HARINGEY COUNCIL PLANNING REGENERATION & ECONOMY

Draft Basement Development Guidance Note

June 2012
Development Management

DEVELOPMENT MANAGEMENT
DRAFT BASEMENT DEVELOPMENT GUIDANCE NOTE

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Executive Summary

This guidance applies to all developments in Haringey that propose a new basement development or an extension to existing basement accommodation where planning permission is required. Permitted development rights mean that some basements will not require planning permission.

The development of basements particularly in residential areas has become a popular way of gaining additional space in homes. The Council has seen an increase in the number of applications received for basement development in recent years; however this is lower than the numbers received by inner London boroughs. Since the start of 2006 to date approximately 55 basements developments have been granted planning permission.

The nature of these applications varies greatly from basements as part of new demolition/ rebuild projects to smaller basement development which can have an impact on the environment and nearby structures. These impacts are of concern to the Borough and local residents. While small isolated basements may have little impact except where they are not properly constructed as has been the case in some instances, the cumulative effect of incremental development of basement in close proximity can create a significant impact in relation particularly to ground water flow and land stability.

The Council will only permit basements and other underground development where you can demonstrate it will not cause harm to the built and natural environment and local amenity, including to the local water environment, ground conditions and biodiversity. Addressing these issues may require the submission of a variety of information to provide the Council with a basis for determining applications. The level of information required is commensurate with the scale, location and complexity of the scheme. The information required would normally need to cover the following:

1. Surface flooding
2. Ground water flow
3. Land stability
4. Environmental affects and residential amenity

This interim draft guidance note is intended to set out a framework for the Council, applicants and residents in which basement development in Haringey can be assessed and decisions made as to whether or not to grant planning permission for such development.

1. **INTRODUCTION**

1.1 To help applicants and others interpret the various policies and regulations that apply, this guidance note draws together the relevant national and local authority requirements and expectations for sustainable development and good practice.

1.2 The guidance applies to all properties within the Borough that propose a new basement development, or an extension to existing basement accommodation where planning permission is required. Although aimed primarily at residential properties, the guidance is also relevant to other forms of basement development for commercial, retail and leisure uses, servicing and storage.

1.3 The guidance gives detailed advice on how the Council's planning policies will be applied when we make decisions on planning applications that involve new basement development, or extensions to existing basement accommodation. It sets out the information required with applications: the term basement means all works that are subterranean, or constructed under the natural ground level.

1.4 The note also outlines the other relevant statutory requirements related to basement development including building control and licensing requirements, party wall agreements, and provides contact details for the different Council services involved from pre-planning to the post construction of a basement.

1.5 While some basement extensions do not require planning permission, basement light wells are classed as an engineering operation rather than an enlargement of a dwelling house, and will therefore require planning permission.

1.6 This guidance refers to the physical aspects of basement development, and does not attempt to consider the separate questions of land use such as the acceptability of new self-contained residential units within a new basement development or an extension to basement accommodation which are dealt with in other existing guidance which is supplementary guidance note SPG3a Density, Dwelling Mix, Floorspace Minima, Conversions, Extensions and Lifetime Homes (Adopted 2006).

1.7 Generally basements should sit below the footprint of a house and should not excessively project into the front and rear garden.

2. NATIONAL PLANNING POLICY

2.1 There is no specific policy within national planning policy in respect of basement development other than national planning policy on flood risk. Paragraph 10 Meeting the Challenge of Climate Change, Flooding and Coastal Change of the National Planning Policy Framework March 2012 sets out the Government's spatial planning policy on development and flood risk. The guidance seeks to protect development from flooding, as well as preventing flooding.

2.2 The National Planning Policy Framework outlines the responsibility of Local Planning Authorities to prepare and implement planning strategies which help to deliver sustainable development by ensuring that flood risk is understood and managed effectively as an integral part of planning process. This is primarily achieved through preparation of Strategic Flood Risk Assessments (SRFAs) or Regional Flood Risk Appraisals (RFRAs) as appropriate. SFRAs must be prepared by Local Planning Authorities in consultation with the Environment Agency, emergency response teams and the local drainage authority.

2.3 The SFRA should build upon existing flood maps by taking into account other sources of flooding in order that it can provide a basis from which to apply the Sequential Test and Exception Test in development allocation.

2.4 To determine the suitability of land for development in areas at risk of flooding, a sequential risk based approach should be applied at the outset of the planning process. The aim of the Sequential Test is to guide new developments to areas with the lowest probability of flooding. Flood zones are the basis of the sequential approach. Zones 2 and 3 are shown on Environment Agency Indicative Floodplain Maps with Flood Zone 1 being all land falling outside Zones 2 and 3.

2.5 In areas at risk of sea or river flooding, preference should be given to locating development in Flood Zone 1. If there is no reasonably available site in Flood Zone 1, the flood vulnerability of the proposed development should be taken into account in locating the development in Flood Zone 2 and then Flood Zone 3.

2.6 The North London Boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest are in the process of compiling their Local Development Framework (LDF) to guide future development needs of the Boroughs. The seven Boroughs have a history of co-operating on waste matters, having combined to prepare a Joint waste Development Plan Document (JWDPD) also known as the North London Waste Plan (NLWP). Due to an already active collaboration means for the Strategic Flood Risk Assessment (SFRA) to be procured. Mouchel was commissioned in July 2007 to undertake a SFRA in order to ensure that flood risk is considered as part of the spatial planning process.

2.7 In order to ensure a robust approach to flood risk appraisal, management and reduction, the findings of the SFRA need to be incorporated into each of the Boroughs' Development Framework Documents and support documents. This will ensure a holistic and robust approach to flood risk management, ensuring that the matter is taken into account at all stages of the planning process. The findings of the SFRA demonstrate the level of flood risk within the boroughs. Key issues identified by the SFRA will be a priority for future spatial planning in the seven North London.

2.8 Future policy should seek to address how defences will be maintained and address how development can be accommodated. These issues are considered in greater detail in subsequent policy recommendations.

The Boroughs should endeavour to ensure that the findings of the SFRA feed into policy preparation and is incorporated within planning policy.

2.9 As part of the review, new evidence is being gathered through the Level 2 Strategic Flood Risk Assessment study to inform the policy development and ensure that flood risk is addressed appropriately throughout the borough. The study is to include the identification of the potential impact of subterranean development on local drainage patterns, flooding, land instability and neighbouring properties, including implications for any works that do not require planning permission. The assessment will also identify any necessary mitigation measures that should be considered. The inclusion of this area of work in the study is to reflect the significant rise in applications for basement development, which have been received by the Council in recent months.

2.10 The North London Strategic Flood Risk Assessment August 2008 provides useful background information in relation to applications for planning permission for basement development see appendix 8

3. LOCAL PLANNING POLICY

3.1 Current Policy
Current planning policy is contained within the saved policies (2009) of the Haringey Unitary Development Plan Adopted in July 2006. The most directly relevant policy in relation to basements is:

3.2 Env1: Flood Protection: Protection of the Floodplain and Urban Washlands*
(*see definition in appendix 7)

3.3 Planning permission will not be granted for development proposals in areas of flood risk identified on Map 3.1 (Appendix 4). that fail to demonstrate that flood flows are not impeded and that flood storage capacity is not reduced. New development or redevelopment of existing urban areas should not result in an increased flood risk, including in areas downstream due to additional surface water runoff.

3.4 In terms of risks to flood flows and flood storage capacity, the Council will:

a) require a flood risk assessment (FRA) to be submitted for development proposals that are within Flood Zone 3, shown on Map 3.1; within urban washlands; and outside Flood Zone 3, on sites of at least 1 hectare;
b) expect applicants for proposed developments in Zones 2 and 3, shown on Map 3.1, to adopt a risk based/sequential approach, i.e. to demonstrate that there are no reasonable options available in a lower risk location; and
c) consider any built development within the functional floodplain in Flood Zone 3 to be wholly exceptional.

3.5 On sites of 1 - 5 hectares, the FRA is to relate to fluvial flood risk and surface water run-off.

3.6 The Council requires, where appropriate, proposals for flood protection and attenuation to take into account their ecological impact and, where possible, to make use of natural materials that contribute to wildlife habitat and amenity.

3.7 The Council will adopt the precautionary principle to the issue of flood risk, by taking decisions on planning applications so as to avoid possible environmental damage when the scientific evidence for acting is inconclusive but the potential damage could be great.

3.8 Over the lifetime of the UDP, global warming is likely to result in an increased risk of flooding in certain parts of the borough. The areas which are currently regarded to be of risk are shown on Map 3.1 "Indicative Flood Zones", as Zone 2 and Zone 3. These boundaries are subject to periodic review by the Environment Agency. The rest of the borough not within Zones 2 and 3 falls within Zone 1 where there is little or no risk of fluvial flooding

3.9 Developments on the floodplains result in the reduction in capacity of the available floodplain and impede the flow of water, thereby increasing the risk of flooding elsewhere. The definition as to what constitutes "functional floodplain" in Flood Zone 3 will be determined on a case by case basis by the Environment Agency. Applicants are advised to consult the Environment Agency prior to making a planning application for relevant schemes requiring a flood risk assessment.

3.10 Where appropriate, attenuation measures will be required on the development site. The Council will, in conjunction with the Environment Agency, British Waterways Board and developer, explore ways of storing water on site through the creation of lakes and ponds, which will increase the ecological value and landscaping value of the site and its surroundings. The importance of trees in reducing water run-off should be recognised and account taken of any other relevant policies in this Plan.

3.11 The Environment Agency is likely to object to cases where it considers the flood risk assessment does not or cannot adequately address the flood risk issues. The Agency requirement is that there is to be no reduction of storage in the floodplain and no interruption of flow conveyancing; and that within the functional floodplain within Zone 3, buildings on stilts and those with storage void beneath will generally be opposed.

3.12 Other Policies of the UDP

Other policies of the Haringey Unitary development Plan are also relevant. These policies are to be found in the sections of the plan under the headings Urban Design, Environment, Open Space and Conservation. Extract from the most relevant policies are contained in Appendices 5 & 6 of this guidance note.

