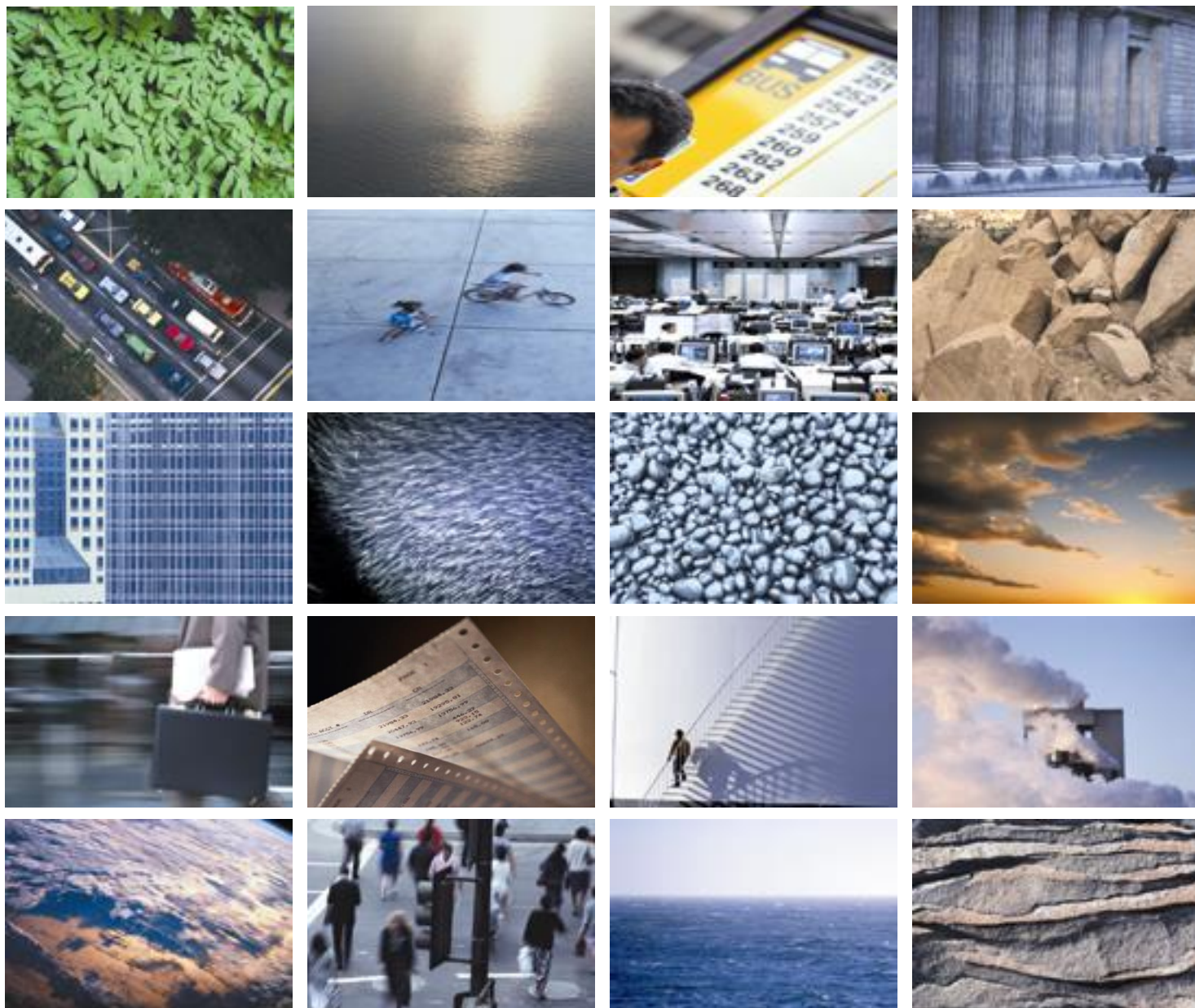


Appendix 6



London Borough of Havering

INFRASTRUCTURE DELIVERY PLAN

March 2018

Prepared by: ERM

LONDON BOROUGH OF HAVERING

INFRASTRUCTURE DELIVERY PLAN

Contents

EXECUTIVE SUMMARY

1	INTRODUCTION	1
2	TYPES OF INFRASTRUCTURE	3
3	INFRASTRUCTURE FUNDING	6
4	CO-ORDINATION CHALLENGES TO INFRASTRUCTURE DELIVERY	10
5	DEVELOPMENT QUANTITIES	12
6	FUTURE INFRASTRUCTURE REQUIREMENTS IN HAVERING	16
7	FUTURE INFRASTRUCTURE ITEMS AND COSTS	39

ANNEX A LIST OF CONTACTS

ANNEX B INFRASTRUCTURE PROVISION AND REQUIREMENTS BY TYPE

LIST OF ABBREVIATIONS

LIST OF TABLES

Table 2.1: Types of Infrastructure for Assessment	3
Table.5.1: Dwelling Numbers in Havering Assuming FALP Housing Targets are met, 2015 to 2030	13
Table.5.2: Population in Havering under GLA 2015 Round SHLAA-based Household Projections, 2015 to 2031	14
Table 6.1(a): Primary School Requirements to 2020/2021	21
Table 6.1(b): Primary School Requirements by Planning Area in 2020/2021	21
Table 6.2: Secondary School Requirements to 2022/2023	22
Table 7.1: Estimated Total Cost of Identified Infrastructure Requirements	39
Table 7.2: Main Infrastructure Projects in Support of the Local Plan	40

Executive Summary

- 1 The aim of this Infrastructure Delivery Plan (IDP) is to set out the type and scale of infrastructure required to underpin the Local Plan's vision and framework for the future development of Havering. Provision of adequate infrastructure is essential for maintaining the existing quality of life in the area and to support further development to accommodate growth in population and economic activity.
- 2 The IDP presents evidence on the scale and cost of infrastructure that will be required to meet the needs of development in Havering over the Local Plan period to 2032. This is of necessity a broad assessment as there are inevitably considerable uncertainties surrounding projections of development and costs over the medium to long term.
- 3 Infrastructure is planned, provided and funded by a wide range of agencies. The IDP has been compiled in consultation with all the relevant delivery agencies.

Types of Infrastructure

- 4 The IDP assesses the need for infrastructure in the following categories, with the most costly items listed first:
 - Transport;
 - Education;
 - Health and Well-being;
 - Utilities;
 - Flood Protection;
 - Culture & Community;
 - Green Infrastructure;
 - Recreation & Leisure;
 - Emergency Services;
 - Waste;
 - Urban Regeneration; and
 - Environment.

Funding Sources

- 5 There is a wide range of potential sources of funding for the provision of infrastructure. The role and relative contribution of these sources vary through time, according to national economic circumstances, government policy, and as new mechanisms are introduced and older ones phased out. There have been very significant cuts to public expenditure and in particular to local government funding in recent years and these are expected to continue in the immediate future, creating a very challenging environment for infrastructure providers.
- 6 The main funding sources likely to be available to support the Havering IDP comprise:
 - London Borough of Havering capital funding;
 - Greater London Authority/Transport for London;

- developer contributions;
- Central Government allocations;
- lotteries and charities; and
- direct charges for services, as in the case of utility companies.

Housing Zones

- 7 Two proposals for Housing Zones (HZs) in Havering have been agreed with the Mayor of London: Rainham and Beam Park Housing Zone, and Romford Housing Zone. The building of homes in these areas is supported by a range of planning and financial measures. HZ programmes are funded by a combination of local authority funding, Greater London Authority (GLA) direct and recoverable grant, and external funding. HZ finance will be used predominately to deliver physical infrastructure in advance or in parallel to developments, which will significantly increase viability and hence improve Community Infrastructure Levy/section 106 contribution potential. In the Local Plan, each Housing Zone forms the focus for a Strategic Development Area (SDA).

Developer Contributions

- 8 Given the constraints on public sector funding in the coming years, particular emphasis needs to be placed on the potential for developer contributions to raise funds towards investment in essential facilities. The Community Infrastructure Levy (CIL) regulations allow local authorities in England and Wales to raise funds from developers undertaking new building projects in their area. The money can be used to fund a wide range of infrastructure that is needed as a result of development.
- 9 As ‘pooling’ of section 106 (s106) obligations has now been limited to five s106 obligations to pay for a single infrastructure project or type of infrastructure, CIL is now the main mechanism for funding strategic off-site community infrastructure from developer contributions. However, s106 obligations can still be used to deliver affordable housing and certain site-specific infrastructure needs, and mitigation measures. Havering is in the process of developing and implementing its Havering CIL with the objective of this being adopted in 2017 subject to Member approval.

Coordination Challenges

- 10 The London Borough (LB) of Havering is only one of a large number of agencies involved in delivering infrastructure in Havering (see Annex A). All are pursuing the delivery of their particular service and the Local Plan provides a vital framework to guide their actions towards a common goal. However, if the required infrastructure is to be available to serve new developments as and when they come on stream there needs to be substantial joint working between agencies to ensure their individual plans and programmes are designed and funded to bring this about. Challenging issues include bringing together disparate planning processes and cycles, the need to work with neighbouring agencies/authorities, evolving new models for service delivery, and taking advantage of the potential for co-location of facilities and services.

Development Quantities

- 11 In order to assess the amount of infrastructure required to support future development in Havering the quantity of future dwellings and population needs to be established. The housing target for Havering in the Further Alterations to the London Plan, published in 2015, is 11,700 for the period 2015 to 2025. Projecting this rate onwards, the total housing target for Havering for the 15 year plan period March 2016 to April 2031 would therefore be 17,550 dwellings. The total population of the borough is projected to increase by some 31,000, from 252,000 in 2016 to 283,000 in 2032.
- 12 The Rainham and Beam Park SDA and the Romford SDA will each deliver a minimum of 4,000 new dwellings towards that target.

Infrastructure Costs

- 13 Table ES1 sets out the estimated cost of the main infrastructure items identified as required to support the Local Plan, by broad category. The total of £578m, cannot be taken to be a comprehensive estimate of total costs of all infrastructure for the total Local Plan period, 2016 to 2031. This is because in many cases the relevant agencies have only derived costs for a shorter time period, due to their regular capital programming procedures and the uncertainties of longer term forecasts of requirements. In some other cases, such as police and flood protection, the relevant agencies are still in the process of assessing requirements and forms of provision.

Table ES1: Estimated Total Cost of Identified Infrastructure Requirements

Sector	Total Cost
Education	£218m
Transport	£115m
Health	£78m
Culture & Community	£32m
Green Infrastructure	£48m
Recreation & Leisure	£63m
Urban Regeneration	£20m
Others	£4m
Total	£578m
Note: Figures may not sum to Total due to rounding.	

- 14 In addition to the currently programmed transport improvements, three major transport interventions are currently under active consideration but have not yet been progressed sufficiently for costs to be estimated for inclusion in Table ES1. These are a new north-south public transport route, and re-configuration of the arrangements at Gallows Corner and also the Ring Road west of Romford Town Centre.

Priority Infrastructure

- 15 This IDP assesses requirements for a wide range of infrastructure types, all of which are important in supporting sustainable communities in that a significant shortfall could limit quality of life in a community and reduce the appeal of Havering to newcomers. However, some infrastructure items have particularly high priority and should be provided within the first five years of the Local Plan. Priority infrastructure comprises:
- infrastructure that would be needed regardless of additional development, ie. to make up existing deficiencies in provision, and
 - critical infrastructure needed to allow early development to proceed, without which it might be unacceptable for development and occupation to take place. This relates mainly to areas designated in the Local Plan as locations for substantial growth in the early phases of the Plan, especially the Rainham and Beam Park SDA and the Romford SDA, each of which is expected to deliver over 4,000 new dwellings.
- 16 Priority projects in the Rainham and Beam Park SDA are as follows:
- Utilities: diversion of electricity cables, sewer and gas main;
 - Transport: new Beam Park Station;
 - Transport: Beam Parkway, improving connectivity along A1306;
 - Education: new and expanded primary and secondary schools;
 - Health: New primary care facilities, one in the Beam Park development and one near Rainham Town Centre; and
 - Flood Protection: opening up culverts and flood storage improvements.
- 17 Priority projects in the Romford SDA are as follows:
- Transport: Crossrail serving Romford;
 - Transport: Romford Station improvements;
 - Transport: East West Link and improved accessibility for walking and cycling;
 - Transport: improved permeability of the Romford Ring Road through TfL's Liveable Neighbourhoods programme;
 - Education: new and expanded primary and secondary schools in Romford; and
 - Health: Primary and community care hub in Romford Town Centre
- 18 Priority projects elsewhere in the borough are as follows:
- Transport: Crossrail serving Gidea Park and Harold Wood;
 - Education: New and expanded primary schools in Harold Hill and South Hornchurch and secondary schools in the Central Area; and
 - New primary care hub in Heaton ward.

LB Havering is currently in the early stages of investigating the feasibility of three major new interventions to bring about transport and public realm improvements in the borough, although these are not yet committed or costed:

- provision of public transport modes such as light rail, tram or guided bus to provide a step change in connectivity between the north and south of the borough and linking to Romford, either on existing highways or outside of the established built up area;
- a substantial re-configuration of the arrangement at Gallows Corner, by which the junction of the A12 and A127 would be decked over to create a space above for new development and safe, convenient movement by pedestrians and cyclists; and
- a similar substantial re-configuration of the Ring Road to the west of Romford town centre which would place the road underground, allowing unrestricted movement for pedestrians and cyclists into the town centre from the west and scope for an improved public realm.

Purpose of Report

- 1.1 The aim of this Infrastructure Delivery Plan (IDP) is to set out the type and scale of infrastructure required to underpin the Local Plan's vision and framework for the future development of Havering. Provision of adequate infrastructure is essential for maintaining the existing quality of life in the area and to support further development to accommodate growth in population and economic activity.
- 1.2 According to paragraph 157 of the National Planning Policy Framework (NPPF), Local Plans should *"plan positively for the development and infrastructure required in the area to meet the objectives, principles and policies (of the NPPF)"*. The NPPF (paragraph 177) stresses the importance of ensuring that there is a reasonable prospect that planned infrastructure is deliverable in a timely fashion and states that *"to facilitate this, it is important that local planning authorities understand district-wide development costs at the time Local Plans are drawn up. For this reason, infrastructure and development policies should be planned at the same time, in the Local Plan"*.
- 1.3 Paragraph 162 of the NPPF states that: *"Local planning authorities should work with other authorities and providers to:*
- *assess the quality and capacity of infrastructure for transport, water supply, wastewater and its treatment, energy (including heat), telecommunications, utilities, waste, health, social care, education, flood risk and coastal change management, and its ability to meet forecast demands; and*
 - *take account of the need for strategic infrastructure including nationally significant infrastructure within their areas."*
- 1.4 According to paragraph 18 of the Planning Practice Guidance (PPG) on Local Plans: *"the Local Plan should make clear, for at least the first five years, what infrastructure is required, who is going to fund and provide it, and how it relates to the anticipated rate and phasing of development"* (emphasis added). There is a clear requirement to present an assessment of required infrastructure, its location, costs, timing, funding source and implementing agent.
- 1.5 The PPG on Local Plans also states that: *"the detail concerning planned infrastructure provision can be set out in a supporting document such as an infrastructure delivery programme that can be updated regularly"*. The primary purpose of this IDP is to demonstrate that it will be practical to provide sufficient infrastructure to support the quantity of development proposed in the Havering Local Plan.

- 1.6 This IDP presents evidence on the scale and cost of infrastructure that will be required to meet the needs of development in Havering over the Local Plan period to 2031. This is, of necessity, a broad assessment as there are inevitably considerable uncertainties surrounding projections of development and costs over the medium to long term.
- 1.7 The PPG recognises that it is difficult to assess infrastructure requirements for the longer term and requires coverage of “*at least the first five years*”. While the IDP aims to cover the whole Local Plan period to 2031 as far as possible, some of the requirements and costs can only be assessed in relation to needs over a shorter period of up to ten years or so.
- 1.8 The PPG states that: “*early discussion with infrastructure and service providers is particularly important to help understand their investment plans and critical dependencies*”. This IDP has been compiled in consultation with all the relevant delivery agencies. Contact details for these are contained in Annex A, which also notes which agencies have directly provided information for inclusion in this report.

Structure of Report

- 1.9 The report contains four sections after this introduction:
- Section 2 sets out the types of infrastructure covered in the assessment;
 - Section 3 discusses the potential sources of funding of infrastructure investment;
 - Section 4 discusses the challenges of coordinating infrastructure provision;
 - Section 5 sets out the assumptions on development quantities in terms of dwellings, population, and commercial floorspace;
 - Section 6 provides an assessment of the scale of requirements for each type of infrastructure that will be needed to serve the borough’s planned development; and
 - Section 7 presents the main infrastructure items that have been identified and the costs of providing them, to the extent that these can be established at present.

2.1 Paragraph 156 of the NPPF sets out the main types of infrastructure required to promote healthy communities and for which the Local Plan should include strategic delivery policies. These are:

- infrastructure for transport, telecommunications, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat); and
- health, security, community and cultural infrastructure and other local facilities.

2.2 Also, paragraph 73 of the NPPF requires local authorities to determine requirements for open space, sports and recreational provision.

2.3 Table 2.1 lists the facilities required to support development in Havering and which are covered in this IDP. The last column shows any current plans or strategies which are relevant to the assessment of future requirements.

Table 2.1: Types of Infrastructure for Assessment

	Type		Facility	Plans and Strategies
A	Transport	1	Rail Transport	LB Havering Local Plan Transport Topic Paper (2016) Havering Local Implementation Plan, 2014/2015 – 2016/2017, Three Year Delivery Plan Mayor's Transport Strategy
		2	Other Public Transport	
		3	Highways	
		4	Walking & Cycling	
B	Education	1	Primary school	LB Havering: Commissioning Plan for Education Provision in Havering for 2016-2020
		2	Secondary school	
		3	Post-16	
		4	Early Years	
C	Health & Well-being	1	GP Health Centre/ Intermediate Care	Havering CCG: Havering Primary Care Infrastructure Capacity Plan Havering CCG: Transforming Primary Care in Havering, 2016 to 2021
		2	Acute Hospital	
		3	Mental and Community Health Facility	North East London Foundation Trust Estates Strategy, 2014 to 2019 (March 2016)
		4	Adult Social Care Facility/Children Centre	LB Havering: Adult Social Care and Commissioning Service Plan 2015/2016 (April 2015)
D	Utilities	1	Water Supply	Essex and Suffolk Water: Water Resources Management Plan 2015 to 2040 (2014)
		2	Sewerage	Thames Water: Water Resources Management Plan 2015 to 2040 (2014); Sixth Asset Management Plan 2015 to 2020 (2014)
		3	Electricity	National Grid: Electricity Ten Year Statement 2015 to 2035 (2015)
		4	Gas	
		5	Telecommunications/ Broadband	

	Type		Facility	Plans and Strategies
E	Flood Protection	1	Flood Protection	Environment Agency Thames Estuary 2100 (2012) Havering Local Flood Risk Management Strategy 2015 LB Havering Strategic Flood Risk Assessment Update (Nov 2016) LB Havering Critical Drainage Areas - Detailed Investigations Report (Jan 2016)
F	Culture & Community	1	Library	LB Havering Draft Library Strategy 2015 – 17
		2	Cultural Facility	Havering Culture Strategy 2012-2014, LB Havering Arts Strategy 2013 to 2015
		3	Heritage	Havering Heritage and History Sub-Strategy (2013-2015)
		4	Community Hall/Youth Centre	
		5	Crematorium & Burial Ground	
G	Green Infrastructure	1	Parks	LB Havering Open Space Strategy Draft Assessment Report (January 2016) and Draft Standards Paper (August 2016)
		2	Children's Play Space	
		3	Allotment	
		4	Other Green Space	LB Havering Green Infrastructure Strategy (2016), LB Havering Open Space Strategy Draft Assessment Report (January 2016) and Draft Standards Paper (August 2016)
H	Recreation & Leisure	1	Sports Complex	LB Havering Indoor Sport and Leisure Facility Assessment Report (January 2016)
		2	Playing Pitch	LB Havering Final Playing Pitch Draft Assessment Report, 2016-2021 (January 2016)
I	Emergency Services	1	Police Station	Mayor's Office for Policing and Crime Estate Strategy: 2013- 2016 (2013)
		2	Fire Station	London Fire Brigade: Fifth London Safety Plan 2013 to 2016 (2013)
		3	Ambulance Station	London Ambulance Service: 5 Year Strategy 2014/2015 – 2019/2020
J	Waste Management	1	Waste Management Facilities	East London Waste Authority: Joint Waste Development Plan Document (2012)
K	Urban Regeneration	1	Public Realm	Transport for London Crossrail Complementary Measures Programme – 2015/2016 to 2018/2019 The Rainham and Beam Park Planning Framework (January 2016) Romford Town Centre Development Framework (June 2015)
		2	Employment & Skills	
L	Environment	1	Air quality improvements	LB Havering Draft Air Quality Management Plan, 2017 - 2022 Mayor's Air Quality Strategy, December 2010)

Funding Sources

- 3.1 There is a wide range of potential sources of funding for the provision of infrastructure. The role and relative contribution of these sources vary through time, according to national economic circumstances, government policy, and as new mechanisms are introduced and older ones phased out. There have been very significant cuts to public expenditure and in particular to local government funding in recent years and these are expected to continue in the immediate future, creating a very challenging environment for infrastructure providers.
- 3.2 In the light of these funding constraints, the Mayor of London has stated in the London Plan (paragraph 8.7) that he will be exploring *“the scope for innovative funding techniques such as tax increment funding/ accelerated development zones (allowing future tax income in an area to support local infrastructure and regeneration)”*. He will also support *“the development and implementation of innovative forms of funding and partnership across the public, private and community/voluntary sectors to seek to lever more resources to support London priorities, and to ensure maximum cost effectiveness in their delivery”*.
- 3.3 The main funding sources likely to be available to support the Havering IDP are discussed below. They comprise:
- LB Havering capital funding;
 - Greater London Authority/Transport for London;
 - developer contributions;
 - Central Government allocations;
 - lotteries and charities; and
 - direct charges for services, as in the case of utility companies.

LB Havering Capital Funding

- 3.4 LB Havering capital funding is derived from a number of funding streams, predominantly Capital Receipts and Government Grants. In addition it can divert some revenue funding to fund capital items. Revenue funding includes Government Grant, Council Tax, Business Rates, and income from service providers. Due to changes in the way Revenue Support Grant reductions have been allocated, LB Havering will experience a rapid reduction in its grant settlement over the four year period up to 2019/2020, with a large element of this front loaded in the early years. At present it is not possible to foresee how far into the Local Plan period such financial constraints are likely to continue. They will inevitably place severe restrictions on the resources available for services provided by LB Havering.

