-
St Georges	Bickley	Now Permanently expanded 1.5 to 2FE – construction	27	Need for school places	DfE Basic Need Capital/S1 06	£2.192m	LBB	-	-	2017	-

Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Parish	Plaistow and Sundridge	Now Permanently expanded 2 to 3FE – construction	27	Need for school places	DfE Basic Need Capital/S1 06	£3.950m	LBB	Aquinas MAT	-	2016	-
Farnborough	Farnborou gh and Crofton	Bulge class 2015 and 2016. Permanently expanding 1 to 2FE – Planning stage	27	Need for school places	Basic Need/S10 6	£5.093m	LBB	Nexus Education Trust	-	2017	-
Trinity (Princes Plain)	Bromley Common and Keston	3 bulge classes. Phased expansion from 2FE to 3FE and then 4FE – Construction	27	Need for school places	DfE Basic Need/S10 6/EFA	£6.537m	LBB	Aquinas MAT/EFA	-	2016-	-
Edgebury	Chislehurst	Permanently expanded 1 to 2FE from September 2016 - Construction	27/29	Need for school places	Basic Need	£4.536m	LBB	-	-	2016	-
Castlecombe	Mottingha m and Chislehurst North	To expand 1 to 2FE in KS2 from 2017 – planning stage	27/29	Need for school places	Basic Need	£3.862m	LBB	Spring Partnership	-	2017	-
Leesons	Cray Valley West	Has taken 2 bulge classes. Proposed to expand 1 to 2FE – Planning stage	27	Need for school places	DfE Basic Need & 2 Year old Capital	£3.803m	LBB	William Willett Trust	-	2017	-

Scheme	Location/ Ward	Description of Infrastructure Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Midfield Site	Cray Valley West	Permanently expanded 1 to 2FE - Construction	27/29	Need for school places	DfE Basic Need	£1.703m	LBB	-	-	2017	-
Poverest	Cray Valley West	Has taken 2 bulge classes. Proposed to expand 1 to 2FE – Planning stage	27	Need for school places	DfE Basic Need	£4.772m	LBB	-	-	2017	-
St Mary Cray	Cray Valley East	Proposed 1 to 2FE expansion – Feasibility stage	27/29	Need for school places	DfE Basic Need	£2.970m	LBB	Spring Partnership	-	TBC	-
Blenheim	Orpington	Proposed 1 to 2FE expansion – Feasibility stage	27	Need for school places	DfE Basic Need	£2.972m	LBB	-	-	TBC	-
Oaklands	Biggin Hill	Suitability and Condition – Planning stage	27/29	Suitability and Condition	DfE Basic Need/CIF?	£7.334m	LBB	-	-	2016-?	-

Scheme	Location/ Ward	Description of Infrastructure Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timeframe	Source
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New Secondary Schools

Eden Park High School	TBC	New Secondary School – 8FE Pre opening	28/29	Need for school places	Free School Capital	-	EFA	EFA/E21	-	School to open 2017 in temporary accommodation	-
Bullers Wood School for Boys - St Hugh's Playing Field	Bickley	6FE – Pre- opening stage	28/29	Need for school places	Free School Capital	-	EFA	EFA/Bullers Wood School	-	2017	2017
Bromley UTC - 1 Westmoreland Road (SHaW)	Shortlands	6FE – Pre- opening stage	28/29	Need for school places/Diversity of choice	UTC Capital	-	EFA	EFA, Bromley College, Canterbury Christ Church University, King's College Hospital NHS Trust, Mytime Active, Nuffield Health, Oxleas NHS Foundation Trust of Further & Higher Education	-	2018	2018
Kentwood Site	Penge and Cator	Potential 4FE	27/28/29	Need for school places	EFA	-	-	-	-	-	-

Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Turpington Lane Allotments	Bromley Common and Keston	Potential 6-8 FE	27/28/29	Need for school places	EFA	-	-	-	-	-	-
BET Hayes Lane	Bromley Town	Potential for Primary or secondary-	27/28/29	Need for school places	EFA	-	-	-	-	-	-
Land adjacent to Edgebury Primary	Chislehurst	Potential 8FE	27,28,29	Need for school places	EFA		-	-	-	-	-

Secondary School Expansions

Chislehurst School for Girls	Chislehurst	Secondary School Expansion	27	Need for school places	-	-	-	-	-	-	-
Bishop Justus	Bromley Common and Keston	Secondary School expansion – 6 to 8FE – Construction (phase 1)	27	Need for school places	Basic Need Capital	£5.042m	-	-	LBB	Aquinas MAT	2016-19
Ravens Wood	Bromley Common and Keston	Secondary School expansion – Feasibility stage	27	Need for school places	TBC	TBC	LBB/ School	--	-	TBC	-

Scheme	Location/ Ward	Description of Infrastructure Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Darrick Wood	Farnborough and Crofton	Secondary School expansion	27	Need for school places	-	-	-	-	-	-	-

Special Education Facilities

BET Hayes Lane	Bromley Town	Special Education Facilities	27/28/29	-	-	-	-	-	-	-	-
Midfield Site	Cray Valley West	Special Education Facilities	27/28/29	-	-	-	-	-	-	-	-
Burwood	Orpington	Special Education Facilities – 1FE Need at KS2 – Planning stage	27	Need for KS2 places	DfE Basic Need + SEN?	£3.125m	LBB	Beacon Academy Trust/Bromley College	-	2016-18	-
Marjorie McClure	Chislehurst	Special Education Facilities – Suitability and Condition – Pre-feasibility stage	27	Suitability and Condition	Priority Schools Building Programme (PSBP)		EFA	EFA	-	Post 2016	-

Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
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Health