3.13 Emerging Policy

The Local Development framework for Haringey contains the emerging planning policies of the Council including those in relation to basement construction.
These are Haringey's Local Plan: Strategic Policies (formerly the Core Strategy) SP11-Design. March 2012 – Currently awaiting the Inspectors Report, following the Examination in Public. (Appendix 5)

3.13.1 Development Management Development Plan Document (DMDPD) 2010
The Draft Development Management DPD was prepared in June 2010 and contains the current planning policy on basement development. It should be noted that this document is currently under review to reflect the recent changes to national and regional policy and regulations and a revised document will be issued for consultation in October 2012.

3.13.2 Development Management Development Plan Document (DMDPD) 2010
DMP8 - Basements and Lightwells,
DMP 13 - Sustainable Design and Construction
DMP 14 - Flood Risk, Water Courses and Waste Management
DMP 20 – General Principles
DMP 21 - Design and Quality
The Sustainable Design and Construction Supplementary Document – October 2010, Draft Document ready to be adopted late 2012 following receipt of Inspectors Report following the Examination in Public mentioned above.

3.14 DMP8 Basements and Lightwells, states that:
In determining proposals for basement and other underground development, the Council will require an assessment of the scheme's impact on drainage, flooding, groundwater conditions and structural stability, where appropriate. The Council will only permit basement and other underground development that does not cause harm to the built and natural environment and local amenity. The Council will consider whether schemes:

a) Maintain the structural stability of neighbouring properties;

b) Adversely affect drainage and run-off or cause other damage to the water environment;
c) Have a cumulative impact upon structural stability or the water environment in the local area;
d) Harm the amenity of neighbours;
e) Lead to the loss of open space or trees of townscape or amenity value;
f) Provide satisfactory landscaping, including adequate soil depth; and
g) Harm the appearance or setting of the property or the established character of the surrounding area.

3.15 The Council will not permit basement schemes which include habitable rooms and other sensitive uses in areas prone to flooding. Applicable only to flood zones 2 & 3 in the east of the borough and not in zone 1 which covers the rest of the borough (see map 3.1 Appendix 4).

3.16 In determining applications for light wells, the Council will consider whether:
h) The architectural character of the building is protected;
i) The character and appearance of the surrounding area is harmed; and
j) The development results in the loss of more than 50% of the front garden or amenity area.

3.17 The subtext of the policy states that in appropriate circumstances the Council will require evidence from applicants to ensure that basement developments do not harm the built and natural environment or local amenity. The amount of information required will be commensurate to the scale and location of the scheme. Larger schemes (i.e. those consisting of two or more underground storeys) will be expected to provide evidence against each of the considerations as set out in the policy above.

4. GEOLOGY

4.1 North London is almost entirely underlain by the London Clay formation which overlays a significant chalk aquifer. The London Clay layer varies in thickness fromless than 10m near the Lee Valley to over 100m in the areas of higher ground in Camden and Barnet. The clay layer is almost entirely impermeable which has a considerable impact on lead times of fluvial flows in many of the watercourses, especially when combined with intense urban development. The upstream catchment in the River Lee comprises a predominantly chalk soil, which results in increased permeability and slower response times in the watercourse. In places the London Clay layer is overlain by deposits of gravels and silts. This is most prominent in the Lee Valley and East of Hackney where alluvium deposits from the River Lee are in evidence. There are also notable outcrops of gravels and silts further to the west in Enfield, Stanmore gravels in Barnet and gravel outcrops on Hampstead Heath. These gravel and silt deposits are much more permeable than the underlying clay layer and flooding can occur at the edges of these deposits and outcrops when the groundwater percolating through the permeable layer meets the impermeable clay layer, causing the water to flow out at surface level, appearing as small springs. The locations of the most prominent of these geological features are discussed below. The Lee Valley consists of a layer of gravels and silts deposited by the river within its natural flood plain that covers a layer of London Clay. Silts and gravels are also found in smaller quantities along the flood plains of other main rivers in the area, which include the River Brent, Dollis Brook, Silk Stream, Salmons Brook, Pymmes Brook and the River Ching. The Lee Valley is the lowest lying area within North London and is therefore susceptible

to groundwater flooding. Groundwater levels in shallow deposits in the Lee Valley are hydraulically linked to the watercourses through the alluvium deposits and may be responsive to rainfall events and the corresponding increases in fluvial flows. However for the major aquifer, the chalk, this is not always true. During prolonged rainfall events the groundwater table may experience a relatively short term rise which could cause localised flooding incidents. Further to the west of the Lee Valley, within Enfield there are a number of drift deposits of silts and sands. A small number of groundwater flooding incidents are known to have occurred in the vicinity of these deposits. Groundwater flooding history is discussed further in the following section. Hampstead Heath lies on a silty sand layer on top of the London clay. During rainfall events water drains through the sands before reaching the impermeable layer beneath, causing the formation of springs which feed the Highgate Ponds and form the source of the River Fleet.

4.2 In the Finchley and Hendon area to the north of Hampstead, a Till, chalky sandy clayand gravel outcrop lies on the surface that may lead to a localised groundwater flooding, although there is no history of groundwater flooding in this location.

4.3 The ground conditions in Haringey vary from sandy clay in the Highgate area (where there are actually areas where the sub strata is more sandy than clay) through to the more common brown clay in Muswell Hill and Crouch End. In areas of Wood Green and Turnpike Lane there are areas of filled ground to a depth of approximately one metre deep, where upon the strata becomes clay. Clay subsoil then continues as you move east until you reach Tottenham High Road, when gravel content starts to appear in the clay, this content increases as you continue east towards the River Lea. Going south towards south Tottenham there are again large areas of filled ground.

4.4 In the Highgate area based on information the basement impact assessment report by GEA Associates submitted in relation to Channing School geological maps for the area show the presence of Bagshot Formation and Claygate Beds overlying London Clay (typically 15 to 20m depth).

4.5 The Bagshot Formation and Claygate Member are classified as a Secondary ‘A’ Aquifers meaning they have permeable layers capable of supporting water supplies at a local level.

4.6 The sand in the Claygate Member and the Bagshot Formation make them relatively permeable, when compared with the underlying London Clay, allowing water to flow through them readily. The water within these strata is recharged at the surface from precipitation which, owing to the relatively high porosity of the deposits, is stored within the matrix of the strata and forms a local aquifer. At the junctions of the Bagshot Formation with the Claygate Member and the Claygate Member with the London Clay, streams form at the ground surface.

4.7 In relation to information required for any particular planning application specific information regarding geology and hydrology will be required for each individual site to be submitted as part of any basement impact assessment or in relation to any appropriate conditions imposed upon approval.

4.8 The publication “Haringey's Hidden Streams Revealed” shows the routes of several natural streams which once flowed in the open from the “northern heights” of Highgate and Muswell Hill, but are mainly now underground. See Map in appendix 3.

5. HARINGEY’S CURRENT POSITION

5.1 The Council has seen an increase in the number of applications received for basement development in recent years; however this is lower than the numbers received by inner London boroughs. Since the start of 2006 to date approximately 55 basements developments have been granted planning permission. The nature of these applications varies greatly from basements as part of new demolition/rebuild projects, to smaller scale projects to increase the size/ height of existing basements.

6. WHEN DOES THIS GUIDANCE NOTE APPLY?

6.1 This guidance applies to all developments in Haringey that propose a new basement development, or an extension to existing basement accommodation where planning permission is required. Permitted development rights mean that some basements will not require planning permission.

7. WHAT PERMISSIONS ARE REQUIRED?

7.1 Planning permission:
Apart from the exceptions (permitted development) where planning permission is not required for basement excavations, you will be required to gain planning approval. This includes new basement development, or extensions to existing basement accommodation; excavation or enlargement of a light well at the front of the house and in some cases to the side and rear; and to use a basement as a separate residential unit.

7.2 Building Control Permission:
You will require building control approval for all excavation works or enlargements of a basement. The works will be required to meet the requirements of the Building Regulations 2010, and habitable accommodation must also meet fitness standards set by the Housing Act 1985. For more information on Building Control matters, please visit the Council’s website at http://www.haringey.gov.uk/buildingcontrol

7.3 Highway Licence:
If you need to put a skip or building material on the public highway, or if you wish to erect a scaffold, hoarding or gantry you will need to apply

for a license under the Highways Act. You will also need the consent of the appropriate highway authority if your proposal involves any work under any part of the highway or footway. The Council is the highway authority for most streets in the Borough, although for some major roads Transport for London act as the highway authority. For more information about the highway authority or licensing matters, please visit the Council's website at http://www.haringey.gov.uk

7.4 Other Non Council Requirements
Party wall agreement: In most cases you will need a party wall agreement with your neighbour/s. This includes when excavation is within 3 metres of a neighbouring structure; or that would extend deeper than that structure's foundations; or within 6 metres of the neighbouring structure and which also lies within a zone defined by a 45 degree line from that structure. The Council is not itself involved in Party Wall agreements, but a guidance note explaining the procedures can be found on the Council website www.haringey.gov.uk.

7.5 Considerate Construction: The Council expects contractors to minimise noise nuisance, dust, debris, clean and safe pavements and driveways, safe movement of pedestrians, safeguarding access for emergency vehicles, avoidance of inconvenient construction times and sequences to local residents. The Council will use its powers under the Control of Pollution Act 1974 to control noise from demolition and construction sites. As a general guide, the Council will limit the times at which demolition and construction can take place, such that any works which can be heard outside the site boundary must only be carried out: Monday to Friday 8.00am to 6.00pm; Saturday 8.00am to 1.00pm; and, not at all on Sundays, Public and Bank Holidays. Additional information can be obtained from the Council's Environmental Health Service by visiting the website http://www.haringey.gov.uk

7.6 Freeholder permission: Most residential leases will require some form of landlord permission for improvements and alterations. This is also the case for Council owned property, where permission from Homes for Haringey is required for any improvements and alterations, including Basement Development.

7.7 Independent Advice: It is considered important to remind applicants that they should seek independent professional advice on all the above mentioned matters and should not rely on the Council solely for advice concerning basement development.

8. PERMITTED DEVELOPMENT

8.1 The Town and Country Planning (General Permitted Development) Order 1995 and its subsequent amendments (the "GPDO") provides "permitted development rights" for certain types of extensions to dwelling houses. The majority of local authorities interpret this to include underground extensions if they fall within prescribed dimensional constraints, do not extend closer to a highway than the

existing house, and retain more than half the garden. The GPDO does not give guidance on depth.

