

1.0 Introduction

- 1.0.1 This working document forms part of the evidence base that will inform Harrow's LDF and, in particular, the Core Strategy.
- 1.0.2 Its purpose is to identify the types and quantum of social, physical and environmental infrastructure that will be required to support development and growth within the Borough over the LDF plan period, and to set this out in a Delivery Plan. In particular it seeks to:
- Provide a benchmark of existing infrastructure provision, identifying how well existing needs are met;
 - Identify what new infrastructure is being planned as well as future infrastructure requirements to support population change, housing and employment growth as detailed in LDF documents;
 - Provide an indication of the potential costs and means of funding the required infrastructure through public funding, developer contribution and other sources;
 - Establish responsibilities for delivery of individual projects, when and where infrastructure will be provided, and provide a basis for collaborative and effective working between stakeholders.
- 1.0.3 In addition, the Delivery Plan will inform Council's:
- Engagement with external agencies (e.g. LSP Partners, HCA, LDA, Mayor of London)
 - Funding bids (e.g. one off grants)
 - Capital programmes for different service areas
 - Place Shaping and Property Review (the role and function of this – widened to include site assembly (CPO) and delivery through the disposal strategy)
 - Allocation of land/sites for infrastructure in the Area Action Plan and/or the Site Specific Allocations DPD
 - Policies for the Core Strategy and Development Management DPD
 - S106 negotiations and agreements and the preparation of a Harrow Community Infrastructure Levy (CIL)
 - Prioritization of infrastructure delivery.
- 1.0.4 As set out in the Sustainable Community Strategy (2009), the vision for Harrow is to be recognised for:
- Integrated and co-ordinated quality services, many of which focus on preventing problems from arising, especially for vulnerable groups, and all of which put users in control, offering access and choice;
 - Environmental, economic and community sustainability, because we actively manage our impact on the environment and have supported inclusive communities which

provide the jobs, homes, education, healthcare, transport and other services all citizens need;

- Improving the quality of life, by reducing inequalities, empowering the community voice, promoting respect and being the safest borough in London.

1.0.5 In addition to providing a key piece of LDF evidence base, the aim of document is to assist in delivering the above community vision for the Borough by providing a robust basis on which the Council will seek to influence public, private and other agency funding and priorities. It represents the beginning of a long-term (10 year) capital works programme for the Council and its partners. As such, it is intended to be a working document that will continue to be subject to review and updating, drawing together a range of information from strategies, service delivery plans and programmes, as well as information from ongoing consultation with service providers, to establish a framework for infrastructure management and provision within Harrow.

1.0.6 Over the long-term, as the Core Strategy and other LDF documents are progressed to adoption, and this delivery plan continues to be refined and implemented, it will serve to form the basis for establishing new Council policies on Section 106 and a Community Infrastructure Levy¹ (CIL) for Harrow, albeit that more detailed work will be required to establish an appropriate charging schedule.

1.0.7 The remainder of this paper is set out as follows:

- Section 2.0 – sets out the planning policy context for infrastructure planning
- Section 3.0 – establishes the methodology used by the Council in the infrastructure assessment process
- Section 4.0 – establishes the current baseline and sets out future projections for growth in Harrow
- Section 5.0 – presents the findings of the assessment of existing and future infrastructure requirements by type, including the consideration of existing and proposed operating models; the timing/phasing of triggers or provision of infrastructure requirements; commitments and potential funding sources; along with delivery responsibilities, risks and contingencies
- Section 6.0 – sets out the Delivery Plan

2.0 Policy context

2.1 National context

2.1.1 The requirement for local authorities to co-ordinate the delivery of infrastructure is set out in Government guidance in Planning Policy Statement 12 (PPS12), which states:

‘The Core Strategy should be supported by evidence of what physical, social and green infrastructure is needed to enable the amount of development proposed for the area, taking account of its type and distribution. This evidence should cover who will provide the infrastructure and when it will be provided. The core strategy should draw on and in parallel influence any strategies and investment plans of the local authority and other organisations’ (paragraph 4.9).

¹ The Community Infrastructure Levy Regulations came into effect on 6 April 2010. CIL is intended to be a local set charge that Local Authorities will determine and levy upon new development to contribute towards the cost of infrastructure of the type specified in the Regulations.

2.1.2 Therefore the Core Strategy needs to recognise both the infrastructure required as a result of the level and distribution of development proposed in the Local Development Framework and also those infrastructure improvements that are required to resolve existing deficiencies. However, PPS12 clearly states that this should *not* be a wish list of infrastructure provision that does not have a reasonable chance of being delivered.

2.1.3 However, it is noted at paragraph 4.10 that:

'the budgeting processes of different agencies may mean that less information may be available when the core strategy is being prepared than would be ideal. It is important therefore that the core strategy makes proper provision for such uncertainty and does not place undue reliance on critical elements of infrastructure whose funding is unknown'. 'Contingency planning may be necessary in circumstances where provision is uncertain'.

2.2 Regional context

2.2.1 Policy 3A.18 of the London Plan (Consolidated with Alterations since 2004), states that DPDs should assess the need for social infrastructure and community facilities, and ensure they are capable of being met wherever possible. It goes on to list the types of social infrastructure to be assessed including primary healthcare, children's play, recreation, services for young, older and disabled people, as well as libraries, sport and leisure facilities, open space, schools, nurseries and other child care provision, training facilities, fire and police facilities, community halls, places of worship, public toilets, facilities for cyclists, convenience shops, banking facilities and post offices. Provision for these facilities and services is to be made within easy reach of users by walking or public transport.

2.2.2 London Plan policies 3C.2 to 3C.22 outline the proposals for improving the transport facilities serving the capital, including a table of strategic transport schemes. Other relevant London Plan policies include:

- Policy 3D.19: Burial Space
- Policy 4A.18: Water and Sewage Infrastructure
- Policy 4A.21: Waste Strategic Policy and Targets
- Policy 4B.3: Enhancing the Quality of the Public Realm

2.2.3 The Replacement London Plan, which has been published but not yet adopted, continues to highlight the importance of ensuring London has physical infrastructure adequate for the needs of a growing city (paragraph 1.36). It includes policies relevant to Harrow, including the delivery of green infrastructure and addressing deficiencies (Policy 2.18); health inequalities and new health care facilities (Policy 3.2 & 3.18); children and young people's play facilities (Policy 3.6); the protection and enhancement of social infrastructure (Policy 3.17); education for all stages of life (Policy 3.19); Sports (Policy 3.20); information and communication networks (Policy 4.11); water quality and sewage capacity (Policy 5.14), transport (Policies 6.1 to 6.5); public realm (Policy 7.5); open space (Policy 7.18) and burial space (7.23).

2.2.4 Table 6.3 again includes a list of strategic transport schemes, although this has been significantly refined due to funding constraints imposed on Transport for London. While most projects still remain valid, the onus is now on local authorities and developers to secure their implementation. The Replacement London Plan also includes targets for

energy efficiency, climate change and waste management, the achievement of which might require community, borough, or sub-regional based solutions and infrastructure, to make it viable and effective.

2.3 Local context

- 2.3.1 The Core Strategy establishes that housing and economic growth within the Borough must be matched by investment in social and physical infrastructure provision. As Harrow grows and changes, care for the Borough's natural resources and local environment becomes a significant consideration in the way different land uses are managed. A common weakness of the existing UDP is that it does not adequately address how existing residential areas will change as a consequence of infilling and redevelopment for housing, nor how the consequences of this change on social and physical infrastructure will be managed.
- 2.3.2 This means that there has often been no planned approach to managing change across the Borough. Rather, development has been managed on a purely responsive basis, judging the merits or otherwise of a proposal in isolation of any shared understanding of how each development might contribute, in part, towards a desired future state for the local area or the Borough as a whole. As a result, development and growth has been ad hoc, often leading to cumulative impacts on the provision of social and physical infrastructure and giving rise to public opposition to growth.
- 2.3.3 The Core Strategy represents a new and proactive approach by which the Council can plan for and manage growth, and the changes it brings, in a way that focuses attention on the areas within the Borough where opportunities exist for regeneration and development, and where there is also capacity to accommodate change. In addition to covering the physical aspects of location and land use, the Core Strategy also addresses other factors that make places attractive, sustainable and successful. Key to this is in ensuring the provision of services and infrastructure required of residents, businesses and future generations.

3.0 Methodology

3.1 Types of Infrastructure

- 3.1.1 An initial list of physical and social infrastructure has been derived based on work undertaken on Harrow's abandoned Planning Obligations SPD, the review of the policy context provided in Section 2 above, and the current definition of infrastructure provided by the CIL Regulations. The types of infrastructure assessed as part of this study are:
- Education (early years, primary and secondary schools)
 - Health Services (GPs, acute healthcare)
 - Social Care (supported accommodation)
 - Emergency Services (Police and Fire)
 - Culture and Community facilities (libraries and community halls)
 - Open Space (parks, natural green space, amenity space and green infrastructure)
 - Biodiversity
 - Recreation and Leisure (play space, sports and leisure centres, swimming pools and playing pitches)
 - Cemeteries and Burial Space
 - Transport (roads, buses, cycling, rail and underground)

- Flood mitigation
 - Utilities (gas, power and water)
- 3.1.2 Waste management facility requirements are being addressed at the sub-regional level through joint working on the West London Waste Plan. When that work is complete it may be appropriate to include any identified requirement in a subsequent review of the Delivery Plan.
- 3.1.3 The above list is not considered to be comprehensive, and other infrastructure items may be identified at a later stage for inclusion in any review of the assessment and Delivery Plan.

3.2 Site specific infrastructure

- 3.2.1 Items of infrastructure on and close to development site, which are clearly essential to make a proposed development function adequately, are considered to be 'normal' requirements and costs of development, and are not included in this assessment. Such infrastructure includes:
- all normal site preparation, including site investigations, remediation, demolition, ground stabilisation, import and export of waste and fill, groundworks and utilities from the site boundary;
 - on-site drainage and flood prevention measures identified through Site Specific Flood Risk Assessments;
 - on-site sustainable transport facilities;
 - off-site connections from the development site to the highway and sustainable transport networks;
 - affordable housing requirements;
 - all requirements of the prevailing Building Regulations, as well as the Code for Sustainable Homes, BREEAM standards and the Building for Life Standard; and
 - any other design and environmental standards, including requirements for renewable energy provision, whether on or off-site.

3.3 Assessing infrastructure needs and costs

- 3.3.1 Approaches available for assessing infrastructure needs, and their costs, vary according to the form of provision. Infrastructure items can be divided into three broad groups, with regard to their form of provision:
- (a) Infrastructure supplied in units of a relatively uniform size and capacity (e.g. schools, play facilities) or which can be treated as such (e.g. sports halls). For these 'unitised' types of facilities, provision standards based on household thresholds or m²/ha per 1,000 population can be derived so that the quantity of units required to serve a given population or number of homes can be calculated for both existing and future provision. Uniform infrastructure can also be costed based on standard unit costs.
- (b) Infrastructure supplied in units of highly variable size and capacity (e.g. libraries and playing pitches). For these types of facilities it is possible to derive a standard based on per capita demand (e.g. m²/ha per 1,000 population) or regional or national guidelines. Sources for such non-local assumptions include the Department of Schools, Children and Families, the Museums Libraries Archives (MLA) South East, and Sport England. Costs can be derived based either on a sq m standard, the cost set

out in regional or national guidelines, or alternatively, the sq m cost of recently provided facilities.

(c) Infrastructure that is not provided in a clearly defined unit for which per capita or demand levels can not be sensibly derived (e.g. Green Infrastructure and Transport). In these cases there are likely to be many ways of meeting need, with widely differing cost implications. In such circumstances, infrastructure and costs are best based on the facilities assessed by service providers to be required to support new and existing development in Harrow. In cases where facilities have not yet been comprehensively identified, costs can be derived based either on recent costs of comparable facilities provided elsewhere in London or current annual capital expenditure levels projected over the plan period to 2026. In those instances where it has not been possible to derive even an estimate of cost, the study has also sought to highlight where more detailed studies are required to identify the infrastructure needed, the best means of provision, and the costs of such provision. By highlighting these shortcomings in data or programmes, the study seeks to assign responsibility for this further work, including the requirement to monitor progress.

3.3.2 The costs associated with providing infrastructure comprise the capital costs of building and accommodating the facilities, the costs of running the facilities and the costs of maintaining them on a continuing basis. In general, it is reasonable to assume that once facilities are in place, there should be regular funding sources available for running and maintaining them as for the rest of the existing stock of facilities. The costs relevant to this study are therefore restricted to the one-off capital costs of providing infrastructure in the form of new facilities or increased capacity of existing facilities, including, where relevant, the costs of land.

3.4 Infrastructure provision and delivery models

3.4.1 It is important to note that the assessment of infrastructure need does not necessarily translate into an infrastructure requirement that must be provided. In many instances, both local and national standards of provision sought are desirable standards that should be provided were there are no constraints to delivery, such as funding or the availability of land or buildings. It might therefore not be possible or realistic to meet such standards in a Harrow context in all circumstances.

3.4.2 As stated above, there can be many ways that an identified need can be satisfied, and not always will they result in a need for new provision. These include by are not limited to:

- changing the method of service delivery or providing services in a different way (e.g. by offering home care in preference to providing for supported accommodation, providing access to archives on-line, or by providing AstroTurf pitches to ease pressure and demand for new grass pitches);
- making more efficient use of services by reconfiguring existing facilities to increase capacity or make better use of space (e.g. providing better access to parks and providing a different layout that makes more effective use of the space provided);
- changing the existing facility or infrastructure type (e.g. overtime by replacing existing copper telecommunication cables with fiber optic cables that are able to handle greater communications transfer or by replacing single deck buses with double decker buses);
- improving the quality of infrastructure (e.g. investing in the quality of parks and sports facilities will increase their use and enjoyment without the need for additional open space);

- co-locating, shared use of public facilities or negotiating the use of private facilities for public use (e.g. by opening up school halls, fields or sports facilities for greater public use outside of school hours or making existing facilities capable of accommodating greater use or a wider range of uses);
- expanding existing facilities to increase capacity (e.g. providing additional class rooms in existing schools in preference to providing a new school);
- rationalizing provision by providing one larger facility serving a wider area with greater capacity than having several smaller facilities that are less efficient (e.g. waste treatment facilities)

3.4.3 Regard also has to be had to the catchment area infrastructure is to serve. Most social and community infrastructure serves local need, and hence it is possible to produce a quantitative assessment of need relative to the local population served. However, for more strategic facilities, which are aimed at serving a wider population than just the residents or workers of Harrow, such as public transport, waste disposal and acute hospitals, this is much more complex and is usually associated with networks of provision. In such circumstances, improvements or additional provision to the network outside of the Borough can improve capacity of the network within the Borough.

3.4.5 Therefore the study has sought to rely, where possible, on the plans, strategies and feedback received from the various service providers to better understand the service model, the facilities or methods of provision proposed, and how these might meet existing or future provision requirements in Harrow. However, given the current climate of austerity measures being imposed and reforms proposed for key services (e.g. the NHS), it may not be possible to rely on these strategies or plans to predict what the future operating model might be like or what these changes might mean for existing standards or future service provision. The benefit of this document being a 'living' document is that such unknowns will be able to be taken more fully into account as and when additional information becomes available.

3.5 Funding infrastructure provision

3.5.1 A wide array of funding sources exists to cover the cost of providing infrastructure. These sources include but are not limited to:

- the regular funding arrangements of the infrastructure providers themselves, which usually cover running and maintenance costs but may be more limited in their ability to cover capital costs of new or restructured capacity;
- special funding arrangements from central and regional Government aimed at assisting in the provision of a range of new or expanded infrastructure;
- funding using a special purpose vehicle in the form of a public private partnership under which the private sector undertakes delivery of infrastructure and services in exchange for payments tied to agreed standards of performance;
- other types of joint venture proposals, such as where the public sector makes land available for development and infrastructure provision by the private sector;
- new funding regime proposals, such as Tax Incremental Financing;
- capital funds made available by the Council or the service provider;
- one off grants, such as lottery or heritage grants; and
- developer contributions through section 106 or Community Infrastructure Levy

3.5.2 However, allocating the future costs of infrastructure to particular funding sources presents difficulties. There are, for example:

- no hard and fast rules about what types of costs can or should be covered by many of these funding sources;
 - substantial uncertainties about the level of funding that may be offered by many of these funding sources in the future; and
 - various ‘competitive’ mechanisms by which certain public funding is allocated, making it difficult to predict which particular projects may be expected to capture whatever funding might be available and the proportion of the cost that might be covered.
- 3.5.3 Nevertheless, where there are published commitments or there is reasonable certainty that the whole cost of any type of infrastructure is likely to be covered by an identified funding source, these have been included in the study. Others are subject to detailed modeling or design considerations. In these instances it may not be possible to provide even an indicative cost but where appropriate ranges of costs might be used. For services and facilities that can be privately built and operated on commercial principles, it is assumed that the cost of provision will be met through user charges imposed. This includes facilities such as crematoria and utilities.

3.6 Sources of information

- 3.6.1 The majority of information used to inform the assessment was gathered through one-to-one meetings with service providers, including utility companies and other external partners, such as the Metropolitan Police, alongside other Council departments. Engagement has also been sought from neighboring authorities to identify infrastructure needs and provision that cross boundaries.
- 3.6.2 In the one-to-one meetings organisations were asked to identify:
- whether the service provider had undertaken a recent assessment of their infrastructure provision or an assessment of current and future needs;
 - the existing and emerging strategies or programmes for infrastructure provision / service improvements in Harrow;
 - existing and likely future service models, including standards, thresholds and targets and whether these are likely to change;
 - whether the broad quantum and distribution of development proposed by the Core Strategy will require any additional strategic infrastructure provision beyond existing programmes and normal site specific requirements; and
 - commitments to funding and delivery of any programme of works, including responsibilities.
- 3.6.3 In addition to the one-to-one meetings, information was also drawn from a review undertaken of the published plans and strategies of service providers. Lastly, in the course of preparing the Harrow Core Strategy, the Council has commissioned a number of detailed evidence base studies on specific topics, such as transport and open space. These provide a detailed audit of existing provision and future need based on recognised standards. This study does not repeat the workings of these studies rather it simply sets out a very brief summary of their findings. However, in most instances these studies do not go far enough, in identifying specific projects or works required to make good on any identified deficits – such work being the responsibility of the individual service provider. Therefore, where possible and available, supplemental information has been provided on schemes and programmes and their associated costs.

3.7 Quality of information and limitations

3.7.1 In the course of undertaking this study, judgments have had to be made about the quality of the information sourced or provided. Where possible, the most up-to-date information has been sought, preferably from a published source, confirmed or validated by the services provider. However, this has not been possible in all instances, and in some circumstances, even the validity of the published material has been questioned. The quality of information can have a significant impact on the robustness of the Delivery Plan as a tool for programming and coordinating the funding and delivery of infrastructure in Harrow. Outlined below is a brief synopsis of the issues met or raised with the quality of the information and where possible, the steps that have been taken to overcome these uncertainties or the assumption that have been made in undertaking the assessments:

- (a) Changes to service arrangements and funding: Even where service providers have current strategies and capital programmes, the changing nature of service provision and/or funding has thrown much doubt over their continued deliverability, especially where funding had not been confirmed. Despite service models changing and funding constraints, for the purposes of the assessment it is assumed that the need identified to require the programming of infrastructure provision still remains. Such need is therefore recorded in anticipation that it will still be met in part or full through any new proposed service model, even if over a much longer timeframe than currently planned. Such matters will be picked up through the monitoring and regular review of the Delivery Plan, and can therefore be updated as required.
- (b) Qualitative versus quantitative: Quantitative data is always preferable in the assessment of infrastructure needs. Where no quantitative data exists the study makes reference to any qualitative information but does not draw conclusions as to need, preferring to highlight that further more detailed work is required.
- (c) No Strategy or Programme: A number of service providers did not have an up-to-date strategy or programme of infrastructure or service provision. In such circumstances the study uses benchmark standards to determine needs over the Plan period and sought to align this to the comments made by service providers in the one-to-one meetings about current and proposed service models, funding arrangements and, where offered up, proposals for how any identified need might be addressed. In many instances, updated service plans and programmes were in train to be prepared, which again can be picked up through the monitoring and review of the Delivery Plan, and the relevant infrastructure proposals updated accordingly.
- (d) Borough specific information: In respect of strategic infrastructure, often information made available was not borough specific but addressed service provision at the national, regional or sub-regional level. Where the service provider was unable to provide further detail at the borough level to understand Harrow's net contribution, the study sought to use benchmark standards to determine local needs. However, given the nature of truly strategic infrastructure, in most instances such standards for provision are not linked to population growth. For example, Fire and Emergency Services which do not work to borough boundaries and whose standards for provision are measured by response times. In such instances, it is appropriate that the Council continue to liaise with the service provider to assist in understanding Harrow's contribution to any identified need for new or expanded provision.

(e) Funding and periods: There is a great deal of uncertainty currently regarding the levels of funding service providers might have to deliver existing as well as future programmes. In addition, service providers typically plan on a 2-3 year horizon tied to funding cycles, while others such as utility providers are regulated by government, which limits the amount they can charge and therefore invest in infrastructure. Special funding arrangements from Government, such as Growth Area Funding and Building Schools for the Future, were aimed at assisting in the provision of a range of new or expanded infrastructure. However, these funding streams have either been cut or reined back. Given the very limited amounts of public funding available for capital projects, there is significant competition between providers to secure whatever share they can, making it difficult to predict which particular projects may be expected to capture whatever funding might be available and the proportion of the cost that might be covered. This has been made even more difficult with the removal of ring fencing other than for some core services such as education provision. Many service providers have also experienced a significant rise in running and maintenance costs which, tied to additional funding constraints, is also limiting their ability to cover capital costs of new or restructured capacity. In addition, and linked to cost savings and efficiencies, many public services are subject to reforms, in terms of the existing working models but also responsibilities for delivery (e.g. the NHS).

There is an expectation from service providers and the community that new development will meet the full costs of new infrastructure provision. While developers will be required to contribute to meeting reasonable infrastructure costs through a Community Infrastructure Levy or section 106, such requirements are tied to viability both generally in regards of CIL and to the specifics of individual proposals for planning obligations. Harrow's Viability Study 2011 demonstrates that certain forms of development, such as offices are not able to make a contribution to infrastructure provision and remain viable, while others such as residential and retail development can afford to make a contribution. However, the amount of any contribution, and to what types of infrastructure will depend on the outcomes of the detail work yet to be undertaken in preparing a charging schedule to underpin a Harrow CIL and on the merits of individual schemes for the negotiation of planning obligations. It is therefore not appropriate to assume or assign the cost of new infrastructure provision solely to new development, especially where the infrastructure is required to make up for an existing deficit in provision.

It is important to note that, in addition to a Harrow CIL, the Mayor of London has been consulting on proposals for a regional CIL to raise £600m towards the cost of Crossrail. The cost of the Mayor's CIL on development in Harrow will need to be taken into account in setting the local CIL and is likely to significantly impact on the amount of money left in the 'development pot' to contribute to paying for local infrastructure.

These funding issues raise obvious limitations in terms of planning ahead within the LDF timeframe of 2026. Emphasis has therefore been on gaining an understanding of infrastructure requirements for early phases of Plan delivery and the further work needed to inform requirements for later phases.

4.0 The scale and location of development in Harrow

4.0.1 The following section establishes the current baseline situation in Harrow and the levels of growth anticipated by the Core Strategy over the next fifteen years. Much of the evidence base in support of the Core Strategy was either undertaken in 2009 or uses

2009 as its baseline year, including the Housing Capacity Study. It is therefore appropriate that this study also adopts 2009 as its baseline year for any assessment of existing and future needs. This also ensures that a number of large schemes that commenced around 2009, but that have either stalled or have a long build out period, are included as they give rise to and will help fund new infrastructure.

4.1 Housing

4.1.1 PPS3 requires the Core Strategy to identify broad locations and specific sites to enable a continuous supply of housing for at least 15 years from the date of the Core Strategy's adoption². The Harrow Core Strategy is currently programmed for adoption in 2011, meaning that the Core Strategy must plan for provision to 2026.

4.1.2 At the regional level, the London Plan (2008) sets out the strategic development strategy for London. The Plan sets out an annual and 10 year housing target for each borough. For Harrow, this is 400 and 4,000 new homes respectively between 2007/08 to 2016/17. However, this requirement has been reviewed as part of the London Housing Capacity study and has been reduced to a requirement of 350 homes per annum from 2011/12 in the replacement London Plan, which is due to be adopted in 2011. The replacement London Plan does not set a strategic housing target for the Borough beyond 2021. The Core Strategy therefore assumes a continuation of the 2011 annualised target of 350 dwellings per annum to 2026.

4.1.3 To deliver the requirements of the London Plan, the quantity of housing to be planned for and delivered through the Harrow LDF between 2009 and 2026 is a minimum of **5,345**, as set out in Table 1. This is based on Harrow's past performance to date against the London Plan annual housing targets for the periods 1997-2007, 2007-2009, 2009-2011 and projected requirements for the period 2011-2026.

Table 1: Additional dwellings in Harrow 1997 to 2026

Period	Annual target	Cumulative total for each period	Net completions during period	Total net surplus or (shortfall) for period	Planned (see HT)	Total housing stock
Jan 1997 – Dec 2000	331	1,324	596	(-728)	-	-
Jan 2001 – March - 2007	331	1,986	3,076	1,090	-	84,187*
April 2007 – March 2009	400	800	1,143	343	-	85,330
April 2009 – March 2011	400	800	-	(-800)	954	86,284

² PPS3 paragraph 53 – 57

April 2011 – March 2016	350	1,750	-	(-1,750)	3,135	89,419
April 2016 – March 2021	350	1,750	-	(-1,750)	1,000	90,419
April 2021 – March 2026	350	1,750	-	(-1,750)	539	90,958
Totals		10,160	4,815	(-5,345)	5,628	90,958
2009 – 2026 as a % of 2026 total						6.2%

* Derived from Council Tax Register

HT = Housing Trajectory provided in the Harrow Annual Monitoring Report 2009/10

4.2 Non-residential development

4.2.1 Business and commercial uses also generate a demand or need for new or expanded infrastructure. To assess the infrastructure requirements arising from commercial development the study adopts square metres of floorspace of a particular employment uses as the most suitable measure. This provides a more direct measure of the likely infrastructure requirements than the most practical alternative, hectares of land, as the impact of the latter can vary greatly according to the intensity with which the land is developed.

4.2.2 A Retail Study (2009) and an Employment Land Review (2010) have been undertaken by NLP for the Council as part of the evidence base for the evolving LDF. These contain projections for floorspace for employment uses for the whole Borough over the period 2009 to 2026, based mainly on GLA projections of growth sectors balanced against past recent trends. Separate projections are given for retail, office, factories and warehouses.

4.3 Retail floorspace

4.3.1 The Harrow Retail Study (September 2009) estimates that there is currently 135, 532 net sq m of retail floorspace in the Borough (comprising 41,828 sq m net convenience goods and 93,524 net sq m comparison goods floorspace). The Retail Study projects a minimum future retail floorspace requirement of 15,235 net sq m by 2015 and 44,173 net sq m by 2026 for the whole Borough. This presents a range of requirements by centre or size of retail development, for both comparison and convenience floorspace, as set out in Tables 2 and 3 below:

Table 2: Convenience floorspace projections (sq m)

	2009 to 2015	2016 to 2021	2021 to 2026	2009 to 2026
Large food stores	2,172 net 3,341 gross	656 net 1,009 gross	569 net 875 gross	3,394 net 5,222 gross
Small stores/shops	1,194 net 1,837 gross	361 net 555 gross	313 net 482 gross	1,867 net 2,872 gross
Totals	3,366 net 5,178 gross	1,017 net 1,564 gross	882 net 1,357 gross	5,261 net 8,094 gross

Table 3: Comparison floorspace projections (sq m)

	2009 to 2015	2016 to 2021	2021 to 2026	2009 to 2026
Harrow town	6,879 net	7,383 net	8,176 net	22,438 net

centre	9,171 gross	9,844 gross	10,901 gross	29,918 gross
Other district and local centres	4,991 net 6,654 gross	5,465 net 7,287 gross	6,018 net 8,024 gross	16,474 net 21,965 gross
Totals	11,869 net 15,826 gross	12,848 net 17,131 gross	14,194 net 18,925 gross	38,912 net 51,883 gross

4.4 Office floorspace

4.4.1 The Harrow Employment Land Review (October 2009) estimates that there is currently 220,000m² of office floorspace in the Borough. Over the past decade the amount of office floorspace has decreased by approximately 21% but office vacancy rates have remained stable in recent years at around 10-12%. The Study considered three forecast scenarios: a continuation of past development rates; baseline job growth estimates based on GLA forecasts; and GLA higher job growth estimates. The three forecast scenarios produce the following results for office floorspace requirements:

Table 4: Range of gross estimated B1 floorspace requirements, 2007-2026

	Past Development Rates Continue (m²)	Baseline Job Growth (m²)	High Job Growth (m²)
Office Space (B1)	-51,150	+24,100	+37,300

4.4.2 When supply is taken into consideration, for which the Study estimates there to be approximately 42,000 m² of office floorspace, it is concluded that there is more than enough potential supply against all future estimates of demand. However, there is a qualitative need for some further office provision to support the role of Harrow town centre as a “Metropolitan Centre” in the London Plan, extend the choice of types of space and locations, and to provide for start-ups. In this respect it is assumed that new office development will give rise to a limited need for new infrastructure provision, such as that needed to drive or maintain a vibrant office market within Harrow town centre. This would include enhancements to the public realm and to local transport improvements. Nevertheless, new office development in Harrow is likely to take the form of mixed use development, and will need to be treated in the context of an overall package of infrastructure provision required to maintain a buoyant employment market and to create sustainable communities.

4.5 Industrial and warehouse floorspace

4.5.1 The Harrow Employment Land Review (October 2009) forecasts there will be a large surplus of existing industrial space over the next 19 years, although this could become much tighter if certain redevelopment sites do not provide for some provision of industrial space. Any infrastructure requirement is therefore likely to result from meeting an identified qualitative need for some more modern, small industrial units and small starter-units. The Core Strategy sets out that such quantitative new provision will be accommodated through a combination of some intensification or redevelopment on existing sites, primarily within the Intensification Area.

4.6 Distribution and phasing of housing and employment development

4.6.1 The Harrow Core Strategy establishes the Intensification Area as the focus for growth and regeneration, providing for approximately 2,500 new homes and 3,000 new jobs.