Greater London Authority (GLA)/Transport for London (TfL)

GLA Housing Zones

- 3.5 The Mayor introduced Housing Zones (HZs) as a new approach to delivering housing in London. Unlike traditional funding programmes, they are area-focused and bespoke to suit each location to significantly expand and accelerate the number of homes being built. The building of homes in these areas is supported by a range of planning and financial measures.
- 3.6 Two proposals for HZs in Havering have been agreed with the GLA:
- Rainham and Beam Park (R/BPHZ) Housing Zone is within Phase 2 of the Mayor's Housing Zone Programme; and
 - Romford Housing Zone (RHZ) is within Phase 3 of the Programme.
- 3.7 HZ programmes are funded by a combination of local authority funding, GLA direct and recoverable grant, and external funding. The GLA funding can be used flexibly, from financing infrastructure to supporting individual schemes, with the focus on recovery and recycling investment, rather than conventional grant. HZ finance will be used predominately to deliver physical infrastructure in advance or in parallel to developments, which will significantly increase viability and hence improve CIL/s106 contribution potential.
- 3.8 Repayable grant is grant that the GLA would expect to be repaid over time. The GLA is demonstrating significant flexibility over the terms of repayment, for example, linking recovery of grant to meeting certain conditions, rather than it being unconditional – these conditions will be set out in the contracts for individual interventions. LB Havering's mechanism for repayment will be through recouping payments from CIL and the sale/development of land acquired through funding provided by the GLA.
- 3.9 The R/BPHZ programme is funded by a combination of LB Havering funding, GLA direct and recoverable grant and external funding, including £8.8 million contribution from TfL for the new Beam Park Station. The GLA allocation is £30.56m, of which £14.15m is direct grant and £16.41m is repayable grant.
- 3.10 The GLA allocation for the RHZ programme is £34.9m, of which £22.7m is direct grant and £12.2m repayable grant.
- 3.11 Some of the infrastructure required in both HZs will have benefited from forward funding from the GLA in the form of GLA recoverable grant. One proposal under consideration is to ring fence CIL payments and developer contributions from development schemes within the R/BPHZ to establish a series of funding pots to assist in the delivery of infrastructure in the HZ. Developer contributions from s106 and CIL would be used from these funding pots to repay the forward funding.

Other GLA/TfL Funding

- 3.12 The GLA provides funding for the London Fire Brigade. TfL funds most transport provision in Havering through the Local Implementation Plan, although LB Havering funds some road improvements. Each year LB Havering bids to TfL for funding for its transport projects and programmes. It has to spend this money in line with criteria set out by TfL and against a background set out in the Mayor's strategies as well as in accordance with LB Havering's own priorities.
- 3.13 Other GLA funding programmes are undertaken periodically to boost particular types of improvement to the urban environment, such as the Mayor's Air Quality Fund. The London Regeneration Fund, established by the London Enterprise Panel (LEP), aims to help places in London take advantage of opportunities presented by economic and demographic change and of new technology, and help secure the future of the capital's mixed economy. £20m capital funding has been made available, between April 2016 and April 2018, to specifically help London's high streets and places of work by supporting innovative and place-based projects throughout the city.
- 3.14 TfL funds the Crossrail Complementary Measures (CCM) a programme of improvements to public areas and interchanges outside all 18 stations in outer London that will eventually form part of the Elizabeth line. TfL is working with LBs, Crossrail Ltd, Network Rail and Rail for London to develop and deliver the schemes.

Developer Contributions

- 3.15 Given the constraints on public sector funding in the coming years, particular emphasis needs to be placed on the potential for developer contributions to raise funds towards investment in essential facilities.
- 3.16 The Community Infrastructure Levy (CIL) Regulations allow local authorities in England and Wales to raise funds from developers undertaking new building projects in their area. The money can be used to fund a wide range of infrastructure that is needed as a result of development. This includes new or safer road schemes, flood defences, schools, hospitals and other health and social care facilities, park improvements, green spaces and leisure centres. LB Havering has not yet introduced a CIL but it has embarked on the preparation of such a scheme. It published a Preliminary Draft Charging Schedule in 2015 and aims to have its CIL adopted in 2017/2018 subject to Member approval.
- 3.17 Before the introduction of the CIL, developer contributions were raised mainly through Section 106 (s106) planning obligations linked to individual planning permissions, which require developers to make payments to make acceptable development which would otherwise be unacceptable in planning terms. LB Havering's Planning Obligations Supplementary Planning Document (SPD), adopted in 2013, provided for a 'standard charge' tariff, to apply to new residential development (only), to ensure that development would contribute appropriately, both financially and in-kind, towards the provision of required infrastructure and services.

3.18 However, since April 2016, it has no longer been permissible for local authorities to ‘pool’ more than five s106 obligations together to pay for a single infrastructure project or type of infrastructure, LB Havering will therefore be introducing CIL alongside the Local Plan. This will specify those types of infrastructure on which CIL can be spent. Following its adoption by LB Havering, CIL will be the main mechanism for funding strategic off-site community infrastructure from developer contributions..

3.19 It will still be admissible to use s106 obligations to deliver affordable housing and certain site-specific infrastructure needs, and mitigation measures. In addition, agreements under section 278 of the Highways Act will continue to be used to require developers to pay for, and sometimes provide, highway improvements that will mitigate the impact of new development.

Central Government Allocations

3.20 A number of major agencies depend heavily on Central Government allocations for funding infrastructure. These include the National Health Service (NHS), including Hospital Trusts and Clinical Commissioning Groups (CCGs), and the Police and Ambulance Services.

Lotteries and Charities

3.21 There is a wide range of funds arising from lotteries and charities for which for which agencies compete for funds. These include the National Lottery, Veolia Environmental Trust, etc. The National Lottery is a significant potential source of funds for a number of social and community facilities. In the year to March 2016, the National Lottery Distribution Fund, administered by the Department for Culture, Media and Sport, shared the funds as follows: 40% to health, education, environment and charitable causes, 20% to Sports, 20% to Arts and 20% to Heritage.

Direct Charges for Services

3.22 The main example of direct charges for services being used to fund infrastructure provision is the utility companies, which raise funds for investment in infrastructure through user charges (and also borrowing). Electricity, gas and water prices to the customer are regulated by the government regulators, Ofwat and Ofgem, and set at a level which the regulator considers appropriate to permit the levels of investment the companies indicate are necessary to meet future need. In addition developers may wish to make individual arrangements directly with the utility companies to contribute to the provision of their services.

Introduction

4.1 Ensuring appropriate infrastructure is delivered in the right place at the right time to support ongoing development presents a number of significant challenges apart from the issue of securing sufficient funding. A large number of agencies are involved in delivering infrastructure in Havering, of which LB Havering is only one. The others are listed in Annex A. All are pursuing the delivery of their particular service and the Local Plan provides a vital framework to guide their actions towards a common goal. However, if the required infrastructure is to be available to serve new developments as and when they come on stream there needs to be substantial joint working between agencies to ensure their individual plans and programmes are designed and funded to bring this about.

4.2 Important challenges include:

- disparate planning processes of the agencies involved in infrastructure development and provision;
- working with neighbouring agencies/authorities;
- evolving delivery models; and
- taking advantage of co-location potential.

Planning Processes of the Agencies Involved in Infrastructure Development and Provision

4.3 Most agencies periodically undertake some form of review of the suitability and adequacy of their facilities to satisfy their required function. These reviews vary considerably in their scope and detail from ad hoc identification of shortcomings of individual facilities to full estate strategies and comprehensive asset assessments. There is even more variation in the extent to which organisations undertake long term planning of their facilities to meet future requirements. In most cases facility planning covers only the short or medium term, often up to five years or so, rather than the 15 years of the Local Plan. Furthermore, at any one time agencies will have reached different stages in their planning processes, while their planning horizons may well not coincide. These disparate planning processes need to be brought in line to ensure proper implementation of the Local Plan and its supporting infrastructure.

Working with Neighbouring Agencies and Authorities

4.4 Many of the issues addressed in the Local Plan cross administrative boundaries. This is most obviously the case with transport. In many other cases, however, agencies and local authorities are finding it more efficient to plan and undertake their activities by joining together in sub-regional groupings. This is the case for example with health, social care and some police. Therefore, working with neighbouring and sub regional partners will be essential to ensure the effective delivery of Havering's Local Plan, and LB Havering demonstrates the importance of this through meeting its Duty to Cooperate responsibilities.

Transforming Delivery Models

- 4.5 Many agencies are currently engaged in changing the way they deliver their services, often with significant implications for the geographical distribution of their infrastructure and facilities. These changes are prompted partly by the need to economise on scarce financial resources and partly by the recognition that more recent knowledge and technology have demonstrated more effective approaches to meeting the aims of the organisation.
- 4.6 There are two clear and complementary tendencies within the variety of delivery models which are emerging: centralisation and decentralisation. Centralisation is aimed primarily at achieving cost efficiencies, often by cutting back on less viable delivery sites, while decentralisation is aimed at improving the convenience of service received by clients and customers. Most new delivery models involve a combination of these two approaches. For example the Mayor's Office on Policing and Crime is reviewing the scope for disposing of under-utilised front counters while increasing the level of local policing directly serving communities. Similarly, the broad aim in health provision is to increase specialisation at acute hospitals while reducing everyday pressure on them by maximising the care and support that can be provided at or close to the patient's home.
- 4.7 The issue here in terms of ensuring infrastructure delivery is that several important infrastructure agencies are currently still in the process of developing their new delivery models or if they have developed their concept they are still working out how they would be best applied in Havering. A key case here is health and social care. These two areas of service are closely related. Inadequate social care generates greater pressure on the health service, including acute hospitals and Accident and Emergency (A&E) departments. There is now a well-recognised need for close integration of the way the two types of service are delivered to allow them to function seamlessly. The main agencies responsible for these two services, the NHS and LB Havering, are currently jointly engaged in defining coordinated delivery models.

Co-location Opportunities

- 4.8 One of the key approaches to improving efficiency of provision is to identify opportunities for joint provision of services or the use of shared facilities/co-location in meeting future needs. Many agencies can gain from pursuing synergies in facility provision, both because of the potential economies to be made in capital and running costs, and because of the benefits to be gained in terms of the quality and convenience by linking their service provision. A good example of this approach is Children Centres which are designed to offer a seamless service for children, with care, education, health and wellbeing services all provided under one roof.

- 4.9 The Local Plan and IDP aim to assist agencies in engaging further with each other to achieve the benefits of sharing locations and facilities. The first step is for agencies to share information on their emerging future proposals and on the locations where they are seeking to provide facilities so that the requirements of different agencies can be matched through joint provision where possible. The potential is particularly high as many decentralised facilities require only limited floorspace and can be co-located with a range of other public or private sector facilities, for example in libraries, health centres and shopping centres.

Introduction

- 5.1 Paragraph 156 of the NPPF requires local planning authorities to set out the strategic priorities for their area in the Local Plan, including strategic policies to deliver the homes and jobs needed in the area, and the provision of retail, leisure and other commercial development. In order to assess the amount of infrastructure required to support future development in Havering the quantity of future dwellings and employment floorspace planned to be completed within the relevant appropriate time horizon needs to be established.

Housing

- 5.2 The minimum housing target for Havering in the Further Alterations to the London Plan¹ (FALP), published in 2015, is 11,700 (an average of 1,170 dwellings pa) for the period 2015 to 2025. This was based on the findings of the GLA's latest 2013 Strategic Housing Land Assessment (Jan 2014). The new Havering Local Plan covers the period 2016 to 2031. The FALP (paragraph 3.24) advises that for Local Development Framework (LDF) purposes its rates should be rolled forward to give an indicative figure for an LDF's 15 year plan period. It is therefore reasonable to assume that the minimum target of 1,170 dwellings per annum for the period 2015 to 2025 should be rolled forward for the period 2025 to 2031 for which there is no specific GLA target. The minimum housing target for Havering for the 15 year plan period 2016 to 2031 would therefore be 17,550 dwellings.
- 5.3 The total number of dwellings in Havering in April 2011, according to the 2011 census, was 99,184. According to the Havering Annual Monitoring Reports for 2011-2012, 2012-2013, 2013-2014 and 2014-2015, a further 2,419 dwellings were completed in those years, bringing the total dwellings in Havering in March 2015 to around 101,600. Assuming the total housing target for the period 2015 to 2031 is met, the number of dwellings in 2031 will therefore be around 120,300. Table 5.1 sets out the number of dwellings projected in Havering from 2015 to 2031.

Housing Zone Proposals

- 5.4 Two proposals for HZs have been agreed with the GLA:
- the R/BPHZ is within Phase 2 of the Mayor's Housing Zone Programme and is planned to provide around 3,450 new dwellings by 2025 (Rainham and Beam Park Housing Zone. Overarching Legal Agreement [November 2015]); and

¹ The Mayor of London is currently commencing a Full Review of the London Plan but under the current timetable it will be published for consultation in Autumn 2017, with final publication expected in Autumn 2019.

- the RHZ is within Phase 3 of the Programme and is planned to provide around 3,300 new dwellings by 2026 (Overarching Borough Agreement with the GLA to support the reinvigoration of Romford town centre [June 2016]).

Table.5.1: Dwelling Numbers in Havering Assuming FALP Housing Targets are met, 2015 to 2030

Year	Total Dwellings
2015	101,600
2016	102,770
2021	108,620
2026	114,470
2031	120,320
<i>2016 to 2031</i>	<i>17,550</i>

- 5.5 The R/BPHZ forms a contiguous area in the south of the borough which will require some items of infrastructure specifically to serve it, whereas the RHZ comprises pockets of new housing development within areas of existing development.
- 5.6 The two HZs form the foci of the Local Plan's two Strategic Development Areas (SDAs): Romford SDA and Rainham and Beam Park SDA. The two HZs themselves do not cover all the housing sites that are planned to be delivered within their respective SDAs. Each SDA is expected to deliver over 4,000 new dwellings over the Local Plan period.

Population

- 5.7 Requirements for infrastructure tend to be more directly related to population (and age structure) than to dwelling numbers so it is important to appreciate the changes in population implied by the scale of additional planned housing. The most up-to-date population projections for Havering are those contained in the GLA's 2015 Round Demographic Projections. There are two Strategic Housing Land Availability Assessment (SHLAA) based projections, ie. projections which assume achievement of the FALP housing targets. These differ according to the household size assumptions. One set takes its household size trends from the Department of Communities and Local Government (DCLG) projections. The other caps household size so as not to assume the indefinite continuation of recent short term trends by which population has increased substantially faster than housing supply. The capped version is adopted here.
- 5.8 The GLA 2015 Round SHLAA-based household projections are based on the additional dwelling numbers from the 2013 GLA SHLAA, for the periods up to and after 2025, rather than assuming a continuation of the annual target for the period 2015 to 2025 as mentioned above. Their population projections do not therefore tie in directly with the Local Plan Housing target of 17,550 dwellings for the period 2016 to 2031. The latter can be estimated to imply a

total private household population in 2031 of 281,750, based on the dwelling total in Table 5.1, the GLA's projected average household size in 2031 of 2.39, and a vacancy rate of 2%, as in 2011.

- 5.9 The GLA's projection (capped household size version) gives a total private household population for Havering in 2031 of 281,000. Given the inevitable imprecision of projections over a fifteen year period this figure is close enough to the housing-based estimate above for it to be reasonable to adopt the GLA's projections as a basis for assessing infrastructure requirements in Havering.
- 5.10 The household and population figures for relevant years are set out in Table 5.2. The total population increase for the Local Plan period of 2016-2031 is given as around 31,000.

Table.5.2: Population in Havering under GLA 2015 Round SHLAA-based Household Projections, 2015 to 2031

Year	Households	Private Population	Institutional Population	Total Population
2015	247,235	1,645	248,880	247,235
2016	249,945	1,665	251,611	249,945
2021	263,692	1,755	265,447	263,692
2026	276,254	1,876	278,130	276,254
2031	280,956	2,034	282,990	280,956
2016-31	31,010	369	31,379	31,010

- 5.11 In order to assess infrastructure needs within the two HZs, their potential future population needs to be estimated. Assuming the average household size of 2.39 in 2031 from the GLA's 2015 Round SHLAA-based household projection with capped household size, and a vacancy rate of 2%, the new dwellings planned for each zone will accommodate around 9,400 persons..

Office Floor Space

- 5.12 The Havering Employment Land Review (April 2015) forecast a net demand for B1 office floorspace of between 10,700 m² and 17,100 m², with a medium forecast of 13,900 m² between 2014 and 2031. The most suitable location to accommodate demand forecast for B1 office uses is in Romford Town Centre. The review presents a projection of about 2,300 additional office jobs over the period 2013 to 2031.

Industrial Floor Space

- 5.13 The Havering Employment Land Review (2015) forecasts a reduction in demand for industrial floorspace of between 21,300 m² and 25,900 m² over the period 2014 to 2031 and projects a decrease of around 2,000 industrial jobs over the same period.

Retail Floor Space

- 5.14 The Havering Retail & Commercial Leisure Needs Assessment (April 2015) proposes that provision should be made for between 16,100 m² and 21,500 m² net additional comparison goods floorspace in the period to 2021, and indicatively between 49,500 m² and 62,000 m² net by 2031. The assessment also identified a quantitative need for 7,500 m² net additional convenience goods floorspace by 2021, increasing to an indicative requirement of 13,200 m² net by 2031, as well as a requirement for 15,100 m² of gross food and drink floorspace by 2031.

Introduction

- 6.1 This section sets out the scale of additional infrastructure that will be required to meet the needs of development in Havering over the Local Plan period to 2032, as far as can be determined based on currently available evidence. Infrastructure types and facilities are numbered as in Table 2.1.
- 6.2 Some infrastructure items have particularly high priority and should be provided within the first five years of the plan. These comprise infrastructure required to make up existing deficiencies in provision together with infrastructure needed to allow early development to proceed. The latter relates mainly to areas designated in the Local Plan as locations for substantial growth in the early phases of the Plan. These are the Rainham and Beam Park SDA and the Romford SDA, each of which is expected to deliver over 4,000 new dwellings. If there were to be a significant shortfall in provision in these areas, it might be unacceptable for development and occupation to take place there. Priority infrastructure items are indicated by a (P) in the paragraphs below.
- 6.3 The Council is aware of a number of key transport infrastructure projects currently under consideration. These encompass projects within Havering as well as projects outside of Havering. Examples of the former include, the proposed remodelling of J28/M25, and examples of the latter include the potential river crossings programme from the London Mayor, and the new Lower Thames Crossing project from Highways England. The Council is working closely with partners responsible for these projects. It has not included these within its assessment of infrastructure needed to support the Local Plan because they are independent of the Plan.
- 6.4 Fuller information on all infrastructure types is presented in tabular form in Annex B, again numbered as in Table 2.1, under the following headings:
- main provider of the infrastructure;
 - level of existing provision;
 - adequacy of the existing provision to meet current needs, both quantitative and qualitative;
 - assessment of infrastructure required to meet planned future development/population levels, with cost estimates where available (excluding land costs);
 - where relevant, basis for estimating costs of required infrastructure; and
 - main potential funding sources.

A Transport

A1 Rail

6.5 Havering is well connected to London and Essex by mainland train services, TfL Rail services, London Overground services and the District Underground line. Several major transport infrastructure improvements are currently planned to meet wider strategic needs as well as serving Havering, as follows:

- Crossrail is a new regional east-west railway line, currently under construction, which will connect Heathrow and Maidenhead in the west with Essex and South London in the east. The northern branch of the eastern section will run from Shenfield in Essex through the three Havering stations of Harold Wood, Gidea Park, and Romford. Crossrail is scheduled to become operational from 2018/2019 (P);
- improvements to the London-Tilbury-Southend (LTS) railway via Rainham and Upminster (c2c Essex Thameside franchise to 2029) will support planned regeneration strategies, and include the provision of 12-car trains on the Tilbury loop and more frequent services (P);
- upgrades to the London Underground District Line are underway to increase peak capacity by 47% by 2018 (P); and
- Upminster Depot, one of the four major depots for London Underground's railway fleet, is being upgraded, with completion planned for early 2017 (P).

6.6 Other proposals are specifically aimed at meeting the future needs of Havering, namely:

- improvements to Romford Station, including potential southern entrance improvements to assist access to all rail services (P) and TfL Crossrail Complementary Measures to enable interchange with Crossrail; and
- a new Beam Park station on the LTS railway line will help maximise the future development potential of the south of the borough and support housing and employment sites at London Riverside (P).

A2 Other Public Transport

6.7 Bus transport in Havering is provided by TfL. New and better north-south bus links are needed to improve connectivity, particularly to Rainham and its railway station and London Riverside Business Improvement District. More frequent services to some more rural parts of the borough would also benefit those in the community who are often dependent on public transport such as young people and the elderly.

6.8 A number of bus-related projects are required to meet future transport needs in the borough:

- a bus bridge over the Beam River on Ford Land will provide a vital link between LB Havering and LB Barking and Dagenham;
- a bus bridge link across Rainham Creek between Ferry Lane and Creek Way will similarly improve connections between Rainham and other employment areas and provide better access to jobs;

- an Orbital Bus service is required to connect Strategic Industrial Locations and Rainham; and
- improving bus stop accessibility in the borough (P).

6.9 In addition, LB Havering is currently in the early stages of considering the feasibility of modes such as light rail, tram or guided bus to provide a step change in connectivity between the north and south of the borough, either on existing highways or outside the established built up area.

A3 & A4 Highways, Walking and Cycling

6.10 The A12, A13 and A127 provide high quality trunk road access to the M25, which in turn provides access to London and the south east, and the borough is served by a full network of other roads. There is an ongoing need to assess and upgrade highway structures, principal roads, distributor roads and bus route roads to deal with existing and projected increased levels of traffic and to improve safety for all users. There is similarly a need to improve accessibility and safety for pedestrians and cyclists to facilitate safer and more convenient 'active' travel choices. Several improvements to cycling and walking provision are included wider green space and public realm proposals.

6.11 Specific measures include:

Borough-wide

- footway improvements borough-wide, including accessibility arrangements for pedestrian dropped kerbs (P);
- upgrades to principal roads, distributor roads and bus route roads (P);
- Highway structure upgrades (P);
- casualty reduction measures (P);
- 20 mph zones (P);

Romford SDA

- engineering measures to improve accessibility to Romford Town Centre through TfL's Liveable Neighbourhoods programme (P);
- an east-west link to the rail station from the growing residential areas to the west of the town centre (eg. Waterloo Road, Bridge Close and the former Ice Rink site), including wider improvements along the River Rom (P);
- further key measures for the Town Centre discussed below under 'Public Realm';

Rainham & Beam Park SDA

- the Rainham and Beam Park Planning Framework (January 2016), through the TfL Beam Parkway Major Scheme, aims to transform the A1306 in Havering from a traffic dominated road into an attractive green corridor, the Beam Parkway, providing a quality walking and cycling route (P); and
- development of sustainable transport options (walking, cycling, bus, tram) for accessing London Riverside Conservation Park (Wildspace); and
- Rainham Creek cycling/walking bridge.

6.12 In addition, two significant major interventions are under consideration to enhance the public realm, reduce congestion, improve safety for pedestrians and cyclists, improve air quality, and generate development potential. These are:

- a substantial re-configuration of the arrangement at Gallows Corner, by which the junction of the A12 and A127 would be decked over to create a clear space for development and pedestrian movement above; and
- a similar substantial re-configuration of the Ring Road to the west of Romford town centre which would place the road underground, allowing unrestricted pedestrian movement into the town centre from the west and scope for an improved public realm.

Key Implications for the Local Plan

6.13 The Local Plan should provide for the incorporation into the urban fabric of the significant transport infrastructure projects set out above in such a way as to improve the efficiency and convenience of movement within the borough and the quality of public spaces. Priority projects required for completion or to commence implementation within the first five years of the Local Plan include those supporting Crossrail and the two SDAs, as follows:

- Crossrail Complementary Measures to improve Romford, Harold Wood and Gidea Park stations (P);
- improved East-West connectivity for walking and cycling into Romford Town Centre (P);
- improved permeability of the Romford Ring Road through TfL's Liveable Neighbourhoods programme;
- new Beam Park Station (P); and
- new Beam Parkway, improving connectivity along A1306 (P).