8.2 Therefore, in many instances planning permission is not required for small residential basement constructed as an extension of the existing dwelling. However permitted development rights do not apply to flats, apartments or maisonettes so planning permission will always be required to construct a basement addition to a flat, apartment or maisonettes

8.3 The permitted development rights are removed within a Conservation Area if any trees are to be affected by the development and outside a Conservation Area if any protected trees are to be affected.

8.4 The application of GPDO to basement development was under review by the previous government. The 2007 planning white paper proposed a Householder permitted Development order (HPDO) to replace Parts 1 and 2 of the current GPDO. Proposals have been made for a basements class for inclusion within the GPDO and any subsequent HPDO and include the following proposed constraints:

- The maximum depth of basements and basements lightwells to be 3m
- In Flood Risk Zones 2 and 3 identified on Environment Agency flood maps, and 'critical drainage areas' identified in Strategic Flood Risk assessments, all basement extensions should require planning permission.

There is no date for the amendment of the GPDO and consultation has not been undertaken.

8.5 Therefore at the present time basement extension may be constructed as 'permitted development' to a single dwelling house as long as it falls outside the exclusions listed in Class A of the Town and Country Planning (General Permitted Development) Order. This means in some cases a basement extension would not need planning permission, and so no design guidance would apply and no conditions could be applied to the development.

9. ASSESSING THE IMPACT OF BASEMENT DEVELOPMENT

9.1 We will only permit basements and other underground development where you can demonstrate it will not cause harm to the built and natural environment and local amenity, including to the local water environment, ground conditions and biodiversity. Addressing these issues may require the submission of a variety of information to provide the Council with a basis for determining applications. The level of information required is commensurate with the scale, location and complexity of the scheme. The Basement Impact Assessment should consider:

- Surface flooding

- Ground water flow
- Land stability
- Cumulative Development
- Residents Amenity
- Construction Management

9.2 What do we need to validate an application?

For the purposes of validation we have classified applications for planning permission which contain proposals for basements into four categories:

Type 1	Permitted Development	No permission required * (please see below)
Type 2	Householder Application Greater than permitted Development basement extension beyond 3/4metres to the rear and/or to the side and front beyond the footprint of the property.	**Planning Permission required:** No requirements for specific information on basement development issues at validation stage * (please see below)
Type 3	New Building (normally a new house) One level basement, below footprint of new house(not boundary to boundary) and no more than 4metres projection beyond the rear main wall of the building.	**Planning Permission required:** No requirements for specific information on basement development issues at validation stage *(please see below)
Type 4	New Building with basement excavation boundary to boundary and or more than one level and projecting beyond the building footprint to the front and or rear of the property or both	**Planning Permission required:** Basement Impact Assessment required at validation stage to cover ground water flow, land stability, surface flow and flooding cumulative development and construction management including reference to potential impacts methods of mitigation and ongoing monitoring of mitigation actions taken *(please see below)

Type 1 - * May be the subject of a Certificate of Lawfulness

Type 2 - * Construction Management Plan Condition will be applied if approved

Type 3 - *Hydrological and Hydrogeological condition and Construction Management Plan Condition, a considerate Constructors Scheme Condition

Type 4 - * - *Hydrological and Hydrogeological condition and Construction Management Plan Condition, a considerate Constructors Scheme Condition

9.3 **Basement Impact Assessments**

Where appropriate you will need to submit a Basement Impact Assessment (BIA) which is specific to your site and particular proposed development. The BIA will include the following stages:

- **Stage 1 - Screening;**
- **Stage 2 - Scoping;**
- **Stage 3 - Site investigation and study;**
- **Stage 4 - Impact assessment; and**
- **Stage 5 - Review and decision making.**

9.3.1 The purpose of a BIA is to enable the Council to assess whether any predicted damage to neighbouring properties and the water environment is acceptable or can be satisfactorily ameliorated by the developer.

9.3.2 At each stage in the process the person(s) undertaking the BIA process on your behalf should hold qualifications relevant to the matters being considered. Suitable qualifications for persons submitting BIA's as set out in Appendix 1.A combination of these may be required to address a variety of site conditions.

9.3.3 Stage 1 - Screening

The first stage of the BIA is the identification of any matters of concern which should be investigated. Screening is a process of determining whether or not a full BIA is required. All basement proposals should be subjected to the screening stage of a BIA to identify the matters relevant to assessment of local flooding and/or neighbour amenity and structural risks.

9.3.4 The BIA should at least cover the following main issues:

- Groundwater flow
- Land stability;
- Surface flow and flooding
- Cumulative development and
- Construction management

9.3.5 We will expect you to identify how these issues impact on neighbouring properties and the natural environment.

9.3.6 At the screening stage you will clearly need to set out why or why not a full BIA is required.

9.4 **Stage 2 - Scoping**

The scoping stage of the BIA requires you to identify the potential impacts of the proposed scheme. You should use this stage to identify the potential impacts for each of the matters of concern identified in the previous screening stage; this may require some preliminary data collection and field work. A conceptual ground model is often a useful of carrying out the scoping stage as it can include the known and suspected features on, below and adjacent to a proposed site.

9.4.1 During the scoping stage we will encourage you to enter pre-consultation and/or set up a working group with local residents and amenity groups who may be impacted by a proposed basement in order to fully understand and address the concerns of local residents.

9.4.2 The scoping stage should build on the information obtained for the screening stage. When doing work for scoping stage, it is mostly likely you will have to carry out some works under Stage 3 of the BIA – Site investigation and study

9.5 **Stage 3 – Site investigation and study**

The third stage of the BIA – site investigation – is undertaken to develop an understanding of the site and its immediate surroundings. The degree of investigation will vary depending upon the matters of concern identified in the screening and scoping stages, and therefore will be dependent on the location of the proposed basement within the borough, its size and setting in relation to existing development on the site and its relationship to adjacent properties and nearby features of importance.

The BIA site investigation comprises several stages, including:

- Desk study, including site walkover;
- Field investigation, including intrusive investigation;
- Monitoring;
- Reporting; and
- Interpretation.

9.5.1 Each of these stages should reflect both the site of the proposed basement scheme and beyond the site boundary.

9.6 **Stage 4 – Impact assessment**

This stage is concerned with evaluating the direct and indirect implications of the proposed project. Essentially this involves a comparison between the present situation (the baseline) with the situation as it would be with the basement in place (i.e. constructed).

Therefore the BIA should describe, quantify and then aggregate the effects of the development on those attributes or features of the geological, hydrogeological and hydrological environment which have been identified (in the scoping stage) as being potentially affected.

9.7 **Stage 5 – Review and decision making**
The final stage of the BIA is undertaken by LB Haringey and consists of an audit of the information supplied by you and a decision on the acceptability of the impacts of the basement proposal.

10. IMPACTS TO NEIGHBOURS FROM DEMOLITION AND CONSTRUCTION

10.1 Some of the worst problems affecting amenity are experienced during the demolition and construction phases of a development, and this is particularly so for basement development. Although this is temporary, it tends to create noise, vibration, dust, air and light pollution, and can last for lengthy periods of time.

10.2 Full care and consideration should be given to neighbouring properties, as the works can be particularly intrusive to immediate neighbours. All construction and demolition processes are expected to be in accordance with the Considerate Constructors Scheme standards.

10.3 Where basement works are proposed in conservation areas or adjacent to a listed building, the Council will seek the submission of a management plan for demolition and/or construction. The Council may also require this in other areas depending on the scale of the development and site conditions of the particular area. These management plans include:

- provisions for phasing;
- management of waste, noise and access during construction;
- provisions to ensure stability of buildings and land; and
- provisions for monitoring movement

10.4 The Council expects contractors to minimise noise nuisance, dust, debris, clean and safe pavements and driveways, safe movement of pedestrians, safeguarding access for emergency vehicles, avoidance of inconvenient construction times and sequences to local residents

11. SUSTAINABLE CONSTRUCTION

11.1.1 As part of an application for a basement development, applicants will be required to describe within their Design and Access Statement how the development has considered materials, resources and energy. This statement should explain how the use of sustainable materials has been considered and applied in the proposal, and the reasons for the choices that are made. The statement should also detail which existing materials on the site are to be re-used as part of the development or made available for re-use elsewhere and the measures to improve the energy efficiency of the development.

12. PLANNING AND DESIGN CONSIDERATIONS

12.1 The Council recognise that there can be benefits from basement development in terms of providing additional accommodation, but we need to ensure that basement schemes:

- do not cause undue harm to the amenity of neighbouring properties;
- do not have a detrimental impact on the groundwater environment, including ponds and reservoirs;
- do not have any effects on surface water run-off or ground permeability;
- do not harm the recognised architectural character of buildings and surrounding areas, including gardens and nearby trees, and that conservation area character is preserved or enhanced;
- conserve the biodiversity value of the site;
- achieve sustainable development; and
- do not place occupiers at risk or have any effects on the stability or bearing capacity of adjacent land generally.

13.0 SIZE OF DEVELOPMENT

13.1 Often with basement development, the only visual features are lightwells and skylights, with the bulk of the development concealed wholly underground and away from any public view. However, just as overly large extensions above the ground level can dominate a building, contributing to the over-development of a site, an extension below ground can be of an inappropriate scale. There may be more flexibility with the scale of a development when it is proposed underground, but there are a number of factors that would mean basement development would be overdevelopment.

13.2 These include, for example, harm caused to any trees on or adjoining the site, where the development would restrict future planting and mature development of trees typical to the area, and any impact to the water environment. The permissible size of a basement development will therefore be guided by the characteristics of the site.

13.3 A basement development that is modest in size such that it does not extend beyond the footprint of the original building and is no deeper than one full storey below ground level (approximately 3 metres in

depth) is often the most appropriate way to extend a building below ground, provided that the internal environment is fit for the intended purpose, and there is no impact to any trees on or adjoining the site, or to the water environment or land stability. Larger schemes (i.e. those consisting of two or more underground storeys) will be expected to provide evidence that the development does not harm the built and natural environment or local amenity.

14.0 LISTED BUILDINGS

14.1 Where the building is listed, new basement development will require listed building consent, even if planning permission is not required. The acceptability of a basement extension to a listed building will be assessed taking into account the individual features of the building and its special interest. Applicants should contact the Council at the earliest opportunity to discuss such proposals.