The remaining 1,000 jobs³ and 2,851 homes are to come from infill development with Harrow's network of town centres and from identified strategic previously developed sites. The Core Strategy sets out the broad quantum of housing to be delivered based on the sub-area boundaries as follows:

Table 5: Phasing of housing growth by sub-area

Sub Area	09/10-10/11	11/12-15/16	16/17-20/21	21/22-25/26	Totals 2009 – 2026 (net homes and floorspace)
Harrow & Wealdstone IA	179	1,408	871	210	2,668 homes
Harrow on the Hill & Sudbury Hill	44	88	43	70	245 homes
South Harrow	247	59	-	-	306 homes
Rayners Lane & North Harrow	123	135	-	19	277 homes
Pinner & Hatch End	44	105	22	-	171 homes
Stanmore & Harrow Weald	20	485	64	154	723 homes
Edgware & Burnt Oak	271	837	-	86	1,194 homes
Kingsbury & Queensbury	21	8	-	-	29 homes
Kenton & Belmont	5	10	-	-	15 homes
Totals homes	954	3,135	1,000	539	5,628 homes

4.6.2 With regard to employment provision, the vast majority of employment growth will be delivered in the Harrow and Wealdstone Intensification Area. Employment growth is to come forward from mixed use development on identified strategic sites, and therefore its phasing is expected to closely correlate to the phasing for housing development set out in the Table above.

4.6.3 Given its central location of the Intensification Area, and the strategic role and function of Harrow town centre, it is envisaged that this area will make provision for strategic infrastructure serving both residents of the area as well as the wider Borough. More disperse development is planned within the remaining district and local centres and on strategic brownfield sites located across the Borough. Other than at Honeypot Lane, which is already under construction, and perhaps within the Stanmore and Harrow Weald sub-area, the quantum and distribution of new development is not expected to give rise to any significant requirements for new infrastructure. Rather the requirement and focus of infrastructure provision in these areas will be on meeting identified local needs, and within this context, qualitative improvements in existing provision. The phasing of development outside of the Intensification Area is therefore of importance to ensure short-term impacts on local facilities and services are minimized.

4.7 Current baseline population

4.7.1 The most up-to-date population projections for Harrow are those contained in the Greater London Authority's (GLA) 2010 Round Demographic Projections (Borough Preference). These take account of the current London Plan housing targets and

³ Economic Evidence Base, GLA, October 2009 forecasts only a modest increase of 4,000 jobs across the Borough between 2011 and 2026.

completions up to 2009 as well as the borough housing trajectory. The GLA estimate Harrow's population at 221,380 in 2009. The GLA data also provides for a breakdown of population by ward and in 5 year bandings by age. This is summarised below in Table 6 and is used in determining existing surpluses or deficits in infrastructure provision across the Borough or within specific areas of the Borough.

Table 6: Harrow's population by age bands and wards for 2009

2009								
Ward	Total	0-4	5-9	10-14	15-19	20-64	65-79	80+
Belmont	9,740	670	650	650	540	5,900	970	370
Canons	11,150	650	510	500	550	6,540	1,390	1,020
Edgware	10,350	720	610	650	680	6,390	940	360
Greenhill	11,280	780	520	490	510	7,910	690	370
Harrow on the Hill	11,790	790	600	550	780	7,460	1,030	580
Harrow Weald	10,750	640	660	710	720	6,130	1,180	720
Hatch End	10,460	640	660	610	500	6,100	1,250	710
Headstone North	10,090	620	660	630	580	6,040	1,150	420
Headstone South	10,040	700	550	510	460	6,620	840	350
Kenton East	10,200	730	650	590	550	6,430	940	330
Kenton West	10,650	650	650	720	670	6,570	1,030	350
Marlborough	10,330	920	580	470	590	6,630	810	330
Pinner	9,980	500	460	500	560	6,080	1,290	590
Pinner South	10,360	620	610	600	580	6,110	1,220	620
Queensbury	10,410	750	620	710	860	6,220	930	320
Rayners Lane	10,630	700	630	690	610	6,590	1,060	350
Roxbourne	11,950	960	790	760	730	7,700	770	240
Roxeth	10,960	800	730	740	730	6,780	850	330
Stanmore Park	10,660	660	640	640	590	6,240	1,230	650
Wealdstone	9,520	800	520	520	590	5,850	860	370
West Harrow	10,080	710	650	550	500	6,320	1,020	320
Total	221,380	15,010	12,940	12,790	12,880	136,590	21,470	9,700
<i>Figures may not sum due to rounding</i>								

4.8 Projected population and demographic change

4.8.1 Increases in population, changes in age structure, and increasing diversity can all influence the need for additional or different physical and social infrastructure. The population projections are important in the assessments of future potential infrastructure surpluses or shortfalls, as well as signalling the triggers or timing for infrastructure provision. The following tables (7-10) set out the GLA population projections, by ward and age, for 2011, 2016, 2021 and 2026. However, it is important to note that these projections are based on the 2001 census as their basis, so more accurate projections may be produced shortly once the 2011 census result become available. As such, the following tables could be subject to subsequent revision, which will then need to flow through to a review of the infrastructure assessments.

Table 7: Harrow's population by age bands and wards for 2011

2011								
Ward	Total	0-4	5-9	10-14	15-19	20-64	65-79	80+
Belmont	9,720	680	680	620	520	5,830	1,010	380
Canons	11,690	680	580	510	530	6,860	1,440	1,080
Edgware	10,410	760	650	630	650	6,400	950	370
Greenhill	11,420	870	550	490	510	7,940	680	360
Harrow on the Hill	11,870	850	610	560	770	7,420	1,040	620

Change 2011-16	6,590	330	1,690	730	-130	1,210	1,460	1,310
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4.8.3 Five years further along the time period and the increases witnessed in population in 2011 have moved up the next age bandings, with significant increases now being shown in the 5-9 and 10-14 age bands (1,690 and 730 respectively). There continues to be more modest levels of growth in the 0-4 age band, up another 330). The population over 80+ years also continues to steadily increase (up 1,310 over the five years from 2011). The overall population growth in this period of 6,590 is significant, leading to increases of 1,210 in the working age group and 1,460 in the 65-79 age band.

Table 9: Harrow's population by age bands and wards for 2021

2021								
Ward	Total	0-4	5-9	10-14	15-19	20-64	65-79	80+
Belmont	9,560	610	670	670	520	5,420	1,160	490
Canons	13,300	710	740	710	630	7,390	1,820	1,300
Edgware	10,890	770	770	780	670	6,360	1,070	460
Greenhill	13,820	1,090	790	710	640	9,460	730	410
Harrow on the Hill	11,980	780	700	660	770	7,090	1,120	870
Harrow Weald	10,620	620	730	780	680	5,820	1,150	850
Hatch End	10,380	620	710	660	500	5,630	1,400	860
Headstone North	10,330	630	750	800	610	5,790	1,190	570
Headstone South	10,400	710	650	590	470	6,510	940	540
Kenton East	10,070	680	730	690	500	6,140	840	490
Kenton West	10,460	630	700	760	600	6,010	1,220	530
Marlborough	11,940	1,020	760	640	660	7,520	880	470
Pinner	10,020	440	460	500	490	5,960	1,420	750
Pinner South	10,170	530	590	630	540	5,500	1,490	890
Queensbury	10,230	700	700	740	790	5,850	940	500
Rayners Lane	10,540	690	740	750	610	6,130	1,120	490
Roxbourne	12,430	1,000	990	860	700	7,740	920	220
Roxeth	10,840	760	790	760	720	6,500	910	400
Stanmore Park	11,120	630	700	740	640	6,380	1,300	730
Wealdstone	9,560	750	620	600	540	5,630	870	550
West Harrow	10,170	660	670	630	510	6,050	1,190	470
Total	228,830	15,040	14,970	14,660	12,790	134,860	23,700	12,810
<i>Figures may not sum due to rounding</i>								
Change 2016-21	-1,060	-970	-260	1,230	410	-3,250	500	1,280

4.8.4 By 2021 the projections show an overall declining population of 1,060 since 2016. However, the bulge in child numbers from 2009 continues to work its way through the age structure for the Borough, resulting in an increase in the 10-14 year group and more modest growth for the band 15-19 by 2021 (1,230 and 410). Significantly, both the 0-4 age population and the working age population see a significant decline in numbers by 2021, down 970 and 3,250 respectively. The decline in the working age population is partly accounted for through the increase of 500 projected for the 65-79 age group. As per the previous two quarters, the population over 80+ years has again increased by a further 1,280 to 12,810.

Table 10: Harrow's population by age bands and wards for 2026

2026								
Ward	Total	0-4	5-9	10-14	15-19	20-64	65-79	80+
Belmont	9,430	600	630	650	550	5,250	1,190	580
Canons	13,210	640	680	710	680	7,190	1,880	1,440
Edgware	11,110	760	760	790	760	6,440	1,090	500
Greenhill	14,000	1,070	810	740	710	9,470	770	430
Harrow on the Hill	11,980	750	650	640	840	6,930	1,160	1,010
Harrow Weald	10,850	640	710	770	760	5,870	1,160	930
Hatch End	10,280	600	670	640	540	5,460	1,420	950
Headstone North	10,330	620	720	790	690	5,720	1,170	630
Headstone South	10,260	660	590	590	520	6,300	980	620
Kenton East	9,930	660	690	660	540	5,980	870	530
Kenton West	10,330	610	660	740	650	5,760	1,300	610
Marlborough	11,860	990	750	640	690	7,390	910	510
Pinner	9,880	420	440	480	500	5,810	1,430	810
Pinner South	10,050	500	540	590	580	5,210	1,550	1,080
Queensbury	10,100	680	660	710	850	5,610	1,000	580
Rayners Lane	10,400	670	690	740	680	5,930	1,140	560
Roxbourne	12,260	960	920	860	780	7,530	970	240
Roxeth	10,690	730	740	740	770	6,330	960	420
Stanmore Park	10,970	600	650	710	660	6,240	1,300	790
Wealdstone	9,430	720	580	570	580	5,470	870	630
West Harrow	10,040	630	620	610	540	5,870	1,230	530
Total	227,390	14,530	14,170	14,370	13,850	131,750	24,350	14,370
<i>Figures may not sum due to rounding</i>								
Change 2021-26	-1,440	-510	-800	-290	1,060	-3,110	650	1,560
Change 2009-26	6,010	-480	1,230	1,580	970	-4,840	2,880	4,670
% change 2009-26	2.71	-3.20	9.51	12.35	7.53	-3.54	13.41	48.14

4.8.5 Over the last five year period of the Plan to 2026, the 0-4 and child age populations continue to decrease. The bulge in these bands experienced since 2009 have now worked their way through to the 15-19 year banding, which is predicted to grow by 8.3% (1,060) on that projected for 2021. Significantly, the bulge is not however reflected in growth in the working age banding, which continues to decrease by a further 3,110. The reason for this is somewhat explained by the continued increase in the 65-79 retirement age population, which increases by a further 650. As per the trend overall, the 80+ age banding continues to grow, up a further 12% to 14,370.

4.9 Overall change

4.9.1 Overall the borough population is expected to grow by 6,010, or about 2.7%, between 2009 and 2026. The start of the plan period, in 2009, experiences significant growth in the child population, which will place additional demands on early years and primary school provision. These numbers peak in the period just after 2016 before declining over the next two periods, and fall below 2009 figures by the end of the Plan period in the case of the 0-4 age band. The peak in primary age children in 2016 will then flow through to the teenage populations by 2021, at which time the focus for demand for education provision will shift from primary to secondary places. Significantly, the working age population is projected to peak in 2016, but over the life of the Plan, is projected to decrease by about 4,840, even with some of the 2009 bulge in children being

of working age by 2026. However, in terms of steady overall growth, it is the later in life bandings that show year on year increases. The population of those over 65 in the borough is expected to increase by 7,550. Overall this sector of the population will account for nearly 17% of Harrow's population, up 3% since 2009. Within this sector, the greatest increase will be in those aged 80+, up 4,670 since 2009 (48% growth). The significant growth in Harrow's elderly population is likely to place additional demands on infrastructure both locally and borough wide, in particular, healthcare, supported accommodation and accessible transport.

4.9.2 For some services the level of demand placed on infrastructure is related to the age profile of new residents moving into a development. Therefore, demographic projections and changes should be studied by infrastructure providers when identifying likely requirements resulting from new development.

4.10 Population change by sub area

4.10.1 Table 11 sets out the changes in population from 2009 to 2026 expected in each of the sub-areas set out in the Core Strategy.

Table 11: Population change by sub area (2009 to 2026)

Sub Area	2009	2011	2016	2021	2026	Totals 2009 – 2026
Harrow & Wealdstone	31,130	31,480	34,060	35,320	35,290	4,160
Harrow on the Hill & Sudbury Hill	11,790	11,870	12,050	11,980	11,980	190
South Harrow	22,910	23,540	23,620	23,270	22,950	40
Rayners Lane & North Harrow	40,840	41,080	41,790	41,440	41,030	190
Pinner & Hatch End	30,800	30,840	30,980	30,570	30,210	-590
Stanmore & Harrow Weald	26,980	27,080	28,530	28,360	28,425	1,445
Edgware & Burnt Oak	15,930	16,420	17,960	17,570	17,715	1,785
Kingsbury & Queensbury	20,610	20,630	20,580	20,300	20,030	-580
Kenton & Belmont	20,390	20,360	20,320	20,020	19,760	-630
Totals	221,380	223,300	229,890	228,830	227,390	6,010

4.10.2 The above changes correlate to the planned distribution of development set out in Table 5. The Harrow and Wealdstone sub area is planned to make provision for 2,668 new homes and will experience an increase in population in the region of 4,160. The other two sub areas to experience significant population growth are Stanmore & Harrow Weald sub area, reflecting proposed development at RNOH (191 units), Harrow Weald Campus (154 units), Anmer Lodge (136 units) and Bentley Priory (103 units) and Edgware & Burnt Oak sub area, reflecting the development already underway at Honey Pot Lane (795 units) and proposed development at Edgware Town FC (189 units).

4.10.3 The sub areas where only modest levels of development are proposed see only a modest increase in population. The levels of population increase are less than the number of homes being proposed for these areas because household size across the

existing housing stock within these areas is projected to decrease from an average of 2.6 to about 2.4 per dwelling. The impact of this change in household size results in a decrease in population in those sub-areas that are to be planned to make little or no contribution towards new housing provision, such as the Kenton & Belmont sub area.

4.10.4 As set out in paragraph 4.8.1, the basis of all current population projections is the 2001 census data. It is anticipated that the new census data (2011 Census) for the Borough will be available by June 2012 and Ward level data by December 2012. Once this data has been published it will be necessary to review and potentially revise the above projections and to take this through to the assessment of infrastructure requirements.

5.0 Infrastructure requirements

5.1 Early years education provision

5.1.1 Early year's education is defined as fulltime or part time education from the start of the term following a child's third birthday and up to compulsory school age. The government fully fund part of the pre-school learning in that each child is entitled to 15 hours (over 3 days) of free pre-school learning each week (38 weeks) when they are three and four, and these places are available at all types of day nurseries, nursery classes in primary schools, accredited child minders and sure start children's centres.

5.1.2 Nursery, pre-school and early years education is provided in partnership by the local authority, independent, private and voluntary providers. The Integrated Early Years and Community Service works with the Early Years Development and Childcare Partnership to plan provision, including the development of the Children's Centres in Harrow. They publish the Harrow Early Years Development and Childcare Strategy which sets out the wider context of pre-school provision identifying issues of under and over provision. Across Harrow there are collectively 8,207 pre-school/childcare places in registered provision made up of private, voluntary and maintained sector pre-schools and day nurseries.

5.1.3 The Childcare Act 2006 places a duty on the local authority to manage the childcare market and ensure the sufficiency of childcare. As a result Harrow has conducted an audit of registered childcare provision across the borough to develop a more detailed understanding of the local market⁴. The findings of the audit show that childcare provision is not evenly distributed throughout the borough. For example there are 5 wards with no day nurseries – Headstone North; Queensbury; Roxeth; Wealdstone and; West Harrow; and no pre-school provision in Hatch End or Marlborough. Parent/carers identify unmet need for daycare provision for children aged 0-2 years and nursery provision in particular for children aged 3 and 4 years. Consultation with providers identifies capacity in all types of provision suggesting a mis-match between availability and parental expressions of unmet demand. Cost is clearly a major contributing factor. There are also limited places for disadvantaged two year olds for 10 hours per week. However, within the private and voluntary sector children can be cared for from as young as 3 months of age.

5.1.4 The findings of the audit were that provision across Harrow for all Early Years places is in line with demand now but that the birth rate over the next few years is set to

⁴ London Borough of Harrow Childcare Sufficiency Assessment February 2011

increase. The conclusion of the audit is to monitor the position to ensure that this situation is maintained.

- 5.1.5 As part of the monitoring for early years places, and the need to maintain the level of provision, proposals have been brought forward to open a nursery class at Roxbourne First School. This will be an integral element of the Children’s Centre that will provide access to a range of services for children and families.
- 5.1.6 The Council, through its management of the market place will support the private and voluntary sector childcare providers to develop to meet the need for additional places for two year olds. This will require new settings (accommodation for classes, etc) but not necessarily LA managed. There is a chance that Council could rent property to the private and voluntary sector for this purpose, although demand through market forces cannot yet be plotted. Where it is necessary to invest in existing Children’s Centre premises to allow for increased demand and more intensive use, it is likely that such investment will involve comprehensive rebuilding rather than extensions in most cases.
- 5.1.7 With regard to nursery school places, where provision is to be made for a new primary school, opportunity exists to consider combined provision for both primary and nursery classes. This would address demand arising in an area for both class forms, such as within the Central Primary Planning Area which includes the Intensification Area, and would reduce costs associated with separate provision.
- 5.1.8 A quantitative requirement for future provision of early years education places have therefore not been derived to date for inclusion in this assessment. Additional work is needed with the Early Years Development and Childcare Partnership to assess the likely level of future need and to plan for provision. Such work will need to be fed into this assessment and the delivery plan as part of a subsequent review.

5.2 Primary schools

- 5.2.1 The Council has a statutory responsibility to provide sufficient school places to meet the needs of the population in its area. School place planning in Harrow is managed by Children’s Services who produced, in 2009, a School Place Planning Strategy 2010-13. This Strategy established the framework for officers to develop and bring forward options to ensure there are sufficient school places to fulfil the local authority’s statutory responsibilities. The Strategy sets out the detailed information that supports the development of proposals to change the number of school places. Included with the Strategy is the School Roll Projections 2010 - 2016 Report prepared by the Education Performance Team. The School Roll Projections report brings together information on population projections from the GLA, pupil roll numbers and housing developments in Harrow.
- 5.2.2 With regard to existing provision, the Strategy states that there are currently 53 primary schools in Harrow, which provide 17,840 places, as set out below:

Table 12: Primary School Place in Harrow by type and size of admissions

School	Planned Admission Number	Number
Infant school	60	2
	90	11
Junior School	60	2
	90	11

Primary (community Schools)	30	2
	60	12
	90	2
Primary (VA)	30	2
	60	7

5.2.3 Since September 2009 Harrow has opened additional Reception class places to meet the sustained additional demand that has been experienced by most local authorities in the London area. These additional Reception classes have been opened in existing Harrow schools on a temporary basis. These additional classes are often referred to as 'bulge' classes, and the class progresses through the following year groups at the school. Five bulge classes were opened in September 2009, a further five bulge classes were opened in September 2010, and eight bulge classes will be opened in September 2011.

5.2.4 School roll projections from the GLA show a continuing increase in demand for reception class places across London and in Harrow. GLA projections of demand for Reception places show additional demand over the currently available permanent Reception places (2,550) of:

- 13 additional forms of entry (FE) beyond the current capacity in 2012/13;
- up to 15 additional forms of entry for 5 years from 2013/14 until 2017/18;
- followed by continued, though reducing, additional demand in subsequent years (14FE in 2018/19, 12FE in 2019/20, 10FE in 2020/21);
- levelling of demand in 2024/25 at the level projected for 2012/13 (13 additional forms of entry) - this is based on comparison of birth rates in 2008 and projected for 2020.
- the projected demand is spread across all the Primary Planning Areas (2-3FE per PPA). For primary sector school place planning purposes, the borough is divided into five geographic areas and a sixth planning area for voluntary aided schools.

5.2.5 The Council does not consider it is sustainable to meet the projected level of increased demand for reception places through opening temporary bulge classes alone during the next ten year planning period from 2012/13 onwards. The proposal to meet the identified need above will therefore be delivered through:

- One new 2 form entry primary school serving the central Primary Planning Area (which covers the Harrow and Wealdstone Intensification Area)
- The establishment of 4-6 permanent additional forms of entry in existing primary schools by 2016;
- The establishment of 4-6 additional temporary bulge class forms of entry per year to 2016, noting that these will be provided through a rolling programme within the Primary Planning Areas at schools that are not being permanently expanded

5.2.6 Beyond 2016, the Council will continue to monitor the position as to further future requirements. However, it is clear that the increased demand in primary places will follow through into the secondary sector in five years time (academic year 2016/2017). The above expansion programme will therefore start with the primary sector and then encompass the secondary sector in due course.

5.3 Secondary schools

5.3.1 Harrow's eight community high schools are organised for pupils aged 12-18 (schools Years 8-11). One community high school is for girls only. The two voluntary aided schools are for pupils aged 11-16 and for single sex pupils. The planned admission numbers range from 150 to 300.

5.3.2 The table below summarises the number and type of secondary sector schools in Harrow with effect from September 2010.

Table 13: Secondary Schools in Harrow by type and size of admissions

Type of School	Planned Admission Number	Number of schools
Voluntary Aided	150	2
Community	180	3
Community	270	2
Community	300	3

5.3.4 Table 14 below shows that the GLA predicts a small decline in the number of pupil in Years 8-11 over the next few years. At it highest, in 2015, the surplus would amount to about 200 places in each year group across all Harrow's high schools.

Table 14: Secondary Projections: All Harrow High schools (Years 8 to 11 only)

Year	January actual number on roll	Actual / Projected demand (GLA)	Places available	Surplus places GLA (%)
2006	8,709	8,709	8,922	2.45%
2007	8,793	8,793	8,872	0.90%
2008	8,686	8,686	8,822	1.57%
2009	8,572	8,572	8,772	2.33%
2010		8,577	8,760	2.13%
2011		8,463	8,760	3.51%
2012		8,469	8,850	4.50%
2013		8,483	8,940	5.39%
2014		8,359	9,030	8.03%
2015		8,313	9,120	9.71%
2016		8,333	9,120	9.44%

5.3.5 However, the Council considers that the above picture is likely to change for two reasons. Firstly, in September 2010 the age of transfer to secondary education changed from 12+ years to 11+ years. At this time it is still not known how this has affected the number of children staying in Harrow's schools post Year 6, but if there is likely to be an increase in the staying on rate, this will need to be factored into the projections. Secondly, as stated in the section above on primary school provision, increased demand currently being experienced for primary places will follow through into the secondary sector in five years time (academic year 2016/2017). The Council therefore considers that there will be demand or need to provide for expanded secondary provision from 2016 onwards, even taking into account the level of surplus currently identified in Table 14 above.

5.3.6 The Council will therefore need to monitor the situation with regard to both the impact of the change of age transfer and flow of primary place increases into the secondary

school sector. If expanded or new provision is required, the Council has already identified the Teacher's Centre as a potential site, given its history, location and the existing facilities already on site.

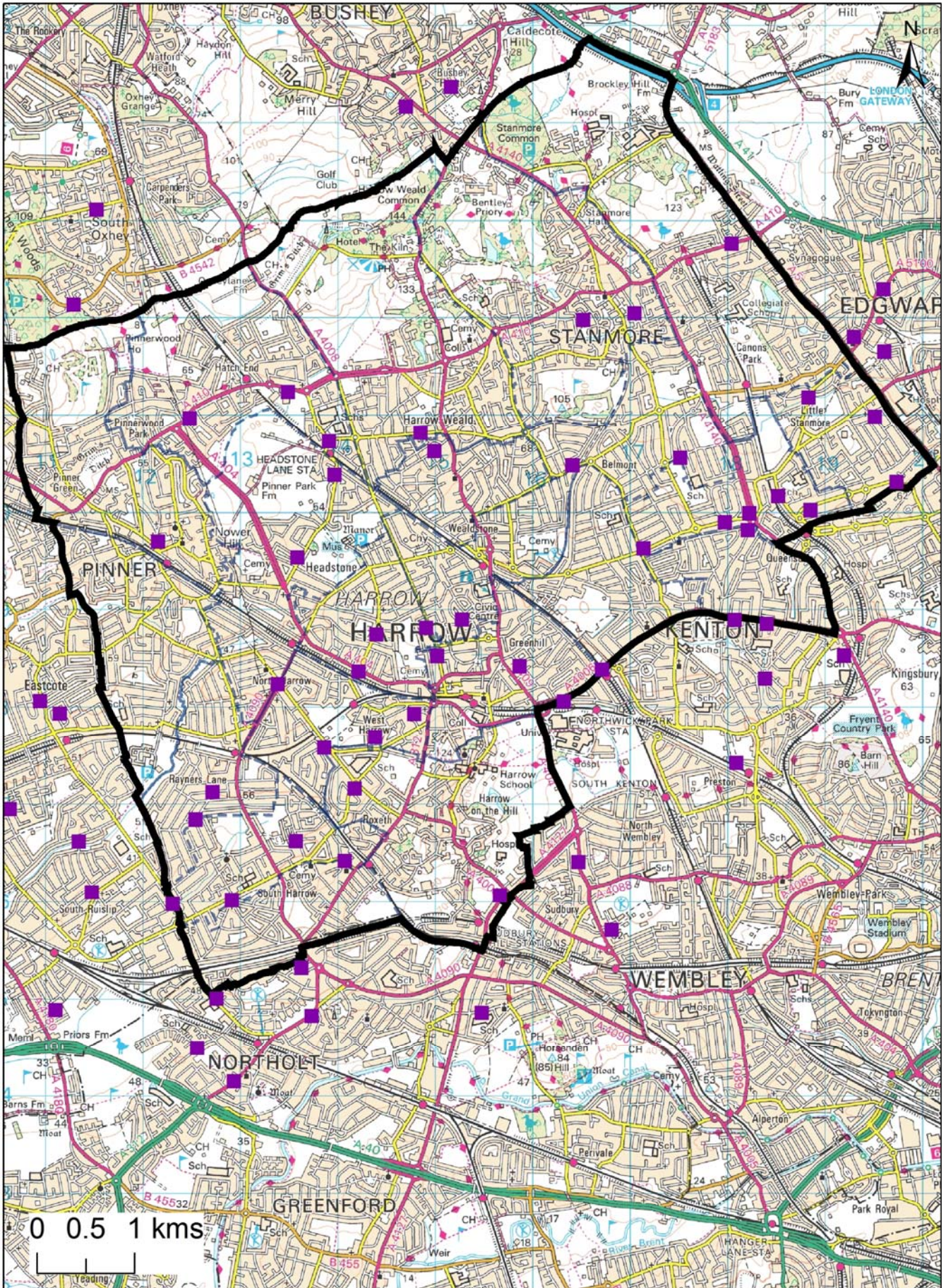
5.4 GP health centres

- 5.4.1 According to NHS Harrow data, there are currently 50 GP surgeries located either within the Borough or within walking distance of the Borough boundary. In total there are currently 202 GPs in practices serving Harrow. Most practices have between 3 and 6 GPs, although 15 of the 50 surgeries comprise a practice of only 1 or 2 GPs, many of these serving the Harrow and Wealdstone Intensification Area, which is to be planned to provide for significant growth. Practice list size ranges from 1,600 to 15,000.
- 5.4.2 The national standard for a GP patient list is 1:1,800 patients per GP. Having regard to the number of GPs in Harrow, it suggests that there is sufficient existing provision to meet both current and future needs. However, the distribution of practices and GPs is not evenly spread across the Borough – see map below.
- 5.4.3 Two sub areas in the borough have been identified as have potential shortfalls in either existing or future provision of GPs. The Stanmore & Harrow Weald sub area is currently served by 3 GP surgeries with a total of 12 GPs. As set out in Table 11, the sub area's existing population is estimated at 23,540. Based on the national standard for a GP patient list the sub area has a current requirement for 13 GPs, so has an identified shortfall of 1 GP. However, development in the sub area will see its population increase to 28,425, and will therefore require a further 3 GPs (i.e. 4 GPs in total).
- 5.4.4 The other sub area identified with a potential shortfall is the central area including parts of the Harrow and Wealdstone Intensification Area, which is currently not well served. There are no practices within the designated Intensification Area boundary but eight practices within walking distance, comprising 25 GPs. The existing population of the three main wards that comprise the Intensification Area is estimated at 31,480 and therefore requires 17 GPs to meet the needs of the present population. However, it is assumed that due to the location of these eight practices they also serve a significant part of other neighbouring wards, such as West Harrow, Headstone South and Kenton West. It is therefore assumed that rather than there being an over supply, the current level of GP provision in the Harrow and Wealdstone sub area is likely to be at the level of recommended provision or over subscribed. Given that the growth planned for the sub area will see the local resident population increase by approximately 4,160 in the next 15 years, this would translate to an additional requirement in local provision of 2 GPs. However, the Council is aware that a number of the GPs in smaller practices serving the Harrow and Wealdstone sub area and surrounding Wards are nearing retirement and this may give rise to a need for an additional 2 to 3 GPs, and more specifically new premises to cover any void created in local facilities.
- 5.4.5 In addition to the distribution of new development, the expected growth in Harrow's population over 65 (see paragraph 4.9.1) is likely to result in either an additional burden on both primary and acute healthcare requirements or the type of provision. While the increase in over 65's will be experienced across the borough, certain wards are expected to see significant levels. These include Canons (an increase of 870 between 2009 and 2026), Pinner South (790), Harrow on the Hill (560), Kenton West (530) and Belmont (430). The Council will need to engage with GPs and other health providers to better appreciate the implications for future GP/health requirements resulting from

this change in demographics for the Harrow and those wards/areas likely to be most affected.