6.14 In addition, the Local Plan will eventually need to make provision for the major transport interventions discussed above, which are currently at an early stage of consideration, once their plans have been fully developed and adopted for implementation. In addition, when reviews of the Local Plan are brought forward after it has been adopted, it will be important to ensure that it is up to date in terms of the progress made with these interventions. The Council is committed to working with its partners and other stakeholders to ensure that every opportunity is taken to ensure their early delivery.

B Education

6.15 Major residential development should only be permitted to go ahead if provision of sufficient educational infrastructure is assured. Local Authorities are under a statutory duty to ensure a sufficiency of school places in their area under section 14 of the Education Act 1996. This applies to all children of compulsory school age resident in the local authority area. Providers come from the private, voluntary, charitable and maintained sectors. LB Havering is the commissioner of education and is also the "provider of last resort" when no other acceptable new provider comes forward.

- 6.16 Section 6 of the Childcare Act 2006 places a duty on Local Authorities to secure sufficient childcare for working parents. In addition, local authorities are required to secure free early education provision for pre-school children of three and four years old and two year olds from lower income families. This Early Years education is primarily delivered by private, voluntary and independent pre-school providers, accredited childminders, and schools with a maintained nursery provision.
- 6.17 LB Havering undertakes annually a comprehensive assessment of future demand for school places in the borough by projecting cohorts within the existing schools, taking account of recent future birth rates, and allowing for the impact of committed and planned housing. Allowance is also made for significant cross border flows both into and out of the borough. The latest long term strategic forecast, contained in the Commissioning Plan for Education Provision (2015/2016 to 2019/2020), covers the ten year period from 2015/2016 to 2025/2026.

B1 & B2 Primary and Secondary Places

- 6.18 The number of primary age pupils in Havering schools, including pupils in existing and planned housing, is expected to increase significantly, by 7,815, during the ten year period from 2015/2016 to 2025/2026, and the number of secondary age pupils by 5,182, leading to shortfalls compared with existing school places of 7,689 and 3,626 respectively.
- 6.19 The substantial housing development in the Rainham area will require a new 3-form entry primary school, in addition to 4-forms of entry in expanded schools in the area. Existing secondary schools will also need to be expanded in this area to meet the need for places.
- 6.20 Substantial housing development planned in Romford will require new primary schools and new secondary schools. A three form of entry primary school (630 places) has been approved on the Bridge Close development site and the new school should be sufficient to meet demand for the additional primary places needed over the next five years.
- 6.21 There may be some areas of Havering that will have no available options to expand existing schools if further major housing is brought forward. School place demand arising from such developments will need to be met through new school provision that will require a site to enable delivery.
- 6.22 The figures given below represent the emerging position. The school roll projections are updated on an annual basis and the latest figures are contained in LB Havering's Commissioning Plan for Education Provision.

Primary School Requirements in First Five Years

- 6.23 The Commissioning Plan for Education Provision indicates the need for a total of 1,667 additional primary places to meet demand for places for 2020/2021, as indicated in Table 6.1(a). This is equivalent to an additional 8 Forms of Entry (FE) expansion. 1 FE expansion in primary is equivalent to 210 school places.

Table 6.1(a): Primary School Requirements to 2020/2021

Academic Year	Primary NOR	Permanent Primary Places Available	Surplus/Deficit of Places
2015/2016	21,074	21,200	126
2016/2017	22,150	21,836	-314
2017/2018	23,131	22,584	-547
2018/2019	23,990	23,189	-801
2019/2020	24,831	23,652	-1179
2020/2021	25,677	24,010	-1667

- 6.24 The need for additional places is mainly in Harold Hill, Romford and Rainham and South Hornchurch planning areas, as shown in Table 6.1(b).

Table 6.1(b): Primary School Requirements by Planning Area in 2020/2021

Planning Area	Projected Primary NOR 2020/21	Permanent Primary Places Available 2020/2021	Surplus/Deficit of Places
Collier Row	3,773	3,825	52
Elm Park	2,838	2,920	82
Harold Hill	4,420	3,900	-520
Hornchurch	5,062	5,040	-22
Rainham & S Hornchurch	2,965	2,370	-595
Romford	3,859	3,510	-349
Upminster	2,759	2,730	-29

- 6.25 Beyond 2020/21 the primary pupil numbers are forecast to increase, due to rising birth rates and the level of housing growth planned.

Secondary School Requirements in First Five Years

- 6.26 For secondary schools, the Commissioning Plan similarly indicates a need for a total of 637 additional Year 7 places by 2022/2023. This is equivalent to an additional 21 FE. As indicated in Table 6.2, this demand is concentrated in the Central Area, with lesser demands elsewhere. In most areas the requirement can be met by school expansions but new provision will also be required to meet needs in the Central Area.

Table 6.2: Secondary School Requirements to 2022/2023

Education Planning Area	Perm'nt Places 2015-2016	Pupil Roll 2015-2016	Surplus Places 2015-2016	Surplus capacity 2015-2016	Perm'nt places 2022-2023	Pupil roll 2022-2023	Surplus places 2022-2023	Surplus capacity 2022-2023
North East	180	179	1	1%	180	269	-89	-49%
North West	180	162	18	10%	180	221	-41	-23%
Central	1578	1532	46	3%	1624	1990	-366	-23%
East	693	621	72	10%	651	755	-104	-16%
South	617	473	144	23%	617	654	-37	-6%

- 6.27 Beyond 2022/23 the secondary pupil numbers are forecast to increase due to the higher year 6 primary cohort continuing to transfer to year 7 in secondary and the level of housing growth planned.

B3 Post-16 Places

- 6.28 It is difficult to be definitive about future requirements for post-16 education in the borough. A range of options is available for pupils in this age group, including sixth forms, colleges, and apprenticeships. The situation is further complicated by the fact that post-16 pupils can travel between local authorities and Havering has traditionally been a net importer of learners post-16. Current data for Havering suggests that over the next few years an expected rise in the participation rate to full participation of 16 and 17 year-olds will to a large degree be cancelled out by a fall in numbers of young people aged 16-18. However, in the longer term, the number of 16 and 17 year olds in Havering is projected to increase by around 1,300 between 2016/2017 and 2023/2024.

B4 Early Years

- 6.29 From September 2017 working families will be entitled to up to 30 hours of childcare per week for 3 and 4 year olds, subject to the eligibility criteria for the additional free entitlement. There is already a need for additional Early Years places; with the additional hours being available this could see a further increase in demand.
- 6.30 The number of two, three and four year olds needing Early Education Entitlement (EEE) places across the borough is expected to increase by over 1,000 between 2015/2016 and 2025/2026, with a deficit of about 300 places for 2, 3 and 4 year olds being projected for the latter date. However, it is not possible to be specific about locations at present. Further details on the future demand for early years places are given in LB Havering's Childcare Sufficiency Report, which is updated on an annual basis.

B5 Special Education Needs and Disabilities (SEND) places

- 6.31 Havering is experiencing demand on its SEND services due to rising numbers of children and young people in the borough with SEND, as well as a rise in the complexity of needs amongst those with SEND. To meet the increasing demand Havering will be developing new provision through an ongoing

programme to create more Additional Resourced Provision (ARP's), specialist provision in mainstream settings. The Council has been selected by the DfE to commission a new 60 place special free school which will meet the needs of children and young people in the borough. The new school will cater for children and young people aged 3-16 years who have complex or severe autism spectrum disorder (ASD) or social, emotional and mental health difficulties.

Key Implications for the Local Plan

- 6.32 The Local Plan, through the future Detailed Sites Local Plan, should support expansion plans and identify sites for new primary/ secondary schools required to support additional residential development in the early years of the Local Plan. Additional primary capacity beyond that currently programmed is required especially in Harold Hill, Rainham and Romford. For secondary schools the main additional requirement is around Romford.

C Health and Wellbeing

C1 & C2 Primary and Acute Health Care

- 6.33 There are 47 GP practices in Havering, with a total of 95 Full Time Equivalent GPs. These currently provide services from around 6,560 m² of space to a registered patient population of 255,865. The only acute hospital, operating an Accident & Emergency department, in Havering is Queen's Hospital in Romford, which opened in 2006, and brought together the services previously run at Oldchurch and Harold Wood hospitals.
- 6.34 The average ratio of patients to FTE GPs in the borough is 2,690, well above the London average of 2,100 and somewhat higher than the national average of 2,000. There are no clinically set standards for the ratio of GPs to patients but the primary healthcare default assumption used for capacity planning purposes is a ratio of 1 GP per 1,800 patients.
- 6.35 Existing facilities are currently operating at or near capacity. Based on current Department of Health guidance on primary care space standards, the existing population of Havering would require some c.18,000 m² compared with the 7,179 m² of space currently provided. Havering has a large number of smaller premises which, by their nature, will have little opportunity for expansion and if feasible, the size of expansion is likely to be relatively small scale. Furthermore, many GP practices are currently using ageing, converted domestic premises, a large number of which are in need of major building works to enable them to comply with required standards.
- 6.36 The CCG's aims for the development of general practice and the wider primary care family are that it should be accessible, coordinated and proactive. There will be a focus on prevention, support for self-care, active management of long-term conditions and the avoidance of unnecessary hospital admissions. Acute hospital care should be reserved for acutely ill patients with the majority of care delivered nearer home.
- 6.37 The present assessment concentrates on the primary healthcare requirements arising solely from new housing developments. The NHS Healthy Urban Development Unit (HUDU) has used their model to calculate the population

yield from new housing and to assess the subsequent healthcare impacts and floorspace requirements. The HUDU model estimates primary care requirements by locality and phase in terms of full time equivalent (FTE) GPs and primary care floor space, to meet the estimated population growths.

- 6.38 New, fit-for-purpose premises are needed to cater for the significant population growth, especially in and around the Romford Town Centre and Rainham and Beam Park SDAs, as well as to facilitate primary care at scale, and enable patient access to a wider range of integrated services.

C3 Mental and Community Health

- 6.39 North East London Foundation Trust (NELFT) provides mental health and community services in Havering. People's health in Havering is changing as more people are living longer and with more complex long term conditions, and so needing more and a wider range of care.
- 6.40 The NELFT strategy is based on the development of 'agile working', a flexible and mobile workforce, to support care closer to home and early intervention. For adult services a model of care based on locality primary care provision is currently being rolled out within Havering, with community health and social care integrated within these hubs. Some teams will be co-located and clustered around three hubs at Harold Wood, Romford and Cranham.
- 6.41 NELFT is holding discussions with LB Havering on integrating primary care, community, mental health and social care under a single management structure. Joint use of provision and premises with Social Services and other Local Authority departments has commenced around older people's services.
- 6.42 Surveys by NELFT in 2015 of all the properties it owns or substantially occupies suggest substantial underuse of both clinical and non-clinical space within a majority of premises. Under the NELFT Estates Strategy 2014 - 2019, the existing estate in Havering will be rationalised to provide new accommodation to meet the needs of new working practices.
- 6.43 The NELFT has embarked on an ambitious drive to reduce estate costs by developing closure plans for up to six Havering premises and relocating their services within the borough. Estate rationalisation will ensure that the retained premises are in the optimum locations for service delivery within the Borough and in good condition. Any future investment can then be directed towards the retained properties. The Trust is working in partnership with other organisations to maximise the use of the public estate to the overall benefit of the local health economy.

C4 Social Care

- 6.44 Havering has the highest proportion of older people of any of the LBs and the significant majority of vulnerable people in the borough with a supported housing need are elderly. However, the current provision of residential care homes is more than sufficient to meet current needs. Throughout 2015/2016, of approximately 1,600 available beds, 250 remained vacant each week.

- 6.45 LB Havering considers that there is no need for more residential or nursing homes within the borough. The policy is to support people in remaining independent and safe at home. However, there is a growing need for supported accommodation within the borough that cannot be entirely met by existing provision. For example, there is currently no supported housing for people with physical disabilities in Havering. The current Housing Strategy recommends converting some existing sheltered schemes to extra care or a retirement village model, due to the high number of asset rich older people in the borough.
- 6.46 LB Havering has identified potential need for up to three purpose-built six person supported housing schemes for people with learning disabilities and potentially for one purpose built six to eight person supported housing scheme for people with physical disabilities (P). The more adaptable the premises the better (ie. can one building be fit for purpose for people with learning disabilities, physical disabilities, autism etc.). With increasing demands, the supply requirement is having to be reviewed on a regular basis.
- 6.47 LB Havering currently runs six Children Centres, offering a range of services and activities in partnership with health and other partner agencies to provide a holistic service. Demand for Children Centres is forecast to increase substantially as the young population increases. LB Havering plans to respond to projected substantial increase in demand from the rising young population by increasing the level of services provided by existing centres and by bringing back into operation a Centre in existing premises in Harold Hill, which has not been functioning for some years (P). The aim is to utilise these centres to enable further co-location with partners in the health service.
- 6.48 As part of the Local Authorities Sufficiency duty there is a need to develop the provision of children's residential care within the borough and semi-independent living accommodation for children, prior to leaving care. The design of these premises could incorporate provision for both, so that move on could be enabled as and when children become more independent.

Key Implications for the Local Plan

- 6.49 The Local Plan should support the following additional facilities:

Romford SDA

- Primary and community care hub in Romford Town Centre of 4,500 m² (P);

Rainham & Beam Park SDA

- Two new facilities of 1,500m² in the Beam Park development and close to Rainham Town Centre to provide combined capacity for 30,000 patients (P);

Rest of Borough

- New primary care hub in Heaton ward of 950 m² for around 10,000 patients (P);
- Enhanced GP service of 2,800 m² at the proposed St. George's Health & Well-Being Centre for around 30,000 patients (P);
- New primary care hub of 1,850 m² to be developed in North Locality for around 30,000 patients;

- New primary care hub of 3,200 m² to be developed in Central Locality for around 35,000 patients; and
- Supported housing scheme for people with physical disabilities (P).

D Utilities

D1 Water Supply

6.50 Most of Havering is within the water supply area of Essex and Suffolk Water (ESW), although some small areas are supplied by Thames Water. Havering falls within ESW's Essex Water Resource Zone. Following a significant investment in its expansion, Abberton reservoir in Essex has sufficient water to meet forecast demand until at least 2040. Therefore no major infrastructure is needed to meet the increase in housing numbers or commercial development within Havering during the period of the Local Plan.

6.51 The proposed level of development at various locations within Havering could, depending on the size and location, require some minor water mains enhancement prior to development, but this is part of 'business as usual' and would not delay development.

D2 Sewerage

6.52 Thames Water is the statutory sewerage undertaker for most of Havering. A comprehensive upgrading of the Riverside Sewage Treatment Works at Rainham, which treats wastewater from approximately 400,000 people in Havering and other parts of East London, was completed in 2014 as a part of the London Tideway Improvements scheme. This increased its capacity to meet the predicted increase in flows until 2021.

6.53 The water companies' investment programmes are based on a five year cycle known as the Asset Management Plan (AMP) process. The AMP6 period began on 31st March 2015 and covers the period up to 31st March 2020. As part of its five year business plan Thames Water advises Ofwat on the funding required to accommodate growth in its networks and treatment works.

6.54 Limited information is yet available from Thames Water on the capacity of the local sewerage system to accept the additional loads from HZ development in the borough. However, sewer capacity in the R/BPHZ is limited and Thames Water expects infrastructure upgrades to be required for the level of development proposed. Also, the need has been identified to divert a sewer along the northern frontage at Dovers Corner to allow the site to be developed to its full potential capacity (P).

6.55 During heavy rainfall, the sewerage system in the Ravensbourne Valley, which includes much of Havering, has occasionally become overwhelmed resulting in sewer flooding in some local areas. Studies by Thames Water to identify solutions to this problem will be completed during 2017.

D3 Electricity

- 6.56 National Grid runs the high-voltage electric power transmission network (National Electricity Transmission System (NETS), which connects power stations and major substations and ensures that electricity generated anywhere in Britain can be used to satisfy demand elsewhere. UK Power Networks own and maintain electricity cables and lines across London, the South East and East of England. They maintain and upgrade power equipment, and move and connect new electricity cables.
- 6.57 There is adequate capacity for a generic load growth for at least ten years at most substations in Havering, with probably some local reinforcement needed at a few sites and to the cable network. Future scenarios are modelled on a regular basis to reflect changes within the network but the potential increase in use of electricity for new technology, such as Data Centres, may impact the available capacity sooner than anticipated.
- 6.58 Development in the Rainham and Beam Park SDA will necessitate some diversions/alterations to Low Volt and High Volt cables (P). There may also be a need to undertake alterations to 33kv extra high voltage cables.
- 6.59 The Rainham and Beam Park area has been identified as a target cluster for the deployment of a district heating network in the London Riverside Opportunity Area Rainham & Beam Park Energy Masterplan, 2015. No decision has yet been made on the form of provision.

D4 Gas

- 6.60 Cadent's distribution network serves the whole borough. However, major pipelines passing through the borough can put constraints on development potential in some location, particularly in the R/BPHZ. Capacity requirements for the entire HZ development can be satisfied by the existing Cadent gas infrastructure but the area is traversed by three high pressure gas pipelines. In order to minimise limitations on development potential there is a need for some pipeline diversion at Dovers Corner (P).

D5 Communications (Telecommunications/Broadband/Delivery Services)

- 6.61 Advanced, high quality digital infrastructure is essential for sustainable economic growth, allowing Havering's community enhanced freedom of choice about where and how they work, and how they promote and operate their businesses.
- 6.62 Superfast Broadband in Havering is provided via one of two networks. The Fibre To The Cabinet (FTTC) network is owned by BT and operated by a range of providers, while Virgin Media owns and operates exclusively a Fibre To The Property (FTTP) network. All exchanges within a five mile radius of Havering are owned and maintained by Openreach and have been fibre broadband enabled. Consequently broadband providers who are reliant on Openreach's broadband network infrastructure can provide fibre broadband to homes in this area. Virgin Media fibre broadband is also available to homes within a 5 mile radius of Havering. Some 98% of Havering users can now order a superfast broadband (speed greater than 24Mbps) connection.

- 6.63 The Government's support for further broadband roll-out is largely provided through the Superfast Broadband Programme. In September 2015 BT announced plans for an expansion of high-speed fibre broadband in Havering.
- 6.64 Openreach, BT's local network business, will take the company's total coverage for fibre in the borough to nearly 100,000 premises by 2017. Virgin Media are in year two of an ongoing five year plan for expanding/upgrading their network.
- 6.65 Providing additional infrastructure in the field as well as in the exchange does not present significant issues. By deploying fibre technology to new build sites there is no need for large multiple copper cables to be provided, building large cable frames in telephone exchanges, or even to build completely new telephone exchanges.
- 6.66 Additional floor space will be required for Royal Mail Delivery Offices within Havering. For every 500 new homes, an additional 16 m² of Delivery Office floor space will be required. In addition to this one additional postal walk would typically be required.

Key Implications for the Local Plan

- 6.67 The Local Plan should include policies to ensure new development is equipped with all necessary utility infrastructure, including facilities to enable the delivery of high-speed broadband and other digital services.

E Flood Protection

- 6.68 The Environment Agency (EA) has a strategic overview of all sources of flooding and coastal erosion and is responsible for tidal flood risk management along the Thames Estuary. LB Havering is the Lead Local Flood Authority for Havering, with a strategic role in overseeing the management of local flood risk ie. flood risk from surface water runoff, groundwater and ordinary watercourses such as streams and ditches.
- 6.69 The EA's Thames Estuary 2100 (TE 2100) (2012) is a strategic flood risk management plan for London and the Thames estuary through to 2100. It reviews how tidal flood risk is likely to change in response to future changes in climate and people and property in the floodplain. It found that many of the existing flood walls, embankments and barriers would need to be raised or replaced to manage rising water levels in the long term (by 2050).
- 6.70 The EA's current estimates of the costs of maintaining and improving the flood defence system for Havering for the period to 2050 are as follows:
- fixed flood defences - maintenance and repair: £5m;
 - fixed flood defences - major repairs and replacements: £26m; and
 - flood barriers and outfalls: £5m.

6.71 The Havering Strategic Flood Risk Assessment (SFRA) (Nov 2016) identifies: flood risk zones 1, 2, 3a and 3b (functional floodplain); locations of flood risk from other sources (ordinary watercourses, groundwater, sewers, reservoirs and canals); locations at risk of surface water flooding, termed Havering Critical Drainage Areas (CDA), particularly outside fluvial or tidal risk areas; and areas protected by existing flood defences and that could be at risk should they fail. The SFRA makes recommendations to reduce flood risk but makes no specific infrastructure proposals.

6.72 As part of the Drain London Project, a Draft Surface Water Management Plan (SWMP) was prepared for LB Havering in consultation with key local partners, including Thames Water, the EA and TfL. The Draft SWMP identified the main sources of flood risk in the borough and a number of CDAs. The LB Havering Critical Drainage Areas - Detailed Investigations Report (January 2016) has examined the potential damage from flooding in each CDA, and identified and assessed for viability a set of mitigation options for each.

Romford SDA

6.73 The SFRA Annex A identifies the land immediately adjacent to the River Rom and Blacks Brook within the SDA as predominantly located within fluvial Flood Zone 2, with small areas designated as Flood Zone 3b. There are no specific proposals for flood defence infrastructure.

Rainham & Beam Park SDA

6.74 The SFRA Annex A identifies the southern section of the SDA as located within fluvial Flood Zones 3a and 2, with areas designated as Flood Zone 3b adjacent to the River Beam and Ingrebourne. The Rainham and Beam Park Development Framework proposes a number of interventions to reduce flood risk in the area, comprising opening up culverted channels and upgrading flood attenuation storage, but costs have not yet been estimated for these (P).

Key Implications for the Local Plan

6.75 The Local Plan should include policies to support mitigation measures required to protect key Critical Drainage Areas and to ensure the implementation of interventions that have been identified to reduce flood risk in the Rainham & Beam Park and Romford SDAs.

F Culture and Community

F1 Libraries

6.76 LB Havering is responsible for the management and development of ten libraries, all of which are located in or close to town centres and well served by public transport. Almost all the main residential areas in the borough are included in the catchment area of one of the five most strategically important libraries: Romford, Hornchurch, Rainham, Harold Hill and Upminster. All ten of Havering's libraries have undergone a programme of building refurbishments over the last few years, including new replacement libraries at Rainham (2014) and Harold Hill (2016) provided as part of wider regeneration initiatives led by LB Havering.

- 6.77 Under the Draft Library Strategy 2015 – 2017, future needs will be met using the existing facilities, but adopting a new delivery model by which the five strategically most important libraries (Romford, Hornchurch, Rainham, Harold Hill and Upminster) will be open at least 50 hours a week and the remaining five libraries will open at least 24 hours a week. No requirement has been identified for further library facilities to serve the additional population during the lifetime of the Local Plan.