15.2 As with all basement schemes, we will need to be satisfied that effective measures will be taken during demolition and construction works to ensure that damage is not caused to the listed building and any buildings it directly adjoins. Poor demolition and construction methods can put its neighbours at risk and so can have considerable effects on the character and appearance of heritage buildings.

15.3 We will seek the submission of a management plan for demolition and/or construction where basement works are proposed in or adjacent to a listed building.

16.0 BASEMENT WALLS, WINDOWS AND DOORS

16.1 The development of a basement and the introduction of light wells will result in an area of exposed basement wall. Any exposed area of basement development to the side or rear of a building will be expected to be subordinate to the building being extended and respect the original design and proportions of the building, including its architectural period and style.

16.2 The width of any visible basement wall should not dominate the original building.

16.3 In number, form, scale and pane size, basement windows should relate to the façade above. They should normally be aligned to the openings above and be of a size that is clearly subordinate to the higher level openings so as not to compete with the character and balance of the original building.

16.4 Where there is a distinguishable pattern to the fenestration, the width and height of windows should be no greater than those above.

17. 0 TREES, LANDSCAPE AND BIODIVERSITY

17.1 Proposals for basement development that take up the whole front and / or rear garden of a property are very unlikely to be acceptable. Sufficient margins should be left between the site boundaries and any basement construction to enable natural processes to occur and for vegetation to grow naturally. These margins should be wide enough to sustain the growth and mature development of the characteristic tree species and vegetation of the area. The Council will seek to ensure that gardens maintain their biodiversity function for flora and fauna and that they are capable of continuing to contribute to the landscape

17.2 The basement development should provide an appropriate proportion of planted material to allow for rain water to be absorbed and/or to compensate for the loss of biodiversity caused by the development. This will usually consist of a green roof or retention pond on the top of the underground structure. It will be expected that a minimum of 0.5 metres of soil be provided above basement development that extends beyond the footprint of the building, to enable garden planting. The use of SUDS is sought in all basement developments that extend beyond the profile of the original building.

17.3 Consideration should be given to the existence of trees on or adjacent to the site, including street trees and the required root protection zone of these trees.

18.0 BUILDING REGULATIONS APPLICATION

18.1 The Building Regulations apply to all 'Building Work' and you need to make an application to our Building Control department before proceeding. Further details are available from the Building Control section of the Council's website.

18.2 We recommend that you follow the full plans procedure unless the work is of a very minor nature. The Full Plans procedure gives greater protection to the building owner.

18.3 As part of the application it will be necessary to submit a full site investigation and a consulting civil or structural engineers report on the investigation and development proposals.

18.4 Building Regulations are set out by various technical parts (A-P) and the principal requirements include the following:

- Part A Structure
- Part B Fire Safety
- Part C Site preparation and resistance to contaminants and moisture
- Part E Resistance to passage of sound

- Part F Ventilation
- Part H Drainage
- Part J Combustion appliances

- Part K Protection from falling collision and impact
- Part L Conservation of fuel and power
- Part M Access and use of building
- Part N Glazing
- Part P Electrical safety

Further details can be obtained from the Haringey Council website.

19. 0 DECISION MAKING

19.1 The majority of planning applications for basement developments will be determined under delegated powers by the appropriate planning officer in conjunction with the Chair of the Planning Sub- Committee. However the assistant Director and or other appropriate planning officer in conjunction with the Chair of the Planning Sub-Committee may consider reporting planning applications to Committee that would otherwise be dealt with under delegated powers. All decisions will be made having considered all the issues raised by this guidance note and any decision to grant planning permission will be subject to the appropriate conditions and s106 where considered necessary as referred to in this guidance.

20. 0 MANDATORY PLANNING CONDITIONS

20.1 In making decisions on basements applications the following conditions will be applied to any planning permissions related to Types 2,3 and 4 development.

20.2 Construction Management Plan Condition (applicable to types 2,3,4)

20.2.1 No development shall take place, including any works of demolition, until a Construction Management Plan has been submitted to and approved in writing by the Local Planning Authority. The approved plan shall include identification of potential impacts of basement developments methods of mitigation of such impacts and details of ongoing monitoring of the actions being taken. The approved plans should be adhered to throughout the construction period and shall provide details on:

i) The phasing programming and timing of the works.

ii) The steps taken to consider the cumulative impact of existing and additional basement development in the neighbourhood on hydrology.

iii) Site management and access, including the storage of plant and materials used in constructing the development;

iv) Details of the excavation and construction of the basement;

v) Measures to ensure the stability of adjoining properties,

vi) Vehicle and machinery specifications

Reason: In order to protect the residential amenity and highways safety of the locality

20.3 **Hydrological and Hydro-Geological Condition (applicable to types 3,4)**

20.3.1 Prior to the commencement of the development hereby permitted an assessment of the hydrological and hydro-geological impacts of the development and any necessary mitigation measures found to be necessary shall be submitted to and approved in writing by the Local Planning Authority. Thereafter the development shall be carried out in accordance with the details approved.

Reason: To ensure the development provides satisfactory means of drainage on site and to reduce the risk of localised flooding.

20.3.2 **Considerate Constructors Scheme Condition (applicable to types 3,4)**

The site or contractor company must be registered with the Considerate Constructors Scheme. Proof of registration must be sent to the Local Planning Authority prior to any works being carried out on the site.

Reason: In the interests of residential amenity.

21. **OTHER CONDITIONS WHICH MAY BE APPLIED**

21.1 Monitoring by engineer
The development hereby approved shall not commence until such time as a suitably qualified chartered engineer with membership of the appropriate professional body has been appointed to inspect, approve and monitor the critical elements of both permanent and temporary basement construction works throughout their duration to ensure compliance with the design which has been checked and approved by a building control body. Details of the appointment and the appointee's responsibilities shall be submitted to and approved in writing by the Council prior to the commencement of development. Any subsequent change or reappointment shall be confirmed forthwith for the duration of the construction works.

Reason: To safeguard the appearance and structural stability of neighbouring buildings and the character of the immediate area.

21.2 Drainage Systems

Prior to commencement of the development, details of a sustainable urban drainage system and an investigation to demonstrate whether a perimeter drainage system (or other suitable measure) is necessary to ensure any existing sub-surface water flow regimes are not interrupted, together with details of such systems or measures, shall be submitted to and approved in writing by the local planning authority and such systems shall be implemented as part of the development and thereafter retained and maintained.

Reason: To reduce the rate of surface water run-off from the buildings and limit the impact on the storm-water drainage system and to ensure that there is no interruption of sub surface ground water flow that may cause issues of flooding or lack of water in nearby areas.

21.3 Construction Management. Mitigation of dust

No development shall commence until full details of a mitigation measures to minimise dust and emissions, incorporated into a site specific Construction Management Plan have been submitted to and approved in writing by the Local Planning Authority. The Plan shall include an inventory and timetable of dust generating activities, emission control methods and air quality monitoring and shall be based on the Mayor's Best Practice Guidance. The development shall not be carried out other than in accordance with the approved Construction Management Plan.

Reason: To protect the amenities of nearby properties.

21.4 Considerate Construction Contact Details

No development shall be carried out until such time as the person carrying out the works is a member of the Considerate Construction Scheme and its code of practice, and the details of the membership and contact details are clearly displayed on the site so that can be easily read by a member of the public.

Reason: To limit the impact of construction upon the levels of amenity that neighbouring occupiers should reasonably expect to enjoy and to comply with the Subterranean Development SPD and policy.

21.5 Measures to Protect against Surcharge

Prior to first use or occupation of the development hereby approved, details of measures to protect against surcharge in the sewerage network shall be submitted to and approved by the local planning authority; thereafter any installation to prevent surcharge and backflow shall be provided before first use or occupation of the basement accommodation and thereafter permanently retained in an operational condition.

Reason: To ensure the development provides satisfactory means of drainage on site and to reduce the risk of localised flooding.

21.6 Sustainable Urban Drainage Systems
Prior to commencement of the development, details of a sustainable urban drainage system and an investigation to demonstrate whether a perimeter drainage system (or other suitable measure) is necessary to ensure any existing sub-surface water flow regimes are not interrupted, together with details of such systems or measures, shall be submitted to and approved in writing by the local planning authority and such systems shall be implemented as part of the development and thereafter retained and maintained.

Reason: To reduce the rate of surface water run-off from the buildings and limit the impact on the storm-water drainage system and to ensure that there is no interruption of sub surface ground water flow that may cause issues of flooding or lack of water in nearby areas.

22. USE OF SECTION 106 AGREEMENTS

22.1 In relation to major developments normally of 10 units of accommodation or development comprising more than 1000sq metres of floorspace it may be appropriate to require an applicant to enter into a section 106 agreement covering Affordable Housing, Education provision, Health provision, Employment training schemes, local access to new jobs, sustainable development and construction, improvements to public transport and other sustainable modes of transport and open space provision.

22.2 On particularly large and complex developments it may be considered necessary to require a Section 106 agreement in order to deal with construction management and hydrological and hydrogeological issues.

23. CUMULATIVE DEVELOPMENT

23.1 Cumulative Impact of Basement Construction in Relation to affects on Residential Amenity

23.2 In relation to impact on residential amenity (including a nearby neighbouring street if the construction is close to a corner junction where more than one site in any one street is under construction at any one point in time). The following issues will need to be dealt with by condition or in a BIA.

23.3 The Issues are:

- dust debris,
- clean and safe pavements and driveways,
- safe movements of pedestrians,
- safeguarding access for emergency vehicles,
- avoidance of inconvenient construction times and sequences to local residents.

24. **Cumulative Impact from the effects of construction on Surface Waterflow, Ground Water Flow and Stability from the coincidence of existing basements and new basements under construction.**

24.1 Where two or more basements adjacent to one another or in close proximity are proposed or already exist the following issues will need to be dealt with by condition or BIA

- Surface water Flooding
- Land Stability
- Ground Water flow

24.2 As an example in relation to cumulative development the current location of approved and pending schemes which include basement development is shown on map basement in Highgate Appendix 2

APPENDICES

Appendix 1

QUALIFICATIONS REQUIRED FOR ASSESSMENTS

Surface flow and flooding
A Hydrologist or a Civil Engineer specialising in flood risk management and surface water drainage, with either:

• The “CEng” (Chartered Engineer) qualification from the Engineering Council; or a Member of the Institution of Civil Engineers (“MICE); or

• The “C.WEM” (Chartered Water and Environmental Manager) qualification from the Chartered Institution of Water and Environmental Management.