Health facilities	Bromley Town and various other locations	Bromley Health and Well-being Centre (Capital cost of new health facilities)	23 BTC AAP BTC1	Any costs would cover the three year gap in funding for additional population, before central government funding is triggered	TBC	Estimate d £8.5m-		Central Government NHS Bromley Budget S106 Planning Obligations/ CIL)		Post 2018-19 (Within 5 years)	Healthy Urban developme nt Unit (HUDU model) Bromley CCG
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Open Space, Parks and Gardens, Sports

Upgrading of park playground facilities	Borough wide	Children's playground	57/58	Lack of play facilities in certain parts of the borough	TBC Plus s106 Planning Obligatio ns	-	TLG/LBB	-	Stakeholder support required Developer contributions	TBC	-
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Leisure

Cotmanedene Regeneration	St. Pauls Cray	New leisure hub offer. Supporting	17/20	Regeneration	Capital	£5.5m	LBB	Development partner	Value of capital asset	2016 -2019	
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Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
		Residential development									
Chislehurst Library	Chislehurst	Replacement Library as part of new mixed use development.	20	Regeneration	Capital	Est £1m	Milngate	Milngate	N/A	2016/2019	

Heritage Assets

Biggin Hill Heritage Centre	Biggin Hill	New Heritage Centre	40	Commemorati ve Detailed design stage/busines s planning	S106 Capital HLF Treasury	£4.5m	LBB/ Heritage Trust	Heritage Trust HLF	Outcome of Lottery Bid/Libor grant application	2016/2018	
Crystal Palace Park	Crystal Palace	Capital works	15/45	Regeneration In Train	LBB GLA HLF	£2.4m	LBB	LBB/GLA/HLF/Hist oric England	n/a	2016 onwards	

Public Realm

Beckenham Town Centre Public realm Improvements	Beckenha m Town Centre	Public Realm Improvements, Wayfinding and legibility Improvements to Beckenham High Street	33/37	Transformatio nal project of the public realm to support the local economy and attract new investment and improvement community safety- Ongoing	TfL/LBB	£4.44m	LBB	TfL/LBB	n/a	2012-2018	TfL/ LBB
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Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Bromley Central High Street Improvements	Bromley Town	Public Realm Improvements	BTC AAP	Phase two of the Bromley High Street Improvement programme to encourage footfall and reconfiguring the role of the high street. Concept Design Stage	LBB	£3.8m	LBB	n/a	Project viability	2015-2018	LBB
Penge Town Centre Public Realm Improvements and Business Support	Penge and Cator	Public Realm Improvements, Improved Wayfinding and legibility, Business Support Programme and shopfront improvement scheme	15/33/37	Improving the quality of the current public realm with a focus on community spaces, providing support to existing business in the town centre	New Homes Bonus top- slice funding Committed	£945K	LBB	n/a	n/a	2015-2017	LEP New Homes Bonus

Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
Orpington Town Centre Public Realm Improvements and Business Support	Orpington	Public Realm Improvements, Business Support	33/37	Improving the quality of the public realm and providing market infrastructure in the public square and areas within the Walnuts Shopping Centre, and supporting the market and Orpington First BID company	New Homes Bonus and High Street Fund Committed	£731,000	LBB	Orpington First BID Co	n/a	2015-2018	LEP New Homes Bonus and GLA

Low Carbon

Carbon Offsetting Fund	Various-	Carbon Offsetting Fund (to reduce carbon which developers can't reduce on-site)	124	-	S106 Planning Obligations	-	TBC	-	-	TBC	-
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Energy

Combined Heat and Power facilities	Various	Creation of energy networks	124	Development of energy networks which both new and existing developments	S106 Planning Obligations	-	TBC	LBB/Developers	n/a	TBC	
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Scheme	Location/ Ward	Description of Infrastructur e Project	Relevant Local Plan Policy	Rationale	Funding source	Cost (if known)	Lead Delivery Agent	Delivery Partners/stake holders	Dependencies	Timefra me	Source
				can connect to and expand							

Waste and Recycling facilities

Waste/recycling facilities	Borough wide/where appropriate	Waste/recyclin g infrastructure	114	Compliance with EU and London Plan policy	TBC	TBC	TBC	LBB/Contractor at time of delivery	-	-	Emerging South London Boroughs Joint Waste Apportion ment Technical Paper
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Flood Risk Mitigation

Flood Risk Mitigation	Borough wide/where appropriate	Environment Agency identify flood alleviation schemes in the Borough	115/116		FDGiA, Environme nt agency/ S106 Planning Obligations	N/A	TBC	Environment Agency/ LBB		TBC	Strategic Flood Risk Assessme nt, Local Flood Risk Strategy
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IDP External/ Internal Stakeholders list (para 1.9):
Appendix 2

External – Emails/Letters/Phone Interviews - March 2016
Transport
Transport for London (TfL)
Network Rail
Govia Thameslink Railway
Southern Railway
Utilities & Digital Connectivity
UK Power Networks
Southern Gas Networks
Thames Water
Virgin Media
BT Openreach
Health
NHS England
Dentistry
GPs
Pharmacies
NHS Property
NHS HUDU
Clinical Commissioning Group
GLA
Demographics
Emergency Services
Fire Brigade
Police
Other
Sport England
Environment Agency
idverde / Landscape Group
2nd Round April 2016
GLA
Optimity
ITS Technology Group
INCA
Ministry of Justice/Court Service
Bromley College
Department for Work and Pensions, Job Centre Plus
Community Links - Volunteering
LB Bromley Internal Stakeholders Subject Areas via email/meetings March/Oct 2016
Transport
LBB –Commissioning CCG
Public Health
Housing
Leisure
Town Centres and Business
Heritage
Parks and Cemeteries
Education
Open Space
Environment
Flood Mitigation/Drainage