F2 & F3 Cultural Facilities and Heritage

- 6.78 The main cultural facilities in Havering are the Queen's Theatre and the Fairkytes Arts Centre, both in Hornchurch, Havering Museum in Romford, which opened in 2010, and the Brookside Theatre in Romford, which opened in 2012.
- 6.79 The Havering Arts Strategy 2013 to 2015 identifies a number of improvements to ensure the borough continues to offer high quality cultural facilities to its increasing population. These include:
- a new high quality visual arts exhibition space at Fairkytes Arts Centre;
 - rehearsal space and a cafe area at Queen's theatre; and
 - on-going repair and maintenance of the Havering Museum.
- 6.80 Havering has a rich and varied range of heritage assets and LB Havering is the owner of three heritage sites: Bretons (house, gardens and adjoining open land), Upminster Windmill, and Upminster Tithe Barn, which houses the Museum of Nostalgia. The Havering Heritage and History Sub-Strategy (2013-2015) identifies the following improvements to ensure they can continue to meet the public's expectations:
- improvements to Bretons to restore the historic buildings and gardens and convert them to alternative uses (P); and
 - improvements to Upminster Tithe Barn to provide public toilets, re-thatch the roof (rolling programme) and to provide interpretative material inside the Barn (P).

F4 Community Halls/Youth Centres

- 6.81 Community halls and youth centres provide a valuable recreational and educational resource to the local community. LB Havering currently has nine community halls, eight of which it leases to community associations and the other to an Early Years operator. Seven of the halls are in need of upgrading/refurbishing to bring them up to contemporary standards (P).
- 6.82 There are three main youth centres in Havering, located in Harold Wood, Hornchurch and Rainham. This leaves a significant gap at Romford which is in need of provision, particularly in view of the additional population planned there under the Local Plan (P).
- 6.83 The Rainham and Beam Park Development Framework expects that additional social facilities including community halls will be required to serve the additional population in the R/BPHZ but suggests these should be defined according to the expressed needs of the future local population.

F5 Crematorium and Burial Grounds

- 6.84 Crematorium facilities are provided at the South Essex Crematorium in Upminster, which is considered adequate for current needs.
- 6.85 There are currently four cemeteries in Havering run by LB Havering: at Rainham, Hornchurch, Romford and Upminster. In addition, Rainham Jewish cemetery was purchased from the local Jewish community in 2016 by a private company and the burial plots are now multi faith/Interdenominational. Rainham and Hornchurch cemeteries have no new graves available and capacity for reopen burials only.
- 6.86 At Romford Cemetery there are currently sufficient new multi faith/interdenominational graves and graves for Muslim burials available to last 11 and 22 years respectively at recent rates of burial. Following the Phase 1 extension to Upminster cemetery in 2014 there are currently sufficient new graves available there for about seven years.
- 6.87 Assuming recent burial rates, future burial needs for the whole borough can be met by the Phase 2 and 3 expansions of the Upminster Cemetery programmed. Phase 2 will provide burial provision until 2031 at current rates and Phase 3 until 2039. There is therefore expected to be sufficient capacity to accommodate additional demand for multi-faith/interdenominational plots arising from Local Plan population increase in the period to 2032. If required, however, other land is available for possible future Upminster Cemetery extensions, currently used as agricultural tenancy land on lease from the Council. Furthermore, the significant capacity at Rainham Jewish cemetery has not been taken into account within these capacity projections.
- 6.88 LB Havering has recently granted permission for a new Muslim cemetery at Oak Farm, Harold Wood, following an appeal decision by the Secretary of State. This facility will provide for demands for burials meeting specific Muslim requirements arising from the wider North East London, including Havering, when the remaining capacity of the existing Gardens of Peace Muslim Cemetery in Ilford has been exhausted, around 2020/21. The new cemetery is expected to provide capacity to meet the needs of North East London for a further four to five years at recent death rates, i.e. until around 2024.

Key Implications for the Local Plan

- 6.89 The Local Plan should protect existing cultural and community facilities and support the following:
- provision of a new youth centre in Romford (P);
 - protection from other development of land adjacent to Upminster Cemetery to allow possible future expansion of the cemetery if required; and
 - planned improvements to various cultural and heritage facilities identified above (P).

G Green Infrastructure

G1 Parks

- 6.90 The Open Space Strategy Draft Assessment Report (OSSDAR) (January 2016) identifies 24 park and garden sites in Havering, ten of which have Green Flag status. There is generally a good coverage of parks based on a 15 minute walk time, the standard adopted in the OSSDAR. The majority of areas that are densely populated are covered by the walk time catchment. The LB Havering Open Space Study Draft Standards Paper (August 2016) concludes that there is no need for additional park provision on the basis of projected population levels across Havering, the emphasis being on preserving and improving the quality of existing provision.
- 6.91 The following requirements have been identified to ensure the parks fully meet the needs of the existing and future population:
- Creekside Park improvements and extension;
 - London Riverside Conservation Park (Wildspace);
 - Rainham to the River - linking Rainham communities to Thames and marshes;
 - Harrow Lodge Park, second lake dredging;
 - Parks Investment Programme, including parks signage improvements (P);
 - Parks Depot Refurbishment Programme (P); and
 - Linear park (within Beam Parkway) to connect Rainham to Beam Park (P).

G2 Children's Play Space

- 6.92 For communities to thrive it is essential for children to have regular access to free, inclusive, opportunities for local play. Children's play space comprises areas designed primarily for play and social interaction involving children and young people, such as equipped play areas, multi-use games areas (MUGAs), skateboard areas and teenage shelters.
- 6.93 Guidance by Fields in Trust suggests an approximate catchment guideline of an approximate 5-10 minute walk to a play space. On this basis there is generally a good coverage of provision across LB Havering with most areas with a greater population density within walking distance of a form of play provision. However, there are a few gaps in the walk time catchment in the centre and south of the borough and there may be a need for some additional play provision to serve these gaps.
- 6.94 The LB Havering Open Space Study Draft Standards Paper (August 2016) projects a need for additional children and young people's provision totalling approximately 2 ha across the borough to serve the 2031 population. The Rainham and Beam Park Planning Framework identifies the need for a number of children's play areas within a series of local green spaces and pocket parks and in the new Beam Park.

G3 Allotments

- 6.95 There are 27 allotments sites in Havering: totalling more than 36 hectares. All are owned by LB Havering and self-managed by allotment associations. The LB Havering Open Space Standards Paper (August 2016) projects a need for an additional 5.5 ha of allotment space to serve the 2031 population of the borough, based on current provision standards. However, the Paper recommends that future provision should respond to waiting lists rather than be based on applying National Society Allotments and Leisure Gardens (NSALG) or other quantitative standards.

G4 Other Green Space

- 6.96 A number of partnerships are engaged in green space projects in the borough, including:

- Land of the Fanns Partnership - A stage 1 Heritage Lottery Fund (HLF) Landscape Partnership scheme led by Thames Chase Trust and LB Havering, with a programme of access and conservation projects;
- Wildspace - a partnership of landowners and conservation organisations (Royal Society for the Protection of Birds [RSPB], Veolia North, Veolia Environmental Services, Thames Trust, Natural England, LB Havering, Port of London Authority [PLA] and the EA) with the objective of delivering a new London Conservation Park: Wildspace for a World City' on Rainham Marshes and the operational landfill site to the south;
- All London Green Grid (ALGG) - established to provide a pan-London strategy for Green Infrastructure (GI) and to deliver a rolling programme of GI projects; and
- Roding, Beam and Ingrebourne Catchment Partnership - works to improve the water environment of the river basin. Managed jointly by Thames 21 and the Thames Chase Trust.

- 6.97 The Rainham and Beam Park Planning Framework proposes the establishment of a network of green routes and open spaces to connect the strategic open spaces of the London Green Grid on a local level. These will include:

- Beam Parkway - a green and landscaped corridor with pedestrian and cycling facilities and a number of pocket spaces providing amenities for residents and people passing through the area (P);
- Marshway Green Bridge – a green corridor on the eastern side of Marsh Way Bridge providing a strategic cycle and walking connection across the railway to CEME and the River Thames; and
- re-opened Culverts - reopening of the New Havering Sewer and the Drain running beneath the Suttons Industrial site to create a naturalised watercourse. Linear green spaces alongside re-opened and naturalised culverts at the Suttons Industrial site and at Dovers Corner.

Key Implications for the Local Plan

- 6.98 The Local Plan should support protection of and improvements to existing parks and other green infrastructure within Havering, and assure provision of children's play space in all new development.

H Recreation and Leisure

H1 Sports Complexes

- 6.99 Access to opportunities for sport and recreation can make an important contribution to the health and well-being of communities. There are 21 sports halls in Havering, and a further new sports pavilion containing a small indoor sports hall is soon to be completed at Broxhill Park. LB Havering's Indoor Sport and Leisure Facility Assessment (ISLFA) (January 2016) found that most residents in Havering have access to a sports hall within one mile of home with the exception of parts of the Rainham area. The existing supply of sports hall accommodation in LB Havering has capacity to meet current demand but LB Havering facilities at Central and at Hornchurch are at capacity during peak times. Furthermore, the quality of the stock is mixed, with Chafford School Sports Complex at the end of its useful life.
- 6.100 There are 14 swimming pools open to the public in Havering, at ten sites. The ISLFA found that Havering is relatively well provided with swimming pools compared with many London boroughs but that significant areas of the borough remain without access to a publicly accessible swimming pool, particularly in the northwest and south of the borough. Furthermore, the age and condition of the pool at the Chafford Sports Complex, the age of the pool at Hornchurch leisure complex and the lack of provision in Rainham will make it increasingly challenging for a modern swimming offer to be provided without significant investment and/or new provision. The relatively small size of the main pools limits flexibility to accommodate different activities.
- 6.101 There is currently no ice rink provision in Havering as the former ice rink in Romford closed in 2013 and has been demolished.
- 6.102 LB Havering's Indoor Sport and Leisure Facility Strategy (ISLFS) (January 2016) indicates a need for the following new facilities in the borough to improve quality of provision and accessibility:
- the new Romford Leisure Centre, to include an 8 lane 25m pool and learner pool, a replacement ice rink, and a health and fitness suite (due to open in 2018) (P);
 - replacement Hornchurch sports complex, to include a 4 court sports hall, fitness suite, four dance/multi-purpose studios, 8 lane 25m pool and a learner/diving pool; and
 - a new sports facility in south Havering (replacing the Chafford Sports Complex), to include a four court sports hall, fitness suite, dance/multi-purpose studios, 5 lane x 25m pool, learner pool, and splash area (P).

- 6.103 The ISLFS also proposes investigating the feasibility of upgrading existing or providing new sports hall accommodation with associated office and changing accommodation to facilitate well managed community use at 11 school sports hall sites.

H2 Playing Pitches

- 6.104 The Playing Pitch Final Strategy and Action Plan 2016-2021 (PPFSAP) (November 2016) identifies significant shortfalls in grass football pitches, third generation synthetic (3G) pitches, cricket pitches and rugby union pitches at present across the borough. These shortfalls will be exacerbated by expected increases in population and participation rates over the period of the Local Plan. However, the PPFSAP finds that if pitch quality, overplay and security of tenure are addressed, and if access to existing pitches is maximised (and no pitches are permanently lost), there would be no requirement for new grass football pitch provision, although there may be isolated areas which generate enough demand for new pitches to be provided in the future.

- 6.105 With regard to the other facilities, the PPFSAP proposes that LB Havering should:

- identify feasible sites to increase provision of 3G pitches in Havering to meet training and competitive demand;
- support Harold Wood Cricket Club (CC) and Noak Hill Taverners CC in developing additional cricket pitches/facilities; and
- identify suitable sites, where possible, to develop mini pitches for clubs with significant mini and junior sections to alleviate pressure on senior pitches.

Key Implications for the Local Plan

- 6.106 The Local Plan should support protection of and improvements to existing sports facilities and playing pitches in the borough, including identifying sites for additional facilities where required as discussed above.

- 6.107 Key projects required to meet expected needs are:

- the new Romford Leisure Centre, which will serve the Romford SDA (P);
- a new sports facility in south Havering to replace the Chafford Sports Complex (P); and
- a replacement Hornchurch sports complex.

I Emergency Services

I1 Police

- 6.108 There are three operational police bases within Havering, and eighteen ward based Safer Neighbourhood Teams. The Mayor's Office for Policing and Crime (MOPAC) Estate Strategy 2013-2016 aims to streamline the extensive police estate in London and make it fit for purpose. Reforms to the local policing estates will be directed at making the police more visible, accountable

and accessible. The implications for Havering have not yet been worked through and the Commander of Havering's Borough Operational Command Unit (BOCU) is exploring the potential for joint working/sharing of resources and a joined-up approach with Commanders at Barking & Dagenham and Redbridge. Future requirements are therefore unknown at present.

I2 Fire Services

6.109 Havering falls under the Eastern District Command of the London Fire Brigade (LFB). There are four fire stations in the borough: Romford, Hornchurch, Wennington and Harold Hill, all of which are 'fit for purpose' (Harold Hill Fire Station was opened recently, in 2010) and are sufficient to meet the borough's needs. The LFB's Fifth London Safety Plan 2013 to 2016 (2013) maintains the target attendance time of getting a first fire engine to an emergency within an average six minutes and the second fire engine, when needed, within an average of eight minutes.

6.110 The location of the LFB's fire stations is based on modelling of historical data on fires that have occurred to ensure that average attendance times of six minutes for the first appliance and eight for the second can be met, across London. Any new development will meet modern building control standards and will therefore be of a lower risk of fire compared to older buildings. Furthermore, the Fifth London Safety Plan, which includes measures to reduce the number of incidents requiring attendance, projects fewer incidents London-wide in 2031 than in 2010. If, in future years, it is found that fires have increased in particular areas of Havering this will be taken into account in future London Safety Plans. At present LFB do not envisage that the planned new development will require any change in the location of the existing fire stations in Havering.

I3 Ambulance Service

6.111 The London Ambulance Service (LAS) provides a service responding to 999 calls across the whole of London. Three of its 70 ambulance stations are in LB Havering at Romford, Becontree, and Hornchurch. The LAS aims to meet the Government response time targets of 75% of Category A (immediately life-threatening) calls within eight minutes, and 95% of such calls within 19 minutes. The London Ambulance Service 5 Year Strategy 2014/2015 – 2019/2020 contains no proposals to increase the number of ambulance stations. However, the LAS is currently reviewing its Strategy and its Estates Strategy and these are likely to be finalised in autumn 2016.

Romford Town Centre Development Framework identifies the need to re-provide an ambulance station currently located in a building offering significant redevelopment potential within the Bridge Close area.

Key Implications for the Local Plan

6.112 At present there is no expressed requirement for additional emergency services facilities in the borough, apart from the need to re-provision an ambulance station in Romford. The Local Plan should provide for meeting the needs of emergency services as and when these are defined, with opportunities for co-location and joint provision with other facilities fully explored.

J Waste Management

- 6.113 The East London Waste Authority (ELWA) was established in 1986 and is responsible for waste disposal in Havering as well as the London boroughs of Barking & Dagenham, Newham and Redbridge. In 2002, ELWA signed a 25 year contract with Shanks Plc, a leading waste management company, to deliver an Integrated Waste Management Strategy for the area.
- 6.114 Within Havering the main waste management facilities are: Gerpins Lane Re Use and Recycling Centre, and Frog Island Mechanical and Biological Treatment Facility. The Frog Island waste facility handles household waste and recyclable materials from mainly Barking & Dagenham and Havering.
- 6.115 A Joint Waste Development Plan Document (DPD) was developed in 2010/2011 by the four ELWA London boroughs as part of each borough's LDF and was formally adopted by LB Havering in February 2012. It pools the London Plan's borough level apportionment of municipal solid waste and commercial and industrial waste to be managed for the four boroughs. The DPD sets the sub-regional strategy up to 2021 and aims to ensure adequate provision of waste management facilities in appropriate locations for municipal and commercial and industrial waste.
- 6.116 The Joint Waste DPD identifies three sites in Havering with potential to accommodate additional facilities to meet estimated demand to 2021, through the provision of
- two small scale facilities for biodegradable waste at Ferry Lane North, Havering;
 - medium scale composting facility at Gerpins Lane, Havering; and
 - large scale composting facility at Hall Farm, Havering.

Key Implications for the Local Plan

- 6.117 Policies for providing new waste management facilities to serve the borough are set out in the Joint Waste DPD.

K Urban Regeneration

K1 Public Realm

- 6.118 LB Havering has a number of ongoing regeneration schemes, which are focussed largely on transport and place-making elements, the main ones being Romford Town Centre and Beam Parkway (the latter described above under 'Other Green Space').
- 6.119 The Romford Town Centre scheme will create a better street environment around the Ring Road, with enhanced crossings for pedestrians, and enhance the environment for pedestrians and cyclists by creating designated cycle routes and planting trees, creating new landscapes, and incorporating public art (P). In addition, Romford Market transformation will produce re-imagined public space with the aim of creating a new heart of the town in the Market Place and acting as a catalyst for the town's future growth (P).

6.120 Three station schemes are covered under TfL's Crossrail Complementary Measures programme of improvements to public areas and interchanges outside all stations in outer London that will eventually form part of the Elizabeth line:

- Harold Wood Station Area Scheme (P);
- Gidea Park Station Scheme (P); and
- Romford Station Scheme (P).

K2 Employment & Skills

6.121 LB Havering will also support new and existing businesses through an incubator hub, offering affordable accommodation and business support to develop businesses to their next level of growth (P).

Key Implications for the Local Plan

6.122 The Local Plan should incorporate the major regeneration schemes in Romford Town Centre, including the Romford Station Scheme and Romford Market transformation, as well as schemes associated with the other Crossrail stations at Harold Wood and Gidea Park. It should also include policies to support the provision of affordable office accommodation within or funded by new commercial and mixed use developments.

L Environment

L1 Air Quality

6.123 The main source of air pollution in Havering is road traffic vehicle emissions. Significant amounts also come from residential and commercial gas use, industry, construction sites and emissions from outside London. The whole area of the borough was declared an Air Quality Management Area in 2006 due to levels of nitrogen dioxide and particulate matter not meeting air quality objectives in many parts of the borough. Air quality improvement projects have been undertaken in Romford, Hornchurch, Upminster and Rainham.

6.124 The latest Air Quality Action Plan for LB Havering covers the period 2017 to 2022. Current projects to improve air quality in the borough comprise:

- green screens: planting of green screens formed of trees and shrubs to take carbon dioxide, ozone and nitrous oxides out of the air and provide protection against particulate pollution; and
- pocket parks: Provision of small areas of inviting public space where people can enjoy relief from busy city streets.

Key Implications for the Local Plan

6.125 The Local Plan should support the provision of interventions aimed at improving air quality, especially for pedestrians and cyclists.

Introduction

7.1 Table 7.1 lists the main infrastructure items which so far have been identified as being required to support development under the Havering Local Plan. These comprise individual projects or types of project. Table 7.1 can be found at the end of this section. For each infrastructure project or type of infrastructure, the following information is given where available:

- location, which may be an individual district or the whole borough;
- type (eg. community facilities, transport);
- facility (eg. school, highway);
- content of project(s);
- estimated total capital cost of the project(s);
- required timing of implementation of the project in five year tranches;
- delivery agency; and
- expected main funding source(s).

Estimated Cost by Sector

7.2 Table 7.2 sets out the estimated cost of the main infrastructure items identified in Table 7.1, grouped by sector. The costs total £578m. However, this does not represent a comprehensive estimate of total costs of all infrastructure for the Local Plan period, 2017 to 2032. This is because in many cases the relevant agencies have only derived costs for a shorter time period, due to their regular capital programming procedures and the uncertainties of longer term forecasts of requirements. In some other cases, such as police and flood protection, the relevant agencies are still in the process of assessing requirements and forms of provision.

Table 7.1: Estimated Total Cost of Identified Infrastructure Requirements

Sector	Total Cost
Education	£218m
Transport	£115m
Health	£78m
Culture & Community	£32m
Green Infrastructure	£48m
Recreation & Leisure	£63m
Urban Regeneration	£20m
Others	£4m
Total	£578m
Note: Figures may not sum to Total due to rounding.	

7.3 It should be noted that neither Table 7.1 nor Table 7.2 includes three major transport interventions currently under active consideration but which have not yet been progressed sufficiently for costs to be estimated. These are a new north-south public transport route, and re-configuration of the arrangements at Gallows Corner and also the Ring Road west of Romford Town Centre.