Subterranean (groundwater) flow

A Hydrogeologist with the “CGeol” (Chartered Geologist) qualification from the Geological Society of London.

Land stability

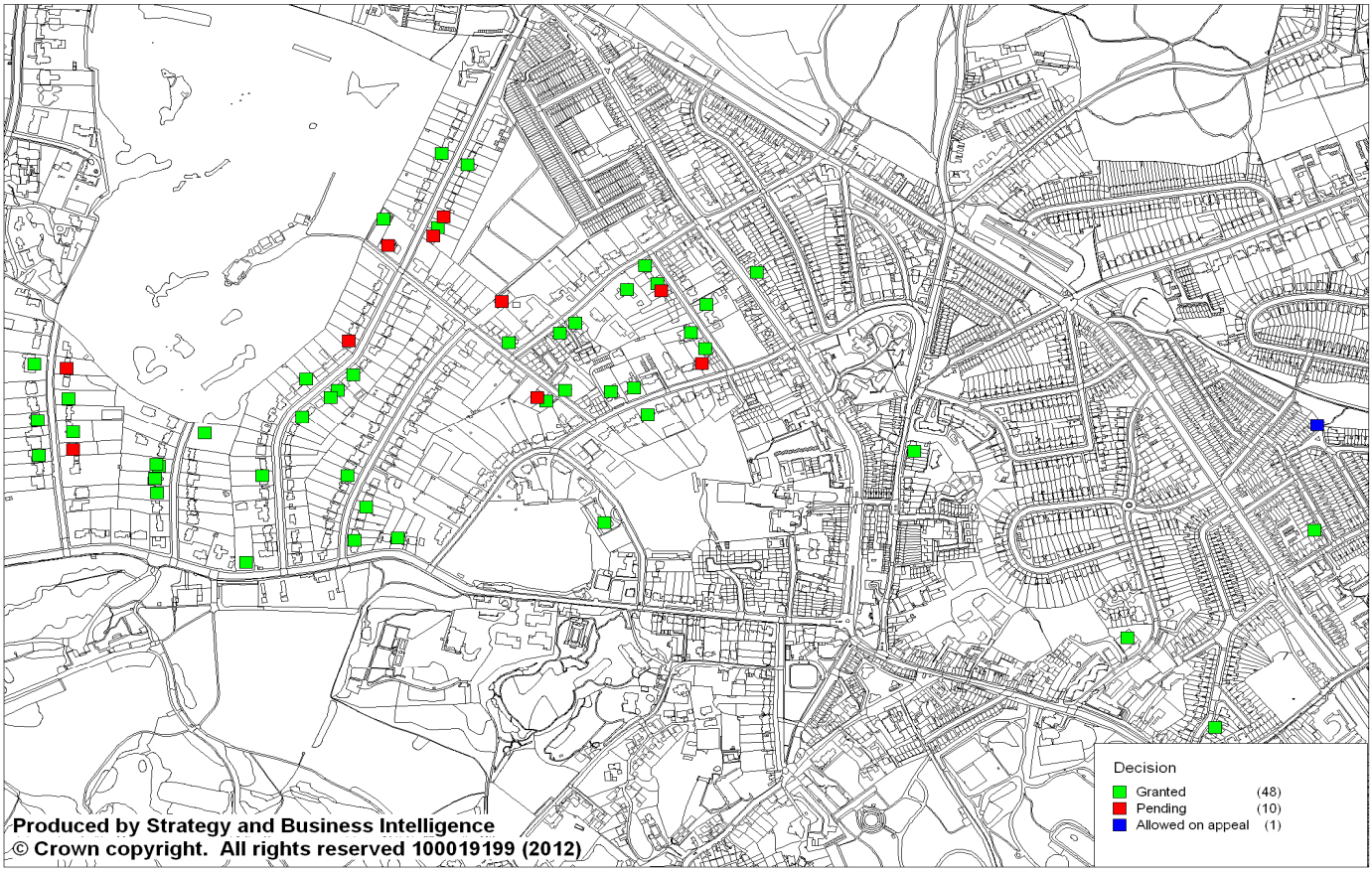
A Civil Engineer with the “CEng” (Chartered Engineer) qualification from the Engineering Council and specialising in ground engineering; or

A Member of the Institution of Civil Engineers (“MICE”) and a Geotechnical Specialist as defined by the Site Investigation Steering Group.

With demonstrable evidence that the assessments have been made by them in conjunction with an Engineering Geologist with the “cGeol” (Chartered Geologist) qualification from the Geological Society of London.

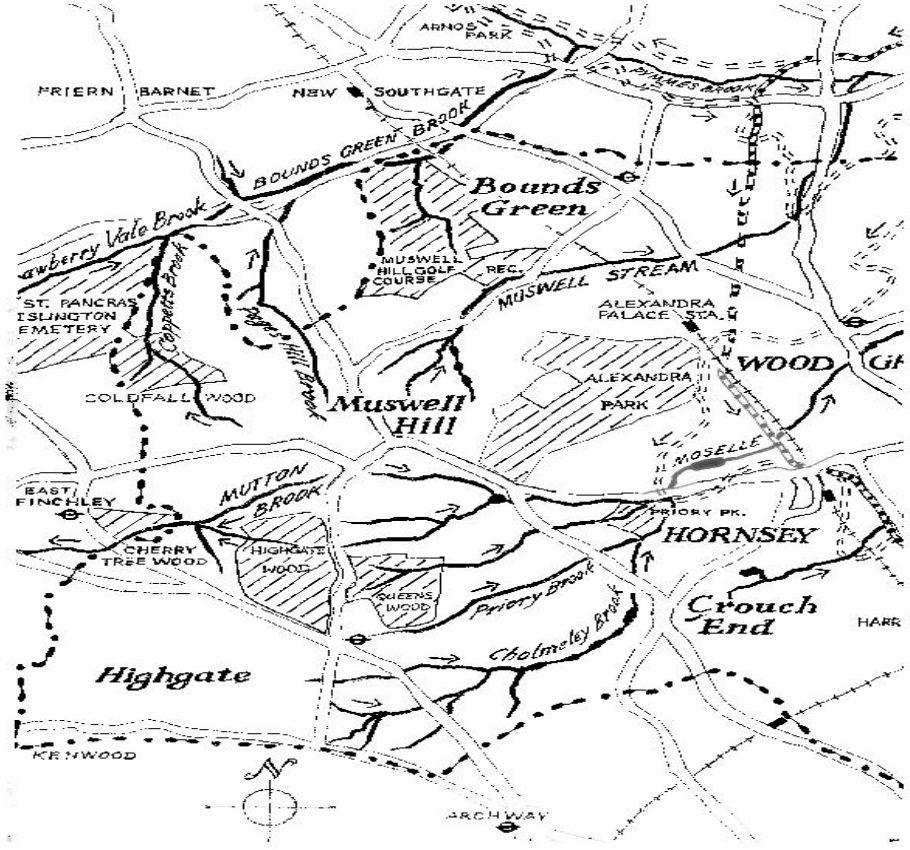
Appendix 2

Basements in Highgate

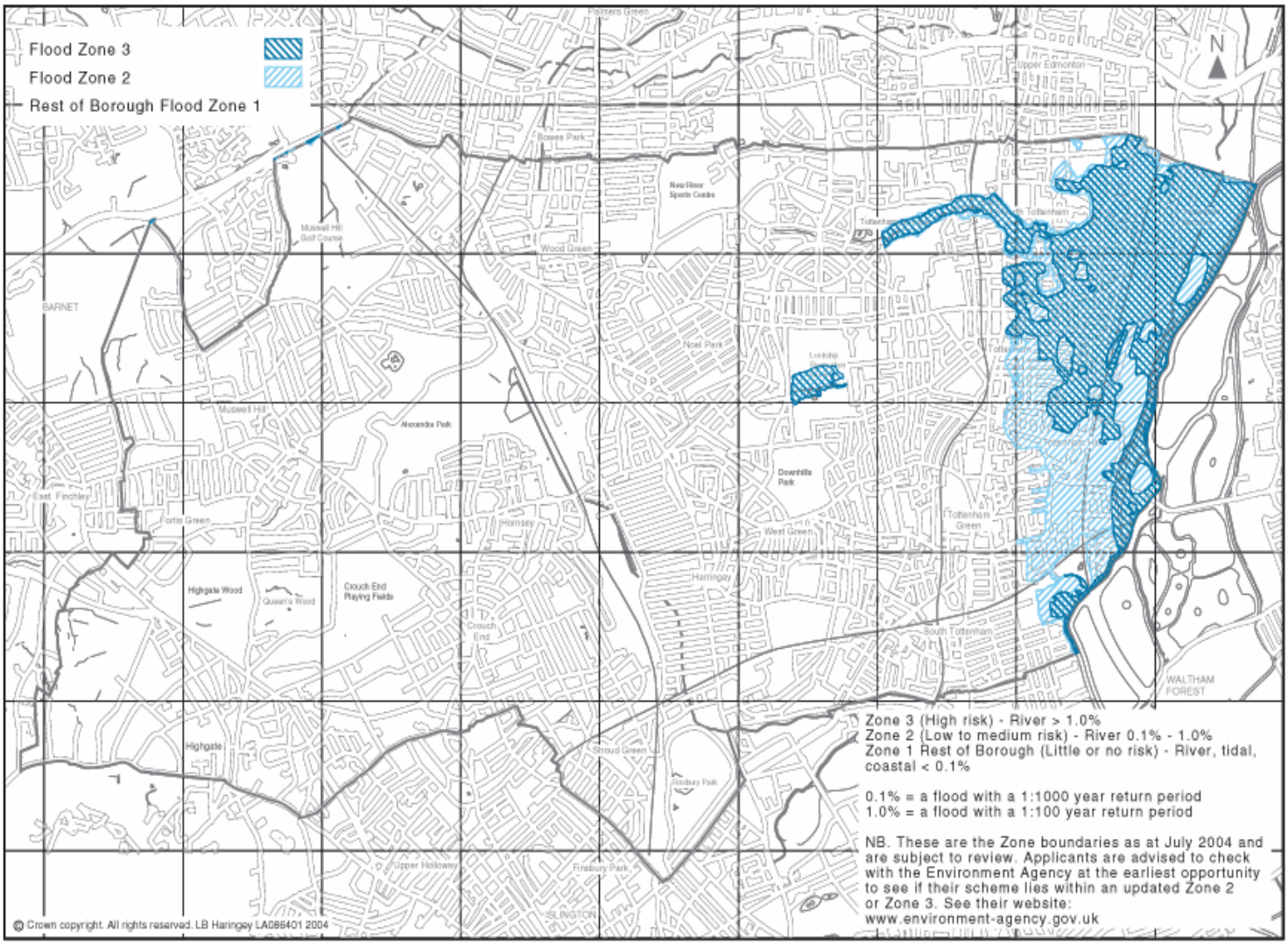


Appendix 3

Extract from Haringey's Hidden Streams Revealed



Appendix 4: MAP 3.1: INDICATIVE FLOOD ZONES



Appendix 5

HARINGEY UNITARY DEVELOPMENT PLAN
Adopted July 2006

Saved Policies 2009

Development and Urban Design

UD1: PLANNING STATEMENTS
UD2: SUSTAINABLE DESIGN AND CONSTRUCTION
UD3: GENERAL PRINCIPLES
UD4: QUALITY DESIGN
UD8: PLANNING OBLIGATIONS