- 5.4.6 The current operating model for primary healthcare in Harrow is the promotion of a hub and spoke model for the delivery of health services (Harrow PCT Primary and Community Care Strategy). The intention being that hubs will be centres providing a wider range of health facilities for larger numbers of patients – from 20,000 upwards. The spokes will be individual GP surgeries or could be community pharmacies which provide enhanced services. Any new hub will be at least 5,500m² and provide general practice services to a minimum of 20,000 patients. They would also provide a base from which a wider range of services can be offered to those registered with a GP at the hub and to the local GP spoke practices operating around the hub. To date, three polyclinics / extended GP surgeries have been established in Harrow – the Alexandra Avenue Poly Clinic, Harness Harrow in Mollinson Way, and The Pinn Medical Centre in Pinner.
- 5.4.7 The PCT were looking for sites in Harrow Town Centre and Wealdstone Centre to establish two further Polyclinics by 2013/14. Such provision would meet the primary health needs required of growth within the Intensification Area, as well as serving a much wider area. However, finance for such capital works has been significantly constrained and more recent proposals have seen the initial plans watered down to the provision of only one new polyclinic within Harrow town centre and a GP led centre instead in Wealdstone. To ensure adequate numbers of GPs to staff the polyclinics, the NHS trust was looking to negotiate with individual GP practices to move into the polyclinic or GP led centre. This would be a more natural transition which would be led by GP and patient choice. Inevitably, this proposal would lead to a loss of GP surgeries located and serving a wider area beyond the Intensification Area, and would lead to a centralisation of services. However, given the accessibility of the town centre, the impact on patient access from the surrounding area is considered to be minimal.
- 5.4.8 However, in more recent times the above service delivery considerations have been overtaken somewhat by proposals for the significant reform of the NHS system, promoting GP-led financing of healthcare services and privatisation of most primary and acute service. As such, there is significant uncertainty at this time as to what the future operating model might be in the UK, London and in Harrow, and what this might mean for the current proposed strategies. Such matters will need to be kept under review. Nevertheless, the need for additional provision of at least 4 GPs to accommodate growth within the Intensification Area will need to be met. The preparation of the Area Action Plan and the development of sites within both Harrow and Wealdstone town centres offer the opportunity to undertake more detailed analysis of requirements to serve the area and to make provision for a new polyclinic and/or GP-led centre. The provision of a new facility is in preference to refurbishment or expansion of existing premises, given their existing locations on the periphery of the Intensification Area.
- 5.4.9 The Council will therefore continue to work with the Harrow PCT, local GPs and the landowners/developers of the strategic sites within the Intensification Area to firm up proposals, including final specifications and funding.

GPs in Harrow - June 2011



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Source: NHS Choices Web Service



5.5 Acute Healthcare

- 5.5.1 The North West London Hospitals NHS Trust manages Central Middlesex Hospital, Northwick Park Hospital and St. Mark's Hospital. Of these, Northwick Park and St. Mark's Hospitals are co-located at Watford Road, just beyond the Borough boundary within the London Borough of Brent.
- 5.5.2 Northwick Park Hospital is the principal general hospital serving Harrow. It includes the following services: Accident & Emergency, Urgent Care, Maternity, Paediatric Care and Radiology. St. Mark's Hospital is the country's leading hospital for colorectal diseases.
- 5.5.3 The Royal National Orthopaedic Hospital is located in Brockley Hill, Stanmore. The hospital is a national centre of excellence in its field and on 11th May 2011 announced a shortlist of successful bidders to deliver phase 1 of a redevelopment that will replace the existing complex of outdated, unsuitable buildings on the site.
- 5.5.4 Also in the Borough is the private Clementine Churchill Hospital. It provides emergency care as well as spinal, physiotherapy, oncology, pediatric and allergy services.
- 5.5.5 The Harrow NHS Primary Care Trust Strategic Plan 2009/10 to 2013/14 identifies the following pattern of service provision in the Borough:
- There are 48 dental practices (comprising 113 dentists) and 3 NHS orthodontic practices (6 dentists);
 - There are 58 community pharmacies and one contractor is on a local pharmaceutical services contract; they provide a full range of essential and some enhanced services;
 - There are 34 opticians providing service to NHS patients.
- 5.5.6 With regard to dentists, of the 48 practices 38 provide a full NHS service, while the others provide an NHS service to children only. Of those providing the full NHS service, the latest data shows that 13 are currently accepting new patients.
- 5.5.7 There are no national standards for a dentist patient list but based on the figures above, Harrow's ratio is in the order of 1:1,976, which should be seen against a notional national standard of 1:2,000. This would suggest that there is some spare capacity currently (approximately 2.5 dentists) but as with GPs, the issue is that the distribution of dentist practices are not evenly spread across the Borough. The table below identifies the shortfalls and surpluses in current dentist provision by the Core Strategy sub areas:

Table 15: Dentist provision in Harrow by sub area for 2009 and 2026

Sub Area	Pop 2009	Dentists	Shortfall Surplus	Pop 2026	Shortfall Surplus
Harrow & Wealdstone	31,130	16(6)5	0.5	35,290	-1.5
Harrow on the Hill & Sudbury Hill	11,790	0	-6	11,980	-6
South Harrow	22,910	20(6)3	8.5	22,950	8.5
Rayners Lane & North Harrow	40,840	29(12)3	8.5	41,030	8.5

Pinner & Hatch End	30,800	11(6)0	-4.5	30,210	-4
Stanmore & Harrow Weald	26,980	18(13)4	4.5	28,425	4
Edgware & Burnt Oak	15,930	13(5)2	5	17,715	4
Kingsbury & Queensbury	20,610	0	-10	20,030	-10
Kenton & Belmont	20,390	6(5)1	-4	19,760	-4
Totals	221,380	113	2.5	227,390	-05

Source: Harrow PCT Dental Practice List, 2011.

NB: The third column denotes the number of dentists in the sub area, those that offer an NHS service in brackets, and those accepting new patients.

5.5.8 While a shortfall is identified for the Harrow on the Hill & Sudbury Hill sub area, which has no dental practices located in it, it is assumed that residents access dental services in the neighbouring sub areas of South Harrow and Rayners Land & North Harrow, both of which have a significant surplus in current and future provision. It is also assumed that this is currently the case for the Pinner & Hatch End sub area, which again borders' two sub areas (Stanmore & Harrow Weald and Rayners Lane and North Harrow) with sufficient surpluses to meet the undersupply identified in this sub area. While this may not be ideal in terms of accessibility, given the catchment size of dental practices, the current arrangements for provision for the sub areas of Harrow on the Hill & Sudbury Hill and Pinner & Hatch End may be satisfactory both now and over the Plan period. Further discussions are ongoing with the PCT to confirm that this is the case.

5.5.9 The same cannot however be said of the significant shortfall in existing and future provision identified for the Kingsbury & Queensbury and Kenton and Belmont sub areas. While the neighbouring sub areas do currently show a surplus of provision, this is significantly short of meeting the shortfall identified of 14 dentists in these two sub areas. Further, and as the table above shows, the expected population growth in the neighbouring sub areas will reduce the current surplus identified for Edgware & Burnt Oak to 4 dentists and resulted in an undersupply in Harrow and Wealdstone by 2026. While some of the current needs may be being met by dental practices located across the borough boundary in Brent, this has not been possible to determine or quantify. Further discussion is required with the PCT to understand how current dental needs are being met in the two sub areas and to quantify the level of additional provision that will be needed to meet the current shortfall in provision identified.

5.5.10 Having regard to future requirements, the Harrow & Wealdstone sub area will be subject to significant population growth of the Plan period that will see the current surplus turn into a shortfall of 1.5 dentists. Additional provision, in the region of 1-2 additional dentists, should therefore be planned and should be considered in the context of GP provision for the sub area and opportunities for co-locating services.

5.5.11 The need for additional dental services in the Borough is confirmed by the Harrow NHS Strategic Plan (Nov 2008), detailed below, which includes a proposal for increased dental service capacity in Harrow but this did not specify the quantum of additional capacity to be provided or where in the Borough this would be delivered. Again, further discussion is required with the PCT to clarify this.

5.5.12 Having regard to clinical quality of services, the demographics and health needs of the population, the NHS Strategic Plan for the period 2009/10 to 2013/14 identifies a series of costed initiatives to respond to the identified requirements. The total value of investment identified in the Plan over the period 2009/10 and 2010/11 is £8,518,000. In summary, the investment comprises:

- *Improved choice and control for patients*
Including the development of/support for GP-led health centres and polyclinics, provision of 'telecare' services and increased capacity in dental services; £3,668,000
- *Maternity services*
Increased capacity to deal with complex births and clinical support; £65,000
- *Children and young people*
Including inter-agency working, injury prevention work and community nursing services; £445,000
- *Vascular and pulmonary disease/cancer prevention*
Including increased screening, a physical activity programme and a new post; £1,223,000
- *Vascular treatment*
Including implementation of a stroke strategy, homecare and increased investment in community services and diabetes care; £1,444,000
- *Vulnerable groups*
Including projects to improve sexual health, reduce alcohol and drug related harm, and programmes to reduce TB/improve treatment completion; £520,000
- *Learning disabilities and community mental health services*
Including increased number of primary care workers/therapists, investment in therapies and appointment of community care outreach workers; £865,000
- *End of life care*
Investment in community chemotherapy; £288,000

5.5.13 However the Council has subsequently heard⁵ from the Primary Care Trust that it anticipates a funding shortfall of between £20 million and £54 million by 2013/14. It is therefore unclear whether any or all of the above investment will take place. The Council will therefore continue to engage with the NHS Trust regarding the implementation or any review of the Strategic Plan and will update the Delivery Plan accordingly.

5.6 Social Care

5.6.1 The Council's Supported Accommodation Strategy was adopted in 2010 to consider existing provision and future requirements for supported accommodation and associated services. It is a ten-year strategy. The Strategy identifies accommodation types for older people⁶ and for other vulnerable adults⁷.

⁵ In evidence to the Council's Overview and Scrutiny Committee, 8th December 2009.

⁶ Comprising: *Extra Care Housing*: Purpose built housing with special features⁶ and 24 hour care; *Sheltered Housing*: Purpose built housing schemes comprising self-contained flats with the provision of common areas and a resident warden or scheme manager, but not 24 hour care. Let at affordable rents; *Enhanced Sheltered Housing*: Purpose built housing schemes providing an intermediate model between traditional sheltered housing and extra care housing; for example offering easy access to care services; and *Retirement Housing*: Private housing that is especially for older people. The support on offer may range from the provision of community alarm equipment to wardens and caretakers.

⁷ Comprising: Purpose built housing with some special features, and: designated to vulnerable people by use rather than by design; requires a staff presence on site for safety reasons (e.g. to monitor behaviour); provides high care needs, catered for most economically by supported accommodation with staff permanently on site; or where there is a risk of service disengagement if residents were receiving a floated support service.

5.6.2 With regard to older persons housing, the Strategy identifies that there are 1,208 units of social rented sheltered housing⁸ in the Borough. The breakdown by type is shown in the Table 16 below.

5.6.3 The Council's *Review of Housing and Care Needs of Older People in Harrow (2006)* identified a need to increase enhanced sheltered housing by 116 units, extra care housing by 137 units, and specialist dementia provision by 87 units. The Review also recommended a reduction of 445 conventional sheltered housing units, but the net requirement is now 390 following the redevelopment of a site comprising 55 such units.

Table 16: Older People Affordable Accommodation Existing Provision and Projected Requirements

Model	Existing Units	Required Units	Net Change
Affordable rented sheltered housing units	1,115	725	-390
Affordable rented enhanced sheltered housing	29	145	+116
Affordable rented extra-care housing units	45	182	+137
Dementia Provision	0	87	+87
Abbeyfield ⁹	19	19	0
Totals	1,208	1,158	-50

5.6.4 The Supported Accommodation Strategy (2010) also identifies that there are 733 units of leasehold sheltered housing¹⁰ in the Borough. The breakdown by type is shown in the Table 17 below.

5.6.5 The Council's *Review of Housing and Care Needs of Older People in Harrow (2006)* identifies a need to increase leasehold sheltered housing by 355 units, leasehold enhanced sheltered housing by 145 units, and leasehold extra care housing by 182 units. This results in a net overall requirement for 682 additional units.

Table 17: Older People Leasehold Accommodation Existing Provision and Projected Requirements

Model	Existing Units	Required Units	Net Change
Leasehold sheltered housing units	733	1,088	+355
Leasehold enhanced sheltered housing	0	145	+145
Leasehold extra-care housing units	0	182	+182
Totals	733	1,415	+682

5.6.7 Notwithstanding the above provision and projections, the Strategy records that the majority of older people in Harrow do not live in specially designated accommodation

⁸ Owned by the Council or registered social landlords.

⁹ Abbeyfield is an existing extra care scheme.

¹⁰ Owner occupied or shared ownership housing.

but instead live in their own homes¹¹ and are likely to continue to want to do so, even as their health and mobility decline with age. The Council therefore offers a range of care and support services for those wishing to remain at home, including domiciliary care, floating support, meals on wheels, aids and adaptations and home improvement programmes.

5.6.8 No details are included about the ongoing and projected future costs of providing these services.

5.6.9 Recognising the increasing proportion of residents of Black and Asian Minority Ethnic (BAME) origin in Harrow's older population, the Strategy also identifies a need to provide appropriate information and services which reflect this diversity.

5.6.10 In respect of other vulnerable adults housing needs the Strategy identifies that there are 1,992 units of supported housing in the Borough for adults with learning and physical disabilities and those with mental health needs. The breakdown by type is shown in the Table 18 below.

Table 18: Other Vulnerable Adults Accommodation Existing Provision and Projected Requirements

Model	Existing Units	Required Units	Net Change
Supported housing for learning disability adults	51 ¹²	154	+103
Supported housing for physical disability adults	0	0	0
Supported housing for adults with mental health needs	0	185 ¹³	+185
Totals	51	339	+288

5.6.11 The Strategy estimates a need to increase housing for adults with learning disabilities by 103 units, and to increase housing for adults with mental health needs by 185 units. This results in a net overall requirement for 288 additional units. The Strategy does not identify a requirement for supported housing to meet the needs of physically disabled adults, but points out that all new development is built to lifetime home standards (and 10% to wheelchair home standards) with adaptations to specific users' requirements provided by the Council.

5.6.12 Notwithstanding the above provision and projections, there are 171 residential placements available to adults with a learning disability. These comprise placements with professional carers, placements in specialist supported housing schemes that are out of the Borough, and placements in registered care & nursing homes. The Strategy reports that work is underway to reduce the number of placements by upgrading existing low-level Supported People (SP) accommodation to be supported housing.

¹¹ Comprising owner occupiers, private or social renters, or with their families. However it should be noted that there is a high level of owner occupation amongst the older population of Harrow compared with other London boroughs.

¹² Includes 6 additional units planned for completion during 2010

¹³ Includes an allowance of 42 units for people suffering from the early onset of dementia.

5.6.13 It is estimated that the annual revenue funding requirement for learning disability services, based on the additional units in the table above, would be £1.45 million.

5.6.14 Similarly the Council purchases nursing and registered care for adults with physical disabilities. This equated to about 30 placements in 2009/10.

5.6.15 For adults with mental health needs, there are 80 residential placements comprising temporary supported housing, registered care homes, out of borough placements and private hospitals.

5.6.16 It is estimated that the annual revenue funding requirement for learning disability services, based on the additional units in the table above, would be £1.57 million.

5.7 Police facilities

5.7.1 At present there are 360 police officers, 81 police staff and 94 Police Community Support Officers based in Harrow. They are split between five key locations within the borough, three of which have facilities where a member of the public can report a crime. The current Metropolitan Police Estate in the borough is made up of the following site:

Table 19: Existing Police Estate in Harrow

Building	Police services based there	Contact point / front counter	Opening hours
Harrow Police Station	<ul style="list-style-type: none"> ▪ Patrolling ▪ Custody cells ▪ Senior management team 	Yes	Mon-Sun 24/7
Edgware Police Station	<ul style="list-style-type: none"> ▪ 2 Safer Neighbourhoods teams 	No	N/A
Pinner Police Station	<ul style="list-style-type: none"> ▪ 2 Safer Neighbourhoods teams 	Yes	Mon-Fri 10.00 – 15:30
Wealdstone Police Station	<ul style="list-style-type: none"> ▪ Partnership team ▪ Safer transport team ▪ Schools officers 	Yes	Mon-Sat 9.00 -17.00
West Street Police Station	<ul style="list-style-type: none"> ▪ 2 Safer Neighbourhoods teams 	No	N/A

5.7.2 In addition to the above, the Police also have Safer Neighbourhoods bases in the community, which are currently located at:

- 1 Headstone Drive, Wealdstone – currently home to 2 Safer Neighbourhoods teams
- 3 Churchill Court, North Harrow – currently home to 4 Safer Neighbourhoods teams
- Rooks Heath High School - currently home to 2 Safer Neighbourhoods teams
- Centenary Park Pavilion, Culver Grove- currently home to 3 Safer Neighbourhoods teams
- Canons Park Lodge, Donnefield Avenue - currently home to 2 Safer Neighbourhoods teams

- 155 Uxbridge Road, Hatch End – currently home to 2 Safer Neighbourhoods teams
- 5.7.3 With regard to future provision, the Metropolitan Police Estates prepared an Asset Management Plan for Harrow in November 2007. This was a consultation document and it is unclear whether the document was ever formally adopted. The Asset Management Plan proposed new office accommodation to house back-house functions, a new single Patrol Base for the borough that may be co-located with a proposed new Custody Centre. In discussions with Met Police Estates manager, there was a suggestion that they were also seeking new Safer Neighbourhoods bases and new front counters.
- 5.7.4 The Asset Management Plan fell short of identifying potential costs, funding arrangements or timings to understand the direct needs for the above proposals. Through subsequent discussions the Council was informed that such decisions had been put on hold to await the outcomes of a review of the whole of the Police Estate. While it is not possible to give a firm commitment as what the future strategy for Harrow might be at this stage, it is the Council's understanding that the desired future Metropolitan Police Estate within Harrow potentially consists of the following:
- Harrow police station – retained but long-term need is to be reviewed following the provision of a new Patrol Base and Custody Centre
 - Pinner police station – retained but long-term need is to be reviewed following the provision of a new Patrol Base and Custody Centre
 - 1 Headstone Drive, Wealdstone – continue to provide for Safer Neighbourhoods teams
 - 3 Churchill Court, North Harrow – continue to provide for Safer Neighbourhoods teams
 - Rooks Heath High School - continue to provide for Safer Neighbourhoods teams
 - Centenary Park Pavilion, Culver Grove- continue to provide for Safer Neighbourhoods teams
 - Canons Park Lodge, Donnefield Avenue - continue to provide for Safer Neighbourhoods teams
 - New office accommodation – to accommodate police back office functions, potentially co-located with Harrow Council back office functions
 - New Custody Centre – to accommodate all custody cells and related facilities in the borough
 - New Patrol Base – to accommodate all of the operational officers and facilities in the borough – Kodak site as a potential location
 - New Safer Neighbourhoods bases – to provide accommodation for each Safer Neighbourhoods team currently housed in temporary accommodation in permanent base, easily accessible to their wards
 - New front counters - to be available across the police accommodation in the borough to provide enhanced accessibility and a sense of reassurance for every member of the local community

- 5.7.5 The above structure suggests Edgware and Wealdstone stations will be disposed of and the facilities currently housed within these re-provided in specialised and more appropriate facilities. Over the long-term, the provision of a new Patrol Base and Custody Centre will allow for the disposal of Harrow and Pinner Stations. The Council assumes that the proposals for co-locating back service functions with the Council, and the disposal of existing and former police stations, such as the former Harrow on the Hill Police Station, will provide capital receipts sufficient to fund the proposed structure for the police estate in Harrow.
- 5.7.6 The Council is also aware of the significant cuts proposed for Metropolitan Police in London but it is currently unclear how this will impact on officer and support staff numbers serving the borough and how this might impact on the future accommodation requirements of the service. Therefore, at this stage, the Council does not consider it appropriate to include the above re-organised structure in the Delivery Plan. The Council will continue to engage with the Metropolitan Police Estates on any review of accommodation requirements of the service serving Harrow and will pick this up in any subsequent review of the Delivery Plan if required.

5.8 Fire service facilities

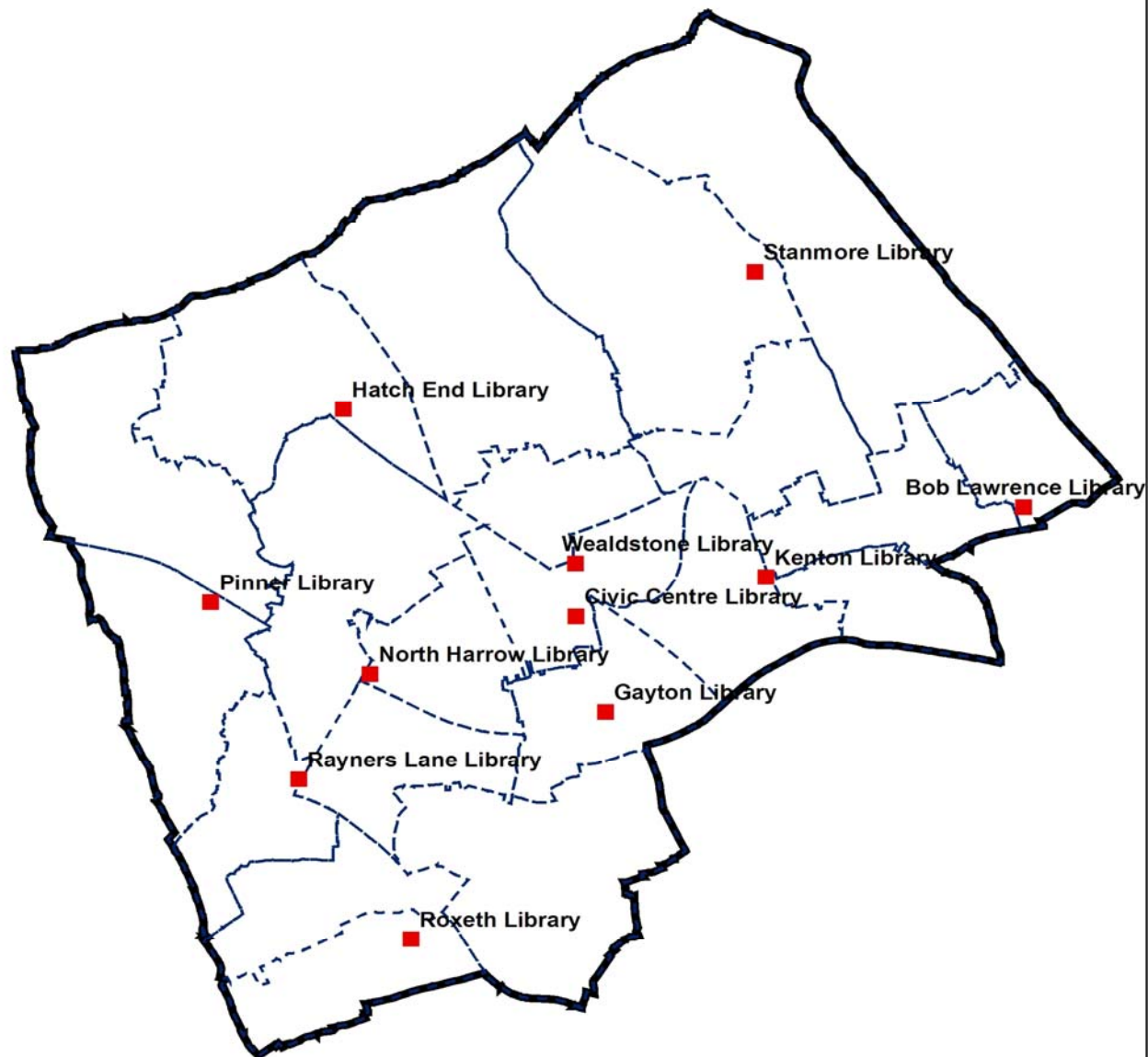
- 5.8.1 There are two fire stations within the borough located at Pinner Road and Honeypot Lane. Harrow Station was recently established as an incident support centre providing specialist incident support in the form of bulk foam and hose layer units, alongside the provision of the existing fire engines. The London Fire Brigade plans and locates its fire stations and vehicles to ensure London-wide cover. Borough boundaries are not used for emergency (999) response purposes and the areas covered by fire stations are not, therefore, consistent with borough boundaries. A fire engine located in one borough can and will be mobilised to incidents in an adjoining borough or anywhere in London.
- 5.8.2 With regard to standards of provision, the London Fire Brigade has a London-wide standard to get a first fire engine to an incident within 6 minutes and a second fire engine (when needed) within 8 minutes. The Brigade aims to get a first fire engine to an incident within 12 minutes on 95 per cent of occasions.
- 5.8.3 The London Fire Brigade published in 2009 their 'How we are making your borough safer' document, which covers the period for 2009/2012 for Harrow. This showed that the above service standards were currently being met in Harrow and did not identify any shortcomings in the current or proposed future levels of fire service provision to serve the Borough. In addition to Harrow's stations, others in and around Harrow at Northolt (in Ealing), Ruislip (in Hillingdon), Wembley (in Brent), Mill Hill and Hendon (in Barnet) are therefore well placed to deal with incidents in Harrow, and it is not anticipated that Harrow's proposed future levels of growth will impact on this.
- 5.8.4 What the 'How we are making your borough safer' document did raise attention to was that fact that the vast majority of incidents attended by the Fire Service in Harrow were false alarms (56% out of 2,580 incidents). In response, the focus of the Brigade is on reducing the number of false alarms and on preventative action, especially in respect of fires in the home. Such requirements are associated with revenue rather than capital costs, and are therefore not included in the Delivery Plan.
- 5.8.5 The Council is aware however that the Fire Service nationally are facing a 25 per cent cut in grant over the next four years, and that the settlement figures for London are only

known for the first two years. Next year's grant for London's Fire Services will be cut by £9m and £10.9m in additional savings must be found, with even larger cuts anticipated in future years. Given that the Brigade will be required to make substantial savings, it remains unclear at the moment what impact this might have on services for Harrow or for the service as a whole across London. The Council will therefore continue to engage with the GLA and the Fire Service to better understand any changes to service provision or future requirements for Harrow that may need to be taken into account in any review of the Delivery Plan.

5.9 Libraries

- 5.9.1 There are 11 libraries in the borough and one mobile library that calls on housebound people in their homes every four weeks. The locations of the libraries are provided on the map below.
- 5.9.2 The role of libraries has expanded significantly in the past decade. In addition to traditional book lending, Harrow's libraries also provide an archive & historical reference, on-line book service, music CDs and reading groups as well as provision for other key community facilities including computers with internet access, meeting space, photo booths and are an essential front line service providing information on local events, social services and voluntary organisations.
- 5.9.3 The current provision of library space in the borough is sufficient to meet both existing (6,640m²) and future (180m²) requirements based on the national standard of 30m²/1000 population. However, there is a need to invest in the modernisation of Harrow's libraries to meet customer needs in the 21st century. Currently self service kiosks are being introduced into all 11 libraries and work is being undertaken to scope requirements for introducing WiFi capabilities. This would both meet and also enable libraries to potentially become local hubs for mobile and flexible working.
- 5.9.4 While there are currently no proposals to close any of the existing libraries, the existing layout and age of some of the library building may inhibit efforts for modernisations. It may therefore be necessary to consider relocating some of the existing libraries into new premises. This offers the opportunity to direct library provision to the primary shopping core of town centres, assisting greatly with promoting footfall. In addition, the Council has plans to relocate from the existing Civic Centre on Station Road into Harrow town centre at some time over the next 10 years. This would include disposal of the Civic Centre Library, which is the main reference library in the Borough, and offers the opportunity close the Gayton Library and provide a new modern central library in the heart of Harrow town centre servicing the borough as a whole. The Council is currently preparing its revised Cultural Strategy, which will provide further details on the proposal for modernization and a central library (including specifications, potential locations, facilities and service requirements, costs and funding), as well as a service plan for library provision across the borough. The Delivery Plan will be updated once the revised Cultural Strategy has been approved.

London Borough of Harrow Libraries



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5.10 Community halls and cultural facilities

5.10.1 There are currently 40 community centres and community halls in the Borough. These provide for a wide range of local events and activities including dance, music, arts, indoor sports, yoga, martial arts, bridge, scouts & guides, youth clubs, toddler groups and faith meetings, alongside others.

- 5.10.2 The ownership and management of these facilities includes the church councils, faith groups, community associations and charities as well as Harrow Council. While all are open to members of the local community, the faith centres and church halls mainly exist for church or faith related activities but are typically made available for more general community use at certain times of the day or week. All the centres have a main hall and most have a kitchen and toilets. Many also have a smaller hall or meeting rooms, a bar or coffee bar and on-site car parking.
- 5.10.3 There is no specific national standard for community hall provision. This is because there are a number of factors that make it particularly difficult to quantify or determine levels of demand versus supply including size and the facilities available within each hall (and therefore the types of uses that can be accommodated), ownership (public and/or private) and the availability for community use. However, the number of facilities in Harrow is comparable with other London boroughs, and while the results of recent residents' surveys do not suggest a perceived need for additional community hall provision, the age of many of the centres, with many built prior to 1945, does give rise to qualitative issues. It is expected that the revised Cultural Strategy will establish a programme of refurbishment, upgrading (e.g. addressing issues of accessibility etc), and extension, subject to the availability of funding.
- 5.10.4 With regard to new provision, the Council recently gave permission for a new North Harrow Community Centre and for the redevelopment of the Cedars Youth Centre. The North Harrow Community Centre proposed by the Battles Well Foundation was granted planning permission in January 2011 and will be a multi-faith community centre comprising space for up to 600 people on event days, a sports hall, gym, prayer hall, library and restaurant. The new Cedars Youth and Community Centre is a £4.2m partnership scheme between Harrow Council and Watford Football Club's Community Sports and Education Trust. The Centre will provide a new multi-use sports hall, gym, IT suite, art room, recording studio, café, play equipment for younger children and multi-use outdoor pitch.
- 5.10.5 While overall there is a good range of community halls across the Borough. In addition to proposals for redevelopment or new facilities, which should be supported, further capacity or supply could be provided through securing greater community use of school halls and gyms outside of school hours. This will be explored further through the revised Harrow Cultural Strategy.
- 5.10.6 The scope of the Harrow Cultural Strategy includes: the arts, sports, libraries, literature; heritage, museums, festivals; parks and open spaces; children's play, playgrounds, activities; diverse cultural backgrounds and communities.
- 5.10.7 The Council's existing Cultural Strategy dates from 2003 and many of its actions have either been completed or no longer being progressed, due to viability or other considerations. A revised Cultural Strategy is currently being prepared. As this is a 'live' document, this section will be updated when the new Cultural Strategy is adopted.
- 5.10.8 The main aims from the existing Strategy which are still relevant are:
- Improving and extending the network of arts, libraries, sports and leisure facilities.
 - Increasing and encouraging opportunities for participation in the arts, sports and leisure.
 - Increasing opportunities and building capacity for the voluntary sector in arts and sports

- Encouraging community festivals celebrating Harrow's rich diversity and heritage.
- Encouraging greater use of Harrow Town Centre as a platform and showcase for cultural events
- Encouraging the conditions for the development of live-work art spaces in Wealdstone.
- Developing combined library, arts and community centres in town centre locations.
- Encouraging more cultural and leisure business opportunities in the town centre.
- Encouraging a programme of art in public places to transform the civic landscape

5.10.9 With regard to cultural activities, provision is made at a number of locations across the borough, including:

- Harrow Arts Centre at Hatch End – the main arts venue in the Borough;
- Flash Musicals studios in Edgware;
- Harrow Museum and Heritage Centre at Headstone Manor;
- Battle of Britain Museum (planned) at Bentley Priory;
- Harrow School Museum; and
- A number of the libraries, mainly Gayton and Wealdstone, also provide meeting and exhibition space

5.10.10 Harrow residents also access cultural facilities in neighbouring boroughs, including Watford, and Harrow's excellent transport connections provide the opportunity to access a wide range of facilities located in central London. However, a clear message emerged from public consultation to early drafts of the Core Strategy that the public were of the opinion that Harrow Art Centre's location in Hatch End meant that it was not accessible to a large portion of the Borough's population and should be relocated, or additional arts and cultural provision made, more centrally (i.e. in Harrow town centre).