Table 7.2: Main Infrastructure Projects in Support of the Local Plan

Location	Type	Facility	Project	Total Cost (£000s)	Period			Delivery Agency	Expected Main Funding Source
					2016 - 2021	2021 - 2026	2026 - 2031		
Borough Wide	Culture & Community	Community Halls	Upgrade/Refurbishment of Community Halls	£2,000	P	Yes	Yes	LBH	LBH, dc Lottery, sponsorship, voluntary
Borough Wide	Culture & Community	Libraries	Libraries investment programme	£1,000	Yes	Yes	Yes	LBH	LBH, dc
Borough Wide	Education	Schools	Additional Primary School Places to 2025/2026 (excluding R/BPHZ)	£103,000	P	Yes	Yes	LBH	DfE, LBH, dc
Borough Wide	Education	Schools	Additional Secondary School Places to 2025/2026	£78,000	P	Yes	Yes	LBH	DfE, LBH, dc
Borough Wide	Education	Schools	Additional Post-16 Places to 2025/2026	£9,500	Yes	Yes		LBH	DfE, LBH EFA, dc
Borough Wide	Education	Schools	Additional Early Years Places to 2025/2026	£3,730	Yes	Yes		LBH	LBH, dc
Borough Wide	Environment	Air quality	Green Screens	£38	Yes			LBH	LBH, GLA
Borough Wide	Environment	Air quality	Pocket Parks	£47	Yes			LBH	LBH, GLA
Borough Wide	Green Infrastructure	Allotments	Allotments Infrastructure Improvement Programme	£1,500	Yes			LBH	LBH
Borough Wide	Green Infrastructure	Children's Play Space	NEAPs to 2031	£1,800	Yes	Yes	Yes	LBH	dc
Borough Wide	Green Infrastructure	Children's Play Space	Playground investment programme	£2,000	Yes	Yes	Yes	LBH	LBH
Borough Wide	Green Infrastructure	Other Green Space	Greenways and All London Green Grid	£5,000	Yes			LBH	various
Borough Wide	Green Infrastructure	Parks	Parks Depot Refurbishment Programme	£3,000	P			LBH	LBH
Borough Wide	Green Infrastructure	Parks	Parks Investment programme (including parks signage improvements)	£6,000	P	Yes	Yes	LBH	LBH
Borough Wide	Health & Social Care	Social Care	Supported Housing	£4,200	P			LBH	GLA

Location	Type	Facility	Project	Total Cost (£000s)	Period			Delivery Agency	Expected Main Funding Source
					2016 - 2021	2021 - 2026	2026 - 2031		
Borough Wide	Recreation & Leisure	Playing pitches	Playing pitches to 2037	£6,000	Yes	Yes	Yes	LBH	LBH, voluntary, dc
Borough Wide	Transport	Bus	Bus Stop Accessibility - Supporting borough-wide bus stop accessibility programme.	£300	P	Yes	Yes	LBH	TfL
Borough Wide	Transport	Highway	Casualty reduction measures	£5,000	P	Yes	Yes	LBH	TfL LBH
Borough Wide	Transport	Highway	Highway Structures. Supporting borough-wide highway structures upgrades highlighted through inspections and structural reviews.	£5,000	P	Yes	Yes	LBH	TfL LBH
Borough Wide	Transport	Highway	Implementation of 20 mph zones across the borough	£1,000	P			LBH	TfL LBH
Borough Wide	Transport	Highway	Principal roads, distributor roads and bus route roads: structural review, assessment and improvement.	£25,000	P	Yes	Yes	LBH	TfL LBH
Borough Wide	Transport	Walking & Cycling	Footway improvements, including accessibility arrangements for pedestrian dropped kerbs.	£5,000	P	Yes	Yes	LBH	LBH, TfL, dc
Borough Wide	Urban regeneration	Employment & Skills	Affordable Business and Employment Accommodation	£4,000	P	Yes		LBH	dc
Borough Wide	Urban regeneration	Public Realm	Other Area Schemes not listed here	£1,500	Yes	Yes		LBH	TfL
Romford SDA	Culture & Community	Cultural facility	Havering Museum investment	£200	Yes	Yes	Yes	LBH	HLF
Romford SDA	Recreation & Leisure	Sports complex	New Romford Leisure Centre	£28,600	P			LBH	LBH land sale
Romford SDA	Transport	Rail	Romford Station Improvements (Southern Entrance)	£3,500	P			TfL	TfL
Romford SDA	Transport	Rail	Romford Station TfL Crossrail Complementary Measures (CCM)	£1,800	P			TfL	TfL
Romford SDA	Transport	Walking & Cycling	Romford Liveable Neighbourhoods programme - Engineering measures to improve accessibility into Romford town centre and improve Ring Road	£7,000	P	Yes	Yes	TfL	TfL

Location	Type	Facility	Project	Total Cost (£000s)	Period			Delivery Agency	Expected Main Funding Source
					2016 - 2021	2021 - 2026	2026 - 2031		
			permeability.						
Borough Wide	Transport	Highway	Reconfiguration of Gallows Corner Junction	TBC	P	P		TfL, LBH	TfL, LBH, dc
Borough Wide	Transport	Public Transport	Improved North South Connectivity through Tram/Light Rail link	TBC	P	P		TfL, LBH	TfL, LBH, dc
Borough Wide	Transport	Highway	Romford Ring Road Tunnelling	TBC	P	P		TfL, LBH	TfL, LBH, dc
Romford SDA	Transport	Walking & Cycling	Romford Housing Zone East West Link, including River Rom improvements	£1,500	P			LBH	GLA
Romford SDA	Transport	Bus	Improved access to Queens Hospital	£200				LBH, TfL	TfL
Romford SDA	Urban regeneration	Public Realm	Romford Market Transformation	£2,000	P			LBH	GLA
Romford SDA	Urban regeneration	Public Realm	Romford Town Centre Scheme (Delivery of Romford Public Realm Masterplan)	£10,000	P	Yes		LBH	LBH, TfL
Romford SDA	Health & Wellbeing	Health Centre	New Primary and Community Care Hub	£20,250	P	Yes		CCG	NHS England
Romford SDA	Culture & Community	Youth Centre	Potential Youth Centre in Romford	tbc	P			LBH	LBH
Romford SDA	Education	Schools	New & expanded primary & secondary schools (included in borough-wide)		P				
Rainham & Beam Pk SDA	Education	Schools	Primary school provision for Rainham and Beam Park HZ	£24,000	P	Yes		LBH	DfE, LBH, dc
Rainham & Beam Pk SDA	Health & Wellbeing	Health Centre (Beam Park)	New Primary Care Facility	£7,000	P			CCG	dc
Rainham & Beam Pk SDA	Health & Wellbeing	Health Centre (Rainham)	New Primary Care Facility	£7,000	P			CDG	NHS England
Rainham & Beam Pk SDA	Recreation & Leisure	Sports complex	New leisure centre in south of the Borough (replacement or refurbishment of Chafford Sports Complex.	£8,400	Yes			LBH	BLF, private sector

Location	Type	Facility	Project	Total Cost (£000s)	Period			Delivery Agency	Expected Main Funding Source
					2016 - 2021	2021 - 2026	2026 - 2031		
Rainham & Beam Pk SDA	Transport	Highway	Beam Parkway - Improved connectivity along A1306 and within London Riverside	£12,359	P			LBH	TfL, GLA,
Rainham & Beam Pk SDA	Transport	Rail	Beam Park Station	£19,050	P			TfL	GLA, TfL, LBH
Rainham & Beam Pk SDA	Transport	Walking & Cycling	Rainham Creek cycling/walking bridge	£1,000	Yes			LBH	TfL, dc
Rainham & Beam Pk SDA	Utilities	Electricity	Diversion of main cables	£2,000	P			UKPN	tbc
Rainham & Beam Pk SDA	Utilities	Sewerage/Gas	Diversion of sewer and gas main	£1,500	P			TW, NG	GLA
Rainham & Beam Park SDA	Flood Protection	Flood Protection	Various flood protection schemes	tbc	P			LBH	LBH, EA
Gidea Park	Urban regeneration	Public Realm	Gidea Park Station Crossrail Complementary Measures (CCM)	£1,400	P			TfL	TfL
Harold Wood	Urban regeneration	Public Realm	Harold Wood Station Crossrail Complementary Measures (CCM)	£1,400	P			TfL	TfL
Harold Wood	Health & Wellbeing	Health Centre	New Primary Care Hub in Heaton Ward	£4,275	P			CCG	NHS England
Harold Wood	Health & Wellbeing	Social Care	Re-open Hilldene Children Centre	tbc	Yes			LBH	LBH
Hornchurch	Health & Wellbeing	Health Centre	New Primary Care Hub	£14,400		Yes		CCG	NHS England
Hornchurch	Health & Wellbeing	Health Centre	St George's Health and Well-Being Centre	£12,600	P			CCG	NHS England
Hornchurch	Culture & Community	Cultural facility	Fairkytes Arts Centre investment	£1,000	Yes	Yes		LBH	LBH
Hornchurch	Culture & Community	Cultural facility	Queens Theatre investment	£10,000	Yes	Yes		LBH	Arts Council
Hornchurch	Culture & Community	Heritage	Bretons	£15,000	P			LBH	HLF
Hornchurch	Green Infrastructure	Parks	Harrow Lodge Park, second lake dredging	£300	Yes			LBH	LBH, dc
Hornchurch	Recreation & Leisure	Sports complex	Replacement Sports Complex at Hornchurch	£20,000	Yes	Yes		LBH	LBH, Sport England, dc

Location	Type	Facility	Project	Total Cost (£000s)	Period			Delivery Agency	Expected Main Funding Source
					2016 - 2021	2021 - 2026	2026 - 2031		
London Riverside	Green Infrastructure	Other Green Space	London Riverside Conservation Park (Wildspace)	£15,000	Yes			LBH, RSPB	RSPB, Veolia North Thames Trust, Natural England, LBH, PLA, EA
London Riverside	Green Infrastructure	Parks	Rainham to the River - linking Rainham communities to Thames and marshes	£5,000	Yes			LBH	Veolia North Thames Trust, dc
London Riverside	Green Infrastructure	Parks	Creekside Park improvements and extension	£3,000	Yes			LBH	HLF, dc
London Riverside	Transport	Walking & Cycling	London Riverside Conservation Park (Wildspace) - Development of sustainable transport options (walking, cycling, bus, tram)	£5,000	Yes			LBH	TfL, dc
London Riverside	Transport	Bus	Rainham Creek bus bridge	£10,000	Yes			TfL	TfL
London Riverside	Transport	Bus	Beam River Bus Bridge - linking LB Havering and LB Barking & Dagenham on Ford Land	£10,000	Yes	Yes		TfL	TfL
London Riverside	Transport	Bus	Orbital Bus service connecting SIL and Rainham, revenue support	£2,000	Yes			TfL	TfL
North West Havering	Health & Wellbeing	Health Centre	New Primary Care Hub	£8,325		Yes		CCG	NHS England
Upminster	Green Infrastructure	Other Green Space	Improvements to Thames Chase Community Forest	£5,000	Yes	Yes		Thames Chase Trust	Thames Chase Trust, Forestry Commission
Upminster	Culture & Community	Burial Grounds & Crematoria	Extension of Upminster Cemetery Phases 2 and 3	£2,000	Yes			LBH	LBH
Upminster	Culture & Community	Heritage	Upminster Tithe Barn	£1,000	Yes			LBH	HLF
Total				£577,674					
Note: LBH = LB Havering RSPB = Royal Society for the Protection of Birds PLA = Port of London Authority									

Location	Type	Facility	Project	Total Cost (£000s)	Period			Delivery Agency	Expected Main Funding Source
					2016	2021	2026		
					- 2021	- 2026	- 2031		
EA = Environment Agency HLF = Heritage Lottery Fund TfL = Transport for London dc = developer contributions tbc = to be confirmed									

ANNEX A LIST OF CONTACTS

Type	Facility	Organisation	Contacted	Provided information	Email address	Position
Education		LB Havering	✓	✓	pooneeta.mahadeo@haverling.gov.uk	School Organisation Manager
Transport		LB Havering	✓	✓	Daniel.douglas@haverling.gov.uk	Transport Planning Team Leader
Culture & Community	Cultural Facilities, Heritage & Libraries	LB Havering	✓	✓	magdalene.royer@haverling.gov.uk	Interim Head of Culture and Leisure Services
	Community Halls/Youth Centres	LB Havering	✓	✓	Guy.Selfe@haverling.co.uk	Health and Wellbeing Manager
Social Care	Social Care facilities	LB Havering	✓	✓	David.mitchell@haverling.gov.uk	ASC Procurement Manager, Joint Commissioning Unit, LB Havering
	Children's Centre	LB Havering	✓	✓	helen.harding@haverling.gov.uk	Early Help Group Manager
Green Infrastructure		LB Havering	✓	✓	James.Rose@haverling.gov.uk	Parks and Open Spaces Manager
Recreation & Leisure		LB Havering	✓	✓	Guy.Selfe@haverling.co.uk	Health and Wellbeing Manager
Burial Ground & Crematorium		LB Havering	✓	✓	Lee.Macey@haverling.gov.uk	Crematorium Manager
Emergency Services	Police Station	MOPAC/Havering Police	✓	✓	Neil.Adams@met.pnn.police.uk	Staff Officer to Chief Superintendent Jason Gwillim
	Fire Station	London Fire Service	✓	✓	martin.corbett2@london-fire.gov.uk	Borough Commander Havering
	Ambulance Station	London Ambulance NHS Trust	✓	✓	Ian.Johns@lond-amb.nhs.uk	Assistant Director of Operations -North East Sector
Health Services	GP Health Centre/Hospitals	NHS Havering CCG	✓	✓	carolyn.botfield@nhs.net	Associate Director of Estates BHR CCGs
	Mental Health Facility	NELFT	✓	✓	Carol.white@nelft.nhs.uk	Integrated Care Director (Interim)
Waste		LB Havering	✓	✓	MarieClaire.Irvine@haverling.gov.uk	Environmental Health Officer
Utilities	Water Supply	Essex and Suffolk Water	✓	✓	Martin.lunn@nwl.co.uk	Head of Technical Strategy & Support

Type	Facility	Organisation	Contacted	Provided information	Email address	Position
	Sewerage	Thames Water	✓	✓	CTBell@savills.com	Senior Planner
	Electricity	National Grid	✓		john.p.elsegood@nationalgrid.com	Head of Community and Regional Relations
		UK Power Networks	✓	✓	Stephen.Bradley@ukpowernetworks.co.uk	Head of Major Connections
	Gas	National Grid	✓		richard.walsh2@nationalgrid.com	Regional Stakeholder Manager
	Telecommunications/ Broadband	BT Openreach	✓	✓	Andrew.kniveton@openreach.co.uk	Developer Relations Manager - New Sites
		Virgin Media	✓	✓	chris.wood3@virginmedia.co.uk	National New Development Officer - London East
Urban Regeneration/Public Realm		LB Havering	✓	✓	suzanne.lansley@haverling.gov.uk	Projects and Programmes Manager (Economic Development)
Flood Protection		LB Havering	✓	✓	Trevor.Meers@haverling.gov.uk	Emergency Planning & Business Continuity Manager
Community energy		LB Havering	✓	✓	Catherine.Culley@haverling.gov.uk	Energy Strategy Projects Officer

ANNEX B INFRASTRUCTURE PROVISION AND REQUIREMENTS BY TYPE

A1 Rail Transport	
Main provider	Network Rail/TfL
Existing provision	<p>Connections to local surface level trains are provided by stations at Romford, Harold Wood and Gidea Park on the Liverpool Street-Shenfield-Norwich main line, Upminster and Emerson Park on the Romford to Upminster line, and Rainham on the London-Tilbury-Southend (LTS) line.</p> <p>There is access to Underground services (District Line) at Hornchurch, Upminster Bridge, Elm Park and Upminster.</p>
Adequacy of existing provision	Only the surface line between Romford and Upminster provides a north south rail connection as the other facilities have an east - west routing.
Assessment of future needs	<p>Several major transport infrastructure improvements are currently planned to meet wider strategic needs as well as serving Havering, including:</p> <ul style="list-style-type: none"> • Crossrail – a new regional east-west railway line, currently under construction, will connect Heathrow and Maidenhead in the west with Essex and South London in the east. The eastern branch (north of River Thames) will run from Shenfield in Essex through the three Havering stations of Harold Wood, Gidea Park, and Romford. Crossrail is scheduled to become operational from 2018/2019 at a cost of almost £15 billion; • improvements to LTS railway via Rainham and Upminster (c2c Essex Thameside franchise to 2029) - to support planned regeneration strategies including the provision of 12-car trains on the Tilbury loop and more frequent services; • London Underground District Line – upgrades are underway to increase peak capacity by 47% by 2018. Signal and customer information upgrade of the District Line in 2014; and • Upminster Depot redevelopment – one of the four major depots for London Underground's railway fleet (Metropolitan, Hammersmith & City, Circle and District Lines) to be upgraded, with completion planned for early 2017. <p>Proposals specifically to meet the future needs of Havering include:</p> <p><i>Romford SDA</i></p> <ul style="list-style-type: none"> • improvements to Romford Station to enable interchange with Crossrail (as part of TfL Crossrail Complementary Measures) and southern entrance improvements (£5.3m); and

	<i>Rainham & Beam Park SDA</i> <ul style="list-style-type: none"> • a new Beam Park station on the LTS railway line to maximise the future development potential of the south of the borough and to support the housing and employment sites at London Riverside; which is expected to be open by 2020. (£19m)
Main funding sources	TfL, Local Implementation Plan (LIP), DfT, Mayoral CIL (minor contribution to Crossrail), developer contributions.

A2 Other Public Transport	
Main provider	TfL
Existing provision	Bus routes in Havering form part of the London bus network. Bus routes serve the various residential, employment, education and leisure activities and key destinations. Romford is the major destination and most routes provide good links to its railway station in the town centre. Other services connect to Hornchurch and Upminster.
Adequacy of existing provision	<p>New and better north-south public transport links are needed in Havering (particularly to Rainham and its railway station and London Riverside Business Improvement District) to improve connectivity. LB Havering is working with TfL to explore the opportunities for this. More frequent bus services to some more rural parts of the borough (such as Havering-Atte-Bower) would also benefit those in the community who are often dependent on public transport such as young people and the elderly.</p> <p>Reconfiguration of Queens Hospital in Havering and King Georges Hospital in Redbridge has resulted in several key services, including A&E and maternity units, being relocated from King Georges to Queens. This has led to an increase in the numbers of patients at and visits to Queens Hospital. Efforts have been made in recent years to improve bus access to Queens but there are still some pockets of the borough and wider region which would benefit from direct bus access to Queens. This includes access from areas within Havering such as Cranham and Upminster as well as parts of the neighbouring LB of Barking and Dagenham where passengers travelling by bus to Queens need to make one, if not, two bus changes.</p>
Assessment of future needs	<p>The existing problem of a lack of connectivity between the south of the Borough and Romford, including Queens Hospital, and further north to Harold Hill is likely to become an even greater challenge over the next decade given demands arising from the two Housing Zones planned for Romford and Rainham. LB Havering is currently in the early stages of considering the feasibility of modes such as light rail, tram or guided bus to provide a step change in connectivity between the north and south of the borough, either on existing highways or outside of the established built up area.</p> <p>The following bus-related projects are currently identified as required in the borough:</p> <p><i>Borough-wide</i></p> <ul style="list-style-type: none"> improving bus stop accessibility in the borough under TfL Programme (£300k).

A2 Other Public Transport	
	<p><i>Romford SDA</i></p> <ul style="list-style-type: none"> • improved bus stop provision at Queens Hospital bus interchange to increase capacity (£200k) <p><i>Rainham & Beam Park SDA</i></p> <ul style="list-style-type: none"> • Beam River bus bridge - linking LB Havering and LB Barking & Dagenham on Ford Land (£10m); • Rainham Creek bus bridge (£10m); and • revenue support for orbital bus service connecting Strategic Industrial Locations and Rainham (£2m).
Main funding sources	TfL, developer contributions.

A3 Highways	
Main provider	LB Havering (principal, distributor and minor roads), TfL (strategic roads), and Highways England (motorways)
Existing provision	The A12, A13 and A127 provide high quality trunk road access to the M25, which in turn provides access to London and the south east. The borough is served by a full network of other roads.
Adequacy of existing provision	<p>There is a continuing need to assess and upgrade highway structures, principal roads, distributor roads and bus route roads.</p> <p>Gallows Corner, a five arm junction linking the A127 with the A12, suffers from delay due to congestion and is an accident 'hotspot' in the borough.</p>
Assessment of future needs	<p>LB Havering is currently exploring the feasibility of sinking the Gallows Corner road junction underground in order to generate development potential for mixed uses at ground level across the site and to reduce accident rates.</p> <p>LB Havering is working with TfL, Essex County Council and neighbouring District and Unitary Authorities looking at the A127 Corridor in its entirety to see what measures need to be delivered in order to accommodate future growth.</p> <p>LB Havering has been allocated funding from TfL through the Liveable Neighbourhoods programme to undertake detailed design work looking at improving permeability of the Romford Ring Road and therefore looking to provide better access into Romford town centre.</p> <p>LB Havering is also currently considering the possibility of placing the western part of the Romford Ring Road beneath ground so that residential areas to the west of Romford Town Centre (eg. Waterloo Road, Bridge Close and the former Ice Rink site)) can be better integrated and connected with the town centre for cycling and walking, and creating development potential for more new homes.</p> <p>The above projects are at an early stage of consideration and their feasibility has not yet been demonstrated. Future highway improvements that have been firmly identified include:</p> <p><i>Borough-wide</i></p> <ul style="list-style-type: none"> • upgrades to principal roads, distributor roads and bus route roads (£25m); • Highway structure upgrades (£5m); • casualty reduction measures (£5m); • 20 mph zones (£1m); and

A3 Highways	
	<i>Rainham & Beam Park SDA</i> <ul style="list-style-type: none"> Road, carriageway and major junction improvements and cycle ways on the A 1306 (£12.39m).
Main funding sources	TfL, LB Havering, developer contributions.

A4 Walking and Cycling	
Main provider	LB Havering
Existing provision	<p>Most of Havering's residential areas have a network of well-lit footways providing safe and convenient access to local facilities and services, to parks and open spaces, and to public transport connections. LB Havering has developed a series of Heritage Walks around the borough.</p> <p>Havering also has an extensive network of quiet traffic-free routes suitable for cycling, including National Cycle Network route 136, but they are less well connected, with main roads, railways and rivers presenting significant barriers.</p>
Adequacy of existing provision	<p>There is a continuing need to improve accessibility and safety for pedestrians and cyclists.</p> <p>The Ring Road forms a substantial barrier to pedestrian and cycle access to /Romford Town Centre and additional crossing points are required to reduce severance and facilitate active travel.</p>
Assessment of future needs	<p>Numerous improvements to cycling and walking provision are included within highway improvements and wider green space and public realm proposals. Some more specific measures required include:</p> <p><i>Borough-wide</i></p> <ul style="list-style-type: none"> • footway improvements, including accessibility arrangements for pedestrian dropped kerbs (£5m); <p><i>Romford SDA</i></p> <ul style="list-style-type: none"> • engineering measures to improve access to Romford town centre (£7m); • east-west link, including wider improvements along the River Rom (£1.5m); <p><i>Rainham & Beam Park SDA</i></p> <ul style="list-style-type: none"> • The Rainham and Beam Park Planning Framework (January 2016) aims to transform the A1306 in Havering from a traffic dominated road into an attractive green corridor, the Beam Parkway (scheme under Other Green Space below), providing a quality walking and cycling route, and a series of pocket parks, which will transform the image of the area; • the Planning Framework proposes to create a network of walking and cycling routes to connect new local green spaces with the surrounding Marshes and Country Parks; • Rainham Creek cycling/walking bridge (£1m); and

A4 Walking and Cycling	
	<i>Elsewhere in Borough</i> <ul style="list-style-type: none"> development of sustainable transport options (walking, cycling, bus, tram) for London Riverside Conservation Park (Wildspace) (£5m).
Main funding sources	TfL, LB Havering, GLA, developer contributions.

B Education (Primary, Secondary, Post-16 and Early Years)	
Main provider	<p>Local authorities are under a statutory duty to ensure the sufficiency of school places in their area under section 14 of the Education Act 1996. This applies to all children of compulsory school age resident in the local authority area. Providers come from the private, voluntary, charitable and maintained sectors. LB Havering is the commissioner of education and is also the “provider of last resort” when no other acceptable new provider comes forward.</p> <p>Section 6 of the Childcare Act places a duty on local authorities to secure sufficient childcare for working parents. In addition, regulations under the Childcare Act 2006 place duties on all local authorities to secure free early education provision for pre-school children of three and four years old and two year olds from lower income families. This Early Years education is primarily delivered by private, voluntary and independent pre-school providers, accredited childminders, and schools with a maintained nursery provision.</p>
Existing provision	<p>As at 2015/16 state school provision in Havering comprises 60 primary schools (YrR – Yr6), offering 21,200 places, 18 secondary schools (Yr7 – Yr11), offering 16,140 places, and three special schools, offering 266 places.</p> <p>Post-16 education is currently offered at six secondary schools, Havering College of Further & Higher Education and the Havering Sixth Form College. Havering College of Further & Higher Education has three campuses: Ardleigh Green Campus, Hornchurch, Quarles Campus, Harold Hill, and Rainham Campus Construction Centre.</p> <p>As at April 2016, 448 providers in Havering were offering 7,167 early years and childcare places for statutory and non- statutory school aged children. Of these, 1,058 places are nursery classes within maintained schools and academies.</p>
Adequacy of existing provision	<p>In 2015/2016 there were 21,200 primary school places in Havering, and 21,074 primary pupils, leaving a total of 126 surplus spaces (0.6% of the total). The equivalent figures for secondary schools were 16,140 secondary school places and 14,594 secondary pupils in 2015/16, leaving a total of 1,546 surplus spaces, or around 10% of capacity.</p> <p>For 16 to 18 year olds, there were 1,990 places and 1,457 pupils in state school sixth forms in 2015/2016, leaving a total of 533 surplus places. There were additionally 6,701 Education Funding Agency (EFA) funded places at other colleges and academies, including 2,711 at Havering Sixth Form College and 2,268 at Havering</p>

B Education (Primary, Secondary, Post-16 and Early Years)	
	<p>College of Further and Higher Education.</p> <p>The Havering Childcare Sufficiency report indicates that there are sufficient Early Education Entitlement (EEE) places in most of the wards in the borough. However, as of July 2016, there are potential shortfalls of places in the Gooshays, Harold Wood, Mawney, Rainham & Wennington, South Hornchurch and Upminster wards, although this situation may change as new providers open and existing providers may close.</p> <p>There are approximately 1,000 children who have a statement of Special Educational Need (SEN) that live in Havering. Since September 2014, any requests received for an assessment and agreed could lead to an Education Health Care Plan (EHCP). The majority of these children attend mainstream school where they receive additional support. Some will attend Additionally Resourced Provision units (ARPs) within mainstream schools and the remaining children attend Special schools both within and out of borough.</p>
Assessment of future needs	<p>Planning for school places is a complex process and the future need for school places can be impacted by changes to the key data used to produce school roll projections. Changes to housing delivery in terms of overall numbers and phasing can impact on the demand and timing of school places required. Low birth projections or a sudden increase in the birth rate can also lead to an increase in the number of school places needed. Changes to patterns of movement and migration in and out of the borough can also cause fluctuations in demand for school places. Havering carefully monitors all of the above factors to try and mitigate the impact any changes may have on our ability to plan school places effectively, so far as possible. The Local Authority is unable to open new schools. Instead proposers need to be invited to open new schools. However the Local Authority may not be successful in attracting suitable sponsors to open new schools. This may impact on the Local Authority's ability to deliver new schools places on time.</p> <p>LB Havering undertakes annually a comprehensive assessment of future demand for school places in the borough by projecting cohorts within the existing schools, taking account of recent future birth rates, and allowing for the impact of committed and planned housing. Allowance is also made for significant cross border flows both into and out of the borough. The latest long term strategic forecast, contained in the Commissioning Plan for Education Provision (2015/2016 to 2019/2020), covers the ten year period from 2015/2016 to 2025/2026.</p> <p><i>Primary and Secondary Places</i></p>

B Education (Primary, Secondary, Post-16 and Early Years)

The number of primary age pupils in Havering schools, including pupils in existing and planned housing, is expected to increase significantly from 21,074 in 2015/2016 to 28,889 by 2025/2026, and the number of secondary age pupils from 14,584 to 19,766 over the same periods. These represent increases in demand for school places of 7,815 at primary level and 5,182 at secondary level over the ten year period, leading to shortfalls compared with existing school places of 7,689 and 3,626 respectively.