Environment

ENV1: FLOOD PROTECTION: PROTECTION OF FLOODPLAIN, URBAN WASHLANDS
ENV2: SURFACE WATER RUNOFF
ENV3: WATER CONSERVATION
ENV4: ENHANCING AND PROTECTING THE WATER ENVIRONMENT
ENV5: WORKS AFFECTING WATERCOURSES

Open Space

OS17: TREE PROTECTION, TREE MASSES AND SPINES

Conservation

CSV1: DEVELOPMENT IN CONSERVATION AREAS
CSV2: LISTED BUILDINGS
CSV3: LOCALLY LISTED BUILDINGS AND DESIGNATED SITES OF INDUSTRIAL HERITAGE INTEREST
CSV4: ALTERATIONS AND EXTENSIONS TO LISTED BUILDINGS
CSV5: ALTERATIONS AND EXTENSIONS IN CONSERVATION AREAS
CSV6: DEMOLITION OF LISTED BUILDINGS
CSV7: DEMOLITION IN CONSERVATION AREAS
CSV8: ARCHAEOLOGY

POLICY

SP11 - Design

All new development should enhance and enrich Haringey's built environment and create places and buildings that are high quality, attractive, sustainable, safe and easy to use. To achieve this all development shall:

- Be of the highest standard of design that respects its local context and character and historic significance, to contribute to the creation and enhancement of Haringey's sense of place and identity;
- Ensure impacts on health, climate change, natural resources and biodiversity are minimised by adopting and improving sustainable design and construction techniques;
- Incorporate solutions to reduce crime and the fear of crime, such as promoting social inclusion; creating well-connected and high quality public realm that is easy and safe to use; and by applying the principles set out in 'Secured by Design' and Safer Places;
- Promote high quality landscaping on and off site, including improvements to existing streets and public spaces;
- Seek the highest standards of access in all buildings and places; and
- Ensure buildings are designed to be flexible and adaptable – and able to integrate services and functions.

Applications for tall buildings will be assessed against the following criteria:

- an adopted Area Action Plan or existing adopted masterplan framework for the site and surrounding area;
- assessment supporting tall buildings in a Characterisation Study which should be prepared as supporting evidence for all AAP areas;
- compliance with the Development Management DPD criteria for Tall and Large Building siting and design;
- compliance with all the relevant recommendations as set out in CABE / English Heritage "Guidance on Tall Buildings", 2007.

High quality design

6.1.3 Good urban design is not just about how places look, but also about how they work. Design has a crucial impact on people's quality of life and their perception of an area.

6.1.4 The Council will insist on high quality design throughout the borough. In accordance with government guidance PPS1 Delivering Sustainable Development, the Council will not accept design that is considered

inappropriate to its context, or which fails to take opportunities to improve the character and quality of an area and the way it functions. The Council will also take account of the Building for Life (BfL) criteria in the assessment of proposals for residential developments. Please see Building in Context for further guidance in delivering designs which have a regard for local context and character (http://building-in-context.org/).

6.1.5 Development schemes should improve the quality of existing buildings, landscaping and the street environment and, through this, improve the experience of the borough for residents and visitors.

6.1.6 The Haringey Design Panel and Design Awards, which were set up in 2005, provide an opportunity to give recognition to and raise awareness of high quality development within Haringey. All major planning applications are referred to the Design Panel.

Sustainable Design and Construction

6.1.7 Layout and design and construction of buildings have significant effect on a building's environmental and energy performance. The construction and use of buildings currently account for around half of the carbon emissions in Haringey. The Council considers it is important that all new and redeveloped buildings are designed to have a beneficial impact on their environment.

6.1.8 Key areas of focus are reducing energy demand and carbon emissions by improvements to the building fabric, the use of passive solar energy and natural light and ventilation, choosing materials with low embedded energy, and the utilisation of low carbon technologies. These measures should be considered alongside policies on climate change (SP4)

6.1.9 With predicted change in climate in London, measures against heat island effect, use of cooling and shading techniques and the use of sustainable urban drainage measures are all crucial for creating climate resilient communities. Measures to reduce construction waste and water usage, and design solutions which protect and enhance habitats for wildlife are also key components of sustainable design and construction. Please see the Sustainable Design and Construction SPD and the Development Management DPD for further details.

Safer and Accessible Design

6.1.10 Well designed buildings and spaces are safe and accessible, and respond flexibly to the needs of their users. Good access benefits everyone but many people are disadvantaged by poor access to facilities. These disadvantaged and vulnerable groups, including disabled people, people with children in pushchairs and the elderly can be particularly affected by poor access, by difficulties in reaching facilities or difficulties in using the facilities themselves.

6.1.11 The Council requires new buildings and spaces to be inclusive and accessible to all. Design and Access Statements will be required for developments to show how the principles of inclusive design and access for all have been integrated into the proposed development. See Strategic Policy 2 Housing on Lifetime Homes and Wheelchair Accessible Housing.

6.1.12 In addition, making roads and pavements, and the spaces between buildings fully accessible is as important as making the buildings themselves accessible. The Council will ensure good quality access and circulation arrangements, including improvements to existing routes and footways.

Landscaping and public realm

6.1.13 High quality landscaping plays an important role in the attractiveness and character of our surroundings. It can improve the setting of buildings,

bring trees and other greenery into built up areas to revive the hard landscaping and provide shade, as well as provide habitats for wildlife. The Council will expect development schemes to provide a high standard of hard and soft landscaping and of boundary features such as walls and fences and private gardens.

6.1.14 The Council will encourage appropriate use of landscaping in the form of green roofs and brown roofs which have a number of environmental benefits, such as providing wildlife habitats, in helping to cool and insulate buildings and in retaining water and helping to reduce flooding, in addition to being visually attractive.

Tall Buildings

6.1.15 Haringey is characterised by predominantly low-rise (2-3 storey) residential suburban development across the borough and 3-4 storey development in its town centres. The exception is Wood Green town centre, where buildings within its core area range between 4-9 storeys

6.1.16 The Council has adopted the definition of **Tall and Large Buildings** as those which are substantially taller than their neighbours, have a significant impact on the skyline, or are of 10 storeys and over or are otherwise larger than the threshold sizes set for referral to the Mayor of London, as set out in the London Plan.

6.1.17 As noted in SP1, the Council will prepare **Area Action Plans (AAPs)** for the areas identified in Section 3.1. As part of the evidence base for each of these areas, an Urban Characterisation Study (UCS) will assess the urban character of each area concerned, including a sufficient assessment of the surrounding area to consider the context affected by the proposals in the AAP. These Characterisation Studies will examine the case for tall and large buildings and whether there are suitable locations within the area.

6.1.18 The Council considers that currently only two areas, Haringey Heartlands/Wood Green and Tottenham Hale, have sites that may be suitable for some tall or large buildings, because they are close to major transport interchanges, have been designated in the London Plan as an Opportunity Area (Tottenham Hale) and an Area for Intensification (Haringey Heartlands/Wood Green) and have existing adopted Masterplan Frameworks1. Any AAPs and associated Characterisation Studies for these areas will supersede these established suitable locations for Tall and Large Buildings with their recommended locations (if any). Elsewhere tall buildings are considered inappropriate to Haringey's predominantly 2-3 storey residential suburban character until shown otherwise in AAPs and UCSs.

6.1.19 The **Criteria for Siting and Design of Tall and Large Buildings** will be described in detail in the Development Management DPD.

6.1.20 In all cases, the design of tall buildings should comply with the recommendations contained in the CABE / English Heritage 'Guidance on Tall

Buildings' (July 2007). It sets the criteria for evaluating proposals for tall buildings and promotes a plan led approach to tall buildings.

The Haringey Heartlands Development Framework (adopted 2005) and the Tottenham Hale Urban Masterplan Supplementary Planning Document (adopted October 2006)

Monitoring

6.1.21 SP11 will be monitored regularly to ensure effective delivery of its aims and objectives over the life of the Core Strategy. The Annual Monitoring Report will be used to assess the performance of the policy, measured using a list of indicators.

Appendix 6

Development Management Development Plan Document (DMDPD)

DMP8 Basements and lightwells

In determining proposals for basement and other underground development, the Council will require an assessment of the scheme's impact on drainage, flooding, groundwater conditions and structural stability, where appropriate. The Council will only permit basement and other underground development that does not cause harm to the built and natural environment and local amenity. The Council will consider whether schemes:

a) Maintain the structural stability of neighbouring properties;
b) Adversely affect drainage and run-off or cause other damage to the water environment;
c) Have a cumulative impact upon structural stability or the water environment in the local area;
d) Harm the amenity of neighbours;
e) Lead to the loss of open space or trees of townscape or amenity value;
f) Provide satisfactory landscaping, including adequate soil depth; and
g) Harm the appearance or setting of the property or the established character of the surrounding area.

The Council will not permit basement schemes which include habitable rooms and other sensitive uses in areas prone to flooding.