5.10.11 As with community halls, there is no national standard for cultural or arts provision. However, the Council did have an LAA target for involvement in arts (a baseline of 42% with a target of 45% involvement). This was supported by an action plan for increasing involvement in arts. With regard to the provision of new facilities, a key consideration is ensuring such facilities are economically viable, especially larger facilities which have greater construction and running costs. Given the Council's recent investment in the restoration of the heritage listed buildings at the Harrow Arts Centre, it is unlikely that the Council would wish to see this facility relocated. However, further studies are required to support a proposal for an additional cultural/arts facility or arts space to be located more centrally in Harrow. With regard to economic considerations, it is likely that any new facility will necessarily need to be multifunctional, providing for a wide range of uses beyond just cultural and arts provision, such as providing for larger functions (e.g. weddings etc) or sports. This work will be undertaken in the context of revising the Harrow Cultural Strategy and will be picked up in any subsequent review of the Delivery Plan.

5.11 Open Space, Green Infrastructure, Sports and Leisure

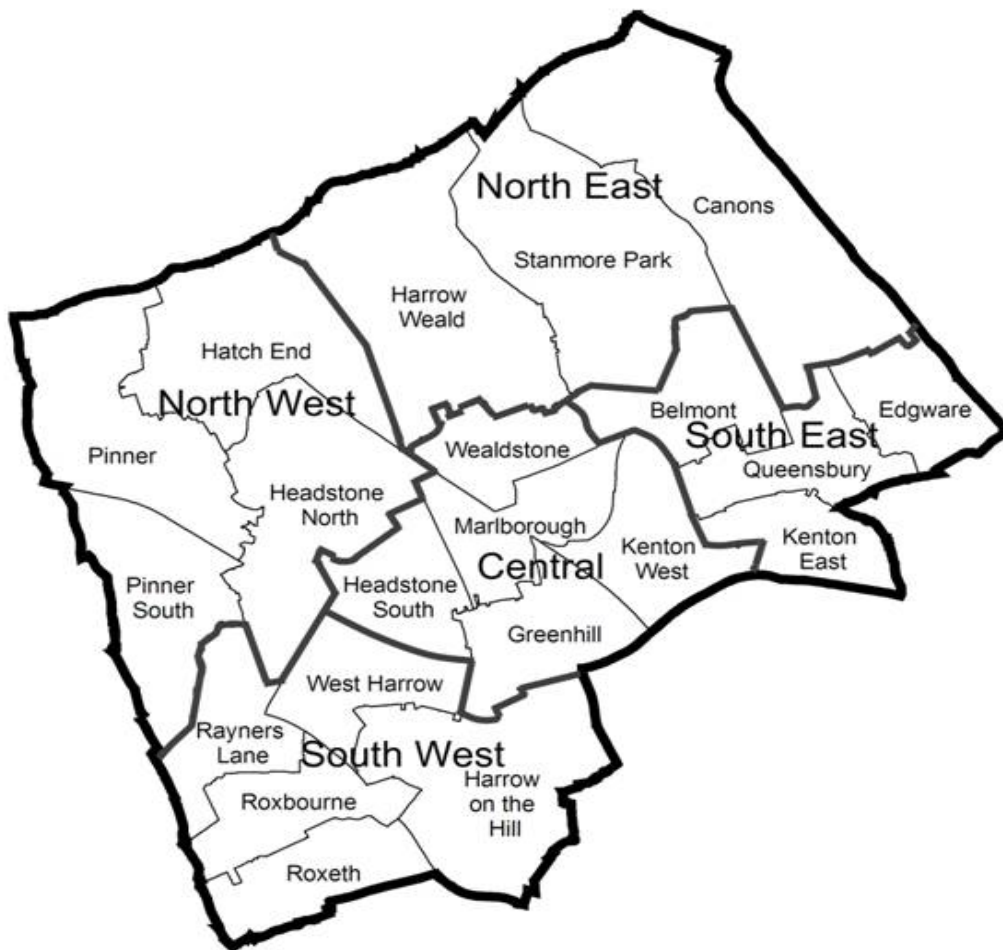
5.11.1 A PPG17 compliant assessment of Harrow's open space, sport and recreation facilities was completed by Ashley Godfrey & Associates for Harrow Council in 2010. It replaces an earlier assessment, published in 2005. The 'PPG17 Study (2010)' provides an audit of the provision of publicly accessible open space¹⁴, sport and recreation in the

¹⁴ This refers to all sites to which are generally publicly accessible, including private sites where there is community access (such as privately owned sports facilities which are open to the community either on a 'pay

Borough, details the findings of consultation with residents about this provision, and recommends standards of provision taking into account the consultation findings and other published standards¹⁵. The Study addresses the quantity, quality and accessibility of open space, sport and recreation facilities.

5.11.2 The following sections provide a summary of the findings of the PPG17 Study. For the supporting detail and analysis readers are encouraged to refer to the PPG17 Study which is available on the Council website. However, to understand the summary findings it is necessary to explain that for auditing and analysis purposes, the PPG17 Study divided the Borough into five 'sub areas' as shown on the map below.

Map of Sub Areas used in the PPG17 Study (2010)



5.11.3 The Study applies its recommended quantitative standards of provision to the estimated population of the Borough in 2010 and the projected future population in 2026¹⁶. This enables deficits and surpluses of open space, sport and recreation provision to be identified for the Borough as a whole and in relation to each sub area. The Study also applies its recommended accessibility standards to map areas with adequate coverage and areas deficient in access to open space, sport and recreation.

and play' or annual membership fee basis, and private school facilities which are available at certain times for community access), but excludes sites to which there was no public access at the time of the audit.

¹⁵ Such as those promoted by Government agencies in this field and the Mayor of London.

¹⁶ Based on the Greater London Authority's Ward Population Projections (Low) 2008.

5.11.4 The following tables summarise the identified quantitative surplus and deficiency in open space, relative to the recommended standards of provision in the PPG 17 Study (2010), by sub area and typology.

Table 20: Existing Deficiency/Surplus in Open Space Land Supply (2010)

Existing Surplus/Deficiency (Ha)							
Sub Area	Parks	Play	Amenity	Natural	Sport	Allotments	Total
Central	-7.68	-2.0	-14.17	-16.72	-18.83	-7.73	-67.13
North-East	+4.66	-1.45	+6.96	0	-1.80	-5.89	+2.48
North-West	+11.97	-1.12	-0.04	-7.20	+29.17	+0.96	+33.74
South-East	-4.18	-2.05	-10.44	-16.03	-1.32	-0.17	-34.19
South-West	-11.70	-2.71	-12.39	-15.92	-19.58	+9.82	-52.48
Total	-6.92	-9.33	-30.08	-55.87	-12.37	-2.81	-117.38

Table 21: Projected Deficiency/Surplus in Open Space Land Supply (2026)

Future Surplus/Deficiency (Ha)							
Sub Area	Parks	Play	Amenity	Natural	Sport	Allotments	Total
Central	-7.48	-2.73	-14.08	-16.60	-18.60	-7.48	-66.97
North-East	+4.93	-1.80	+7.08	0	-1.48	-5.82	+4.39
North-West	+11.02	-1.76	-0.48	-7.77	+29.05	+0.70	+29.76
South-East	-6.19	-2.65	-11.38	-17.25	-3.70	-0.72	-41.89
South-West	-14.70	-3.70	-13.80	-17.74	-23.12	+9.00	-64.06
Total	-12.42	-12.64	-32.66	-59.36	-18.86	-4.31	-138.77

5.11.5 The following sections of this report provide further detail in respect of each type of open space highlighted in the tables above.

5.12 Parks

5.12.1 There are 28 parks throughout the Borough with a combined, net land area of 138.73 hectares¹⁷. This equates to 0.62 hectares per 1,000 population. The recommended standard of provision is 0.66 hectares per 1,000 population.

5.12.2 Harrow's 28 parks are categorised¹⁸ as 4 district parks, 17 local parks and 4 small open spaces/pocket parks. The recommended accessibility standards (based on walking distance from home) are: 1,200m to a district park, 800m to a local park and 400m to a small open space or pocket park.

¹⁷ A net figure is used here because many of Harrow's parks provide areas of open space that are quantified as part of other typologies, such as sports pitches and children's play areas.

¹⁸ Based on the London Plan public open space hierarchy.

5.12.3 Application of the recommended standards of provision to the existing and projected future population of the Borough highlights the following surpluses¹⁹ and deficiencies:

Table 22: Existing Balance of Provision of Parks (2010)

Sub-area	Population (2010 Estimates)	Current level of provision (Hectares)	Current level of provision (Hectares per 1000)	Standard per 1000 population	Amount of Parks and Gardens (Ha) required to meet standard	Deficiency (hectares)
Central	52,615	27.05	0.51	0.66	34.73	(7.68)
Northeast	32,732	26.26	0.80	0.66	21.60	4.66
Northwest	40,178	38.48	0.96	0.66	26.52	11.97
Southeast	40,065	22.27	0.56	0.66	26.44	(4.18)
Southwest	55,098	24.67	0.45	0.66	36.36	(11.70)
Total	220,688	138.73	0.63	0.66	145.65	(6.92)

Table 23: Projected Balance of Provision of Parks (2026)

Sub-area	Population (2010 Estimates)	Current level of provision (Hectares)	Future level of provision (Hectares per 1000)	Standard per 1000 population	Amount of Parks and Gardens (Ha) required to meet standard	Deficiency (hectares)
Central	52,315	27.05	0.52	0.66	34.53	(7.48)
Northeast	32,325	26.26	0.81	0.66	21.33	4.93
Northwest	41,612	38.48	0.92	0.66	27.46	11.02
Southeast	43,121	22.27	0.52	0.66	28.46	(6.19)
Southwest	59,644	24.67	0.41	0.66	39.37	(14.70)
Total	229,018	138.73	0.61	0.66	151.15	(12.42)

5.12.4 The above tables show that the distribution of parks provision is not evenly spread across the Borough. The North West and North East sub areas have surpluses in existing provision while the other three sub areas all have deficits, with the South West sub area having the greatest. Across the Borough however there is a clear deficit in existing provision.

5.12.5 With regard to additional new parks provision, the redevelopment of the former Government Offices in Honeypot Lane (now known as Stanmore Place), currently underway, includes provision of 2.34 hectares of public open space. This will add to the already identified current and future surplus in the Northeast sub area but given its location, its catchment is also likely to benefit the Southeast sub area. Planning permission was also granted in 2007/08 for the redevelopment of Strongbridge Close

¹⁹ A surplus in one sub area does not mean that there is potential to release open space, simply that the recommended minimum standard of provision is met and exceeded in that sub area. As the tables highlight, there is a shortfall in provision across the Borough as a whole in the existing and projected future projected scenarios.

resulting in a net gain of 0.17 hectares publicly accessible open space in the Southwest sub area.²⁰

5.12.6 Recent losses of publicly accessible open space to development comprise Kenmore Road allotments (0.253 hectares) and part of the William Ellis sports ground (2.7 hectares)²¹, both located in the Southeast sub area.

5.12.7 The PPG 17 Study (2010) demonstrates an on-going and increasing overall shortfall in the quantity of parks across the Borough but specifically within the Central, Southeast and Southwest sub areas. In addition to safeguarding public and private open space from development, the priority for local planning policies is to ensure the existing deficit level does not increase (i.e. get worse). The projected shortfalls in future parks requirement will be addressed by seeking on-site parks provision, where appropriate, as part of development proposals or through opportunities to secure public access to existing private open space.

5.12.5 In addition to securing new provision where opportunities arise, and to address the levels of existing deficiency, priority should be given to improving the quality and accessibility of the existing parks to maximise peoples use and enjoyment of these key open spaces. In qualitative²² terms, the PPG17 Study established a median score for parks and gardens in the Borough of 72.7%, and set a recommended quality score of 81.5%. Applying the recommended qualitative standard requires improvements to 21 of the Borough's 28 parks as outlined in the table below.

Table 24: Parks requiring qualitative improvement by sub-area

Sub Area	Name of Park	Score Received (Recommended Standard is 81.5%)
Central	Lowlands Recreation Ground	69.2%
	Byron Recreation Ground	71.4%
	Priestmead Recreation Ground	73.3%
Northeast	Bernays Gardens	62.3%
	Harrow Weald Recreation Ground	66.7%
	The Cedars	73.1%
	Stanmore Recreation Ground	79.0%
Northwest	Park Drive Recreation Ground	62.8%
	Little Common	64.0%
	Bridge Street	64.1%
	Yeading Walk Green Corridor	66.7%
	The Croft	71.8%
	Pinner Recreation Ground	72.0%
	Headstone Manor Recreation Ground	72.6%
	Roxbourne Park	78.2%
Pinner Village Gardens	80.0%	
Southeast	Centenary Park	67.9%
	Queensbury Recreation Ground	70.5%
	Chandos Park	76.5%

²⁰ It should be noted that these additions have not yet been provided and are therefore not included as part of the existing supply identified in the PPG 17 Study (2010).

²¹ It should be noted that these losses pre-date the PPG 17 Study (2010) and are therefore not included as part of the existing supply; however the synthetic turf pitches re-provided as part of the William Ellis sports ground development are included as part of existing supply.

²² The quality assessment of parks takes into account overall impression, entrances, parking, information and interpretation, water, boundaries and paths, access, safety vandalism and graffiti, cleanliness dog fouling and fly tipping, facilities, buildings, nature conservation and trees.

Southwest	Newton Park	69.1%
	West Harrow Recreation Ground	72.8%

5.12.6 The Council's Open Spaces Strategy, which is currently being prepared by the Community and Environment Directorate in response to the PPG17 Study (2010), will start to address the qualitative issues and accessibility challenges that have been identified in parks provision. In the first instance, any proposed qualitative works should be focused on the sub areas showing the greatest deficiencies and on those the parks within these areas with the lowest qualitative score. Quality and accessibility improvements may also be achieved by the reconfiguration of existing open space. Local planning policies will support reconfiguration where this helps to address identified deficiencies (without creating new deficiencies elsewhere) and quality enhancements. The Open Space Strategy will provide the basis for the longer-term management of the Borough's parks and will also inform the development of relationships between the Council and other landowners or institutions with green infrastructure in the Borough. Once the Open Spaces Strategy is adopted it may be necessary to update this section and the Delivery Plan as appropriate.

5.12.7 The Council spends £40m annually on the management and maintenance of its open space assets, and has over recent years also allocated on average £15m from the capital programme towards public realm works, a component of which is parks. It is envisaged that these budgets will be the principal sources of funding to deliver planned qualitative improvements although some additional allowance should also be made for appropriate contributions (s106 funding) from new development in areas of deficiency (see maps 5.3, 5.4 & 5.5 of the PPG17 Report) or within the catchment of any of the parks listed in Table 24 above.

5.13 Amenity green space

5.13.1 The threshold used for inclusion of amenity green space sites in the PPG17 Study was 0.1 hectares. A total of 109 such sites are recorded across the Borough, accounting for a combined land area of 38.33 hectares. This equates to 0.17 hectares per 1,000 population. The recommended standard of provision is 0.31 hectares per 1,000 population, with a recommended accessibility standard (based on distance from home) of 400m to an amenity green space at least 0.1 hectare in size.

5.13.2 Application of the recommended standards of provision to the existing and projected future population of the Borough highlights the following surpluses²³ and deficiencies:

Table 25: Existing Balance of Provision of Amenity Green Space (2010)

Sub-area	Population (2010 Estimates)	Current level of provision (Hectares)	Current level of provision (Hectares per 1000)	Standard per 1000 population	Amount of Amenity Greenspace required to meet standard	Deficiency (hectares)
Central	52615	2.14	0.04	0.31	16.31	(14.17)

²³ A surplus in one sub area does not mean that there is potential to release open space, simply that the recommended minimum standard of provision is met and exceeded in that sub area. As the tables highlight, there is a shortfall in provision across the Borough as a whole in the existing and projected future projected scenarios.

Northeast	32732	17.10	0.52	0.31	10.15	6.96
Northwest	40178	12.42	0.31	0.31	12.46	(0.04)
Southeast	40065	1.98	0.05	0.31	12.42	(10.44)
Southwest	55098	4.69	0.09	0.31	17.08	(12.39)
Total	220688	38.33	0.17	0.31	68.41	(30.08)

Table 26: Projected Balance of Provision of Amenity Green Space (2026)

Sub-area	Population (2026 Estimates)	Current level of provision (Hectares)	Future level of provision (Hectares per 1000)	Standard per 1000 population	Amount of Amenity Greenspace required to meet standard	Deficiency (hectares)
Central	52315	2.14	0.04	0.31	16.22	(14.08)
Northeast	32325	17.10	0.53	0.31	10.02	7.08
Northwest	41612	12.42	0.30	0.31	12.90	(0.48)
Southeast	43121	1.98	0.05	0.31	13.37	(11.38)
Southwest	59644	4.69	0.08	0.31	18.49	(13.80)
Total	229018	38.33	0.17	0.31	71.00	(32.66)

5.13.3 The analysis shows that, with the exception of the Northeast sub area, there are current and projected future deficits in amenity green space provision across the Borough. The total level of existing deficiency at 30ha is significant, and given the built up nature of the Borough it is unlikely that this shortfall will ever be met in full. The priority therefore is on ensuring, that over the life of the LDF, the existing level of deficiency does not get worse. The additional projected deficit of 2.58ha can and should be met through on-site requirements on new development, especially within those sub areas with the greatest overall deficit (i.e. the Central, Southwest and Southeast and sub areas), having regard also to the gaps in provision identified through application of the accessibility standard as shown at Map 5.6 of the published PPG 17 Study (2010).

5.13.4 In terms of addressing the existing shortfall, qualitative improvements should be prioritised. The median quality²⁴ score for amenity green spaces in the Borough is 77.8%. The recommended quality score is 83.8%. Applying the recommended qualitative standard requires improvements to 94 of the Borough's 109 amenity green spaces, as outlined in the Table below.

Table 27: Amenity green space requiring qualitative improvement by sub-area

Sub Area	Name of Amenity Green Space	Score Received (Recommended Standard is 83.8%)
Central	Whitefriars Open Space	50.0%
	Weald Village Open Space	60.0%
	St Mary Virgins	68.2%
	Sefton Avenue	77.8%

²⁴ Based on criteria relating to seating, play areas, nature conservation, vegetation and trees.

	Harrow View	80.6%
Northeast	Beatty Road	42.9%
	Lake Grove Recreation Ground	54.8%
	Dingle Court	55.9%
	Embry Drive	57.1%
	West Bere Drive 2	57.1%
	West Bere Drive 1	64.0%
	Tintagel Drive	64.0%
	Bernays Close	64.0%
	Whittlesea Road	67.7%
	Langton Road	67.7%
	Carmelite Close	67.7%
	Londron Road North	68.0%
	London Road South	68.0%
	Woodlands Drive	71.4%
	Wildcroft Gardens	71.4%
	Marsh Lane North	72.0%
	Carmelite Road	74.1%
	Hutton Lane	74.2%
	Héronslea Drive	75.0%
	Stone Grove	76.0%
	Rose Garden Close	76.0%
	Mepham Crescent 1	77.4%
	Mepham Crescent 2	77.4%
Uxbridge Road Verges	80.0%	
Kerry Court	80.6%	
Bannister Sport Centre Frontage	80.6%	
Carmelite Walk	80.6%	
Kipling Place	81.8%	
Binyon Crescent	82.9%	
Northwest	Greenway	51.6%
	Rowlands Ave/Uxbridge Road Roundabout	60.5%
	Jubilee Close	68.3%
	Hatch End Swimming Pool	68.3%
	Mill Farm Close	70.6%
	Uford Close	70.6%
	Bancroft Gardens	73.5%
	Yeading walk	75.0%
	Headstone Lane	75.6%
	Woodlands Open Space	75.6%
	Rowlands Avenue	76.5%
	Boniface Walk Verges	76.5%
	Boniface Gardens	76.5%
	Nower Hill	77.3%
	Marsh Road	80.0%
Exchange Walk	80.0%	
Courtenay Avenue Verges	80.6%	
Southeast	Vernon Drive	70.6%
	Bromefield Roundabout	71.4%
	Bromefield	78.1%
	Belmont Circle	81.8%
Southwest	Maryatt Estate	50.0%
	Northolt Road Estate	54.8%
	Lynwood Close	64.7%
	Stuart Avenue	64.7%
	Stiven Crescent	64.7%
	Walton Avenue	64.7%
	Hamilton Crescent	64.7%

Grange Farm Estate	67.7%
Wilson Gardens	71.0%
Scott Crescent	72.7%
Welbeck Road	77.4%
The Gardens	77.8%
Lascelles Avenue North	80.5%

5.13.5 As with parks provision, the Council's Open Spaces Strategy, which is currently being prepared, will seek to address both the quantitative and qualitative issues that have been identified in amenity green space provision. Any proposed qualitative works should be focused on those amenity spaces with the lowest qualitative score in sub areas showing the greatest deficiencies. The Open Spaces Strategy will provide the basis for the management of the Borough's network of open space, including the amenity spaces and will be used to inform negotiations on individual development sites. When the Open Spaces Strategy is adopted, this section and the Delivery Plan will need to be update as appropriate.

5.14 Natural and semi-natural green space

5.14.1 There are 28 natural/semi-natural green space sites throughout the Borough with a combined land area of 225.77 hectares. This equates to 1.02 hectares per 1,000 population. The recommended standard of provision is 0.4 hectares per 1,000 population (except the north-east sub area, where existing provision should be retained) and at least one hectare of Local Nature Reserve per 1,000 population²⁵.

5.14.2 The 28 natural and semi-natural green space sites comprise: 3 local nature reserves²⁶ providing 145.54 hectares; 2 sites in the 10-20 hectare range providing 29.74 hectares; and 23 sites under 10 hectares providing 50.48 hectares. The recommended accessibility standard (based on walking distance from home) is: 1km to an accessible natural or semi-natural green space.

5.14.3 Application of the recommended standards of provision to the existing and projected future population of the Borough highlights the following surpluses²⁷ and deficiencies:

Table 28: Existing Balance of Provision of Natural and Semi-Natural Greenspace (2010)

Sub-area	Population (2010 Estimates)	Current level of provision (Hectares)	Current level of provision (Hectares per 1000)	Standard per 1000 population	Amount of Natural Greenspace required to meet standard (hectares)	Deficiency (hectares)
Central	52615	4.33	0.08	0.4	21.05	(16.72)
Northeast	32732	206.45	6.31	6.31	206.45	0.00

²⁵ Local Nature Reserve provision can be counted as provision towards the recommended standard of 0.4 hectares per 1,000 population of natural or semi-natural greenspace.

²⁶ Bentley Priory Open Space, Stanmore Common and Stanmore Country Park, all accessible to the public but all located in the north-west PPG 17 sub area.

²⁷ A surplus in one sub area does not mean that there is potential to release open space, simply that the recommended minimum standard of provision is met and exceeded in that sub area. As the tables highlight, there is a shortfall in provision across the Borough as a whole in the existing and projected future projected scenarios.

Northwest	40178	8.87	0.22	0.4	16.07	(7.20)
Southeast	40065	0	0.00	0.4	16.03	(16.03)
Southwest	55098	6.11	0.11	0.4	22.04	(15.92)
Total	220688	225.77	1.02			(55.87)

Table 29: Projected Balance of Provision of Natural and Semi-Natural Greenspace (2026)

Sub-area	Population (2026 Estimates)	Current level of provision (Hectares)	Current level of provision (Hectares per 1000)	Standard per 1000 population	Amount of Natural Greenspace required to meet standard (hectares)	Deficiency (hectares)
Central	52,315	4.33	0.08	0.40	20.93	(16.60)
Northeast	32,325	206.45	6.39	6.31	203.97	0.00
Northwest	41,612	8.87	0.21	0.40	16.64	(7.77)
Southeast	43,121	0	0.00	0.40	17.25	(17.25)
Southwest	59,644	6.11	0.10	0.40	23.86	(17.74)
Total	229,018	225.77	0.99			(59.36)

Table 30: Existing Balance of Provision of Local Nature Reserves (2010)

Sub-area	Population (2026 Estimates)	Future level of provision (Hectares)	Future level of provision (Hectares per 1000)	Standard per 1000 population	Natural Greenspace required to meet standard	Deficiency (hectares)
Central	52615	0	0.00	1	52.6	(52.6)
Northeast	32732	147.95	4.52	1	32.7	115.2 in excess of standard
Northwest	40178	0	0.00	1	40.2	(40.2)
Southeast	40065	0	0.00	1	40.1	(40.1)
Southwest	55098	0	0.00	1	55.1	(55.1)
Total	220688	147.95	0.67	1	220.7	(72.7)

Table 31: Projected Balance of Provision of Local Nature Reserves (2026)

Sub-area	Population (2026 Estimates)	Future level of provision (Hectares)	Future level of provision (Hectares per 1000)	Standard per 1000 population	Amount of Natural Greenspace required to meet standard (hectares)	Deficiency (hectares)
Central	52,315	0	0.00	1	52.3	(52.3)
Northeast	32,325	186.21	5.76	1	32.3	153.9 in excess of standard

Northwest	41,612	0	0.00	1	41.6	(41.6)
Southeast	43,121	0	0.00	1	43.1	(43.1)
Southwest	59,644	0	0.00	1	59.6	(59.6)
Total	229,018	186.21	0.81	1	229.0	(42.8)

5.14.4 The above tables highlight the fact that the vast majority of the Borough's natural and semi-natural green spaces are located in the Green Belt in the Northeast sub-area. The existing levels of semi-natural green space in the Northeast sub area will benefit from further provision through a planning permission granted in 2009/10 for a development of ten dwellings at Wood Farm, Stanmore, which will secure 22.6 hectares of the remaining farmland to form an extension to Stanmore Country Park. In addition, the PPG17 study identifies two potential candidate sites for additional natural and semi-natural green space provision. However, both of these are again located in the Northeast sub area (The Santway at Clamp Hill, 3.14ha and Harrow Weald Park Woodland, 4.63ha) and will therefore not help to address the deficiencies present across the rest of the Borough.

5.14.5 While the provision of new space will be prioritised where opportunities arise upon development proposals, the scale of the shortfalls identified and the nature of urban environment in central and southern parts of the Borough mean that this approach alone is unlikely to close the deficiency gap. Therefore important decisions will need to be made through the Open Space Strategy about whether it is appropriate to change, overtime, the typology of some open space (or part of it) from say a park or sports field to semi-natural open space. However, given that there are deficiencies across all the open space typologies at the Borough wide level, and the fact the Borough is not absent in semi-natural open space provision (in fact at 225ha semi-natural open space comprises the largest component open space typology in the Borough) this approach may not be favourable.

5.14.6 As with other open spaces, there are qualitative improvements that can be made to existing natural and semi-natural opens spaces. The median quality²⁸ score for natural and semi-natural green spaces is 71.4%. The recommended quality score is 72.5%. Applying the recommended qualitative standard requires improvements to 14 of the Borough's 28 natural and semi-natural greenspaces.

Table 32: Natural and semi-natural greenspaces requiring qualitative improvement by sub-area

Sub Area	Name of Natural and Semi-Natural Green Space	Score Received (Recommended Standard is 72.5%)
Northeast	Lake Grove Natural Space	35.3%
	St William of York Churchyard	42.3%
	Brockhurst Corner Open Space	58.7%
	Brockley Hill	58.7%
	Stanmore Marsh	65.0%
	Pear Wood	67.6%
	Harrow Weald Common	70.3%
Northwest	Ellement Close	18.8%
	Sylvia Avenue	48.6%
	Cheney Street	50.0%

²⁸ Based on appearance, nature conservation, vegetation, trees, entrances, information and interpretation, water, boundaries and paths, access, safety vandalism and graffiti, cleanliness god fouling litter and fly tipping, and facilities.

	Montesoles Woodland Roxbourne Rough LNR	65.6% 69.6%
Southwest	Streamside Open Space The Grove Woodland	57.5% 62.5%

5.14.7 As part of implementing Harrow's Biodiversity Action Plan, and meeting Council's targets for national indicator 197, a programme was put in place in 2008/09 to prepare conservation management plans for a further 10 SINC sites, raising the total in active management to 20 out of Harrow's 30 sites. As at the end of the 2010/11 period, all 10 management plans had been prepared and covered the following sites:

- Harrow Weald Common - Site of Metropolitan SINC
- Grim's Ditch and Pinner Green - Borough Grade II SINC
- Stanmore Marsh - Borough Grade 2 SINC
- Old Tennis Courts and West Harrow Recreation Ground - Local SINC
- Headstone Manor Moat and Copse - Borough Grade II SINC
- Pinner Memorial Park - Local SINC
- River Pinn at West Harrow - Local SINC
- The Cedars Open Space - Local SINC
- 7-acre Lake and the Basin - Borough Grade II SINC
- The Rattler including Belmont Trail - Local SINC

5.14.8 Each of the management plans establishes a costed programme of works to be implemented over a five year period to 2016. Much of the cost of implementation falls to the Council to meet through existing parks maintenance budgets, but the management plans helpfully identify those instances where external funding may be required. The total cost of implementation is circa £250k. A more detailed breakdown for each is provided in the Delivery Plan table.

5.14.9 It is anticipated that further management plans will be prepared over the coming years, and it may be the intention that these focus on those sites with the lowest qualitative scores as indicated in Table 32. However, the Council's Open Spaces Strategy, which is currently being prepared, will also seek to address both the quantitative and qualitative issues identified with natural and semi-natural open spaces provision, and is likely to establish the context for the preparation and implementation of management plans based on the wider consideration of open spaces provision across the Borough. When the Open Spaces Strategy is adopted, this section and the Delivery Plan may need to be update as appropriate.

5.15 Green Corridors and Green Grid

5.15.1 There are 18 green corridors throughout the Borough with a combined land area of 18.18 hectares. While there are no recommended national standards of provision, quality and accessibility for green corridors²⁹, the Council has or is preparing a number of strategies that are relevant to the management and expansion of Harrow's Green Corridors including the Green Belt Management Plan, Rights of Way Improvement Plan and the emerging Harrow Green Grid, Open Spaces Strategy, and revised Cultural Strategy.