The Local Authority will take action to reduce surplus capacity where this exceeds 10%, and will seek to exert a downward pressure on levels of surplus capacity where these are forecast to remain significantly above 5% throughout the forecast period.

The demand for special school places is in line with the overall growing demand for school places with the complexity of the needs of the children increasing and changing over time. Work is ongoing to refine the forecast figure for pupil who have a special education need and will require schools places over the next 10 years. To meet the increasing demand Havering will be developing new provision through an ongoing programme to create more Additional Resourced Provision (ARP's), specialist provision in mainstream settings. The Council has been selected by the DfE to commission a new 60 place special free school which will meet the needs of children and young people in the borough. The new school will cater for children and young people aged 3-16 years who have complex or severe autism spectrum disorder (ASD) or social, emotional and mental health difficulties.

There may be some areas of Havering that will have no available options to expand existing schools if further major housing is brought forward. School place demand arising from such developments will need to be met through new school provision that will require a site to enable delivery.

Rainham & Beam Park SDA

The Rainham housing zone bid has been approved, with an expected delivery of 3,360 units. The expectation is that 4FE of the need will be met by expansion of existing schools in the Rainham and South Hornchurch Primary Planning area (subject to statutory process). A new 3FE- school will be needed from 2020/21. A site within the housing development has been identified and reserved for the new school and discussions are ongoing between the developer and the potential sponsor. The need for secondary school places for Rainham Housing Zone is 4 FE (600 places). This could be delivered by expanding secondary schools in the planning area as we are not projecting a deficit in year 7 places in that area until 2022/23.

B Education (Primary, Secondary, Post-16 and Early Years)

Romford SDA

The Romford Framework Delivery bid has been approved, with an expected delivery of over 3,304 units and there is also a regeneration programme of over 2,500 units of which the majority of units are within Romford. In the long term, this is likely to result in an increase in the projected pupil numbers and need for additional school places. In order to meet the need for primary school places in the Romford area eight FE will need to be delivered through new schools. A six/eight form entry secondary school in the second phase of the Plan period (5-10 years) will be needed. Both the new primary and secondary schools will need sites in order to deliver the required school places. A three form of entry primary school (630 places) has been approved on the Bridge Close development site and the new school should be sufficient to meet demand for the additional primary places needed over the next five years.

Borough-wide Primary School Requirements to 2020/2021

The Commissioning Plan for Education Provision indicates the need for a total of 3,840 additional primary places by 2020/2021 in addition to those already available in 2016/2017. As indicated in the table, this demand is concentrated in Romford, Harold Hill, and Rainham & South Hornchurch.

Primary School Requirements by 2020/2021

Planning Area	Capacity 2015-2016	Pupil Roll 2015-2016	Surplus Places 2015-2016	Surplus Capacity 2015-2016	Capacity 2020-2021	Pupil Roll 2020-2021	Surplus Places 2020-2021	Surplus Capacity 2020-2021
Collier Row	3525	3387	138	4%	3825	3773	52	1%
Elm Park	2330	2242	88	4%	2920	2838	82	3%
Harold Hill	3435	3395	40	1%	3900	4420	-520	-13%
Hornchurch	4860	4641	219	5%	5040	5062	-22	0%
Rainham and South Hornchurch	2295	2167	128	6%	2370	2965	-595	-25%
Romford	2745	2692	53	2%	3510	3859	-349	-10%
Upminster and Cranham	2572	2550	22	1%	2730	2759	-29	-1%

B Education (Primary, Secondary, Post-16 and Early Years)

Beyond 2020/21 the primary pupil numbers are forecast to increase, due to rising birth rates and the level of housing growth planned.

Borough-wide Secondary School Requirements to 2020/2021

For secondary schools, the Commissioning Plan similarly indicates a need for a total of 637 additional Year 7 places by 2022/2023. This is equivalent to an additional 21 FE. As indicated in the table, this demand is concentrated in the Central Planning Area, with lesser demands elsewhere. In most areas the requirement can be met by school expansions but new provision will also be required to meet needs in the Central Area and the North East area.

Secondary School Requirements by 2020/2021

Planning Area	Permanent Places 2015-2016	Pupil Roll 2015-2016	Surplus places 2015-2016	Surplus Capacity 2015-2016	Permanent Places 2022-2023	Pupil Roll 2022-2023	Surplus Places 2022-2023	Surplus Capacity 2022-2023
North East	180	179	1	1%	180	269	-89	-49%
North West	180	162	18	10%	180	221	-41	-23%
Central	1578	1532	46	3%	1624	1990	-366	-23%
East	693	621	72	10%	651	755	-104	-16%
South	617	473	144	23%	617	654	-37	-6%

Beyond 2022/23 the secondary pupil numbers are forecast to increase due to the higher year 6 primary cohort continuing to transfer to year 7 in secondary and the level of housing growth planned.

Borough-wide Post-16 Places

Current data for Havering suggests that an expected rise in the participation rate to full participation of 16 and

B Education (Primary, Secondary, Post-16 and Early Years)	
	<p>17 year-olds from 2015 will to a large degree be cancelled out by a fall in numbers of young people aged 16 to 18 in the next few years. However, in the longer term, the number of 16 and 17 year olds in Havering is projected to increase, from 9,043 in 2016/2017 to 10,318 in 2023/2024. There is a range of options for pupils in this age group, including sixth forms, colleges, and apprenticeships, to which would be pupils can travel from anywhere in the borough. Numbers on roll at Havering College of Further and Higher Education and Havering Sixth Form College are projected to increase by around 200 and 240 over this period, respectively.</p> <p>The situation is complicated by the fact that post-16 pupils can travel between local authorities and Havering has traditionally been a net importer of learners post-16. The number of 16 to 19 year-olds in East London and the Thames Gateway is forecast to increase significantly in the coming years, which is also the case in Greater London but at the same time there is a potential increase in the number of 16 to 19 providers in the surrounding area, such as the recently established University Technical College (ELUTEC) in Dagenham. It is therefore difficult to be definitive about future requirements.</p> <p><i>Borough-wide Early Years Places</i></p> <p>From September 2017 working families will be entitled to up to 30 hours of childcare per week for 3 and 4 year olds, subject to the eligibility criteria for the additional free entitlement. There is already a need for additional Early Years places; with the additional hours being available this could see a further increase in demand. The number of two, three and four year olds needing EEE places across the borough is expected to increase from 5819 in 2015/16 to 6857 in 2025/26. A deficit of about 300 places for 2, 3 and 4 year olds is projected over that period although it is not possible to be specific about locations at present. Further details on the future demand for early years places are given in LB Havering's Childcare Sufficiency Report, which is updated on an annual basis.</p>
Costs	<p>The DfE is currently funding the Local Authority at the rates of £16.5k per primary pupil and £21.5k per secondary pupil.</p> <p>At these rates the total cost of school places to meet pupil numbers to 2025/2026 will be at least £127m for primary and £78m for secondary, excluding any allowance for providing surplus places to provide flexibility. Assuming post-16 pupils are funded at the same rate as secondary pupils, the equivalent cost of additional places for this age group to 2023/2024 would total around £9.5m.</p> <p>The total cost of Early Years places to meet pupil numbers to 2025/2026 will be of the order of £3.73m</p>

B Education (Primary, Secondary, Post-16 and Early Years)	
Main funding sources	<p>Department for Education (DfE), LB Havering, Education Funding Agency, developer contributions.</p> <p>LB Havering receives Basic Need Funding Allocation from the DfE to create additional school places to meet demand arising from increases in births and net in- migration into the borough. However, there is no guarantee of the level of future Basic Need allocation that Havering may receive and the allocation has been significantly reduced in recent years. No grant is allocated to meet demand for places arising from new housing developments. Other sources, including developer contributions, will be needed to provide such places.</p> <p>The Education Funding Agency (EFA) is responsible for managing the Government's 16-19 Demographic Growth Capital Fund, which supports the creation of accommodation for new learners aged 16-19. This demand may arise from either population growth, the increase in participation by young people who are not in education, employment or training, or new learners with learning difficulties and/or disabilities who require provision.</p> <p>Free School provision has been used across the country to meet some of the demand for additional school places. Havering has two new Primary Free Schools. If there are further opportunities to apply for free schools in future waves, Havering will do so. However it is not certain if the Free Schools waves will continue to be used a method of providing additional school places in the future. The Local Authority will need to provide sites for any new school needed in the future.</p> <p>In the case of Free schools/new schools and expansion works, there is an element of risk around the delivery of the school places and whether they can be delivered on time to accommodate the need for additional school places.</p>

C1 & C2 Primary and Acute Health Care	
Main provider	Havering Clinical Commissioning Group (CCG) and NHS England commission healthcare services. Barking, Havering and Redbridge University Trust provide acute hospital services
Existing provision	<p>There are 47 GP practices in Havering, with a total of 95 Full Time Equivalent GPs. These currently provide services from around 6,560 m² of space to a registered patient population of 255,865.</p> <p>A new Harold Wood Polyclinic of 2,500 m² was opened at Harold Hill in 2010, at a construction cost of £4.6m.</p> <p>The only acute hospital, operating an Accident & Emergency department, in Havering is Queen's Hospital in Romford, which opened in 2006, and brought together the services previously run at Oldchurch and Harold Wood hospitals.</p>
Adequacy of existing provision	<p>The average ratio of patients to FTE GPs in the borough is 2,690, well above the London average of 2,100 and somewhat higher than the national average of 2,000. There are no clinically set standards for the ratio of GPs to patients but the primary healthcare default assumption used for capacity planning purposes is set at a ratio of 1 GP per 1,800 patients based on guidance from the Royal College of General Practitioners.</p> <p>The primary care estate data base (SHAPE) indicates that existing facilities are currently operating at or near capacity. Based on current Department of Health guidance on primary care space standards, the existing population of Havering (around 250,000) would require some c.18,000 m² compared with the 7,179 m² of space currently provided. Havering has a large number of smaller premises which, by their nature, will have little opportunity for expansion and if feasible, the size of expansion is likely to be relatively small scale. Furthermore, many GP practices are currently using ageing, converted domestic premises, a large number of which are in need of major building works to enable them to comply with required standards.</p>
Assessment of future needs	<p>The CCG has worked together with the Council to prepare the Havering Primary Care Infrastructure Capacity Plan. The purpose of this plan is to give an indication of additional primary care infrastructure requirements up to 2026. Continued working between the CCG and the Council is required to monitor and update the information in the plan.</p> <p>The CCG's aims for the development of general practice and wider primary care are that it should be accessible, coordinated and proactive. There will be a focus on prevention, support for self-care, active management of long-term conditions and the avoidance of unnecessary hospital admissions. Acute hospital care should be reserved for acutely ill patients with the majority of care delivered nearer home.</p>

C1 & C2 Primary and Acute Health Care

Havering is divided into three healthcare regions, termed “localities”:

- North (including Harold Wood)
- Central (including Romford Town)
- South (including Rainham and South Hornchurch)

This assessment concentrates on the primary healthcare requirements arising solely from new housing developments. The NHS Healthy Urban Development Unit (HUDU) has used their model to calculate the population yield from new housing and to assess the subsequent healthcare impacts and floorspace requirements. The model produces the following population growth for each locality over the two phases of the development:

Locality	Phase 1 2016/17-2020/21	Phase 2 2020/21-2025/26	Total
North	1,310	402	2,071
Central	4,665	8,025	15,804
South	3,379	4,617	8,510
Total	9,354	13,044	26,385

This shows that the Central and South localities will need to absorb the majority of the population increase, receiving 60% and 32% of the growth respectively.

The HUDU model estimates primary care requirements by locality and phase in terms of full time equivalent (FTE) GPs and primary care floor space, to meet the estimated population growths. The floor space requirement assumption is derived by HUDU from example schedules of accommodation in Health Building Note 11-01: *Facilities for primary and community care services* (2013), which also includes space for wider primary and community care services. The requirements are as follows:

C1 & C2 Primary and Acute Health Care

Locality	Phase 1 2016/17-2020/21		Phase 2 2020/21-2025/26		Total	
	FTE GPs	Primary Care m ²	FTE GPs	Primary Care m ²	FTE GPs	Primary Care m ²
North	0.7	118	0.2	36	0.9	159
Central	2.6	426	4.5	735	7.0	1196
South	1.9	309	2.6	422	4.4	753
Total	5.2	853	7.2	1,193	12.4	2108

The CCG has undertaken a preliminary desktop review of current facilities and development sites on offer to determine which might be the most suitable sites to be allocated for health and in which time period they will be required. New, fit-for-purpose premises are needed to cater for the significant population growth, to facilitate primary care at scale, and enable patient access to a wider range of integrated services. In summary, the additional requirements for new facilities could be:

Romford SDA

- Primary and community care hub in Romford Town centre of 4,500 m² (£20.3m);

Rainham & Beam Park SDA

- two new facilities of 1,500 m² in the Beam Park development and close to Rainham Town Centre to provide combined capacity for 30,000 patients (£14m);

Rest of Borough

- new primary care hub in Heaton ward of 950 m² for around 10,000 patients (£4.3m);
- enhanced GP service of 2,800 m² at the proposed St. George's Health & Well-Being Centre for around 30,000 patients (£12.6m);
- new primary care hub of 1,850 m² to be developed in North Locality for around 30,000 patients (£8.3m); and
- new primary care hub of 3,200 m² to be developed in Central Locality for around 35,000 patients (£14.4m).

In addition, Harold Hill Health Centre and Harold Wood Polyclinic would be combined into a joint hub and the

C1 & C2 Primary and Acute Health Care	
	<p>utilisation of South Hornchurch and Cranham Health centres would be maximised.</p> <p>It should be noted that these proposals reflect the need to provide additional services and space for population increase only. Other pressures may impact these proposals, such as:</p> <ul style="list-style-type: none"> • the CCG forward vision and future estate rationalisation plans (identified through the 'Transforming Primary Care in Havering' strategy 2016-2021) ; • re-providing ageing GP practice buildings that may be struggling to meet fit for purpose criteria; and • health and social care integration by creating larger multi use 'hub' facilities.
Costs	The CCG is currently assuming a build cost for primary care facilities of £4,500 per sq m. The costs of individual projects given in Table 7.2 are calculated using this assumption.

C3 Mental and Community Health	
Main provider	North East London Foundation Trust (NELFT) provides mental health and community services in Havering.
Existing provision	<p>The NELFT estate in Havering comprises 18 premises.</p> <p>Adult Services in Havering, including Mental Health Services, are organised around 6 GP clusters while Children's Services are organised around three clusters. The NELFT opened the Acorn Centre, a Child Development Centre, in London Road, Havering in February 2015 as a hub facility allowing Child and Adolescent Mental Health Services from various locations within Havering to provide an integrated service to the Borough.</p>
Adequacy of existing provision	NELFT commissioned surveys in 2015 of all properties the Trust owns or substantially occupies. The results suggest substantial underuse of both clinical and non-clinical space within the majority of premises.
Assessment of future needs	<p>People's health in Havering is changing as more people are living longer and with more complex long term conditions, and so needing more and a wider range of care. Future plans will largely be based on demographic information, age, population growth and areas of deprivation.</p> <p>The NELFT strategy is based on the development of 'agile working', a flexible and mobile workforce, to support care closer to home and early intervention. For adult services a model of care based on locality primary care provision is currently being rolled out within Havering, with community health and social care integrated within these hubs. Some teams will be co-located and clustered around three hubs at: Harold Wood, Romford and Cranham. Discussions are taking place with LB Havering on integrating primary care, community, mental health and social care under a single management structure. Joint use of provision and premises with Social Services and other LA departments has commenced around older people's services.</p> <p>Under the NELFT Estates Strategy 2014- 2019, the existing estate in Havering will be rationalised to provide new accommodation to meet the needs of new working practices. The NELFT has embarked on an ambitious drive to reduce estates costs by developing closure plans for up to six Havering premises and relocating their services within the borough. Estate rationalisation will ensure that the retained premises are in the optimum locations for service delivery within the Borough and in good condition. Any future investment can then be directed towards the retained properties. The Trust is working in partnership with other organisations to maximise the use of the public estate to the overall benefit of the local health economy.</p> <p>Crisis teams will be aligned to hospital A&E and other urgent and emergency care hubs while intermediate care services for Havering are being relocated to the King George's Hospital site in Ilford, Redbridge, which provides</p>

C3 Mental and Community Health	
	cohesive patient care and estate rationalisation opportunities.
Main funding sources	NELFT. The Trust has a five year Investment and disposal plan which addresses the operational and strategic expenditure required to accommodate its plans.

C4 Social Care	
Main provider	LB Havering (and commissioned external private providers)
Existing provision	<p>There are 39 care homes in Havering (21 residential and 18 with the facility to provide nursing care for older people and people with physical and sensory disabilities). LB Havering purchases approximately a third of the beds.</p> <p>Three commissioned extra care housing schemes for older people are located in Harold Wood, Gidea Park and Harold Hill.</p> <p>There are ten day opportunity services in Havering, located mostly in the north of the borough, and one day centre for people with learning disabilities in Rainham.</p> <p>Adult Social Care statutory and non-statutory functions are largely based in offices in Romford town centre, with adult social work teams co-located with community health services located in Romford, Cranham, Elm Park and Harold Hill.</p> <p>LB Havering currently runs six Children Centres, in Collier Row, Elm Park, Harold Hill, Noak Hill, Rainham and Romford. These centres offer a range of services and activities including family sessions, parenting programmes. In addition, the Children Centres work in partnership with health and other partner agencies to provide a holistic service covering midwifery, child health clinics, foster carers support groups, one to one and group counselling, etc.</p> <p>Children's and Adult Social Care Services are currently working with health and other partners on developing locality based models of care and support, including improving access to prevention and early intervention. The localities will be a mixture of co-located and virtual integrated services.</p>
Adequacy of existing provision	<p>LB Havering's Joint Strategic Needs Assessment (2016) provides a high-level description of population growth, prevalence and pattern of risk factors for ill health, status of health and wellbeing and the patterns of demand for health and social care services in Havering.</p> <p>Havering has the highest proportion of older people of any LB and the significant majority of vulnerable people in the borough with a supported housing need are elderly. However, the current provision of residential care homes is more than sufficient to meet current needs. Throughout 2015/2016, of approximately 1600 available beds, 250 remained vacant each week.</p>

C4 Social Care	
	There is currently no supported housing for people with physical disabilities in Havering.
Assessment of future needs	<p>LB Havering is clear that there is no need for more residential or nursing homes within the borough. The policy is to support people in remaining independent and safe at home. However, there is a growing need for supported accommodation within the borough that cannot be entirely met by existing provision. However, detailed knowledge of residents' supported housing needs is required in order to encourage private sector providers and housing associations to build suitable properties and schemes in the borough.</p> <p>Rising pressures on LB Havering to provide suitable housing options for older people means that a specific Older Persons Housing Sub-strategy has been developed to set out to address the issues. The current Housing Strategy recommends converting some existing sheltered schemes to extra care or a retirement village model, due to the high number of asset rich older people in the borough.</p> <p><i>Borough-wide</i></p> <ul style="list-style-type: none"> • LB Havering has identified a current need for up to three purpose-built six person supported housing schemes for people with learning disabilities and for one purpose built six to eight person supported housing scheme for people with physical disabilities (combined cost £4.2m); • Demand for Children Centres is forecast to increase substantially as the young population increases. LB Havering plans to respond to this demand by increasing the level of services provided by the existing centres and by bringing back into operation Hildene Children Centre in existing premises in Harold Hill, which has not been functioning for some years; and • Children's Services have also identified the need for the development of borough based residential care facilities for vulnerable children and young people, as well as semi-independent living schemes to support young people leaving care become independent as they move into adulthood.
Main funding sources	LB Havering, GLA.

D1 Water supply	
Main provider	Most of Havering is within the water supply area of Essex and Suffolk Water (ESW), although some small areas are supplied by Thames Water .
Adequacy of existing provision	ESW and Thames Water infrastructure is sufficient to supply the water needs of Havering.
Assessment of future need	<p>All water companies must prepare a Water Resource Management Plan (WRMP) every five years at the same time as they prepare their business plan. A WRMP forecasts water demand over a 25 year planning horizon, taking into account reductions in per capita consumption due to water efficiency activity and the uptake of meters. It then documents how demand will be met over this period. ESW's current Water Resources Management Plan (2014) covers the 25 year period from 2015 to 2040.</p> <p>Havering falls within ESW's Essex Water Resource Zone. Following a significant investment in the expansion of Abberton reservoir, Essex, has sufficient water to meet forecast demand until at least 2040. As such no major infrastructure is needed to meet the increase in housing numbers or commercial development within Havering during the period of their delivery plan.</p> <p>ESW has confirmed that the proposed level of development, depending on the size and location, could require some minor infrastructure (water mains) enhancement prior to development, but this is part of Business as Usual and would not delay development. In particular, the existing water network in the Rainham & Beam Park SDA can provide the required capacity to accept a new mains to serve the HZ development.</p>
Main funding sources	Essex and Suffolk Water and Thames Water are private utility companies.