In determining applications for light wells, the Council will consider whether:

h) The architectural character of the building is protected;
i) The character and appearance of the surrounding area is harmed; and
j) The development results in the loss of more than 50% of the front garden or amenity area.

2.36. Although basement developments can help to make efficient use of the borough's limited land it is important that this is done in such a way that does not cause harm to the amenity of neighbours, affect the stability of buildings, cause drainage or flooding problems, or damage the character of areas or the natural environment.

2.37. In appropriate circumstances the Council will require evidence from applicants to ensure that basement developments do not harm the built and natural environment or local amenity. The amount of information required will be commensurate to the scale and location of the scheme. Larger schemes (i.e. those consisting of two or more underground storeys) will be expected to provide evidence against each of the considerations as set out in the policy above. Smaller schemes will be expected to submit information which relates to any specific concerns for that particular scheme or location (e.g. flooding or unstable land). Applicants should contact the Council's Development Management Support Team about the level of information that should be provided for a particular scheme. Where hydrological and structural reports are required, they should be carried out by independent professionals e.g. Chartered Structural Engineers.

2.38. Many potential impacts to the amenity of adjoining neighbours are limited by underground development. However, the demolition and construction phases of a development can have an impact on amenity and this is a particular issue for basements. The Council will seek to minimise the disruption caused by basement development and may require Construction Management Plans to be submitted with applications.

2.39. When considering applications for basement extensions the Council will need to be satisfied that effective measures will be taken during excavation, demolitions and construction works to ensure that structural damage is not caused to the subject building and any nearby properties.

DPM13 Sustainable Design and Construction

All development proposals (including conversions, extensions and changes of use) are required to demonstrate how sustainable development principles, including the relevant measures set out below, have been incorporated into the design and proposed implementation.

a) The Council will require developments to adopt appropriate measures to promote resource efficiency for use of energy, materials, waste and water. All proposals for demolition, construction and/or reconstruction should be fully justified in terms of the use of resources and energy, and the energy and water efficiency of the existing and proposed buildings.

b) Applicants for major developments will be required to produce appropriate documentation to confirm that the development will achieve the highest possible ratings relevant to the type of development (BREEAM, Code for Sustainable Homes and EcoHomes) and in line with Core Strategy targets.

c) All developments will be required to have a formal energy assessment applying the principles of the energy hierarchy set out in the London Plan and showing how the development sought to achieve the Core Strategy targets.

d) Developments which cannot meet the energy standards because of site restrictions, technical feasibility and/or economic viability can compensate residual carbon emissions elsewhere in the borough by:

- carrying out improvements to existing homes; or
- providing for an one-off financial contribution to the Council's home improvement schemes or towards sustainable infrastructure projects such as district heating schemes.

e) The Council will require all developments to be resilient to climate change by ensuring schemes include appropriate climate change adaptation measures for cooling, shading, greening, biodiversity, run-off management, and sustainable urban drainage.

f) The Council will require developments to adopt appropriate measures to protect and enhance biodiversity.

g) The council will set out the mechanisms and opportunities for standards to be achieved via the Sustainable Design and Construction Supplementary Planning Document. The effectiveness of the policy will be monitored and the standards will be revised where relevant reflecting national, regional and local targets and aspirations over the plan period.

3.89. The construction and occupation of buildings are major consumers of resources and can produce large quantities of waste and carbon emissions. Given this, the possibility of re-using buildings should always be strongly considered. When a new building is built, the accessibility of its location; its density and mix of uses; its detailed design taking into account the orientation of the site; and the mechanical services and materials chosen can all have a major impact on its energy efficiency.

3.90. The Council will require all schemes to consider these sustainable development principles along with the detailed elements identified in the table below from the start of the design process. We will expect that the proposals will be appropriate to the size of the development, Haringey's dense and historic character and its sensitive environments. When justifying the chosen design with regards to sustainability the following appropriate points must be considered:

Location, Efficient Use of Land and Design

- the layout of buildings to make the most of passive solar energy
- location, size and depth of windows
- minimising single aspect design
- shading options, both on or around the building
- optimising natural ventilation
- reducing the need for artificial lighting
- sustainable urban drainage, including provision of a green/brown roof
- adequate storage space for recyclable material, composting where possible
- bicycle storage
- measures to adapt to climate change including limiting excessive solar gain
- impact on microclimate
- enhancing biodiversity

Fabric/ Services

- level of insulation
- choice of materials, including - responsible sourcing, re-use and recycled content
- efficient heating, cooling and lighting systems
- connections to existing to decentralised energy systems
- design for and inclusion of renewable energy technology
- impact on existing renewable and low carbon technologies in the area
- effective building management system
- counteracting the heat expelled from plant equipment
- enhancement of / provision for biodiversity
- efficient water use
- re-use of water
- on-going management and review

3.91. The list above is not exhaustive. Haringey is proposing a detailed Supplementary Planning Document on Sustainable Design and Construction which will have further detail on what is expected in an energy statement, how site and location makes a difference to a building's energy performance, how energy policies will work and how Haringey will require passive solar energy use and better insulated buildings before using renewable energy solutions, landscaping options and details of what Sustainable Drainage Systems (SUDs) are, details of environmentally sound materials, water harvesting systems, green roofs, identify locations for decentralised energy, how connections to a network will be achieved and allowable solutions for carbon off-setting which are relevant and acceptable to Haringey.

3.92. It is proposed to require developers to contribute to local CO2 reduction projects if they cannot meet their energy/renewable energy targets for feasibility reasons.

DMP14 Flood Risk, Water Courses and Water Management.

In consultation with the Environment Agency and adopting the precautionary principle in line with PPS25, planning permission will not be granted for development proposals in areas of flood risk, identified by the Environment Agency as being located within Flood Zones 2 or 3, that fail to fully demonstrate a full assessment of flood risk.

The Council will require applicants to carry out a site specific Flood Risk Assessment in order to establish whether the proposed development will:
a) Address fluvial flood risk and attenuation of surface water;
b) Increase the risk of current or future flooding;
c) Whether it will add to flood risk elsewhere;
d) Whether there are proposed mitigating measures to address the affects identified;
e) Provide evidence within the application so that the PPS25 Sequential Test can be applied in order to assess whether the development will be safe and where applicable, provide evidence within the application in order to assess the Exemption Test.

The Council will:
a. require any development which could increase the risk of flooding from surface water run-off to provide a drainage impact assessment; and
b. require all built developments to incorporate Sustainable Drainage Systems (SUDS) techniques.

The Environment Agency is to be consulted on any scheme within a distance of eight metres of the main river. The Environment Agency requires that when building close to rivers, whether culverted or not, an eight metre minimum buffer strip is maintained free of any permanent obstruction, including fences.

In consultation with the Environment Agency and where appropriate Thames Water Utilities Ltd, the Lea Valley Regional Park Authority and neighbouring boroughs, the Council, will seek to promote river corridors as an important environmental resource and to proactively manage tributaries of the River Lee to improve access and water quality by:

a) conserving existing areas of value within river corridors and, wherever possible, seeking to restore and enhance the natural elements of the river environment, for example by deculverting and/or naturalisation.
b) supporting initiatives which will result in improvements to water quality.
c) promoting public access in and to river corridors (including by users of public transport and cyclists).
d) identifying appropriate locations for water related recreation along river corridors including the aqueduct known as the New River.
e) contributing towards the improvement in the quality and provision of open space along all rivers; and
f) contributing towards the conservation and enhancement of the ecology of all rivers and the floodplain and their environment.

The Council will only permit development which will not have an adverse impact on the water environment, particularly in relation to rivers, ponds, wetlands, public access in river corridors and water-related recreation. It is also necessary for proposals for flood protection and attenuation to take their ecological impact into account.

4.2. Climate Change is likely to result in an increased risk of flooding in certain parts of the borough. The areas which are currently regarded to be of risk are "Indicative Flood Zones", as Zone 2 and Zone 3. These boundaries are subject to periodic review by the Environment Agency. Within Haringey, there are areas at risk from fluvial flooding – these include areas in close proximity to the River Lee, along the River Moselle and along Bounds Green Brook.

4.3. Developments on the floodplains result in the reduction in capacity of the available floodplain and impede the flow of water, thereby increasing the risk of flooding elsewhere. The definition as to what constitutes "functional floodplain" in Flood Zone 3 is illustrated within the North London Strategic Flood Risk Assessment and applicants are advised to consult the Environment Agency prior to making a planning application for relevant schemes requiring a flood risk assessment.

4.4. Where appropriate, attenuation measures will be required on the development site. The Council will, in conjunction with the Environment Agency, British Waterways Board and developer, explore ways of storing water on site through the creation of lakes and ponds, which will increase the ecological value and landscaping value of the site and its

surroundings. The importance of trees in reducing water run-off should be recognised and account taken of any other relevant policies in this Plan. The Council will require surface water run-off elements to take into account ecological and hydrological impacts.

4.5. The Environment Agency is likely to object to cases where it considers the flood risk assessment does not or cannot adequately address the flood risk issues. The Agency requirement is that there is to be no reduction of storage in the floodplain; and that within the functional floodplain within Zone 3, buildings on stilts and those with storage void beneath will be opposed

4.6. Surface water discharge from the developed site should mimic that of an undeveloped greenfield site, up to and including a 1 in 100 year critical duration storm event. Greenfield run off rates are generally between 2-8 litres/second/hectare (l/s/ha) for storm events up to the critical 1 in 100 year return period event. This is irrespective of whether the site falls within a flood risk area.

4.7. It is important that new development does not lead to additional flood risk elsewhere. Unless carefully sited and designed, new development and redevelopment of existing urban areas can exacerbate problems of flooding in areas downstream through an increase in run-off from additional impermeable surfaces. This effect can occur even outside of the borough in which the development has taken place. Therefore surface water management and flood risk management will be applied to the whole of the borough regarding developments of all schemes and not just relevant ones in the floodplain. The Council will consult the Environment Agency on any development within the borough so that the Agency can determine the significance of any potential impacts. The disposal of surface water into the River Lee is not a right. Discharge may be permitted, subject to an agreement and/or licence from British Waterways. A Surface Water Management Plan is proposed and it is likely to be carried out on a sub-regional basis with near-by boroughs.