5.15.2 While it is anticipated that the emerging Open Spaces Strategy, or where relevant, the emerging Cultural Strategy, will update/revise/replace the existing Green Belt

²⁹ The companion guide to PPG 17 expressed the view that there is no sensible way of setting standards for green corridors.

Management Strategy 2006-2011, the existing Strategy contains a list of actions that remain relevant. Each action is assigned an immediate, medium or long term timescales:

- Immediate (I) - Actions completed by March 2011
- Medium Term (M) - Actions that must be funded and in progress by March 2011
- Long Term (L) - Actions that must have been approved to start before March 2011

5.15.3 With regard to specific infrastructure requirements, the Strategy proposes the following:

- Produce and implement costed maintenance and improvement plans for all Council owned Green Belt sites (I)
- Implement a new right of way in Harrow Weald Common to link Banksfield Cottage to the eastern part of Harrow Weald Common (I)
- Introduce clear and consistent signage through the areas (M):
 - Stanmore Common
 - Stanmore Country Park
 - Pinnerwood Bushey Pastures
 - Copse Farm Pastures
 - Watling Farm
 - Pinner Park
 - Bentley Priory
 - Harrow Weald Common
- Install seating along the London Loop footpath and viewpoints in Stanmore Common, Harrow Weald Common, Stanmore Country Park, Pinnerwood Bushey Pastures and Bentley Priory (M)
- Enhance Old Redding carpark to improve safety and access and develop a viewing area and information point (M)
- Resurface and improve the security of Stanmore Common car park (M)
- Investigate partnership opportunities for the restoration of the old toilet buildings on Warren Lane (Stanmore Common) to an information point/cafe and toilets (L)
- Provide information boards at Grims Dyke to interpret the Scheduled Monument and the Registered Park and Garden (I)
- Achieve English Nature's rating of favourable condition for Bentley Priory's SSSI (I)
- Install barriers on Heathbourne Road to prevent large vehicles and prevent fly tipping (M).

5.15.4 A number of other potential infrastructure projects are included in the actions but are the subject of further feasibility work or the preparation of supporting business cases, including the linking of Pinner Park Farm to Headstone Manor. However, there is no clear audit trail for monitoring of the implementation of the actions proposed in the Strategy, so it is difficult to understand which of those listed above have been completed. It is assumed that such an audit will be undertaken as part of the Open Spaces Strategy or revised Cultural Strategy.

5.15.5 The Rights of Way Improvement Plan (RWIP) was adopted by the Council in October 2007. The purpose of the RWIP is to recognise the contribution of the rights of way network to the accessibility of the Borough's Green Belt, open spaces and parks. Its aim is to ensuring the rights of way are safe and well maintained, and provide opportunities for alternative more sustainable travel and access to work, school, and enhance access to recreation and areas of nature. Across the Borough there are just over 28km of rights of way (68 footpaths totalling about 22.5km, 7 bridleways totalling about 4.1 km; and 8 byways totalling about 1.5km).

5.15.6 Harrow's network of rights of way also includes two of London's strategic walking routes which pass through the Borough - London LOOP and the Capital Ring. The London LOOP - Hatch end to Elstree - covers 8.3miles (13.3km) of rural countryside, linking Harrow with Hertfordshire. Points of interest include: Bentley Priory, Harrow Weald Common, Grim's Dyke and Stanmore Little Common. There are some longish stretches of road walking, but most of the time you are on tracks and footpaths through woods and fields. The Capital Ring - Greenford to South Kenton - covers 5.5 miles (8.8 km) and links Harrow with neighbouring boroughs of Ealing and Brent. Points of interest include: Harrow on the Hill and the private buildings of Harrow School. The walk includes some ascents and descents and has some pleasant views. In addition to the strategic walking routes, a proposed route in Harrow for Sustrans, the proposed National Cycle Network, has also been identified but no funding has yet been secured for its delivery.

5.15.7 The RWIP includes a statement of actions required to implement the Strategy. In respect of infrastructure provision, the Strategy proposes extensions and enhancements to the rights of way network in Harrow through:

- An audit of Belmont Trail including links up to Capital Ring and London LOOP to identify the extent of works require to increase usage with a view to making the entire trail a right of way (delivery partners are LBH, TfL & Walk London)
- Audit the extension of the Celandine route linking to the London LOOP (LBH, TfL & Walk London)
- Carry out a feasibility study to improve pedestrian and cycle access between Pinner Park and Copse Farm pastures (LBH & TfL)
- Investigate providing an additional right of way in Harrow Weald Common to link Banksfield Cottage to the eastern part of Harrow Weald Common going around the north side of Grim's Dyke House hotel (LBH & TfL)
- Introduce new permissive footpaths in Stanmore from the Shia Mosque at Springbok House to the Country Park extension (LBH & TfL)
- Undertake a feasibility study to look at the options of linking Pinner Park Farm to Headstone Manor (LBH & TfL)
- Undertake an impact assessment on the extension of the bridleway network in Stanmore Common, including measures to restrict access by motorcycles (LBH)
- Introduce clear and consistent signage throughout (LBH)
- In conjunction with neighbouring boroughs, investigate TfL funding and other sources of funding for work required to improve the London Loop and Capital Ring (LBH, TfL & Walk London)
- Investigate making a single route to be highly accessible to those with mobility or sight difficulties regarding the width of the route, facilities available along the route and signage (LBH, TfL & Walk London)
- Review pedestrian road crossing locations on all promoted walks (LBH, TfL & Walk London)

5.15.8 Many of the proposed actions are brought forward from the Green Belt Management Strategy and were then subsequently taken forward, in terms of funding and delivery, through the first Harrow LIP. Those that remain to be completed have, to a significant degree, been picked up in the Harrow's emerging Green Grid project.

5.15.9 The Council commenced preparation of a Borough-wide Green Grid following the publication of proposals by the Mayor of London for an all London Green Grid. Harrow's draft Green Grid was published for consultation in 2011 and will be integrated with a

regional network being prepared jointly with Design for London and London boroughs. Specific projects included in Harrow's Green Grid will be relevant to existing green corridors and the provision of new linkages throughout the Borough.

5.15.10 The consultation draft of the Harrow Green Grid identifies five groupings of projects with initial, preliminary costings:

- *Belmont Trail*
This is a group of projects associated with the former Belmont Railway green corridor, to complete and improve the link that this provides between Wealdstone and the Green Belt. There are several individual projects with a combined value of £4,792,000.
- *Western Rivers*
This is a group of projects associated with the Harrow tributaries of the Colne and Crane Rivers, to improve their environment and accessibility together with related enhancements to facilities and attractions along their route. There are 16 individual projects with a combined value of £11,315,000.
- *River Brent*
This is a group of projects associated with the Harrow tributaries of the River Brent, to improve their environment and accessibility together with related links to the Belmont Trail and enhancements to facilities and attractions along their route. There are 8 individual projects with a combined value of £350,000.
- *Green Belt*
This is a group of projects located within the Borough's Green Belt focused on improvements to biodiversity and heritage assets as well as accessibility. There are 10 individual projects with a combined value of £240,000.
- *Street Trees*
A comprehensive programme of street tree planting co-ordinated to supplement the grid of green infrastructure created by the above four groupings of projects. There are 34 individual projects with a combined value of £500,000.

5.15.11 The above projects are listed in more detail in the relevant section of the Delivery Plan at Section 6. Funding to implement the Green Grid will be met from the Borough's existing parks maintenance budgets, from capital funding bids (a capital grant funding bid has been made for £200,000 per annum for a period of three years from 2011/12) and developer funding. In addition to these funding streams, the Council will also bid for available funds from the Mayor of London (via Design for London) towards the implementation of qualifying green grid projects.

5.15.12 The draft Green Grid also undertakes to identify, map and investigate non-designated public footpaths as potential additional links. The outcomes of that investigation may identify a further series of works with regard to way-finding or improvements to parts of the footpath network beyond the existing maintenance programme. These will need to be captured in any update to the Delivery Plan as appropriate.

5.16 Biodiversity

5.16.1 Harrow's Biodiversity Action Plan (BAP) was adopted by the Council in 2008 following public consultation. The BAP comprises specific action plans. Individual actions within the specific action plans relate to policy and strategy development, habitat management and creation, research and monitoring, raising awareness and advisory matters. With regard to infrastructure provision, the specific action plans and the proposed requirements are as follows:

- Generic Action Plan
 - provide an education centre within the Green Belt
- Bare Ground Habitat Action Plan
 - incorporate a brown roof scheme within a development
 - create new bare ground areas on suitable sites and maintain existing areas
 - create and monitor the usage of a kingfisher nesting bank
- Garden and Allotment Habitat Action Plan
 - incorporate wildlife friendly planting into municipal planting areas
 - develop a facility for Harrow Bee Keepers to offer school visits
- Grassland Habitat Action Plan
 - retain and create grassland on development sites
 - implement grassland management plans on Sites of Importance for Nature Conservation
 - for all sites supporting acid grassland, maintain existing coverage and restore at least 0.5ha in partnership with the London Acid Grassland Habitat Action Plan
- Standing and Running Water Habitat Action Plan
 - restoration of the lake at Old Redding
 - implement management plans for the two ponds at Little Common
- Woodland Habitat Action Plan
 - design and create a nature trail for Bentley Wood High School, Peterborough and St Margaret's School and Old Redding Complex
- Bat Species Action Plan
 - Install 10 new bat boxes annually
- Heath Spotted Orchid Species Action Plan
 - restore the habitat to the south of Tyke's Brook, including the diversion of footpaths, to favour re-colonisation by the heath spotted orchid

5.16.2 Many of the actions set out in the BAP are included in the management plans prepared for Harrow's sites on nature conservation importance (see paragraph 5.14.7). These management plans helpfully confirm the extent of any proposed infrastructure requirements or works to be carried out to deliver on the actions of the BAP and are already accounted for and included in the Delivery Plan at Section 6 under 'Natural Green Space'.

5.16.3 With regard to the other actions listed above that are not covered by the management plans, unfortunately there is no works programme or a costing for implementing these actions. One of the proposed actions under the Generic Action Plan is '*to develop an overall funding programme to delivery the Harrow BAP*' and to '*produce an annual work programme*', but these do not seem to have been done and it is beyond the scope of this particular study to derive this. However, it is understood that the Open Spaces Strategy will, where relevant, seek to implement relevant actions as part of the coordinated management of the open spaces network. It is therefore anticipated that this will result in a costed programme of works that can be helpfully included in a subsequent review of the Delivery Plan.

5.17 Allotments

5.17.1 There are 37 allotment sites throughout the Borough, however one site is not accessible to the wider community and one site is currently disused. The remaining 35 sites provide 1,351 plots over a combined land area of 36.41 hectares. This equates to 16.6 plots per household, or 0.17 hectares per 1,000 population. The recommended standard of provision is 0.18 hectares per 1,000 population.

5.17.2 Application of the recommended standard of provision to the existing and projected future population of the Borough highlights the following surpluses³⁰ and deficiencies:

Table 33: Existing Balance of Provision of Allotments (2010)

Sub-area	Population (2010 Estimates)	Current level of provision (Hectares)	Current level of provision (Hectares per 1000)	Standard per 1000 population (hectares)	Amount of Allotments required to meet standard (hectares)	Deficiency (hectares)
Central	52615	1.94	0.04	0.18	9.47	(7.53)
Northeast	32732	0.00	0.00	0.18	5.89	(5.89)
Northwest	40178	8.19	0.20	0.18	7.23	0.96
Southeast	40065	7.04	0.18	0.18	7.21	(0.17)
Southwest	55098	19.74	0.36	0.18	9.92	9.82
Total	220688	36.91	0.17	0.18	39.72	(2.81)

Table 34: Projected Balance of Provision of Allotments (2026)

Sub-area	Population (2010 Estimates)	Current level of provision (Hectares)	Current level of provision (Hectares per 1000)	Standard per 1000 population (hectares)	Amount of Allotments required to meet standard (hectares)	Deficiency (hectares)
Central	52315	1.94	0.04	0.18	9.42	(7.48)
Northeast	32325	0.00	0.00	0.18	5.82	(5.82)
Northwest	41612	8.19	0.20	0.18	7.49	0.70
Southeast	43121	7.04	0.16	0.18	7.76	(0.72)
Southwest	59644	19.74	0.36	0.18	10.74	9.00
Total	229018	36.91	0.16	0.18	41.22	(4.31)

5.17.3 The above tables show a deficit in existing and future provision of allotments serving the central and northeast of the Borough and a surplus in the southwest. Overall there is an existing deficit in provision of 2.81 hectares against the recommended standard of provision, which is forecast to increase to 4.31 hectares by 2026. As set out in the PPG17 Study, the Government promotes a demand led approach to the provision of

³⁰ A surplus in one sub area does not mean that there is potential to release open space, simply that the recommended minimum standard of provision is met and exceeded in that sub area. As the tables highlight, there is a shortfall in provision across the Borough as a whole in the existing and projected future projected scenarios.

allotment space based on local authority records. It suggests that a waiting list be kept to help identify the level of unmet demand and its spatial distribution.

- 5.17.4 The number on the waiting list in Harrow, at the time the PPG17 study was undertaken, was 488, which equates to an average of 32 people waiting per 100 plots. This level of people waiting is on par with that for Hillingdon and much less than that for Brent (68 per 100 plots), Hertsmere (97) and Three Rivers (300) but higher than that experienced in Barnet (20). However, as the PPG17 Study points out, demand for allotments can fluctuate significantly over time (both increase and decrease), and the situation with regard to the waiting list in Harrow is therefore not static.
- 5.17.5 The council has responded to the growth in interest in allotment gardening by preparing an Allotment Strategy (2010 – 2020) and by appointing an allotment officer whose role it is to keep under review the waiting list, removing those no longer interested in taking an allotment, and to monitor use of the allotments, issuing notices to plot holders who fail to cultivate their plot. This has resulted in a greater turn over of plots, affording more opportunity to those on the waiting list. The council has also made provision for temporary expansion of allotment sites located in parks to accommodate additional demand; however this approach results in a loss of park space. The site at Kenton Recreation Ground has recently been extended to provide additional plots. In addition, the disused site at Orchard Grove is currently being restored to full use. The council also has a 'reserve' site at Roch Avenue with the potential to provide approximately 22 plots.
- 5.17.6 A further proposal of the Allotment Strategy is to increase opportunities to those on the waiting list by reducing the size of some of the plots. Experience has shown that a 10 pole plot is often too large for many people who are starting out as allotment gardeners and could therefore be subdivided, as they become available, into 5 pole plots. Where trialed, this approach has received support, and with the above measures already being implemented by the Council, will help to significantly address demand for allotments in the Borough. It is therefore appropriate that the changes being put in place by the Council be given time to 'bed-in', and to monitor the impact on demand before considering whether any further measures, such as additional provision, might be required.
- 5.17.7 The median quality score for 34 allotments sites assessed in the PPG17 Study was 70.4%. The recommended quality score is 77.1%. In 2009 the Council undertook a programme of works to address the short comings in infrastructure being provided as identified in the 2002 survey of plot holders and the 2004/05 audit of allotments. The Allotment Strategy states that the Council will continue to improve the standard of infrastructure to sites but notes that, beyond existing maintenance, the uncertainty of funding means that infrastructure improvements will need to be prioritized in consultation with the Site Representatives and that it is unlikely that all of the improvements identified will be delivered over the next 10 years and that some areas of low demand may not receive any investment during the next five years. The Council will monitor implementation of the Allotment Strategy and it may be necessary to update this section in light of the monitoring findings.

5.18 Children and Young People's Play

- 5.18.1 There are 42 play areas and a further 4 play based multi-use games areas in the Borough, with a combined land area of 7.64 hectares. This equates to 0.03 hectares per 1,000 population and 0.18 per 1,000 children under 16 years of age. In terms of

playable space, the sites provide 76,383m² equivalent to 1.8m² per child. The recommended standards of provision are 4m² dedicated playable space per child and at least three youth spaces in each sub area specifically designed to meet the needs of teenagers.

5.18.2 Harrow's 42 play spaces comprise 11 doorstep spaces, 28 local spaces and 3 neighbourhood spaces. The recommended accessibility standards (based on walking distance from home) are: 100m to a doorstep space, 400m to a local space, 400m to a neighbourhood space and 800m to a youth space.

5.18.3 The application of the recommended standards of provision to the existing and projected future population of the Borough highlights the following deficiencies:

Table 35: Existing Balance of Provision of Children and Young People's Play (2010)

Sub-area	Child Population 0-15 years 2010	Sq m	Sq metres per child	Standard (m ² per child)	Deficiency Square metres per child	Deficiency Hectares
Central	9,740	18,951	1.95	4	2.05	2.00
Northeast	5,880	8,978	1.53	4	2.47	1.45
Northwest	7,541	18,999	2.52	4	1.48	1.12
Southeast	8,233	12,422	1.51	4	2.49	2.05
Southwest	11,037	17,032	1.54	4	2.46	2.71
Total	42,432	76,383	1.80	4	2.20	9.33

Table 36: Projected Balance of Provision of Children and Young People's Play (2026)

Sub-area	Child Population 0-15 years 2026	Sq m	Sq metres per child	Standard (m ² per child)	Deficiency Square metres per child	Deficiency Hectares
Central	11,565	18951	1.64	4	2.36	2.73
Northeast	6,756	8978	1.33	4	2.67	1.80
Northwest	9,150	18999	2.08	4	1.92	1.76
Southeast	9,727	12422	1.28	4	2.72	2.65
Southwest	13,503	17032	1.26	4	2.74	3.70
Total	50,701	76383	1.51	4	2.49	12.64

- 5.18.4 The above tables highlight a deficit in existing and projected provision of play space across all sub areas in the Borough. This was also the findings of the 2005 PPG17 assessment which prompted the Council to prepare the Harrow Play Strategy 2007 – 2012. In particular, the Play Strategy draws attention to the fact that there is a lack of play provision in the east of the Borough (eg Kenton & Queensbury) for all children but particularly for older children (12+); overall provision for teenage play is poor; and there are housing estates that are poorly served with play facilities.
- 5.18.5 To address the gaps in play provision, the Play Strategy outlines the following three priorities:
1. Make use of a multi-agency approach to increase the amount, range and accessibility of local supervised and unsupervised play provision.
 2. Develop play provision with the active engagement of children and young people and ensure that it addresses the needs of children of all ages and abilities.
 3. Monitor access to play provision for all children and improve access where deficiencies are identified.
- 5.18.6 In respect of increasing the provision of play space to meet the existing deficit identified, the Play Strategy proposes increasing use of school playgrounds for out-of-school hours use, improving the quality of existing play space, and seeking to provide new play facilities on open spaces, especially in areas of identified deficiency. Applying the recommended accessibility standards in the PPG 17 Study identifies gaps in the coverage of all categories of play space. These are shown at maps 4.6, 4.7, 4.8 and 4.9 of the published PPG 17 Study (2010).
- 5.18.7 In qualitative³¹ terms, the median scores for play areas across the Borough is as follows: 74.3% for location, 62.5% for play value and 67.3% for care & maintenance. The recommended overall quality score is 79% (comprising 89% for location; 85% for play value; and 73% for care & maintenance). A bespoke assessment was carried out for the four play based multi-use games areas. Applying the recommended overall qualitative standard requires improvements to 36 of the play areas assessed³² as set out in Appendix 4.
- 5.18.8 It is assumed that the emerging Open Spaces Strategy will include the specific proposals required to secure the use of school playgrounds, to prioritise and fund improvements to the quality of existing play facilities, and the locations, specifications and funding for the provision of new proposed play facilities on existing open spaces. It will therefore be necessary to update this section and the Delivery Plan once the Open Spaces Strategy is adopted.
- 5.18.9 With regard to addressing the forecast shortfall in provision of 3.31 hectares, the Play Strategy states that where appropriate, the Council will seek to secure suitably located well-designed new play areas as an integral part of new development. Where on-site provision is not appropriate, an off-site contribution will be secured.

5.19 Indoor Sport and Recreation

- 5.19.1 The audit of sports halls and swimming pools is dealt with separately below. In terms of other indoor sports facilities, there are 19 health and fitness facilities across the

³¹ Using Play England's Quality Assessment Tool.

³² Note that 3 of the 42 identified play areas were not assessed for quality.

Borough providing 928 stations³³. This equates to 4.2 stations per 1,000 population. The recommended standard of provision is 4.5 stations per 1,000 population.

5.19.2 The application of the recommended standards of provision for health and fitness facilities to the existing and projected future population of the Borough highlights the following surpluses:

Table 37: Fitness Stations Provision

2010 Population	Current Number of Stations	Number of Stations Required	Surplus/Deficiency
178,256	928	613	315 in excess of standard
184,085	928	633	295 in excess of standard

5.19.3 Of Harrow's 40 community centres and halls 11 were identified through the PPG17 Study as providing facilities for indoor sports provision, such as badminton but only one centre indicated the presence of purpose-provided changing facilities. The survey undertaken as part of the PPG17 Study suggested that there was additional unmet demand for use of community halls for a number of sports or leisure activities, most of which require specific facilities to be put in place to enable them, such as boxing and martial arts. However, this may better reflect an under supply in purpose built sports halls rather than community halls accommodating sports uses.

5.20 Sports Halls

5.20.1 Sport England was commissioned by the Council in 2008 to apply the Facilities Planning Model to the provision of sports halls in Harrow as part of a wider study area³⁴. However it modelled demand and supply over ten years to 2018, and was based on a projected population increase of only 500 people in the Borough over that period. A further supply and demand analysis for sports halls³⁵ was therefore carried out in the PPG17 Study (2010) and forms the basis of these assessed requirements.

5.20.2 The measure used for the assessment of supply and demand of sports halls is weekly visits in the peak period³⁶. For infrastructure planning purposes this is then converted into a requirement for badminton courts³⁷.

5.20.3 There are 28 sports hall sites throughout the Borough but many are discounted as being substandard (ie halls less than ¾ the size of a standard sports hall). Capacity is therefore based upon 11 sites providing 5,694 visits. This equates to 32 badminton courts. Total peak period, weekly demand in the Borough is estimated to be 10,584 visits. This equates to 57 badminton courts. So there is an existing, modelled shortfall of 25 badminton courts.

³³ A station is one item of gym equipment.

³⁴ Incorporating provision in the neighbouring boroughs of Barnet, Brent, Ealing, Hillingdon, Three Rivers, Hertsmere and Watford.

³⁵ Using up-to-date population projections and a planning horizon of 2026, consistent with the rest of the Study, but excluding the modelling of provision in the wider study area that formed part of the Facilities Planning Model.

³⁶ Taking into account factors such as levels of participation in indoor sport and a 'comfort factor' in the capacity of facilities.

³⁷ A badminton court has a capacity of 185 per week in the peak period, and has an area of 162m² (18m x 9m). The standard size of a sports hall is 694m², equivalent to approximately four badminton courts.

5.20.4 By 2026, with the addition of new courts at the HIVE centre, supply increases to 6,612 visits, equivalent to 36 badminton courts. However demand also increases by 2026, to 10,634 visits, which equates to 58 courts. The modelled shortfall in 2026 is therefore 22 badminton courts.

Table 38: Existing Balance of Provision of Sports Halls (2010)

Population (2010 Estimates)	Current level of provision (Badminton Courts)	Current level of provision (Badminton Courts per 1000)	Required level of provision (Badminton Courts)	Required level of provision (Badminton Courts per 1000)	Deficiency (Badminton Courts)
220688	32	0.15	57	0.26	25

Table 39: Projected Balance of Sports Halls (2026)

Population (2026 Estimates)	Current level of provision (Badminton Courts)	Current level of provision (Badminton Courts per 1000)	Required level of provision (Badminton Courts)	Required level of provision (Badminton Courts per 1000)	Deficiency (Badminton Courts)
229,018	36	0.16	58	0.25	22

5.20.5 Although the level of deficiency falls over the period 2010 to 2026, it nevertheless generates a requirement to increase public access to an equivalent of approximately six standard-sized sports halls (22 badminton courts or 3,817m² of sports hall floorspace). However this does not take account of sports halls that may be available for Harrow residents' use in neighbouring areas or that currently have restricted public access. Local planning policies will therefore support community access to the sport and recreation facilities of other landowners and institutions, and proposals for the enhancement of such facilities. The emerging Open Spaces Strategy is likely to include actions to be taken by the Council to secure community use of private sports and recreational facilities, such as those associated with schools.

5.20.6 Local planning policies will also resist the loss of community facilities unless adequate arrangements are in place for their replacement, or the enhancement of other existing facilities to meet identified need. This will ensure the existing quantitative deficiency in sports hall provision is not exacerbated, and that gaps in the coverage of sports halls accessibility are not created.

5.20.7 The potential for redevelopment of Harrow Leisure Centre and Zoom Leisure will enable consideration of sports hall re-provision to meet demand, having regard to the shortfall in provision identified in the PPG17 Study (2010) and any updated assessment of supply including that in adjoining boroughs. Redevelopment will also enable the recommended sustainability, disabled access and the qualitative improvements to be achieved. In addition to its swimming, sports halls and health & fitness facilities, Harrow Leisure Centre provides one indoor tennis court and eight fully sprung squash courts. The site is also home to the Herga Indoor Bowls club (seven rinks) and the Harrow School of Gymnastics.

5.20.8 In addition to new provision or redevelopment, qualitative improvements to existing facilities may also help to address the current deficiencies, subject to funding being

made available. The median quality³⁸ score for indoor sports facilities is 75.5%. The recommended quality score is 78%. See Appendix 9 of the PPG17 Study for a list of facilities currently below the recommended quality score.

5.20.9 The recommended accessibility standard is 20 minutes' drive time to a leisure centre. The Sport England Facilities Planning Model concluded that all Harrow residents have access to at least two sport hall sites based on a 20 minutes' drive time catchment.

5.21 Swimming pools

5.21.1 The measure used for the assessment of supply and demand of swimming pools is weekly visits in the peak period³⁹. For infrastructure planning purposes this is then converted into a requirement for square metres of water⁴⁰.

5.21.2 There are 9 swimming pool sites throughout the Borough, but one site is excluded as being substandard (ie too small for consideration). Capacity is therefore based upon 8 sites providing 9,200 visits⁴¹. This equates to 1,460m² of water. Total peak period, weekly demand in the Borough is estimated to be 13,060 visits. This equates to 1,599m² of water. So there is an existing, modelled shortfall of 139m² of water.

5.21.3 By 2026 supply increases to 10,017⁴² visits, equivalent to 1,603m² of water. Demand also increases by 2026, to 13,413 visits, which equates to 1,642m² of water. The modelled shortfall in 2026 is therefore 39m² of water.

Table 40: Existing Balance of Swimming Pools (2010)

Population (2010 Estimates)	Current level of provision (Square Metres)	Current level of provision (Square Metres per 1000)	Required level of provision (Square Metres)	Required level of provision (Square Metres per 1000)	Deficiency (Square Metres)
220688	1460	6.61	1599	7.25	140

Table 41: Projected Balance of Provision of Swimming Pools (2026)

Population (2026 Estimates)	Future level of provision (Square Metres)	Future level of provision (Square Metres per 1000)	Required level of future provision in 2026 (Square Metres)	Required future level of provision (Square Metres per 1000)	Deficiency (Square Metres)
229,018	1603	7.00	1642	7.17	39

5.21.4 The increase in supply comes from a new swimming pool currently under construction at the HIVE facility, which will be made accessible to the general public. It should also be noted that this does not take account of swimming pools that may be available for Harrow residents' use in neighbouring areas. The PPG17 Study notes two recent swimming pool developments that Harrow residents would have access to – the new

³⁸ Based on the Indoor Sports Facilities Quality Assessment.

³⁹ Taking into account factors such as levels of participation in swimming and a 'comfort factor' in the capacity of facilities.

⁴⁰ A standard 25m x 4 lane pool has an area of 212m².

⁴¹ Taking into account attractiveness rating of physical attributes such as changing accommodation, age, condition, perceived design quality and management policies.

⁴² Again, taking into account attractiveness rating.

Hillingdon Ports & Leisure Complex in Uxbridge providing both an indoor and outdoor 8 lane pools of 50mx25m and the Northolt Leisure Centre with a new 25mx17m indoor pool.

5.21.5 The recommended accessibility standard for swimming pools is 20 minutes' drive time. The Sport England Facilities Planning Model concluded that all Harrow residents have access to at least two swimming pool sites based on this accessibility standard.

5.21.6 The deficiency of 39m² of water equates to 0.2 of a swimming pool and, given the accessibility findings and provision of water space in neighbouring boroughs, it is considered that there is sufficient existing and future provision to meet the Borough's swimming needs.

5.22 Outdoor sports

5.22.1 Across the Borough there are 33 sites providing a total of 133 outdoor sports pitches. The combined land area given over to pitch provision is 159.77 hectares, equivalent to 0.72 hectares per 1,000 population. The pitches comprise: 52 adult football; 24 junior football; 29 mini-football; 21 cricket; and 7 rugby.

5.22.2 An interim standard of provision of 0.78 hectares per 1,000 population is proposed, but it is recommended that a full playing pitch and outdoor sport assessment be undertaken to measure actual demand for sports facilities. This additional work is currently not programmed and not funded.

5.22.3 Application of the recommended interim standard of playing pitch provision to the existing and projected future population of the Borough highlights the following surpluses⁴³ and deficiencies:

Table 42: Existing Balance of Provision of Playing Pitches (2010)

Sub-area	Population	Playing Pitches (Hectares)	Ha per 1000 population	Playing pitch local standard	Total Hectares required to meet hectares per 1000 standard local standard	Deficiency (Hectares)
Central	52615	22.21	0.42	0.78	41.04	(18.83)
Northeast	32732	23.73	0.72	0.78	25.53	(1.80)
Northwest	40178	60.51	1.51	0.78	31.34	29.17
Southeast	40065	29.93	0.75	0.78	31.25	(1.32)
Southwest	55098	23.40	0.42	0.78	42.98	(19.58)
Total	220688	159.77	0.72	0.78	172.14	(12.37)

⁴³ A surplus in one sub area does not mean that there is potential to release open space, simply that the recommended minimum standard of provision is met and exceeded in that sub area. As the tables highlight, there is a shortfall in provision across the Borough as a whole in the existing and projected future projected scenarios.

Table 43: Projected Balance of Provision of Playing Pitches (2026)

Sub-area	Population	Playing Pitches (Hectares)	Ha per 1000 population	Playing pitch local standard	Total Hectares required to meet hectares per 1000 standard local standard	Deficiency (Hectares)
Central	52315	22.21	0.42	0.78	40.81	(18.60)
Northeast	32325	23.73	0.73	0.78	25.21	(1.48)
Northwest	41612	60.51	1.45	0.78	32.46	28.05
Southeast	43121	29.93	0.69	0.78	33.63	(3.70)
Southwest	59644	23.40	0.39	0.78	46.52	(23.12)
Total	229018	159.77	0.70	0.78	178.63	(18.86)

5.22.4 The above tables show that, with the exception of the northwest sub area, there is an existing deficit in playing pitch provision within the other four sub areas and the Borough as a whole. The overall deficit is projected to increase by 6.49 hectares by 2026 with the greatest increases being in the southeast and southwest sub areas.