D2 Sewerage	
Main provider	Thames Water is the statutory sewerage undertaker for most of LB Havering.
Existing provision	Thames Water's Riverside Sewage Treatment Works at Rainham treats wastewater from approximately 400,000 people in Havering and other parts of East London.
Adequacy of existing provision	<p>A comprehensive upgrading of the Rainham works was completed in 2014 as a part of the London Tideway Improvements scheme. This increased its capacity to meet the predicted increase in flows until 2021, in addition to the construction of a new sludge digestion plant equipped to turn solid waste, left behind after treatment, into enough renewable energy to power the entire site.</p> <p>During heavy rainfall, the sewerage system in the Ravensbourne Valley, which includes much of Havering, has occasionally become overwhelmed, and has been associated with sewer flooding in some local areas.</p>
Assessment of future need	<p>The water companies' investment programmes are based on a five year cycle known as the Asset Management Plan (AMP) process. The AMP6 period began on 31st March 2015 and covers the period up to 31st March 2020. As part of its five year business plan Thames Water advise Ofwat on the funding required to accommodate growth in its networks and treatment works. Thames Water bases its investment programmes on development plan allocations, which form the clearest picture of the shape of the community. Where the infrastructure is not available they may require up to three-year lead in time for provision of extra capacity to drain new development sites. If any large engineering works are needed to upgrade infrastructure the lead-in time could be up to five years. Implementing new technologies and the construction of new treatment works could take up to ten years.</p> <p><i>Romford SDA</i></p> <ul style="list-style-type: none"> Thames Water has no concerns from a wastewater treatment perspective, but no information is yet available on the capacity of the local sewerage system to accept the additional loads from HZ development. <p><i>Rainham & Beam Park SDA</i></p> <ul style="list-style-type: none"> A series of significantly large gravity sewers passing through this area Under the HZ agreement, a GLA grant of £1.5m is allocated to diverting a sewer and high pressure gas main along the northern frontage at Dovers Corner to allow the site to be developed to its full potential capacity; and Sewer capacity in this area is limited and Thames Water expect infrastructure upgrades to be required for the level of development proposed. Thames Water has not quantified the scale and likely cost of these upgrades.
Main funding sources	Thames Water is a private utility company.

D3 Electricity	
Main provider	<p>National Grid runs the high-voltage electric power transmission network (National Electricity Transmission System (NETS), which connects power stations and major substations and ensures that electricity generated anywhere in Britain can be used to satisfy demand elsewhere.</p> <p>UK Power Networks own and maintain electricity cables and lines across London, the South East and East of England. They maintain and upgrade power equipment, and move and connect new electricity cables.</p>
Existing provision	<p>Havering falls within Boundary 14 (London) of the NETS. The majority of this transmission network is a 275kV route, with the main London feeders being at 400kV. Electricity infrastructure in Havering comprises overhead transmission lines and underground cables and no other major National Grid facilities.</p> <p>UK Power Networks has 18 major substations within Havering.</p>
Adequacy of existing provision	There is ample capacity within major substations to supply Havering.
Assessment of future need	<p>According to the National Grid's "Electricity Ten Year Statement" (2015), high demand in London and interconnector exports drive power through north London and the Thames Estuary, causing heavy circuit loading and voltage depressions. With more interconnectors expected over the next 10 years, an increased draw of power could be seen through the major Midlands to South routes and through London when the interconnectors export, putting these major transmission routes and the circuits connecting the Greater London area close to the thermal capacity limits. The network will have to be developed in order to improve its utilisation or to create new capacity.</p> <p>There is adequate capacity for a generic load growth for at least ten years at most substations in Havering, with probably some local reinforcement needed at a few sites and to the cable network. Future scenarios are modelled on a regular basis to reflect changes within the network but the potential increase in use of electricity for new technology may impact the available capacity sooner than anticipated. For example, localised one-off loads for commercial developments such as Data Centres can adversely impact the infrastructure network and may require substantial reinforcement to enable their connection, and may change the configuration of the higher voltage networks. This may change the available capacities to other future connections.</p> <p><i>Rainham & Beam Park SDA</i></p> <ul style="list-style-type: none"> the new development will require diversions/alterations to Low Volt and High Volt cables. There may also be a need to undertake alterations to 33kv extra high voltage cables. The total cost indication budget figure

	<p>provided by UKPN for all required diversionary works within the HZ development is £2.0m, although this is a worst case scenario under which large scale diversion is required; and</p> <ul style="list-style-type: none"> the Rainham and Beam Park area has been identified as a target cluster for the deployment of a district heating network in the London Riverside Opportunity Area Rainham & Beam Park Energy Masterplan, 2015. No decision has yet been made on the form of provision.
Main funding sources	National Grid and UK Power Networks are privatised utility companies operating commercially within a regulated framework.

D4 Gas	
Main provider	Cadent (previously National Grid) is the sole owner and operator of gas transmission infrastructure in the UK. Gas producers supply gas to its National Transmission System (NTS) through reception terminals. Gas is transported from the National Transmission System (NTS) through eight regional distribution networks for final delivery to consumers. The regional distribution network for North London, including Havering, is run by Cadent.
Existing provision	Cadent's gas distribution network serves the whole borough. However, major pipelines passing through the borough can put constraints on development potential in some locations. This is particularly important in the Rainham/Beam Park SDA (see below).
Adequacy of existing provision and assessment of future need	<p>Cadent has confirmed that there is sufficient capacity on the MP/IP (Medium Pressure/Intermediate Pressure) Gas Distribution system to accommodate potential developments within Havering and the surrounding areas. However, Cadent's connections process works on a first come first serve basis. Cadent can therefore not guarantee if capacity is available at the time an official connections request is sent in.</p> <p><i>Rainham & Beam Park SDA</i></p> <ul style="list-style-type: none"> • capacity requirements for the entire SDA development can be satisfied by the existing National Grid gas infrastructure. However, the area is traversed by three high pressure gas pipelines which are aligned predominately east to west. The nature of the pipelines affects how the land near them can be developed. A pipeline study has established that the impact of the pipelines on development can be minimised by locating development carefully. Other potential mitigation measures may include pipeline diversion; and • under the HZ agreement, a GLA grant of £1.5m is allocated to diverting a sewer and high pressure gas main along the northern frontage at Dovers Corner to allow the site to be developed to its full potential capacity.
Main funding sources	Cadent is a privatised utility company operating commercially within a regulated framework.

D5 Communications (Telecommunications/Broadband/Delivery Services)	
Main provider	BT Openreach, Virgin Media
Existing provision	Superfast Broadband in Havering is provided via one of two networks. The Fibre To The Cabinet (FTTC) network is owned by BT and operated by a range of providers, while Virgin Media owns and operates exclusively a Fibre To The Property (FTTP) network. All exchanges within a five mile radius of Havering are owned and maintained by Openreach and have been fibre broadband enabled. Consequently broadband providers who are reliant on Openreach's broadband network infrastructure (BT, Plusnet, Sky, TalkTalk, etc.) can provide fibre broadband to homes in this area. Virgin Media fibre broadband is also available to homes within a five mile radius of Havering.
Adequacy of existing provision	Some 98% of Havering users can now order a superfast broadband (speed greater than 24Mbps) connection, (although the actual guaranteed minimum contracted speed maybe far less than the speeds quoted).
Assessment of future need	<p><i>Borough-wide</i></p> <p>Advanced, high quality digital infrastructure is essential for sustainable economic growth, allowing Havering's community enhanced freedom of choice about where and how they work, and how they promote and operate their businesses. The Local Plan therefore expects new development to future-proof developments to accommodate high speed broadband infrastructure.</p> <p>The Government's support for further broadband roll-out is largely provided through the Superfast Broadband Programme. A London-wide programme will increase fibre coverage in every LB.</p> <p>Providing additional infrastructure in the field as well as in the exchange does not present significant issues. By deploying Fibre technology to new build sites there is no need for large multiple copper cables to be provided, building large cable frames in telephone exchanges, or even to build completely new telephone exchanges.</p> <p>In September 2015 BT announced plans for an expansion of high-speed fibre broadband in Havering. Openreach, BT's local network business, will take the company's total coverage for fibre in the borough to nearly 100,000 premises by 2017. The recent Ofcom judgement that BT and Openreach have to formally separate may delay progress of technology delivery. It may also open up the market to other providers. At present Openreach delivery is still FTTC and not FTTD as desired.</p> <p>Virgin Media is in year two of an ongoing five year plan for expanding/upgrading its network. Additional floor space will be required for Royal Mail Delivery Offices within Havering. For every 500 new homes, an additional 16 m² of Delivery Office floorspace will be required. In addition to this one additional postal walk</p>

	<p>would typically be required.</p> <p><i>Rainham and Beam Park SDA</i></p> <p>To ensure an enriched environment LB Havering will provide suitable infrastructure ducting that will be utilised to deliver digital connectivity services. The aim will be to provide FTTD for all properties and locations as a default and wireless provision will also be provided to commercial areas such as the new railway station.</p>
Main funding sources	UK Government, BT and Virgin Media, Mobile network providers

E Flood Protection	
Main provider	<p>LB Havering, Environment Agency (EA)</p> <p>The EA has a strategic overview of all sources of flooding and coastal erosion. It is also responsible for tidal flood risk management along the Thames Estuary. LB Havering is the Lead Local Flood Authority for Havering, with a strategic role in overseeing the management of local flood risk i.e. flood risk from surface water runoff, groundwater and ordinary watercourses such as streams and ditches.</p>
Existing provision	<p>The Havering Strategic Flood Risk Assessment (SFRA) (November 2016) identifies formal flood management assets (features or structures built and maintained specifically for the purpose of flood risk management) in Havering.</p>
Assessment of future needs	<p>The EA's Thames Estuary 2100 (TE 2100) (2012) is a strategic flood risk management plan for London and the Thames estuary through to 2100. It reviews how tidal flood risk is likely to change in response to future changes in climate and people and property in the floodplain. It found that many of the existing flood walls, embankments and barriers would need to be raised or replaced to manage rising water levels in the long term (by 2050).</p> <p>TEAM2100 is the Environment Agency's 10-year programme to refurbish and replace tidal flood defences in London and the Thames estuary. TEAM2100 will improve tidal flood defences in London, Kent and Essex from 2015 to 2025. The EA's current estimates of the costs of maintaining and improving the flood defence system for Havering for the period to 2050 are as follows:</p> <ul style="list-style-type: none"> • fixed flood defences - maintenance and repair: £5m; • fixed flood defences - major repairs and replacements: £26m; and • flood barriers and outfalls: £5m. <p>The SFRA identifies: flood risk zones 1, 2, 3a and 3b (functional floodplain); locations of flood risk from other sources (ordinary watercourses, groundwater, sewers, reservoirs and canals); locations at risk of surface water flooding, termed Havering Critical Drainage Areas or HCDA, particularly outside fluvial or tidal risk areas; and areas protected by existing flood defences and that could be at risk should they fail. The SFRA makes recommendations to reduce flood risk but makes no specific infrastructure proposals.</p> <p>As part of the Drain London Project, a Draft Surface Water Management Plan (SWMP) has been prepared for LB Havering in consultation with key local partners, including Thames Water, the EA and Transport for London. The Draft SWMP identifies the main sources of flood risk in the borough and a number of Critical Drainage Areas</p>

E Flood Protection	
	<p>(CDAs).</p> <p><i>Borough-wide</i></p> <p>The LB Havering Critical Drainage Areas - Detailed Investigations Report (Jan 2016) has examined the potential damage from flooding in each (CDA), and identified and assessed for viability a set of mitigation options for each. However, schemes for implementation have not yet been selected nor costs estimated.</p> <p><i>Romford SDA</i></p> <p>The SFRA Annex A identifies the land immediately adjacent to the River Rom and Blacks Brook within the SDA as predominantly located within fluvial Flood Zone 2, with small areas designated as Flood Zone 3b. There are no specific proposals for flood defence infrastructure.</p> <p><i>Rainham & Beam Park SDA</i></p> <p>The SFRA Annex A identifies the southern section of the SDA as located within fluvial Flood Zones 3a and 2, with areas designated as Flood Zone 3b adjacent to the River Beam and Ingrebourne. The Rainham and Beam Park Development Framework proposes a number of interventions to reduce flood risk in the area, but costs have not yet been estimated for these:</p> <ul style="list-style-type: none"> • Dovers Corner / Havering College: open up the culverted section of the Havering New Sewer which flows through the Dovers Corner site, and provide an open channel with a width of 5m; • Suttons Industrial Park: open up the culvert in the Sutton Industrial Park site and provide an open channel with a width of 5m; and • Beam Park: Upgrading the existing Washlands Flood Attenuation Storage to reduce the risk from flooding at the Beam Park site.
Main funding sources	<p>LB Havering, EA's Flood Defence Grant in Aid, developer contributions.</p> <p>Any financial investment in Havering's flood defences throughout the TE2100 plan will be subject to the Department for Environment, Food & Rural Affairs (Defra) flood and coastal resilience partnership funding policy statement. Under these terms financial contributions will be required from partners (including EA, LB Havering, landowners and other key stakeholders) to attract the maximum amount of Flood Defence Grant in Aid funding.</p>

F1 Libraries	
Main provider	LB Havering
Existing provision	LB Havering is responsible for the management and development of ten libraries: Collier Row, Elm Park, Harold Hill, Hornchurch, Gidea Park, Harold Wood, Rainham, Romford, South Hornchurch and Upminster.
Adequacy of existing provision	<p>Almost all the main residential areas in the borough are included in the catchment area of one of the five most strategically important libraries: Romford, Hornchurch, Rainham, Harold Hill and Upminster. All ten libraries are located in or close to town centres and are well served by public transport.</p> <p>LB Havering libraries have undergone a programme of building refurbishments over the last few years. A new library has also been built in Rainham (opened July 2014) replacing the old Rainham Library and a new library opened at Harold Hill in September 2016 as a replacement for the existing library. The latter was financed by the sale of Council-owned land at Gooshays.</p>
Assessment of future needs	<p>Under the Draft Library Strategy 2015 – 2017, future needs will be met using the existing facilities, but adopting a new delivery model by which the five strategically most important libraries (Romford, Hornchurch, Rainham, Harold Hill and Upminster) will be open at least 50 hours a week and the remaining five libraries will open at least 24 hours a week. No requirement has been identified for additional library provision to serve the additional population under the Local Plan.</p> <p><i>Borough-wide</i></p> <ul style="list-style-type: none"> • under the Library Strategy 2015-2017 there is an ongoing programme of decoration, repairs and maintenance (£1m);and <p><i>Rainham & Beam Park SDA</i></p> <ul style="list-style-type: none"> • there is no requirement for additional library facilities in the SDAs as Romford Library and the new Rainham Library have sufficient capacity to serve the new population in the HZs in addition to their current users.
Main funding sources	LB Havering, developer contributions.

F2 & F3 Cultural Facilities and Heritage	
Main provider	LB Havering
Existing provision	<p>The main cultural facilities in Havering are the Queen's Theatre and the Fairkytes Arts Centre, both in Hornchurch, Havering Museum in Romford, which opened in May 2010 with funding from the Heritage Lottery Fund, and the Brookside Theatre in Romford, which opened in 2012.</p> <p>Havering has a rich and varied range of heritage assets, including 140 Listed Buildings of Special Architectural or Historic Interest; three Scheduled Ancient Monument sites, 11 conservation areas and a registered historic garden.</p> <p>LB Havering is the owner of three heritage sites: Bretons (house and gardens), Upminster Windmill, and Upminster Tithe Barn, which houses the Museum of Nostalgia.</p>
Adequacy of existing provision	<p>Refurbishment of the Fairkytes Arts Centre has recently been completed, including the opening of the Fairkytes Live music venue.</p> <p>Queen's theatre is in need of rehearsal space.</p>
Assessment of future needs	<p><i>Romford SDA</i></p> <ul style="list-style-type: none"> there is an ongoing requirement for repair and maintenance of the Havering Museum (£0.2m); <p><i>Elsewhere in Borough</i></p> <ul style="list-style-type: none"> The Havering Arts Strategy 2013 to 2015 identifies a need for new high quality visual arts exhibition space at Fairkytes Arts Centre (£1m); Queen's theatre is in need of rehearsal space and a cafe area (£10m); Improvements to Upminster Tithe Barn are needed to provide public toilets, re-thatch the roof and to provide interpretative material inside the Barn (£1m); and Improvements to Bretons are required to restore the historic buildings and convert them to alternative uses (to be determined but could include a wedding venue) (£10m).
Main funding sources	LB Havering, Arts Council, Heritage Lottery Fund, developer contributions.

F4 Community Halls and Youth Centres	
Main provider	LB Havering
Existing provision	<p>LB Havering currently has nine community halls, eight of which it leases to community associations and the other to an Early Years operator. The Halls provide a valuable recreational and educational resource to the local community.</p> <p>There are three main youth centres in Havering. Myplace in Harold Wood and Robert Beard in Hornchurch are run by LB Havering, and Rainham Royals in Rainham is run by the voluntary sector. Myplace was opened in 2012 and Robert Beard in the 1960s, while Rainham Royals was refurbished and extended in 2015.</p>
Adequacy of existing provision	<p>Of the nine halls, seven are in need of some repair and improvement works to bring them up to contemporary standards.</p> <p>The distribution of youth centres in Havering leaves a significant gap at Romford.</p>
Assessment of future needs	<p><i>Borough-wide</i></p> <ul style="list-style-type: none"> all community halls require upgrading/refurbishing (£2m); <p><i>Romford SDA</i></p> <ul style="list-style-type: none"> due to changing demographics as a result of new development it is anticipated that Youth Centre provision will be required in Romford, although a specific need has not yet been identified. <p><i>Rainham & Beam Park SDA</i></p> <ul style="list-style-type: none"> The Rainham and Beam Park Development Framework expects that additional social facilities including community halls will be required, but they should be defined according to the expressed needs of the future local population. As the nearest social hall is on the former Mardyke estate a new hall will most likely be required. The recently improved and extended Rainham Royals Youth Centre lies within the area.
Main funding sources	LB Havering, Lottery, local sponsorship, developer contributions, and in-kind contributions from volunteers.

F5 Crematorium and Burial Grounds	
Main provider	LB Havering
Existing provision	<p>Crematorium facilities are provided at the South Essex Crematorium in Upminster.</p> <p>There are currently four cemeteries in Havering run by the Borough Council: at Rainham, Hornchurch, Romford and Upminster. In addition, Rainham Jewish cemetery was purchased from the local Jewish community in 2016 by a private company and the burial plots are now multi faith/Interdenominational.</p>
Adequacy of existing provision	<p>The South Essex Crematorium is adequate for current needs.</p> <p>There are currently 295 new multi faith/interdenominational graves available at Romford cemetery and 44 new graves for Muslim burials. At recent burial rates this equates to 11 years and 22 years respectively.</p> <p>Following the Phase 1 extension to Upminster cemetery in 2014 there are currently 925 new graves available there (seven or so years at recent rates of burial).</p> <p>Rainham and Hornchurch cemeteries have no new graves available and capacity for reopen burials only.</p> <p>The significant capacity at Rainham Jewish cemetery is not taken into account within the capacity projections given above.</p>
Assessment of future needs	<p>There is no identified requirement for additional crematorium facilities.</p> <p>Assuming recent burial rates, future burial needs for the whole borough can be met by the Phase 2 and 3 expansions of the Upminster cemetery programmed (£2m). Phase 2 of the Upminster cemetery expansion has a preliminary opening date of 2019 and will provide burial provision for 2350 graves, providing burial provision until 2031, at current rates. Phase 3 has a preliminary opening date of 2025 and will provide provision for 2730 graves, providing burial provision until 2039, at current rates. There is therefore expected to be sufficient capacity to accommodate additional demand for multi-faith/interdenominational plots arising from Local Plan population increase in the period to 2032. If required, however, other land is available for possible future Upminster cemetery extensions, currently used as agricultural tenancy land on lease from the Council.</p> <p>LB Havering has recently granted permission for a new Muslim cemetery at Oak Farm, Harold Wood, following an appeal decision by the Secretary of State. This facility will provide for demands for burials meeting specific Muslim requirements arising from the wider North East London, including Havering, when the remaining capacity of the existing Gardens of Peace Muslim Cemetery in Ilford has been exhausted, around 2020/2021. The new cemetery is expected to provide capacity to meet the needs of North East London for a further 4 to 5 years at recent death</p>

	<p>rates, i.e. until around 2024.</p> <p>Rainham Cemetery has no additional capacity except for re-opened graves. However, the SDA's needs will be served by provision at Upminster Cemetery.</p>
Main funding sources	LB Havering

G1 Parks	
Main provider	LB Havering
Existing provision	<p>According to the LB Havering Open Space Assessment Report (OSAR) (April 2016), there are 24 open space sites classified as parks and gardens in Havering, covering 641 hectares. The largest parks are: Dagnam Park (128 ha), Bedford's Park (86 ha), and Havering Country Park (68 hectares) in the north, Harrow Lodge Park (53 ha) in the centre, and Hornchurch Country Park (119 ha) and Belhus Woods Country Park (57 ha) in the south. The latter is an Essex County Council owned site straddling the boundary with Thurrock.</p>
Adequacy of existing provision	<p>Of the 24 park and garden sites in Havering 22 rate above the quality threshold adopted in the OSAR. Ten Parks have Green Flag status: Bedford's Park, Belhus Wood Country Park, Cottons Park, Harold Wood Park, Hylands Park, Lawns Park, Lodge Farm Park, St Andrews Park, Upminster Park and Raphael's Park.</p> <p>There is generally a good coverage of parks based on a 15 minute walk time, the standard adopted in the OSAR. The majority of areas that are densely populated are covered by the walk time catchment. Although there are catchment gaps to the east of the centre and in the south west of the borough, new forms of park provision are not thought to be required to improve accessibility. The OSAR did not identify any issues with regard to deficiency in the amount of parks and gardens either through consultation or via its Communities Survey.</p>
Assessment of future needs	<p>The LB Havering Open Space Study Draft Standards Paper (August 2016) concludes that there is no need for additional park provision on the basis of projected population levels across Havering, the emphasis being on preserving and improving the quality of existing provision.</p> <p>The following requirements have been identified:</p> <p><i>Borough-wide</i></p> <ul style="list-style-type: none"> • Parks Investment Programme (including parks signage improvements) (£6m); • Parks Depot Refurbishment Programme (£3m); <p><i>Rainham & Beam Park SDA</i></p> <ul style="list-style-type: none"> • Linear park to connect Rainham to Beam Park (£1.7m); • Rainham to the River - linking Rainham communities to Thames and marshes (£5m); • Rainham and Beam Park Planning Framework identifies the need for a new multi-functional community park at Beam Park to serve the western part of the neighbourhood;

G1 Parks	
	<i>Elsewhere in Borough</i> <ul style="list-style-type: none"> • Creekside Park improvements and extension (£0.3m); • London Riverside Conservation Park (Wildspace) (£15m); and • Harrow Lodge Park, second lake dredging (£0.3m).
Main funding sources	LB Havering, Heritage Lottery Fund, developer contributions.