4.8. Flood risk and other environmental damage can be managed by minimising changes in the volume and rate of surface runoff from development sites through the use of sustainable drainage systems (SUDS). More advice can be obtained from the Environment Agency and their website www.environment-agency.gov.uk.

4.9. The Water Resources Act 1991 and the Land Drainage Byelaws 1981, the prior written consent of the Environment Agency is required for certain proposed works or structures in, under, over or within 8 metres of the brink of the River Lee, Moselle Brook, Stonebridge Brook and Pymmes Brook (Main Rivers within Haringey).

4.10. The Environment Agency has a statutory responsibility to manage the water environment so as to further the conservation and enhancement of

the natural environment, promote facilities for sports and other forms of recreation and further the conservation of buildings, sites and objects of archaeological, architectural or historic interest. In London these objectives take on a particular significance because the river corridors tend to be the only remaining areas of land linking open spaces throughout the capital. The importance of these Green Chains is recognised in The London Plan and this policy should be seen as complementary to the Green Chain policy in the Open Space chapter.

4.11. The water environment is a valuable recreational, educational and leisure resource for residents of Haringey. In considering applications for development the Council will where appropriate take account of the views of Thames Water Utilities Ltd, British Waterways Board, the Environment Agency and Lee Valley Regional Park Authority. The water environment also has potential biodiversity value. The impact, retention, enhancement or creation of flora and fauna should be considered for all development along river frontages.

4.12. The Council, in consultation with the Environment Agency and where appropriate Thames Water Utilities Ltd, will seek to ensure that all works in, under, over and adjacent to watercourses are appropriately designed and implemented. When acting as drainage authority the Council, in consultation with the Environment Agency Thames Region, will consider the likely impacts of drainage proposals in accordance with the provisions of Statutory Instrument 1988 no.1217 'The Land Drainage Improvement Works (Assessment of the Environmental Effects) Regulations 1988'. Where works are proposed by an interested party, which is not the drainage authority, the Council, in consultation with the interested party, will consider the likely impacts of drainage proposals in accordance with the same regulations. Under Section 23 of the Land Drainage Act (1991) the prior written consent of the Environment Agency is required for any works which may affect the flow of an ordinary watercourse.

4.13. All types of work in, under, over and adjacent to watercourses need to be properly evaluated since uncontrolled works may lead to effects such as increased risk of flooding, erosion of the watercourse, increased danger to the public, restricted access for maintenance purposes and damage to the water environment. Works affecting the River Lee Navigation require the consent of the British Waterways Board

DMP20 General Principles

The Council will require development proposals to demonstrate that:

a) there is no significant adverse impact on residential amenity or other surrounding uses (including open space) in terms of loss of daylight or sunlight, privacy, overlooking, aspect and the avoidance of air, water, light and noise, pollution (including from the contamination of groundwater/water courses or from construction noise) and of fume and smell nuisance;
b) the proposal complements the character of the local area and is of a nature and scale that is sensitive to the surrounding area;
c) the proposal would not significantly affect the public and private transport networks, including highways or traffic conditions;
d) there is access to and around the site and that the mobility needs of pedestrians, cyclists and people with difficulties (including wheelchair users and carers with pushchairs) have been taken into account; and
e) opportunities for soft landscaping, including appropriate tree retention and tree planting, have been taken into account.

6.10. New development in the borough should complement the existing pattern of development in that part of Haringey. The criteria above aim to ensure that future development in the borough will not detrimentally affect the quality of life – and should positively improve it - for those living and working in Haringey.

6.11. Landscaping details are required to be provided with initial planning applications for new build schemes to ensure that this part of the development is not subsequently overlooked in the development process.

6.12. The whole of the borough has been declared an Air Quality Management Area. The Council is implementing its Air Quality Action Plan to seek improvements to air quality. In addition to this DMP 20 policy, there are a number of others which seek to address the issue of air pollution and air quality (For further information refer to DMP15: Air, Water and Light Pollution).

6.13. This policy is primarily concerned with the environmental/natural resource aspects of sustainable development. The Council will encourage all development in the borough to be designed in a way that maximises the potential of the site without causing any unnecessary local or global environmental consequences. For example, the Council requires mineral conservation and mineral waste minimisation in order to ensure the prudent use of natural resources. The aim is to reduce the need for primary aggregate extraction and also to minimise the amount of aggregates that have to be disposed of in landfills. The extent to which the developer intends to maximise the use of recycled secondary materials on site and those from off site, should be demonstrated. Applicants should also demonstrate on their submitted plans where construction waste on the site will be segregated for recycling. In terms of sustainable materials, the Council will encourage applicants to use environmentally friendly materials wherever possible. The Council accepts that this is a developing market but envisages that within the timescale of the plan there will be more local supplies generally available, at an economical cost.

6.14. For further information please refer to the Sustainable Design and Construction SPD.

DMP21 Quality Design

Proposals for developments and alterations or extensions, which require planning permission or listed building consent, will be expected to be of high design quality. The spatial and visual character of the development site and the surrounding area/street scene should be taken into account in the design of schemes submitted for approval. The following, often inter-related, elements should be addressed in a positive way:

a) urban grain and enclosure;
b) building lines;
c) form, rhythm and massing;
d) layout;
e) height and scale;
f) landform, soft and hard landscape, trees and biodiversity;
g) fenestration (i.e. window design together with the positioning, or arrangement of the window openings in the wall);
h) architectural style, detailing and materials;
i) historic heritage context, including listed buildings and their setting, locally listed buildings, conservation areas and archaeological areas (see the section entitled "Safer for All" in the conservation section)
j) living frontages and public realm;
k) any identified local views;
l) designing out crime and the fear of crime (including designing out graffiti, where feasible); and
m) walkability; new housing, shops, public buildings and places of work need to be located and designed so that they can be reached easily on foot.

6.15. The Council wishes to support good and appropriate design, which is sustainable, improves the quality of the existing environment, reinforces a sense of place and promotes civic pride.

6.16. The Council considers that people deserve a safe environment in which they can live and move around without fearing that they might be a victim of crime. This is an important component of peoples' quality of life. Good design of buildings and their relationship with their environment affects the perception of an area, as well as the opportunity for disorderly or criminal behaviour. The Council will apply the Design and Quality Standards 2007, Building for Life criteria, Code for Sustainable Homes and Lifetime Homes features (see policies in People at the Heart of Change section- Housing).

6.17. Where appropriate context drawings and photos are encouraged as part of the design statement. For further information please see the Sustainable Design and Construction SPD.

Appendix 7

WATER INGRESS

Change to water flows and levels both above and below ground.

GROUNDWATER FLOW

The movement of water that travels and seeps through soil and rock underground.

HYDROGEOLOGY

The study of groundwater moving through soils and rock formations

LAND STABILITY

Steep areas and a change in geological layers can have vulnerable land stability.

FLOODPLAIN

All land adjacent to a watercourse, as defined in the Land Drainage Act 1991, or the coast over which water flows in time of flood or would flow but for the presence of flood defences where they exist.

URBAN WASHLAND

Area of flood plain where water is stored in time of flood. Such an area may have it effectiveness enhanced by the provision of structures to control the amount of water stored and the timing of its release to alleviate peak flood flows downstream.

Appendix 8

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Executive Summary

The North London Boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest are in the process of compiling their Local Development Framework (LDF) to guide future development needs of the Boroughs. The seven Boroughs have a history of co-operating on waste matters, having combined to prepare a Joint Waste Development Plan Document (JWDPD) also known as the North London Waste Plan (NLWP). Due to an already active collaboration between the seven Boroughs the NLWP was identified as the most appropriate means for the Strategic Flood Risk Assessment (SFRA) to be procured. Mouchel was commissioned in July 2007 to undertake a SFRA in order to ensure that flood risk is considered as part of the spatial planning process.

The objectives of the SFRA were predominantly informed by the requirements of Planning Policy Statement 25, which requires decision makers involved in the planning process to consider regional and local flood risk issues when planning development.

The Primary aims of the SFRA were:

- Identify the areas within North London that are at risk of flooding for all Flood Zones identified in table D1 in PPS 25, and within Flood Zone 3, the variations in the actual flood risk including the effect of any formal or informal flood defences.
- Identify the risk of flooding due to surface water either in the form of flash flooding due to surface water run-off, rising groundwater, inadequate drain/sewer capacity or inadequate drain/sewer maintenance
- Identify the likely effects of climate change on flood risk
- Identify catchment areas and the potential for development to affect flood risk in areas beyond the individual Borough boundaries
- Provide the basis for allocating sites in the Local Development Framework (LDF) including, if necessary, applying the sequential test approach to site allocation within the indicative flood plain.
- Provide a clear rationale for assessing the merits of potential development allocations based on a sequential flood risk assessment, taking into account the flood risk vulnerability of proposed uses (table D2, PPS25)
- Recommend policy options for dealing with the range of flood risks and provide guidance for developers

- Recommend appropriate monitoring and review methods

All forms of flooding were investigated, primarily by compiling and reviewing relevant information provided by a wide variety of sources, but primarily the Environment Agency, the North London Boroughs, London Fire Brigade and Thames Water.

In general only limited data pertaining to sewer flooding has been obtained from Thames Water. While Thames Water has provided extracts from their flooding database, the sensitivity of the data restricts them from identifying individual flooding problems. Other data requested from Thames Water, such as GIS extracts of the main sewer lines and modelling data or results of Drainage Area studies, has not been made available for the study. The data obtained so far is insufficient to enable a thorough investigation of sewer flooding within the study area and the time constraints of the project. Without this data no verification or quantification of surface water flood risks could be undertaken.

A source pathway receptor model was used to assess those flood sources which had the greatest consequences for each of the borough as shown in Table 18. The primary source of flood risk was determined to be the posed by the watercourses both fluvial and tidal in each of the concerned boroughs. The risk of flooding from secondary sources was in general found to be low, also the information required to make detailed assessments of the secondary sources was less available such as the sewer and canal information.

The findings of the study were used to assess the flood risk across the study area and recommendations for further work were provided. Guidance on applying the sequential test to developments in the North London Boroughs has also been provided.

The findings of the SFRA were used to advise on local planning policy issues and provide guidance to developers on the management of residual flood risk and surface water drainage through the use of Sustainable Urban Drainage Systems. These findings included recommendations for potential work which may be required for further stages of the SFRA and the maintenance of the 'live' SFRA document.