5.22.5 The level of deficiency in the central and southwest sub areas is significant, and given the built up suburban environment of these sub areas it is unlikely that such shortfalls in playing pitch provision will be met. The PPG17 Study (2010) does identify two potential candidate sites for outdoor sports provision. These were sites found to have no public/community access but which, nevertheless, have the potential to provide access and therefore contribute to open space needs. Helpfully, both candidate sites are located in sub areas with shortfall so could assist in managing the deficiency gap:

- Central sub area: St George's Playing Field, Churchfield Close (site Ref CAN003), area 0.97ha
- Southwest sub area: Brigade Close (site Ref CAN004), area 1.6ha

5.22.6 Neither of these candidate sites are of sufficient size to meet the increase in deficit projected for the Borough as a whole over the period to 2026. The focus therefore must be on improving the quality and use of the existing pitches.

5.22.7 The median quality⁴⁴ scores for outdoor sports pitches are: 59% for football; 84% for cricket; and 66% for rugby. Quality assessment of pitch changing facilities found that most of the Council's facilities do not make specific provision, or make very poor provision, for female participants. The recommended quality scores are: 71% for football; 84% for cricket; 71% for rugby; and 63% for changing facilities (with the improvement facilities for females a priority).

5.22.8 Applying the recommended qualitative standards for outdoor sports pitches requires the following: significant improvements to 89 of the Borough's 105 football pitches; improvements to 11 of the Borough's 21 cricket pitches; and improvements to 5 of the Borough's 7 rugby pitches. Of the changing facilities that have been the subject of quality assessment⁴⁵, application of the recommended standard requires improvements

⁴⁴ Using a modified version of the Sport England Visual Quality Assessment.

⁴⁵ At the time of the PPG 17 assessment 1 facility was derelict and 1 was closed for refurbishment; access could not be obtained to a further 8 facilities.

at 8 facilities. Appendix 10 of the PPG17 Study identifies those sites below the qualitative standard. It is assumed that this information will be used to inform the policies and proposals of the emerging Open Spaces Strategy in terms of actions to be taken to bring these sites up to the recommended standards, as well as to the consideration of other actions that could be undertaken to improve the use of existing pitches (ie the provision of Muggers and Astro turf facilities for training, assisting in the recovery of the grass pitches allowing them to accommodate more matches). It will therefore be necessary to update this section and the Delivery Plan once the Open Spaces Strategy is adopted.

5.22.9 In terms of other outdoor sports: there are 25 sites providing 114 tennis courts; 11 bowling greens; 7 sites providing 14 multi-use games areas and 5 synthetic turf pitches; and 3 eighteen-hole and 4 nine-hole golf courses. The median quality scores for tennis courts is 87.5% and for bowling greens is 81.5%. The recommended quality scores are: 87.5% for tennis courts and 81.5% for bowling greens. Of the tennis courts that have been the subject of quality assessment⁴⁶, application of the recommended quality standard requires improvements at 17 courts. Of the bowling greens that have been the subject of quality assessment⁴⁷, application of the recommended quality standard requires improvements at 2 greens. The PPG17 Study highlights that there are deficiencies in the north for bowls, and across the borough for MUGAs and Astro turf pitches. Again, actions to delivery both quantitative and qualitative improvements will need to be addressed through the emerging Open Spaces Strategy and in the context of funding constraints and the need to address the other quantitative and qualitative shortfalls in the various forms of open space provision already highlighted in the preceding sections.

5.22.10 The recommended accessibility standard is: 15 minutes' walking time to playing pitches, multi use games areas, tennis courts, bowling greens and synthetic turf pitches (equivalent to 1,200m). Applying the recommended accessibility standards identifies gaps in the coverage of playing pitches, multi use games areas (including synthetic turf pitches), tennis courts and bowling greens. These are shown at Maps 9.5, 9.6, 9.7 and 9.8 of the published PPG 17 Study (2010).

5.23 Burial space

5.23.1 There are 14 sites in the Borough in the care of the local authority comprising 7 churchyards, 6 cemeteries and a burial ground at Roxeth Hill. With regard to burial space within the Borough, these are now largely full; new interments are therefore directed to Carpenders Park Cemetery whilst crematorium services are provided at Breakspear Crematorium at Ruislip, both outside of the Borough.

5.23.2 A report was presented to Cabinet in November 2006 highlighting the fact that land reserves for burial space in the Borough would be exhausted by 2007/08, and put forward proposals for new provision in association with LB Brent providing 10 year provision. An action of the Green Belt Management Strategy included was to undertake a feasibility assessment for the provision of additional burial sites in the Green Belt but at the time of writing no records could be found of the feasibility study being undertaken. However, in preparing the draft Site Allocations DPD an opportunity has been identified for a future site for a cemetery within the borough as an extension to Harrow Weald Cemetery to be secured through s106 on redevelopment of adjacent Harrow College site.

⁴⁶ One site was not the subject of a quality assessment.

⁴⁷ One site was derelict and one site was not the subject of a quality assessment.

5.23.3 With regard to need, although not *per se* a recommended standard, a need for between 183 and 197 new graves per annum over the period 2011 to 2031 is calculated⁴⁸ as shown on the table below.

Table 44: Harrow Projected Deaths and Burials (2011-2031)

Year	Population	Projected deaths per annum	Burials per annum	New graves per annum
2011	225,228	1,634	458	183
2016	229,937	1,721	482	193
2021	229,373	1,757	492	197
2026	229,018	1,753	491	196
2031	231,672	1,750	490	196

5.23.4 Further feasibility work is required to confirm the suitability of the proposed new cemetery site adjacent to Harrow Weald Cemetery prior to its allocation in the final Site Allocations DPD. Assuming the geological studies support interments at this location, then this work should also determine the plot capacity of this potential site and whether an additional or alternative site outside of the borough might also need to be secured to provide for Harrow's long-term needs. On completion of that feasibility study this section and the delivery plan should be updated as appropriate to reflect its findings.

5.24 Transport

5.24.1 In 2008 the Council commissioned Enterprise Mouchel to carry out a Transport Audit as part of Harrow's LDF evidence base. The audit modelled the implications of the Core Strategy draft preferred options on 10 road junctions in the local network and upon tube, rail and bus services. Further work was commissioned following public consultation on the Core Strategy preferred option in 2009/10, specifically to model an additional 11 road junctions, to further consider the impact of growth upon local bus capacity and to audit the availability of cycle infrastructure. Both stages of work were combined to form the Harrow Transport Study (2010).

5.24.2 It should be noted that the capacity of the London Overground and Tube services through Harrow are calculated on the basis of 'crush load', which is the sum of seating capacity and realistic standing capacity on each train, during the AM and PM peak in each direction. This is the Transport for London design standard⁴⁹.

5.25 Tube

5.25.1 The Borough is served by the following tube lines, all controlled by Transport for London:

- *Metropolitan line*
This line provides fast and stopping services southbound towards Baker Street (and beyond) and northbound towards Amersham, Watford, Chesham (the 'Moor Park

⁴⁸ Applying Harrow's current mortality rate of 7.52 deaths per 1,000 population, and assuming 28% of deaths lead to full body interment and of those 40% require new graves.

⁴⁹ See paragraph 3.6.1 of the Harrow Transport Study (2010).

branch') and Uxbridge (the 'Uxbridge branch'). All services call at Harrow-on-the-Hill station.

Other Harrow stations served on the Moor Park branch comprise North Harrow and Pinner (slow and semi-fast services only). Southbound, this branch has a combined capacity to carry between 7,294 and 8,336 passengers in the AM peak and 8,336 passengers in the PM peak. Northbound, this branch has a combined capacity to carry between 6,252 and 10,420 passengers in both hourly peaks.

Other Harrow stations served on the Uxbridge branch comprise West Harrow and Rayners Lane. Southbound, this branch has a combined capacity to carry between 9,378 and 10,420 passengers in the AM peak and between 8,336 and 9,378 passengers in the PM peak. Northbound, this branch has a combined capacity to carry between 6,252 and 10,420 passengers in both hourly peaks.

- *Piccadilly line*
This line provides southbound services towards central London via west London; northbound services continue beyond Rayners Lane to Uxbridge at peak times only. Stations served in Harrow comprise: Sudbury Hill, South Harrow and Rayners Lane. The service has a combined capacity to carry 8,184 passengers in each direction in the hourly peaks.
- *Bakerloo line*
This line provides southbound services towards central London via north-west London⁵⁰; northbound services terminate at Harrow & Wealdstone station. Stations served in Harrow comprise: Kenton and Harrow & Wealdstone. The service has a combined capacity to carry 4,362 passengers in each direction in the hourly peaks.
- *Jubilee line*
This line provides southbound services towards central London via north-west London; northbound services terminate at Harrow & Wealdstone station. Stations served in Harrow comprise: Kenton and Harrow & Wealdstone. The service has a combined capacity to carry 4,362 passengers in each direction in the hourly peaks.

5.25.2 The Transport Study (2010) assessed the capacity of the Metropolitan, Bakerloo and Piccadilly line trains serving stations within the Borough. Both in the baseline (2008) and future (2025) modelled scenarios⁵¹ the development growth in the Borough has minimal impact upon relative to existing demand and available capacity. As an illustration of this the Borough's busiest Tube station, Harrow-on-the-Hill, had between 53% and 89% spare capacity in the baseline situation⁵². However, both the Council and Transport for London note that levels of capacity vary significantly across the route of each tube line, especially at key junctions and in the central zones. In terms of the implications of growth and development, TfL has modelled these along each route in the course of preparing the replacement London Plan, and have identified mitigation measures required in the London Transport Strategy. The table below highlights those which relate to or may be relevant to Harrow.

⁵⁰ It shares the line with the Watford Junction to London Euston Overground line between Harrow & Wealdstone and Queen's Park stations.

⁵¹ Based on the Core Strategy draft preferred options A & B.

⁵² See section 8.4 of the Harrow Transport Study (2010).

Table 45: Tube/London Overground Projects

Project	Description	Funded /Unfunded	Completion Period
Jubilee line upgrade	Signal upgrade; +33% peak capacity – equivalent to 5,000 more passengers an hour and reducing journey time by 22%	Funded by TfL	2010-2012
Piccadilly line upgrade	Additional capacity of 24% and improved journey times by 19%	Funded by TfL	2013-2020
Metropolitan line	Signal upgrade and 58 new eight-car trains to increase capacity 27% and improve journey times	Funded by TfL	2013-2020
Bakerloo line	Signal upgrade and new rolling stock to increase capacity	Funded by TfL	Post 2020
London Overground (general)	Train lengthening and improved service frequency	Unfunded	Post 2020
London Overground (Watford Junction – London Euston line)	Diversion from London Euston to Stratford ⁵³	Unfunded	Post 2020

5.25.3 In addition to the above projects, Appendix 2 of the Sub Regional Transport Plan also identifies a list of schemes for discussion with the sub-regional panel. It includes:

- *Bakerloo line extension to Watford Junction*
Direct link from Watford Junction by extending north along existing line from existing terminus at Harrow & Wealdstone
- *Extension of Metropolitan line to Watford Junction via Croxley link*
New link from Metropolitan line to Watford Junction at 6 trains per hour
- *Piccadilly line – further upgrades*
Future line upgrades beyond existing plans

5.25.4 The Council will monitor and maintain a dialog with TfL regarding the delivery of the projects set out in Table 45 and will work with TfL and sub-regional partners to see whether the above proposals can be brought forward into deliverable projects. However, as noted in Harrow’s Transport Audit, there is sufficient capacity on all four tube lines, even without the proposed enhancements, to support Harrow’s levels of planned future development.

5.25.5 With regard to rail/tube stations, there are 11 stations located within the Borough boundary, three straddling the borough boundary (Queensbury, Kenton and Northolt Park) and a further five stations within neighbouring authorities that residents within Harrow might choose to access (Northwood Hills, Eastcote, Northwick Park, Kingsbury and Edgware). These stations are either managed by Network Rail and/or TfL. The scope of the Harrow Transport Audit did not extend to assessing the accessibility, capacity or quality of the stations within the Borough. However, a desktop audit undertaken as part of this study shows that, of those stations located in the Borough, with the exception of Harrow & Wealdstone, Pinner and Stanmore stations, step free access is not available. The three busiest stations are Harrow on the Hill, Harrow & Wealdstone, and Rayners Lane, which is as expected given their function as key transport interchanges in the network. The quality of the stations is variable with a

⁵³ To release capacity for High Speed 2 at Euston

number in need of improvements or modernisation (surface repairs, painting, new furniture, lighting etc) to bring them up to the standard of the others. While TfL has a rolling programme of station improvements, none of the stations identified in that programme are within Harrow⁵⁴. The Council will therefore continue to lobby TfL to ensure any review of the station improvement programme has regard to stations in Harrow.

5.25.6 In terms of station capacity, Harrow on the Hill station is identified as the only station with capacity issues. The station is a vital town centre facility providing dual functions. It is a busy interchange offering a rail/LUL station, an adjacent bus station, taxi rank and cycle facilities, and also acts as a public through route, providing north/south access across the rail corridor. There is currently no opportunity to increase capacity or improve interchange between modes. Passenger congestion is experienced in the existing narrow ticket hall/concourse area during peak periods, and in the area at the bottom of the stairs onto the Metropolitan Line platforms. In addition, steep steps to both entrances and down to the platforms severely restrict accessibility and create a very poor environment for mobility impaired people. The station does not give the impression of a transport gateway. These problems stem, in the main, from a lack of space.

2.25.7 The modernisation of Harrow on the Hill Station was to be delivered under the Vendor Contract Programme set up by the former PPP firm Metronet. In January 2009, the Finance Committee for TfL had approved the enhanced refurbishment, including step-free access, of the Station, quoting a final estimated cost of £39.5m⁵⁵. The works included the installation of five 16-passenger lifts, one at each station entrance and lifts from the ticket hall to the three island platforms, relocation of the ticket hall and office, upgrading of CCTV, new layout of public toilets, the inclusion of a mobility-impaired toilet and general enhancements such as the upgrading of the PA system, signage, Help Points, new surfaces, painting and repairs.

2.25.8 Shortly after the TfL Finance Committee had agreed the project Metronet collapsed due to financial problems, which resulted in TfL reviewing its position in relation to the ex-Metronet stations programme, as well as the overall step-free access programme. The end result of the review was that the Harrow on the Hill Station was not deemed to be urgent in respect of needing full refurbishment and modernization or step-free access, and therefore was not included in the 2009/10 – 2017/18 business plan.

2.25.9 The Council has subsequently engaged TfL to see how the two parties can work together to deliver the Mayor's vision for transport and Harrow's priorities for upgrading the Harrow-on-the Hill station. From the Council's perspective, the £39.5m cost quoted by Metronet needs to be better understood. Other figures circulated more recently put the enhancement works at £25m but again more detailed analysis is needed to understand the components and individual costs. TfL have stressed that, while they are committed to improving accessibility from street level to platform level on the Tube network, funding constraints mean this will necessarily be a long-term process (see Proposal 40 of the MTS). The Council is clear that there are insufficient funds available through the s106 contribution to deliver the scope of works required to bring the Station up to a modern standard.

2.25.10 Further work is therefore being undertaken between the parties as part of the preparation of the joint Council and GLA Harrow and Wealdstone Area Action Plan.

⁵⁴ Mayor Transport Strategy 2010, Proposal 18

⁵⁵ TfL Finance Committee Agenda Item 6: Project Monitoring - Project Approvals, 27 January 2009

This will also need to tie in with improvements to the capacity and safety of the Bus Station, the improvement to Lowlands Recreation Ground and public realm improvements throughout the town centre. The Delivery Plan includes the Station enhancements as a specific infrastructure requirement but it may be appropriate at a later stage to split out the components of the works required, to enable these to be costed separately and their delivery prioritized or phased, if necessary, over the life of the Plan. As set out in the Harrow on the Hill Planning Brief (July 2005), the following key components should form part of the more comprehensive design:

- Access from the new station concourse to deliver passengers to a more central position on existing platforms, thus improving platform utilisation and train loading
- A high quality, secure, 24 hour pedestrian through route linking the town centre to the area south of the railway, capable of independent use when the station is closed
- A concourse of sufficient width to accommodate the number of passengers entering and exiting the station, waiting at the gates, and pedestrian through movement
- Provision for Mobility Impaired Person (MIP) access via lifts directly onto the three island platforms from the concourse, but within the “paid area” of the station
- Step free access from street level to the main station concourse. This could take the form of a shallow ramped access at the southern entrance from Lowlands Road and a high quality escalator and lift via the bus station at the northern entrance
- Suitable passenger drop off points. The primary drop off facility is likely to be to the south of the station with vehicular access from Lowlands Road. Opportunities for a secondary facility from Station Road should also be considered

5.26 Rail

5.26.1 The Borough is served by the following rail infrastructure:

- *Watford Junction to London Euston* (London Overground)
Part of the Transport for London Overground network, this is a local stopping service between Watford Junction station and London Euston⁵⁶. Stations served in Harrow comprise: Hatch End, Headstone Lane, Harrow & Wealdstone and Kenton. The service has a combined capacity to carry 5,593 passengers in each direction in the hourly peaks.
- *Tring to London Euston* (London Midland)
Part of the London Midland franchise, this is a regional service between Tring station (and beyond) to London Euston. In Harrow it only serves Harrow & Wealdstone station. The capacity of the service is not known.
- *Watford Junction to Clapham Junction* (Southern Railways)
Part of the Southern Railways franchise, this is a regional service between Watford Junction station and Clapham Junction. In Harrow it only serves Harrow & Wealdstone station. The capacity of the service is not known⁵⁷.
- *Aylesbury to London Marylebone* (Chiltern Railways)
Part of the Chiltern Railways franchise, this is a regional service between Aylesbury town/Aylesbury Vale Parkway stations and London Marylebone. In Harrow it only serves Harrow-on-the-Hill station. The capacity of the service is not known⁵⁸.

⁵⁶ It shares the line with the Bakerloo line between Harrow & Wealdstone and Queen’s Park stations.

⁵⁷ However a subjective, visual assessment during the AM peak indicated 35% spare capacity southbound and 70% spare capacity northbound.

- *High Wycombe to London Marylebone* (Chiltern Railways)
Part of the Chiltern Railways franchise, this is a regional service between High Wycombe station and London Marylebone. Stations served in Harrow comprise: Northolt Park and Sudbury Hill. The capacity of the service is not known.

5.26.2 The Transport Study (2010) does not include a comparable assessment of the capacity of the London Midland, Southern and Chiltern Railways trains which serve stations within the Borough. This is because, despite numerous requests, data from the train operating companies relating to these services was not forthcoming at the time of the audit⁵⁹. However, it should also be noted that in consulting with the train operators over the Transport Audit, none raised issues with the Council of existing or future capacity implications resulting from the quantum of development being proposed for Harrow.

5.26.3 The table below lists the known rail projects relevant to Harrow. It should be noted that the proposed route for High Speed 2 (HS2) does not run through Harrow, but as noted in the March 2010 HS2 report, it is proposed to have a West London interchange at Old Oak Common that would connect HS2 to the London Overground services, which would benefit the Borough and potentially provide an interchange with Crossrail.

Table 46: Rail Projects

Project	Description	Funded/Unfunded	Completion Period
Chiltern enhancements	Enhanced inner suburban service	Funded	2010-2012

5.26.4 Not included in the list above, but one which the Council continues to lobby the train operators for is the reinstatement of the direct rail connection from Harrow and Wealdstone station to Gatwick airport. This was withdrawn at the beginning of 2009 but is considered an important link to London's second busiest airports. The Council will continue to work towards influencing the reinstatement of this direct link.

5.27 Buses

5.27.1 There is a comprehensive network of bus services in the Borough, with around 21 bus routes including five night bus services. During peak am and pm times most services run every 8-12 minutes, and each of the train / tube stations within the Borough has at least one bus route passing the station, which helps to maximise transport interchange connections. The majority of routes pass through Harrow Town centre, with the busiest corridor being the area covered by the Intensification Area. Most of the bus services that serve Harrow are managed by London Buses and operated by private bus companies.

5.27.2 The Transport Audit (2010) found only one bus service in the Borough carrying passengers in excess of its planned capacity for part of its route in the peak period (this was service 340 travelling in the direction of Edgware to Harrow in the Canons Park area which exceed capacity by 18.5%). To test the sensitivity of services to higher levels of passenger growth than that forecast, the Study also assessed the impact upon capacity at 20%, 30% and 40% growth. In addition to the service already identified as

⁵⁸ However a subjective, visual assessment during the AM peak indicated 35% spare capacity southbound and 90% spare capacity northbound.

⁵⁹ However a subjective visual capacity assessment was undertaken for Chiltern and Southern services during the AM peak. This indicated spare capacity of 35% (southbound) and 70% (northbound) on Southern trains, and 35% (southbound) and 90% (northbound) on Chiltern trains.

exceeding its capacity, the results showed that three further services would be sensitive to future growth at base + 20%, nine services at base + 30%, and fourteen services at base + 40% (see Table 8-2 of the Transport Audit).

- 5.27.3 While the Transport Audit concluded that additional bus trips associated with development and growth in the Borough will produce only marginal impacts, and then only on certain routes at peak times, the Council is committed to making bus travel accessible and an attractive alternative to the private car. The Council will, in conjunction with TfL and bus operators, continue to seek to improve the penetration and expansion of local bus services into every local neighbourhood area – either by extending existing routes or, where necessary, by promoting new routes. In addition the Council will also consider proposals for bus lane enhancements, bus priority measures, traffic smoothing, improvements to bus stops and improvements to the Harrow Bus Station, which is dealt with in more detail below.
- 5.27.4 The recent provision of a new bus route in the Borough, route 324, serves an area identified in the LIP (2008) as being an existing gap in the bus network. Route 324 runs from Stanmore and serve Queensbury, Kingsbury, Colindale, Hendon and finishes at Brent Cross, connecting with the Jubilee line service along the way. The current LIP highlights concerns with the poor public transport linkages to health care facilities in the Borough including the link between Stanmore station and the Royal National Orthopaedic Hospital and the service provided to the Alexander Avenue polyclinic. The Royal National Orthopaedic Hospital is served by a private bus from Stanmore station, however this is poorly advertised and promoted and a very low frequency. Concerns are also raised about public transport links to Northwick Park Hospital, in particular, that bus route 182 southbound passes the hospital but does not drive into the hospital grounds. In addition, extending route 204 into the hospital would also be of significant local benefit. LIP2 commits to working with TfL to consider measures to address these concerns as well as any gaps in the provision of local bus services that may be identified (NB: any location where the local bus service is more than 5 minutes walk away is considered to be inaccessible). The final decision for new routes or route changes remains within TfL.
- 5.27.5 With regard to bus priority measures, LIP2 includes three new proposals, as set out in Table 47. Further bus lane enhancements and bus priority measures, for Harrow town centre in particular, are to be tested through further transport modelling being undertaken as part of preparing the Harrow and Wealdstone Area Action Plan. This also includes proposals to improve bus circulation around Harrow town centre and upgrading or replacing Harrow Bus Station to improve its accessibility, capacity and safety.
- 5.27.6 Bus routing through the town centre was complex and confusing as buses did not operate two-way on some of the key roads, such as Station Road (south), Greenhill Way and Sheepcote Road. This led to a less accessible public transport system for users which in turn reduced the attractiveness of Harrow as a shopping centre and hindered the economic viability of the town centre. The completion of introducing two-way buses on Station Road in 2011 has simplify the bus network and facilitated two way buses on all the town centre bus corridors. Further improvements in the town centre were planned but have been delayed because of the economic slow down and the associated lack of Section 106 funding. These projects will be taken forward as part of the transport proposals for the Area Action Plan, with the purpose of making the town centre more accessible by public transport, simplify the bus network further and enhance the shopping environment on Station Road. The new bus stops on the east

side of Station Road together with the other public realm improvements will help to regenerate increased levels of economic activity in the locality and thereby help to improve the area.

5.27.7 With regard to Harrow Bus Station, there are currently 14 services that use the station. It has six stops and space for six standing buses and operates around an island passenger waiting and information area. During peak periods the bus station experiences operational difficulties due to the volume of buses and passengers.

5.27.8 London Buses consider the existing bus station accessible but of insufficient capacity for future growth with very limited space available for passengers and buses. The existing bus station facility is already at operational capacity, particularly in regard to bus standing, and London Buses have forecast further expansions in services. London Buses anticipate that they will require a bus station accommodating 2 triple and 4 double stops and room to stand 11 buses by 2011. The Council commissioned Peter Brett Associates in 2007 to propose design concepts for improving the bus station. Their proposals included complete renewal of the current facility and the two proposals put forward were costed at £4m and £3m respectively. A subsequent meeting held with TfL confirmed that they were considering a refurbishment of the existing station as opposed to a complete renewal. The detail scope and design of these works were still to be undertaken but TfL thought that the enhancements and improvements could be delivered within a maximum cost of £2.5m. TfL have therefore committed to work with the Council once there is a better understanding of what can be delivered to discuss how it will be delivered.

5.27.9 With regard to other bus related infrastructure requirements, LIP2 includes the continuation of a programme for improving bus stop accessibility and increasing the number of bus stops that are DDA compliant. LIP2 also commits to working with the other West London boroughs to deliver improved orbital transport links across the Borough and between outer London centres thereby providing greater access to a wider catchment area for employment opportunities. Proposals to date include a feasibility study for route 186 to provide a new limited-stop FastBus quality service between Harrow and Edgware along the existing route service, and enhanced bus lanes and priority work at traffic signals where possible on route 140, which has the potential to save bus journey times from Harrow to Heathrow by 10 minutes. Following feasibility work, changes will be recommended by boroughs or the Transport Committee of the West London Alliance to TfL to argue the case for them to be introduced or included in proposals for the next TfL Business Plan.

Table 47: Bus Projects

Project	Description	Funded/ Unfunded	Completion Period
Bus network development	Regular review of bus network to maintain attractiveness, adequate capacity, reliability, coverage and interchanges	Funded by DfL	All periods
Bus network development	Re-pattern bus services to take account of new infrastructure/changes in demand	Funded by DfL	2013-2020
Low emission buses	All new buses to be low emission by 2012	Funded by DfL	All periods

Enhance real-time bus	Realtime information displays at stops	Funded by DfL	2010-2012
Bus priority	Implementation of bus priority schemes on merit	Funded by DfL	All periods
Provision of suitable infrastructure to support opportunity areas/new development	Implementation of necessary measures on merit	Funded by DfL	All periods
Additional bus stands and upgrade/new bus station	Implementation of necessary measures on merit	Funded by DfL	All periods
Bus Priority: South Harrow - Eastcote Lane	Waiting and loading restriction on one side to be extended to allow opposing buses to pass near Kings Road	Funded by DfL	2010-2013
Bus Priority: Stanmore - Common Rd/ High Rd junction	Feasibility study for bus priority schemes at junction. New left turn lane to bypass queuing straight ahead traffic. Reduce journey time savings on route 258.	DfL funding currently on hold	2012 for feasibility TBC for implementation
Bus Priority: Stanmore - London Rd/Brockley Hill	Bus Priority measures at junction and along London Road	LIP2 / DfL	2012-2013
Kymerley Rd/ College Rd review layout	Increase bus station capacity by creating standing space on Kymerley Rd	LIP2 / DfL	2013-2014
Station Road feasibility study	Review ped crossing, central islands and bus lane layout	LIP2 / DfL	2012-2013

2.27.10 In addition to the above, Appendix 2 of the Sub Regional Transport Plan also identifies, for discussion with the sub-regional panel, the proposal for a Harrow to Edgware express bus. The proposal would provide a new limited-stop bus service between harrow and Edgware along the route of the existing 186 bus service. The Council will continue to work with TfL and other partners to see if this proposal is feasible and can be implemented.

5.28 Highways

5.28.1 The Transport Audit (2010) modelled the existing practical or theoretical capacity of 21 key junctions within the Borough. The results showed that 12 of the 21 junctions currently have one or more of the junction arms exceeding the capacity in one or both of the peak periods. These junctions were:

- London Road/Brockley Hill, Stanmore
- Honeypot Lane/Streatfield Road/Taunton Way, Queensbury
- Northolt Road/Petts Hill, South Harrow
- Station Road/Hindes Road, Harrow
- Station Road/Greenhill Way, Harrow
- Headstone Drive/Harrow View, Wealdstone

- Uxbridge Road/High Road/Brookshill, Harrow Weald
- Uxbridge Road/Pinner Green/Elm Park Road, Pinner
- Pinner Road/George V Avenue/Headstone Lane, North Harrow
- Wemborough Road/Whitchurch Lane/Honeypot Lane, Stanmore
- Kenton Road/Kenton Lane, Stanmore
- Headstone Road/Greenhill Way, Harrow

5.28.2 It should be noted that the degree to which practical or theoretical capacity is modelled to be exceeded at the above junctions varies between them. The worst performing junctions (ie those with two or more junction arms exceeding the capacity at both am & pm periods) is Headstone Road/Greenhill Way & Kenton Road/Kenton Lane, followed by Honeypot Lane south turning, Alexandra Ave right turning, and Uxbridge Road/High Road west turning, which were all approaching the maximum threshold.

5.28.3 When the forecast impact of development is taken into account, a further three junctions join the above list as having one or more junction arms exceeding the recommended capacity threshold:

- Pinner Road/Station Road, North Harrow
- Bessborough Road/Lowlands Road, Harrow
- Kenton Road/Sheepcote Road/Watford Road, Harrow

5.28.4 The forecast also shows that the junctions identified in para 5.28.2 continue to get worse and other junctions join this list, with one or more junction arms indicating capacity surpassing the maximum threshold at one or both peak periods:

- London Road/Brockley Hill, Stanmore
- Pinner Road/Station Road, North Harrow
- Honeypot Lane/Streatfield Road/Taunton Way, Queensbury
- Kenton Road/Sheepcote Road/Watford Road, Harrow
- Headstone Drive/Harrow View, Wealdstone
- Uxbridge Road/High Road/Brookshill, Harrow Weald
- Wemborough Road/Whitchurch Lane/Honeypot Lane, Stanmore
- Kenton Road/Kenton Lane, Stanmore

5.28.5 Reduced capacity at the above junctions is deemed to result either from increased traffic as a result of new development (ie junctions in and around the 'central core' or gateways leading to it) or 'natural' projected traffic growth not necessarily related to new development. At these junctions, future traffic demand (people wishing to travel) is greater than supply (i.e. the available carrying capacity of the carriageway: including the width, number of lanes, physical design, signalling arrangements etc). The above junctions are therefore considered to be priorities to be addressed over the life of the Plan.