G2 Children's Play Space	
Main provider	LB Havering
Existing provision	<p>Provision comprises areas designed primarily for play and social interaction involving children and young people, such as equipped play areas, multi-use games areas (MUGAs), skateboard areas and teenage shelters. The 2016 Open Space Strategy Draft Assessment Report identifies 40 sites in Havering with some kind of children's play provision, totalling 6.42 ha with a current standard of 0.03 ha per 1,000 population. 22 sites contain facilities for older age ranges and 14 sites are equipped with outdoor gym equipment.</p> <p>A children's play area is included in the committed Broxhill Park improvement which is due to open in late 2016/2017.</p>
Adequacy of existing provision	Guidance by Fields in Trust suggests an approximate catchment guideline of an approximate 5-10 minute walk. On this basis there is generally a good coverage of provision across LB Havering with most areas with a greater population density within walking distance of a form of play provision. However, there are a few gaps in the walk time catchment in the centre and south of the borough and there may be a need for some additional play provision to serve these gaps.
Assessment of future needs	<p><i>Borough-wide</i></p> <ul style="list-style-type: none"> • The LB Havering Open Space Study Draft Standards Paper (August 2016) projects a need for additional children and young people's provision in all parts of the borough and totalling approximately 2 ha to serve the 2031 population (£1.8m see below); and • LB Havering has a programme of investment in children's playgrounds but this does not cover requirements to serve new development in the longer term.
Costs	It is assumed that Local Equipped Areas of Play (LEAPs) will be provided directly by developers as part of achieving a good standard of development. Neighbourhood Equipped Areas of Play (NEAPs) serve more substantial populations and would be appropriate for funding by developer contributions. Assuming half of the total new requirements will be NEAPs (on the basis that typically the standards of provision for LEAPs and NEAPs per head of population are similar) and taking the Sport England estimated MUGA cost of £180 per square metre (April 2016), the additional 1 ha requirement will cost around £1.8m.
Main funding sources	LB Havering, developer provision and contributions

G3 Allotments	
Main provider	LB Havering
Existing provision	There are 27 allotments sites in LB Havering: totalling more than 36 hectares. All are owned by LB Havering and self-managed by allotment associations.
Adequacy of existing provision	Current provision (0.15 hectares per 1,000 population) is below the National Society of Allotment and Leisure Gardeners recommended standard of 0.25 hectares per 1,000 population, although most meet quality standards. There are waiting lists for allotments across the borough, suggesting that demand for allotments is not currently being met by supply.
Assessment of future needs	<p>The LB Havering Open Space Draft Standards Paper (August 2016) projects a need for an additional 5.5 ha of allotment space to serve the 2031 population of the borough, based on current provision standards. However, the Paper recommends that future provision should respond to waiting lists rather than be based on applying NSALG or other quantitative standards.</p> <p><i>Borough-wide</i></p> <ul style="list-style-type: none"> • LB Havering currently has an Allotments Infrastructure Improvement Programme (£1.5m).
Main funding sources	LB Havering

G4 Other Green Space	
Main provider	LB Havering, the Thames Chase Trust and the Forestry Commission
Existing provision	<p>According to the GLA's 'All London Green Grid SPG', Green Infrastructure (GI) refers to the multifunctional, interdependent network of open and green spaces and green features (e.g. green roofs). Green and open spaces of all sizes can be part of GI provided they contribute to the functioning of the network as a whole.</p> <p>The LB Havering Open Space Assessment Report (OSAR) (April 2016), identifies 22 sites comprising natural and semi-natural greenspace, including woodland, scrub, grassland, heath or moor, wetlands, wastelands, bare rock habitat, and commons. Their areas total over 441 hectares of provision, excluding sites below 0.2 hectares. The largest site is the Thames Chase Community Forest - 158.3 ha of new community woodlands have been planted by the Forestry Commission, increasing woodland coverage in Havering by more than 40%.</p> <p>The OSAR also identifies 54 amenity greenspace sites, equivalent to over 129 hectares of provision. Sites are mostly found within areas of housing and function as informal recreation space or open space along highways to provide a visual amenity. A number of recreation grounds and playing fields are also classified as amenity greenspace.</p>
Adequacy of existing provision	The OSAR adopts a 30 minute drive time accessibility standard, which shows no shortfalls, and a 10 minute walk time standard, for which there are some gaps in the densely populated areas. However, these areas contain other forms of open space; particularly amenity greenspace and parks and gardens with features associated with natural and semi-natural greenspace so new natural sites are not considered to be required.
Assessment of future needs	<p><i>Borough-wide</i></p> <p>A number of partnerships are engaged in green space projects in the borough, including:</p> <ul style="list-style-type: none"> • Land of the Fanns Partnership - A stage 1 Heritage Lottery Fund Landscape Partnership scheme led by Thames Chase Trust and LB Havering, with a programme of access and conservation projects. (£5m); • Wildspace - a partnership of landowners and conservation organisations (RSPB, Veolia North, Veolia Environmental Services, Thames Trust, Natural England, LB Havering, PLA and the EA) with the objective of delivering a new London Conservation Park: Wildspace for a World City' on Rainham Marshes and the operational landfill site to the south. The project is active, but timescales are delayed by the extension of the operational life of the landfill, (£15m); • All London Green Grid (ALGG) - established to provide a pan-London strategy for GI and to deliver a rolling programme of GI projects. The partnership is no longer funded but the GLA is promoting GI delivery by other stakeholders (£5m);and • Roding, Beam and Ingrebourne Catchment Partnership - works to improve the water environment of the river basin. Managed jointly by Thames 21 and the Thames Chase Trust.

G4 Other Green Space	
	<p><i>Rainham & Beam Park SDA</i></p> <p>The Rainham and Beam Park Planning Framework proposes the establishment of a network of green routes and open spaces to connect the strategic open spaces of the London Green Grid on a local level. These will include:</p> <ul style="list-style-type: none"> • Beam Parkway - a green and landscaped corridor along a two mile section of the A1306 between Dovers Corner roundabout and the Marsh Way junction. This will be achieved by downgrading the road and re-allocating two- way traffic to the northern carriageway, while opening up the southern carriageway as a green space with pedestrian and cycling routes, and “pocket parks” (£1.7m); • Marshway Green Bridge – a green corridor on the eastern side of Marsh Way Bridge providing a strategic cycle and walking connection across the railway to CEME and the River Thames; and • re-opened culverts - reopening of the New Havering Sewer and the Drain running beneath the Suttons Industrial site to create a naturalised watercourse. Linear green spaces alongside re-opened and naturalised culverts at the Suttons Industrial site and at Dovers Corner.
Main funding sources	LB Havering, Heritage Lottery Fund, TfL, Veolia North Thames Trust, Defra, RSPB, developer contributions.

H1 Sports Complexes	
Main provider	LB Havering
Existing provision	<p>There are 21 sports halls in Havering. A new sports pavilion containing a small indoor sports hall and changing rooms for a range of sports are included in the soon to be completed Broxhill Park improvement.</p> <p>There are 14 swimming pools open to the public in LB Havering, at ten sites. Only two (Hornchurch Sports Complex and Central Park Leisure Complex) have pools of at least 25m in length. Five locations are school site based and two are private health clubs. A new eight lane 25m pool with a learner pool is currently being developed in the new Romford Leisure Centre.</p>
Adequacy of existing provision	<p>LB Havering's Indoor Sport and Leisure Facility Assessment (ISLFA) (January 2016) found that most residents in Havering have access to a sports hall within one mile of home with the exception of parts of the Rainham area.</p> <p>The existing supply of sports hall accommodation in LB Havering has capacity to meet current demand but LB Havering facilities at Central and at Hornchurch are at capacity during peak times.</p> <p>The quality of the stock on school sites is mixed. Chafford School Sports Complex is clearly at the end of its useful life.</p> <p>The ISLFA found that Havering is relatively well provided with swimming pools compared with many London boroughs but that significant areas of the borough remain without access to a publicly accessible swimming pool, particularly in the northwest and south of the borough. Furthermore, the age and condition of the pool at the Chafford Sports Complex, the age of the pool at Hornchurch leisure complex and the lack of provision in Rainham will make it increasingly challenging for a modern swimming offer to be provided without significant investment and/or new provision. The relatively small size of the main pools limits flexibility to accommodate different activities.</p> <p>There is currently no ice rink provision in Havering as the former ice rink in Romford closed in 2013 and has been demolished.</p>
Assessment of future needs	<p>The LB Havering's Indoor Sport and Leisure Facility Strategy (ISLFS) (January 2016) indicates a need for the following new facilities in the borough to improve quality of provision and accessibility:</p> <p><i>Romford SDA</i></p> <ul style="list-style-type: none"> the new Romford Leisure Centre, due to open in April 2018, to include: eight lane 25m pool and learner, a 56m x 26m replacement ice rink, and 100 station health and fitness suite. (£28.6m);

H1 Sports Complexes	
	<p><i>Rainham & Beam Park SDA</i></p> <ul style="list-style-type: none"> a new sports facility in south Havering (replacing the Chafford Sports Complex), to include: four court sports hall, 100 station fitness suite, dance/multi-purpose studios, five lane 25m pool, 10m x 20m learner pool, and splash area (£8.4m). The Chafford School has aspirations to replace both its main building and its sports facilities via pursuit of external funding sources so this need may possibly be met by a refurbished Chafford Sports Complex; <p><i>Elsewhere in Borough</i></p> <ul style="list-style-type: none"> replacement Hornchurch sports complex, to include: four court sports hall, 150 station fitness suite, four dance/multi-purpose studios, eight lane 25m pool and 10m x 20m learner/diving pool (around £20m); and the ISLFS also proposes investigating the feasibility of upgrading existing or providing new sports hall accommodation with associated office and changing accommodation to facilitate well managed community use at 11 school sports hall sites.
Costs	The above cost for facilities at south Havering is derived from Sport England who have assessed the cost for the 2nd Quarter 2016 for the development of a facility offering four court hall, 100 station health and fitness gym plus two studios and a six lane pool, which is broadly similar to that proposed for south Havering in the Strategy at £8.4m.
Main funding sources	LB Havering, Sport England, developer contributions, charitable funding organisations, commercial investment.

H2 Playing Pitches	
Main provider	LB Havering
Existing provision	<p>The LB Havering Playing Pitch Strategy Assessment Report (April 2016) identifies current totals of:</p> <ul style="list-style-type: none"> • 170 grass football pitches across 63 sites, of which 151 pitches are available for community use across 48 sites; • 31 rugby union pitches across 16 sites, (although no World Rugby compliant Artificial Grass Pitches), of which 23 senior and eight mini pitches, with only two pitches unavailable for community use; • 16 grass wicket cricket pitches, all of which are available for community use. However, Upminster Hall Playing Fields will no longer be used from next season as the cricket pitch is to be replaced by rugby pitches; and • seven full size sand based artificial grass pitches for hockey. <p>Although there are currently no full size third generation turf (3g) artificial grass pitches within Havering, one is under development at Broxhill Sports Centre. The latter will also include two grass pitches, a multi-use games area including four new tennis courts, basketball and football facilities.</p>
Adequacy of existing provision	<p>The LB Havering Final Playing Pitch Strategy and Action Plan 2016-2021 (PPFSAP) (November 2016) identifies the following shortfalls in pitches at present across the borough:</p> <ul style="list-style-type: none"> • football grass pitches: adult - 3.25, youth 11v11 - 0.25, 9v9 - 3.5, 7v7 - 0.25, 5v5 - 1.0; • nine 3G pitches (after provision of Broxhill 3G pitch); • 0.6 cricket pitches (in the centre and south of the borough); and • 3.5 rugby union pitches. <p>Existing supply of hockey pitches is adequate to accommodate current demand.</p>
Assessment of future needs	<p>The PPFSAP projects the following future shortfalls (if current shortfalls are not made up), taking account of participation increases and population forecasts to 2037:</p> <ul style="list-style-type: none"> • football grass pitches: adult - 5.75, youth 11v11 - 3.0, 9v9 - 8.0, 7v7 - 1.75, 5v5 - 1.25; • ten 3G pitches (after provision of Broxhill 3G pitch); • 3.6 cricket pitches; and • 3.5 rugby union pitches.

H2 Playing Pitches	
	<p>Existing supply of pitches for other sports is adequate to accommodate future demand.</p> <p>With regard to grass football pitches, the PPFSAP finds that if pitch quality, overplay and security of tenure are addressed, and if access to existing pitches is maximised (and no pitches are permanently lost), there would be no requirement for new grass football pitch provision, although there may be isolated areas which generate enough demand for new pitches to be provided in the future. However, the Plan does not make specific proposals for such provision.</p> <p>With regard to the other facilities, the PPFSAP proposes that LB Havering:</p> <ul style="list-style-type: none"> • identifies feasible sites to increase provision of 3G pitches in Havering to meet training and competitive demand; • supports Harold Wood CC and Noak Hill Taverners CC in developing additional cricket pitches/facilities; and • identifies suitable sites, where possible, to develop mini pitches for clubs with significant mini and junior sections to alleviate pressure on senior pitches.
Costs	<p>Sport England estimate the unit cost of pitches as follows (Second Quarter 2016):</p> <ul style="list-style-type: none"> • football grass: adult - £85k, youth 11v11 and 9v9 – £70k, 7v7 and 5v5 £20k; • football 3G - £900k; • cricket (natural turf) - £265k; and • Rugby Union grass - £115k. <p>Total cost of forecast demand above at these rates is £12.0m but it would be reasonable to suppose that if the recommendations of the PPFSAP set out above were adopted only 50% of this cost would be required, giving a total of £6.0m.</p>
Main funding sources	LB Havering, Mayor's Sports Facilities Fund, Sport England, developer contributions.

I1 Police	
Main provider	Mayor's Office for Policing And Crime (MOPAC); Metropolitan Police, Havering Borough Operational Command Unit
Existing provision	There are three operational police bases within Havering, and eighteen ward based Safer Neighbourhood Teams. The police stations are: Romford Police Station, Hornchurch Police Station and Romford Patrol Base in Harold Hill. There are Contact Points at Collier Row Road, Rainham Police Office, Tadworth Parade (Hornchurch), Upminster Police Office, St George's Church (Harold Hill), and Hornchurch Police Station.
Adequacy of existing provision and assessment of future needs	The MOPAC Estate Strategy 2013-16 set out MOPAC's intention to ensure their vast and expensive estate is streamlined and made fit for purpose. Reforms to the local policing estate will be part of making the police more visible, accountable and accessible. The implications for Havering have not yet been worked through and the BOCU Commander of Havering is exploring the potential for joint working/sharing of resources and a joined-up approach with Commanders at Barking & Dagenham and Redbridge.
Main funding sources	Central Government grant to MOPAC.

I2 Fire Services	
Main provider	London Fire Brigade (LFB). Havering falls under the Eastern District Command of the LFB.
Existing provision	There are four fire stations in Havering: Romford, Hornchurch, Wennington and Harold Hill.
Adequacy of existing provision	The existing fire stations are all fit for purpose (Harold Hill Fire Station was opened recently, in 2010) and are sufficient to meet the borough's needs. The LFB's Fifth London Safety Plan 2013 to 2016 (2013) maintains the target attendance time of getting a first fire engine to an emergency within an average six minutes and the second fire engine, when needed, within an average of eight minutes. In Havering, the latest statistics, for 2013/14, show that this target was achieved, with an average first pump attendance time of 344 seconds. 65% of first pumps arrived at the incident within six minutes and 98% within 12 minutes.
Assessment of future needs	The location of the London Fire Brigade's fire stations is based on modelling of historical data on fires that have occurred to ensure that average attendance times of 6 minutes for the first appliance and 8 for the second can be met, across London. Any new development will meet modern building control standards and will therefore be of a lower risk of fire compared to older buildings. Furthermore, the LFB's Fifth London Safety Plan 2013 to 2016 (2013), which includes measures to reduce the number of incidents requiring attendance, projects fewer incidents London-wide in 2031 than in 2010. If, in future years, it is found that fires have increased in particular areas of Havering this will be taken into account in future London Safety Plans. At present LFB does not envisage that the planned new development will require any change in the location of the existing fire stations in Havering.
Main funding sources	GLA

I3 Ambulance Service	
Main provider	London Ambulance Service NHS Trust
Existing provision	The London Ambulance Service (LAS) provides a service responding to 999 calls across the whole of London. Three of its 70 ambulance stations are in LB Havering at Romford, Becontree, and Hornchurch.
Adequacy of existing provision	The LAS aims to meet the Government response time targets of 75% of Category A (immediately life-threatening) calls within eight minutes, and 95% of such calls within 19 minutes. The latest figures for Havering CCG show monthly percentages of Category A calls meeting the eight minute response time ranging between 58% and 70% between March and August 2016.
Assessment of future needs	<p>The London Ambulance Service 5 Year Strategy 2014/2015 – 2019/2020 contains no proposals to increase the number of ambulance stations. However, the LAS is currently reviewing its Strategy and its Estates Strategy and these are is likely to be finalised in autumn 2016.</p> <p>Romford Town Centre Development Framework identifies the need to re-provision an ambulance station currently located in a building offering significant redevelopment potential.</p>
Main funding sources	Direct Government funding

J Waste Management	
Main provider	East London Waste Authority (ELWA). The ELWA was established in 1986 and is responsible for waste disposal in Havering as well as the LBs of Barking & Dagenham, Newham and Redbridge. In 2002, ELWA signed a 25 year contract with Shanks Plc, a leading waste management company, to deliver an Integrated Waste Management Strategy for the area.
Existing provision	<p>ELWA arranges for the recycling, recovery and disposal over 440,000 tonnes of waste each year in the four boroughs.</p> <p>Within Havering the main waste management facilities are: Gerpins Lane Re Use and Recycling Centre, and Frog Island Mechanical and Biological Treatment Facility. The Frog Island waste facility handles household waste and recyclable materials from mainly Barking & Dagenham and Havering.</p>
Assessment of future needs	<p>A Joint Waste Development Plan Document (DPD) was developed in 2010/11 by the four ELWA London boroughs as part of each borough's LDF and was formally adopted by LB Havering in February 2012. It pools the London Plan's borough level apportionment of municipal solid waste and commercial and industrial waste to be managed for the four boroughs.</p> <p>The DPD sets the sub-regional strategy up to 2021 and aims to ensure adequate provision of waste management facilities in appropriate locations for municipal and commercial and industrial waste.</p> <p>The Joint Waste DPD identifies three sites in Havering with potential to accommodate additional facilities to meet estimated demand to 2021 through the provision of:</p> <ul style="list-style-type: none"> • two small scale facilities for biodegradable waste at Ferry Lane North, Havering; • medium scale composting facility at Gerpins Lane, Havering; and • large scale composting facility at Hall Farm, Havering. <p>Sites for other facilities needed to serve the ELWA boroughs are identified in Barking & Dagenham and Newham.</p>
Costs	Over the course of its contract with ELWA, Shanks will invest over £100 million in new and improved facilities.
Main funding sources	LBs of Havering, Barking & Dagenham, Newham and Redbridge

K Urban Regeneration	
Main provider	LB Havering
Future needs	<p><u>Public Realm</u></p> <p>LB Havering has a number of ongoing regeneration schemes, which are focussed largely on transport and place-making elements, the main one being Romford Town Centre. Three station schemes (Romford, Gidea Park and Harold Wood) are covered under TfL's Crossrail Complementary Measures programme of improvements to public areas and interchanges outside all 18 stations in outer London that will eventually form part of the Elizabeth line (see section A1 Rail).</p> <p><i>Romford SDA</i></p> <ul style="list-style-type: none"> • The Romford Town Centre scheme will create a better street environment around the Ring Road, with enhanced crossings for pedestrians, and enhance the environment for pedestrians and cyclists by creating designated cycle routes and planting trees, creating new landscapes, and incorporating public art. (£10m); • Romford Market. The transformation proposal is to transform the Market Place into a high quality civic space, (£2m); • Romford Station Scheme (Crossrail Complementary Measures - see section A1 Rail); <p><i>Rainham & Beam Park SDA</i></p> <ul style="list-style-type: none"> • Beam Parkway, described above under 'Other Green Space', will improve connectivity along the A1306 and within London Riverside. <p><u>Employment & Skills</u></p> <p><i>Borough-wide</i></p> <ul style="list-style-type: none"> • LB Havering will support new and existing businesses through an incubator hub, offering affordable accommodation and business support to develop businesses to their next level of growth (£4m).
Main funding sources	TfL, LB Havering, developer contributions.

L Air Quality	
Main provider	LB Havering
Existing provision	As discussed in the LB Havering Air Quality Action Plan, 2017- 2022, the main source of air pollution in Havering is road traffic vehicle emissions. Significant amounts also come from residential and commercial gas use, industry, construction sites and emissions from outside London. The whole borough was declared an Air Quality Management Area in 2006 due to levels of nitrogen dioxide and particulate matter not meeting air quality objectives in many parts of the borough. Air quality improvement projects have been undertaken in Romford, Hornchurch, Upminster and Rainham.
Assessment of future needs	<p>The Air Quality Action Plan includes a range of proposals to help control and reduce air pollution within the borough, including the introduction of low emission zones, encouraging walking and cycling, and traffic management. Two infrastructure projects are currently being implemented supported by the Mayor's Air Quality Fund:</p> <ul style="list-style-type: none"> • green screens: planting of green screens formed of trees and shrubs to take carbon dioxide, ozone and nitrous oxides out of the air and provide protection against particulate pollution (£38k); and • pocket parks: provision of small areas of inviting public space where people can enjoy relief from busy city streets (£38k).
Main funding sources	Mayor's Air Quality Fund

LIST OF ABBREVIATIONS

3G	Third Generation synthetic pitch
A&E	Accident & Emergency
ALGG	All London Green Grid
AMP	Asset Management Plan
ARP	Additional Resourced Provision
ASP	Autism Spectrum Disorder
BOCU	Borough Operational Command Unit
CC	Cricket Club
CCG	Clinical Commissioning Group
CCM	Crossrail complementary measures
CDA	Critical Drainage Area
CIL	Community Infrastructure Levy
DCLG	Department of Communities and Local Government
Defra	Department for Environment, Food & Rural Affairs
DfE	Department for Education
DPD	Development Plan Document
EA	Environment Agency
EEE	Early Education Entitlement
EFA	Education Funding Agency
ELWA	East London Waste Authority
ESW	Essex and Suffolk Water
FALP	Further Alterations to the London Plan
FE	Forms of Entry
FTTC	Fibre To The Cabinet
FTTP	Fibre To The Property
GI	Green Infrastructure
GLA	Greater London Authority
GP	General Practitioner
HLF	Heritage Lottery Fund
HZ	Housing Zone
IDP	Infrastructure Delivery Plan
ISLFA	Indoor Sport and Leisure Facility Assessment
ISLFS	Indoor Sport and Leisure Facility Strategy
LAS	London Ambulance Service
LB	London Borough
LDF	Local Development Framework
LEP	London Enterprise Panel
LEAP	Local Equipped Area of Play
LFB	London Fire Brigade
LIP	Local Implementation Plan
LTS	London-Tilbury-Southend rail line
MOPAC	Mayor's Office for Policing and Crime
MUGA	Multi Use Games Area
NEAP	Neighbourhood Equipped Area of Play

NELFT	North East London Foundation Trust
NETS	(National Electricity Transmission System
NHS	National Health Service
NPPF	National Planning Policy Framework
NSALG	National Society Allotment and Leisure Gardens
NTS	National Transmission System
OSAR	Open Space Assessment Report
P	Priority Infrastructure Item
PLA	Port of London Authority
PPFSAP	Playing Pitch Final Strategy and Action Plan
PPG	Planning Practice Guidance
R/BPHZ	Rainham and Beam Park Housing Zone
RHZ	Romford Housing Zone
RSPB	Royal Society for the Protection of Birds
S106	Section 106
SDA	Strategic Development Area
SFRAU	Strategic Flood Risk Assessment Update
SEND	Special Needs and Disability
SHLAA	Strategic Housing Land Availability Assessment
SPD	Supplementary Planning Document
SWMP	Surface Water Management Plan
TE 2100	Thames Estuary 2100
TfL	Transport for London
WRMP	Water Resource Management Plan
YrR	Reception Year
Yr1	Year 1 of school