5.28.6 It is envisaged that junctions in or affecting the Intensification Area will be considered in the context of preparing the Harrow and Wealdstone Area Action Plan and will be subject to further more detailed modeling. The outcome of the additional modeling will be detailed proposals for hard or soft engineering works on these junctions, including a programme for delivery and funding. The Area Action Plan is also to include a proposal for an area-wide Travel Plan. This is in preference to each individual development being required to prepare and implement their own travel plan. There is seen to be significant benefit in considering Travel Planning on sub-area basis, enabling wider consideration of potential mitigation measures whilst keeping costs reasonable.

5.28.7 With regard to junctions outside of the Intensification Area, these will be subject to further modeling undertaken in the course of preparing and implementing the three year Harrow Local Implementation Plan (LIP). The current LIP includes the following specific schemes to help reduce congestion:

- Along the Church Road and Broadway corridor through Stanmore, linking of the four sets of traffic signals will be investigated. Linking these signals will ease congestion and may provide an opportunity to provide a pedestrian crossing phase at the junction of Stanmore Hill and The Broadway;
- Eastcote Lane/ Rayners Lane junction and outside Kenton library are two areas on the network where the road layout needs to be reviewed with the intention of reconfiguring in order to smooth traffic flow and reduce congestion. These have been identified by local councillors and residents, bus companies and the emergency services as areas of concern where improvements to the road layout will provide improved capacity. Works are likely to include road widening and relining the road carriageway and / or introducing mini roundabouts. It is unlikely that this work can be done during the lifetime of this LIP2.
- At the junction of Kymberley Rd/College Rd the removal of the traffic signals will be considered. This will be part of a scheme to increase capacity at Harrow bus station, create bus standing space on Kymberley Rd and review the operation of the junction and will be supported by Section 106 funds.
- Localised studies will continue to be done to consider freight delivery issues and to see if there are opportunities to park delivery vehicles off the main routes. Providing suitable parking for delivery vehicles, reduces the amount of time vehicles spend in traffic looking for parking places and therefore reduces congestion.
- Illegal, dangerous and obstructive parking can all cause congestion. CCTV monitoring at key junctions helps the borough know when congestion is a result of parking problems and this can then be addressed through improved civil enforcement measures.
- Warren Lane (BAE Site) Junction improvements to be undertaken by the developer, including access issues /lighting/footpath

5.29 Cycling

5.29.1 There are 41 km of cycle lane in the borough. These have been introduced to link key trip generators and places of interest such as stations, shopping areas, schools, open spaces etc (see Figure 1-6: Harrow cycle routes in the LIP2). Harrow's current rate of cycling activity equates to 0.03 trips per person per day, which equates to a mode share of 0.8 (the average for outer London is 1 and for London as a whole is 2). The Mayor's Transport Strategy (MTS) places significant emphasis on encouraging more cycling and walking across London as sustainable forms of transport. To achieve this, the MTS includes the following actions:

- The provision of 66,000 additional cycle parking spaces across London
- The promotion of borough cycling initiatives – infrastructure based
- The Better Streets Initiative – aimed at reducing clutter and making street environments safer for cycling and walking
- Improving accessibility and security around stations
- Continued expansion of the wayfinding project

5.29.2 The initiatives of the MTS are supported at the Borough level, with an objective of the current Harrow LIP being to increase the number of people cycling in the borough in

order to improve public health, improve air quality, reduce congestion, and to reduce the impact of climate change. The LIP includes a target of 1.5% mode share for cycling by 2013/14, noting that the MTS target is 5% mode share for cycling by 2026. To achieve Harrow's target the LIP includes the following actions:

- As part of the Green Grid, make improvements to the Belmont Trail, with the intention that the whole route be cycle friendly
- Funding 50 additional cycle parking at schools per year
- Deliver around 25 on-street cycle space per year
- Continue to introduce 20mph zones around schools, giving pupils and their parents the confidence to walk and cycle to their school
- Continue to monitor and promote the Barclays Cycle Hire scheme, especially to businesses as an effective and cost efficient solution for short journeys
- Provision of additional cycle parking facilities around the Rayners Lane station area
- Increased provision of cycle facilities and an improved walking environment for major improvements schemes proposed for Station Road in 2014 (The Station
- Various road project to improve cycling access to part of the town centre through improved route junction facilities and increased provision of cycle parking (see the Delivery plan for details)
- To lead on a major scheme identified by Sustrans, this will run from Stanmore, through to Brent, and then Ealing all the way to the Thames. Design work to start in 2012/13 and implementation in 2013/14. The work planned is likely to take several years to complete
- Address the identified areas of deficiency regarding access to parks and open spaces through improved cycling and walking infrastructure as shown in Harrow PPG17 study (2010), including changing bylaws if necessary to allow cycle use of parks

5.29.3 Growth and development within the new Intensification Area will require improved transport connectivity. As included in Harrow's Core strategy, within the Station Road corridor there is potential to improve transport connectivity through re-engineering of the carriageway, supported by enhancements to the urban realm and streetscape to create a more attractive 'gateway' to and between Harrow's main town centres. The provision of cycle lanes or improved cycling environment, including cycle parking facilities, will be considered as part of the design of improvements to the Station Road corridor as promoted through the Area Action Plan.

2.29.4 In terms of other barrier to cycling in the borough, the LIP highlights concerns that there is no suitable safe secure and weatherproof cycle parking at either Harrow and Wealdstone station or at Harrow on the Hill station. An audit of cycle parking provision showed that there were 32 stands providing 63 cycle parking spaces at Harrow-on-the-Hill station, and 33 stands providing 66 spaces at Harrow & Wealdstone station. Usage of these facilities was observed to be 59% and 44% respectively at the time of the survey, and that the quality of the stands was variable. At both these stations, the borough has provided some on street parking, but the land owned by TfL and by Railtrack is far more appropriate for safe and convenient cycle parking. Failure to provide these improvements is suggested to limit the attractiveness of some local cycle trips.

5.29.5 While there are improvements to infrastructure in the public domain that can help promote greater use of cycling as a means of transport, some key infrastructure requirements need to be provided as part of new development. These include convenient, safe a secure bike parking and storage areas both within residential and commercial development and provision of showers and changing facilities for cyclists

within commercial, especially office, development. The Area Action Plan and the Development Management Policies DPD will include policies aimed at encouraging provision of facilities for cyclists.

5.30 Water & waste water

5.30.1 Thames Water provides sewer infrastructure for the Borough. A five year plan for investment by Thames Water⁶⁰ is proved on the company's website:

<http://www.thameswater.co.uk/cps/rde/xchg/corp/hs.xsl/13480.htm#>

5.30.2 The projects identified on the website as of significance to Harrow are the expansion of the company's sewer network and treatment capacity to support the development of 200,000 new homes over the period 2010-2015; improvement of the Mogden sewage works to maintain treatment standards and reduce the quantity of untreated storm discharges into the Thames; and improvements to reduce the risk of sewer flooding to 12 properties in the Borough that have previously flooded.

5.30.3 In discussions with Thames Water they have confirmed that there is no shortfall in existing capacity to meet the current needs of the Borough. With regard to future service requirements, Thames Water has identified inadequacies in the existing waste water infrastructure stemming from a planning application at 51 College Road Harrow (2008). Thames Water commissioned a report which indicated limited spare capacity and recommended a new (additional) tank sewer somewhere in the borough. The Council is still seeking clarification on the levels of additional capacity required, and whether these can be adequately addressed on an individual site basis or whether a sub-area or borough-wide approach may be more effective.

5.30.4 With regard to flood risk from surface water sewer flooding, the locations in the Borough and neighbouring areas which are susceptible to surface water sewer flooding⁶¹ are mapped and appended as part of the Level 1 SFRA, available on the Council's website. The Level 1 SFRA reports that Thames Water was investing £300 million between 2005 and 2010 to combat sewer flooding at 10,000 properties in the Thames region, but notes that only 3 properties are located in Harrow.

5.30.5 In terms of infrastructure schemes, the following are proposed for the Borough (all sewer flood alleviation schemes):-

- Stanway Gardens, Edgware - upsizing of the existing sewers is proposed
- Pinner Road, Harrow - propose the construction of an underground on line storage tank that will hold excess flows and release them back to the system by gravity when normal conditions return. They would also include for the separation of surface water from the foul system.
- Kings Road / Malvern Avenue - upsizing of the existing sewers is proposed
- Stanway Gardens Edgware - details of this solution have not yet been developed so it is not possible to outline the scope of the scheme.

5.30.6 There is a need to review the new business plan (2010-2015) to see if projects have secured funding and the timeframes for installation and the update the Delivery Plan as necessary.

⁶⁰ Which Thames Water advise should be used by local planning authorities for infrastructure planning purposes in their advisory document: *A Water Services Infrastructure Guide for Local Planning Authorities* (2010).

⁶¹ Based on Thames Water data.

- 5.30.7 With regards to potable water supply, Veolia Water maintains Harrow network. The Three Valleys Draft Water Resources Management Plan (2008) indicates that water available for use will continue to exceed demand plus headroom up to 2030 taking into account projected population and household increases. Current standard of provision are all linked to available headroom in supply. Currently there are no identified shortfalls in existing provision and the projections are that there is adequate capacity in the network to meet future demand. The company plans its available water resources at a zone level, of which the company has three zones (Northern, Central and Southern) and Harrow is located in the Northern zone. These zones are set up to act in a 'water grid' similar to the concept in power supply. Within each of the three grids there are a number of available ground and surface water resources, and treatment works capable of preparing the water for potable supply. The grid in each zone therefore allows water in the zone to be moved via the strategic mains to anywhere in the zone. This allows them to move the water to wherever it is needed and as a consequence of this, the company can assume that every property within the zone in question has an equal low likelihood of interruption to supply in the event of a burst main for example.
- 5.30.8 A knock on effect of this way of planning their resources is that no single resource is considered to supply any one development. Instead, they use a supply and demand balance to check that they have in each zone an ability to supply a certain amount of water above the daily requested volume that is termed headroom. Only if available headroom falls below a certain level will new infrastructure reinforcement projects be considered necessary. At the current time the Northern zone is considered to have a headroom surplus and so no infrastructure projects are planned to increase resource availability in the Borough. In terms of actual supply infrastructure, a large number of mains renewals projects have been earmarked for the Borough of Harrow. These are mainly concentrated in the southern half of the borough to ensure the continued supply of high quality drinking water free of contaminants.
- 5.30.9 In terms of larger scale developments planned in the Borough, sites above e.g. 500 dwellings can incur additional infrastructure to be required. In these instances, it has been common for Water Cycle Studies to be conducted looking at the development requirements of the proposed development in the wider area when in the region of 1,500 – 10,000 dwellings). These will consider water, wastewater, surface drainage and potential for site flooding, by consulting a number of stakeholders, and so far have all been carried out on an ad hoc basis in conjunction with the appropriate LPA. In the event that smaller developments (e.g. 500 - 1500 dwellings) are proposed the company will work with the developers directly regarding not only the on site infrastructure but also whether any off site strategic strengthening is required.
- 5.30.10 With regard to funding, as a privatised utility, the cost of maintaining, renewing or making new provision is deemed to be recovered through charges levied on existing and new customers. Where necessary Veolia Water will negotiate direct with developers to secure appropriate funding. However, should major works be required, any capital that needs to be borrowed has to be agreed with OFWAT as part of their five yearly funding cycles. The current round covering projects agreed to be paid for in the period 2010 - 2015 has recently closed, so for new development areas the earliest likely point that Veolia will be able to gain funding is in the period from 2015 - 2020.

5.31 Flood protection and mitigation works

5.31.1 In 2009 a 'Level 1' Strategic Flood Risk Assessment (SFRA) was completed which mapped and identified fluvial flood risk in the Borough with a view to place development in areas of least flood risk following guidance in PPS25. In 2011 the 'Level 2' Strategic Flood Risk Assessment (SFRA) was completed and builds on the findings of the L1 to provide a sequential risk based approach to determine the suitability of land for development in flood risk areas. It also provides additional detail to identify where the exception test will be required.

5.31.2 With regard to fluvial flooding, tributary watercourses in Harrow form part of the catchments for the Rivers Colne, Crane and Brent which flow ultimately to the Thames. The Level 1 SFRA maps⁶² the risk of fluvial flooding associated with these tributary watercourses shows the extent and probability of flood risk. The probability of flood risk is expressed as:

- *Medium probability* (PPS 25 zone 2, comprising a range 1 in 100 to 1 in 1,000 year annual probability of river flooding)
- *High probability* (PPS 25 zone 3A, comprising an annual probability of river flooding at or greater than 1 in 100 years)
- *Functional Flood Plain* (PPS 25 zone 3B, comprising the functional flood plain with an annual probability of river flooding at or greater than 1 in 20 years)

5.31.3 The maps are appended as part of the Level 1 SFRA and are available on the Council's website. The additional detailed map for Wealdstone forms part of the Level 2 SFRA report and is also available on the Council's website. A 20% increase in fluvial flood rates has also been modelled, to take into account the potential impacts of climate change. These are also mapped and available as part of the Level 1 SFRA.

5.31.4 The Environment Agency's Thames Catchment Flood Management Plan (2009) includes the Brent and Colne catchments within its policy sub area 9 (London catchments). In this sub area proposed actions include a strategic approach to planning to meet community as well as flooding objectives, maintenance and improvement of flood defences, deculverting and daylighting of river corridors in urban areas.

5.31.5 The Council's drainage team currently asset manages 65 flood defences, dry and wet storage ponds, wetland areas and flood storage areas. In addition there is approximately 80 kms of culverted and open watercourses in the Borough that require condition surveys and vegetation management.

5.31.6 Many of the existing flood defences require Capital investment to upgrade and modernisation as the flood zone modelling information is updated. Recent enhancements to infrastructure in the Borough comprise:

- the formation of flood storage areas along the Edgware Brook (Brent catchment) at Seven Acre Lake, Summerhouse Lake and Prince Edward Playing Fields;
- the formation of a dry detention basin with controlled outflow along the Woodridings Stream (Pinn catchment) at Oxhey Lane Farm; and
- the formation of a diversion channel (deculverted) along the River Pinn at Hatch End playing fields.

⁶² Using existing data where available, including Environment Agency flood zone mapping. Additional broad-scale hydraulic modelling has been used for parts of the River Pinn (including Woodridings Stream), parts of the Yeading Brook, and parts of the Roxbourne, Greenhill Stream, Smarts Brook and Elmshott Stream.

- 5.31.7 As such there are 8 locations identified where substandard underground drainage is inadequate causing highway flooding. A Phase 1 project is planned and funded through the existing capital programme to map and condition survey the existing infrastructure to provide information for scoping out and possible detailed design of a new highway drain, which will need to be included in any update to the Delivery Plan.
- 5.31.8 In addition, the Drainage Section has an allocation of £220,000 to upgrade 13 of the 65 flood defences in the Borough that are now well below the current design standards providing insufficient protection highlighted in the latest flood risk modelling. Further capital bids will be required in subsequent years to, over time, upgrade all flood defences. A costed programme for such work is yet to be prepared but will again need to be included in any update to the Delivery Plan.
- 5.31.9 With respect to surface water flooding, locations within the Borough which are susceptible to surface water including highway flooding⁶³ are mapped and appended as part of the Level 1 SFRA, available on the Council's website. Further to this, a sub regional Surface Water Management Plan (SWMP) which is a requirement of the Flood Risk Regulations 2009 and Floods and Water Management Act 2010 will be published that includes Barnet and Brent and will fit into a pan London SWMP. As and when the SWMP is published, this section as well as the Delivery Plan will need to be updated to take account of any baseline analysis and recommendations for infrastructure work.
- 5.31.10 Local planning policies will continue to seek to achieve an overall reduction in flood risk and increased resilience to flood events. The retention of functional floodplain on greenfield sites and opportunities for the reinstatement of functional floodplain on previously-developed sites will also sought.
- 5.31.11 Recognising the particularly extensive area of high flood risk in Wealdstone, local planning policies will undertake to work with developers and other agencies to reduce flood risk in Wealdstone district centre and to apply the PPS25 sequential approach to site selection within the Harrow & Wealdstone Intensification Area as a whole.
- 5.31.12 Local planning policies will also require new development to be co-ordinated and phased in line with necessary physical and social infrastructure by demonstrating that adequate capacity exists both on and off site to serve the development. This may include funding or on-site provisions to be secured through site specific Planning Obligations. Implementation of planning policies will continue to be provided through the Council's Development Management service.

5.32 Electricity and Gas supply

- 5.32.1 EDF provides mains electricity and gas to the borough wide through a network of local lines and pipes (see map below). With regard to gas transmission the National Grid confirmed it has no gas transmission assets located within the Borough or any future proposals affecting Harrow.
- 5.32.2 In discussions with EDF, they confirmed that there were currently not issues with regard to infrastructure provision serving the Borough's existing requirements but that it was likely that some upgrading of facilities would be needed to meet the levels of growth expected. The Wealdstone's sub station identified as being in need of upgrading,

⁶³ Based on historical events.

Section 6.0 Delivery Plan

6.1 The Delivery Plan set out below is the start of an initial list of infrastructure requirements to be delivered over the next 10 years. It represents the beginnings of a long-term capital programme for Harrow in support of the LDF that will be the subject of agreement with service providers, landowners and the development industry. It is intended to be a working document, and should therefore not be considered to be complete or final. It will be the subject of regular updating and reporting, enabling delivered projects to be removed, new ones added, and programmed works updated to take account of new evidence or changes to delivery or funding. The effectiveness of the Delivery Plan is in capturing infrastructure requirements in one place and providing a focal point for internal and external considerations of coordinated programme delivery.

6.2 Purpose of the Delivery Plan

6.2.1 The purpose of the Delivery Plan is to ensure that the Council and its delivery partners in the public, private and voluntary sectors work together to deliver the benefits and opportunities afforded by new development and growth – including securing the improvements in social and physical infrastructure needed to build strong communities in Harrow and to create an economic environment that attracts further inward investment and provides residents with an equal opportunity to thrive in work, social and family life.

6.2.2 In addition to simply setting out a list of social and physical infrastructure required, it is intended that the Delivery Plan will also assist in informing Council's:

- Engagement with external agencies (e.g. LSP Partners, HCA, LDA, Mayor of London)
- Funding bids (e.g. one off grants)
- Capital programmes for different service areas
- Place Shaping and Property Review (the role and function of this – widened to include site assembly (CPO) and delivery through the disposal strategy)
- Allocation of land/sites for infrastructure in the Area Action Plan and/or the Site Specific Allocations DPD
- Policies for the Core Strategy and Development Management DPD
- S106 and the preparation of a Harrow Community Infrastructure Levy (CIL)
- Prioritization and coordination of infrastructure delivery

6.3 Priorities

6.3.1 Based on the findings of the infrastructure assessment, there are currently no significant infrastructure constraints or 'showstoppers' identified that would prevent the Borough from delivering its spatial strategy set out in the Core Strategy. However, there are quality of life and business environment improvements that are required to maintain the competitiveness of Harrow's town centres, retain

local employment and the attractiveness of residential areas, as well as to enhance Harrow's potential to attract inward investment. Such improvements include the upgrading of train station and Harrow bus station; key junction improvements and orbital transport connections; urban realm and heritage projects; the delivery of an integrated green grid; improving access to and the quality of open spaces and leisure facilities; the maintenance of education facilities; and the quality and sustainability of both the existing housing and business stock. A number of these requirements are still to be worked up into a costed programme for inclusion in the Delivery Plan.

6.3.2 The list of infrastructure requirements set out below should be viewed as a package of measures. There should be no expectation that all items will be delivered and there is no intention to assign priorities for delivery. The current squeeze on public finance, and the growing reliance on the private sector for economic growth and new homes, alongside new infrastructure, means that a balance will need to be struck between competing needs. Flexibility and coordination will therefore be key to maximizing delivery. Which items are delivered in which year will depend on the ability to secure adequate funding and to negotiate appropriate provision based on the phasing of individual or collective development sites. Where possible, opportunities to deliver additionality should be maximized – for example where a major infrastructure project is being implemented, consideration should be given to the delivery of other smaller, currently unfunded infrastructure projects in tandem, especially where these result in having to raise very little additional funding beyond that already secured.

6.4 Managing Delivery

6.4.1 In order to meet the demand for infrastructure provision the Council will continue to work with providers and developers to ensure that the demand is met in the right locations and at the right time. To achieve this, we will:

- continue with a partnership approach to infrastructure delivery and sharing that involves key stakeholders;
- appoint a dedicate infrastructure delivery project manager;
- establish appropriate management and reporting arrangement between the Council and its delivery partners;
- maintain and review the Infrastructure Delivery Schedule, updating as necessary the planned infrastructure, the organisations responsible for provision, costs, timings and funding;
- prepare and adopt a Community Infrastructure Levy for Harrow;
- ensure Section 106 Guidance is in place to secure appropriate planning obligations from developers to help address the gaps in local infrastructure provision;
- consider alternative funding arrangements, such as Tax Increment Funding, where this is appropriate and provides greater certainty; and
- take the lead on bids for grants and other funding (eg. Safer and Stronger Communities Funding, Heritage Lottery Fund (HLF) and Big Lottery Fund grant initiatives etc)

6.5 Infrastructure Delivery Schedule

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
Education						
Early Years	New nursery class at Roxbourne First School	Completed	LBH	LBH Capital	2011	Completed – made use of temporary class room
	Provision for additional early year places to accommodate projected increases in 0-4 age group	TBC by LBH Education	Early Years Development and Childcare Partnership	LBH Capital and premises Private sector operator	2011-2016	Need subject to additional monitoring and review.
Primary Schools	18 additional Reception ‘bulge’ classes provided since 2009 (5 in 2009, 5 in 2010 and 8 in 2011)	£50k per class = £0.9m	LBH Children’s Services	DfE /LBH Capital	2009-2011	Completed – used space made from change in age transfer
	1 x 3 FE Primary School, possibly with nursery class provision, to be located to serve growth within the central Primary Planning Area, which includes the Intensification Area	£8-10m	Free School or Academy Applicant CIL or direct developer contribution for land/ DfE	DfE academy and free school funding s106	2011-2016	Spec to be detailed through Phase 2 of the AAP
	4-6 Permanent additional forms of entry to be located in existing primary schools		LBH	DfE LBH Capital programme CIL / S106 Current 106 fund of £140K received with £260K outstanding	2011-2016	DfE has allocated an additional £3.2m for 2011/12 in basic need capital grant but no funding as yet confirmed for 2012/13 or beyond.
	4-6 Temporary additional Reception ‘bulge’ class forms of entry per year	TBC by LBH Education / Finance	LBH	DfE LBH Capital programme and ‘Additional Class Funding’ s106	Yearly to 2016	
	School Improvements Programme to provide for 10 permanent additional forms of entry		LBH	LBH / DfE capital		Design underway and planning

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	within existing schools: Vaughan School Marlborough First and Middle School Glebe Stanburn Pinner Park Inf Pinner Park Jnr Cedars Phase 1 Camrose Phase 1 Woodlands Phase1	£8.5m £10.5m £1.75m £2.15m £1.0m £1.85m £50K £200K £265K			2012-2015 2012-2015 2012-2013 2012-2013 2012-2013 2012-2013 2012-2013 2011/12 2012/13	permission being sought by July 2012
Secondary Schools including Post 16	Monitor and review requirements for additional spaces post 2016 to accommodate the increase in primary school aged children currently being experienced	£15m - £20m	Free School or Academy Applicant CIL or direct developer /LBH contribution for land/ DfE	DfE academy and free school funding s106	Post 2016	Teachers Centre site allocated for new secondary provision
Health Care						
GPs & Dentist	4 GP-led Surgery or Health Centre to serve the Stanmore & Harrow Weald sub area	£3.0m	GPs/NHS direct developer contribution for premises	NHS or GPs Current s106 fund of £35K received with £50K outstanding	2014	PCT, GPs or dentists to specify exact requirements
	4 GP-led Surgery or Health Centre, including dental services (approximately 1-2 additional dentists), serving Harrow town centre (Intensification Area)	£3.8m	GPs/NHS direct developer contribution for premises	NHS, GPs, s106 Current s106 fund of £40K received with £115K outstanding	2016	PP for Lyon Road development includes premises for delivery
	4 GP-led Surgery or Health Centre, including dental services, serving Kodak development and Wealdstone west sub area (Intensification Area)	£3.0m	GPs/NHS direct developer contribution for premises			PP fro Kodak include premises for devlivery
	Additional dental service capacity to meet the identified shortfall (in the region of 4 dentists) in the Kenton & Belmont sub area	TBC by the PCT	Dentist/ NHS direct developer contribution for premises	NHS	TBC	

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	Additional dental service capacity to meet the identified shortfall (in the region of 10 dentists) in the Kingsbury and Queensbury sub area	TBC by the PCT	Dentist/ NHS direct developer contribution for premises	NHS	TBC	
Social Care						
Supported Accommodation	Increase provision of extra-care (137 additional affordable rent units) and enhanced sheltered housing (116 additional affordable units) and to create new specialist provision for people with dementia (87 additional units)	TBC through revision to the Housing Strategy	LBH/NHS/Registered Social Landlords/ Housing Associations/ Developers	LBH Housing/ HCA/s106	2011-2021	To be achieved through a mixture of upgrading, and remodelling or redevelopment of 400 existing traditional sheltered housing units
	103 supported housing units to provide for learning disability accommodation	TBC through revision to the Housing Strategy	LBH/NHS/Registered Social Landlords/ Housing Associations/ Developers	LBH Housing /HCA	2011-2021	To be provided through a range of housing options from new & existing social housing to placements
	185 supported housing units to provide for mental health accommodation	TBC through revision to the Housing Strategy	LBH/NHS/Registered Social Landlords/ Housing Associations/ Developers	LBH Housing /HCA	2011-2021	To be provided through a range of housing options from new & existing social housing to placements
Culture & Community						
Libraries	Modernisation programme, including WiFi installation – specification to be included in the revised Harrow Cultural Strategy	£3m - £3.8m based on comparable contracts for modernisation in Hillingdon (Gleeds contract) and Hounslow (John Laing contract)	LBH/ joint partnership with IT provider or other commercial operators	LBH Community & Cultural Services	TBC	Subject to scoping of the project and ability of existing premises to facilitate modernisation
	Provision of a new central library, including reference, historical and archive facilities, to be located in Harrow town centre.	£2.5m – £3m based on comparables (New	LBH & direct developer contributions/ joint	DCMS/ LBH/CIL/S106	TBC	This would replace the existing central

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
		Orpington and Hanworth libraries) subject to final specifications	partnership including other commercial operators			library on the Civic Centre site and the Gayton Library
Community Halls, including Arts Space	Establish a programme of refurbishment, upgrading (e.g. addressing issues of accessible etc), and extension	No strategy or programme confirmed so costs remain TBC	LBH / Community groups and organisations	LBH Maintenance and Capital / s106 / Private Sector	TBC	The programme is to be established through the Open Spaces Strategy, subject to the availability of funding
	Support proposals for private schemes where these come forward from the community, are located in the right location and make provision for wider public use for provision	Developer cost LBH may put in land	LBH / Community groups and organisations / developers	Private / community grant bid / LBH land provision	On development	Recent applications for new community facilities suggests demand that may continue
Open Spaces						
Parks	New 2.34ha park on the former Government Offices site at Honeypot Lane, Stanmore	Development cost	Direct Developer (St Edward Homes Limited)	Developer via s106	2012-14 upon scheme completion	Already secured through s106
	Qualitative and accessibility improvements to the 21 parks listed at Table 24	TBC through the Open Spaces Strategy	LBH Public Realm	LBH existing parks budget / Capital bids / S106 (£52K in s106 received and £45K outstanding)	TBC through the Open Spaces Strategy	. An Open Spaces Strategy is being prepared that will specify the programme of works proposed to improve accessibility and to bring each park up to the recommended quality standard.
	New provision of parks open space to contribute towards reducing the existing and future identified shortfalls in parks provision in the Central, Southeast and Southwest sub areas (see Tables 22 & 23) applying the recommended standard of provision of 0.66 hectares per 1,000 population to new	Development cost	Direct developer contribution / LBH negotiated community access and use of private open space	On-site S106	On development	To be determined on a site by site basis for planning application proposals, otherwise through the Open Spaces

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	development					Strategy
Amenity Green Space	Provision of new amenity green spaces with a combined area of a minimum 2.56ha	Developer cost	Direct developer contribution	On-site s106	On development	To be secured on new development
	Qualitative and accessibility improvements to the 94 amenity green spaces listed at Table 27.	TBC through the Open Spaces Strategy	LBH Public Realm	LBH existing parks budget / Capital bids	TBC through the Open Spaces Strategy	An Open Spaces Strategy is being prepared that will specify the programme of works proposed to bring the identified amenity spaces up to the recommended quality standard.
Natural Green Space	Implement infrastructure requirements set out in the Belmont Trail (the Rattler) Management Plan, including the installation of bird and bat boxes, interpretative signage, and new paths.	£7,600	LBH Public Realm / Volunteers	LBH existing parks budget / Capital bids/s106	April 2011 – March 2016	Overall cost of implementing the Plan is £28k
	Implement infrastructure requirements set out in the Cedar Open Space Management Plan, including planting and the erection of new signage and dog bins	£1,825	LBH Public Realm	Capital or s106	April 2011 – March 2016	Overall cost of implementing the Plan is £16k
	Implement infrastructure requirements set out in the celandine Route Management Plan, including the design and erection of interpretative signage	£1,000	LBH Public Realm	Capital or s106	April 2011 – March 2016	Overall cost of implementing the Plan is £19k
	Implement infrastructure requirements set out in the Grim's Pitch at Pinner Green Management Plan, including planting, the installation of steps and railings, and the erection of signage and dog bins	£5,500	LBH Public Realm / Volunteers / Herts & Middlesex Wildlife Trust	Capital / s106 or one of grant bids	April 2010 – March 2015	Overall cost of implementing the Plan is £27k
	Implement infrastructure requirements set out in the Headstone Manor Recreation Ground Management Plan, including vegetation works around the moat, the creation of a spinney parkland and the erection of bat and bird boxes and interpretative signs	£17,640	Specialist contractor through LBH Public Realm / British Trust for Conservation Volunteers	LBH existing parks budget / Capital bids/s106	April 2011 – March 2016	Moat works at £15k require EH approval
	Implement infrastructure requirements set out in the Old Tennis Courts at West Harrow Recreation Ground Management Plan, including new fencing and gates, interpretative	£4,100	LBH Public Realm / British Trust for Conservation Volunteers	LBH existing parks budget /	April 2010 – March 2015	The only costs set out in the Plan are those associated with

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	signs and dog waste bins					capital infrastructure costs
	Implement infrastructure requirements set out in the Pinner Memorial Park Management Plan, including planting and the design and erection of new signage	£1,825	LBH Public Realm / British Trust for Conservation Volunteers	LBH existing parks budget / Capital bids/s106	April 2010 – March 2015	Overall cost of implementing the Plan is £16k
	Implement infrastructure requirements set out in the Seven-acre Lake and the Basin Management Plan.	Not available	Canons Park Estate Association	Canons Park Estate Association	April 2010 – March 2015	Privately owned site
	Implement infrastructure requirements set out in the Old Redding Complex Management Plan, including the creation of the Harrow Weald Nature Trail, acid grassland restoration project, the creation of glades, and improving footpaths (path dressing).	Not available	LBH Public Realm / Harrow Heritage Trust (and Harrow Nature Conservation Forum), Harrow Natural History Society, London Natural History Society, London Wildlife Trust, Herts and Middlesex Wildlife Trust, Butterfly Conservation	LBH existing parks budget / Capital bids/s106	July 2010 – March 2015	While the management plan includes a programme of works this has not been costed and funding sources determined.
	Implement infrastructure requirements set out in the Stanmore Marsh Management Plan, including reopening glade situated over gas wayleave,, Path widening and steps across central mound path, planting, new signage and dog waste bins	£5,050	Complete Ecology / LBH Public Realm	LBH existing parks budget / Capital bids/s106	April 2010 – March 2015	Overall cost of implementing the Plan is £37k
Harrow Green Grid						
Belmont Trail	<ul style="list-style-type: none"> ▪ Christchurch Avenue to Bentley Priory Open Space (complete pedestrian and cycle link) ▪ Links at north end of Belmont Trail to Greenbelt, Old Lodge Way and Stanmore Country Park (install Uxbridge Road and Gordon Avenue crossings, street enhancements and signage) ▪ Links at south end of Trail to Harrow town centre, Byron Recreation Ground and Kenton Park (establish routes through parks) 	<p>£0.4m</p> <p>£0.12m</p> <p>£60K</p>	LBH CE-Public Realm & Parks / Harrow Heritage Trust / British Trust for Conservation Volunteers / Greener Harrow / Mayor's London Green Grid (LDA) / TfL via LIP 2	LHB existing parks budget /LIP 2 funding of £1m LBH Capital £600K over three years to 2013/14 S106 / Lottery Heritage	2011/12 to 2016/17	£200k has been secured through the Capital programme for 2011/12. Key to delivery will be ensuring sufficient resources to manage delivery

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	<ul style="list-style-type: none"> and street links with signage) ▪ Kenton Recreation Ground (works to improve connectivity and ecological diversity) ▪ Stanmore Park (encourage management for biodiversity) ▪ Temple Pond (encourage works to improve biodiversity) ▪ Bernays Gardens (improve links between Stanmore Country Park and Stanmore Park) 	<p>£3.5m</p> <p>£7k</p> <p>£25k</p> <p>£0.75m</p>		<p>Funding bid</p> <p>There is current £70k remaining of s106 monies secured towards Green Belt projects and a further £215K</p>		<p>of the projects and sustain this over five years</p>
Western Rivers	<ul style="list-style-type: none"> ▪ River Crane: The Yeading, The Roxbourne and Roxbourne Return Arm (manage river corridor to improve biodiversity and increase use) ▪ Yeading Walk trail system: Roxbourne Park to Headstone Manor/Pinner (extension of Yeading Walk) ▪ River Crane: Yeading Brook & Roxbourne Park regeneration and restoration (restoration and regeneration of river and park to improve biodiversity and increase use) ▪ Smarts Brook Stream (improve water) ▪ Headstone Manor Recreation Ground (river and park restoration) ▪ River Pinn (Colne): Celandine Route links (Cross borough link of Celandine Route along River Pinn, Eastcote to Pinner) ▪ River Pinn: Pinner Park Farm corridor and Woodridings Brook (River Pinn adjacent to Parkview allotments and St Thomas' Drive impounding reservoir) ▪ Pinner Park Farm (manage hedgerows for biodiversity and archaeology) ▪ Harrow Arts Centre, Hatch End (maintenance/upgrade) ▪ Montesoles Playing Fields and Grim's Ditch (implementation of environmental improvements identified in the existing Grim's Ditch at Pinner Green management plan) 	<p>£2m</p> <p>£0.25m</p> <p>£1m</p> <p>£0.25m</p> <p>£1.2m</p> <p>£1.4m</p> <p>£50k</p> <p>£15k</p> <p>Completed</p> <p>£100K</p> <p>£50k</p>				

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	<ul style="list-style-type: none"> ▪ Harrow and West Harrow Recreation Grounds (Feasibility Study) ▪ Harrow Recreation Ground, Play Area (Play facilities for ages 12+) ▪ Roxborough Bridge (Improvements for access and safety of pedestrians and cyclists, landscaping, signage) ▪ St George's Field (Potential Village Green) ▪ Woodlands Open Space and Green Lane 2000 (Safe route to St John Fisher School and links to allotments and North Harrow town centre) ▪ Kodak (strategic route to provide connecting through private land) 	<p>£50k</p> <p>£150k £450k</p> <p>£100k</p>				
River Brent	<ul style="list-style-type: none"> ▪ Edgware Brooks Paths (Brent Catchment Partnership to improve river and riverside) ▪ Edgware Brook: link to Belmont Trail (links to Trail) ▪ Stanmore Marsh (implementation of environmental improvements identified in the Stanmore Marsh management plan) ▪ Canons Park & Lakes (management plans and investigate funding for works required) ▪ Dalkeith Open Space (Incorporate Edgware Brook into open space) ▪ Queensbury Recreation Ground (public realm improvements including removal of chainlink fence separating Kenton Brook from the recreation ground) ▪ Chandos Recreation Ground, Play Area (Off site play area) 	<p>£0.1m</p> <p>£50k</p> <p>£25k</p> <p>£TBC</p> <p>£50k</p> <p>£1.2m</p> <p>£125k</p>				
Green Belt	<ul style="list-style-type: none"> ▪ Pynding Mersc Biodiversity (creation of dam, wetland area, boardwalk and dipping platform) ▪ Stanmore Country Park (Improvements to existing water attenuation site) ▪ Caesars Pond (various landscaping and biodiversity improvements) ▪ Old Redding Complex: Includes Harrow Weald Common, The City and Grimsdyke Open Space (environmental improvements) 	<p>Completed</p> <p>£40k</p> <p>£10k</p> <p>£25k</p> <p>£10k pa</p>				

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	<ul style="list-style-type: none"> ▪ Land at Bentley Priory: The Common, Stanmore (provision of an ecology centre) ▪ Oxhey Lane (flood attenuation) & ▪ Pinner Hill Golf Course (environmental improvements) ▪ Grim's Dyke Open Space (improvement plan for the historic open space and gardens) ▪ Watling Farm Woodland (improve rights of way footpath network links, interpretation and signage) ▪ London Loop (improvements to London Outer Orbital Path) 	<p>£100k</p> <p>£TBC</p> <p>£15k</p> <p>£50k</p>				
Street Trees	<ul style="list-style-type: none"> ▪ Pinner View (linking Headstone Manor – West Harrow Recreation Ground) ▪ The Vaughan Centre, Wilson Gardens ▪ Northwick Walk – Sheepcote Road – Station Road – Railway Approach – George Gange Way ▪ Elmgrove Road and Hindes Road – Kenton Recreation Ground – Harrow Recreation Ground ▪ Gayton Road – Northwick Park Road – Bonnersfield Lane (linking Kenton Recreation Ground – Harrow Town Centre) ▪ Kenton Road (linking to Northwick Walk – Queensbury Recreation Ground, to coordinate with LB Brent on tree species) ▪ Clifton Road (linking Kenton Recreation Ground - Queensbury Recreation Ground) ▪ Honeypot Lane (linking Queensbury Recreation Ground – Stanmore Marsh – Canons Park) ▪ Masefield Avenue – Chartley Avenue – Gordon Avenue (connecting Bentley Priory Open Space to Stanmore Golf Course) ▪ Gordon Avenue – The Highway – Kenton Lane – Locket Road – Borrowdale – Belmont Road (connecting Stanmore Golf Course link to Byron Recreation Ground) ▪ Carlton Avenue (completed) 	£0.5m - £1m for street tree planting based on 1 tree per 5 m at £300 per tree	LBH Public Realm	LBH Capital / LIP funding /Mayor's Tree Fund	2011/12 to 2016/17	It may also be appropriate to seek s106 funding where the proposed development results in a net loss of trees on the site or as part of the contribution to enhancing access to local open space or as mitigation to air quality as part of a transport plan

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	<ul style="list-style-type: none"> ▪ Pinner Road (completed) ▪ Northumberland Road – Staion Road – Parkside Way (connecting Yeading Walk to Headstone Manor Recreation Ground) ▪ Church Avenue / Yeading Walk (connecting Yeading Walk to North Harrow Station) ▪ Cannon Lane [part] – Village Way [part] (connecting Roxbourne Park Recreation Ground / Roxbourne Rough to Yeading Walk) ▪ High Worpel (completed) ▪ Alexandra Avenue / Imperial Drive (connecting Alexandra Park to Rayners Lane) ▪ Eastcote Lane (connecting Alexandra Park to Rayners Lane) ▪ Park Lane (connecting Alexandra Park to Eastcote Lane Cemetery) ▪ Roxeth Green Avenue – Shaftesbury Avenue – The Ridgeway (connecting Alexandra Park to West Harrow Recreation Ground and Yeading Walk) ▪ Headstone Lane (connecting Headstone Manor – Pinner Park Farm) ▪ Hillview Gardens – Emlcroft Crescent – George V Close – Wakehams Hill – Blackadders – Church Lane – High Street (connecting Headstone Manor Recreation Ground to Pinner Memorial Park) ▪ West End Lane (connecting Pinner Memorial Park to Celandine Route and linking to historic centre of Pinner) ▪ West End Lane [part] – Lyncroft avenue – Whittington Way (connecting Celandine Route – Pinner Village gardens – Yeading Walk. Signage) ▪ Long Elmes – College Avenue – College Hill Road - Vernon Drive – Wemborough Road – Whitchurch Lane (connecting Pinner Park farm and Stanmore Golf Course) ▪ Uxbridge Road – London Road – Edgware 					

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	<p>Road (link open spaces to the north and south side of major road)</p> <ul style="list-style-type: none"> ▪ St Thomas' Drive – George V Avenue – North Harrow Broadwalk [Pinner Road] (connecting the open space to the north of LB Harrow to Pinner Park) ▪ Canons Drive (completed) ▪ Bromefield (connect Stanmore Marsh with Centenary Park) ▪ Culver Grove – Streatfield Road – Honeypot Lane (connecting Centenary Park to Queensbury Park) ▪ Headstone Gardens – Headstone Drive – Wealdstone Town Centre – Peel Road – Byron Recreation Ground (connecting Headstone Manor Recreation Ground / Wealdstone Town Centre to Byron Recreation Ground.) ▪ Mollison Way (between Turner Road to east of The Highlands to Queensbury Station) 					
Biodiversity						
	Implementation of any outstanding actions set out in the Harrow BAP as they relate to infrastructure requirements outlined in paragraph 5.16.1 above	TBC through the Open Spaces Strategy	LBH Public Realm / Harrow Heritage Trust (and Harrow Nature Conservation Forum), Harrow Natural History Society, London Natural History Society, London Wildlife Trust, Herts and Middlesex Wildlife Trust	LBH existing parks budget / Capital bids/s106	TBC through the Open Spaces Strategy	Many of the projects outlined are already programmed to be delivered through the LIP 2, Green Grid and SINC Management Plans
Recreation and Leisure						
Children and Young Peoples Play Space	Increase the provision of play space to meet the existing deficit of 9.33 hectares through increased use of school playgrounds for out-of-school hours, open access play	If any (eg maintenance contribution, security, insurance liability etc) TBC through the Open Spaces Strategy	Extended schools / Children's Centres / PATs	LBH Capital	2015	Open Spaces Strategy to include specific proposals to secure use of existing school playgrounds,

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	Increase the provision of play space to meet the existing deficit of 9.33 hectares through improving the quality of existing play space, and seeking to provide	TBC through the Open Spaces Strategy	LBH Public Realm	LBH Capital Big Lottery Fund	TBC through the Open Spaces Strategy	improve quality of existing play space and proposals for a range of new play facilities across the borough in existing open spaces
	Increase the provision of play space to meet the existing deficit of 9.33 hectares through provision of new play facilities on existing open spaces, especially in areas of identified deficiency as identified on maps 4.6, 4.7, 4.8 and 4.9 of the published PPG 17 Study (2010).	TBC through the Open Spaces Strategy	LBH Public Realm / LBH Housing	LBH Capital Big Lottery Fund	TBC through the Open Spaces Strategy	
	Provision of new suitably located well-designed new play areas, with a combined area of a minimum 3.31ha, as an integral part of new development.	Developer cost	Direct developer contribution	Developer via s106	On development	In circumstances where on-site provision is inappropriate a financial contribution to off-site provision will be sought
Leisure Centre	Refurbishment and enhancement of new Harrow Leisure Centre facility	£9m (based on comparables (Victoria Leisure Centre (NCC) refurbishment)	LBH Leisure Services	Developer via CIL / LBH Capital/ LBH Service agreement	Upon redevelopment of Council's 4 property estates in AAP	
Sports Halls	Provision of additional sports halls to contribute towards meeting the projected shortfall of six standard-sized sports halls (22 badminton courts or 3,817m ² of sports hall floorspace) by 2026	£3m Developer cost but supplemented by Capital or s106 monies to provide for additionality alongside replacement and upgrading	Direct developer contribution	Developer via s106 / LBH Capital s106 secured to date for sports facilities of £1,325,000.00, with an outstanding balance of £427,385.97.	Upon redevelopment	Proposals for the redevelopment of the Harrow Leisure Centre and Zoom Leisure facilities offer the potential to seek increased sports hall provision.
Outdoor Sports Pitches	Increase in provision of playing pitches, especially within the central and southwestern sub areas where deficiency in provision is greatest.	TBC through the Open Spaces Strategy	LBH Public Realm /	Developer via s106 / LBH Capital	TBC through the Open Spaces Strategy – s106 subject	Candidate sites for additional pitch provision are St George's Playing Field,

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
					to	Churchfield Close and Brigade Close
	Significant improvement in existing football pitch quality, and a improvement in rugby pitch quality	TBC through the Open Spaces Strategy	LBH Public Realm	LBH Capital / S106	TBC through the Open Spaces Strategy – s106 subject to	Prioritise based on qualitative score in PPG17 Study
	Provision for additional MUGAs and Synthetic Sports Turf pitches bowls facilities across the borough	TBC through the Open Spaces Strategy	LBH Public Realm / direct developer provision	LBH Capital / S106	TBC through the Open Spaces Strategy – s106 subject to	
Burial and Cremation	Provision of new burial space, preferably within the Borough, providing for approximately 200 internments per annum for a 10 year period.	0.9ha @ £0.9m = £810K	Site allocations, direct developer contribution or/and s106/CIL	Developer cost or s106/LGH capital to purchase land	2016	Potential site identified as land adjacent to the Harrow College site providing an extension to Harrow Weald Cemetery subject to feasibility
Transport						
Junction Improvement	London Road/Marsh Lane, Stanmore London Road/Brockley Hill, Stanmore Pinner Road/Station Road, North Harrow Honeypot Lane/Streatfield Road/Taunton Way, Queensbury Northolt Road/Petts Hill, South Harrow Uxbridge Road/High Road/Brookshill, Harrow Weald Uxbridge Road/Pinner Green/Elm Park Road, Pinner Pinner Road/George V Avenue/Headstone Lane, North Harrow Wemborough Road/Whitchurch Lane/Honeypot Lane, Stanmore Kenton Road/Kenton Lane, Kenton	£4m including signal upgrades	Review of LIP	Harrow CIL LIP LBH Capital TfL NB; s106 of £2.5m secured with balance currently of £860k towards various highways improvements	Subject to funding time scales and the location and phasing of new development	Additional studies are required to understand the options available to address / deliver the required standard of function

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	Eastcote Lane/ Rayners Lane junction reconfiguration	£50K	LBH	LIP2	2012/13	Funded
Junction Improvement (central area)	Bessborough Road/Lowlands Road, Harrow	£5m including signal upgrades	Review of LIP	Harrow CIL LIP3 / TfL / LBH Capital	TBC through the AAP but likely linked to phasing and location of development	Further transport/junction modeling to be undertaken by TfL/ Alan Baxters as part of the preparations of the Area Action Plan Preferred Option
	Kenton Road/Sheepcote Road/Watford Road, Harrow					
	Station Road/Hindes Road, Harrow					
	Headstone Drive/Harrow View, Wealdstone					
	Headstone Road/Greenhill Way, Harrow					
Highway	Improved traffic control on London-wide and sub regional corridors (Traffic control systems such as SCOOT)	Costs included in TfL existing capital programme	TfL	TfL	2010-2020	Funded
	Promote emission-based parking charges (Boroughs and operators encouraged to vary charges by stay and vehicle emissions)					
	Car club support (Support expansion of car clubs)					
	Provision of infrastructure for low emission vehicles (Introduction of electric charging points by 2015; support distribution networks for alternative fuel)					
	Further highway enhancements/changes to local road networks (Further enhancements on merit related to major development)	£2.64m for the IA TBC outside the IA	TfL/ LBH/ direct developer	TfL/ LIP/ LBH s106	2010-2020	Subject to detailed proposals
	Streatfield Road/ Christchurch Avenue traffic calming/cycle improvements	£105K	LBH	LIP2	2011/12	
	Harrow town centre traffic calming	£50K	LBH	LIP2	2011/12	
	Warren Lane highway improvements	£10K	LBH	Developer	2011/12	
	Stanmore Hill/Uxbridge Road signal work/ congestion relief	£180K	LBH	LIP2	2011/12-2012/13	
	Honeypot Lane/ Whitchurch Avenue reduce KSIs	£103K	LBH	LIP2	2011/12	
	Shaftesbury Avenue/ Roxeth Hill/Sudbury Hill/Whitmore Road reduce KSIs	£70K	LBH	LIP2	2011/12	
	Address key motorcycle and child pedestrian accidents	£200K	LBH	LIP2	2012/13-2013/14	
	Kimberley Road/ College Road gyratory review	£250K	LBH	LIP2/Developer	2013/14	

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	layout					
	General congestion relief	£50K	LBH	LIP2	2013/14	
	Petts Hill payback	£666K	LBH	LIP2	2011/12-2012/13	
	Alexandra Avenue – west footway	£102K	LBH	LIP2	2011/12	
	London Road/Sudbury Hill	£122K	LBH	LIP2	2011/12	
	Uxbridge Road, Hatch End	£295K	LBH	LIP2	2011/12	
	Northolt Road, South Harrow	£53K	LBH	LIP2	2011/12	
	High Road, Harrow Weald	£52K	LBH	LIP2	2011/12	
	Additional road maintenance as necessary	£1m	LBH	LIP2	2012/13-2013/14	
	Bridge assessment and strengthening prioritised locations	£345K	LBH	Council Revenue/ TfL interim measures	2012/13-2013/14	
Rail and Underground	Harrow on the Hill Station modernisation, including step-free access	£25.5m	TfL	TfL/ Capital receipts from public land sales/ LBH Capital/ s106	TBC, subject to development phasing and TfL financing	Council and TfL to work together through the AAP to disaggregate the components and costs of the £25.5m ex-Metronet works programme
	Station enhancements to Harrow and Wealdstone Station	£500k	TfL	TfL/ LBH Capital/ s106	Tied to phasing of development in the Wealdstone sub area	The detailed programme of works is to be set out in the AAP
	Metropolitan line (Signal upgrade and new rolling stock to increase capacity and improve journey times)	TfL programme	TfL	TfL	2013-2020	Funded
	Jubilee line upgrade (Signal upgrade; +33% peak capacity and -22% journey time)	TfL programme	TfL	TfL	2010-2012	Funded
	Piccadilly line upgrade (Additional capacity and improved journey times)	TfL programme	TfL	TfL	2013-2020	Funded
	Bakerloo line (Signal upgrade and new rolling stock to increase capacity)	TfL programme	TfL	TfL	Post 2020	Funded
	London Overground (general) (Train	TBC	TfL	TfL	Post 2020	Currently

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	lengthening and improved service frequency)					unfunded
	London Overground (Watford Junction – London Euston line) (Diversion from London Euston to Stratford)	TBC	TfL	TfL	Post 2020	Currently unfunded
	Chiltern line enhancements (Enhanced inner suburban service)	TfL programme	TfL	TfL	2010-2012	Funded
Cycling and Walking	Additional cycle parking (66,000 spaces across London)	TfL programme	TfL	TfL	2010-2012	Funded
	Borough cycling initiatives – infrastructure based (Implementation of necessary measures on merit)	£3m	TfL LBH Urban Realm, direct provision by developers	TfL, CIL S106, LBH Capital / external bids	2010-2020	Funded
	Borough cycling initiatives – non infrastructure based (Implementation of necessary measures)	TfL programme	TfL	TfL	2010-2020	Funded
	Better streets initiative (Public realm and pedestrian environment improvements)	TfL programme	TfL	TfL	2010-2012	Funded
	Access to stations and surrounding (Accessibility and security enhancements to stations and bus stops)	TfL programme	TfL	TfL	2010-2020	Funded
	Walking campaign (2011 year of walking events)	TfL programme	TfL	TfL	2010-2012	Funded
	Urban realm improvements (Urban realm improvements in town centres)	£4.5m subject to further design studies	TfL, LBH Urban Realm, direct provision by developers	TfL, S106 / CIL LBH Capital / external bids	2013-2020	s106 of £512k with balance of 232k remaining towards public realm enhancements + £2m from Mayor's outer London Fund
	Urban realm improvements (Improvements to key walking routes with high demand e.g. between stations and town centres)	TfL programme	TfL, Harrow Green Grid, LBH Urban Realm	TfL Funded S106	2010-2020	Compliments Harrow's programme of street tree planting as part of the Green Grid
	Increased tree and vegetation coverage (Additional 10,000 trees by 2012 [funded] Target of two million trees by 2025)					
	Marsh Lane cycling improvements	£50K	LBH	LIP2	2011/12	
Long Elmes/College Avenue/The Avenue	£50K	LBH	LIP2	2011/12		

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	cycling improvements					
	Common Road/ Brookshill cycling improvements	£50K	LBH	LIP2	2011/12	
	Clamp Hill/Uxbridge Road cycling corridor	£256K	LBH	LIP2	2012/13-2013/14	
	Study Pinner area cycle facilities and loading bays	£25K	LBH	LIP2	2011/12	
	Walking studies	£15K	LBH	LIP2	2011/12	
	Station Road feasibility study	£50K	LBH	LIP2	2013/14	
	Belmont trail improvements	£93K	LBH	LIP2	2012/13-2013/14	
	Introduce 20mph zones around six schools (Cannons, Priestmead, Belmont, Weald, Roxborough & Elmgrove)	300k	LBH	LIP2	2011 - 2013	
	Mollison Way	£1m	LBH	LIP2	2011/12	
LIP 2 Major Projects	Rayners Lane	£175K	LBH	LIP2/Developer	2011/12	
	Northumberland Road	£1m	LBH	LIP2	2012/13-2013/14	
	Intensification Area - Station Road	£1m	LBH	LIP2/Developer	2012/13-2013/14	
	SUSTRANS greenway route (Stanmore-Brent-Ealing)	£1.2m	LBH	LIP2	2012/13-2013/14	
	Bus network development (Regular review of bus network to maintain attractiveness, adequate capacity, reliability, coverage and interchanges)	TfL programme	TfL	TfL	2010-2020	Funded
Bus	Bus network development (Re-pattern bus services to take account of new infrastructure/changes in demand)	TfL programme	TfL	TfL	2013-2020	Funded
	Low emission buses (All new buses to be low emission by 2012)	TfL programme	TfL	TfL	2010-2020	Funded
	Enhance real-time bus (Realtime information displays at stops)	TfL programme	TfL	TfL	2010-2012	Funded
	Bus priority (Implementation of bus priority schemes on merit)	TfL programme	TfL	TfL	2010-2020	Funded
	Provision of suitable infrastructure to support opportunity areas/new development (Implementation of necessary measures on	TfL programme	TfL	TfL	2010-2020	Funded

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	merit)					
	Upgrade or provide anew Harrow bus station	£2.5m	TfL	TfL/s106/ LBH	TBC based on outcome of requirements	Subject to further detailed work with TfL and Bus Operators
	Stanmore Hill bus stop accessibility	£25K	LBH	LIP2	2011/12	
	Edgware Road bus stop accessibility	£30K	LBH	LIP2	2011/12	
	Elm Park Road/Cannon Lane/Rayners Lane corridor bus stop accessibility	£30K	LBH	LIP2	2011/12	
	Bus stop accessibility improvements general	£100K	LBH	LIP2	2012/13-2013/14	
	Pinner Road bus priority	£60K	LBH	LIP2	2011/12	
	Rayners Lane bus priority	£40K	LBH	LIP2	2011/12	
	Bus route inspection/ implementation	£250K	LBH	LIP2	2012/13-2013/14	
	Electronic bus lane signs	£10K	LBH	LIP2	2011/12	
	South Harrow/Eastcote Lane bus priority	£80K	LBH	LIP2	2012/13-2013/14	
	Stanmore Common Road/high Road bus priority	£150K	LBH	LIP2	2012/13-2013/14	
	Stanmore London Road/Brockley Hill bus priority	£10K	LBH	LIP2	2013/14	
	Single travel plan for the IA (Smart Travel +) that enables everyone (residents, visitors, commuting and businesses) to make an informed choice about transport options in the IA	£2.15m	LBH/developers	S106	Phased to development	Includes car clubs, pool cars,
Other measures	Wayfinding signage	£200k	TfL	TfL/CIL	2015	Part of the London-wide wayfinding programme
	Increased use of travel plans (Increased use and power of travel plans for workplaces, schools and individuals)	Included in TfL programme	TfL	TfL	2010-2020	Funded
	Tackling anti-social behaviour (Programme of initiatives to tackle anti-social behaviour)	£300K	LBH	LIP2	2011/12-2013/14	
	Enhanced CCTV capability and help points (Introduction of two way audio/visual help points and CCTV)					
	National rail step-free access programme					

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
	(Increase number of step-free access stations on London to 1060 by 2015)					
	Continuing roll-out of station step free access (Continuing roll-out of station step free access on Underground)					
	Tube platform level access (Platform humps rolled out across the tube system as new rolling stock introduced)					
	Tube station upgrade programme (Miscellaneous improvements)					
	Bus stop accessibility (Improvements to accessibility at bus stops)					
	Accessible crossing and urban realm improvements (Improve physical accessibility particularly in town centres and routes between stations and bus stops)					
	Local transport fund – projects to be agreed by Transport Portfolio Holder					
	Wood Lane parking controls	£15K	LBH	Developer	2011/12	
	Locket Road parking review	£7K	LBH	LIP2	2011/12-2012/13	
	Disabled parking and dropped kerb programme	£165K	LBH	LIP2	2011/12-2013/14	
	Cannon Lane schools 20mph zone	£50K	LBH	LIP2	2011/12	
	Priestmead schools 20mph zone	£60K	LBH	LIP2	2011/12	
	Roxbourne Schools 20mph zone	£40K	LBH	LIP2	2012/13	
	Elmgrove Schools 20mph zone	£50K	LBH	LIP2	2012/13	
	Weald Schools 20mph zone	£50K	LBH	LIP2	2012/13	
	Belmont Schools 20mph zone	£50K	LBH	LIP2	2013/14	
	Additional linear greenways projects	£60K	LBH	LIP2	2013/14	
	Shopmobility	£15K	LBH	LIP2	2011/12-2013/14	
	Legible London signing for Harrow & Wealdstone	£100K	LBH	LIP2	2013/14	
	Electric charging points & air quality education	£40K	LBH	LIP2	2011/12	
	Future programme development	£140K	LBH	LIP2	2011/12-2013/14	
	Burnt Oak CPZ review	£70K	LBH	Harrow Capital/ Developer	2011/12	
	Canons Park CPZ review	£140K	LBH	Harrow Capital/	2011/12-	

Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
				Developer	2012/13	
	Pinner CPZ review and extension	£100K	LBH	Harrow Capital	2011/12-2012/13	
	Harrow CPZ review and potential expansion	£70K	LBH	Harrow Capital	2011/12-2012/13	
	Harrow Weald potential new CPZ	£70K	LBH	Harrow Capital	2011/12-2012/13	
	Kenton CPZ review	£80K	LBH	Harrow Capital	2012/13-2013/14	
	North Harrow CPZ	£120K	LBH	Harrow Capital/ Developer	2013/14	
	Inaccessible streets – improvements	£60K	LBH	Harrow Capital	2011/12-2013/14	
	Freight issues – signing for London lorry ban	£160K	LBH	LIP2	2012/13-2013/14	
	Rights of way legal issues and mapping	£70K	LBH	Harrow Capital/ Developer	2012/13-2013/14	
	School support – review travel plans, education, events	£215K	LBH	LIP2	2012/13-2013/14	
	Promoting sustainability	£135K	LBH	LIP2	2012/13-2013/14	
	Road safety education	£105K	LBH	LIP2	2012/13-2013/14	
	Cycle training for adults and children	£293K	LBH	LIP2	2012/13-2013/14	
	School travel plan advisor post	£66K	LBH	LIP2	2012/13-2013/14	
	Pedestrian/cycling safety promotions	£30K	LBH	LIP2	2012/13-2013/14	
	Travel training for people with learning difficulties	£11K	LBH	LIP2	2012/13-2013/14	
	Travel training for people with learning difficulties	£11K	LBH	LIP2	2012/13-2013/14	
Flood Mitigation						
Flood defences	Flood mitigation works affecting Wealdstone	£1m - £1.25m for deculverting of Kenton Rec but	LBH Drainage/ direct developer	LBH Capital / s106 (£65k secured to date)	TBC	Further work to be undertaken as part of the

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Infrastructure Facility	Project and Requirements	Estimated Cost	Delivery Mechanisms	Funding Source	Time scale	Comments
		subject to further study and final design solutions		with £44k outstanding for drainage infrastructure)		preparation of the Area Action Plan
Drainage	Flood mitigation works affecting Wealdstone	£1m - £1.25m for deculverting of Kenton Rec but subject to further study and final design solutions	LBH Drainage/ direct developer	LBH Capital / s106 (£65k secured to date with £44k outstanding for drainage infrastructure)	TBC	Further work to be undertaken as part of the preparation of the Area Action Plan
Energy						
CHP network						

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